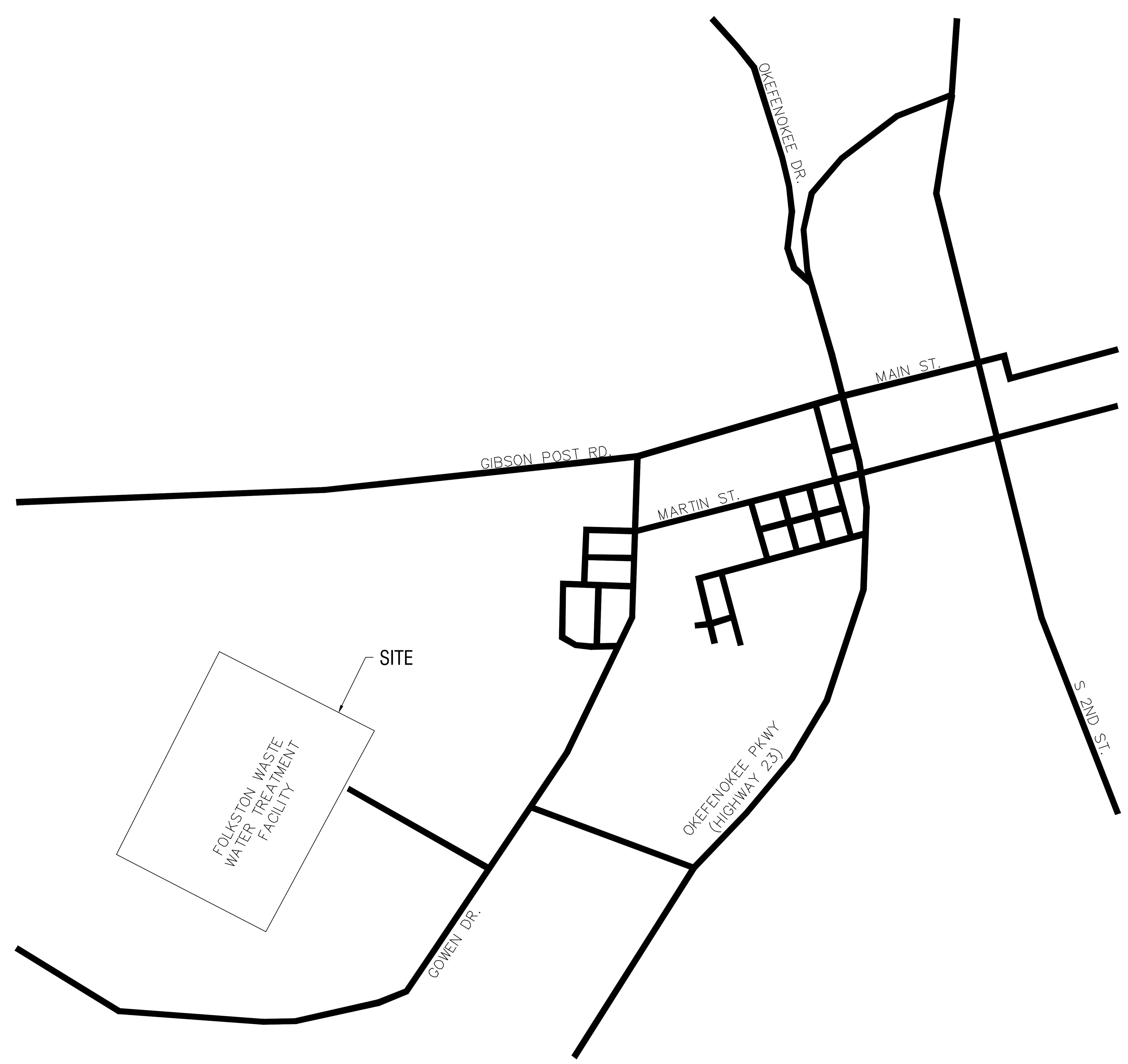
WATER POLLUTION CONTROL PLANT
FOR THE CITY OF FOLKSTON
CHARLTON COUNTY, GEORGIA
DATE: DECEMBER 10, 2020



VICINITY MAP
Not To Scale

DRAWING LEGEND

DESCRIPTION	PROPOSED	EXISTING
SANITARY SEWER		SS
UNDERGROUND WATER LINE	W	W
FORCE MAIN	FM	FM
STORM DRAINAGE PIPE		
UNDERGROUND TELEPHONE LINE	T	T
UNDERGROUND TELEPHONE CONDUIT	TC	TC
UNDERGROUND GAS LINE	12"G	12"G
DITCH CENTERLINE		
SPOT ELEVATION	X=90.00	X=90.00
TOP OF CURB ELEVATION	TC=90.00	TC=90.00
FIRE HYDRANT		
SEWER MANHOLE		
WATER VALVE	WV	WV
TELEPHONE MANHOLE		
LIGHT POLE		
SIGN		
WATER METER		
BENCHMARK		
CONCRETE MONUMENT FOUND		
GUY POLE		
IRON PIN FOUND		
IRON PIN SET		
TELEPHONE PEDESTAL		
POWER POLE		
HANDICAP SPACE		
SEDIMENT BASIN MARKER W/NOTCH	SM	SM

GEORGIA 811
Utilities Protection Center, Inc.
Know what's **below.**
Call before you dig.

Owner:
CITY OF FOLKSTON
541 FIRST STREET
FOLKSTON, GA 3537
(912) 496-2563
(912) 496-3844

GPS COORDINATES OF CO:
LATITUDE: 30°40'14.88" N
LONGITUDE: 82°1'18.80" W

24 HOUR CONTACT:
LEONARD LLOYD
541 FIRST STREET
FOLKSTON, GA 3537
(912) 496-2563
(912) 496-3844

DESIGN PROFESSIONAL:
DATE: May 1, 2024

M.E. SACK ENGINEERING
515 NORTH MAIN STREET
P.O. BOX 649
HINESVILLE, GA 31313
TEL: (912) 368-5212

GENERAL NOTES

1. ALL EXISTING UTILITIES SHOWN ARE LOCATED FROM BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACTUAL FIELD LOCATION AND PROTECTION OF EXISTING UTILITIES. OVERHEAD LINES ARE NOT SHOWN FOR CLARITY.
2. ALL DISTURBED AREAS TO BE REVEGETATED IMMEDIATELY AFTER CONSTRUCTION, IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.
3. ALL EROSION AND SEDIMENTATION CONTROL STRUCTURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY PROPERTY CORNERS, RIGHT OF WAY MONUMENTS, SIGNS OR OTHER STRUCTURES DISTURBED DURING CONSTRUCTION.
5. ALL TRAFFIC AND SIGNAGE CONTROL SHALL BE IN ACCORDANCE WITH THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES, MUTCD, CURRENT EDITION.

JOB NO. 2013-36PRJ

REVISION NO.	DATE	DESCRIPTION
1.	11/14/2019	GSWCC COMMENTS
2.	12/10/2020	UPDATE TO MEET NEW WLA
3.	9/22/2023	GSWCC COMMENT
4.	3/28/2024	DETAILS ADJUSTMENTS

COVER SHEET

PLOT DATE: May 1, 2024

GENERAL

CIVIL

MECHANICAL

STRUCTURAL

ELECTRICAL

MECHANICAL - ELECTRICAL

DRAWING COMPLETED BY: OSCAR GARCIA

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DESIGN PROFESSIONAL:
MARCUS E. SACK
GSWCC LEVEL II # 70248
EXPIRES: 06/14/2026
MARCUS@MESACK.COM

515 NORTH MAIN STREET
P.O. BOX 649
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TEL: (912) 368-5212

GEORGIA REGISTERED No. 33556 PROFESSIONAL ENGINEER MARCUS E. SACK

DATE: May 1, 2024

M.E. SACK ENGINEERING

MUNICIPALITY:
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COUNTY:
CHARLTON

OWNER:
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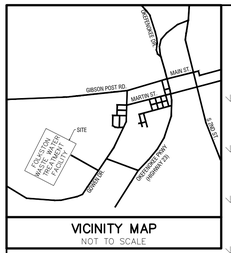
Water Pollution Control Plant

INDEX OF DRAWINGS

G1

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



VICINITY MAP
NOT TO SCALE

FRESH WATER WETLANDS
STATE WATERS

EXISTING FACULTATIVE
LAGOON

EX 6'X9' SPLASH APRON
INV= 23.00

WATER LINE
TERMINATES AT UV

EX MH
= 48.90
INV= 43.90

APPROXIMATE LOCATION

EXISTING STORAGE POND

WEIR
BOX

EX MH
TOP= 50.67
INV= 40.52

VALVE
VAULT

VALVE VAULT

AIR RELEASE
VALVE

EX WET WELL
TOP= 49.73
INV IN= 39.98
SUMP= 36.67

VALVE VAULT

EXISTING
MBBR

EX PUMP STATION
TOP= 50.80
INV= 42.83

EX WET WELL
TOP= 50.20
INV IN= 41.05
INV IN= 40.53
SUMP= 37.16

6" FORCE MAIN TO CONSTRUCTED
WETLAND

AIR RELEASE VALVE

FLOW METER
VALVE VAULT

DETENTION
AREA

EX TRASH TRUCK
WASH DOWN

REMOVE EX SEWER LINE

EX
POLE
BARN

EX CONTROL
BUILDING

FRESH WATER WETLANDS
STATE WATERS

EXISTING DIRT ROAD

REMOVE EXISTING TREES

EX 2" WATER LINE

EX GRAVEL DRIVE

REMOVE EXISTING TREES

REMOVE EXISTING FENCE

FRESH WATER WETLANDS
STATE WATERS

SCALE BAR: 1"= 40'
40 0 20 40 80 160

REVISIONS:

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4	DETAIL ADJUSTMENT

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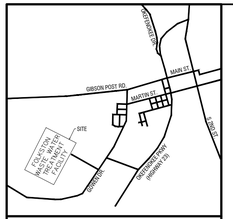
Water Pollution Control Plant

EXISTING CONDITIONS PLAN

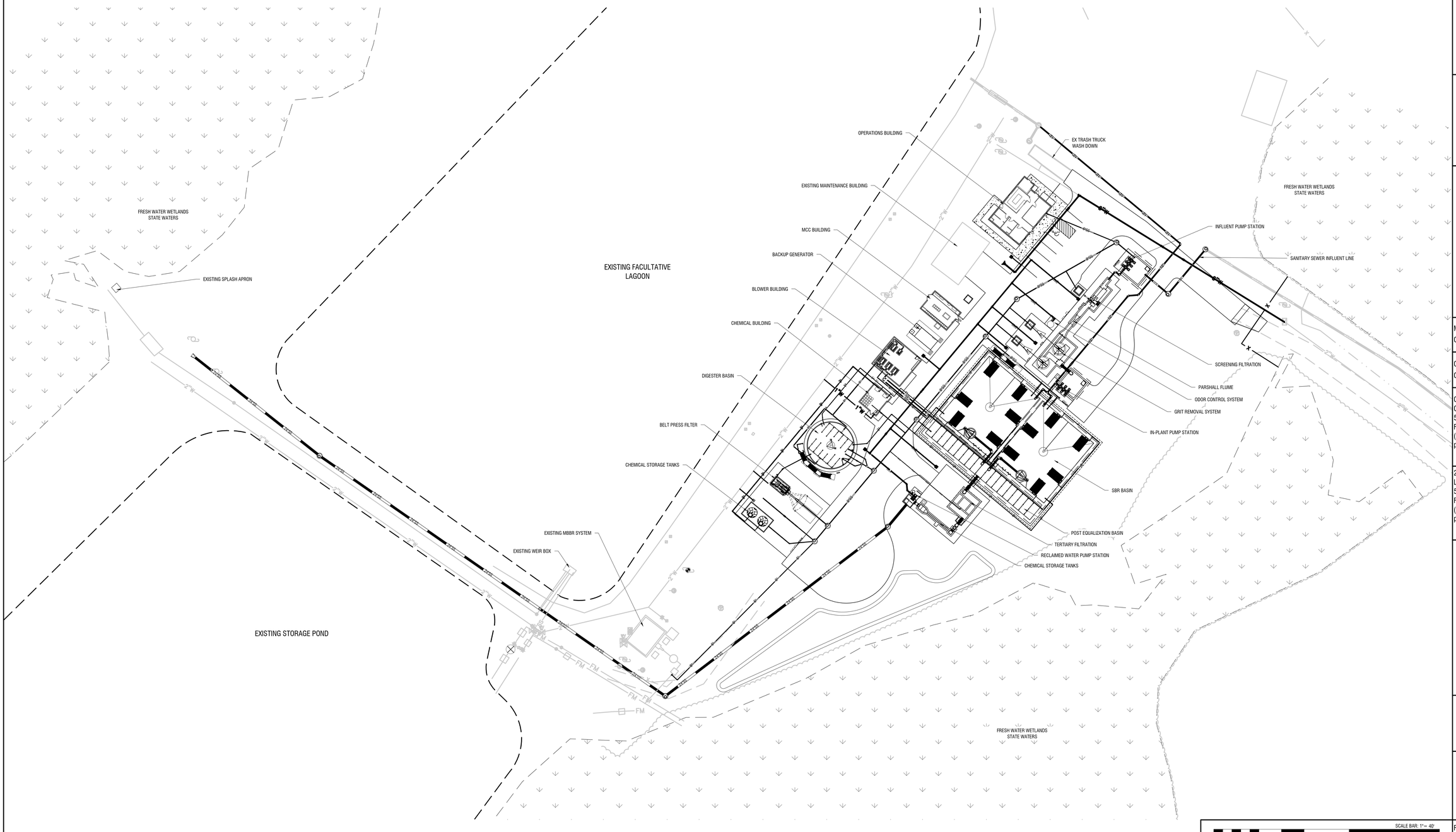
G2

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



VICINITY MAP
NOT TO SCALE



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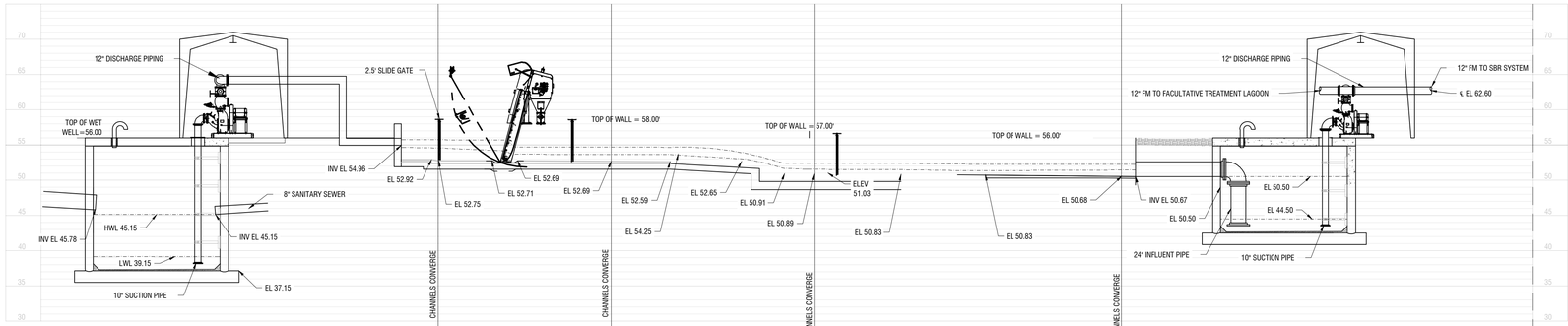
Water Pollution Control Plant

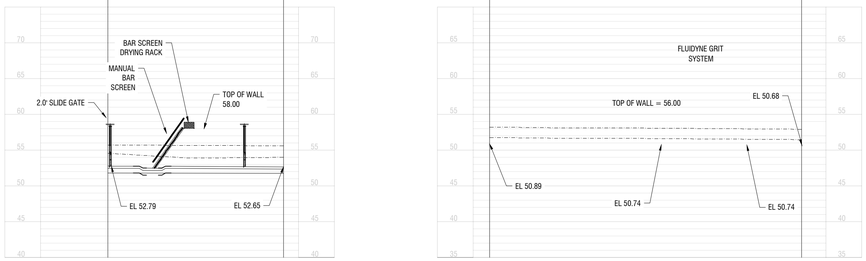
OVERALL SITE PLAN

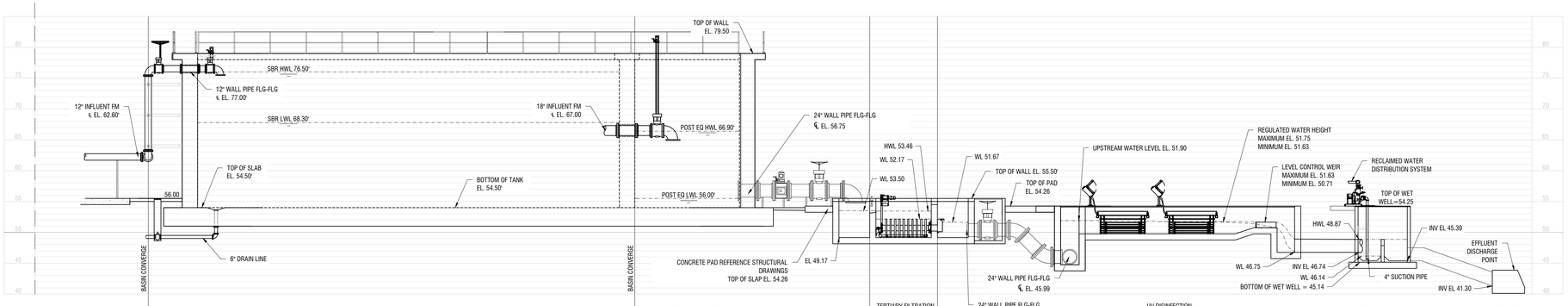
G3

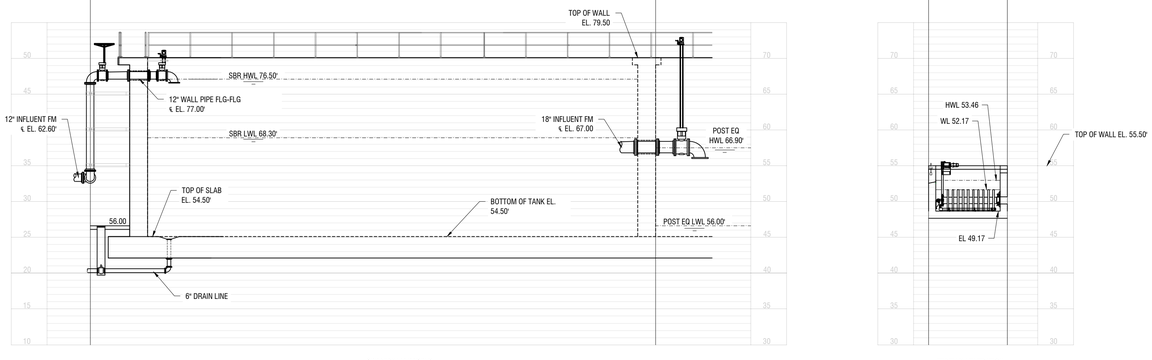
FILE NO: 2013-36.1

PLOT DATE: May 1, 2024









SCALE BAR: 1"= 10'

5 0 2.5 5 10 20

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DATE: May 1, 2024

M.E. SACK 19 ENGINEERING 80

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Water Pollution Control Plant

HYDRAULIC PROFILE

G4

FILE NO: 2013-36.1

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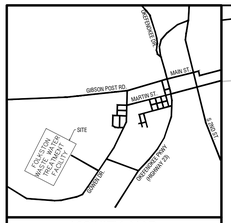

VICINITY MAP
NOT TO SCALE

CHEMICAL LINES
BELT PRESS
CHEMICAL STORAGE
DIGESTER BASIN
BLOWER BUIDING
BACKUP GENERATOR
EX MAINTENANCE BUILDING TO REMAIN
ELECTRICAL BUIDING
TRANSFORMER
CHEMICAL BUIDING
OPERATIONS BUILDING AND LABORATORY
BELT PRESS METAL BUILDING
BELT PRESS CONTROL PANEL
DIGESTER CONTROL PANEL
AIR PIPING
RECLAIMED WATER LINE
ROCK DRIVE
STAIRS
8 SPACES @ 9' X 20'
2" ASPHALT PAVEMENT
RECLAIMED WATER SYSTEM
GRIT SYSTEM CONTROL PANEL
ODOR CONTROL UNIT CONTROL PANEL
INFLUENT PS CONTROL PANEL
ODOR CONTROL SYSTEM
SCADA PANEL
FILTER SCREEN CONTROL PANEL
CONCRETE SIDEWALK
RECLAIMED WATER PUMP STATION
SBR BASIN NO. 1
REFRIGERATED SAMPLER. PROVIDE CONDUIT TO PUMP STATION FOR SAMPLING
PUMP SLAB
GRAVITY DISCHARGE LINE
POST-EQ BASIN
REFRIGERATED SAMPLER. PROVIDE CONDUIT TO WET WELL FOR SAMPLING
PARSHALL FLUME
AUTOMATIC SCREENING EQUIPMENT
MANUAL SCREENING EQUIPMENT
18x18' INFLUENT PUMP STATION
UV DISINFECTION
GRIT SEPARATORS
TREATMENT POND INFLUENT LINE
18x18' PUMP STATION
2" ASPHALT PAVEMENT
TERTIARY FILTERS
SBR BASIN NO. 2
IN-LINE PS CONTROL PANEL
INFLUENT LINE
WATER MAIN
TRANSITION PROPOSED DRIVE TO EXISTING DRIVE WITH ROCK OVER 25 LF
8" ROCK
6' CHAN LINK FENCE W/ GATE
12' GATE

SCALE BAR: 1"= 20'
20 0 10 20 40 80

1/2" THICK EXPANSION JOINT FILLER SHALL BE PLACED A MAXIMUM OF 20' INTERVALS AND AT ALL INTERSECTIONS W/STEPS, CURBS, OR ANY OTHER WALKS ABUTTING STRUCTURES.

FINAL FINISH SHALL BE MEDIUM TO LIGHT BROOM FINISH AND UNIFORM EXCEPT 6" EDGE WITH SMOOTH TROWEL FINISH. ALL EDGES

1/4"/FT. SLOPE TO ROADWAY

VARIES

JOINT SPACING EQUAL TO WIDTH

CONSTRUCTION JOINTS

SURFACE EDGES SHALL BE ROUNDED TO APPROXIMATELY 1/4" RADIUS.

PLAN

CONSTRUCTION JOINT DEPTH SHALL BE 1/4 OF THE SLAB THICKNESS AND 1/8" WIDE AND SHALL BE SAWED OR TROWELED WITHIN 24 HOURS OF POURING.

CONSTRUCTION JOINTS

3,000 LB CONCRETE W/FIBERMESH

COMPACTED BASE 100% MODIFIED PROCTOR

PROFILE

TYPICAL SIDEWALK DETAIL
N.T.S.

EXTEND 8" GRANULAR BASE 6" OUTSIDE PAVEMENT

8" COMPACTED GRANULAR CRUSHER RUN BASE 100% MODIFIED PROCTOR

2" 12.5mm SUPERPAVE (SEE GRADING PLAN FOR SLOPES – 0.30% MIN.)

12" COMPACTED STRUCTURAL FILL WITH GEOMAT SUB-GRADE 95% STANDARD PROCTOR

ASPHALT PAVEMENT DETAIL
N.T.S.

8" COMPACTED GRANULAR CRUSHER RUN BASE 100% MODIFIED PROCTOR

12" COMPACTED STRUCTURAL FILL WITH GEOMAT SUB-GRADE 95% STANDARD PROCTOR

ROCK DRIVE DETAIL
N.T.S.

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Water Pollution Control Plant

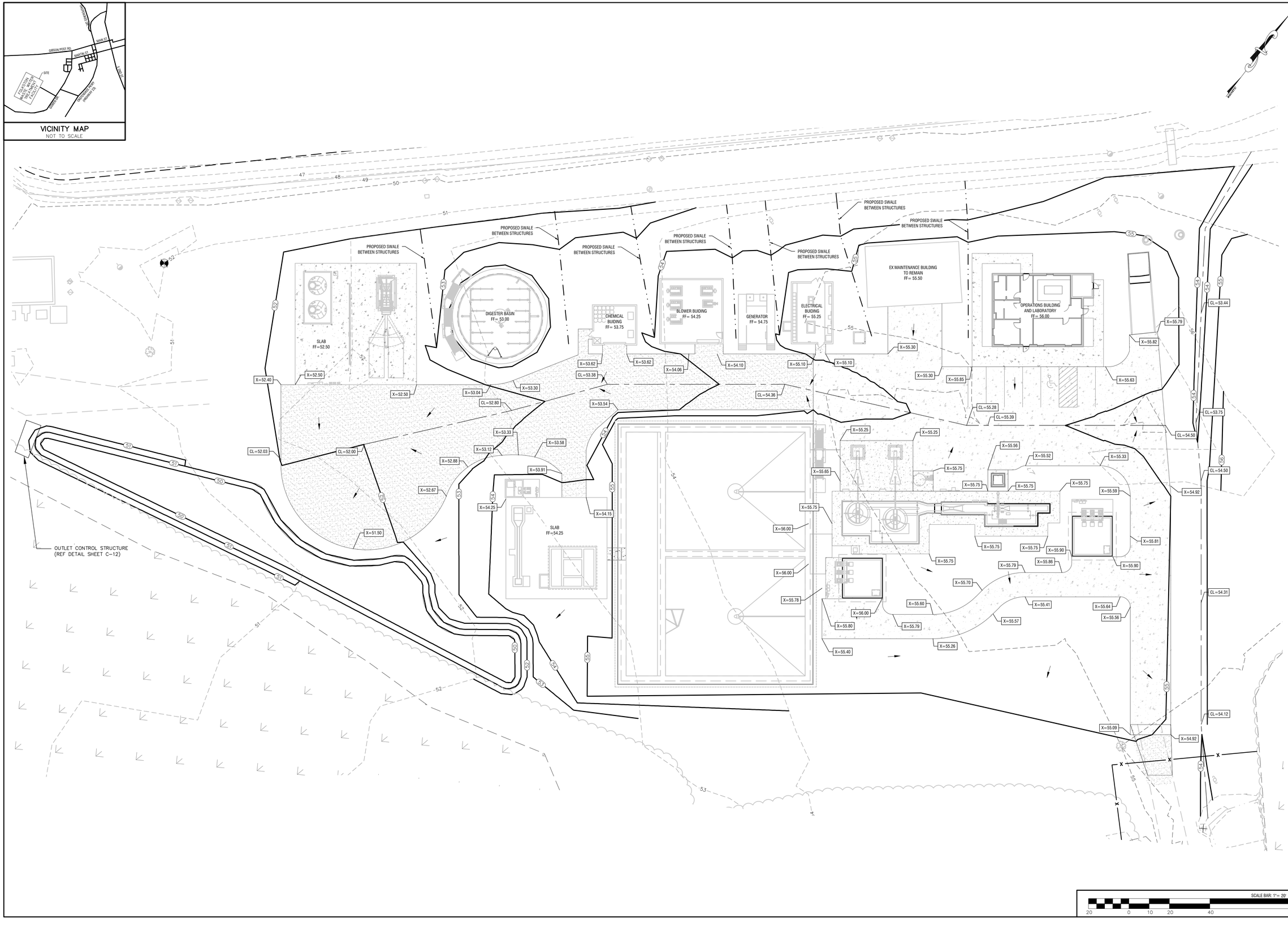
SITE PLAN

C1

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024

VICINITY MAP
NOT TO SCALE



SCALE BAR: 1"= 20'
20 0 10 20 40 80

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Water Pollution Control Plant

GRADING PLAN

C2

FILE NO: 2013-36.1

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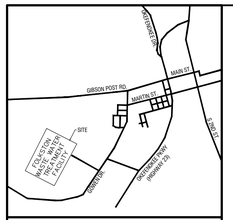

VICINITY MAP
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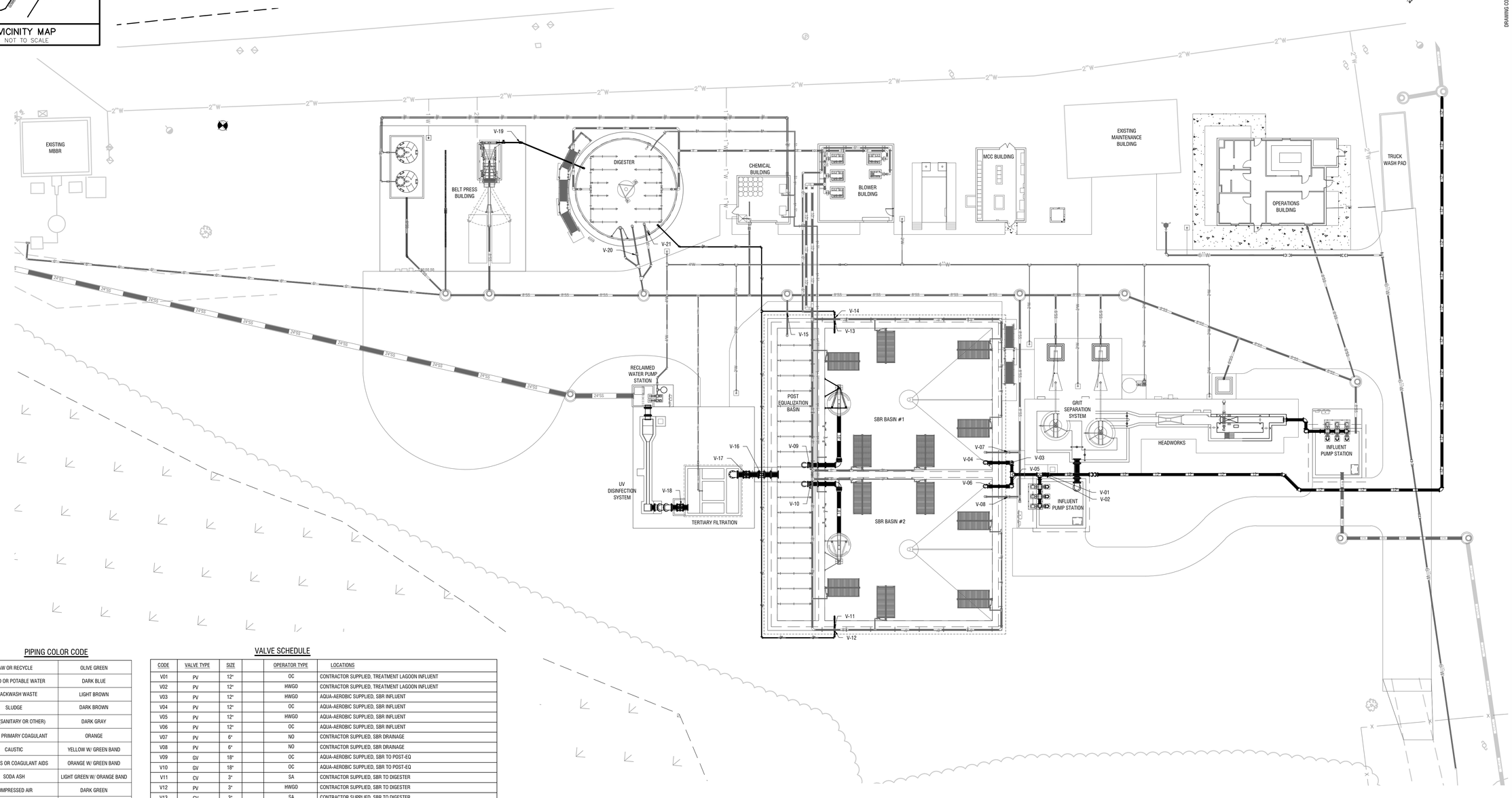

PIPING COLOR CODE

RAW OR RECYCLE	OLIVE GREEN
FINISHED OR POTABLE WATER	DARK BLUE
BACKWASH WASTE	LIGHT BROWN
SLUDGE	DARK BROWN
SEWER (SANITARY OR OTHER)	DARK GRAY
ALUM OR PRIMARY COAGULANT	ORANGE
CAUSTIC	YELLOW W/ GREEN BAND
POLYMERS OR COAGULANT AIDS	ORANGE W/ GREEN BAND
SODA ASH	LIGHT GREEN W/ ORANGE BAND
COMPRESSED AIR	DARK GREEN
OTHER LINES	LIGHT GRAY

VALVE SCHEDULE

CODE	VALVE TYPE	SIZE		OPERATOR TYPE	LOCATIONS
V01	PV	12"		OC	CONTRACTOR SUPPLIED, TREATMENT LAGOON INFLUENT
V02	PV	12"		HWGO	CONTRACTOR SUPPLIED, TREATMENT LAGOON INFLUENT
V03	PV	12"		HWGO	AQUA-AEROBIC SUPPLIED, SBR INFLUENT
V04	PV	12"		OC	AQUA-AEROBIC SUPPLIED, SBR INFLUENT
V05	PV	12"		HWGO	AQUA-AEROBIC SUPPLIED, SBR INFLUENT
V06	PV	12"		OC	AQUA-AEROBIC SUPPLIED, SBR INFLUENT
V07	PV	6"		NO	CONTRACTOR SUPPLIED, SBR DRAINAGE
V08	PV	6"		NO	CONTRACTOR SUPPLIED, SBR DRAINAGE
V09	GV	18"		OC	AQUA-AEROBIC SUPPLIED, SBR TO POST-EQ
V10	GV	18"		OC	AQUA-AEROBIC SUPPLIED, SBR TO POST-EQ
V11	CV	3"		SA	CONTRACTOR SUPPLIED, SBR TO DIGESTER
V12	PV	3"		HWGO	CONTRACTOR SUPPLIED, SBR TO DIGESTER
V13	CV	3"		SA	CONTRACTOR SUPPLIED, SBR TO DIGESTER
V14	PV	3"		HWGO	CONTRACTOR SUPPLIED, SBR TO DIGESTER
V15	PV	6"		NO	CONTRACTOR SUPPLIED, SBR DRAINAGE
V16	PV	24"		OC	AQUA-AEROBIC SUPPLIED, POST-EQ TO AQUA-DISK
V17	GV	24"		HWGO	CONTRACTOR SUPPLIED, POST-EQ TO AQUA-DISK
V18	GV	24"		HWGO	CONTRACTOR SUPPLIED, AQUA-DISK TO DISINFECTION
V19	PV	4"		HWGO	CONTRACTOR SUPPLIED, DIGESTER TO BELT PRESS
V20	PV	6"		NO	CONTRACTOR SUPPLIED, DIGESTER DRAINAGE
V21	PV	6"		HWGO	CONTRACTOR SUPPLIED, DIGESTER DRAINAGE TELESCOPIC VALVE

PV = PLUG VALVE
CV = CHECK VALVE
GV = GATE VALVE

NO = 2" NUT OPERATOR
SA = SINGLE ACTING OPERATOR
OC = OPEN/CLOSED ELECTRIC OPERATOR
HWGO = HANDWHEEL GEAR OPERATOR

SCALE BAR: 1"= 20'
20 0 10 20 40 80

REVISIONS:

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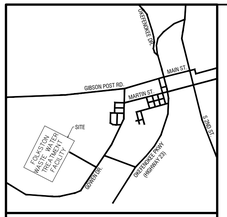
Water Pollution Control Plant

PROCESS PIPING PLAN

C3

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



VICINITY MAP
NOT TO SCALE

1-EA. TAP & SADDLE
1 EA - 2" GATE VALVE
EXISTING MBBR
BELT PRESS BUILDING
DIGESTER
2 EA - 4"X45° VERTICAL BEND
CHEMICAL BUILDING
BLOWER BUILDING
MCC BUILDING
EXISTING MAINTENANCE BUILDING
TRUCK WASH PAD
OPERATIONS BUILDING
BIB & CONNECT TO SCREEN
FIRE HYDRANT
1 EA - 6" GATE VALVE
1 EA - 2" GATE VALVE
1 EA - 6"X90° HORIZONTAL BEND
1 EA - TAP & SADDLE
2 EA - 4"X45° VERTICAL BEND
CONNECT TO EXISTING 2" WATER LINE
1-EA. 6" TEE
1-EA. 6" GATE VALVE
1-EA. CAP 6" TAP 2"
BIB
1 EA - TAP & SADDLE
1 EA - 4"X45° VERTICAL BEND
1 EA - 4"X45° VERTICAL BEND
1 EA - 6"X90° HORIZONTAL BEND
1 EA - 6" CAP & 2" TAP
1 EA - 4"X4" TEE
1 EA - 4" CAP & 1" TAP
1" FREEZE PROOF HYRDANT
1 EA - 1" GATE VALVE
1 EA - 2" GATE VALVE
1 EA - 4"X45° HORIZONTAL BEND
1 EA - 4"X45° HORIZONTAL BEND
2 EA - 4"X90° VERTICAL BEND
HYDROPNEUMATIC SYSTEM
RECLAIMED WATER PUMP STATION
POST EQUALIZATION BASIN
SBR BASIN #1
SBR BASIN #2
UV DISINFECTION SYSTEM
TERTIARY FILTRATION
GRIT SEPARATION SYSTEM
HEADWORKS
INFLUENT PUMP STATION
INFLUENT PUMP STATION
2 EA - 4"X45° VERTICAL BEND
2 EA - 4"X45° VERTICAL BEND
CONNECT TO EXISTING WATER METER
24"SS
2"W

SCALE BAR: 1" = 20'
20 0 10 20 40 80

REVISIONS:	
1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: OSCAR GARCIA

DESIGN PROFESSIONAL:
MARCUS E. SACK
GSWCC LEVEL II # 70248
EXPIRES: 06/14/2026
MARCUS@MESACK.COM

515 NORTH MAIN STREET
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TEL: (912) 368-5212

GEORGIA REGISTERED No. 33555 PROFESSIONAL ENGINEER MARCUS E. SACK

DATE: May 3, 2024

M.E. SACK ENGINEERING 19 00

MUNICIPALITY:
CITY OF FOLKSTON

COUNTY:
CHARLTON

OWNER:
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penderlloyd@yahoo.com

24 HOUR CONTACT:
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Water Pollution Control Plant

WATER PIPING PLAN

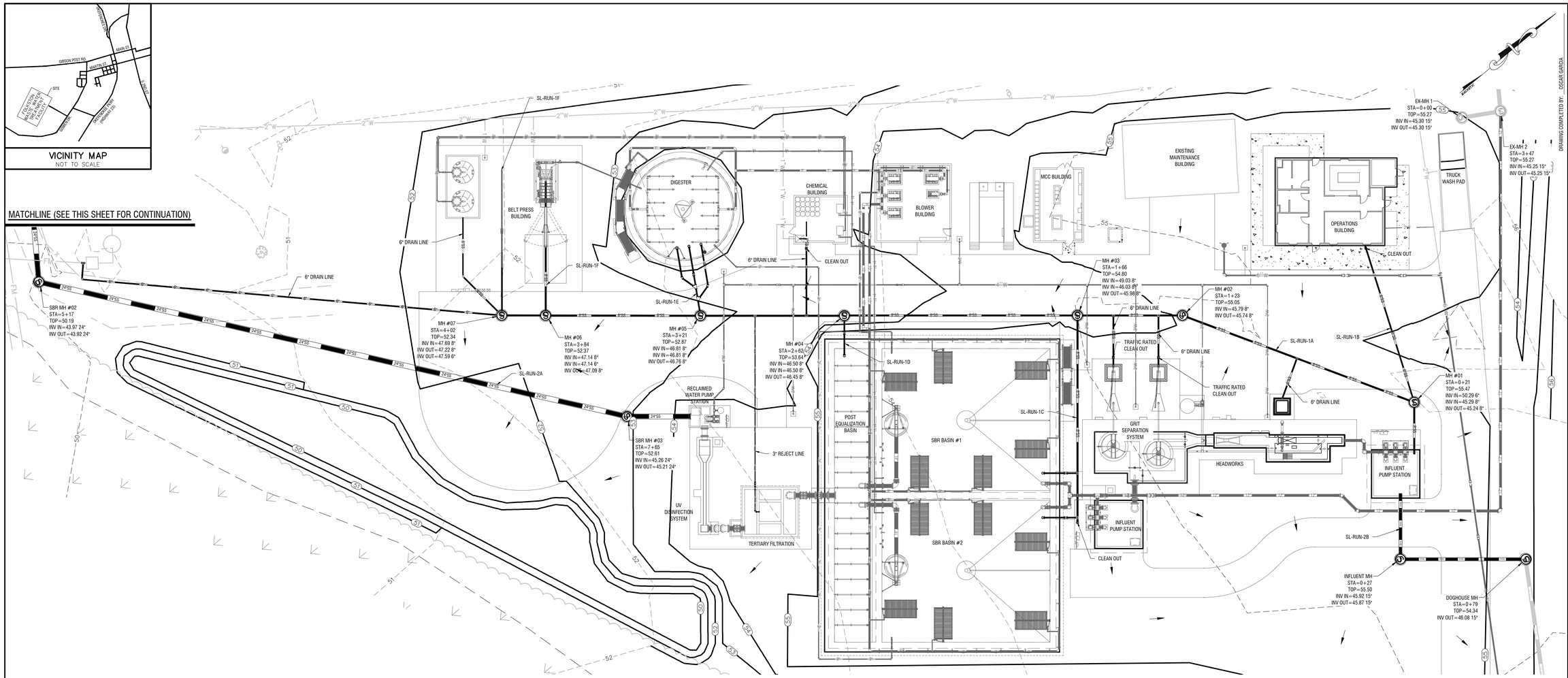
C4

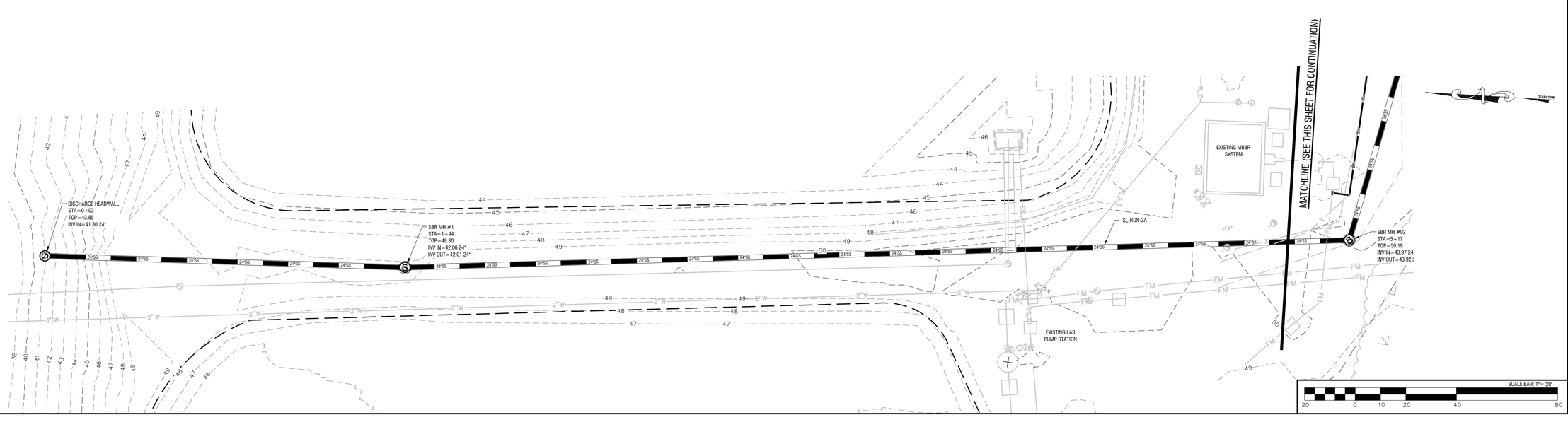
FILE NO: 2013-36.1

PLOT DATE: May 3, 2024

VICINITY MAP
NOT TO SCALE

MATCHLINE (SEE THIS SHEET FOR CONTINUATION)





SCALE BAR: 1"= 20'
20 0 10 20 40 80

REVISIONS:	
1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: OSCAR GARCIA

DESIGN PROFESSIONAL:
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GEORGIA REGISTERED No. 33556 ENGINEER MARCUS E. SACK

DATE: May 3, 2024

M.E. SACK ENGINEERING 19 80

MUNICIPALITY:
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COUNTY:
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OWNER:
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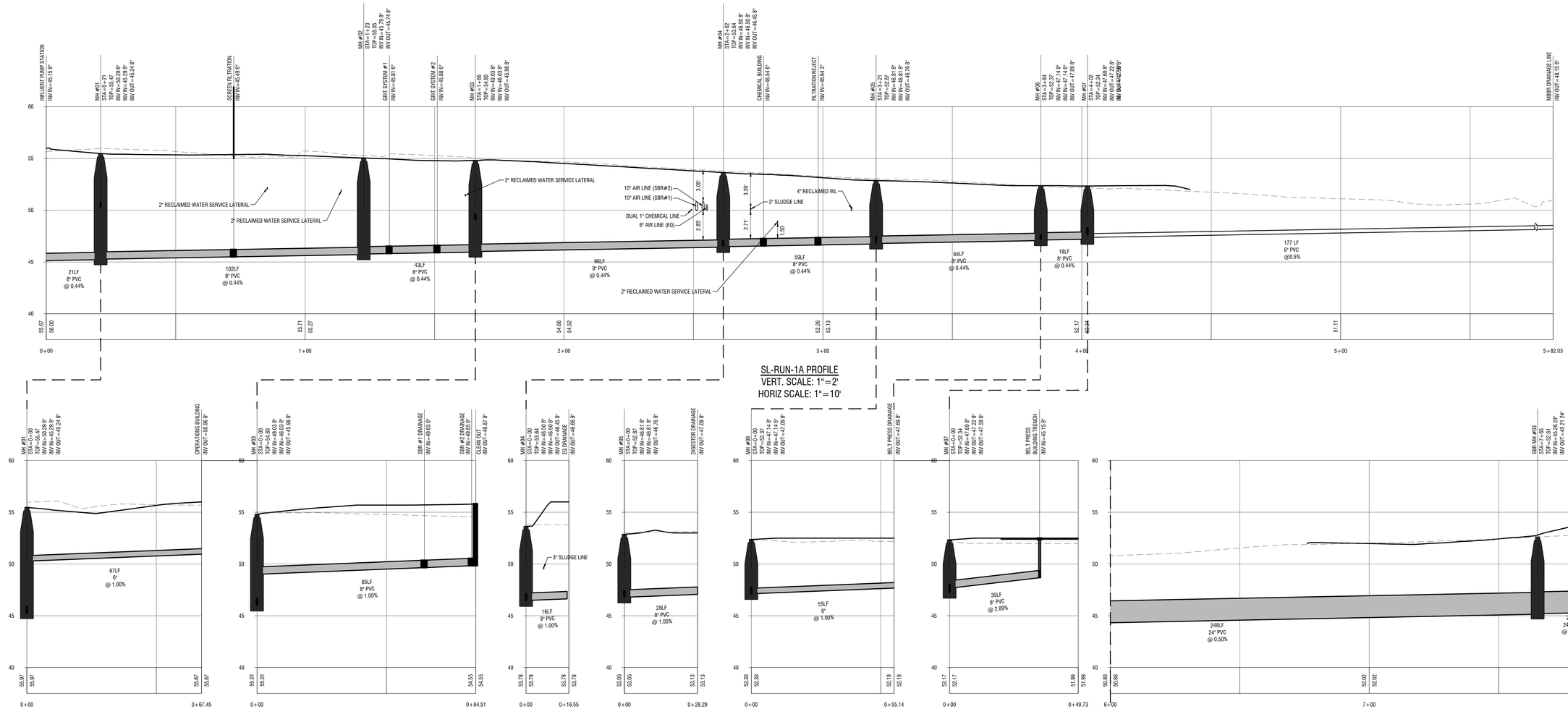
Water Pollution Control Plant

SEWER & DRAINAGE PLAN

C5

FILE NO: 2013-36.1

PLOT DATE: May 3, 2024



SL-RUN-1A PROFILE
VERT. SCALE: 1"=2'
HORIZ SCALE: 1"=10'

SL-RUN-1B PROFILE
VERT. SCALE: 1"=2'
HORIZ SCALE: 1"=10'

SL-RUN-1C PROFILE
VERT. SCALE: 1"=2'
HORIZ SCALE: 1"=10'

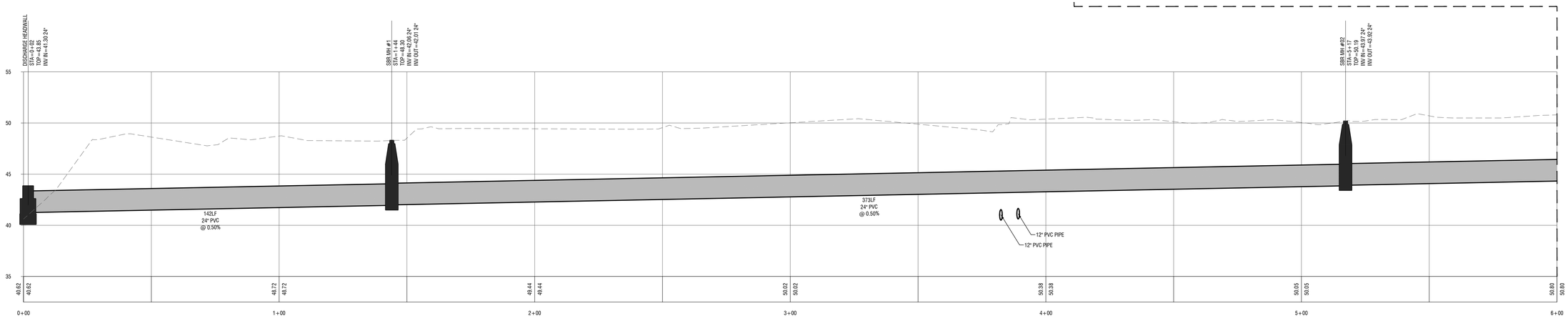
SL-RUN-1D PROFILE
VERT. SCALE: 1"=2'
HORIZ SCALE: 1"=10'

SL-RUN-1E PROFILE
VERT. SCALE: 1"=2'
HORIZ SCALE: 1"=10'

SL-RUN-1F PROFILE
VERT. SCALE: 1"=2'
HORIZ SCALE: 1"=10'

SL-RUN-1G PROFILE
VERT. SCALE: 1"=2'
HORIZ SCALE: 1"=10'

DISCHARGE PROFILE
VERT. SCALE: 1"=2'
HORIZ SCALE: 1"=10'



DISCHARGE PROFILE
VERT. SCALE: 1"=2'
HORIZ SCALE: 1"=10'

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: OSCAR GARCIA

DESIGN PROFESSIONAL:
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GSWCC LEVEL II # 70248
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GEORGIA REGISTERED No. 033556 PROFESSIONAL ENGINEER MARCUS E. SACK

DATE: May 1, 2024

M.E. SACK ENGINEERING 19 80

MUNICIPALITY:
CITY OF FOLKSTON

COUNTY:
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OWNER:
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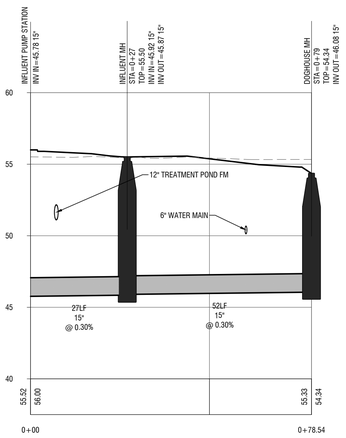
Water Pollution Control Plant

PROFILES
1

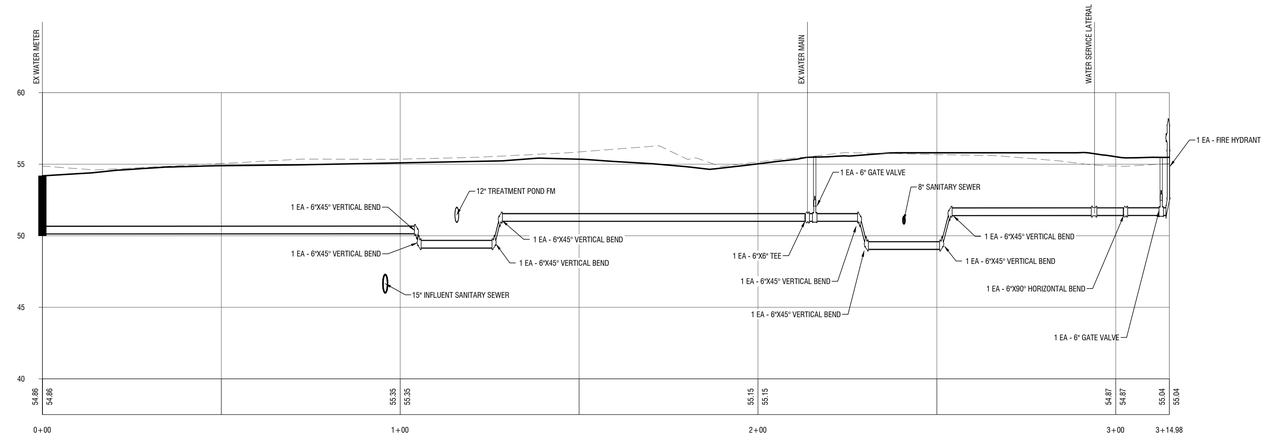
C6

FILE NO: 2013-36.1

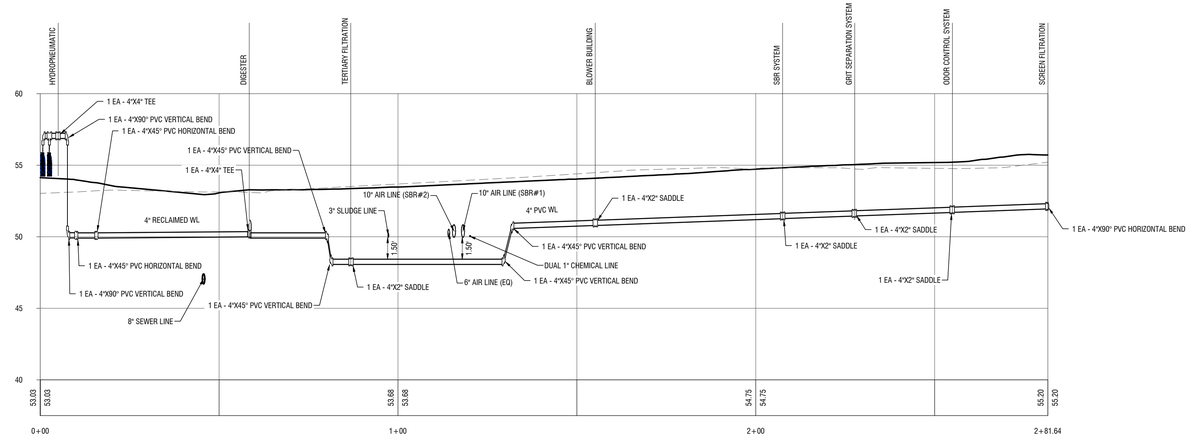
PLOT DATE: May 1, 2024



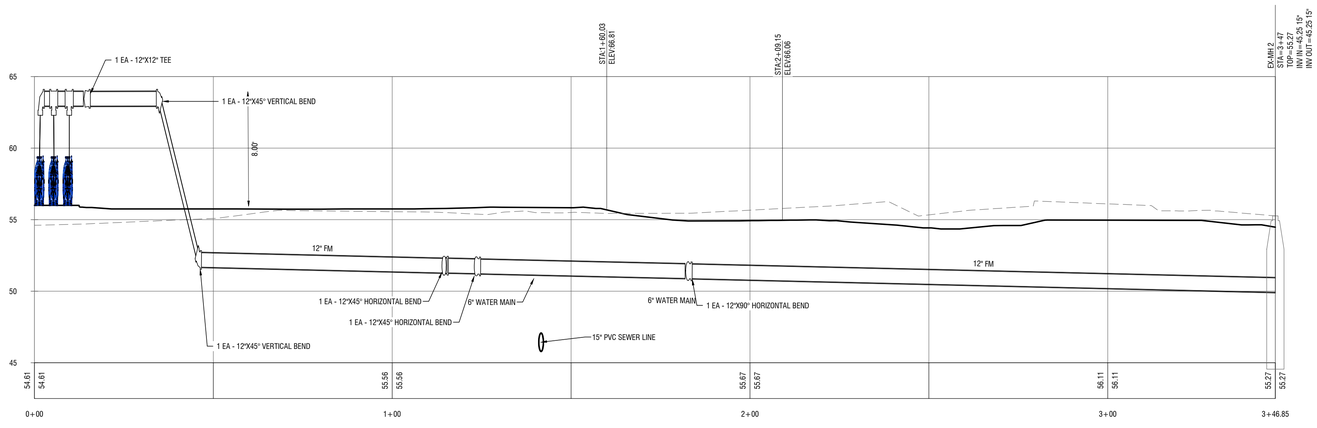
INFLUENT PROFILE
VERT. SCALE: 1"=2'
HORIZ SCALE: 1"=10'



WATER LINE PROFILE
VERT. SCALE: 1"=2'
HORIZ SCALE: 1"=10'



RECLAIMED WATER PROFILE
VERT. SCALE: 1"=2'
HORIZ SCALE: 1"=10'



TREATMENT POND INFLUENT FM PROFILE
VERT. SCALE: 1"=2'
HORIZ SCALE: 1"=10'

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY - OSCAR GARCIA

DESIGN PROFESSIONAL:
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GEORGIA REGISTERED No. 033556 PROFESSIONAL ENGINEER MARCUS E. SACK

DATE: May 1, 2024

M.E. SACK ENGINEERING 19 80

MUNICIPALITY:
CITY OF FOLKSTON

COUNTY:
CHARLTON

OWNER:
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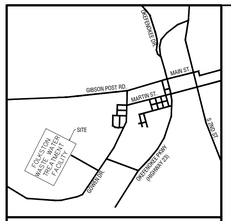
Water Pollution Control Plant

PROFILES
2

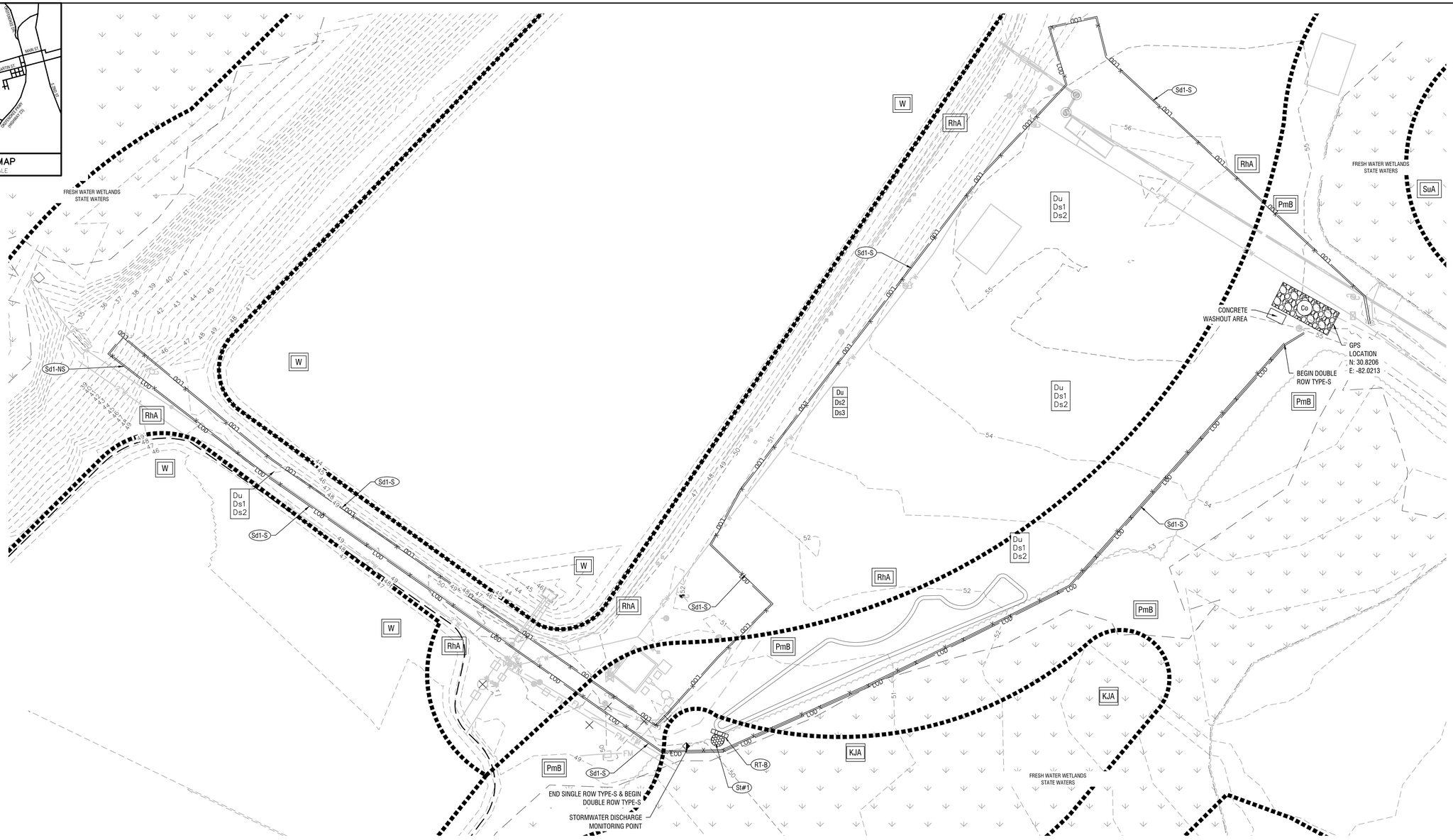
C7

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



VICINITY MAP
NOT TO SCALE



RUNOFF COEFFECIENT

PRE – CONSTRUCTION CN = 72

POST – CONSTRUCTION CN = 82

SOIL LEGEND

W	WATER
PmB	PELHAM LOAMY FINE SAND
KJA	KINSTON AND JOHNSTON SOILS
RhA	RIDGEWOOD–HURRICANE COMPLEX
SuA	SURRENCY MUCKY FINE SAND

SILT STORAGE CALCULATION

ESTIMATED EROSION = 3.03 AC. X 67 C.Y = 203 C.Y STORAGE CAPACITY REQUIRED.

SEDIMENT BASIN STORAGE AVAILABLE = 5,213 C.Y.

Sd1–S STORAGE AVAILABLE = 2742 LF X .17 C.Y./LF = 466 C.Y.

TOTAL AVAILABLE SEDIMENT STORAGE = 5,679 C.Y.

Rt CALCULATION

REQUIRED SEDIMENT STORAGE = 203 C.Y.

AVAILABLE STORAGE IN POND = 5,213 C.Y.

IS THE AVAILABLE STORAGE GREATER THAN THE TOTAL REQUIRED STORAGE? (YES) NO

CLEAN OUT ELEVATION = 50.00 FT
(ELEVATION CORRESPONDING TO 22 C.Y./AC * 13.22 AC DISTURBED)

IS THE LENGTH TO WIDTH RATIO 2:1 OR GREATER? (YES) NO

STORM OUTLET PROTECTION

Do – OUTLET PIPE DIA. W1 – WIDTH AT HEADWALL d50 – AVE. STONE SIZE
La – LENGTH OF APRON W2 – DOWNSTREAM WIDTH dMAX – MAX. STONE SIZE
D – STONE DEPTH

STRUCTURE NO.	Do	La	W1	W2	d50	D	FLOW RATE (CFS)	VELOCITY (FPS)
ST #1	66"	10'	5.5'	15'	6"	13.5"	12.57	2.51

NOTE:

A SKIMMER WAS NOT USED FOR THIS DEVELOPMENT DUE TO LACK OF TOPOGRAPHY. INSTEAD A SLOTTED BOAR DAM WILL BE INCORPORATED WITH THE OUTLET CONTROL STRUCTURE TO DISCHARGE FROM THE TOP OF THE WATER COLUMN AS MUCH AS POSSIBLE.

CONSTRUCTION ACTIVITY DESCRIPTION

INITIAL PHASE – CONSISTS OF INSTALLING CONSTRUCTION EXIT, PERIMETER BMPS, DUST CONTROL AND TEMPORARY SEDIMENT PONDS. BEGIN CLEARING, GRUBBING, AND GRADING. BEGIN INSTALLING DETENTION PONDS AND RETROFITS.

INTERMEDIATE PHASE – MAINTAIN CONSTRUCTION EXIT AND SILT FENCE. USE DUST CONTROL, MULCHING, AND TEMPORARY GRASSING WHERE INDICATED.

FINAL PHASE – ONCE PERMANENT GRASSING IS ESTABLISHED TEMPORARY MEASURES CAN BE REMOVED INCLUDING: SILT FENCE, CONSTRUCTION EXITS.

SITE INFORMATION:

TOTAL SITE AREA = 3.03 AC.
TOTAL DISTURBED AREA = 3.03 AC

EXISTING CONDITIONS:

THE SITE IS A IN USE WASTE WATER TREATMENT FACILITY WITH MULTIPLE CONCRETE STRUCTURE, ASSOCIATED UTILITIES ALONG WITH A GRAVEL DRIVE.

DESIGN PROFESSIONAL
MARCUS E SACK, P.E.
M.E. SACK ENGINEERING
MARCUS@MESACK.COM
GSWCC LEVEL II
CERTIFICATION #: 70248
EXPIRES: 06-14-2026

PRIMARY PERMITEE
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EMAIL: penderlloyd@yahoo.com

24-HOUR CONTACT
CITY OF FOLKSTON
CONTACT: LEONARD LLOYD
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FOLKSTON, GA 31537
TEL: (912) 496-2563
EMAIL: penderlloyd@yahoo.com

SCALE BAR: 1"= 40'
40 0 20 40 80 160

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: OSCAR GARCIA

DESIGN PROFESSIONAL:
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GSWCC LEVEL II # 70248
EXPIRES: 06/14/2026
MARCUS@MESACK.COM

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GEORGIA REGISTERED No. 33556 PROFESSIONAL ENGINEER MARCUS E. SACK

DATE: May 1, 2024

M.E. SACK 19 ENGINEERING 00

MUNICIPALITY:
CITY OF FOLKSTON

COUNTY:
CHARLTON

OWNER:
CITY OF FOLKSTON
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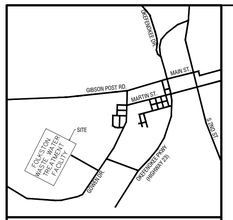
Water Pollution Control Plant

INITIAL
ES&CP

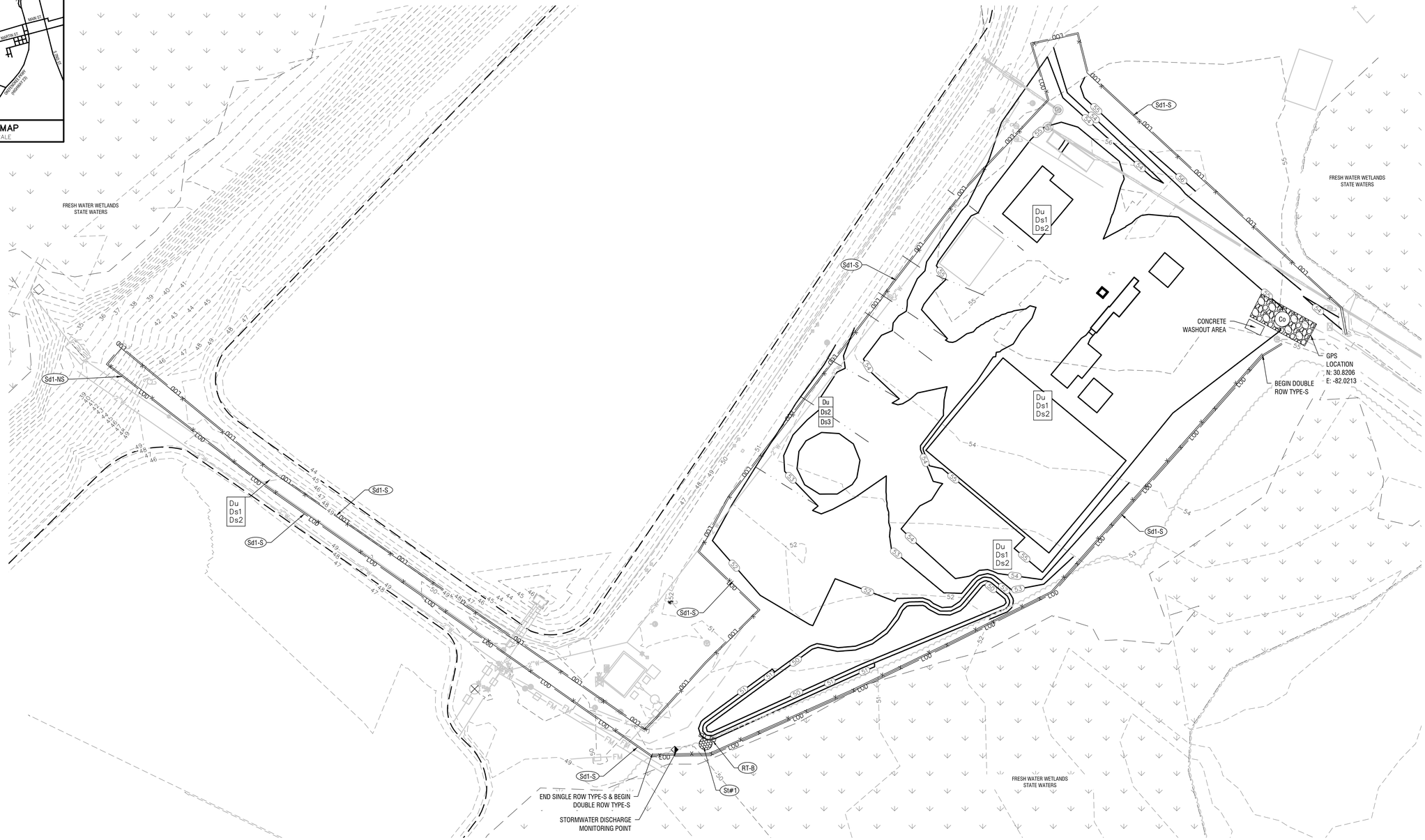
C8

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



VICINITY MAP
NOT TO SCALE



STORM OUTLET PROTECTION

Do – OUTLET PIPE DIA. W1 – WIDTH AT HEADWALL d50 – AVE. STONE SIZE
Lo – LENGTH OF APRON W2 – DOWNSTREAM WIDTH dMAX – MAX. STONE SIZE
D – STONE DEPTH

STRUCTURE NO.	Do	Lo	W1	W2	d50	D	FLOW RATE (CFS)	VELOCITY (FPS)
ST #1	66"	10'	5.5'	15'	6"	13.5"	12.57	2.51

RUNOFF COEFFECIENT

PRE – CONSTRUCTION CN = 72

POST – CONSTRUCTION CN = 82

CONSTRUCTION ACTIVITY DESCRIPTION

INITIAL PHASE – CONSISTS OF INSTALLING CONSTRUCTION EXIT, PERIMETER BMPS, DUST CONTROL AND TEMPORARY SEDIMENT PONDS. BEGIN CLEARING, GRUBBING, AND GRADING. BEGIN INSTALLING DETENTION PONDS AND RETROFITS.

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SITE INFORMATION:

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TOTAL DISTURBED AREA = 3.03 AC

EXISTING CONDITIONS:

THE SITE IS A IN USE WASTE WATER TREATMENT FACILITY WITH MULTIPLE CONCRETE STRUCTURE, ASSOCIATED UTILITIES ALONG WITH A GRAVEL DRIVE.

DESIGN PROFESSIONAL

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GSWCC LEVEL II
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PRIMARY PERMITEE

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SCALE BAR: 1"= 40'
40 0 20 40 80 160

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: OSCAR GARCIA

DESIGN PROFESSIONAL:
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GEORGIA REGISTERED No. 33556 PROFESSIONAL ENGINEER MARCUS E. SACK

DATE: May 1, 2024

M.E. SACK ENGINEERING 19 00

MUNICIPALITY:
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COUNTY:
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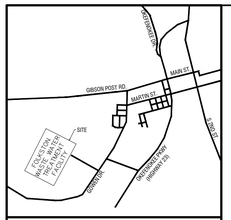
Water Pollution Control Plant

INTERMEDIATE ES&CP

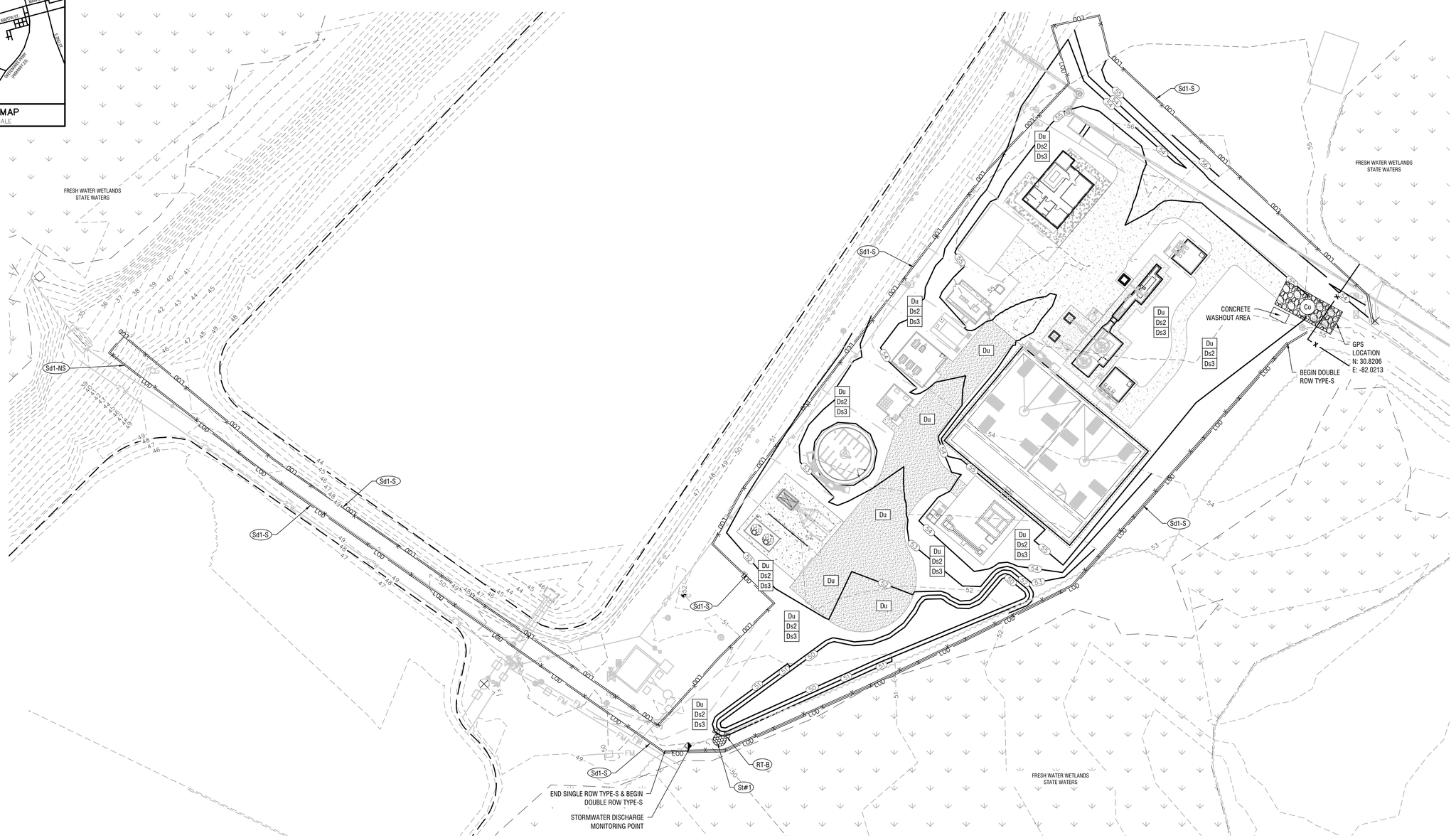
C9

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



VICINITY MAP
NOT TO SCALE



SILT FENCE MAY BE REMOVED AFTER FINAL STABILIZATION

RUNOFF COEFFECIENT

PRE – CONSTRUCTION CN = 72

POST – CONSTRUCTION CN = 82

CONSTRUCTION ACTIVITY DESCRIPTION

INITIAL PHASE – CONSISTS OF INSTALLING CONSTRUCTION EXIT, PERIMETER BMPS, DUST CONTROL AND TEMPORARY SEDIMENT PONDS. BEGIN CLEARING, GRUBBING, AND GRADING. BEGIN INSTALLING DETENTION PONDS AND RETROFITS.

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SITE INFORMATION:

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La – LENGTH OF APRON W2 – DOWNSTREAM WIDTH dMAX – MAX. STONE SIZE
D – STONE DEPTH

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ST #1	66"	10'	5.5'	15'	6"	13.5"	12.57	2.51

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SCALE BAR: 1"= 40'
40 0 20 40 80 160

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
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DRAWING COMPLETED BY - OSCAR GARCIA

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GEORGIA REGISTERED No. 33556 PROFESSIONAL ENGINEER MARCUS E. SACK

DATE: May 1, 2024

19 M.E. SACK ENGINEERING 00

MUNICIPALITY:
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Water Pollution Control Plant

FINAL
ES&CP

C10

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024

NPDES PERMIT REQUIREMENTS GAR 100002

PART IV. EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN

4. INSPECTIONS.

A. PERMITTEE REQUIREMENTS.

(1). EACH DAY WHEN ANY TYPE OF CONSTRUCTION ACTIVITY HAS TAKEN PLACE AT A PRIMARY PERMITTEE'S SITE, CERTIFIED PERSONNEL PROVIDED BY THE PRIMARY PERMITTEE SHALL INSPECT: (A) ALL AREAS AT THE PRIMARY PERMITTEE'S SITE WHERE PETROLEUM PRODUCTS ARE STORED, USED, OR HANDLED FOR SPILLS AND LEAKS FROM VEHICLES AND EQUIPMENT AND (B) ALL LOCATIONS AT THE PRIMARY PERMITTEE'S SITE WHERE VEHICLES ENTER OR EXIT THE SITE FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.

(2). MEASURE AND RECORD RAINFALL WITHIN DISTURBED AREAS OF THE SITE THAT HAVE NOT MET FINAL STABILIZATION ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY AND NON-WORKING FEDERAL HOLIDAY. THE DATA COLLECTED FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MENTIONED ACTIVITY. MEASUREMENT OF RAINFALL MAY BE SUSPENDED IF ALL AREAS OF THE SITE HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION.

(3). CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT THE FOLLOWING AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES RAINFALL OR GREATER (UNLESS SUCH STORM ENDS AFTER 5:00 PM ON ANY FRIDAY OR ON ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY OR ANY NON-WORKING FEDERAL HOLIDAY IN WHICH CASE THE INSPECTION SHALL BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AND/OR WORKING DAY, WHICHEVER OCCURS FIRST): (A) DISTURBED AREAS OF THE PRIMARY PERMITTEE'S CONSTRUCTION SITE; (B) AREAS USED BY THE PRIMARY PERMITTEE FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION; AND (C) STRUCTURAL CONTROL MEASURES. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN APPLICABLE TO THE PRIMARY PERMITTEE'S SITE SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S). FOR AREAS OF A SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION, THE PERMITTEE MUST COMPLY WITH PART IV.F.4.A.(4). THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.

(4). CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT AT LEAST ONCE PER MONTH DURING THE TERM OF THIS PERMIT (I.E., UNTIL A NOTICE OF TERMINATION HAS BEEN SUBMITTED) THE AREAS OF THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION. THESE AREAS SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM AND THE RECEIVING WATER(S). EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S).

(5). BASED ON THE RESULTS OF EACH INSPECTION, THE SITE DESCRIPTION AND THE POLLUTION PREVENTION AND CONTROL MEASURES IDENTIFIED IN THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, THE PLAN SHALL BE REVISED AS APPROPRIATE NOT LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION. IMPLEMENTATION OF SUCH CHANGES SHALL BE MADE AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION.

(6). A REPORT OF EACH INSPECTION THAT INDICATES THE NAME(S) OF CERTIFIED PERSONNEL MAKING EACH INSPECTION, THE DATE(S) OF EACH INSPECTION, CONSTRUCTION PHASE (I.E., INITIAL, INTERMEDIATE OR FINAL), MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PART IV.D.4.A.(5). OF THE PERMIT SHALL BE MADE AND RETAINED AT THE SITE OR BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION UNTIL THE ENTIRE SITE OR THAT PORTION OF A CONSTRUCTION PROJECT THAT HAS BEEN PHASED HAS UNDERGONE FINAL STABILIZATION AND A NOTICE OF TERMINATION IS SUBMITTED TO EPD. SUCH REPORTS SHALL BE READILY AVAILABLE BY END OF THE SECOND BUSINESS DAY AND/OR WORKING DAY AND SHALL IDENTIFY ALL INCIDENTS OF BEST MANAGEMENT PRACTICES THAT HAVE NOT BEEN PROPERLY INSTALLED AND/OR MAINTAINED AS DESCRIBED IN THE PLAN. WHERE THE REPORT DOES NOT IDENTIFY ANY INCIDENTS, THE INSPECTION REPORT SHALL CONTAIN A STATEMENT THAT THE BEST MANAGEMENT PRACTICES ARE IN COMPLIANCE WITH THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PAR V.G.2. OF THIS PERMIT.

5. MAINTENANCE. THE PLAN SHALL INCLUDE A DESCRIPTION OF PROCEDURES TO ENSURE THE TIMELY MAINTENANCE OF VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THE SITE PLAN.

6. SAMPLING REQUIREMENTS. THIS PERMIT REQUIRES THE MONITORING OF NEPHELOMETRIC TURBIDITY IN RECEIVING WATER(S) OR OUTFALLS IN ACCORDANCE WITH THIS PERMIT. THE FOLLOWING PROCEDURES CONSTITUTE EPD'S GUIDELINES FOR SAMPLING TURBIDITY.

A. *SAMPLING REQUIREMENTS* SHALL INCLUDE THE FOLLOWING:

(1). A USGS TOPOGRAPHIC MAP, A TOPOGRAPHIC MAP OR A DRAWING (REFERRED TO AS A TOPOGRAPHIC MAP) THAT IS A SCALE EQUAL TO OR MORE DETAILED THAN A 1:24000 MAP SHOWING THE LOCATION OF THE SITE OR THE INFRASTRUCTURE CONSTRUCTION; (A) THE LOCATION OF ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES AS SHOWN ON A USGS TOPOGRAPHIC MAP, AND ALL OTHER PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES LOCATED DURING MANDATORY FIELD VERIFICATION, INTO WHICH THE STORM WATER IS DISCHARGED AND (B) THE RECEIVING WATER AND/OR OUTFALL SAMPLING LOCATIONS FOR EACH REPRESENTATIVE STORMWATER OUTFALL. WHEN THE PERMITTEE HAS CHOSEN TO USE A USGS TOPOGRAPHIC MAP AND THE RECEIVING WATER(S) IS NOT SHOWN ON THE USGS TOPOGRAPHIC MAP, THE LOCATION OF THE RECEIVING WATER(S) MUST BE HAND-DRAW ON THE USGS TOPOGRAPHIC MAP FROM WHERE THE STORM WATER(S) ENTERS THE RECEIVING WATER(S) TO THE POINT WHERE THE RECEIVING WATER(S) COMBINES WITH THE FIRST BLUE LINE STREAM SHOWN ON THE USGS TOPOGRAPHIC MAP;

(2). A WRITTEN NARRATIVE OF SITE SPECIFIC ANALYTICAL METHODS USED TO COLLECT, HANDLE AND ANALYZE THE SAMPLES INCLUDING QUALITY CONTROL/QUALITY ASSURANCE PROCEDURES. THIS NARRATIVE MUST INCLUDE PRECISE SAMPLING METHODOLOGY FOR EACH SAMPLING LOCATION;

(3). WHEN THE PERMITTEE HAS DETERMINED THAT SOME OR ALL OUTFALLS WILL BE SAMPLED, A RATIONALE MUST BE INCLUDED ON THE PLAN FOR THE NTU LIMIT(S) SELECTED FROM APPENDIX B. THIS RATIONALE MUST INCLUDE THE SIZE OF THE CONSTRUCTION SITE, THE CALCULATION OF THE SIZE OF THE SURFACE WATER DRAINAGE AREA, AND THE TYPE OF RECEIVING WATER(S) (I.E., TROUT STREAM OR SUPPORTING WARM WATER FISHERIES); AND

(4). ANY ADDITIONAL INFORMATION EPD DETERMINES NECESSARY TO BE PART OF THE PLAN. EPD WILL PROVIDE WRITTEN NOTICE TO THE PERMITTEE OF THE INFORMATION NECESSARY AND THE TIME LINE FOR SUBMITTAL.

B. *SAMPLE TYPE.* ALL SAMPLING SHALL BE COLLECTED BY "GRAB SAMPLES" AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 (UNLESS OTHER TEST PROCEDURES HAVE BEEN APPROVED); THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT, EPA 833-B-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD.

(1). SAMPLE CONTAINERS SHOULD NOT BE LABELED PRIOR TO COLLECTING THE SAMPLES.

(2). SAMPLES SHOULD BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER.

(3). LARGE MOUTH, WELL CLEANED AND RINSED GLASS OR PLASTIC JARS SHOULD BE USED FOR COLLECTING SAMPLES. THE JARS SHOULD BE CLEANED THOROUGHLY TO AVOID CONTAMINATION.

(4). MANUAL, AUTOMATIC OR RISING STAGE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THIS PERMIT SHOULD BE ANALYZED IMMEDIATELY, BUT IN NO CASE LATER THAN 48 HOURS AFTER COLLECTION. HOWEVER, SAMPLES FROM AUTOMATIC SAMPLERS MUST BE COLLECTING NO LATER THAN THE NEXT BUSINESS DAY AFTER THEIR ACCUMULATION, UNLESS FLOW THROUGH AUTOMATED ANALYSIS IS UTILIZED. IF AUTOMATIC SAMPLING IS UTILIZED AND THE AUTOMATIC SAMPLER IS NOT ACTIVATED DURING THE QUALIFYING EVENT, THE PERMITTEE MUST UTILIZE MANUAL SAMPLING OR RISING STAGE SAMPLING DURING THE NEXT QUALIFYING EVENT. DILUTION OF SAMPLES IS NOT REQUIRED. SAMPLES MAY BE ANALYZED DIRECTLY WITH A PROPERLY CALIBRATED TURBIDIMETER. SAMPLES ARE NOT REQUIRED TO BE COOLED.

(5). SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALLS BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED TO EPD AS SPECIFIED IN PART IV.E.

C. *SAMPLING POINTS.*

(1). FOR CONSTRUCTION ACTIVITIES THE PRIMARY PERMITTEE MUST SAMPLE ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES SHOWN ON THE USGC TOPOGRAPHIC MAP AND ALL OTHER FIELD VERIFIED PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES, OR ALL OUTFALLS INTO SUCH STREAMS AND OTHER WATER BODIES, OR A COMBINATION THEREOF. HOWEVER, PROVIDED FOR IN AND IN ACCORDANCE WITH PART IV.D.6.c.(2). OF THIS PERMIT, PRIMARY PERMITTEES ON AN INFRASTRUCTURE CONSTRUCTION PROJECT MAY SAMPLE THE REPRESENTATIVE PERENNIAL AND INTERMITTENT STREAMS, OTHER WATER BODIES OR OUTFALLS, OR A COMBINATION THEREOF. SAMPLES TAKEN FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY AND REPRESENTATION OF THE WATER QUALITY OF THE RECEIVING WATER(S) AND/OR THE STORM WATER OUTFALLS USING THE FOLLOWING MINIMUM GUIDELINES:

(A). THE UPSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN IMMEDIATELY UPSTREAM OF THE CONFLUENCE OF THE FIRST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST UPSTREAM AT THE SITE) BUT DOWNSTREAM OF ANY OTHER STORM WATER DISCHARGES NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL UPSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE UPSTREAM TURBIDITY VALUE.

(B). THE DOWNSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN DOWNSTREAM OF THE CONFLUENCE OF THE LAST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE) BUT UPSTREAM OF ANY OTHER STORM WATER DISCHARGE NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE DOWNSTREAM TURBIDITY VALUE.

(C). IDEALLY THE SAMPLES SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR THE STORM WATER OUTFALL CHANNEL(S).

(D). CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE OUTFALL STORM WATER CHANNEL.

(E). THE SAMPLING CONTAINER SHOULD BE HELD SO THAT THE OPENING FACES UPSTREAM.

(F). THE SAMPLES SHOULD BE KEPT FREE FROM FLOATING DEBRIS.

(G). PERMITTEES DO NOT HAVE TO SAMPLE SHEETFLOW THAT FLOWS ONTO UNDISTURBED NATURAL AREAS OR AREAS STABILIZED BY THE PROJECT. FOR PURPOSES OF THIS SECTION, STABILIZED SHALL MEAN, FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES, 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR LANDSCAPE ACCORDING TO THE PLAN (UNIFORMLY COVERED WITH LANDSCAPING MATERIALS IN PLANNED LANDSCAPED AREAS), OR EQUIVALENT PERMANENT STABILIZATION MEASURES AS DEFINED IN THE MANUAL (EXCLUDING A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET CROP PERENNIALS APPROPRIATE FOR THE REGION). FOR INFRASTRUCTURE CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL OR SILVICULTURAL PURPOSES, FINAL STABILIZATION MAY BE ACCOMPLISHED BY STABILIZING THE DISTURBED LAND FOR ITS AGRICULTURAL OR SILVICULTURAL USE.

(H). ALL SAMPLING PURSUANT TO THIS PERMIT MUST BE DONE IN SUCH A WAY (INCLUDING GENERALLY ACCEPTED SAMPLING METHODS, LOCATIONS, TIMING, AND FREQUENCY) AS TO ACCURATELY REFLECT WHETHER STORM WATER RUNOFF FROM THE CONSTRUCTION SITE IS IN COMPLIANCE WITH THE STANDARD SET FORTH IN PARTS III.D.3. OR III.D.4., WHICHEVER IS APPLICABLE.

(2). FOR INFRASTRUCTURE CONSTRUCTION PROJECTS, THE PERMITTEE IS NOT REQUIRED TO SAMPLE A PERENNIAL OR INTERMITTENT STREAM OR OTHER WATER BODIES (OR THE ASSOCIATED OUTFALL, IF APPLICABLE) IF THE DESIGN PROFESSIONAL PREPARING THE PLAN CERTIFIES THAT AN INCREASE IN THE TURBIDITY OF A SPECIFIC IDENTIFIED RECEIVING WATER TO BE SAMPLED WILL BE REPRESENTATIVE OF THE INCREASE IN THE TURBIDITY OF A SPECIFIC IDENTIFIED UN-SAMPLED RECEIVING WATER. A WRITTEN JUSTIFICATION AND DETAILED ANALYSIS SHALL BE PREPARED BY THE DESIGN PROFESSIONAL JUSTIFYING SUCH PROPOSED SAMPLING. A SUMMARY CHART OF THE JUSTIFICATION AN ANALYSIS FOR THE REPRESENTATIVE SAMPLING MUST BE INCLUDED ON THE PLAN. THE JUSTIFICATION AND ANALYSIS SHALL INCLUDE THE LOCATION AND DESCRIPTION OF THE SPECIFIED SAMPLED AND UN-SAMPLED RECEIVING WATER AND SHALL CONTAIN A DETAILED COMPARISON AND DISCUSSION OF EACH SUCH RECEIVING WATER IN THE FOLLOWING AREAS:

(A). SITE LAND DISTURBANCES AND CHARACTERISTICS;

(B). RECEIVING WATER WATERSHED SIZES AND CHARACTERISTICS; AND

(C). SITE AND WATERSHED RUNOFF CHARACTERISTICS UTILIZING THE METHODS IN APPENDIX A-1 (UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE'S TR-55, URBAN HYDROLOGY FOR SMALL WATERSHEDS) OF THE MOST RECENT VERSION OF THE "MANUAL FOR EROSION AND SEDIMENTATION CONTROL IN GEORGIA" FOR THE VARIOUS PRECIPITATION EVENTS AND ANY OTHER SUCH CONSIDERATIONS NECESSARY TO SHOW THAT THE INCREASE IN THE TURBIDITY OF A SPECIFIC IDENTIFIED SAMPLED RECEIVING WATER WILL BE REPRESENTATIVE OF THE INCREASES IN THE TURBIDITY OF A SPECIFIC IDENTIFIED UN-SAMPLED RECEIVING WATERS.

3). FOR INFRASTRUCTURE CONSTRUCTION PROJECTS, WHEN THE PERMITTEE DETERMINES THAT SOME RECEIVING WATER(S) WILL NOT BE SAMPLED DUE TO REPRESENTATIVE SAMPLING, THE DESIGN PROFESSIONAL MAKING THIS DETERMINATION AND PREPARING THE PLAN MUST INCLUDE AND SIGN THE FOLLOWING CERTIFICATION IN THE PLAN:

"I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR THE MONITORING OF: (A) ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES SHOWN ON THE USGS TOPOGRAPHIC MAP AND ALL OTHER FIELD VERIFIED PERENNIAL AND INTERMITTENT STEAMS AND OTHER WATER BODIES, OR (B) WHERE ANY SUCH SPECIFIC IDENTIFIED PERENNIAL OR INTERMITTENT STREAM AND OTHER WATER BODY IS NOT PROPOSED TO BE SAMPLED, I HAVE DETERMINED IN MY PROFESSIONAL JUDGMENT, UTILIZING THE FACTORS REQUIRED IN THE GENERAL NPDES PERMIT NO. GAR 100002, THAT THE INCREASE IN THE TURBIDITY OF EACH SPECIFIC IDENTIFIED SAMPLED RECEIVING WATER WILL BE REPRESENTATIVE OF THE INCREASE IN THE TURBIDITY OF A SPECIFIC IDENTIFIED UN-SAMPLED RECEIVING WATER."

(4). FOR INFRASTRUCTURE CONSTRUCTION PROJECTS, IF AT ANY TIME DURING THE LIFE OF THE PROJECT A SELECTED RECEIVING WATER NO LONGER REPRESENTS ANOTHER RECEIVING WATER, THEN THE PERMITTEE SHALL SAMPLE THE LATTER RECEIVING WATER UNTIL SELECTION OF AN ALTERNATIVE REPRESENTATIVE RECEIVING WATER.

(5). FOR INFRASTRUCTURE CONSTRUCTION PROJECTS, IF AT ANY TIME DURING THE LIFE OF THE PROJECT A RECEIVING WATER IS DETERMINED NOT TO BE REPRESENTED AS CERTIFIED IN THE PLAN, THE PERMITTEE SHALL SAMPLE THAT RECEIVING WATER UNTIL A NOTICE OF TERMINATION IS SUBMITTED OR UNTIL THE APPLICABLE PHASE IS STABILIZED IN ACCORDANCE WITH THIS PERMIT.

(6). FOR INFRASTRUCTURE CONSTRUCTION PROJECTS, MONITORING OBLIGATIONS SHALL CEASE FOR ANY PHASE OF THE PROJECT THAT HAS BEEN STABILIZED IN ACCORDANCE WITH PART IV.D.6.C.(1).(G).

D. SAMPLING FREQUENCY.

(1). THE PRIMARY PERMITTEE MUST SAMPLE IN ACCORDANCE WITH THE PLAN AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW. FOR A QUALIFYING EVENT, THE PERMITTEE SHALL SAMPLE AT THE BEGINNING OF ANY STORM WATER DISCHARGE TO A MONITORED RECEIVING WATER AND/OR FROM A MONITORED OUTFALL LOCATION WITHIN FORTY-FIVE (45) MINUTES OR AS SOON AS POSSIBLE.

(2). HOWEVER, WHERE MANUAL AND AUTOMATIC SAMPLING ARE IMPOSSIBLE (AS DEFINED IN THIS PERMIT), OR ARE BEYOND THE PERMITTEE'S CONTROL, THE PERMITTEE SHALL TAKE SAMPLES AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN TWELVE (12) HOURS AFTER THE BEGINNING OF THE STORM WATER DISCHARGE.

(3). SAMPLING BY THE PERMITTEE SHALL OCCUR FOR THE FOLLOWING QUALIFYING EVENTS:

(A). FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORM WATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO COMPLETION OF MASS GRADING OPERATIONS, IN THE DRAINAGE AREA OF THE LOCATION SELECTE3D AS THE SAMPLING LOCATION;

(B). IN ADDITION TO (A) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORM WATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED BY THIS PERMIT EITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO SUBMITTAL OF A NOT, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION, WHICHEVER COMES FIRST;

(C). AT THE TIME OF SAMPLING PERFORMED PURSUANT TO (A) AND (B) ABOVE, IF BMPS IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL ARE NOT PROPERLY DESIGNED, INSTALLED AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN TWO (2) BUSINESS DAYS, AND TURBIDITY SAMPLES SHALL BE TAKEN FROM DISCHARGES FROM THAT AREA OF THE SITE FOR EACH SUBSEQUENT RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH DURING NORMAL BUSINESS HOURS* UNTIL THE SELECTED TURBIDITY STANDARD IS ATTAINED, OR UNTIL POST-STORM EVENT INSPECTIONS DETERMINE THAT BMPS ARE PROPERLY DESIGNED, INSTALLED AND MAINTAINED;

(D). WHERE SAMPLING PURSUANT TO (A), (B) OR (C) ABOVE IS REQUIRED BUT NOT POSSIBLE (OR NOT REQUIRED BECAUSE THERE WAS NO DISCHARGE), THE PERMITTEE, IN ACCORDANCE WITH PART IV.D.4.A.(6), MUST INCLUDE A WRITTEN JUSTIFICATION IN THE INSPECTION REPORT OF WHY SAMPLING WAS NOT PERFORMED. PROVIDING THIS JUSTIFICATION DOES NOT RELIEVE THE PERMITTEE OF ANY SUBSEQUENT SAMPLING OBLIGATIONS UNDER (A), (B) OR (C) ABOVE; AND

(E). EXISTING CONSTRUCTION ACTIVITIES, I.E., THOSE THAT ARE OCCURRING ON OR BEFORE THE EFFECTIVE DATE OF THIS PERMIT, THAT HAVE MET THE SAMPLING REQUIRED BY (A) ABOVE SHALL SAMPLE IN ACCORDANCE WITH (B). THOSE EXISTING CONSTRUCTION ACTIVITIES THAT HAVE MET THE SAMPLING REQUIRED BY (B) ABOVE SHALL NOT BE REQUIRED TO CONDUCT ADDITIONAL SAMPLING OTHER THAN AS REQUIRED BY (C) ABOVE.

*NOTE THAT THE PERMITTEE MAY CHOOSE TO MEET THE REQUIREMENTS OF (A) AND (B) ABOVE BY COLLECTING TURBIDITY SAMPLES FROM ANY RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR SAMPLING AT ANY TIME OF THE DAY OR WEEK.

7. NON-STORM WATER DISCHARGES. EXCEPT FOR FLOWS FROM FIRE FIGHTING ACTIVITIES, SOURCES OF NON-STORM WATER LISTED IN PART III.A.2. OF THIS PERMIT THAT ARE COMBINED WITH STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY MUST BE IDENTIFIED IN THE PLAN. THE PLAN SHALL IDENTIFY AND ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORM WATER COMPONENT(S) OF THE DISCHARGE.

E. REPORTING.

1. THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART II.C. BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAMPLING RESULTS SHALL BE IN A CLEARLY LEGIBLE FORMAT. UPON WRITTEN NOTIFICATION, EPD MAY REQUIRE THE APPLICABLE PERMITTEE TO SUBMIT THE SAMPLING RESULTS ON A MORE FREQUENT BASIS. SAMPLING AND ANALYSIS OF ANY STORM WATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED IN A SIMILAR MANNER TO THE EPD. THE SAMPLING REPORTS MUST BE SIGNED IN ACCORDANCE WITH PART V.G.2. SAMPLING REPORTS MUST BE SUBMITTED TO EPD USING THE ELECTRONIC SUBMITTAL SERVICE PROVIDED BY EPD. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

2. ALL SAMPLING REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:

a. THE RAINFALL AMOUNT, DATE, EXACT PLACE AND TIME OF SAMPLING OR MEASUREMENTS;
b. THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE SAMPLING AND MEASUREMENTS;
c. THE DATE(S) ANALYSES WERE PERFORMED;
d. THE TIME(S) ANALYSES WERE INITIATED;
e. THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE ANALYSES;
f. REFERENCES AND WRITTEN PROCEDURES, WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED;
g. THE RESULTS OF SUCH ANALYSES, INCLUDING THE BENCH SHEETS, INSTRUMENT READOUTS, COMPUTER DISKS OR TAPES, ETC., USED TO DETERMINE THESE RESULTS;
h. RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU;" AND
i. CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED AS PER THE PLAN.

3. ALL WRITTEN CORRESPONDENCE REQUIRED BY THIS PERMIT SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICE) TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THIS PERMIT. THE PERMITTEE SHALL RETAIN A COPY OF THE PROOF OF SUBMITTAL AT THE CONSTRUCTION SITE OR THE PROOF OF SUBMITTAL SHALL BE READILY AVAILABLE AT A DESIGNATED LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI. IF ANY ELECTRONIC SUBMITTAL IS PROVIDED BY EPD THEN THE WRITTEN CORRESPONDENCE MAY BE SUBMITTED ELECTRONICALLY; IF REQUIRED, A PAPER COPY MUST ALSO BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL OR SIMILAR SERVICE.

F. RETENTION OF RECORDS.

1. THE PRIMARY PERMITTEE SHALL RETAIN THE FOLLOWING RECORDS AT THE CONSTRUCTION SITE OR THE RECORDS SHALL BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI;

a. A COPY OF ALL NOTICES OF INTENT SUBMITTED TO EPD;
b. A COPY OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN REQUIRED BY THIS PERMIT;
c. THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART IV.A.5. OF THIS PERMIT;
d. A COPY OF ALL SAMPLING INFORMATION, RESULTS, AND REPORTS REQUIRED BY THIS PERMIT;
e. A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4.A. OF THIS PERMIT;
f. A COPY OF ALL VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN ACCORDANCE WITH PART III.D.2. OF THIS PERMIT;
g. DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.A.(2). OF THIS PERMIT.

2. COPIES OF ALL NOTICES OF INTENT, NOTICES OF TERMINATION, INSPECTION REPORTS, SAMPLING REPORTS (INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION) OR OTHER REPORTS REQUESTED BY THE EPD, EROSION, SEDIMENTATION AND POLLUTION CONTROL PLANS, RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT AND ALL OTHER RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED BY THE PERMITTEE WHO EITHER PRODUCED OR USED IT FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THE NOT IS SUBMITTED IN ACCORDANCE WITH PART VI. OF THIS PERMIT. THESE RECORDS MUST BE MAINTAINED AT THE PERMITTEE'S PRIMARY PLACE OF BUSINESS OR AT A DESIGNATED ALTERNATIVE LOCATION ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY REQUEST OF THE EPD AT ANY TIME UPON WRITTEN NOTIFICATION TO THE PERMITTEE.

PART V. STANDARD PERMIT CONDITIONS

A. DUTY TO COMPLY.

1. EACH PERMITTEE MUST COMPLY WITH ALL APPLICABLE CONDITIONS OF THIS PERMIT. ANY PERMIT NONCOMPLIANCE CONSTITUTES A VIOLATION OF THE GEORGIA WATER QUALITY CONTROL ACT (O.C.G.A. §§12-5-20, ET SEQ.) AND IS GROUNDS FOR ENFORCEMENT ACTION; FOR PERMIT TERMINATION; OR FOR DENIAL OF A PERMIT RENEWAL APPLICATION. FAILURE OF A PRIMARY PERMITTEE TO COMPLY WITH ANY APPLICABLE TERM OR CONDITION OF THIS PERMIT SHALL NOT RELIEVE ANY OTHER PRIMARY PERMITTEE FORM COMPLIANCE WITH THEIR APPLICABLE TERMS AND CONDITIONS OF THIS PERMIT.

2. EACH PERMITTEE MUST DOCUMENT IN THEIR RECORDS ANY AND ALL KNOWN VIOLATIONS OF THIS PERMIT AT HIS/HER SITE WITHIN SEVEN (7) DAYS OF HIS/HER KNOWLEDGE OF THE VIOLATION. A SUMMARY OF THESE VIOLATIONS MUST BE SUBMITTED TO EPD BY THE PERMITTEE AT THE ADDRESS SHOWN IN PART II.C. WITHIN FOURTEEN (14) DAYS OF HIS/HER DISCOVERY OF THE VIOLATION.

3. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS. THE FEDERAL CLEAN WATER ACT AND THE GEORGIA WATER QUALITY CONTROL ACT (O.C.G.A. §§12-5-20, ET SEQ.) PROVIDE THAT ANY PERSON WHO FALSIFIES, TAMPERS WITH, OR KNOWINGLY RENDERS INACCURATE ANY MONITORING DEVICE OR METHOD REQUIRED TO BE MAINTAINED UNDER THIS PERMIT, MAKES ANY FALSE STATEMENT, REPRESENTATION, OR CERTIFICATION IN ANY RECORD OR OTHER DOCUMENT SUBMITTED OR REQUIRED TO BE MAINTAINED UNDER THIS PERMIT, INCLUDING MONITORING REPORTS OR REPORTS OF COMPLIANCE OR NONCOMPLIANCE SHALL, UPON CONVICTION BE PUNISHED BY A FINE OR BY IMPRISONMENT, OR BY BOTH. THE FEDERAL CLEAN WATER ACT AND THE GEORGIA WATER QUALITY CONTROL ACT ALSO PROVIDE PROCEDURES FOR IMPOSING CIVIL PENALTIES WHICH MAY BE LEVIED FOR VIOLATIONS OF THE ACTS, ANY PERMIT CONDITION OR LIMITATION ESTABLISHED PURSUANT TO THE ACTS, OR NEGLIGENTLY OR INTENTIONALLY FAILING OR REFUSING TO COMPLY WITH ANY FINAL OR EMERGENCY ORDER OF THE DIRECTOR.

B. CONTINUATION OF THE EXPIRED GENERAL PERMIT. THIS PERMIT EXPIRES ON THE DATE SHOWN ON THE COVER PAGE OF THIS PERMIT. HOWEVER, AN EXPIRED GENERAL PERMIT CONTINUES IN FORCE AND EFFECT UNTIL A NEW GENERAL PERMIT IS ISSUED, FINAL AND EFFECTIVE.

C. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE. IT SHALL NOT BE A DEFENSE FOR THE PERMITTEE IN AN ENFORCEMENT ACTION THAT IT WOULD HAVE BEEN NECESSARY TO HALT OR REDUCE THE PERMITTED ACTIVITY IN ORDER TO MAINTAIN COMPLIANCE WITH THE CONDITIONS OF THIS PERMIT.

D. DUTY TO MITIGATE. THE PERMITTEE SHALL TAKE ALL REASONABLE STEPS TO MINIMIZE OR PREVENT ANY DISCHARGE IN VIOLATION OF THIS PERMIT WHICH HAS A REASONABLE LIKELIHOOD OF ADVERSELY AFFECTING HUMAN HEALTH OR THE ENVIRONMENT.

E. DUTY TO PROVIDE INFORMATION. THE PERMITTEE SHALL FURNISH TO THE DIRECTOR; A STATE OR LOCAL AGENCY APPROVING SOIL EROSION AND SEDIMENTATION CONTROL PLANS, GRADING PLANS, OR STORM WATER MANAGEMENT PLANS; OR IN THE CASE OF A STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITY WHICH DISCHARGES THOUGH A MUNICIPAL SEPARATE STORM SEWER SYSTEM WITH AN NPDES PERMIT, TO THE LOCAL GOVERNMENT OPERATING THE MUNICIPAL SEPARATE STORM SEWER SYSTEM, ANY INFORMATION WHICH IS REQUESTED TO DETERMINE COMPLIANCE WITH THIS PERMIT. IN THE CASE OF INFORMATION SUBMITTED TO THE EPD SUCH INFORMATION SHALL BE CONSIDERED PUBLIC INFORMATION AND AVAILABLE UNDER THE GEORGIA OPEN RECORDS ACT.

F. OTHER INFORMATION. WHEN THE PERMITTEE BECOMES AWARE THAT HE FAILED TO SUBMIT ANY RELEVANT FACTS OR SUBMITTED INCORRECT INFORMATION IN THE NOTICE OF INTENT OR IN ANY OTHER REPORT REQUIRED TO BE SUBMITTED TO THE EPD, THE PERMITTEE SHALL PROMPTLY SUBMIT SUCH FACTS OR INFORMATION.

G. SIGNATORY REQUIREMENTS. ALL NOTICES OF INTENT, NOTICE OF TERMINATIONS, INSPECTION REPORTS, SAMPLING REPORTS OR OTHER REPORTS REQUESTED BY THE EPD SHALL BE SIGNED AS FOLLOWS:

1. ALL NOTICES OF INTENT AND NOTICES OF TERMINATION SHALL BE SIGNED AS FOLLOWS:

a. FOR A CORPORATION: BY A RESPONSIBLE CORPORATE OFFICER. FOR THE PURPOSE OF THIS PERMIT, A RESPONSIBLE CORPORATE OFFICER MEANS: (1) A PRESIDENT, SECRETARY, TREASURER, OR VICE-PRESIDENT OF THE CORPORATION IN CHARGE OF A PRINCIPAL BUSINESS FUNCTION, OR ANY OTHER PERSON WHO PERFORMS SIMILAR POLICY- OR DECISION-MAKING FUNCTIONS FOR THE CORPORATION; OR (2) THE MANAGER OF ONE OR MORE MANUFACTURING, PRODUCTION OR OPERATING FACILITIES PROVIDED THE MANAGER IS AUTHORIZED TO MAKE MANAGEMENT DECISIONS WHICH GOVERN THE OPERATION OF THE REGULATED FACILITY INCLUDING HAVING THE EXPLICIT OR IMPLICIT DUTY OF MAKING MAJOR CAPITAL INVESTMENT RECOMMENDATIONS, AND INITIATING AND DIRECTING OTHER COMPREHENSIVE MEASURES TO ASSURE LONG TERM ENVIRONMENTAL COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS; THE MANAGER CAN ENSURE THE NECESSARY SYSTEMS ARE ESTABLISHED OR ACTIONS TAKEN TO GATHER COMPLETE AND ACCURATE INFORMATION FOR PERMIT APPLICATION REQUIREMENTS; AND WHERE AUTHORITY TO SIGN DOCUMENTS HAS BEEN ASSIGNED OR DELEGATED TO THE MANAGER IN ACCORDANCE WITH CORPORATE PROCEDURES;

b. FOR A PARTNERSHIP OR SOLE PROPRIETORSHIP: BY A GENERAL PARTNER OR THE PROPRIETOR, RESPECTIVELY; OR

c. FOR A MUNICIPALITY, STATE, FEDERAL, OR OTHER PUBLIC FACILITY: BY EITHER A PRINCIPAL EXECUTIVE OFFICER OR RANKING ELECTED OFFICIAL; AND

d. CHANGES TO AUTHORIZATION. IF AN AUTHORIZATION UNDER PART II.B. IS NO LONGER ACCURATE, A CHANGE OF INFORMATION NOI SATISFYING THE REQUIREMENTS OF PART II.B. MUST BE SUBMITTED TO THE EPD PRIOR TO OR TOGETHER WITH ANY INSPECTION REPORTS, SAMPLING REPORTS, OR OTHER REPORTS REQUESTED BY THE EPD TO BE SIGNED BY A PERSON DESCRIBED ABOVE OR BY A DULY AUTHORIZED REPRESENTATIVE OF THAT PERSON.

2. ALL INSPECTION REPORTS, SAMPLING REPORTS, OR OTHER REPORTS REQUESTED BY THE EPD SHALL BE SIGNED BY A PERSON DESCRIBED ABOVE OR BY A DULY AUTHORIZED REPRESENTATIVE OF THAT PERSON. A PERSON IS A DULY AUTHORIZED REPRESENTATIVE ONLY IF:

a. THE AUTHORIZATION IS MADE IN WRITING BY A PERSON(S) DESCRIBED ABOVE AND SUBMITTED TO THE EPD;

b. THE AUTHORIZATION SPECIFIES EITHER AN INDIVIDUAL OR A POSITION HAVING RESPONSIBILITY FOR SPECIFIED OPERATION(S) OF THE REGULATED FACILITY OR ACTIVITY, SUCH AS THE POSITION OF MANAGER, OPERATOR, SUPERINTENDENT, OR POSITION OF EQUIVALENT RESPONSIBILITY OR AN INDIVIDUAL OR POSITION HAVING OVERALL RESPONSIBILITY FOR ENVIRONMENTAL MATTERS FOR THE COMPANY. (A DULY AUTHORIZED REPRESENTATIVE MAY BE EITHER A NAMED INDIVIDUAL OR ANY INDIVIDUAL OCCUPYING A NAMED POSITION); AND

c. *CERTIFICATION.* REPORTS DELINEATED IN PART V.G.2. SHALL BE SIGNED BY THE PERMITTEE OR DULY AUTHORIZED REPRESENTATIVE AND SHALL MAKE THE FOLLOWING CERTIFICATION:

"I CERTIFY UNDER PENALTY OF LAW THAT THIS REPORT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT CERTIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

H. OIL AND HAZARDOUS SUBSTANCE LIABILITY. NOTHING IN THIS PERMIT SHALL BE CONSTRUED TO PRECLUDE THE INSTITUTION OF ANY LEGAL ACTION OR RELIEVE THE PERMITTEE FROM ANY RESPONSIBILITIES, LIABILITIES, OR PENALTIES TO WHICH THE PERMITTEE IS OR MAY BE SUBJECT UNDER THE GEORGIA HAZARDOUS WASTE MANAGEMENT ACT, O.C.G.A § 12-8-60, ET SEQ. OR UNDER CHAPTER 14 OF TITLE 12 OF THE OFFICIAL CODE OF GEORGIA ANNOTATED; NOR IS THE OPERATOR RELIEVED FROM ANY RESPONSIBILITIES, LIABILITIES OR PENALTIES TO WHICH THE PERMITTEE IS OR MAY BE SUBJECT UNDER SECTION 311 OF THE CLEAN WATER ACT OR SECTION 106 OF COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT.

I. PROPERTY RIGHTS. THE ISSUANCE OF THIS PERMIT DOES NOT CONVEY ANY PROPERTY RIGHTS OF ANY SORT, NOR ANY EXCLUSIVE PRIVILEGES, NOR DOES IT AUTHORIZE ANY INJURY TO PRIVATE PROPERTY NOR ANY INVASION OF PERSONAL RIGHTS, NOR ANY INFRINGEMENT OF FEDERAL, STATE OR LOCAL LAWS OR REGULATIONS.

J. SEVERABILITY. THE PROVISIONS OF THIS PERMIT ARE SEVERABLE, AND IF ANY PROVISION OF THIS PERMIT, OR THE APPLICATION OF ANY PROVISION OF THIS PERMIT TO ANY CIRCUMSTANCE, IS HELD INVALID, THE APPLICATION OF SUCH PROVISION TO OTHER CIRCUMSTANCES, AND THE REMAINDER OF THIS PERMIT SHALL NOT BE AFFECTED THEREBY.

K. OTHER APPLICABLE ENVIRONMENTAL REGULATIONS AND LAWS. NOTHING IN THIS PERMIT SHALL BE CONSTRUED TO PRECLUDE THE INSTITUTION OF ANY LEGAL ACTION OR RELIEVE THE PERMITTEE FROM ANY RESPONSIBILITIES, LIABILITIES, OR PENALTIES ESTABLISHED PURSUANT TO ANY APPLICABLE STATE LAW OR REGULATION UNDER AUTHORITY PRESERVED BY SECTION 510 OF THE CLEAN WATER ACT. NOTHING IN THIS PERMIT, UNLESS EXPLICITLY STATED, EXEMPTS THE PERMITTEE FROM COMPLIANCE WITH OTHER APPLICABLE LOCAL, STATE AND FEDERAL ORDINANCES, RULES, REGULATIONS, AND LAWS. FURTHERMORE, IT IS NOT A DEFENSE TO COMPLIANCE WITH THIS PERMIT THAT A LOCAL GOVERNMENT AUTHORITY HAS APPROVED THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN OR FAILED TO TAKE ENFORCEMENT ACTION AGAINST THE PERMITTEE FOR VIOLATIONS OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, OR OTHER PROVISIONS OF THIS PERMIT.

NO CONDITION OF THIS PERMIT SHALL RELEASE THE PERMITTEE FROM ANY RESPONSIBILITY OR REQUIREMENTS UNDER OTHER ENVIRONMENTAL STATUTES OR REGULATIONS.

L. PROPER OPERATION AND MAINTENANCE. THE PERMITTEE SHALL AT ALL TIMES PROPERLY OPERATE AND MAINTAIN ALL FACILITIES AND SYSTEMS OF TREATMENT AND CONTROL (AND RELATED APPURTENANCES) WHICH ARE INSTALLED OR USED BY THE PERMITTEE TO ACHIEVE COMPLIANCE WITH THE CONDITIONS OF THIS PERMIT AND WITH THE REQUIRED PLANS. PROPER OPERATION AND MAINTENANCE ALSO INCLUDES ADEQUATE LABORATORY CONTROLS AND APPROPRIATE QUALITY ASSURANCE PROCEDURES. PROPER OPERATION AND MAINTENANCE REQUIRES THE OPERATION OF BACKUP OR AUXILIARY FACILITIES OR SIMILAR SYSTEMS, INSTALLED BY A PERMITTEE ONLY WHEN NECESSARY TO ACHIEVE COMPLIANCE WITH THE CONDITIONS OF THE PERMIT.

M. INSPECTION AND ENTRY. THE PERMITTEE SHALL ALLOW THE DIRECTOR OR AN AUTHORIZED REPRESENTATIVE OF EPA, EPD OR, IN THE CASE OF A CONSTRUCTION SITE WHICH DISCHARGES THROUGH A MUNICIPAL SEPARATE STORM SEWER SYSTEM, WITH AN NPDES PERMIT, AN AUTHORIZED REPRESENTATIVE OF THE MUNICIPAL OPERATOR OF THE SEPARATE STORM SEWER SYSTEM RECEIVING THE DISCHARGE, UPON THE PRESENTATION OF CREDENTIALS AND OTHER DOCUMENTS AS MAY BE REQUIRED BY LAW, TO:

1. ENTER UPON THE PERMITTEE'S PREMISES WHERE A REGULATED FACILITY OR ACTIVITY IS LOCATED OR CONDUCTED OR WHERE RECORDS MUST BE KEPT UNDER THE CONDITIONS OF THIS PERMIT; AND

2. HAVE ACCESS TO AND COPY AT REASONABLE TIMES, ANY RECORDS THAT MUST BE KEPT UNDER THE CONDITIONS OF THIS PERMIT; AND

3. INSPECT AT REASONABLE TIMES ANY FACILITIES OR EQUIPMENT (INCLUDING MONITORING AND CONTROL EQUIPMENT).

N. PERMIT ACTIONS. THIS PERMIT MAY BE REVOKED AND REISSUED, OR TERMINATED FOR CAUSE INCLUDING BUT NOT LIMITED TO CHANGES IN THE LAW OR REGULATIONS. THE FILING OF A REQUEST BY THE PERMITTEE FOR TERMINATION OF THE PERMIT, OR A NOTIFICATION OF PLANNED CHANGES OR ANTICIPATED NONCOMPLIANCE, DOES NOT STAY ANY PERMIT CONDITION.

PRODUCT SPECIFIC PRACTICES

PETROLEUM BASED PRODUCTS - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS.

PAINTS/FINISHES/SOLVENTS - ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCT WILL NOT BE DISCHARGED TO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT, MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

CONCRETE TRUCK WASHING - NO CONCRETE TRUCKS WILL BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ONSITE.

FERTILIZER/HERBICIDES - THESE PRODUCTS WILL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.

BUILDING MATERIALS - NO BUILDING OR CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ONSITE. ALL SUCH MATERIAL WILL BE DISPOSED OF IN PROPER WASTE DISPOSAL PROCEDURES.

NO WASTE WILL BE DISPOSED OF INTO STORM WATER INLETS OR WATERS OF THE STATE.

WASTE MATERIALS ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL SOLID WASTE MANAGEMENT REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER WILL BE EMPTIED A MINIMUM OF ONCE PER WEEK OR MORE OFTEN IF NECESSARY AND TRASH WILL BE HAULED AS REQUIRED BY LOCAL REGULATIONS. NO CONSTRUCTION WASTE WILL BE BURIED ONSITE. ALL PERSONNEL WILL BE INSTRUCTED ON PROPER PROCEDURES FOR WASTE DISPOSAL. A NOTICE STATING THESE PRACTICES WILL BE POSTED AT THE JOBSITE AND THE CONTRACTOR WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTES ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL, STATE, AND/OR FEDERAL REGULATIONS AND BY THE MANUFACTURER OF SUCH PRODUCTS. THE JOB SITE SUPERINTENDENT, WHO WILL ALSO BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED, WILL INSTRUCT SITE PERSONNEL IN THESE PRACTICES. MATERIAL SAFETY DATA SHEETS (MSDS'S) FOR EACH SUBSTANCE WITH HAZARDOUS PROPERTIES THAT IS USED ON THE JOB SITE WILL BE OBTAINED AND USED FOR THE PROPER MANAGEMENT OF POTENTIAL WASTES THAT MAY RESULT FROM THESE PRODUCTS. AN MSDS WILL BE POSTED IN THE IMMEDIATE AREA WHERE SUCH PRODUCT IS STORED AND/OR USED AND ANOTHER COPY OF EACH MSDS WILL BE MAINTAINED IN THE ESPCP FILE AT THE JOB SITE CONSTRUCTION TRAILER OFFICE. EACH EMPLOYEE WHO MUST HANDLE A SUBSTANCE WITH HAZARDOUS PROPERTIES WILL BE INSTRUCTED ON THE USE OF MSDS SHEETS AND THE SPECIFIC INFORMATION IN THE APPLICABLE MSDS FOR THE PRODUCT HE/SHE IS USING, PARTICULARLY REGARDING SPILL CONTROL TECHNIQUES. THE CONTRACTOR WILL IMPLEMENT THE SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN FOUND WITHIN THIS ESPCP AND WILL TRAIN ALL PERSONNEL IN THE PROPER CLEANUP AND HANDLING OF SPILLED MATERIALS. NO SPILLED HAZARDOUS MATERIALS OR HAZARDOUS WASTES WILL BE ALLOWED TO COME IN CONTACT WITH STORMWATER DISCHARGES. IF SUCH CONTACT OCCURS, THE STORMWATER DISCHARGE WILL BE CONTAINED ON SITE UNTIL APPROPRIATE MEASURES IN COMPLIANCE WITH SATE AND FEDERAL REGULATIONS ARE TAKEN TO DISPOSE OF SUCH CONTAMINATED STORMWATER. IT SHALL BE THE RESPONSIBILITY OF THE JOB SITE SUPERINTENDENT TO PROPERLY TRAIN ALL PERSONNEL IN THE USE OF THE SPCC PLAN.

SANITARY WASTES A MINIMUM OF ONE PORTABLE SANITARY UNIT WILL BE PROVIDED FOR EVERY TEN (10) WORKERS ON THE SITE. ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONE TIME PER WEEK BY A LICENSE PORTABLE FACILITY PROVIDER IN COMPETE COMPLIANCE WITH LOCAL AND STATE REGULATIONS. ALL SANITARY WASTE UNITS WILL BE LOCATED IN ONE AREA WHERE THE LIKELIHOOD OF THE UNIT CONTRIBUTING TO STORM WATER DISCHARGE IS NEGLIGIBLE. ADDITIONAL CONTAINMENT BMP'S MUST BE IMPLEMENTED, SUCH AS GRAVEL BAGS OR SPECIALLY DESIGNED PLASTIC SKID CONTAINERS AROUND THE BASE, TO PREVENT WASTES FROM CONTRIBUTING TO STORM WATER DISCHARGES. THE LOCATION OF SANITARY WASTE UNITS MUST BE IDENTIFIED ON THE EROSION CONTROL PLAN GRADING PHASE, SHEET C-4B. BY THE CONTRACTOR ONCE THE LOCATIONS HAVE BEEN DETERMINED. SANITARY SEWER WILL BE PROVIDED BY MUNICIPAL AUTHORITY/SEPTIC SYSTEM AT THE COMPLETION OF THIS PROJECT.

FOR BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS PRESENT ON THE SITE, PROVIDE COVER (E.G. PLASTIC SHEETING, TEMPORARY ROOFS) TO MINIMIZE THE EXPOSURE OF THESE PRODUCTS TO PRECIPITATION AND TO STORMWATER, OR A SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THESE AREAS. MINIMIZATION OF EXPOSURE IS NOT REQUIRED IN CASES WHERE EXPOSURE TO PRECIPITATION AND STORMWATER WILL NOT RESULT IN A DISCHARGE OF POLLUTANTS, OR WHERE EXPOSURE OF A SPECIFIC MATERIAL OR PRODUCT POSES LITTLE RISK TO STORMWATER CONTAMINATION (SUCH AS FINAL PRODUCTS AND MATERIALS INTENDED FOR OUTDOOR USE).

SPILL CLEANUP AND CONTROL PRACTICES

* LOCAL, STATE AND MANUFACTURER'S RECOMMEND METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO SITE PERSONNEL. MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED

*GREATER THAN 560 GALLONS BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS.
*SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.
*ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS.

*FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.
*FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.
*FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS.
*FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.

4. THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1320 GALLONS OF PETROLEUM IS STORED ONSITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPA. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY THAT LICENSED PROFESSIONAL

DESIGN PROFESSIONAL

MARCUS E SACK, P.E.
M.E. SACK ENGINEERING
MARCUS@MESACK.COM
GSWCC LEVEL II
CERTIFICATION #: 70248
EXPIRES: 06-14-2026

PRIMARY PERMITEE

CITY OF FOLKSTON
CONTACT: LEONARD LLOYD
541 FIRST STREET
FOLKSTON, GA 31537
TEL: (912) 496-2563
EMAIL: penderlloyd@yahoo.com

24-HOUR CONTACT

CITY OF FOLKSTON
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TEL: (912) 496-2563
EMAIL: penderlloyd@yahoo.com

EROSION CONTROL NOTES/STATEMENTS

"EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE."

"THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO LAND-DISTURBING ACTIVITIES."

NON EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25 FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN SHALL INSPECT THE INSTALLATIONS OF BMP'S WITHIN 7 DAYS AFTER INSTALLATION OF INITIAL BMPS.

AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPS WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.

THE CONSTRUCTION ACTIVITY IS WASTEWATER TREATMENT EXPANSION.

PREDEVELOPED CN=72 AND POST DEVELOPED CN=82.

WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

ES&PC PLAN IS IN COMPLIANCE WITH WASTE DISPOSAL,SANITARY SEWER, OR SEPTIC TANK REGULATIONS

BMPS ARE REQUIRED FOR THE REMEDIATION OF ALL PETROLEUM SPILLS AND LEAKS.

SILT FENCING AND PERMANENT SEDIMENT BASIN IS BEING USED TO DETER POLLUTANTS DURING CONSTRUCTION. AFTER CONSTRUCTION STORMWATER WILL BE CONVEYED TO AN EXISTING RETENTION POND WHERE SEDIMENT AND POLLUTANTS WILL SETTLE FOR.

ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

ALL WETLANDS ON SITE AND STATE WATERS WITHIN 200' OF THIS SITE HAVE BEEN DELINEATED.

STORM WATERS ARE INITIALLY RECEIVED BY THE CLAY BRANCH CREEK. FROM THERE THE WATERS DRAIN SPANISH CREEK AND ULTIMATELY THE SAINT MARYS RIVER.

SECONDARY PERMITTEES ARE UNKNOWN AT THIS TIME BUT IT IS THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE APPLICABLE PORTIONS OF ES&PC PLANS TO ANY SECONDARY PERMITTEE PRIOR TO THEIR CONSTRUCTION COMMENCEMENT.

THE NATURE OF THE CONSTRUCTION ACTIVITY WOULD BE CATEGORIZED AS WASTEWATER TREATMENT INFRASTRUCTURE IMPROVEMENTS AND ADDITIONS.

DURING THE CONSTRUCTION SILT FENCE WILL BE USED TO CONTROL THE ESCAPE OF SEDIMENT. DURING THE INTERMEDIATE AND FINAL PHASE, SILT FENCE, AND GRASSING WILL BE USED TO CONTROL THE ESCAPE OF SEDIMENT.

DRAWING COMPLETED BY: OSCAR GARCIA

SECONDARY PERMITTEES

THIS MASTER LIST TO BE COMPLETED, SIGNED, AND KEPT IN THE ON SITE CONSTRUCTION TRAILER.

SECONDARY PERMITTEES SIGN WHEN RECEIVING PLANS. ALL SECONDARY PERMITTEES MUST SUBMIT SECONDARY NOI AT LEAST 14 DAYS PRIOR TO BEGINNING CONSTRUCTION ACTIVITY.

NAME: PHONE:
COMPANY: FAX:
ADDRESS:
ADDRESS:
GSWCC LEVEL 1A CERTIFICATION NO. ____________________ ____________________
SIGNATURE

NAME: PHONE:
COMPANY: FAX:
ADDRESS:
ADDRESS:
GSWCC LEVEL 1A CERTIFICATION NO.____________________ ____________________
SIGNATURE

NAME: PHONE:
COMPANY: FAX:
ADDRESS:
ADDRESS:
GSWCC LEVEL 1A CERTIFICATION NO.____________________ ____________________
SIGNATURE

DESIGN PROFESSIONAL 7-DAY VISIT CERTIFICATION

DATE OF INSPECTION____________________

I CERTIFY THE SITE IS IN COMPLIANCE WITH THE ES&PC PLAN ON THE DATE INSPECTED.

____
GSWCC LEVEL II DESIGN PROFESSIONAL CERTIFICATION #

INSPECTION REVEALED THE FOLLOWING DISCREPANCIES FROM THE ES&PC PLAN:

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NOTE: THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMP's WITHIN 7 DAYS AFTER INSTALLATION.

THESE DISCREPANCIES MUST BE ADDRESSED IMMEDIATELY AND A RE-INSPECTION SCHEDULED. WORK SHALL NOT PROCEED ON THE SITE UNTIL DESIGN PROFESSIONAL CERTIFICATION IS OBTAINED.

DESIGN PROFESSIONAL CERTIFICATION

(1) I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH LAND DISTURBING ACTIVITY WAS PERMITTED. THE PLAN PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORM WATER OUTFALLS. THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR 100002.

(2) I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATION DESCRIBED HERE-IN BY MYSELF OR MY AUTHORIZED AGENT UNDER MY DIRECT SUPERVISION.

(3) I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR THE MONITORING OF: (A) ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES SHOWN ON THE USGS TOPOGRAPHIC MAP AND ALL OTHER FIELD VERIFIED PERENNIAL AND INTERMITTENT STEAMS AND OTHER WATER BODIES, OR (B) WHERE ANY SUCH SPECIFIC IDENTIFIED PERENNIAL OR INTERMITTENT STREAM AND OTHER WATER BODY IS NOT PROPOSED TO BE SAMPLED, I HAVE DETERMINED IN MY PROFESSIONAL JUDGMENT, UTILIZING THE FACTORS REQUIRED IN THE GENERAL NPDES PERMIT NO. GAR 100002, THAT THE INCREASE IN THE TURBIDITY OF EACH SPECIFIC IDENTIFIED SAMPLED RECEIVING WATER WILL BE REPRESENTATIVE OF THE INCREASE IN THE TURBIDITY OF A SPECIFIC IDENTIFIED UN-SAMPLED RECEIVING WATER."

MARCUS E. SACK #: 70248 EXPIRES 06/14/2026

May 1, 2024
DATE

APPENDIX B:NEPHELOMETRIC TURBIDITY UNIT (NTU) TABLES

(SUPPORTING WARM WATER FISHERIES)

SURFACE WATER DRAINAGE AREA, SQUARE MILES

SITE SIZE, ACRES	0-4.99	5-9.99	10-24.99	25-49.99	50-99.99	100-249.99	250-499.99	500+
1.00 - 10.00	75	150	200	400	750	750	750	750
10.01 - 25.00	50	100	100	200	300	500	750	750
25.01 - 50.00	50	50	100	100	200	300	750	750
50.01 - 100.00	50	50	50	100	100	150	300	300
100.01+	50	50	50	50	50	100	200	100

WILL UPSTREAM AND DOWN STREAM SAMPLING BE UTILIZED?

☐ YES
☒ NO

IF MARKED YES THE CHART WILL NOT BE UTILIZED AND THE ALLOWABLE DOWNSTREAM NTU VALUE WILL BE 25 NTU GREATER THAN THE UPSTREAM SAMPLE.

STORM WATER SAMPLES ARE TO BE ANALYZED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 AND THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT. EPA 833-B-92-001."

STORM WATER IS TO BE SAMPLED FOR NEPHELOMETRIC TURBIDITY UNITS (NTU) AT THE OUTFALL LOCATION. A DISCHARGE OF STORM WATER RUNOFF FROM DISTURBED AREAS WHERE BEST MANAGEMENT PRACTICES HAVE NOT BEEN PROPERLY DESIGNED, INSTALLED, AND MAINTAINED SHALL CONSTITUTE A SEPARATE VIOLATION FOR EACH DAY ON WHICH SUCH CONDITION RESULTS IN THE TURBIDITY OF THE DISCHARGE EXCEEDING 75, THE VALUE THAT WAS SELECTED FROM APPENDIX B IN PERMIT NO. GAR 1000002. THE NTU IS BASED UPON THE DISTURBED ACREAGE OF 3.03 ACRES FOR THE PROJECT SITE, THE SURFACE WATER DRAINAGE AREA OF >.01 SQUARE MILES, AND RECEIVING WATER WHICH SUPPORTS WARM WATER FISHERIES.

REVISIONS:	
1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

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Water Pollution Control Plant

ES&CP NOTES

C11

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024

GEORGIA
UNIFORM CODING SYSTEM
FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES
GEORGIA SOIL AND WATER CONSERVATION COMMISSION

STRUCTURAL PRACTICES

CODE	PRACTICE	DESCRIPTION
Cd	CHECKDAM	A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.
Ch	CHANNEL STABILIZATION	Improving, constructing or stabilizing an open channel, existing stream, or ditch.
Co	CONSTRUCTION EXIT	A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Cr	CONSTRUCTION ROAD STABILIZATION	A travelway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on-site vehicle transportation routes.
Dc	STREAM DIVERSION CHANNEL	A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Di	DIVERSION	An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE	A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.
Dn2	PERMANENT DOWNDRAIN STRUCTURE	A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.
Fr	FILTER RING	A temporary stone barrier constructed at storm drain inlets and pond outlets.
Ga	GABION	Rock filter baskets which are hand-placed into position forming soil stabilizing structures.
Gr	GRADE STABILIZATION STRUCTURE	Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.
Lv	LEVEL SPREADER	A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.
Rd	ROCK FILTER DAM	A permanent or temporary stone filter dam installed across small streams or drainageways.
Re	RETAINING WALL	A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.
Rt	RETRO FITTING	A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Sd1	SEDIMENT BARRIER	A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
Sd2	INLET SEDIMENT TRAP	An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Sd3	TEMPORARY SEDIMENT BASIN	A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.
Sd4	TEMPORARY SEDIMENT TRAP	A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.
Sk	FLOATING SURFACE SKIMMER	A buoyant device that releases/drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.
Spb	SEEP BERM	Linear control device constructed as a diversion perpendicular to the direction of runoff to enhance dissipation and infiltration, while creating multiple sedimentation chambers with the employment of intermediate dikes.

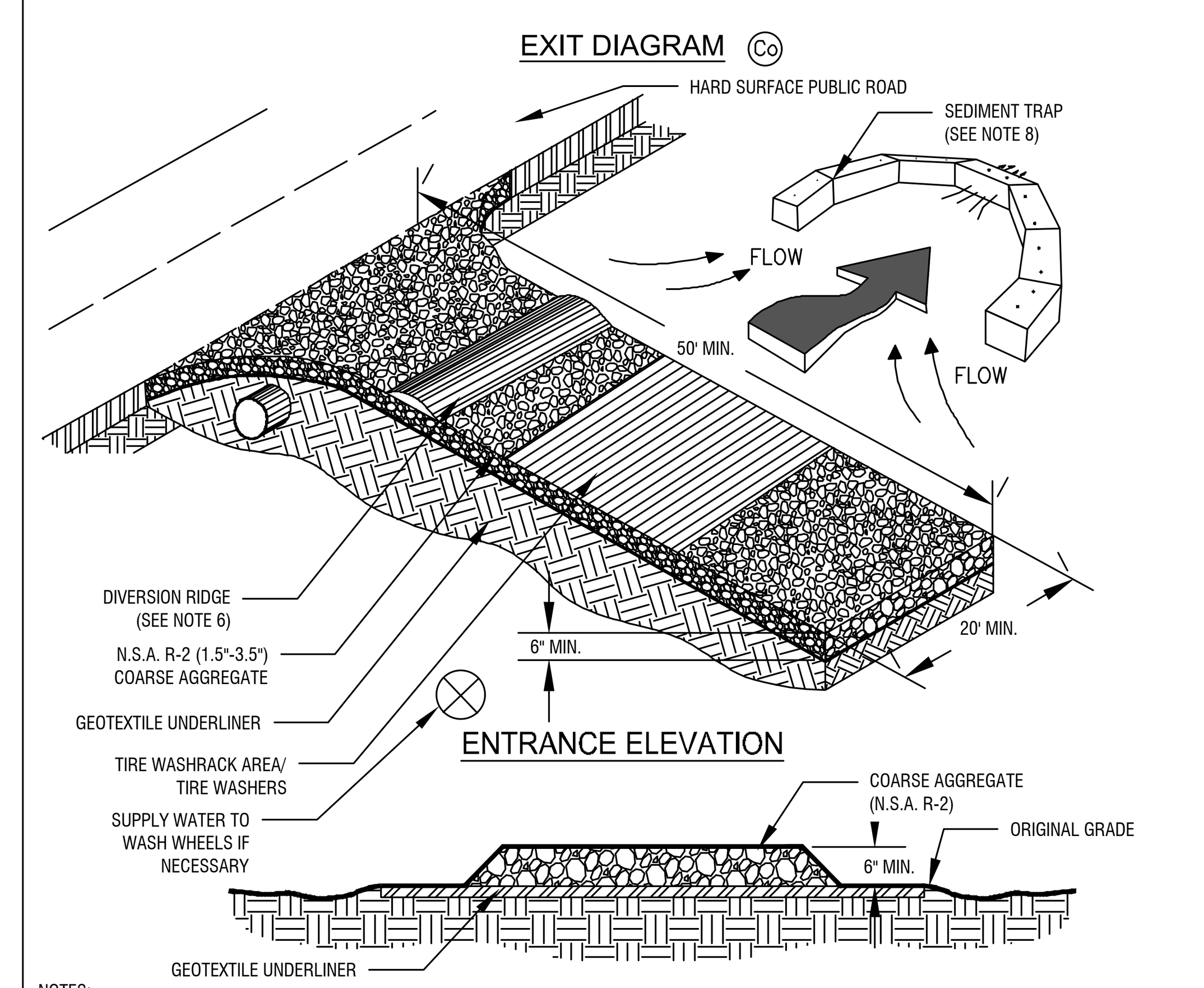
STRUCTURAL PRACTICES

CODE	PRACTICE	DESCRIPTION
Sr	TEMPORARY STREAM CROSSING	A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
St	STORMDRAIN OUTLET PROTECTION	A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Su	SURFACE ROUGHENING	A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Tc	TURBIDITY CURTAIN	A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).
Tp	TOPSOILING	The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
Tr	TREE PROTECTION	To protect desirable trees from injury during construction activity.
Wt	VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL	Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.

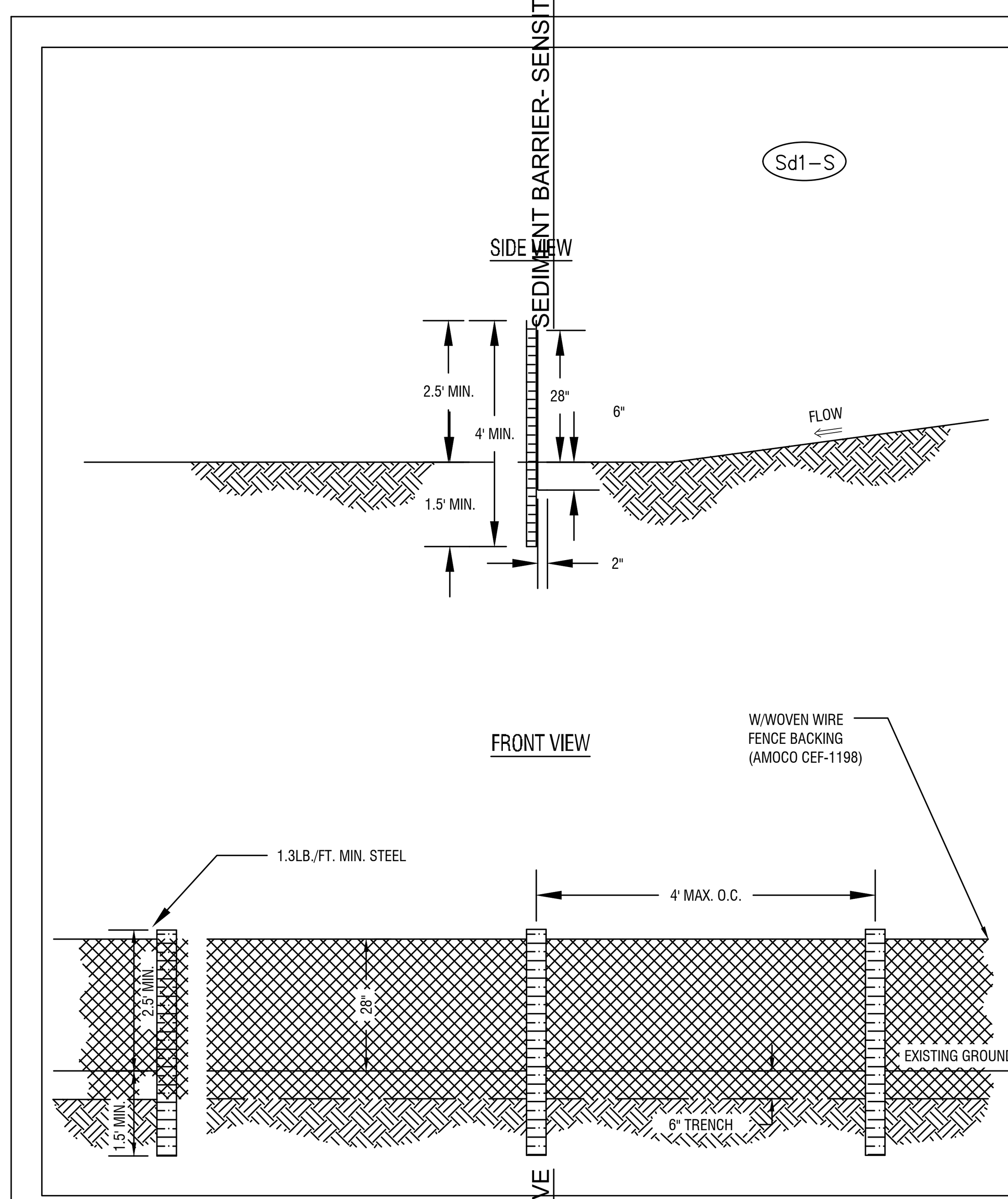
VEGETATIVE PRACTICES

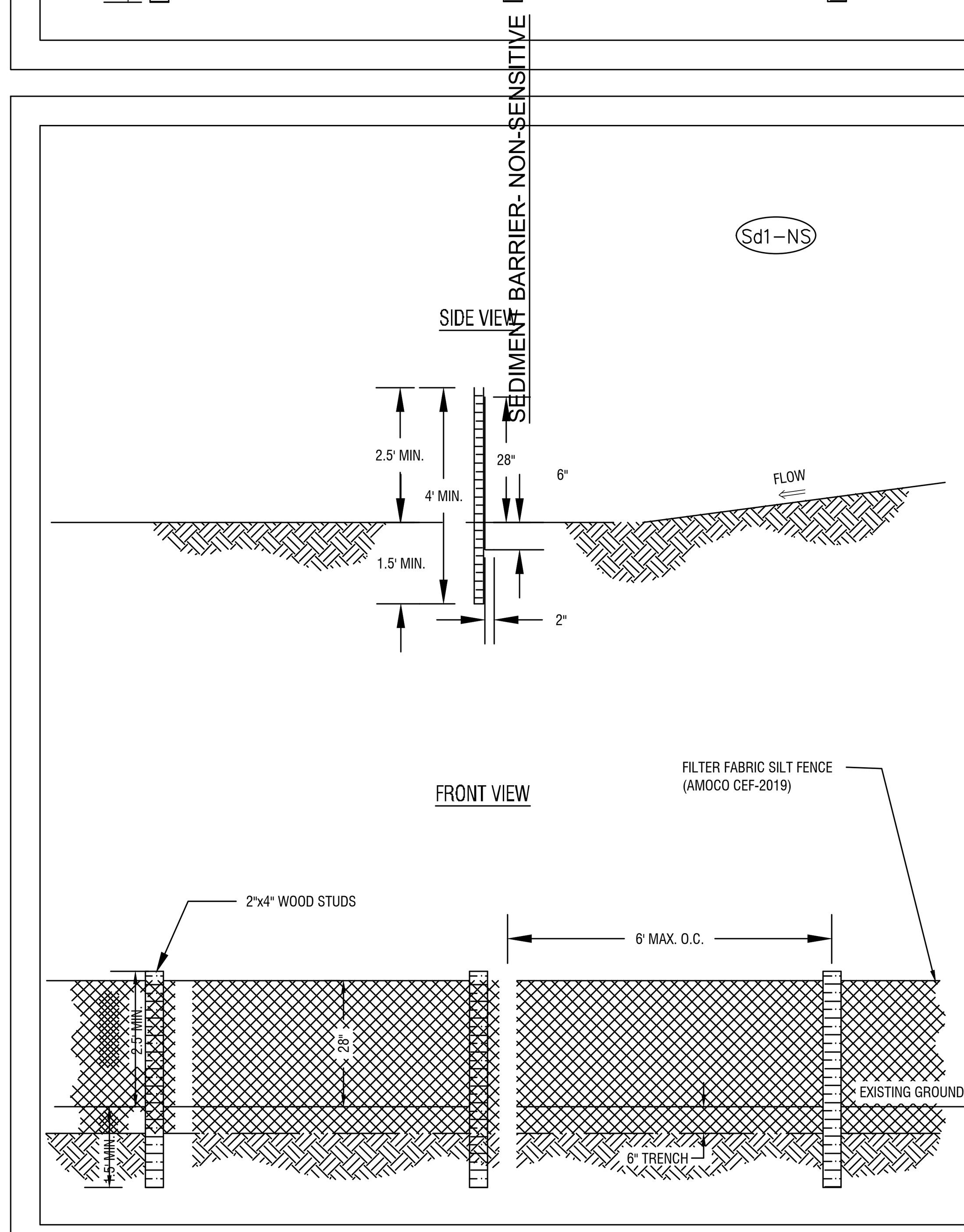
CODE	PRACTICE	DESCRIPTION
Bf	BUFFER ZONE	Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
Cs	COASTAL DUNE STABILIZATION (WITH VEGETATION)	Planting vegetation on dunes that are denuded artificially constructed, or re-nourished.
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SODDING)	A permanent vegetative cover using sods on highly erodable or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS	Controlling surface and air movement of dust on construction site, roadways and similar sites.
Fl-Co	FLOCCULANTS AND COAGULANTS	Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
Sb	STREAMBANK STABILIZATION (USING PERM VEGETATION)	The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
Ss	SLOPE STABILIZATION	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
Tac	TACKIFIERS AND BINDERS	Substance used to anchor straw or hay mulch by causing the organic material to bind together.

GaSWCC (Amended – 2013)



NOTES:
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%..
7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.





Ds1 DISTURBED AREA STABILIZATION (W/MULCHING ONLY)

SPECIFICATIONS
A. For temporary protection of critical areas without seeding.
This standard applies to grades or cleared areas which may be subjected to erosion for 6 months or less, where seeding may not have a suitable growing season to produce an erosion retardant cover, but which can be stabilized with a mulch cover.

Site Preparation
1. Grade, as needed and feasible, to permit the use of equipment for applying and anchoring mulch.
2. Install needed erosion control measures as required such as dikes, diversions, berms, terraces and sediment barriers.
3. As needed and feasible, loosen compact soil to a minimum depth of 3 inches.

Mulching Materials
1. Dry straw or hay - spread at a rate of 2 1/2 tons per acre.
2. Wood waste, chips, sawdust or bark - spread 2 to 3 inches deep (about 6 to 9 tons per acre).
3. Erosion control matting or netting, such as excelsior, jute, textile and plastic matting and netting - applied in accordance with manufacturers recommendations.
4. Cutback asphalt, slow curing - applied at 1200 gallons per acre (or 1/4 gallon per sq. yd.)
5. Polyethylene film - secured over banks or stockpiled soil material for temporary protection.

Applying and Anchoring Mulch
1. Apply straw or hay mulch uniformly by hand or mechanically. Anchor as appropriate and feasible. It may be pressed into the soil with a disk harrow with the disk set straight or with a special "packer disk." The disk may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. the edges of the disk should be dull enough not to cut the mulch but press it into the soil leaving much of it in an erect position.
Straw hay mulch spread with special blower-type equipment may be anchored with emulsified asphalt (Grade AE-5 or SS-1). The asphalt emulsion must be sprayed onto the mulch as it is ejected from the machine. Use 100 gallons of water per
2. Spread wood waste uniformly on slopes that are 3:1 and flatter. No anchoring is needed.
3. Commercial matting and netting. Follow manufacturer's specification included with the material.
4. Apply asphalt so area has uniform appearance. (Note: Use in areas of pedestrian traffic could cause problems or "tracking in" or damage to shoes, clothing, etc.)

B. To conserve moisture and control weeds in nurseries, ornamental beds, around shrubs, and on bar areas on lawns.

Mulching Materials
Use one of the materials given below and apply at thickness indicated.

Material	Depth
1. Grain straw or grass hay	6" to 10"
2. Pine needle	4" to 6"
3. Wood waste (sawdust, bark, chips)	4" to 8"
4. Shredded residues (crops, leaves, etc.)	4" to 8"

5. Completely cover area with black polyethylene film and hold in place by placing soil on the outer edge.

When using organic mulches, apply 20-30 pounds of nitrogen in addition to the normal amount needed for plant growth to offset the tie up of N by decomposition of mulch.

Du DUST CONTROL ON DISTURBED AREAS

PURPOSE
A. To prevent surface and air movement of dust from exposed surfaces.
B. To reduce the presence of airborne substances which may be harmful or injurious to human health, welfare, or safety, or to animals or plant life.

Temporary Methods
1. Irrigation. This is generally done as an emergency treatment. Site is sprinkled with water until the surface is wet.
2. Mulching - See Ds1- Disturbed Area Stabilization (with Mulching only)
3. Vegetative Cover - See Ds2 - Disturbed Area Stabilization

Permanent Methods
1. Permanent Vegetation - See Ds3 - Disturbed Area Stabilization (with Permanent Vegetation)

Ds4 DISTURBED AREA STABILIZATION (W/SODDING)

SPECIFICATIONS
Establishing permanent vegetative using sods on highly erodible or critically eroded lands.

Site Preparation
1. Bring soil surface to final grade. Clear surface of trash, woody debris, stones and clods larger than 1". Apply sod to soil surfaces only and not frozen surfaces, or gravel type soils. Topsoil properly applied will help guarantee a stand. Don't use topsoil recently treated with herbicides or soil sterilants.
2. Mix fertilizer into surface. Fertilizer based on soil tests. Agriculture lime should be applied based on soil tests or at a rate of 1 to 2 tons per acre.

Applying Sods
1. Sod should be machine cut and contain 3/4" (+ or - 1/4") of soil, not including shoots or thatch.
2. Sod should be cut to the desired size within + or - 5%. Torn or uneven pads should be rejected.
3. Sod should be cut and installed within 36 hours of digging.
4. Avoid planting when subject to frost heave or hot weather if irrigation is not available.

Ds2 SPECIES AND PLANTING SCHEDULE

SPECIES	BROADCAST RATES 1* PER ACRE	PLS 2* PER 1000 SF	PLANTING DATES BY RESOURCE AREAS* RESOURCE AREA 3*	REMARKS
RYEGRASS, ANNUAL ALONE	40 lbs	0.9 lbs	M - L P C	227,000 SEED PER POUND. DENSE COVER. VERY COMPETITIVE AND IS NOT BE USED IN MIXTURES.

Ds3 SPECIES AND PLANTING SCHEDULE

SPECIES	BROADCAST RATES 1* PER ACRE	PLS 2* PER 1000 SF	PLANTING DATES BY RESOURCE AREAS* RESOURCE AREA 3*	REMARKS
BERMUDA, COMMON HULLED SEED ALONE WITH OTHER PERENNIALS	 10 lbs 6 lbs	 0.2 lbs 0.1 lbs	 P C	1,787,000 SEED PER POUND. QUICK COVER. LOW GROWING AND SOD FORMING. FULL SUN. GOOD FOR ATHLETIC FIELDS.
BERMUDA, COMMON UNHULLED SEED ALONE WITH OTHER PERENNIALS			 P C	PLANT WITH WINTER ANNUALS. PLANT WITH TALL FESCUE.
BERMUDA, SPRIGS COASTAL, COMMON, MIDLAND, OR TIFT 44 COASTAL, COMMON, TIFT 44 TIFT 78	40 CU FT OR SOD PLUGS 3' X 3'	0.9 CU FT	M-L P C C	A CUBIC FT. CONTAINS APPROXIMATLY 650 SPRIGS. A BUSHEL CONTAINS 1.25 C.F. OR APPROXIMATLY 800 SPRIGS. SAME AS ABOVE. SOUTHERN COASTAL PLAIN ONLY

FERTILIZER REQUIREMENTS

TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT	RATE	N TOP DRESSING RATE	LIME APPLICATION
Cool Season Grasses	First Second Maintenance	6 - 12 - 12 6 - 12 - 12 10 - 12 - 12	1500 lbs/ac 1000 lbs/ac 400 lbs/ac	50 - 100 lbs/ac 1*2* -- 30	2000 lbs/ac
Cool Season Grasses and Legumes	First Second Maintenance	6 - 12 - 12 0 - 10 - 10 0 - 10 - 10	1500 lbs/ac 1000 lbs/ac 400 lbs/ac	0 - 50 lbs/ac 1* -- --	2000 lbs/ac
Ground Covers	First Second Maintenance	10 - 10 - 10 10 - 10 - 10 10 - 10 - 10	1500 lbs/ac 1000 lbs/ac 400 lbs/ac	-- -- --	--
Pine Seedings	First	20 - 10 - 5	one 21-gram pallet per seeding placed in the closing hole	--	--
Shrub Leapedeza	First Maintenance	0 - 10 - 10 0 - 10 - 10	700 lbs/ac 700 lbs/ac 4*	--	--
Temporary Cover Crops Seeded Clone	First	10 - 10 - 10	500 lbs/ac	30 lbs/ac 5*	--
Warm Season Grasses	First Second Maintenance	6 - 12 - 12 6 - 12 - 12 10 - 10 - 12	1500 lbs/ac 800 lbs/ac 400 lbs/ac	50 - 100 lbs/ac 2*6* 50 - 100 lbs/ac 2*6* 30 lbs/ac	2000 lbs/ac
Warm Season Grasses and Legumes	First Second Maintenance	6 - 12 - 12 0 - 10 - 12 0 - 10 - 12	1500 lbs/ac 1000 lbs/ac 400 lbs/ac	50 lbs/ac 6*	2000 lbs/ac

1. Apply in spring following seeding.
2. Apply in split applications when high rates are used.
3. Apply in 3 split applications.
4. Apply when plants are pruned.
5. Apply to grass species only.
6. Apply when plants grow to height of 2 to 4 inches.

SOD PLANTING REQUIREMENTS

GRASS	VARIETIES	RESOURCE AREA	GROWING SEASON
1. BERMUDAGRASS	Common Tifway Tifgreen Tiflawn	M-L,P,C P,C P,C P,C	Warm Weather
2. TALL FESCUE	Kentucky 31	M-L, P	Cool Weather

FERTILIZER REQUIREMENTS FOR SOD

TYPES OF SPECIES	PLANTING YEAR	FERTILIZER (N-P-K)	RATE (LBS.ACRE)	NIRTOGEN TOP DRESSING RATE (LBS./ACRE)
COOL SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 1000 400	50-1000 --- 30
WARM SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 800400	50-1000 50-100 30

MULCHING RATES FOR PERMANENT COVER

TYPE OF MULCH	RATE PER ACRE	NOTES
Dry straw	2 Tons	Free of weed seeds
Dry hay	2.5 Tons	Free of weed seeds
Wood Cellulose	500 lbs. 1000 lbs.	Slope less than 3/4:1 Slope greater than 3/4:1
Wood Pulp Fiber	500 lbs. 1000 lbs.	Slope less than 3/4:1 Slope greater than 3/4:1
Sericea Lespedeza Hay	3 Tons	Containing mature seeds
Pine Straw or Bark	3 inches thick	For bedding Not for seeding
Bituminous treated roving	See DOT specs.	Use on slopes, in ditches, or dry waterways.

1. Mulching is not required for temporary grassing.
2. Mulch shall be applied to cover 75% of the soil surface.
3. Sod does not require mulch.

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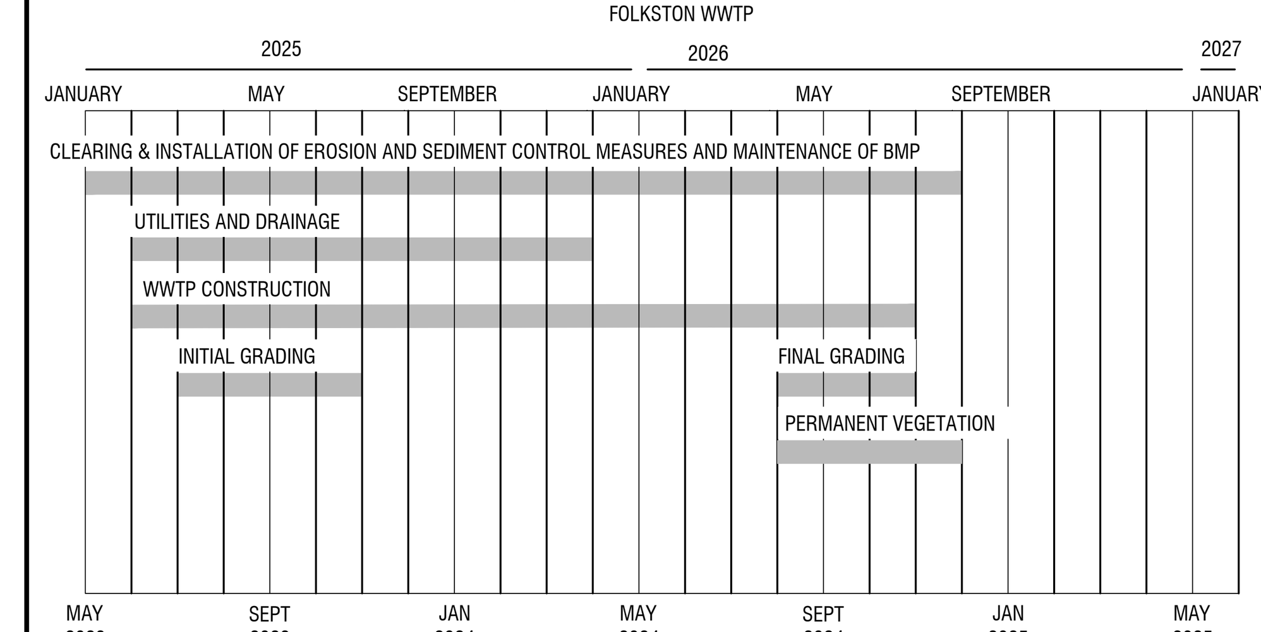
CONSTRUCTION SCHEDULE
FOLKSTON WWTP



DRAWING COMPLETED BY: OSCAR GARCIA

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

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Water Pollution Control Plant

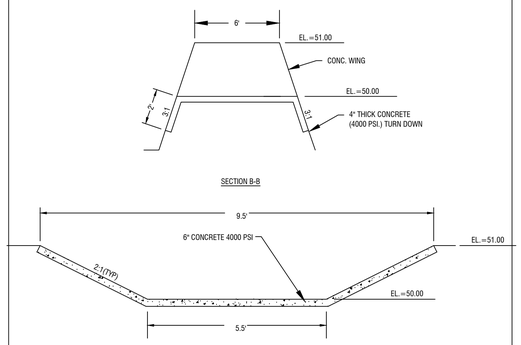
ES&CP DETAILS

C12

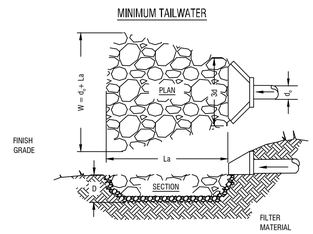
FILE NO: 2013-36.1

PLOT DATE: May 1, 2024

OUTLET CONTROL STRUCTURE



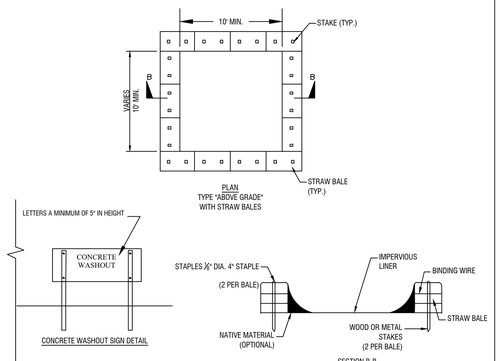
STORM DRAIN OUTLET PROTECTION (St)



NOTES:

1. REFER TO STORM DRAIN OUTLET PROTECTION CHART FOR DIMENSIONING INFORMATION.
2. d_o = DIAMETER OF OUTLET PIPE
3. d50 = MIN. STONE DIAMETER
4. d_{max} = MAX. STONE DIA. = (1.5 x d50)
5. D = 1.5 TIMES THE MAXIMUM STONE DIAMETER, BUT NOT LESS THAN 6".
6. EXTEND THE RIPRAP APRON UP THE CHANNEL BANK TO THE TOP OF THE CHANNEL BANK.
7. A FILTER BLANKET OR FILTER FABRIC SHALL BE INSTALLED BETWEEN THE RIPRAP AND THE SOIL FOUNDATION. FILTER BLANKET SHALL CONSIST OF A GRADED GRAVEL LAYER OR SYNTHETIC FILTER CLOTH. FILTER BLANKET IS INTENDED TO PREVENT SOIL MOVEMENT THROUGH THE OPENINGS IN RIPRAP.
8. RIPRAP APRON AND FILTER MATERIAL SHALL BE WELL GRADED, LEVEL, AND EXTENDED TO ACHIEVE MAX. STABILITY.

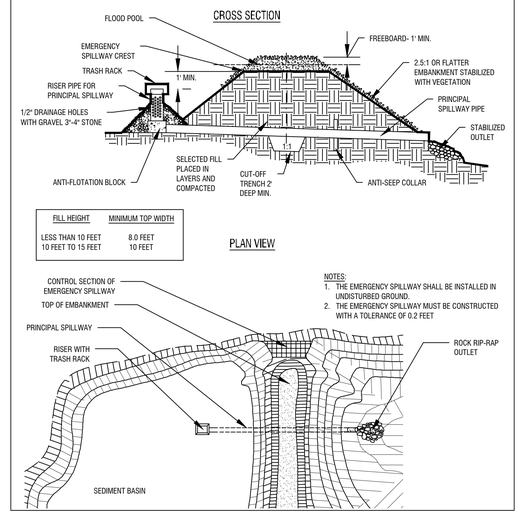
CONCRETE WASHOUT



NOTES:

1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. INSTALL CONCRETE WASHOUT SIGN (24"X24", MINIMUM) WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. TEMPORARY WASHOUT AREA MUST BE AT LEAST 50' FROM A STORM DRAIN, CREEK BANK OR PERIMETER CONTROL.
4. CLEAN OUT CONCRETE WASHOUT AREA WHEN 50% FULL.
5. THE KEY TO FUNCTIONAL CONCRETE WASHOUTS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR CLEAN OUT.
6. SILT FENCE SHALL BE INSTALLED AROUND PERIMETER OF CONCRETE WASHOUT AREA EXCEPT FOR THE SIDE UTILIZED FOR ACCESSING THE WASHOUT.
7. A ROCK CONSTRUCTION ENTRANCE MAY BE NECESSARY ALONG ONE SIDE OF THE WASHOUT TO PROVIDE VEHICLE ACCESS.

TEMPORARY SEDIMENT BASIN (Sd3)

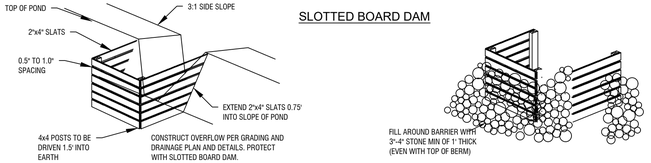


FILL HEIGHT	MINIMUM TOP WIDTH
LESS THAN 10 FEET	8.0 FEET
10 FEET TO 15 FEET	10 FEET

NOTES:

1. THE EMERGENCY SPILLWAY SHALL BE INSTALLED IN UNDISTURBED GROUND.
2. THE EMERGENCY SPILLWAY MUST BE CONSTRUCTED WITH A TOLERANCE OF 0.2 FEET

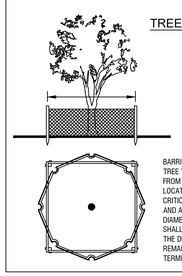
SLOTTED BOARD DAM (RT-B)



NOTES:

1. REFER TO APPROPRIATE CONSTRUCTION DETAIL FOR CONCRETE APRONS.
2. SLOTTED BOARD DAM SHALL BE INSTALLED WITH MINIMUM SIZE 4" X 4" POSTS.
3. BOARDS SHOULD HAVE A 0.5" TO 1"SPACE BETWEEN THEM AND MUST HAVE GROUND ON BOTTOM OF CONCRETE CONTACT.
4. MINIMUM SIZE 3-4" STONE FILTER SHALL BE INSTALLED AROUND THE UPSTREAM SIDE OF THE BOARD DAM.
5. POSTS FOR THE SILT CONTROL GATE SHALL BE 4 X 4" TREATED LUMBER AND FACE BOARDS SHALL BE 2" X 6" TREATED LUMBER WITH NO SPACING ALLOWED BETWEEN BOARDS.
6. AN APPROVED SILT FENCE FABRIC SHALL BE SECURELY FASTENED TO THE FRONT OF THE STRUCTURE USING STABLES (BE SURE TO HAVE SILT FENCE ON UPSTREAM SIDE OF STRUCTURE).
7. SEDIMENT SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN IT REACHES ONE-THIRD THE HEIGHT OF THE SILT GATE. FILTER FABRIC SHALL BE REPLACED WHEN DAMAGED AND/OR DETERIORATED.
8. ALL DISTURBED AREAS SHALL BE VEGETATED IMMEDIATELY AFTER CONSTRUCTION WITH PERMANENT VEGETATION.

TREE PROTECTION (Tr)



FOR ADDED PROTECTION
-PROVIDE 4" DEEP ORGANIC MULCH OVER ANY UNPROTECTED ROOT ZONE.
-PROVIDE TEMPORARY IRRIGATION WHERE PRACTICAL AND FEASIBLE.

BARRIER CONSTRUCTED TO PROTECT TREE TRUNK, CROWN, AND ROOT SYSTEM FROM INJURY. BARRIERS SHALL BE LOCATED AT THE LIMITS OF THE TREE'S CRITICAL ROOT ZONE (A RADIUS OF ONE AND A HALF FEET PER INCH OF THE TREE'S DIAMETER AT BREAST HEIGHT). BARRIER SHALL BE KEPT IN GOOD CONDITION FOR THE DURATION OF THE PROJECT AND IS TO REMAIN IN PLACE UNTIL THE NOTICE OF TERMINATION.

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: OSCAR GARCIA

DESIGN PROFESSIONAL:
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GEORGIA REGISTERED No. 38556 PROFESSIONAL ENGINEER MARCUS E. SACK

DATE: May 1, 2024

M.E. SACK ENGINEERING 19 00

MUNICIPALITY:
CITY OF FOLKSTON

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CHARLTON

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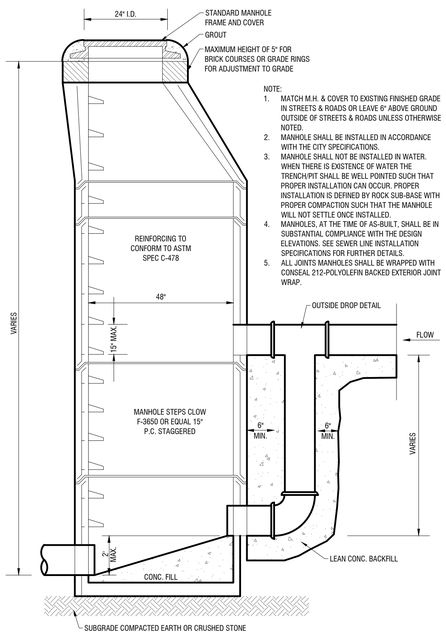
Water Pollution Control Plant

ES&CP DETAILS

C13

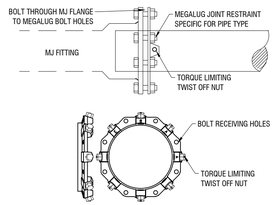
FILE NO: 2013-36.1

PLOT DATE: May 1, 2024

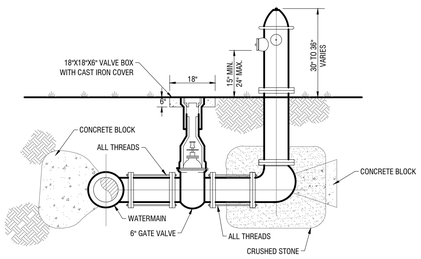


NOTE:
1. MATCH M.H. & COVER TO EXISTING FINISHED GRADE IN STREETS & ROADS OR LEAVE 6" ABOVE GROUND OUTSIDE OF STREETS & ROADS UNLESS OTHERWISE NOTED.
2. MANHOLE SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY SPECIFICATIONS.
3. MANHOLE SHALL NOT BE INSTALLED IN WATER. WHEN THERE IS EXISTENCE OF WATER THE TRENCH/PIT SHALL BE WELL POINTED SUCH THAT PROPER INSTALLATION CAN OCCUR. PROPER INSTALLATION IS DEFINED BY ROCK SUB-BASE WITH PROPER COMPACTION SUCH THAT THE MANHOLE WILL NOT SETTLE ONCE INSTALLED.
4. MANHOLES, AT THE TIME OF AS-BUILT, SHALL BE IN SUBSTANTIAL COMPLIANCE WITH THE DESIGN ELEVATIONS. SEE SEWER LINE INSTALLATION SPECIFICATIONS FOR FURTHER DETAILS.
5. ALL JOINTS MANHOLES SHALL BE WRAPPED WITH CONSEAL 212-POLYOLEFIN BACKED EXTERIOR JOINT WRAP.

PRECAST CONCRETE MANHOLE
N.T.S.



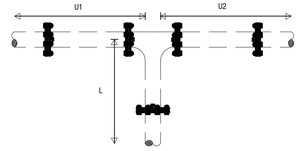
TYPICAL JOINT RESTRAINT DETAIL
N.T.S.



FIRE HYDRANT DETAIL
N.T.S.

DUCTILE IRON LINE							
TEE / Ur	5'-10'	11'-20'	21'-35'	36'-50	50'-75'	75'-100'
4X4	23	15	2	*	*	*
6X4	21	9	*	*	*	*
6X6	35	27	14	*	*	*
8X4	18	3	*	*	*	*
8X6	33	23	5	*	*	*
8X8	47	39	26	6	*	*
10X4	16	*	*	*	*	*
10X6	31	18	*	*	*	*
10X8	46	36	19	*	*	*
10X10	57	49	36	17	*	*
12X4	13	*	*	*	*	*
12X6	30	14	*	*	*	*
12X8	44	32	13	*	*	*
12X10	56	47	31	7	*	*
12X12	68	60	47	28	*	*
16X6	26	4	*	*	*	*
16X8	41	25	*	*	*	*
16X10	54	41	20	*	*	*
16X12	66	56	38	*	*	*
16X16	89	81	38	*	*	*
20X6	22	*	*	*	*	*
20X8	38	18	*	*	*	*
20X10	51	35	8	*	*	*
20X12	64	51	28	*	*	*
20X16	87	77	60	35	10	*
20X20	106	100	87	67	48	*
24X6	18	*	*	*	*	*
24X8	35	10	*	*	*	*
24X10	49	29	*	*	*	*
24X12	62	45	17	*	*	*
24X16	86	73	53	22	*	*
24X20	107	97	81	57	33	*
24X24	127	119	106	56	66	3

MINIMUM RESTRAINED LENGHT (L)
* RESTRAINT AT TEE ONLY



NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. U1 AND U2 = UNINTERRUPTED STRAIGHT RUNS OF PIPE IN EACH DIRECTION.
4. Ur = THE SMALLER OF U1 AND U2
5. L = MINIMUM RESTRAINED LENGTH ALONG THE BRANCH.
6. WHERE Ur IS LESS THAN 9', RESTRAINT TEE AS A 90° HORIZONTAL BEND.

PVC LINE				
TEE / Ur	5'-10'	11'-20'	21'-35'	> 35'
4X4	43	28	4	*
6X4	38	17	*	*
6X6	64	49	25	*
8X4	34	6	*	*
8X6	61	42	10	*
8X8	87	72	48	12
10X4	29	*	*	*
10X6	58	34	*	*
10X8	84	66	35	*
10X10	106	91	67	31
12X4	24	*	*	*
12X6	54	26	*	*
12X8	82	60	23	*
12X10	104	86	57	13
12X12	126	112	87	51

TEE RESTRAINT

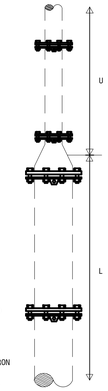
	DUCTILE IRON		PVC LINE	
REDUCER	U	L	U	L
6X4	30	21	56	38
8X4	72	38	134	69
8X6	29	22	53	40
10X4	123	51	227	94
10X6	63	38	117	71
10X8	26	21	49	39
12X4	186	64	343	118
12X6	106	53	196	99
12X8	59	39	109	72
12X10	26	21	48	40
16X6	214	79		
16X8	141	68		
16X10	91	56		
16X12	54	40		
20X10	174	84		
20X12	123	71		
20X16	51	40		
24X12	207	97		
24X16	113	72		
24X20	48	39		

U = MINIMUM UNINTERRUPTED STRAIGHT RUN PIPE ON SMALL SIDE OF REDUCER.

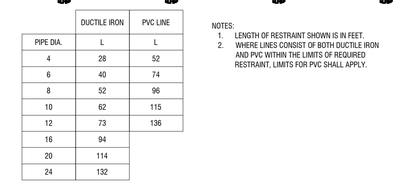
L = MINIMUM RESTRAINED LENGTH.

* WHERE "U" IS NOT MET, PIPE ON LARGE SIDE OF REDUCER SHALL BE RESTRAINED FOR A MINIMUM OF "L" FEET.

NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.



REDUCER RESTRAINT



	DUCTILE IRON	PVC LINE
PIPE DIA.	L	L
4	28	52
6	40	74
8	52	96
10	62	115
12	73	136
16	94	
20	114	
24	132	

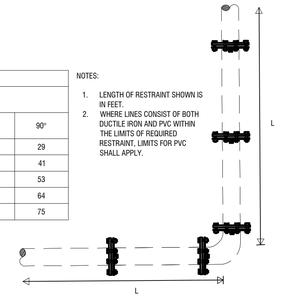
NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.

DEAD END RESTRAINT

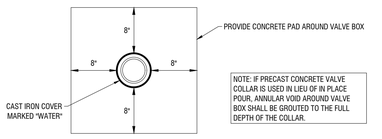
	DUCTILE IRON				PVC LINE			
	BEND ANGLE				BEND ANGLE			
PIPE DIAMETER	11 1/4°	22 1/2°	45°	90°	11 1/4°	22 1/2°	45°	90°
4	2	4	8	20	3	6	12	29
6	3	6	12	28	4	8	17	41
8	4	7	15	36	5	11	22	53
10	4	9	18	43	6	13	26	64
12	5	10	21	51	7	15	31	75
16	6	13	27	65				
20	8	16	33	79				
24	9	18	38	92				

RESTRAINED JOINTS DETAILS
N.T.S.

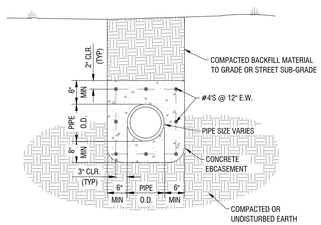
NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.



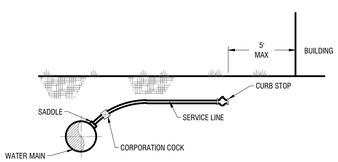
HORIZONTAL BEND RESTRAINT



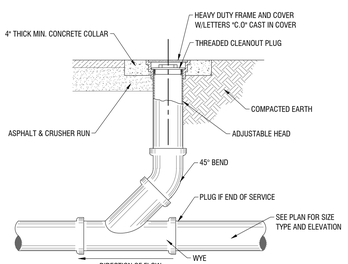
VALVE BOX DETAIL
N.T.S.



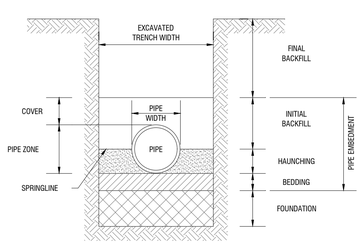
CONCRETE ENCASEMENT DETAIL
N.T.S.



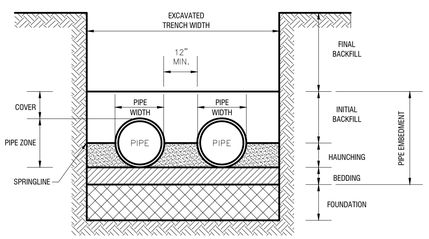
WATER SERVICE DETAIL
N.T.S.



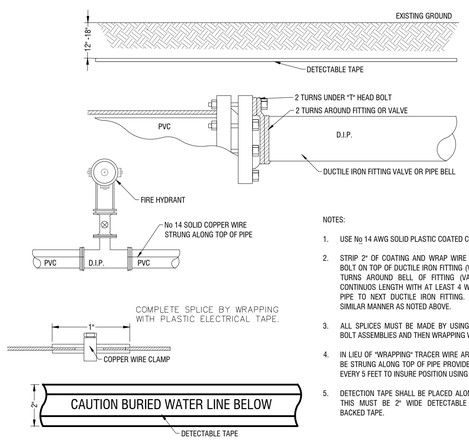
CLEANOUT DETAIL
N.T.S.



PIPE BEDDING DETAIL
N.T.S.

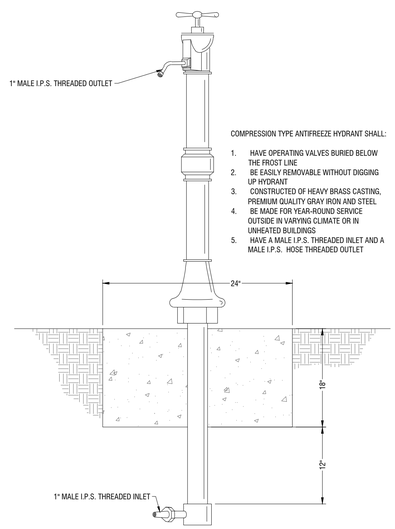


PARALLEL FORCEMAIN PIPE BEDDING DETAIL
N.T.S.



NOTES:
1. USE No 14 AWG SOLID PLASTIC COATED COPPER WIRE.
2. STRIP 2" OF COATING AND WRAP WIRE 2 TURNS UNDER "T" HEAD BOLT ON TOP OF DUCTILE IRON FITTING (VALVE). NEXT WRAP WIRE 2 TURNS AROUND BELL OF FITTING (VALVE) AND WIND WITH A CONTINUOS LENGTH WITH AT LEAST 4 WRAPS PER LENGTH OF PVC PIPE TO NEXT DUCTILE IRON FITTING. TERMINATE AT FITTING IN SIMILAR MANNER AS NOTED ABOVE.
3. ALL SPLICES MUST BE MADE BY USING COPPER WIRE SPLICE "U" BOLT ASSEMBLIES AND THEN WRAPPING WITH ELECTRICAL TAPE.
4. IN LIEU OF "WRAPPING" TRACER WIRE AROUND PVC PIPE, WIRE MAY BE STRUNG ALONG TOP OF PIPE PROVIDED IT IS TAPED TO THE PIPE EVERY 5 FEET TO INSURE POSITION USING BACKFILL.
5. DETECTION TAPE SHALL BE PLACED ALONG ALL PVC WATER MAINS. THIS MUST BE 2" WIDE DETECTABLE ALUMINUM FOIL PLASTIC BACKED TAPE.

TRACER WIRE AND DETECTABLE TAPE INSTALLATION DETAIL FOR PVC PIPE
N.T.S.



COMPRESSION TYPE ANTIFREEZE HYDRANT SHALL:
1. HAVE OPERATING VALVES BURIED BELOW THE FROST LINE
2. BE EASILY REMOVABLE WITHOUT DIGGING UP HYDRANT
3. CONSTRUCTED OF HEAVY BRASS CASTING, PREMIUM QUALITY GRAY IRON AND STEEL
4. BE MADE FOR YEAR-ROUND SERVICE OUTSIDE IN VARYING CLIMATE OR IN UNHEATED BUILDINGS
5. HAVE A MALE I.P.S. THREADED INLET AND A MALE I.P.S. HOSE THREADED OUTLET

COMPRESSION TYPE ANTIFREEZE HYDRANT DETAIL
N.T.S.

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: OSCAR GARCIA

DESIGN PROFESSIONAL:
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GEORGIA REGISTERED No. 33555 PROFESSIONAL ENGINEER MARCUS E. SACK

DATE: May 1, 2024

M.E. SACK ENGINEERING 19 00

MUNICIPALITY:
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CHARLTON

OWNER:
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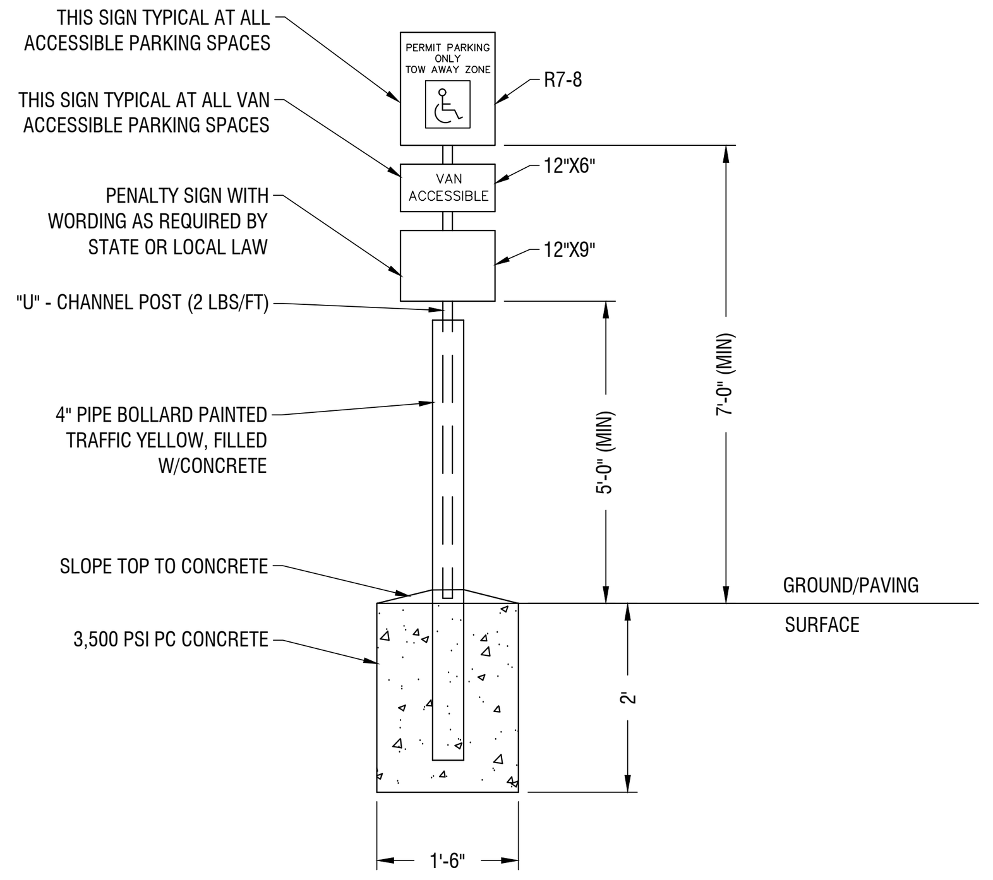
Water Pollution Control Plant

GENERAL DETAILS

C14

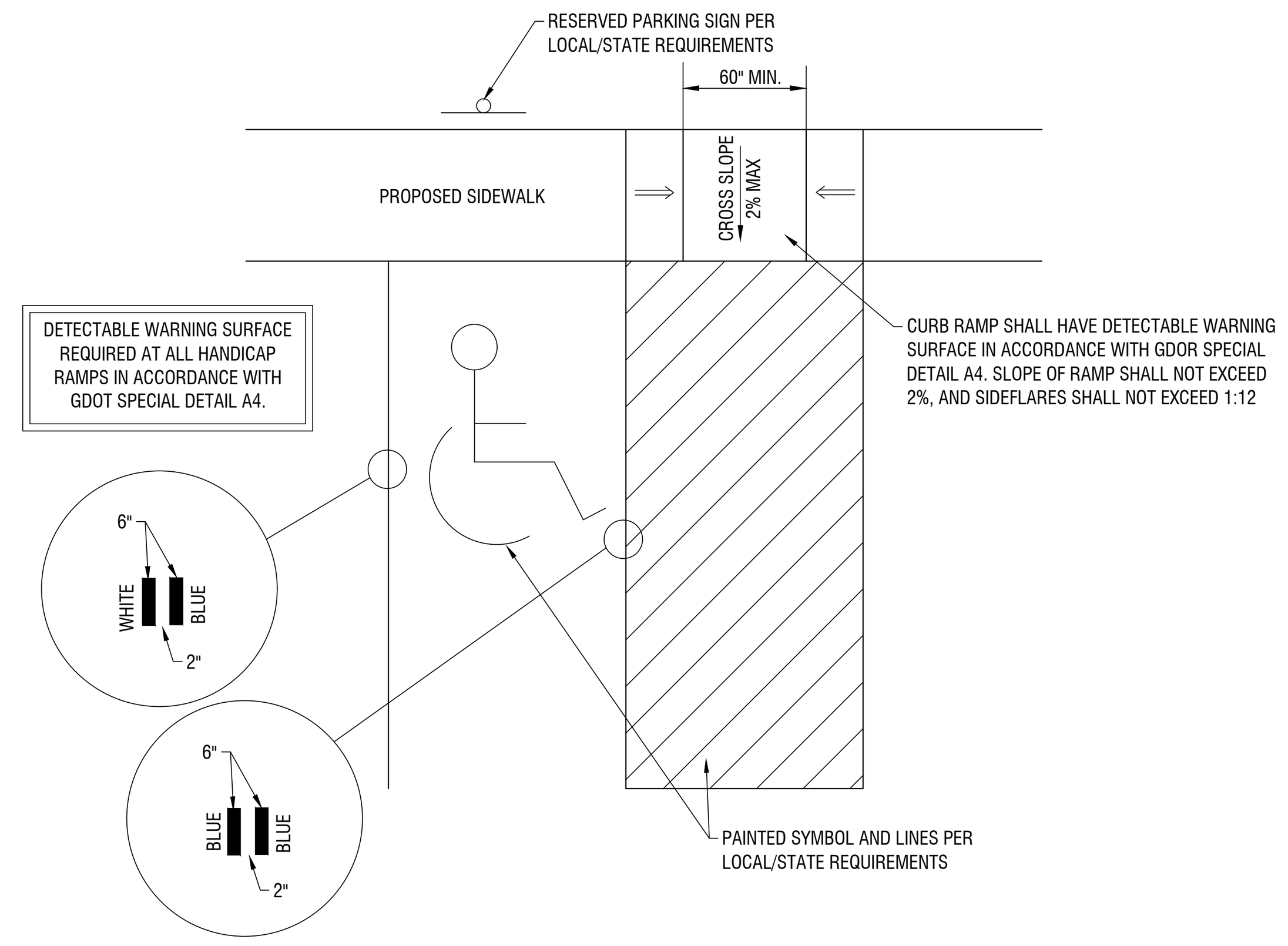
FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



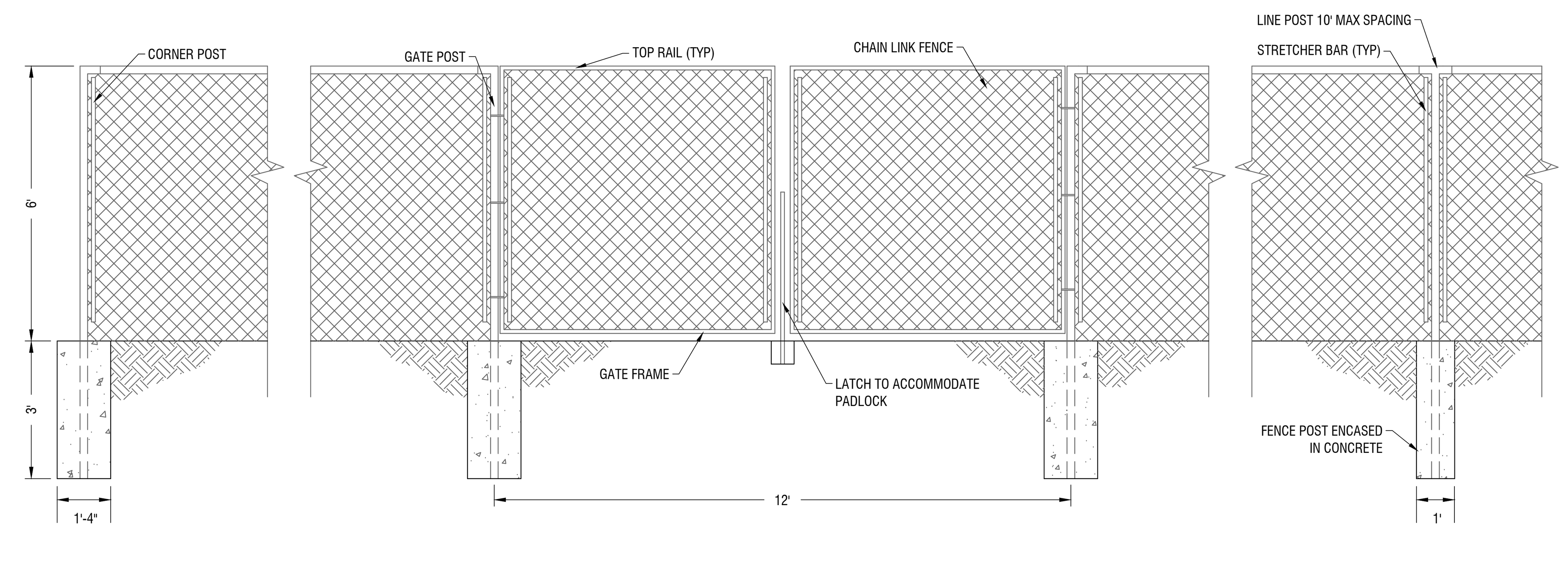
ACCESSIBLE PARKING SIGN

N.T.S.



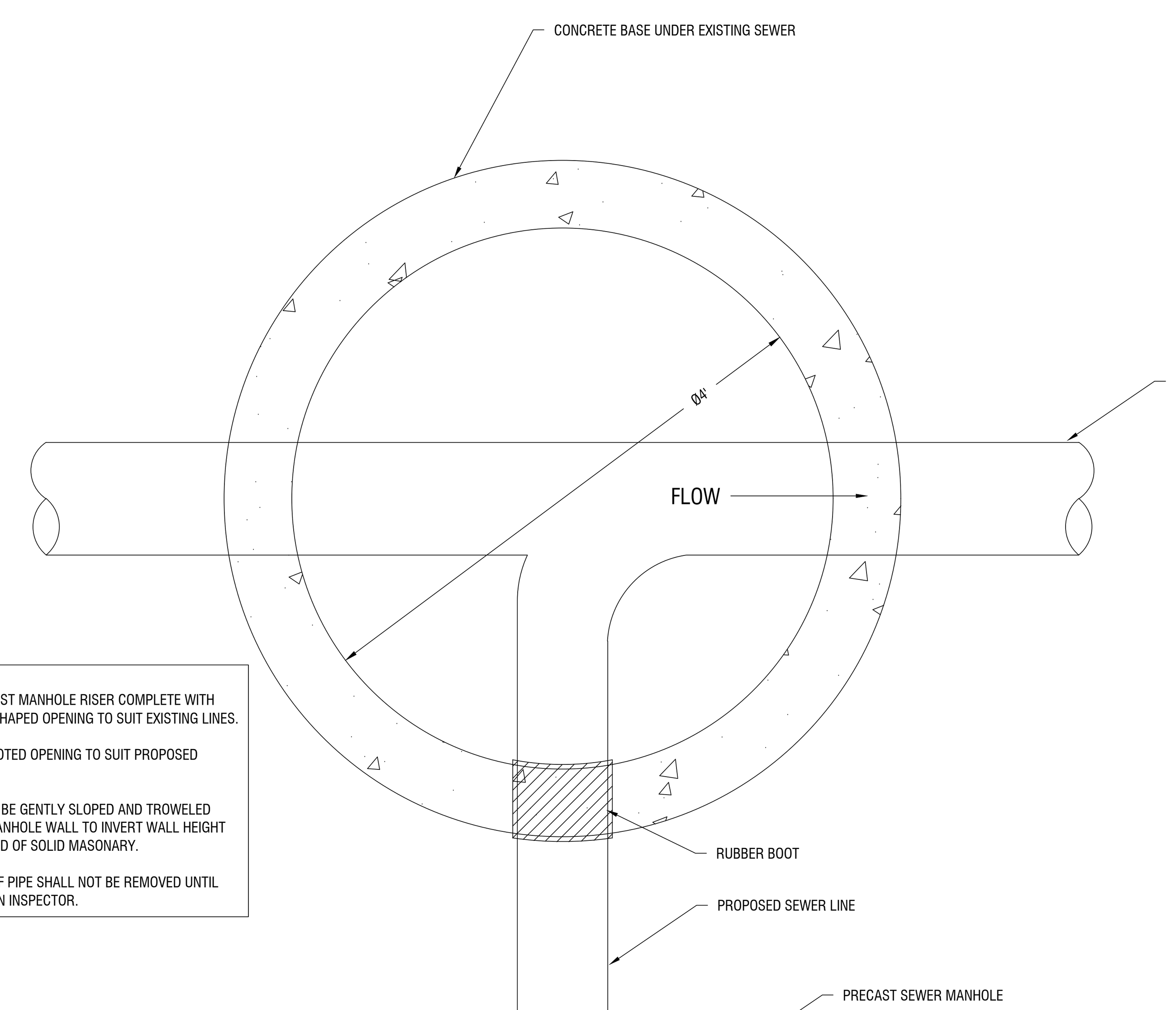
HANDICAP PARKING AND RAMP DETAIL

N.T.S.



TYPICAL FENCE DETAIL

N.T.S.

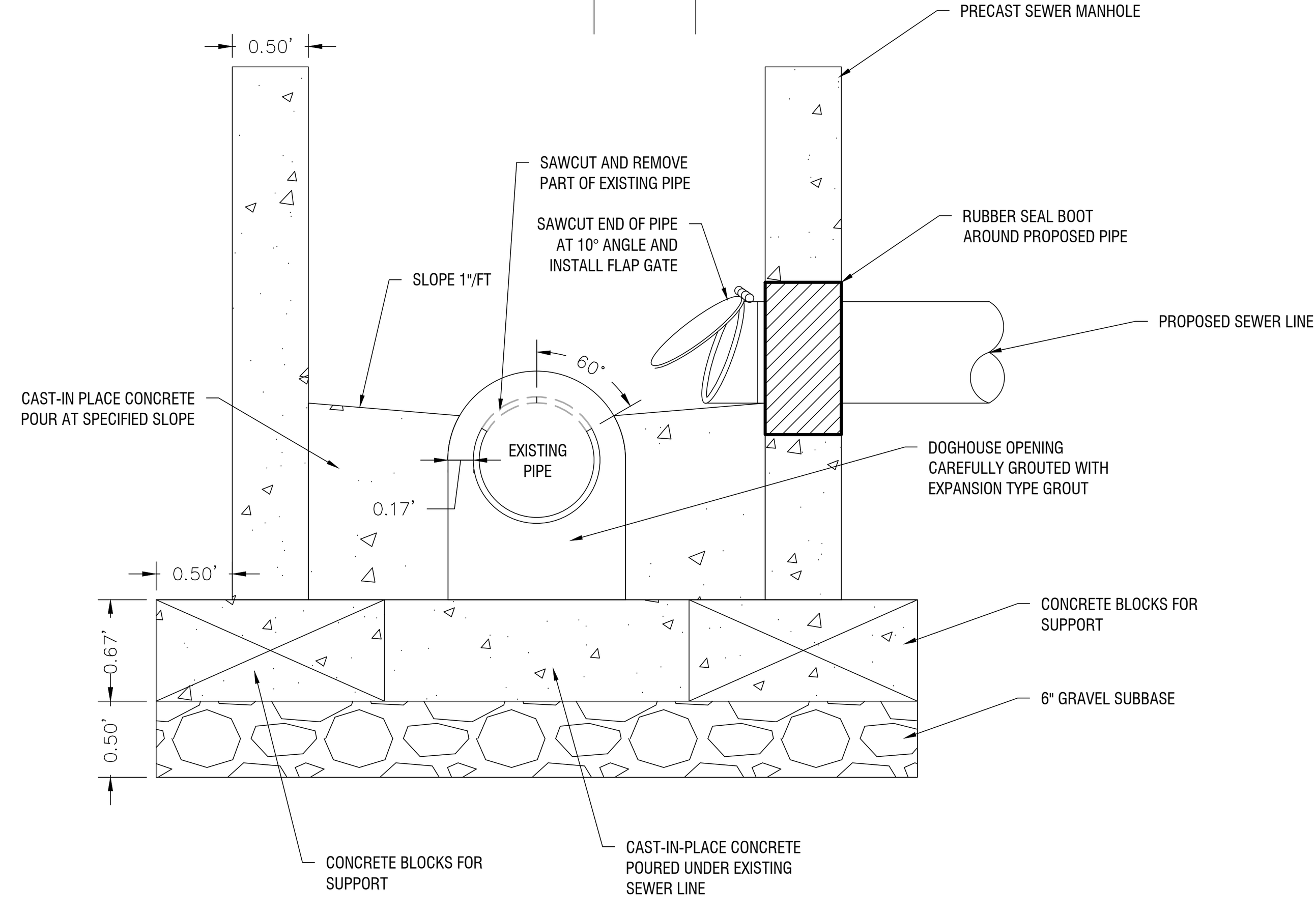


NOTES:
1. PROVIDE PRECAST MANHOLE RISER COMPLETE WITH UPSIDE DOWN U-SHAPED OPENING TO SUIT EXISTING LINES.

2. CORED AND BOOTED OPENING TO SUIT PROPOSED PIPELINES.

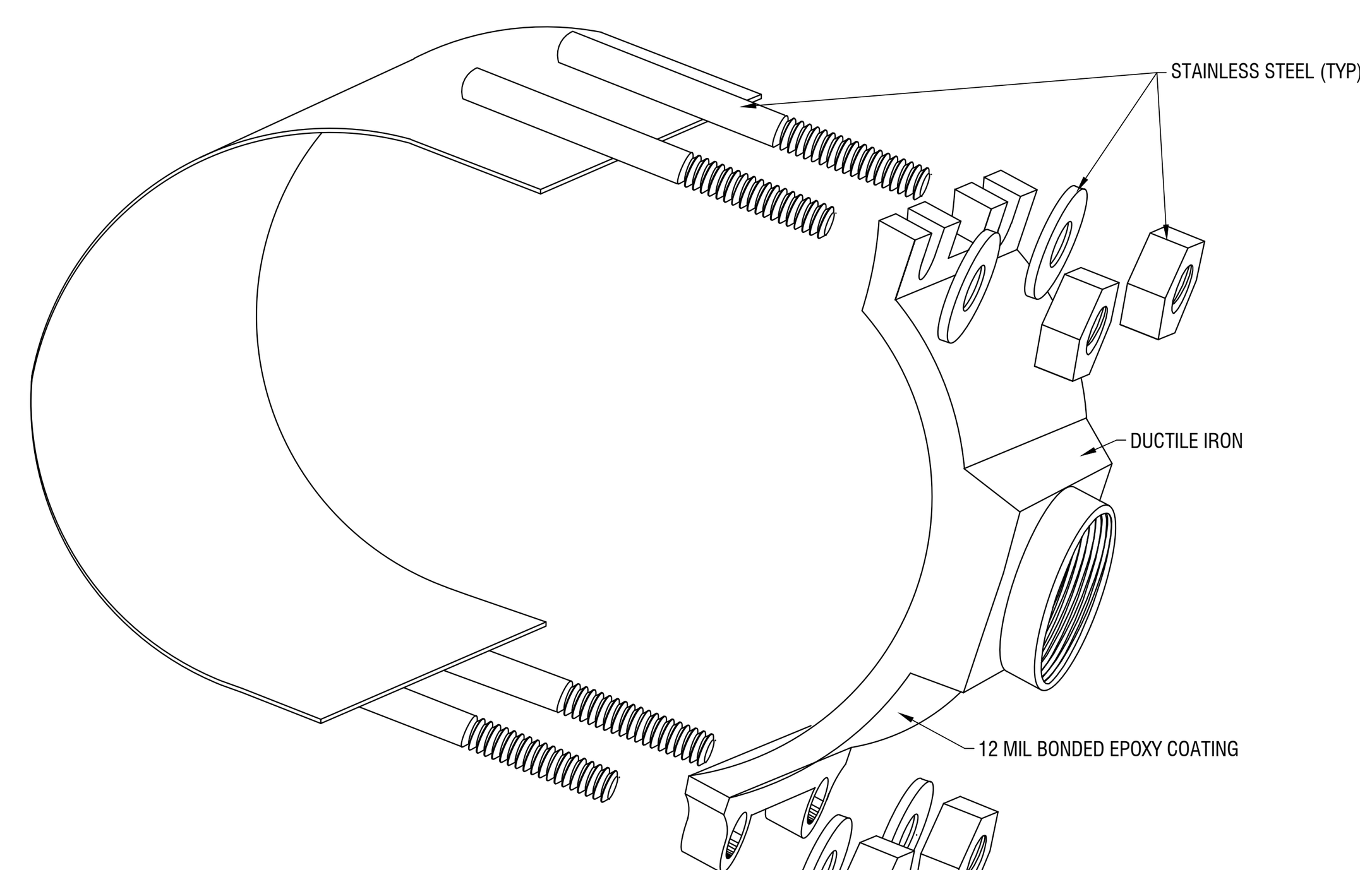
3. TABLES ARE TO BE GENTLY SLOPED AND TROWELED SMOOTH FROM MANHOLE WALL TO INVERT WALL HEIGHT AND CONSTRUCTED OF SOLID MASONARY.

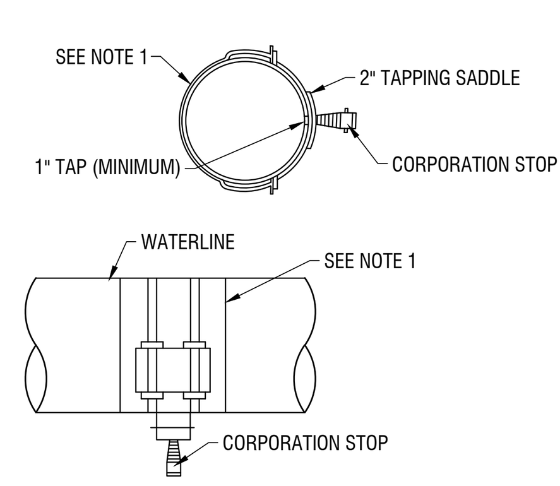
4. TOP PORTION OF PIPE SHALL NOT BE REMOVED UNTIL AUTHORIZED BY AN INSPECTOR.



MANHOLE OVER EXISTING PIPE (DOGHOUSE)

N.T.S.





NOTES:

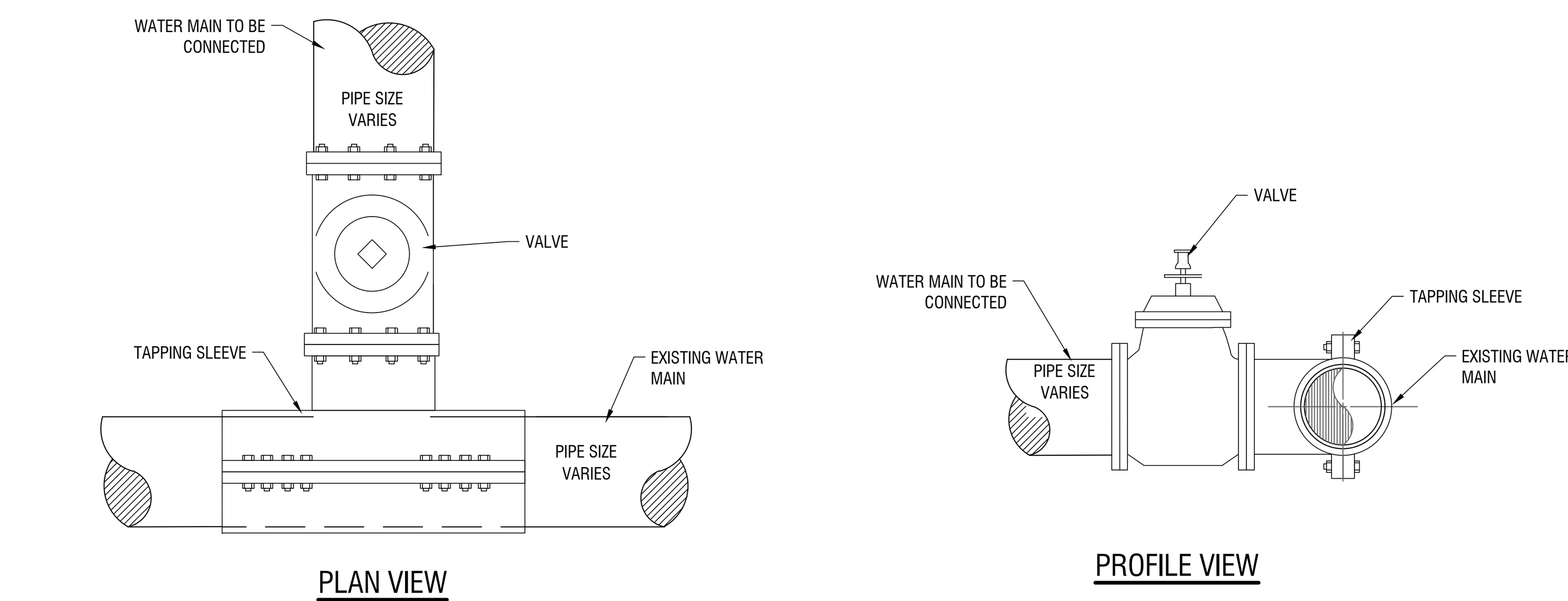
1. TAPPING SADDLE TO BE DUCTILE IRON WITH TYPE 304 STAINLESS STEEL FORGED DOUBLE STRAPS, STAINLESS STEEL BOLTS, NUTS, AND WASHERS. FINISH IS FUSION BONDED EPOXY TO AVERAGE THICKNESS OF 12-MILS.

2. ONE INCH (1") TAPS ON WATER LINES SMALLER THAN SIX INCHES (6") REQUIRE A TAPPING SADDLE. TWO INCH (2") TAPS REQUIRE A TAPPING SADDLE, REGARDLESS OF WATER MAIN SIZE.

3. A VALVE BOX SHALL BE USED FOR 2" CORPORATION STOPS. INSTALL PER DETAIL W4.

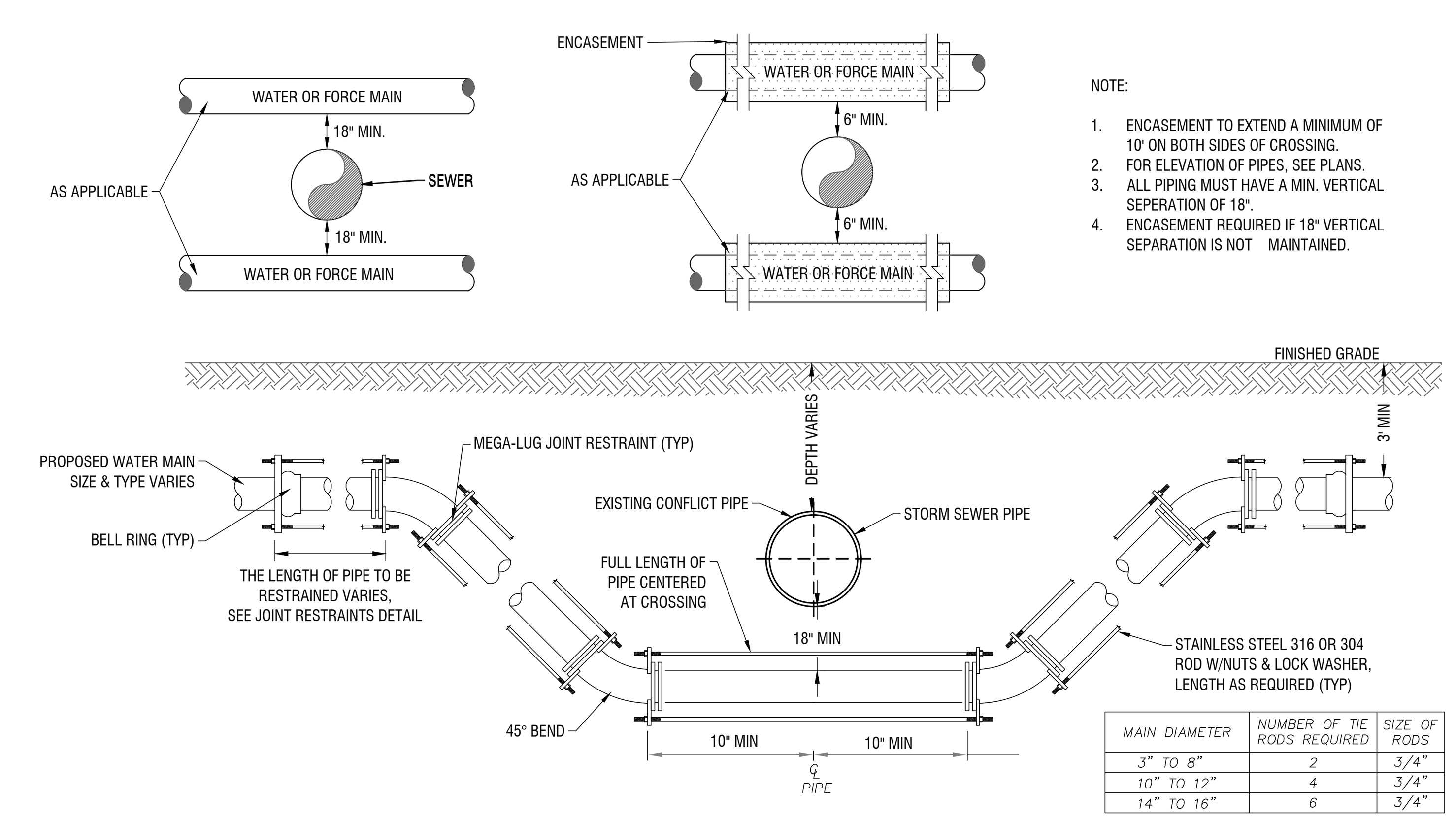
1" & 2" WATER TAPPING SADDLE

N.T.S.



TAPPING SLEEVE FOR CONNECTION TO EXISTING WATER MAIN DETAIL

N.T.S.



NOTE:

1. ENCASEMENT TO EXTEND A MINIMUM OF 10' ON BOTH SIDES OF CROSSING.
2. FOR ELEVATION OF PIPES, SEE PLANS.
3. ALL PIPING MUST HAVE A MIN. VERTICAL SEPERATION OF 18".
4. ENCASEMENT REQUIRED IF 18" VERTICAL SEPARATION IS NOT MAINTAINED.

MAIN DIAMETER	NUMBER OF TIE RODS REQUIRED	SIZE OF RODS
3" TO 8"	2	3/4"
10" TO 12"	4	3/4"
14" TO 16"	6	3/4"

GENERAL NOTES

WATER MAINS AND WATER SERVICE LINES CROSSING HOUSE SEWERS, STORM SEWERS OR SANITARY SEWER SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL SEPARATION OF AT LEAST 24" BETWEEN THE BOTTOM OF THE WATER MAIN AND THE TOP OF THE SEWER. AT CROSSINGS, ONE FULL LENGTH OF WATER PIPE SHALL BE LOCATED SO BOTH JOINTS WILL BE AS FAR AS POSSIBLE.

WHEN LOCAL CONDITIONS PREVENT A VERTICAL SEPARATION OF 24", THE SEWER PASSING OVER OR UNDER WATER MAINS SHALL BE CONSTRUCTED OF MATERIALS AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION EXTENDING ON EACH SIDE OF THE CROSSING UNTIL AT LEAST 10' SEPARATES THE TWO PIPES AND SHALL BE PRESSURE TESTED TO ASSURE WATER-TIGHTNESS PRIOR TO BACKFILLING. THE LENGTH OF WATER PIPE MUST BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER.

ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING ON AND BREAKING THE WATER MAINS.

IN CASE THAT A SEWER LATERAL PASSES ABOVE WATER MAIN, THE SEWER LATERAL MUST BE ENCASED IN A CARRIER PIPE CONSTRUCTED OF WATER MAIN MATERIALS, EXTENDING EACH SIDE OF THE CROSSING UNTIL AT LEAST 10 FEET SEPARATES THE TWO PIPES.

WATER SERVICE LINES SHOULD GO OVER ANY SANITARY SEWER LINE AND MAINTAIN THE 24" VERTICAL SEPARATION

UTILITY VERTICAL SEPERATION DETAIL

N.T.S.

SCALE BAR: 1"= 5'

5 0 2.5 5 10 20

DRAWING COMPLETED BY: OSCAR GARCIA

REVISIONS:	
1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DESIGN PROFESSIONAL:
MARCUS E. SACK
GSWCC LEVEL II # 70248
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GEORGIA REGISTERED No. 38559 PROFESSIONAL ENGINEER MARCUS E. SACK

DATE: May 1, 2024

M.E. SACK ENGINEERING 19 80

MUNICIPALITY:
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COUNTY:
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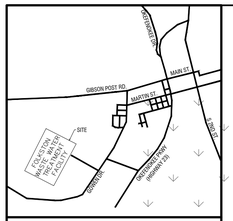
Water Pollution Control Plant

GENERAL DETAILS

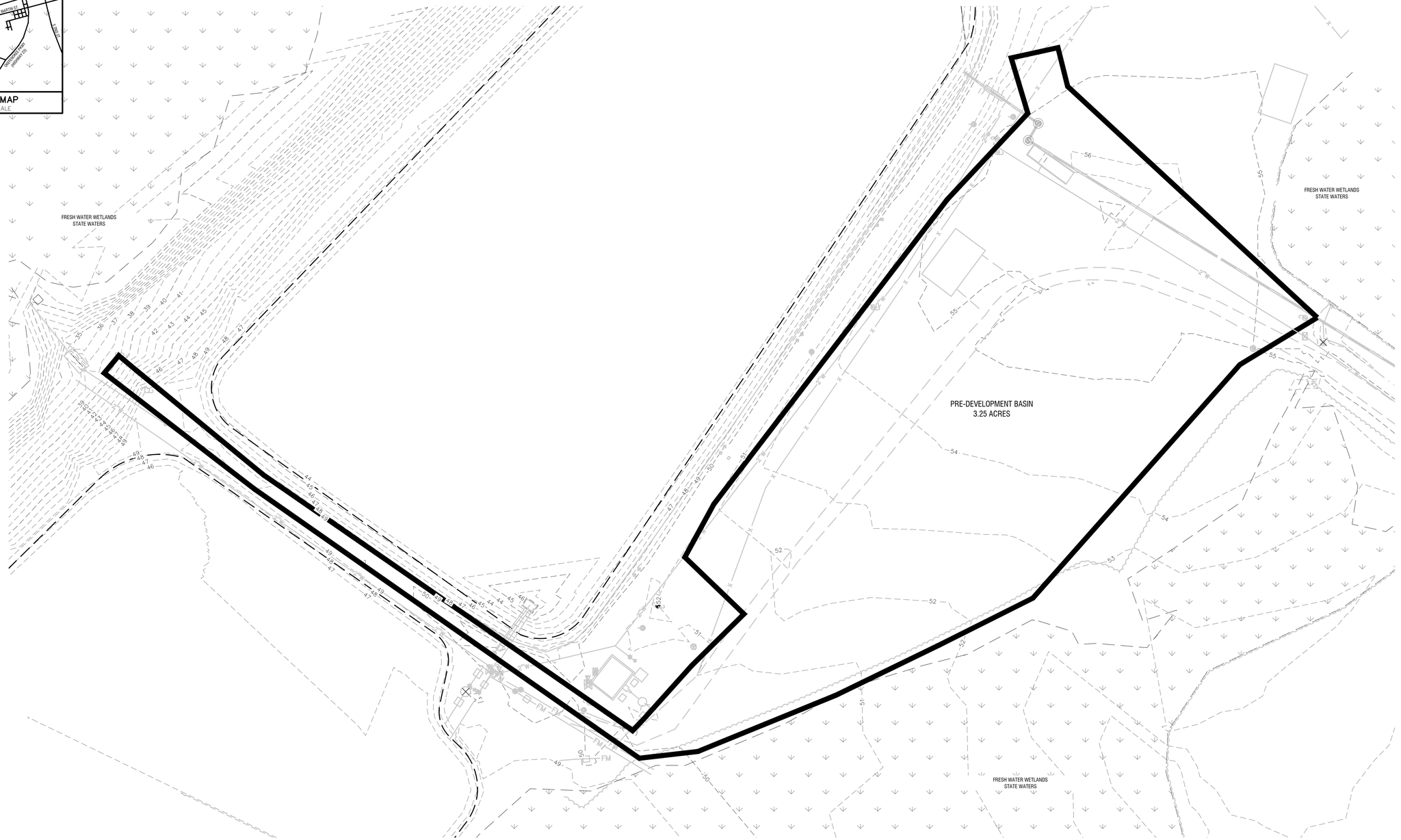
C15

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



VICINITY MAP
NOT TO SCALE



SCALE BAR: 1"= 40'
40 0 20 40 80 160

REVISIONS:	
1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: OSCAR GARCIA

DESIGN PROFESSIONAL:
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GEORGIA REGISTERED No. 33556 PROFESSIONAL ENGINEER MARCUS E. SACK

DATE: May 1, 2024

M.E. SACK 19 ENGINEERING 80

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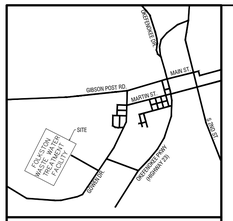
Water Pollution Control Plant

PRE DEVELOPMENT BASIN

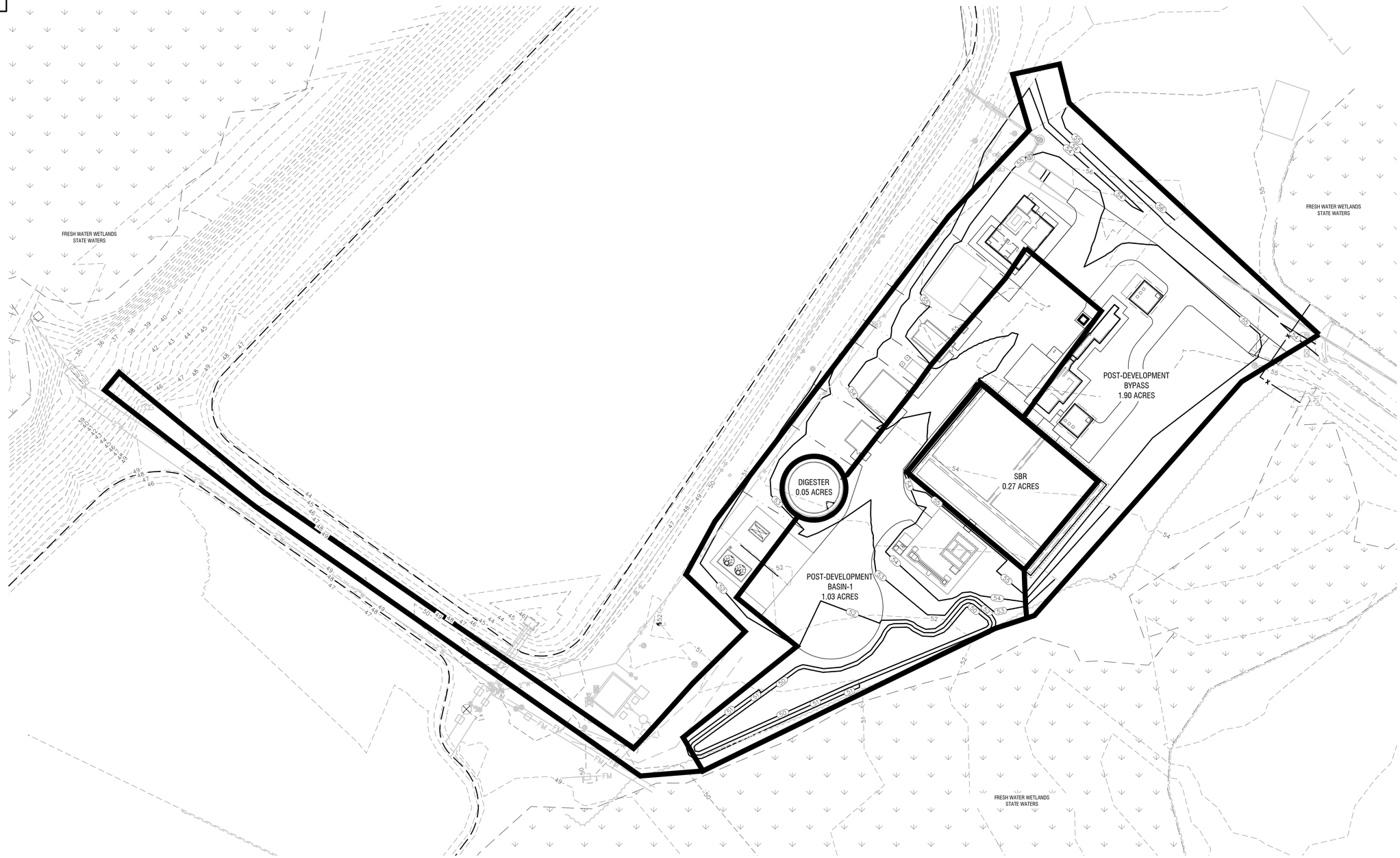
C16

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



VICINITY MAP
NOT TO SCALE



SCALE BAR: 1"= 40'
40 0 20 40 80 160

DRAWING COMPLETED BY: OSCAR GARCIA

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DESIGN PROFESSIONAL:
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DATE: May 1, 2024

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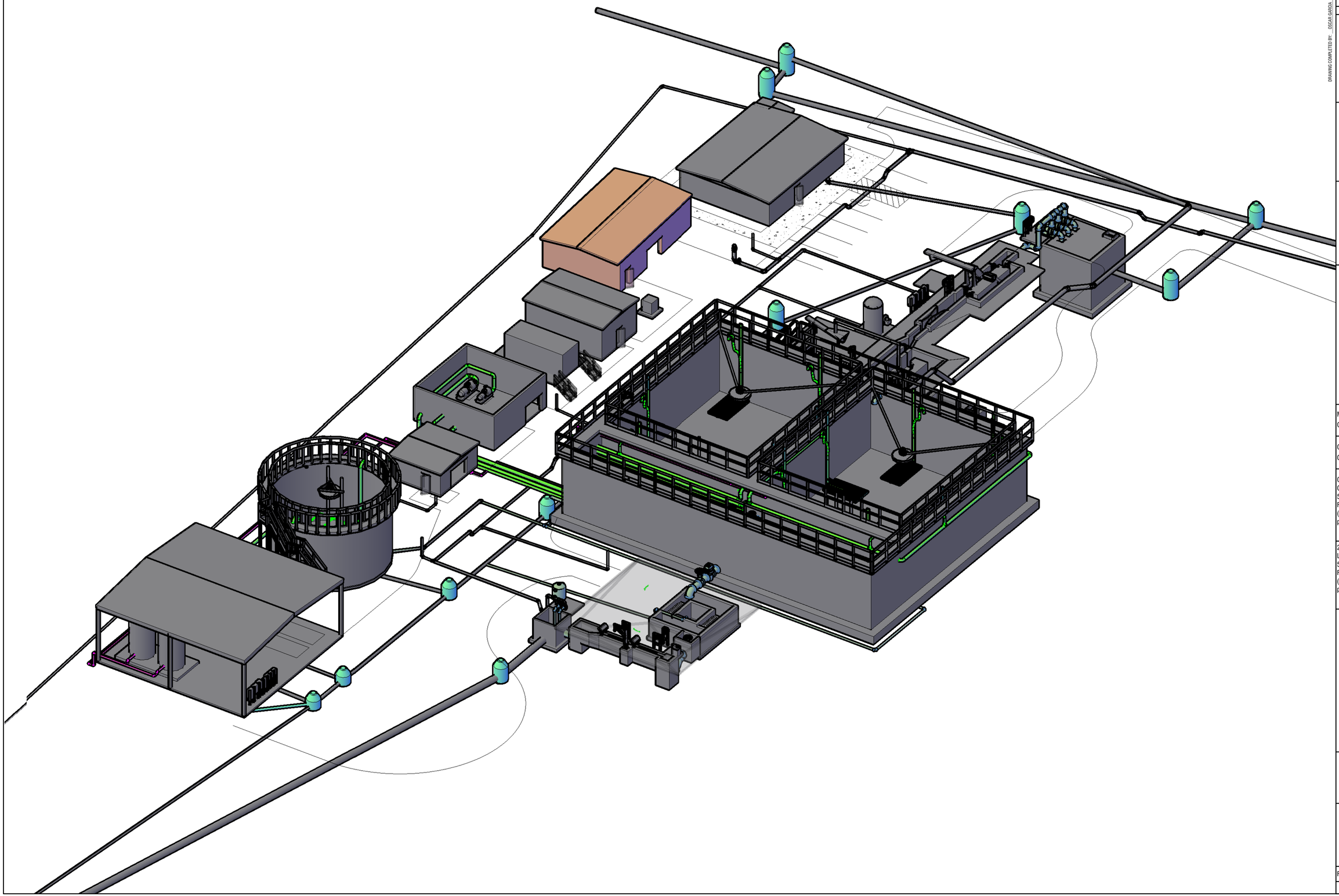
Water Pollution Control Plant

POST DEVELOPMENT BASIN

C17

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



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DRAWING COMPLETED BY: OSCAR GARCIA

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DATE: May 1, 2024

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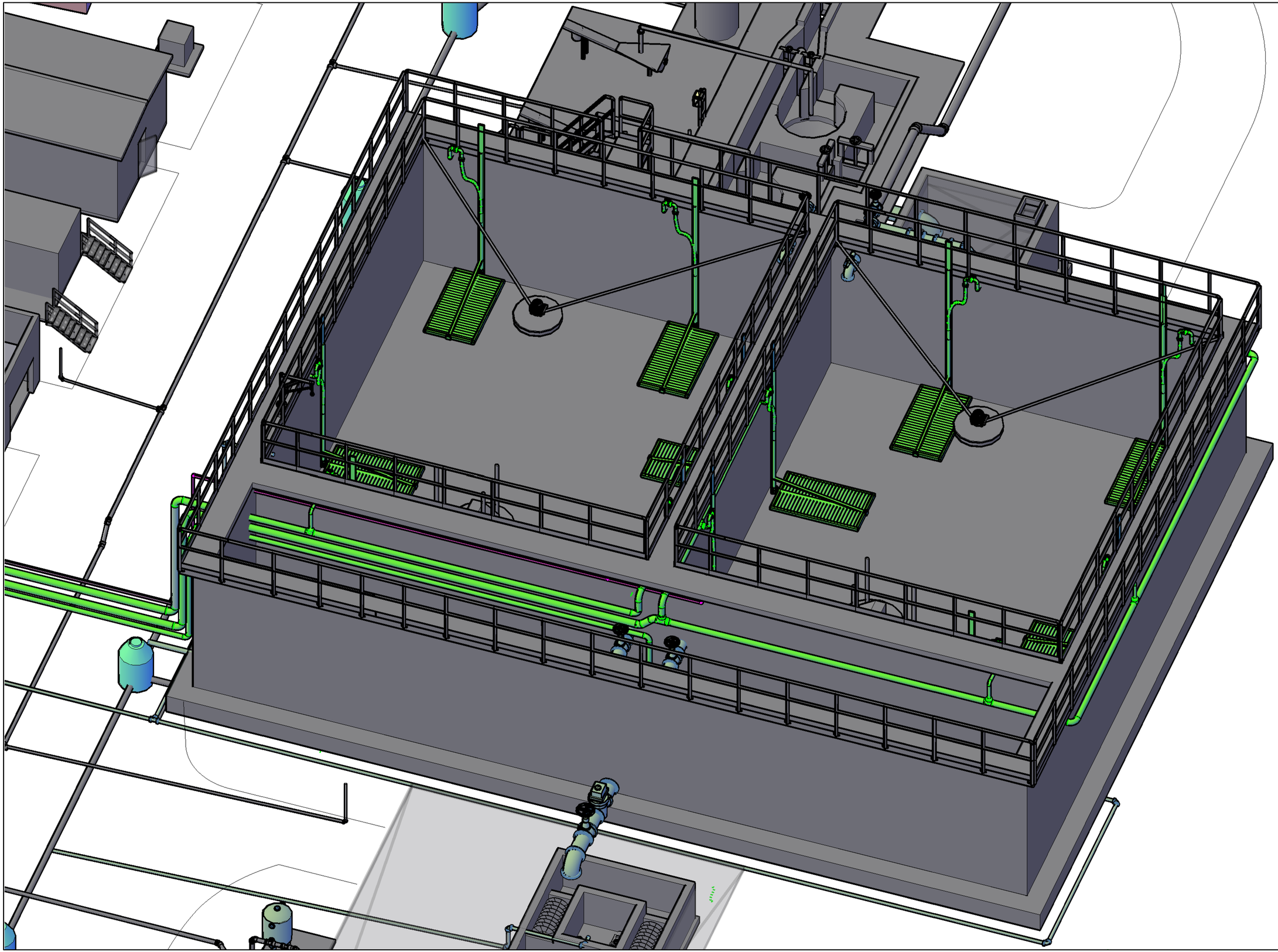
Water Pollution Control Plant

OVERALL SITE ISOMETRIC VIEW

M1

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



DRAWING COMPLETED BY: OSCAR GARCIA

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DATE: May 1, 2024

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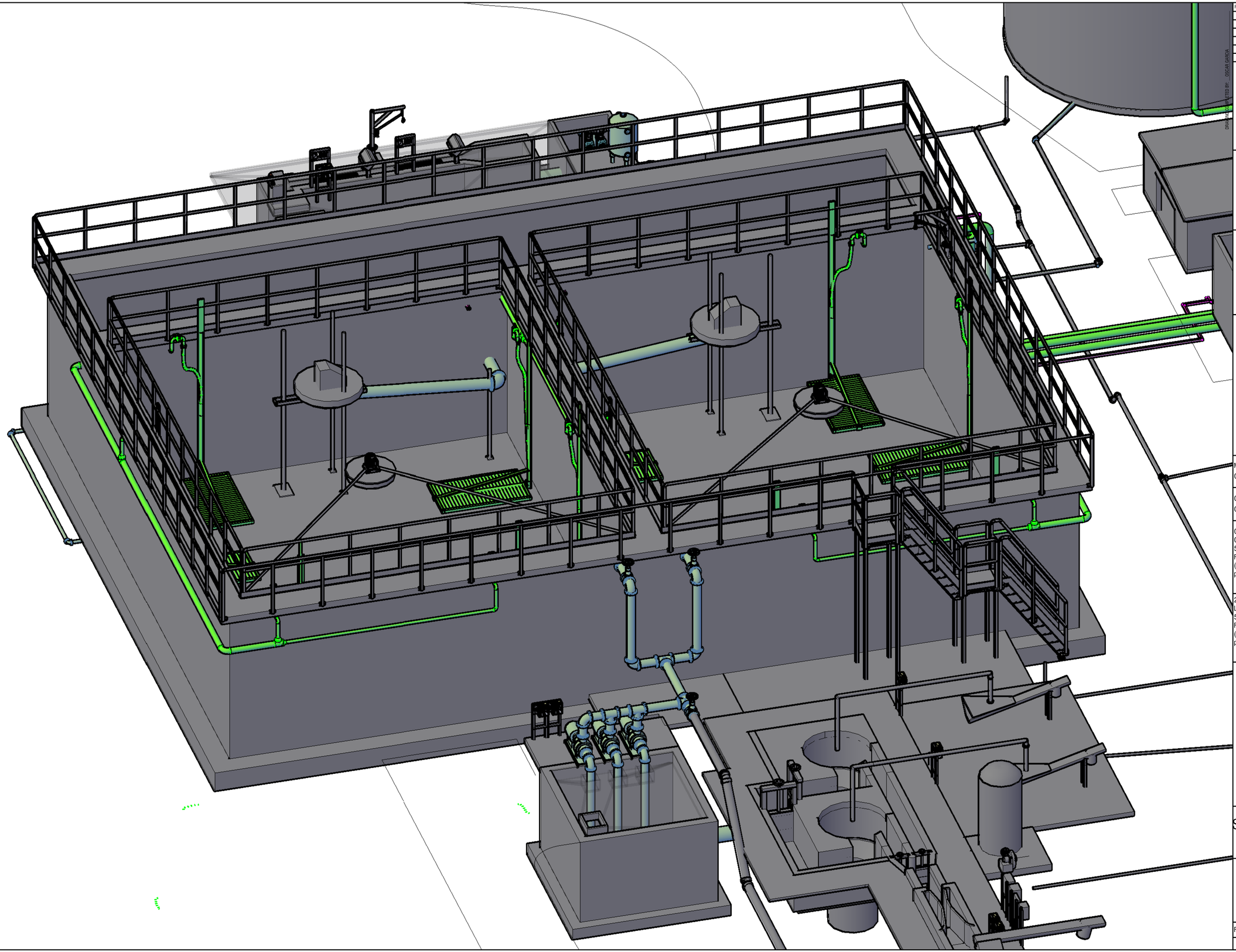
Water Pollution Control Plant

SBR ISOMETRIC VIEW 1

M2

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



REVISIONS:	
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4	DETAIL ADJUSTMENT

DRAWING CREATED BY: OSCAR GARCIA

DESIGN PROFESSIONAL:
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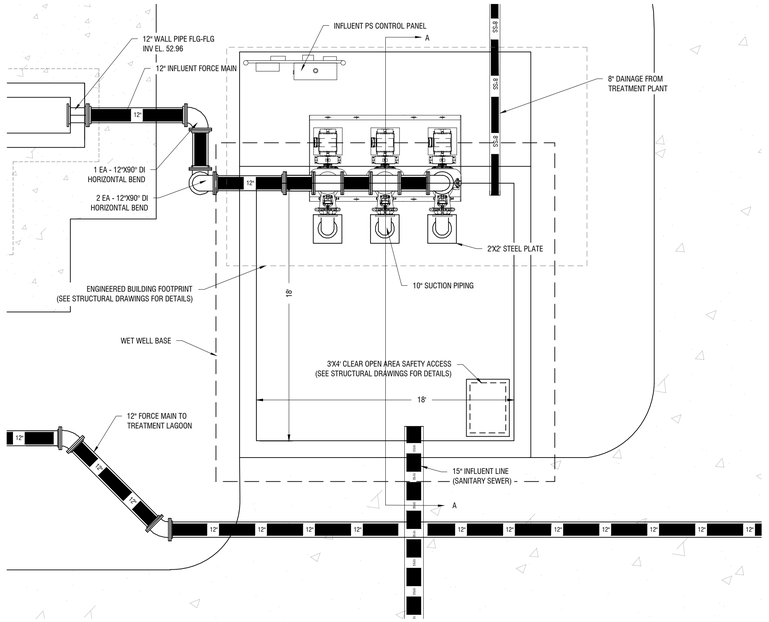
Water Pollution Control Plant

SBR ISOMETRIC VIEW 2

M3

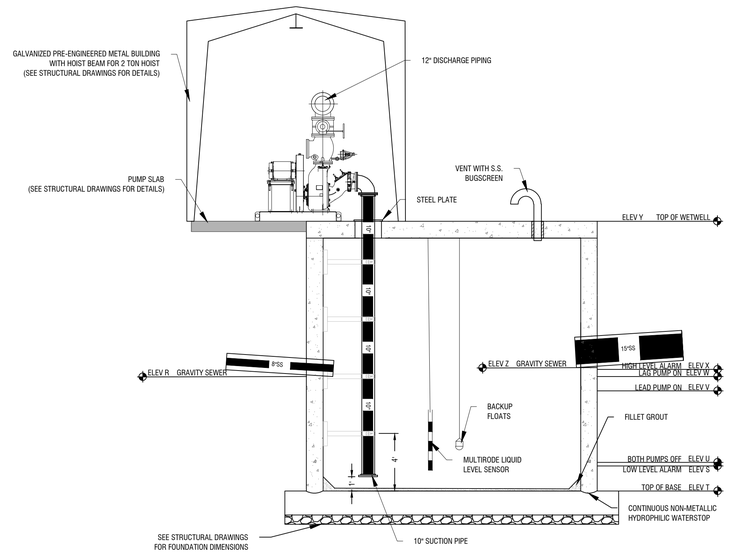
FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



PLAN VIEW

SCALE 1" = 5'



ELEVATION VIEW SECTION A-A

SCALE 1" = 5'

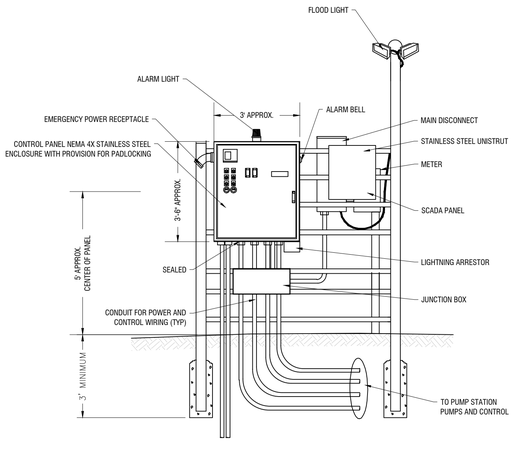
LIFT STATION DATA

PUMPING STATIONS	ELEV AT CONST
ELEV R	45.15
ELEV S	38.90
ELEV T	37.15
ELEV U	39.15
ELEV V	44.15
ELEV W	45.15
ELEV X	45.65
ELEV Y	56.00
ELEV Z	45.78

GENERAL NOTES:

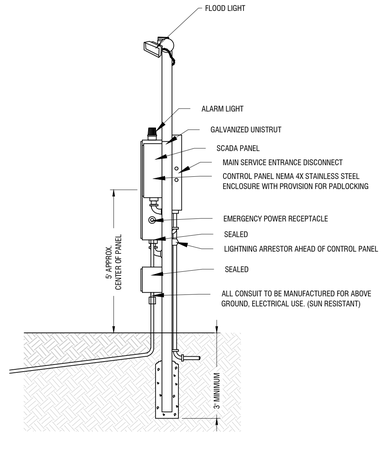
1. PUMPS SHALL MEET ALL REQUIREMENTS IN ACCORDANCE WITH THE SPECIFICATIONS.
2. WET WELL SHALL BE COATED INSIDE WITH PVC LINER OR LINED IN PLACE IN ACCORDANCE WITH THE SPECIFICATIONS.
3. ALL LOCATIONS WHERE PIPES ENTER OR LEAVE THE WET WELL SHALL BE MADE WATER AND GAS TIGHT WITH WALL SLEEVE OR NON-SHRINK GROUT.
4. WET WELL SHALL BE HEAVY DUTY ALUMINUM WITH TORSION BAR ASSIST, POSITIVE LOCK AT 90 AND SAFETY GRATE", COVERS SHALL ALSO HAVE PADLOCKING CAPABILITIES (LOADING 300 PSF)
5. ELECTRICAL CONDUIT SIZE SHALL BE LARGE ENOUGH TO ALLOW FOR PERIODIC REMOVAL AND REPLACEMENT OF CABLES.
6. CABLE HANGERS SHALL BE STAINLESS STEEL.
7. REFERENCE STRUCTURAL DRAWINGS FOR ALL STRUCTURAL DIMENSIONS AND DETAILS.

DUTY POINTS
- 1063 GPM @ 32' TDH
- 2125 GPM @ 33' TDH
- 4250 GPM @ 34' TDH



CONTROL PANEL
ELEVATION VIEW

NTS



CONTROL PANEL
SIDE VIEW

NTS

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: OSCAR GARCIA

DESIGN PROFESSIONAL:
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GEORGIA REGISTERED No. 70248 ENGINEER MARCUS E. SACK

DATE: May 1, 2024

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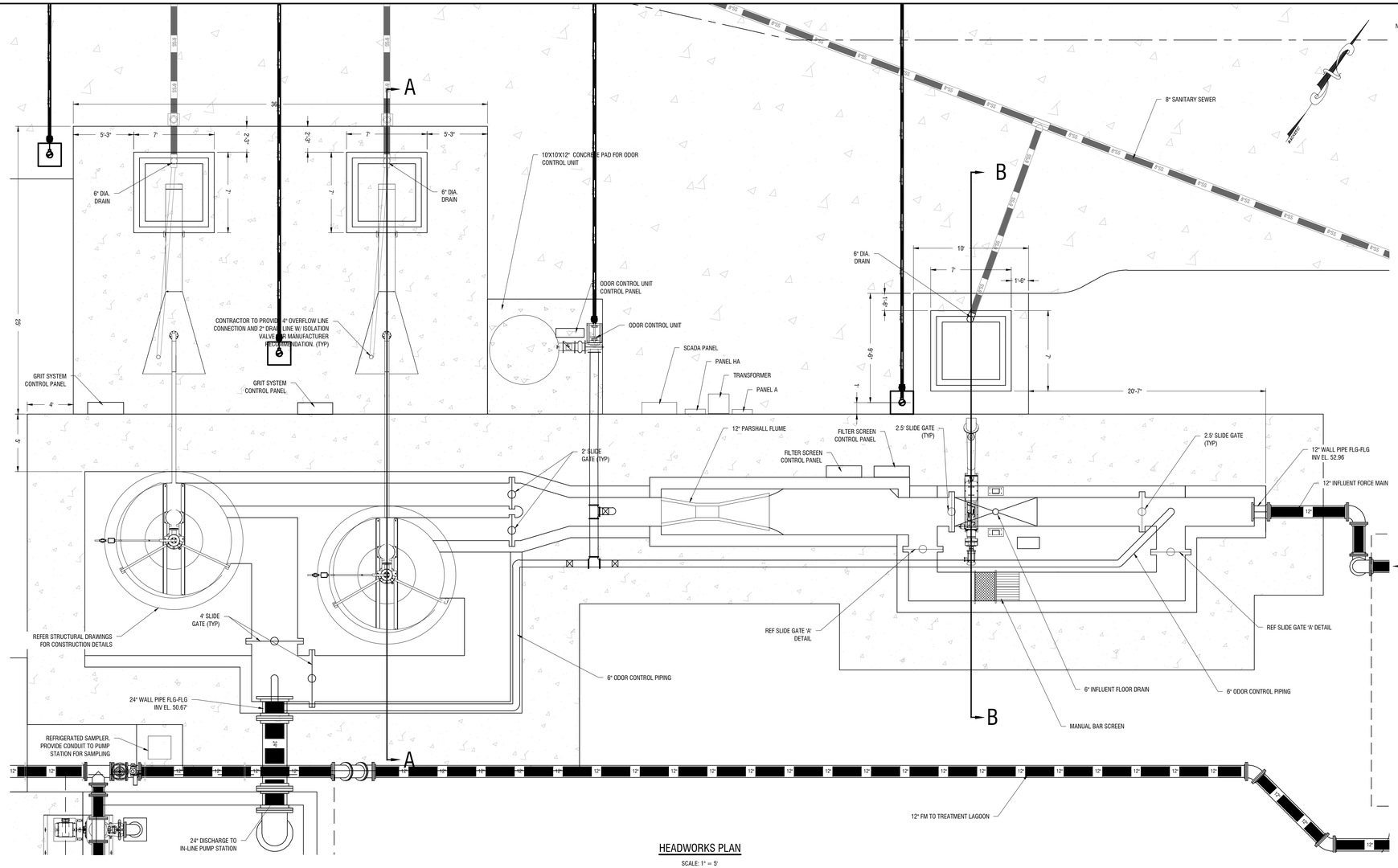
Water Pollution Control Plant

INFLUENT PUMP STATION

M4

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024

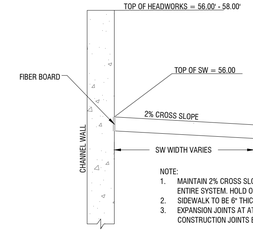


HEADWORKS PLAN

SCALE: 1" = 5'

NOTES:

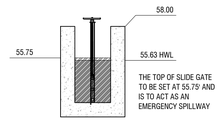
1. ALL CONCRETE SURFACES IN THE HEADWORKS ABOVE THE LOW WATER LEVEL WILL BE COATED WITH AN EPOXY OR POLYUREA SYSTEM IN ACCORDANCE WITH THE SPECIFICATIONS.
2. THE HEADWORKS WILL BE COVERED WITH ALUMINUM DIAMOND PLATE TO CREATE AN AIR AND WATER TIGHT COVER CAPABLE OF MEETING NEGATIVE PRESSURE REQUIREMENTS OF THE ODOR CONTROL SYSTEM.ANGLE FOR DIAMOND PLATE SHALL BE RUN FOR ENTIRE LENGTH OF CHANNEL. LEAVE 3/8" GAP FOR EXPANSION. IMPERMEABLE GASKET REQUIRED WITH DIAMOND PLATE.
3. CONTRACTOR SHALL AIR TEST HEAD WORKS AND PROVIDE SUCTION VENT NEEDED FOR BALANCED AIRFLOW TO ODOR CONTROL IF NEEDED.
4. PARSHALL FLUMES WILL BE PRECAST FIBERGLASS UNIT AND INSTALLED WITH SPECIFIC ATTENTION TO THE ELEVATION OF OTHER COMPONENTS IN THE HEADWORKS.
5. PROVIDE SUB-SURFACE LASER FLOW METER SYSTEM AT FLUME.
6. SEE STRUCTURAL DRAWINGS FOR CONCRETE DETAILS AND INSTALLATION.
7. ALL PIPING 36" AND LOWER FROM THE GROUND SHALL BE PAINTED YELLOW.



NOTE:
1. MAINTAIN 2% CROSS SLOPE ON SIDEWALK AROUND ENTIRE SYSTEM. HOLD OUTSIDE EDGE ELEVATION.
2. SIDEWALK TO BE 6" THICK, 4000 PSI WITH FIBER MESH.
3. EXPANSION JOINTS AT AT ALL COLD JOINTS WITH CONSTRUCTION JOINTS EVERY SW WIDTH.

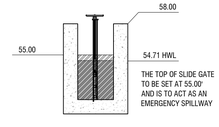
SIDEWALK DETAIL

NTS



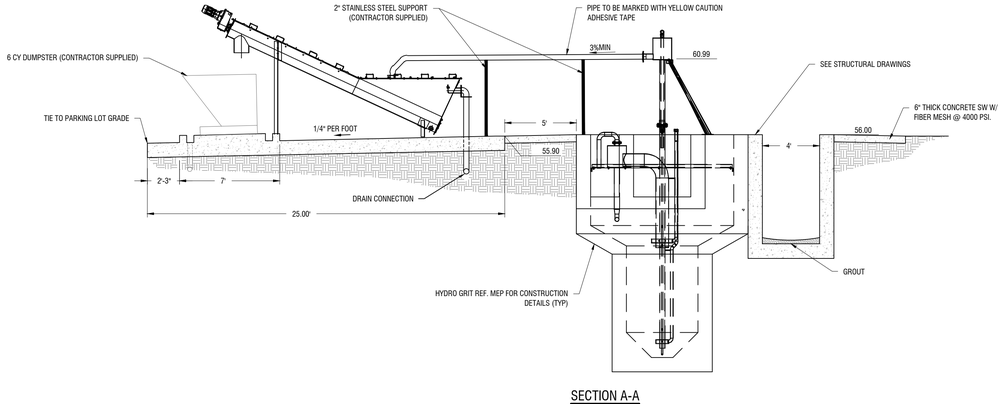
SLIDE GATE A

SCALE: 1"=5'



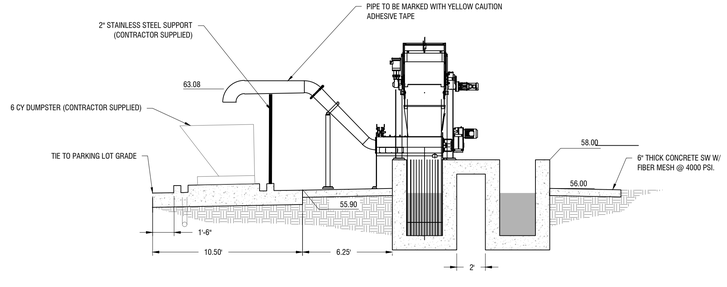
SLIDE GATE B

SCALE: 1"=5'



SECTION A-A

SCALE: 1"=5'



SECTION. B-B

SCALE: 1"=5'

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: - OSCAR GARCIA

DESIGN PROFESSIONAL:
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GEORGIA REGISTERED No. 70248 PROFESSIONAL ENGINEER MARCUS E. SACK

DATE: May 1, 2024

M.E. SACK ENGINEERING 18 00

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Water Pollution Control Plant

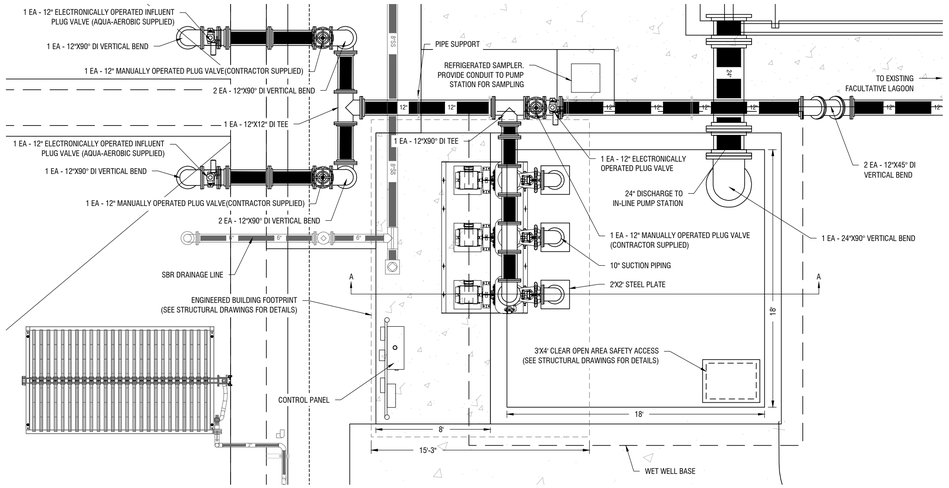
HEADWORKS

M5

SCALE BAR: 1"=5'
5 0 2.5 5 10 20

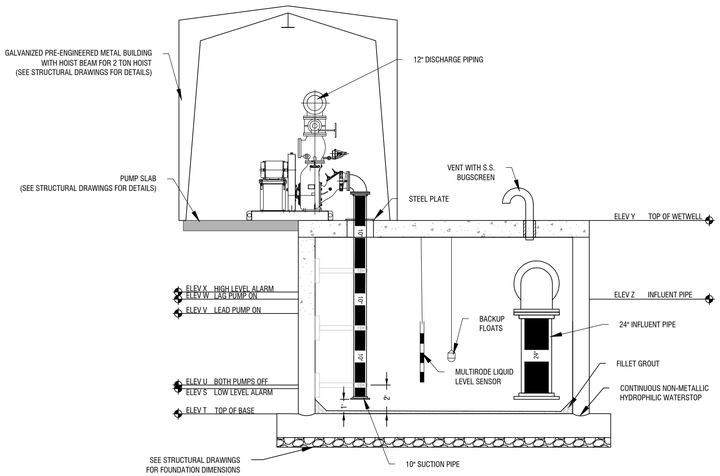
FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



PLAN VIEW

SCALE 1" = 5'



ELEVATION PLAN SECTION A-A

SCALE 1" = 5'

LIFT STATION DATA

PUMPING STATIONS	ELEV AT CONST
ELEV S	44.25
ELEV T	42.50
ELEV U	44.50
ELEV V	49.50
ELEV W	50.50
ELEV X	51.00
ELEV Y	56.00
ELEV Z	50.50

GENERAL NOTES:

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DUTY POINTS
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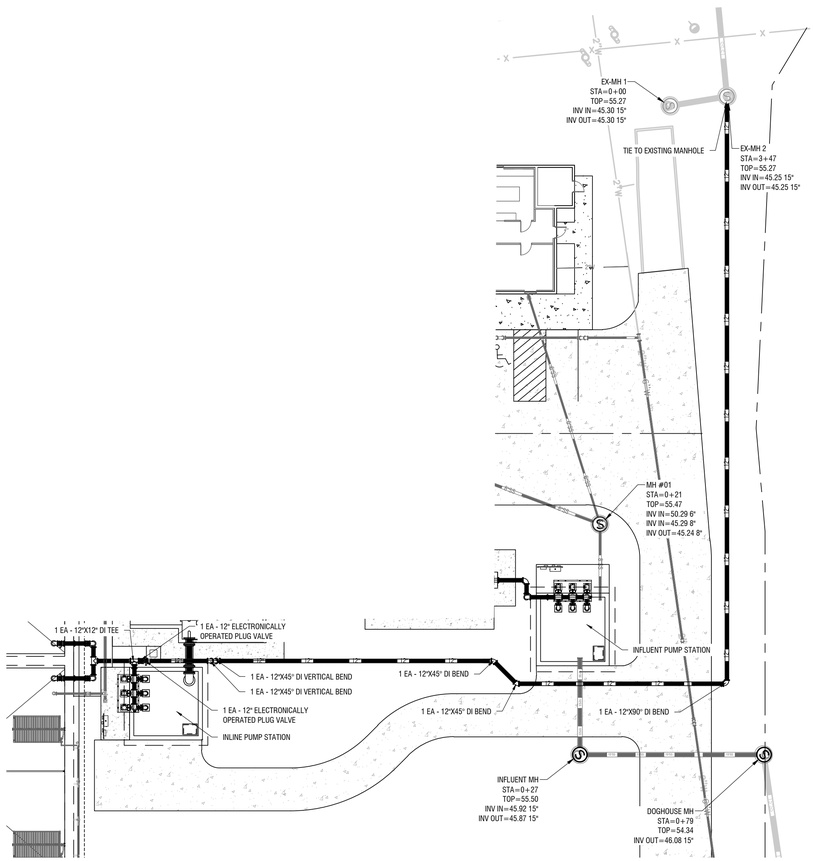
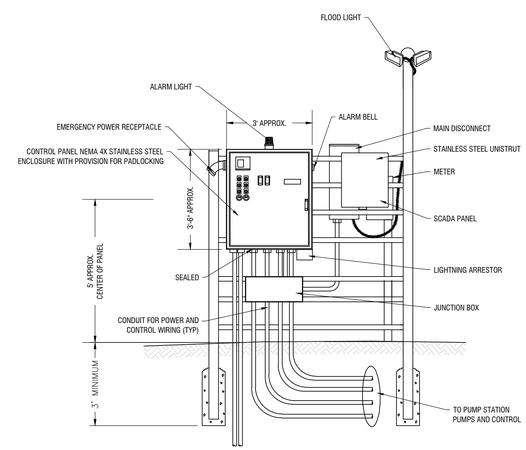
- 4250 GPM @ 40' TDH



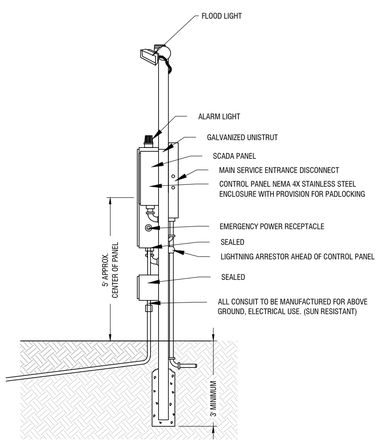
PLAN VIEW FORCE MAIN TO TREATMENT POND

SCALE 1" = 5'



CONTROL PANEL ELEVATION VIEW

NTS



CONTROL PANEL SIDE VIEW

NTS

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: - OSCAR GARCIA

DESIGN PROFESSIONAL:
MARCUS E. SACK
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GEORGIA REGISTERED No. 70248 ENGINEER MARCUS E. SACK

DATE: May 1, 2024

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Water Pollution Control Plant

INLINE PUMP STATION

M6

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024

STAIRS (TYP)

6" DRAIN LINE
2 EA - 8"X90° DI VERTICAL BEND
8" MANUALLY OPERATED PLUG VALVE (CONTRACTOR SUPPLIED)
12" MANUALLY OPERATED PLUG VALVE (CONTRACTOR SUPPLIED)
12" WALL PIPE FLG-FLG
12" ELECTRONICALLY OPERATED INFLUENT PLUG VALVE (AQUA-AEROBIC SUPPLIED)
1 EA -6"X90° BEND (TYP)
1 EA - 12"X90° BEND (TYP)
A
1 EA - 12"X12" DI TEE

6" DRAIN LINE
2 EA - 8"X90° DI VERTICAL BEND
1 EA - 6" MANUALLY OPERATED PLUG VALVE (CONTRACTOR SUPPLIED)
1 EA - 12" MANUALLY OPERATED PLUG VALVE(CONTRACTOR SUPPLIED)
12" WALL PIPE FLG-FLG
12" ELECTRONICALLY OPERATED INFLUENT PLUG VALVE (AQUA-AEROBIC SUPPLIED)
1 EA -6"X90° BEND (TYP)
1 EA - 12"X90° BEND (TYP)

RETRIEVABLE FINE BUBBLE DIFFUSER (AQUA-AEROBICS SUPPLIED) TYP.
ELECTRIC CABLE TIED TO MOORING (TYP)
15 HP MIXER W/ PIVOTAL MOORING (AQUA-AEROBICS SUPPLIED)

5'-0"

RETRIEVABLE FINE BUBBLE DIFFUSER (AQUA-AEROBICS SUPPLIED) TYP.
ELECTRIC CABLE TIED TO MOORING (TYP)
15 HP MIXER W/ PIVOTAL MOORING (AQUA-AEROBICS SUPPLIED)

2'-6"
3" WALL PIPE FLG-FLG
2.7 HP SLUDGE PUMP. (SBR MANUFACTURER SUPPLIED)
DECANTER RESTRAINED MOORING SYSTEM (AQUA-AEROBICS SUPPLIED)
DECANTER ASSEMBLY (AQUA-AEROBICS SUPPLIED)
DO SENSOR PROBE (TYP)
PH SENSOR PROBE (TYP)
LEVEL SENSOR FLOAT SWITCH (TYP)
LEVEL SENSOR PRESSURE TRANSDECER (TYP)
1 EA - 3" CHECK VALVE (SBR MANUFACTURER SUPPLIED)
1 EA - 3" MANUAL PLUG VALVE (SBR MANUFACTURER SUPPLIED)
2 EA - 3"x90° DI VERTICAL BEND
1 EA - 3"x90° DI HORIZONTAL BEND
1 EA - 3"x90° DI VERTICAL BEND
B
B
CHEMICAL LINE

1 EA - 3"x90° DI VERTICAL BEND
2.7 HP SLUDGE PUMP. (SBR MANUFACTURER SUPPLIED)
18" DECANTER DISCHARGE PIPE (AQUA-AEROBICS SUPPLIED)
DO SENSOR PROBE (TYP)
PH SENSOR PROBE (TYP)
LEVEL SENSOR FLOAT SWITCH (TYP)
LEVEL SENSOR PRESSURE TRANSDECER (TYP)
2'-6"
1 EA - 3" CHECK VALVE (SBR MANUFACTURER SUPPLIED)
1 EA - 3" MANUAL PLUG VALVE (SBR MANUFACTURER SUPPLIED)
2 EA - 3"x90° DI VERTICAL BEND
1 EA - 3"x90° DI HORIZONTAL BEND
24" WALL PIPE FLG-FLG
4'
13'-8"
CHEMICAL LINE
18" WALL PIPE FLG-FLG
4'-6"

6" DRAIN LINE
1 EA - 6" MANUALLY OPERATED PLUG VALVE (CONTRACTOR SUPPLIED)
FIXED COARSE BUBBLE DIFFUSER (AQUA-AEROBICS SUPPLIED) TYP.
1 EA - 18" ELECTRONICALLY OPERATED GATE VALVE W/ EXTENSION (AQUA-AEROBICS SUPPLIED)
1 EA - 18"X90° DI VERTICAL BEND
3'
4'
24" WALL PIPE FLG-FLG
℄ EL. 56.75
62'-9"
62'-9"
6" FIBER REINFORCED CONCRETE SLAB
3" DISCHARGE TO DIGESTER
4'-6"
1 EA - 3"X3" DI TEE
1 EA - 24" ELECTRONICALLY OPERATED BUTTERFLY VALVE (SUPPLIED BY SBR MANUFACTURER)
REINFORCED CONCRETE SLAB. REF MECHANICAL PLANS FOR CONSTRUCTION DETAILS
PIPE SUPPORT
1 EA - 24" MANUAL PLUG VALVE (CONTRACTOR SUPPLIED)
C
C
1 EA - 3"x90° DI HORIZONTAL BEND

NOTES:

1. ALL MANUAL PLUG VALVES TO BE NORMALLY OPENED.

SCALE BAR: 1" = 10'

5 0 2.5 5 10 20

REVISIONS:	
1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: - OSCAR GARCIA

DESIGN PROFESSIONAL:
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GEORGIA REGISTERED No. 70248 PROFESSIONAL ENGINEER MARCUS E. SACK

DATE: May 1, 2024

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COUNTY:
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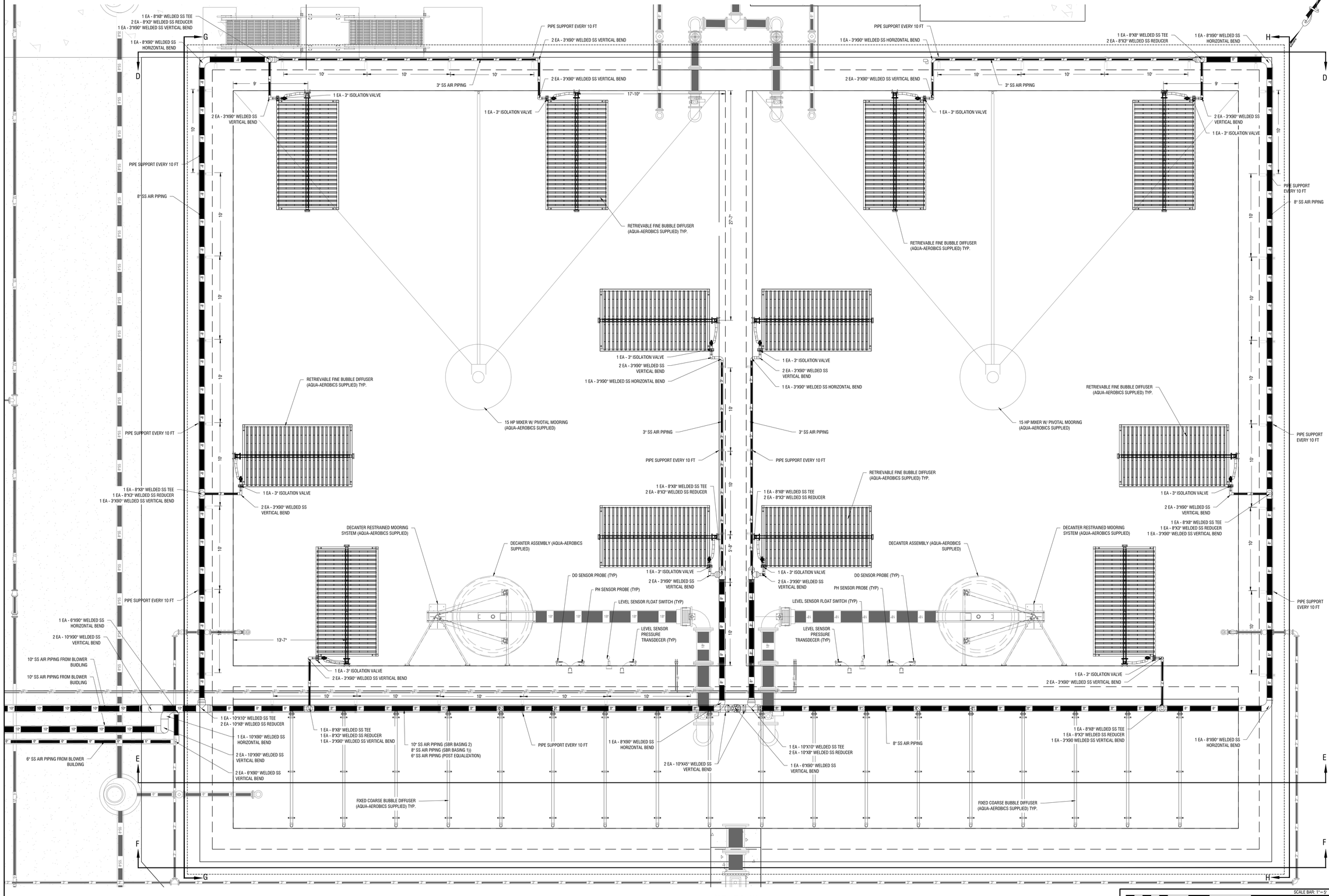
Water Pollution Control Plant

SBR PLAN VIEW

M7

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



SBR AIR PLAN

SCALE: 1" = 5'

SCALE BAR: 1"=5'

5 0 2.5 5 10 20

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: OSCAR GARCIA

DESIGN PROFESSIONAL:
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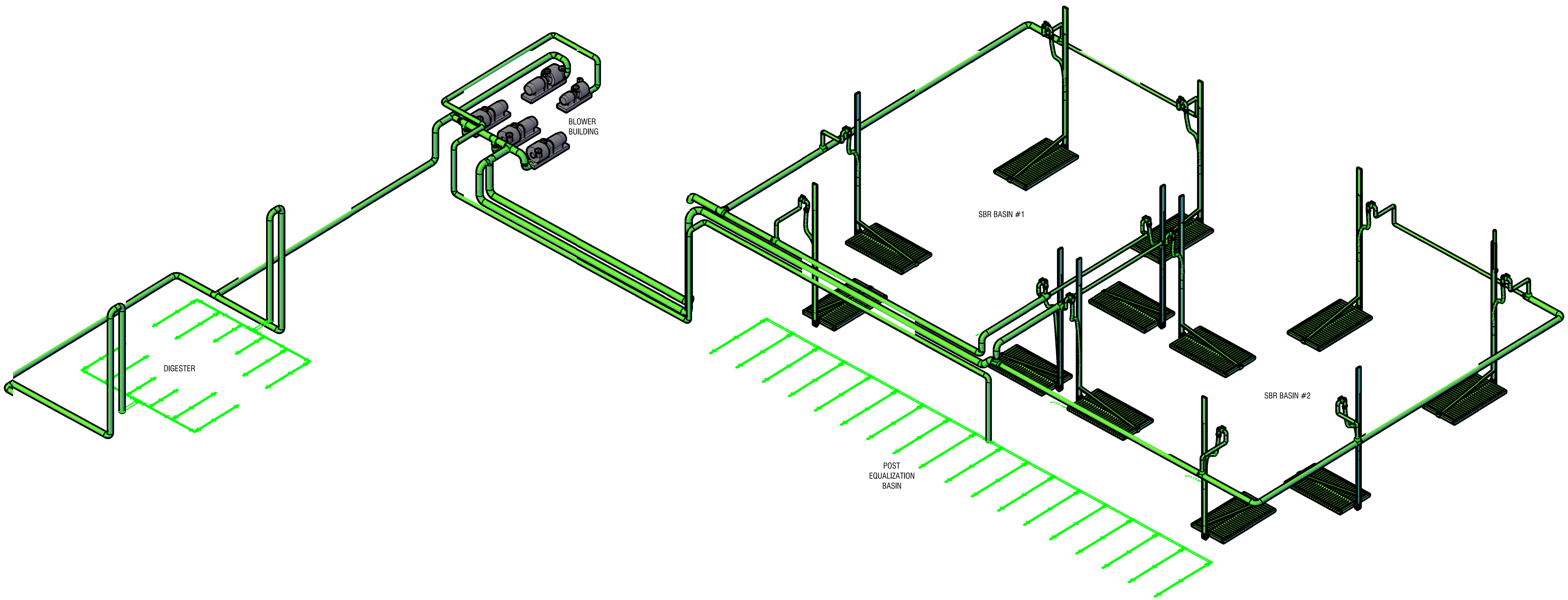
Water Pollution Control Plant

SBR AIR PIPING PLAN

M8

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



DRAWING COMPLETED BY: OSCAR GARCIA

REVISIONS:	
1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DESIGN PROFESSIONAL:
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GEORGIA REGISTERED No. 38559 PROFESSIONAL ENGINEER MARCUS E. SACK

DATE: May 1, 2024

M.E. SACK ENGINEERING 19 80

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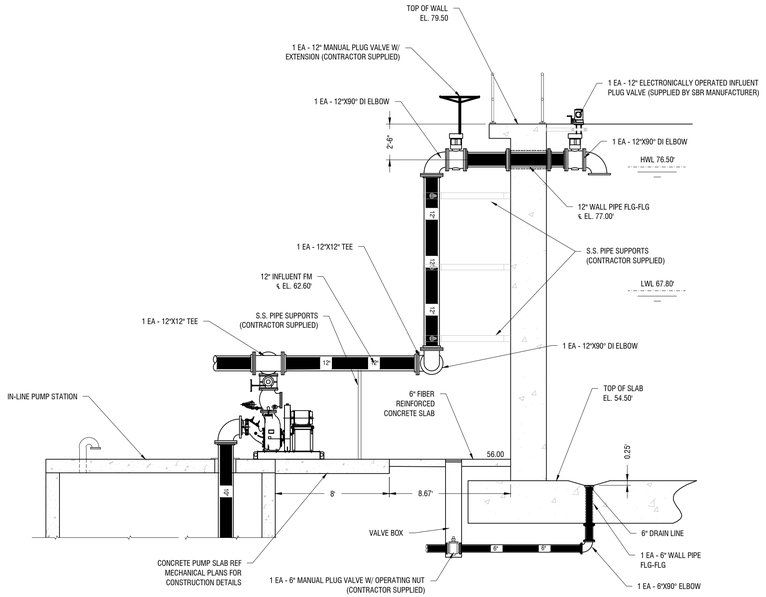
Water Pollution Control Plant

AIR PIPING ISOMETRIC

M9

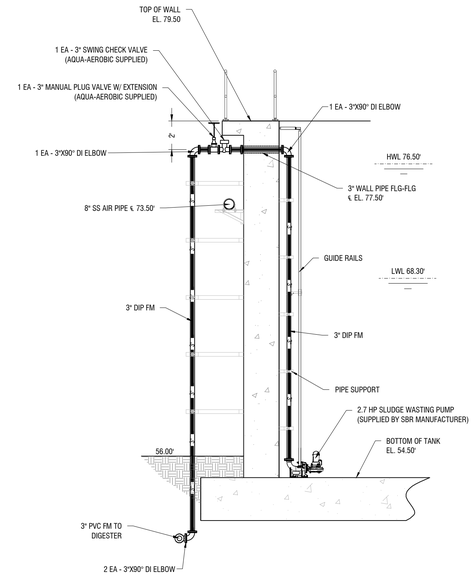
FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



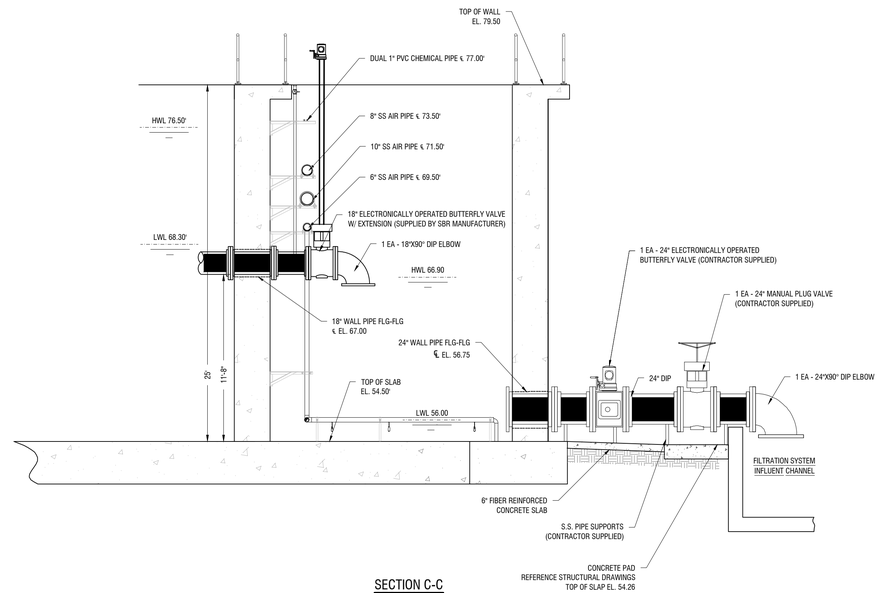
SECTION A-A

SCALE: 1"=5'



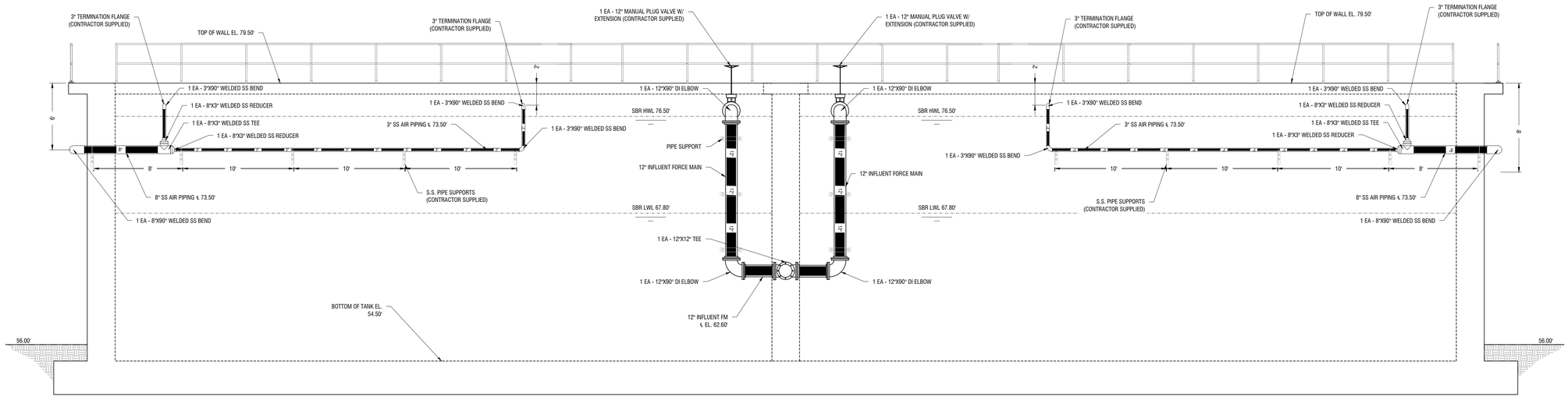
SECTION B-B

SCALE: 1"=5'



SECTION C-C

SCALE: 1"=5'



SECTION D-D

SCALE: 1"=5'

NOTE:

1. ALL PIPING FROM THE BLOWER BUILDING TO THE TERMINATION FLANGE IS TO BE SUPPLIED BY THE CONTRACTOR.
2. ALL PIPING AFTER THE TERMINATION FLANGE IS SUPPLIED BY THE SBR MANUFACTURER.

SCALE BAR: 1"=5'

5 0 2.5 5 10 20

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: OSCAR GARCIA

DESIGN PROFESSIONAL:
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GEORGIA REGISTERED No. 70248 PROFESSIONAL ENGINEER MARCUS E. SACK

DATE: May 1, 2024

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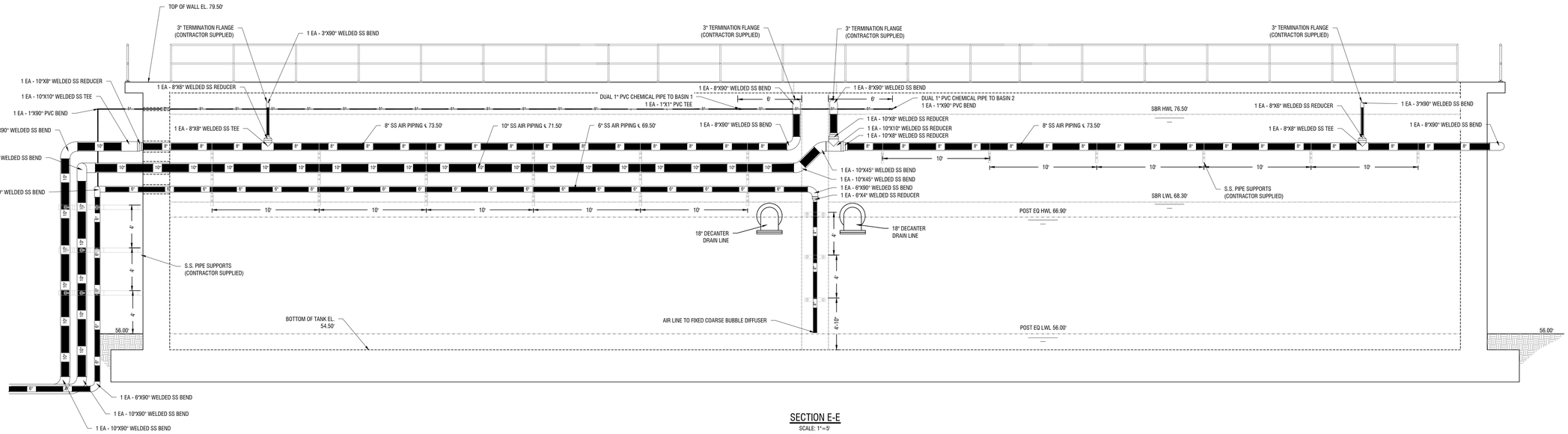
Water Pollution Control Plant

SBR SECTION VIEW 1

M10

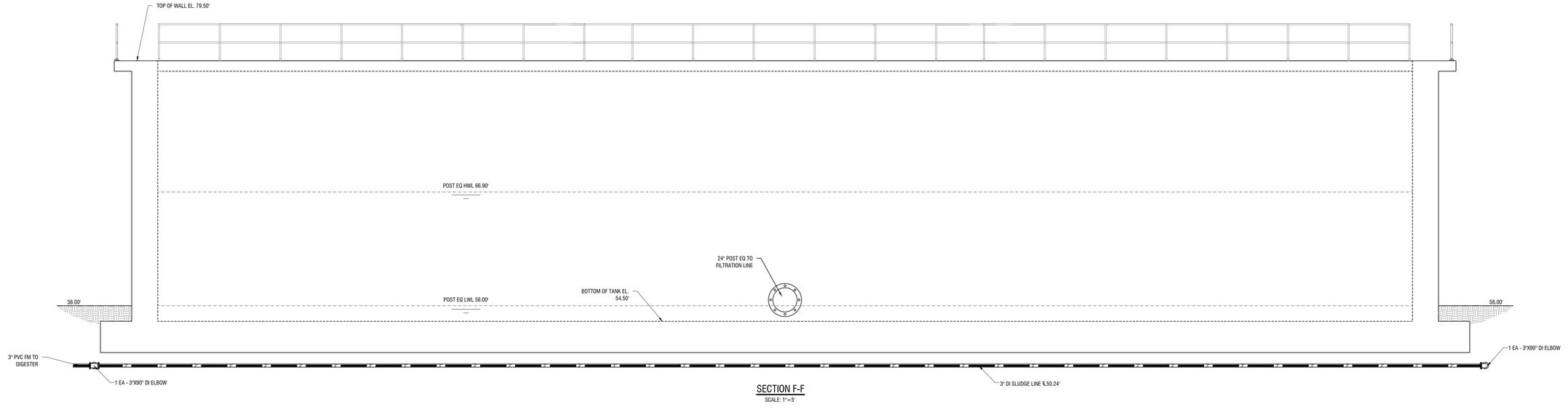
FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



SECTION E-E

SCALE: 1"=5'



SECTION F-F

SCALE: 1"=5'

NOTE:

1. ALL PIPING FROM THE BLOWER BUILDING TO THE TERMINATION FLANGE IS TO BE SUPPLIED BY THE CONTRACTOR.
2. ALL PIPING AFTER THE TERMINATION FLANGE IS SUPPLIED BY THE SBR MANUFACTURER.

SCALE BAR: 1"= 5'

5 0 2.5 5 10 20

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: OSCAR GARCIA

DESIGN PROFESSIONAL:
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GEORGIA REGISTERED No. 70248 PROFESSIONAL ENGINEER MARCUS SACK

DATE: May 1, 2024

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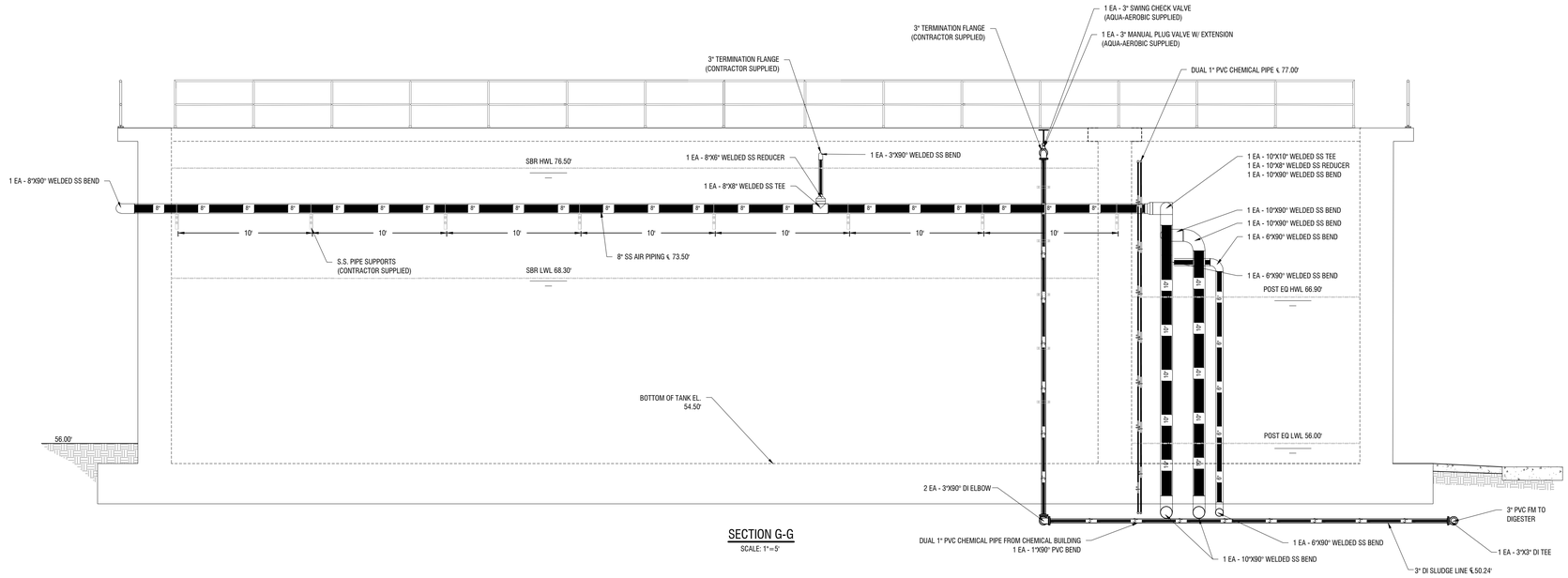
Water Pollution Control Plant

SBR SECTIONS VIEW 2

M11

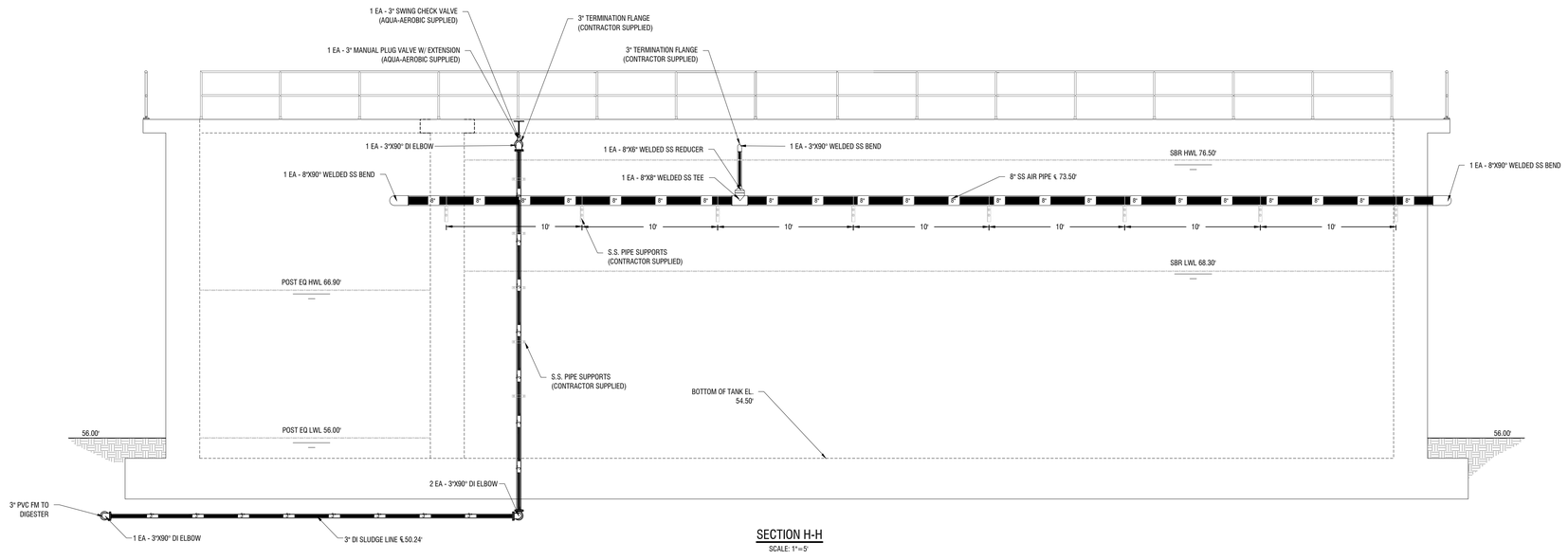
FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



SECTION G-G

SCALE: 1"=5'



SECTION H-H

SCALE: 1"=5'

NOTE:

1. ALL PIPING FROM THE BLOWER BUILDING TO THE TERMINATION FLANGE IS TO BE SUPPLIED BY THE CONTRACTOR.
2. ALL PIPING AFTER THE TERMINATION FLANGE IS SUPPLIED BY THE SBR MANUFACTURER.

SCALE BAR: 1"= 5'

5 0 2.5 5 10 20

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: OSCAR GARCIA

DESIGN PROFESSIONAL:
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GEORGIA REGISTERED No. 70248 PROFESSIONAL ENGINEER MARCUS E. SACK

DATE: May 1, 2024

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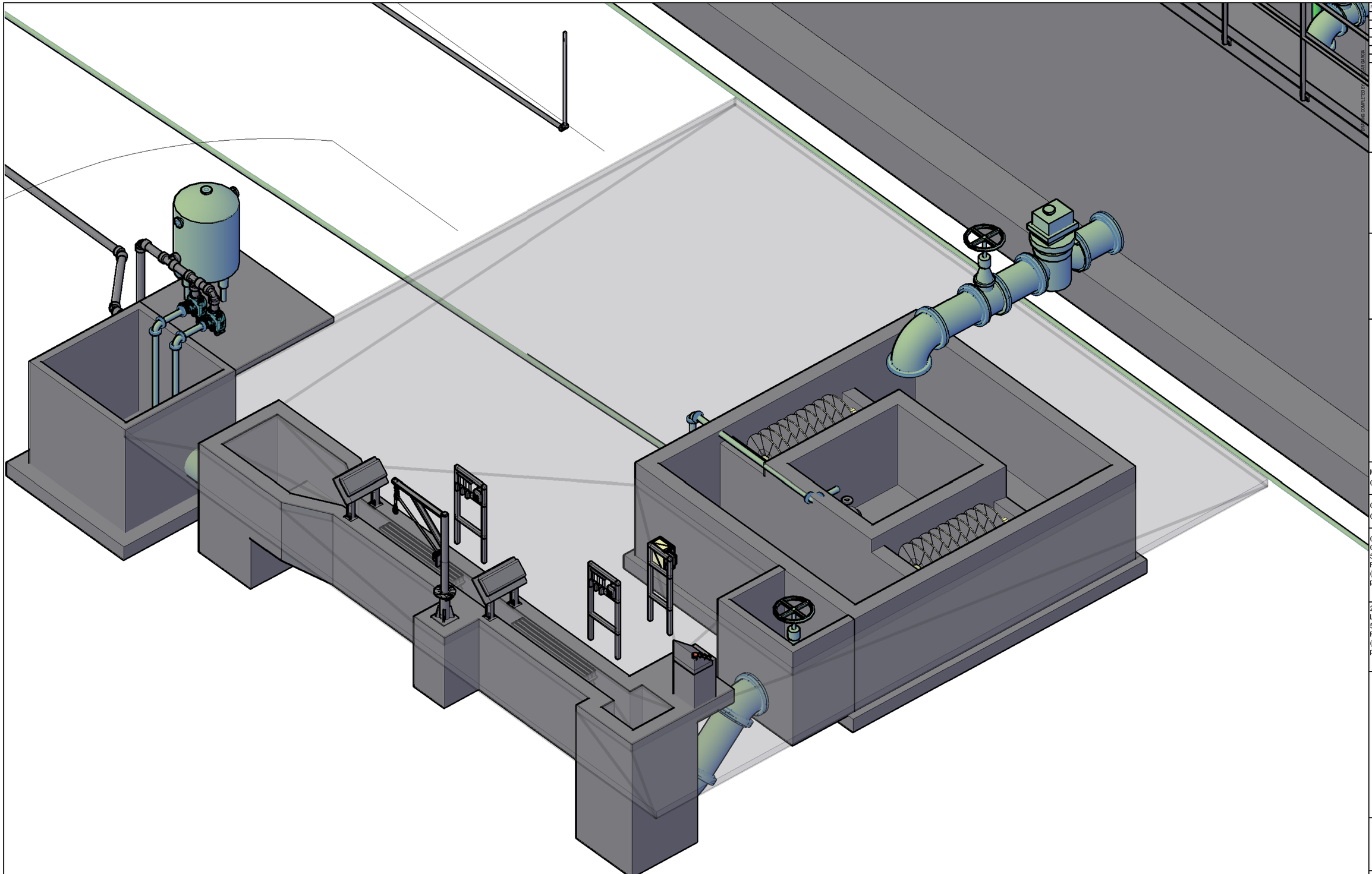
Water Pollution Control Plant

SBR SECTIONS VIEW 3

M12

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: JAVIER GARCIA

DESIGN PROFESSIONAL:
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DATE: May 1, 2024

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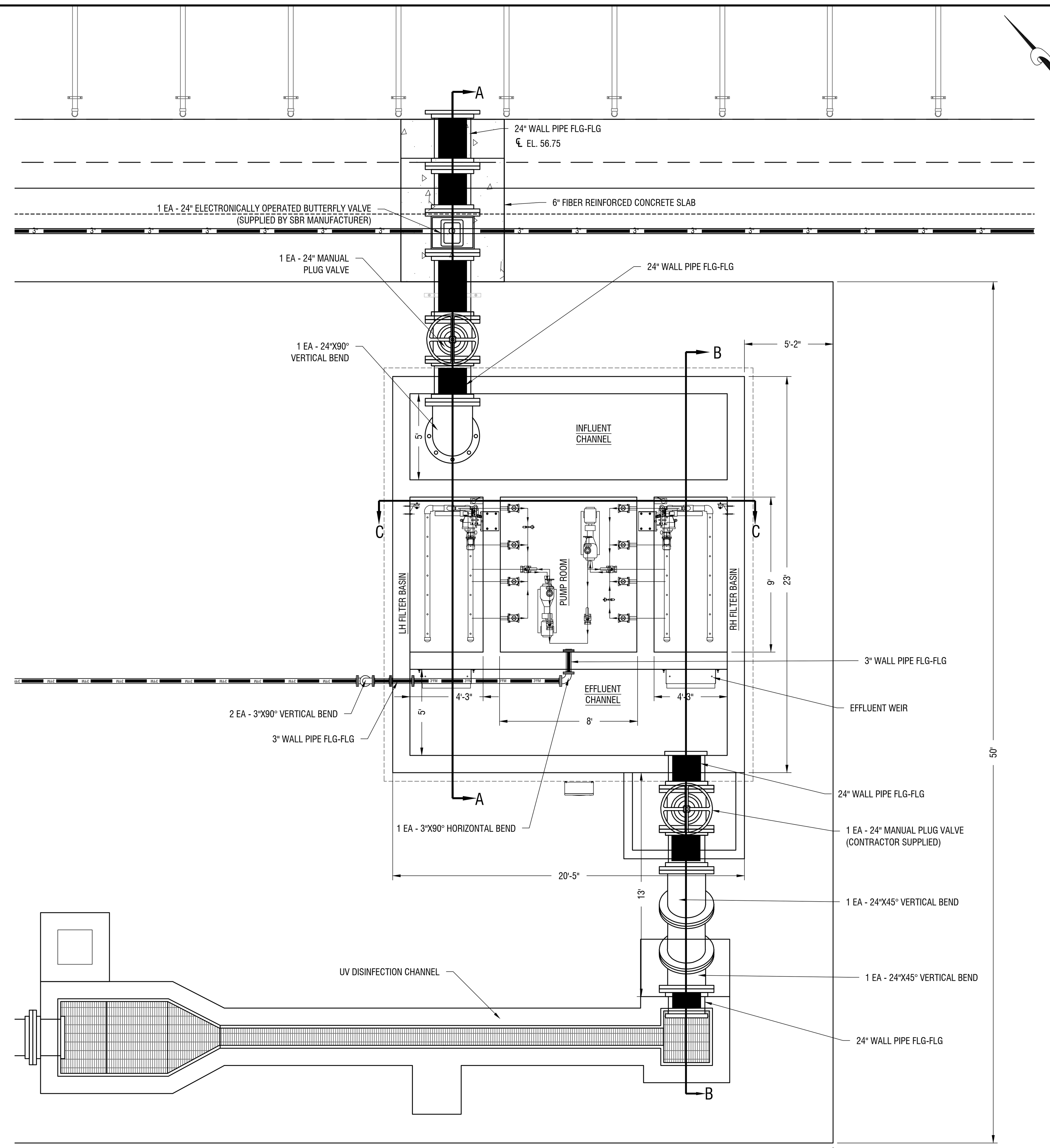
Water Pollution Control Plant

TERTIARY TREATMENT ISOMETRIC

M13

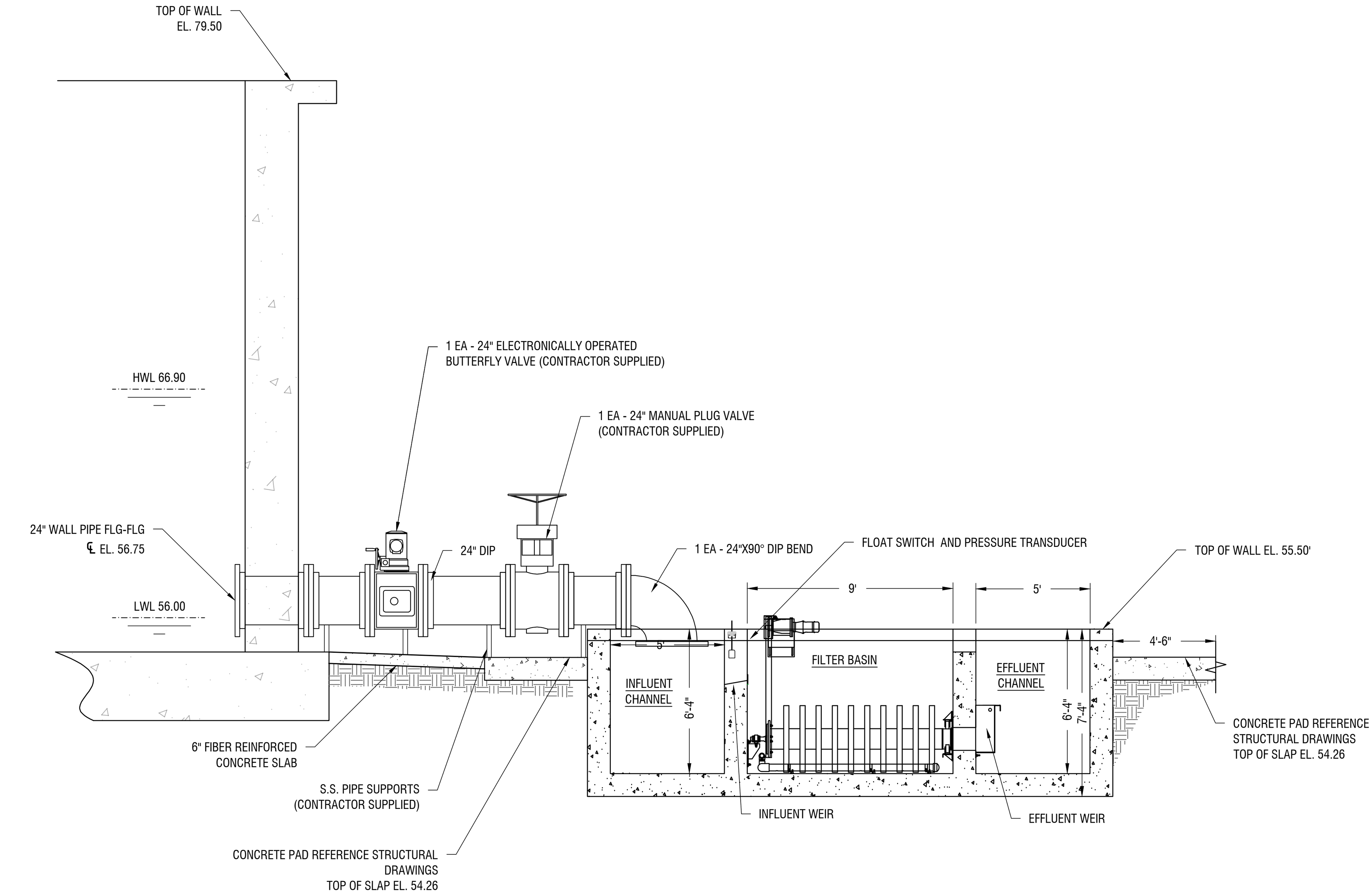
FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



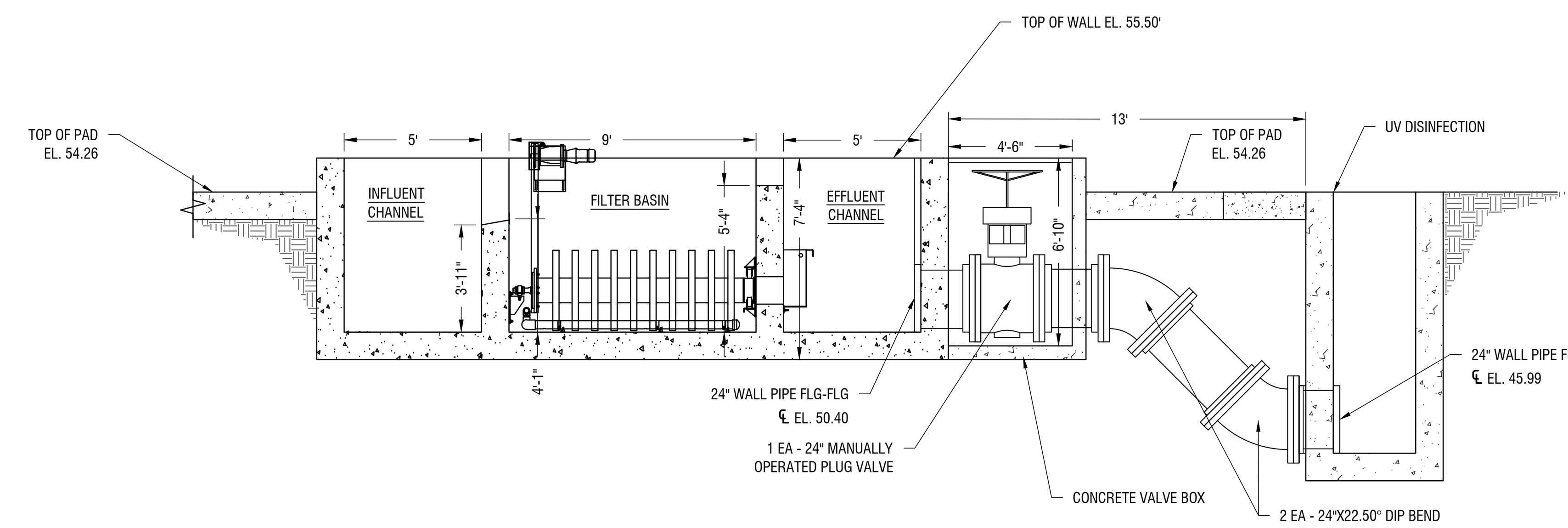
TERTIARY FILTRATION PLAN

SCALE: 1" = 5'



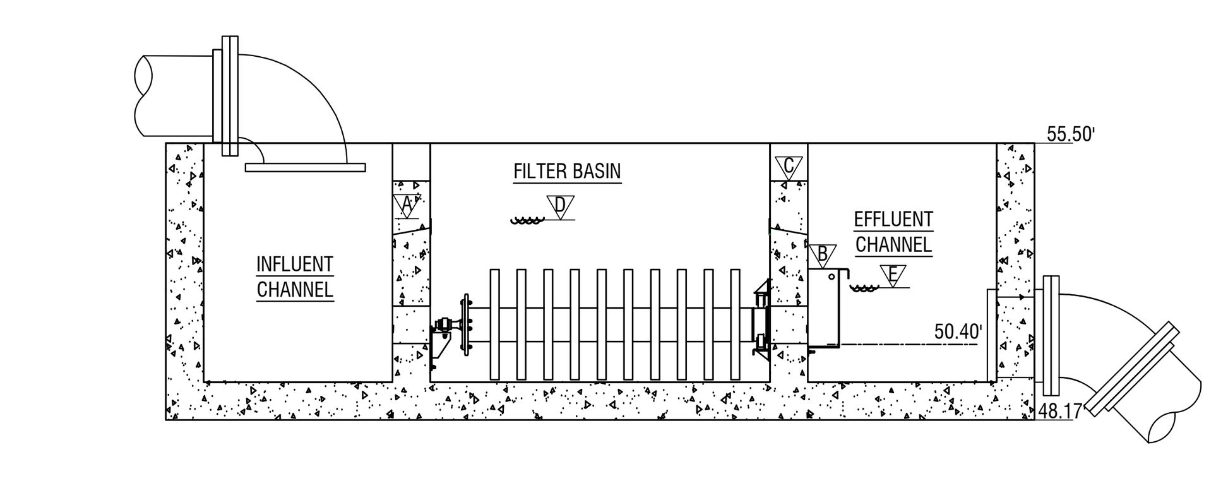
SECTION A-A

SCALE: 1"=5'



SECTION B-B

SCALE: 1"=5'

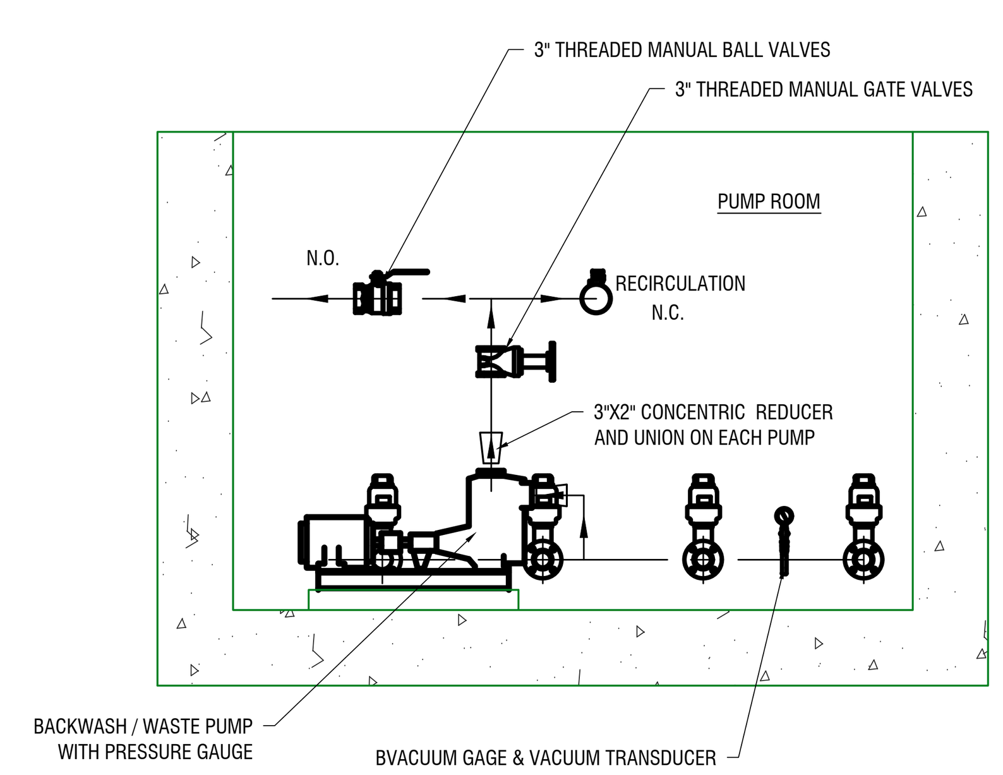


SECTION ELEVATIONS

SCALE: 1"=5'

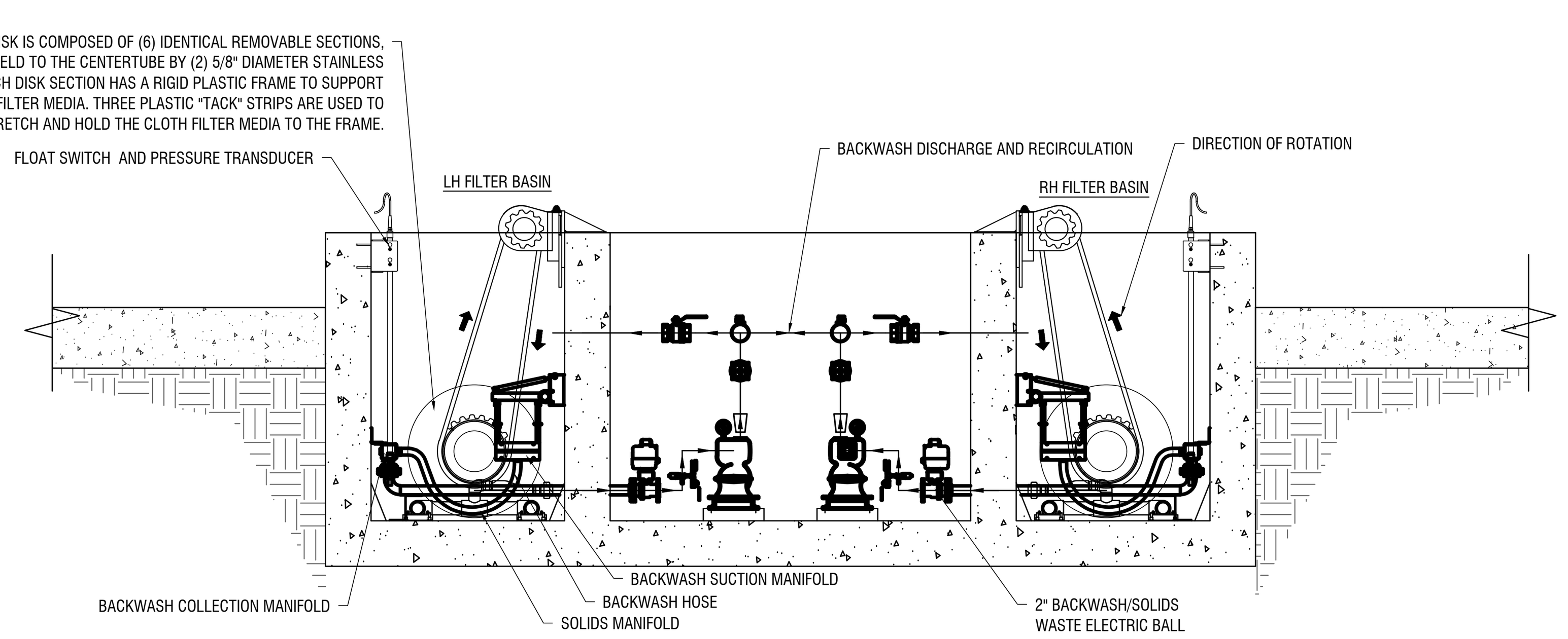
ELEVATION

A	53.50'	INFLUENT WEIR ELEVATION
B	52.17'	EFFLUENT WEIR ELEVATION
C	54.50'	OVERFLOW WEIR ELEVATION
D	53.47'	MAX DOWNSTREAM ELEVATION
E	51.67'	BACKWASH INITIATE



BACKWASH PUMP DETAIL

SCALE: 1"=30"



SECTION C-C

NTS

SCALE BAR: 1"= 5'

5 0 2.5 5 10 20

DRAWING COMPLETED BY: OSCAR GARCIA

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DESIGN PROFESSIONAL:
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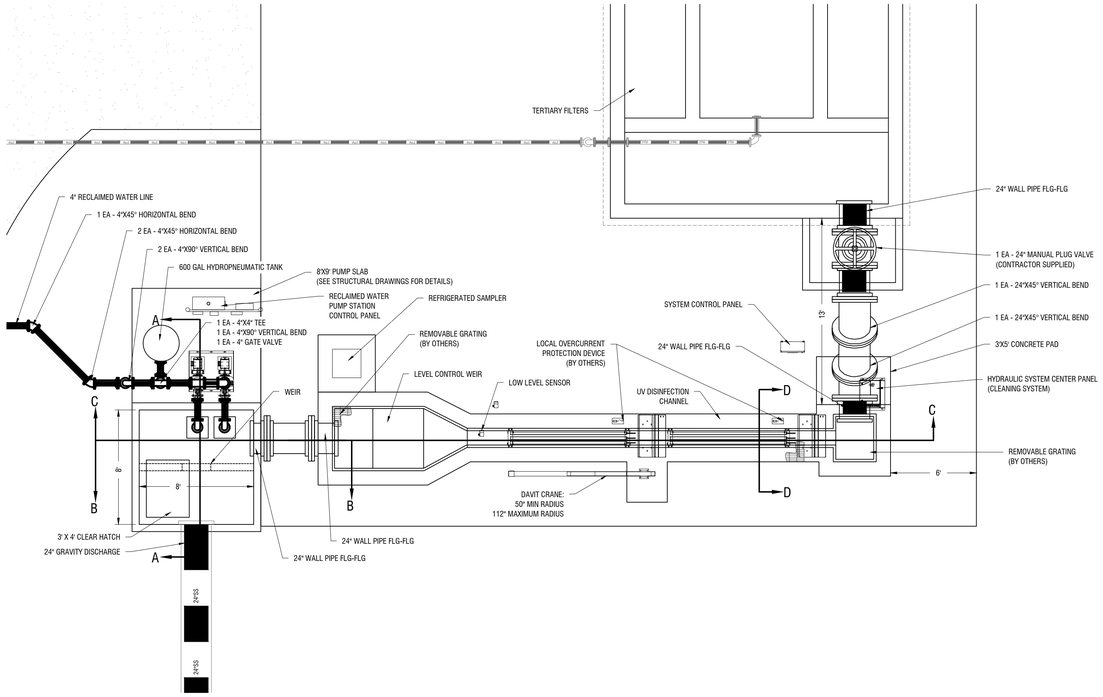
Water Pollution Control Plant

TERTIARY FILTRATION PLAN

M14

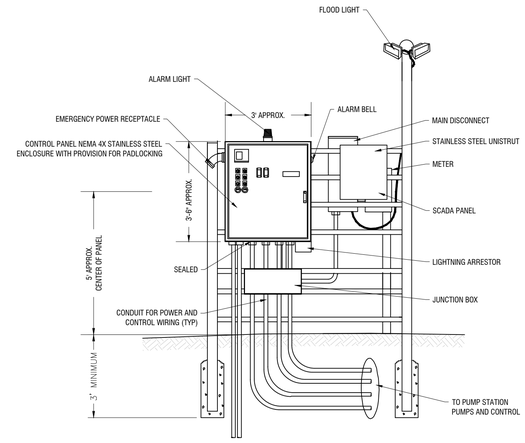
FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



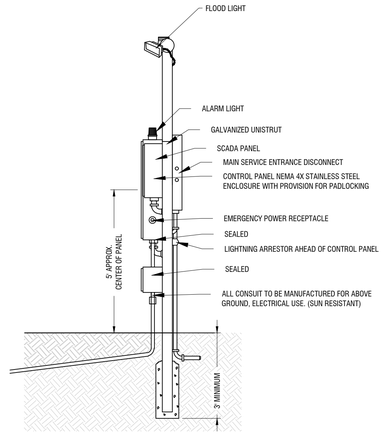
UV SYSTEM PLAN

SCALE: 1" = 5'



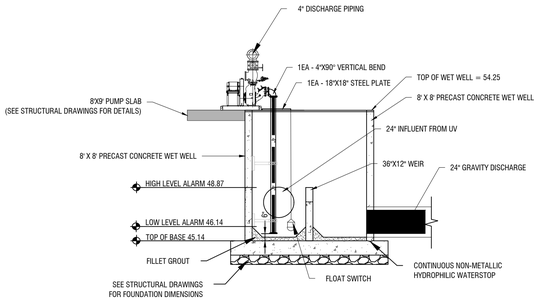
CONTROL PANEL ELEVATION VIEW

NTS



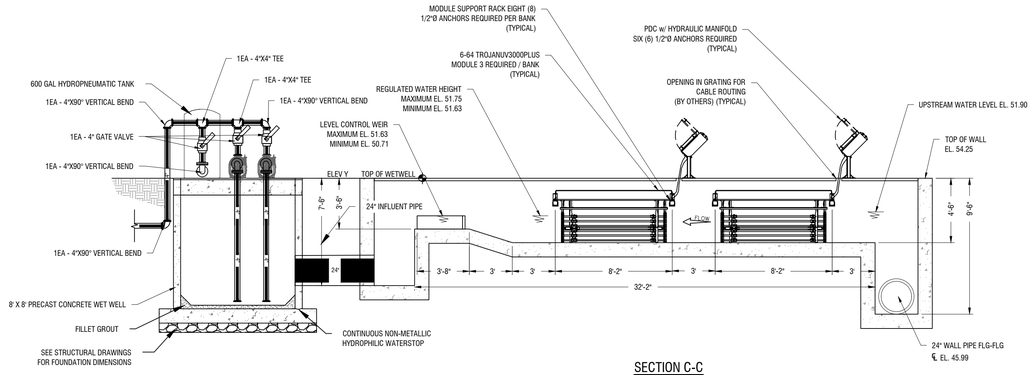
CONTROL PANEL SIDE VIEW

NTS



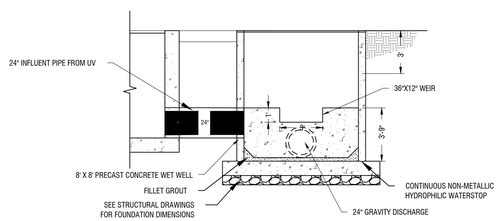
SECTION A-A

SCALE: 1"=5'



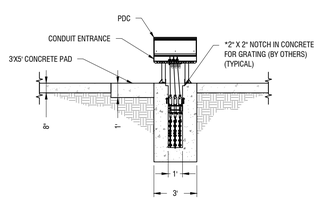
SECTION C-C

SCALE: 1"=5'



SECTION B-B

SCALE: 1"=5'



SECTION D-D

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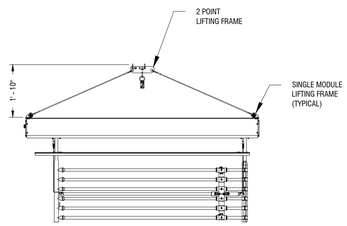
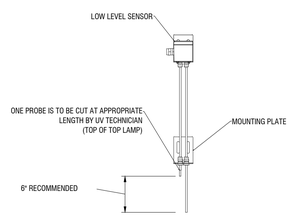


UV MODULE DETAIL

NTS



LEVEL SENSOR DETAIL

NTS

RECLAIMED WATER PUMP STATION GENERAL NOTES:

1. PUMPS SHALL MEET ALL REQUIREMENTS IN ACCORDANCE WITH THE SPECIFICATIONS.
2. WET WELL SHALL BE COATED INSIDE WITH PVC LINER OR LINED IN PLACE IN ACCORDANCE WITH THE SPECIFICATIONS.
3. ALL LOCATIONS WHERE PIPES ENTER OR LEAVE THE WET WELL SHALL BE MADE WATER AND GAS TIGHT WITH WALL SLEEVE OR NON-SHRINK GROUT.
4. WET WELL SHALL BE HEAVY DUTY ALUMINUM WITH TORSION BAR ASSIST, POSITIVE LOCK AT 90 AND SAFETY GRATE*, COVERS SHALL ALSO HAVE PADLOCKING CAPABILITIES (LOADING 300 PSF)
5. ELECTRICAL CONDUIT SIZE SHALL BE LARGE ENOUGH TO ALLOW FOR PERIODIC REMOVAL AND REPLACEMENT OF CABLES.
6. CABLE HANGERS SHALL BE STAINLESS STEEL.
7. REFERENCE STRUCTURAL DRAWINGS FOR ALL STRUCTURAL DIMENSIONS AND DETAILS.

DUTY POINT
- 60 GPM @ 140' TDH

SCALE BAR: 1"=5'
5 0 2.5 5 10 20

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: - OSCAR GARCIA

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DATE: May 1, 2024

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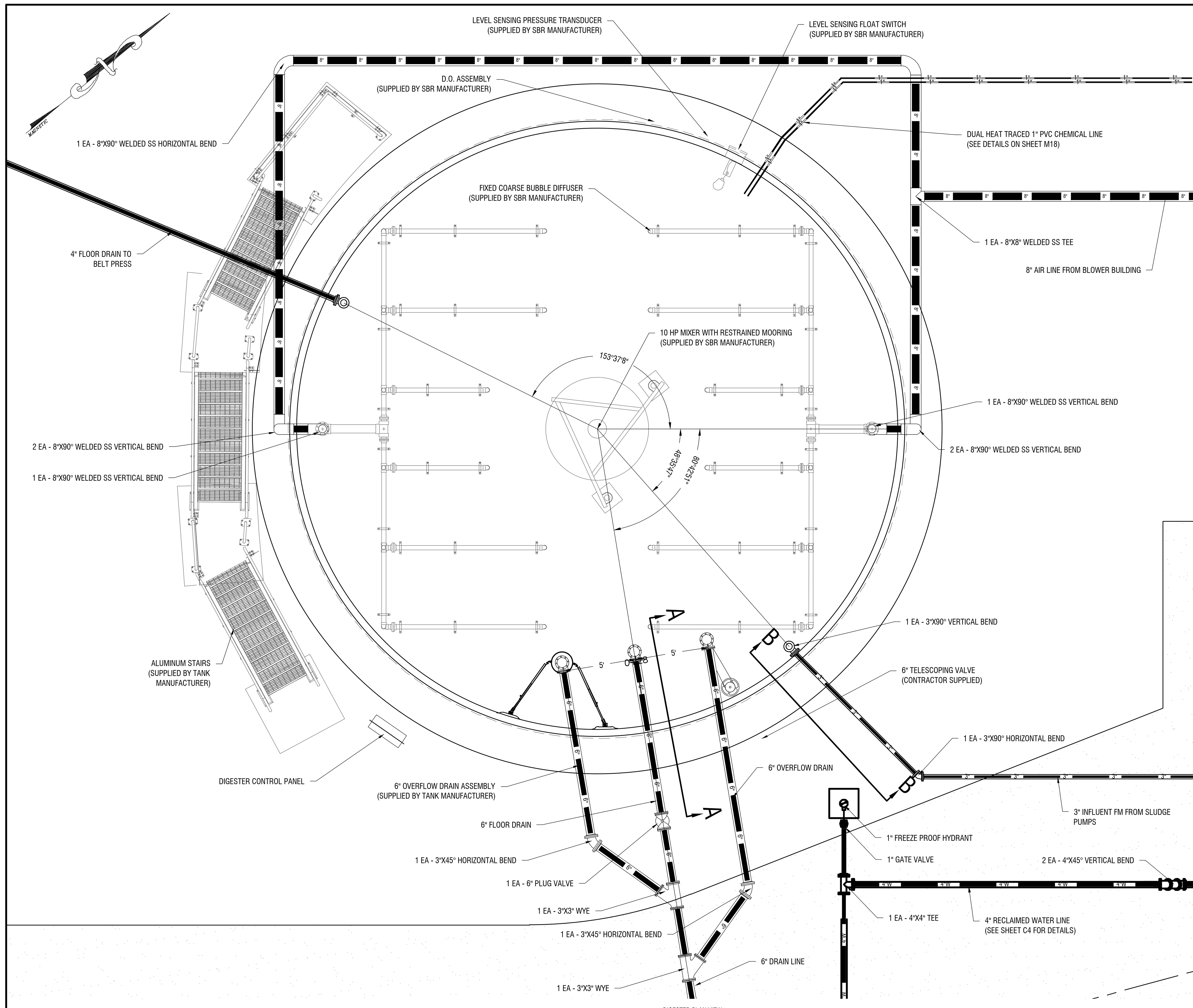
Water Pollution Control Plant

UV & RECLAIMED PS PLAN

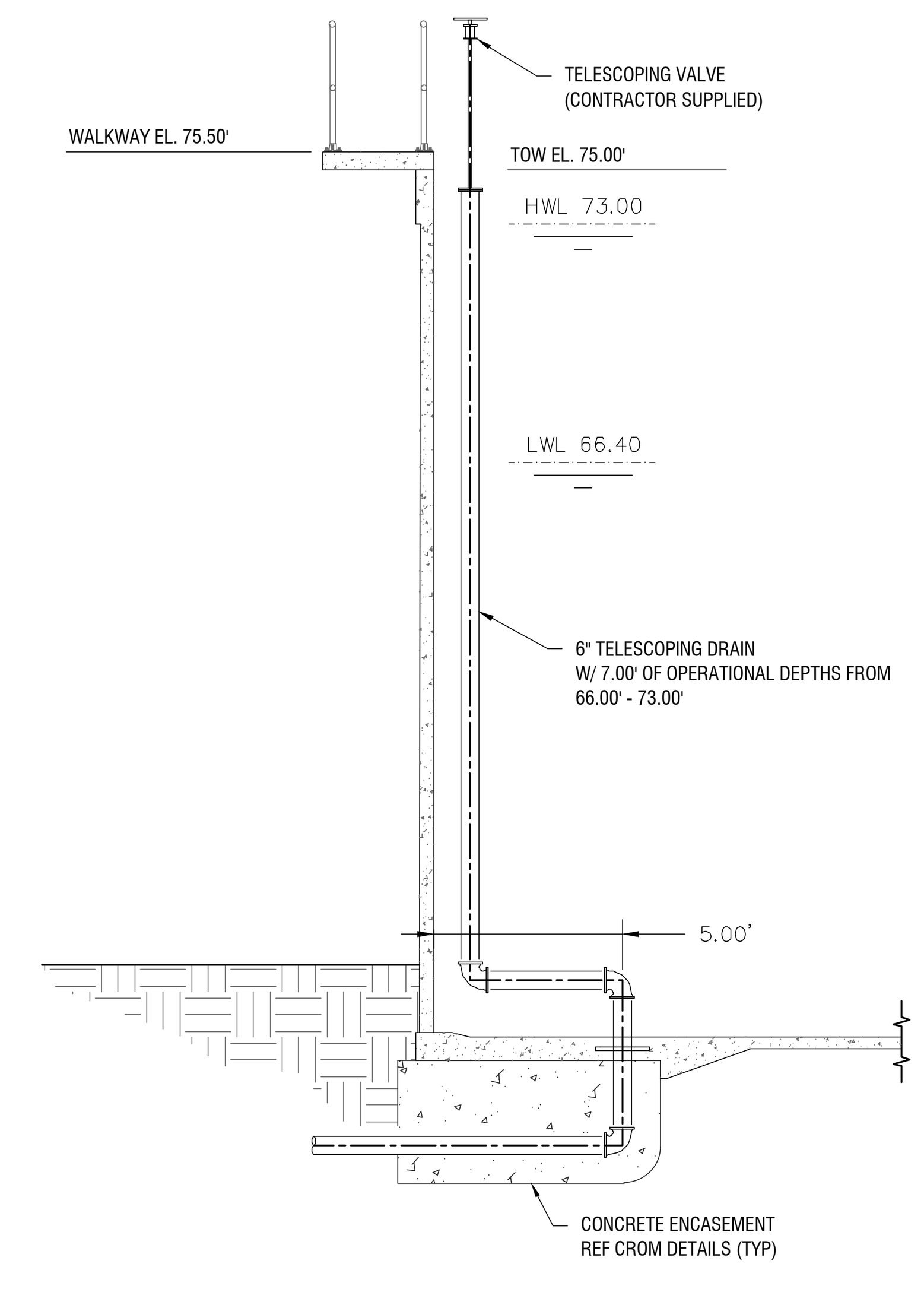
M15

FILE NO: 2013-36.1

PLOT DATE: May 1, 2024

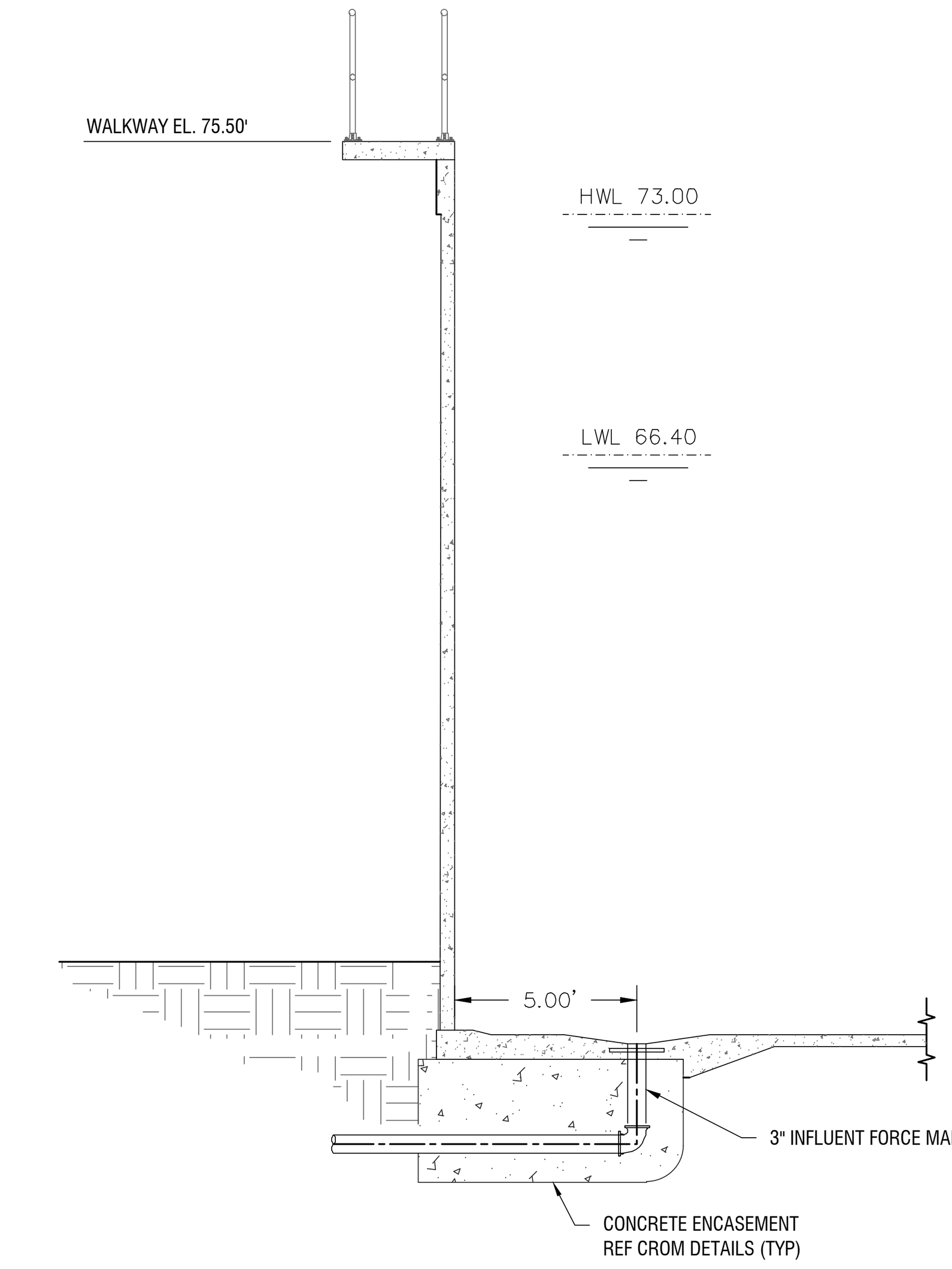


DIGESTER PLAN VIEW



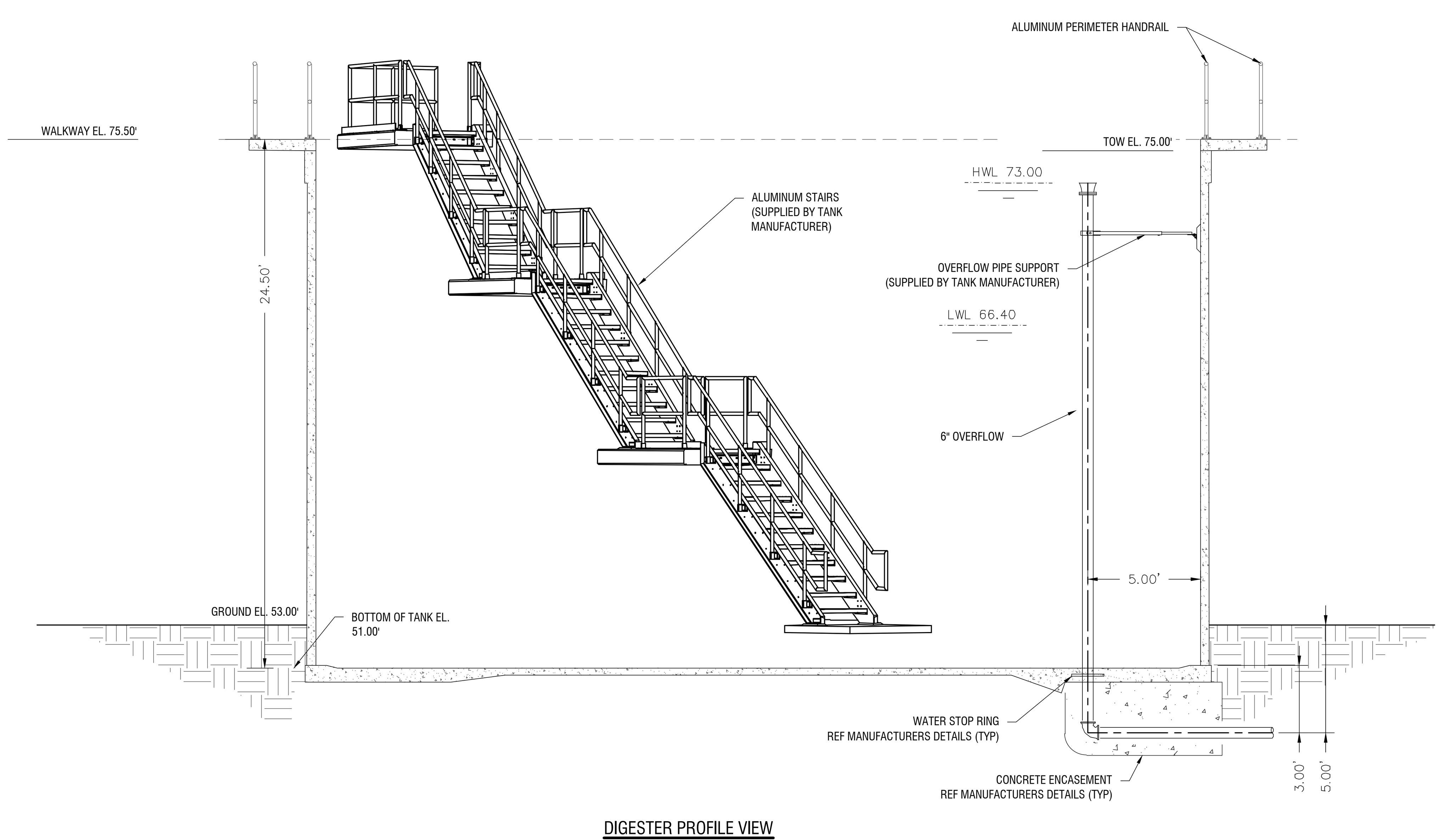
SECTION A-A

NTS



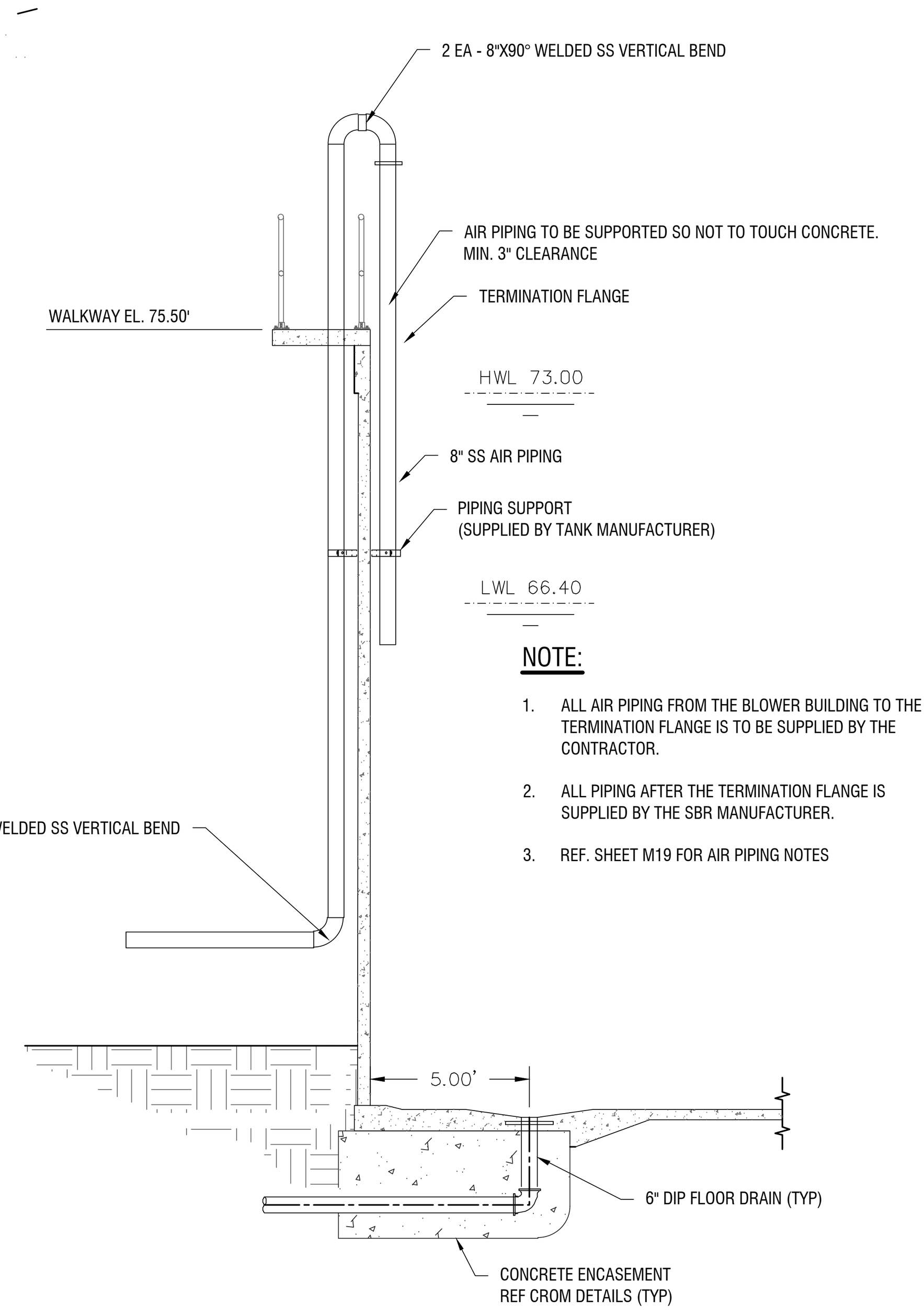
SECTION B-B

NTS



DIGESTER PROFILE VIEW

SCALE: 1"=5'

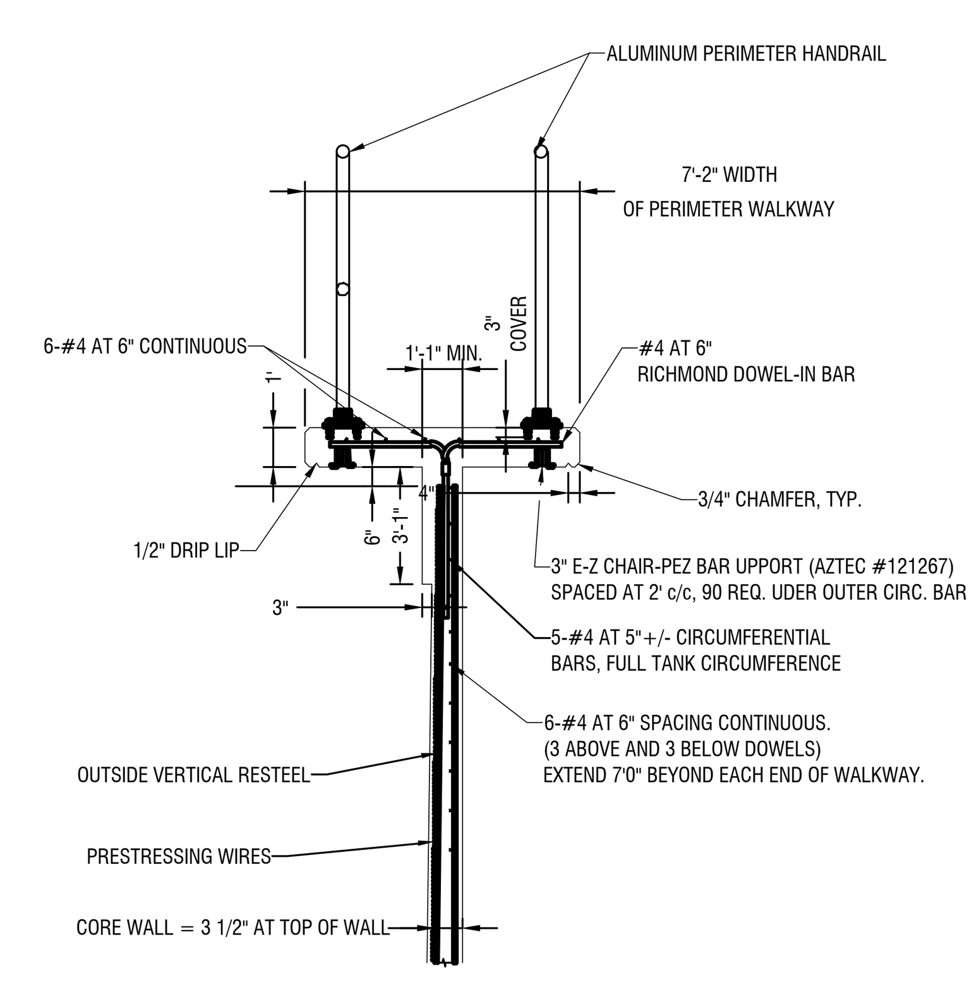


NOTE:

1. ALL AIR PIPING FROM THE BLOWER BUILDING TO THE TERMINATION FLANGE IS TO BE SUPPLIED BY THE CONTRACTOR.
2. ALL PIPING AFTER THE TERMINATION FLANGE IS SUPPLIED BY THE SBR MANUFACTURER.
3. REF. SHEET M19 FOR AIR PIPING NOTES

DIP FLOOR DRAIN

NTS



ELEVATED CONCRETE WALKWAY

NTS

SCALE BAR: 1"=5'

5 0 2.5 5 10 20

DRAWING COMPLETED BY: OSCAR GARCIA

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

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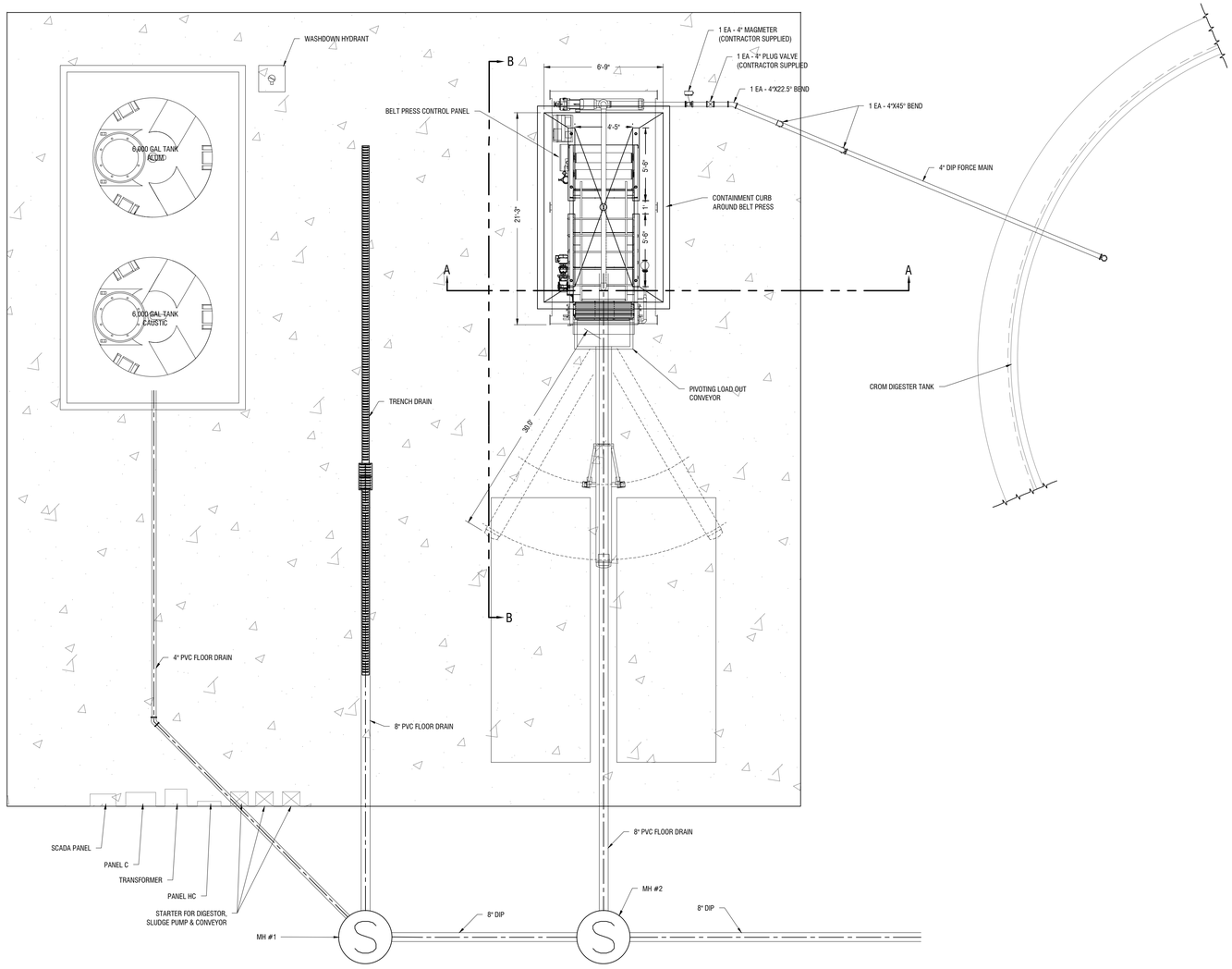
Water Pollution Control Plant

DIGESTER PLAN

M16

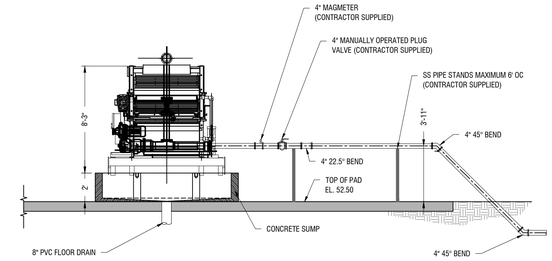
FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



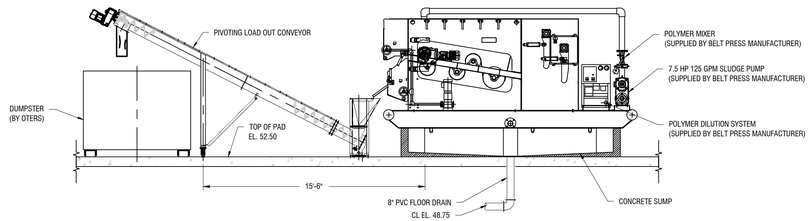
BELT PRESS PLAN VIEW

SCALE: 1"=5'



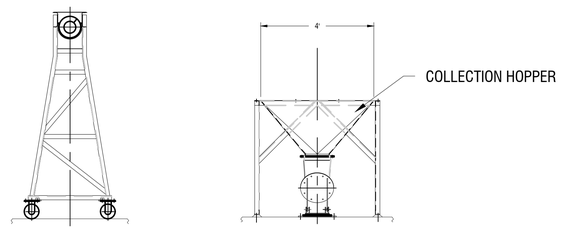
SECTION A-A

SCALE: 1"=5'



SECTION B-B

SCALE: 1"=5'



HOPPER DETAIL

NTS

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: OSCAR GARCIA

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Water Pollution Control Plant

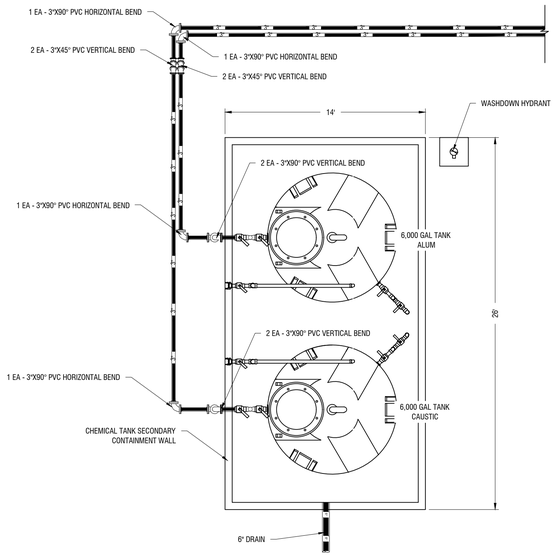
BELT PRESS PLAN

M17

SCALE BAR: 1"=5'
5 0 2.5 5 10 20

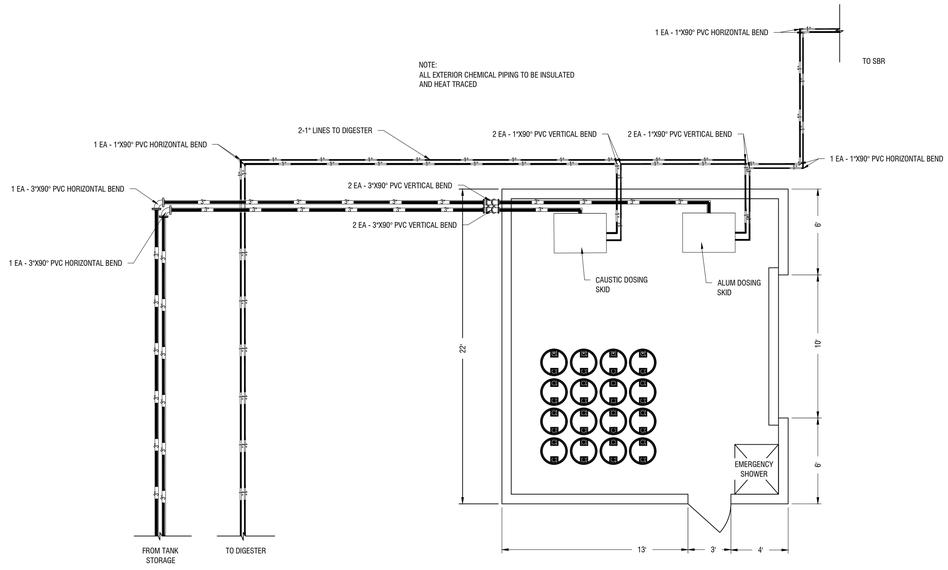
FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



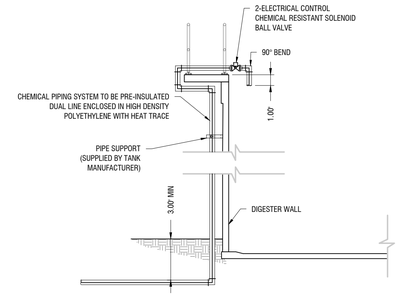
CHEMICAL STORAGE PLAN

NTS



CHEMICAL BUILDING PLAN

SCALE: 1" = 5'

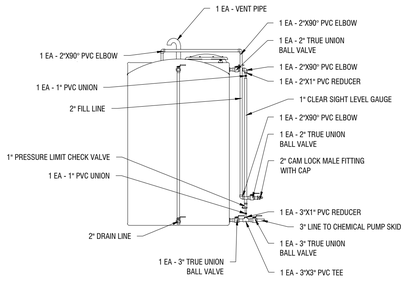


DIGESTER TANK CHEMICAL PIPING DETAIL

NTS

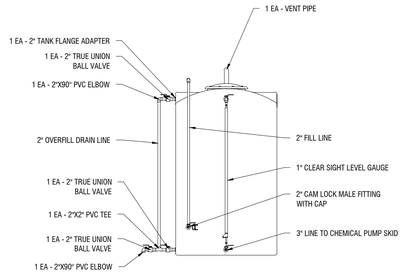
6,000 GAL TANK
8'-6" ID X 15'-7"
FRP TANK TO BE INSULATED AND HEAT TRACED

CONTRACTOR TO CONFIRM TANK DIMENSION AND CLEARANCE UNDER EXISTING STRUCTURE & REQUIRED CONSTRUCTION SEQUENCING PRIOR TO BEGINNING CONSTRUCTION



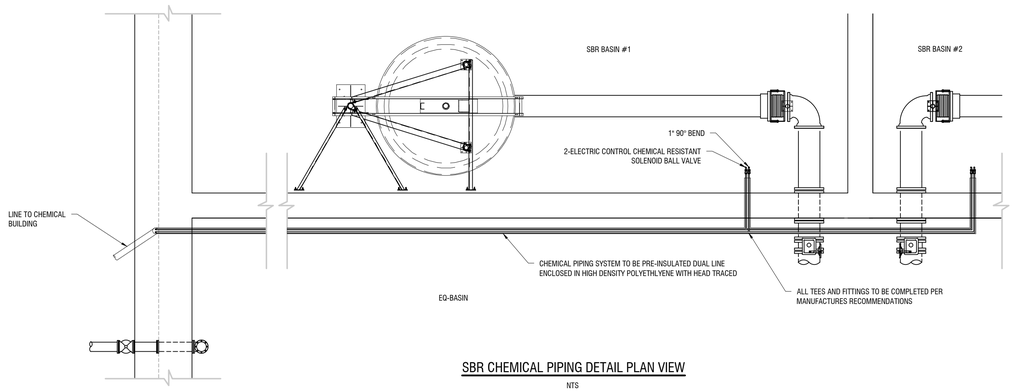
CHEMICAL TANK PIPING DETAIL
PROFILE VIEW

NTS



CHEMICAL TANK PIPING DETAIL
FRONT VIEW

NTS



SBR CHEMICAL PIPING DETAIL PLAN VIEW

NTS

REVISIONS:

1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: OSCAR GARCIA

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DATE: May 1, 2024

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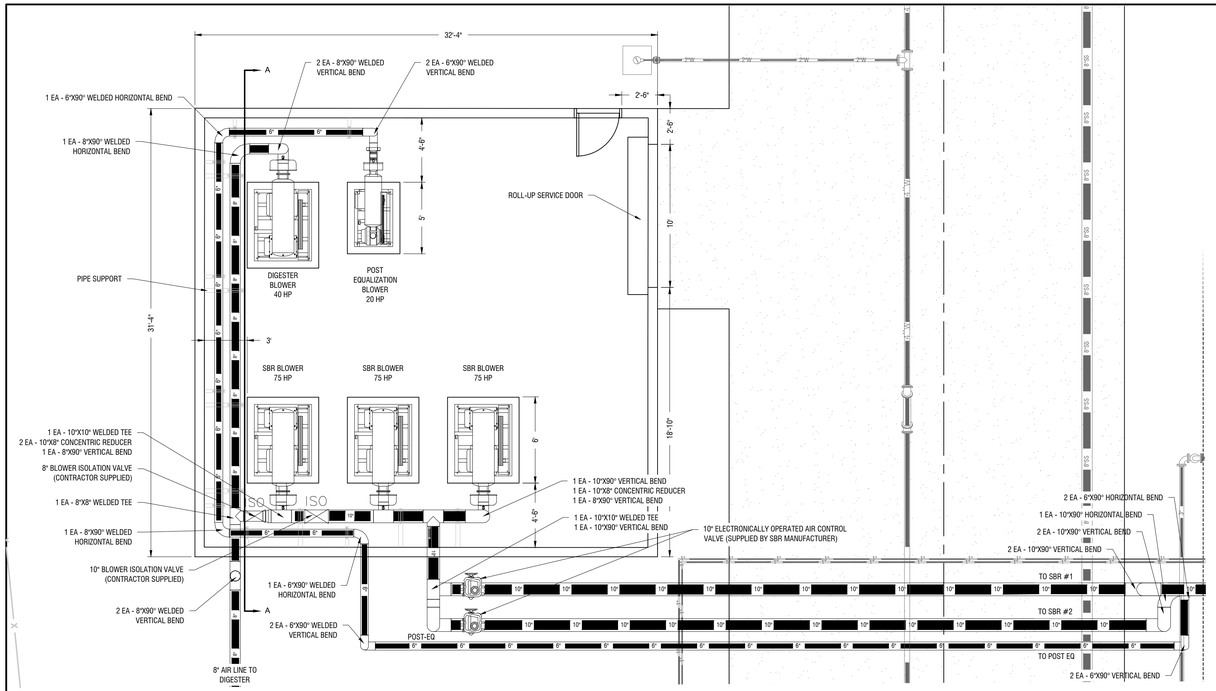
Water Pollution Control Plant

CHEMICAL FEED SYSTEM

M18

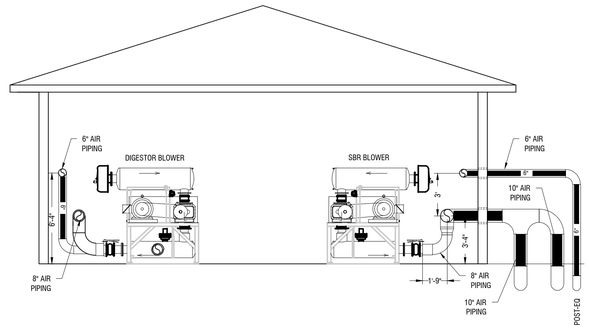
FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



BLOWER BUILDING PLAN

SCALE: 1" = 5'

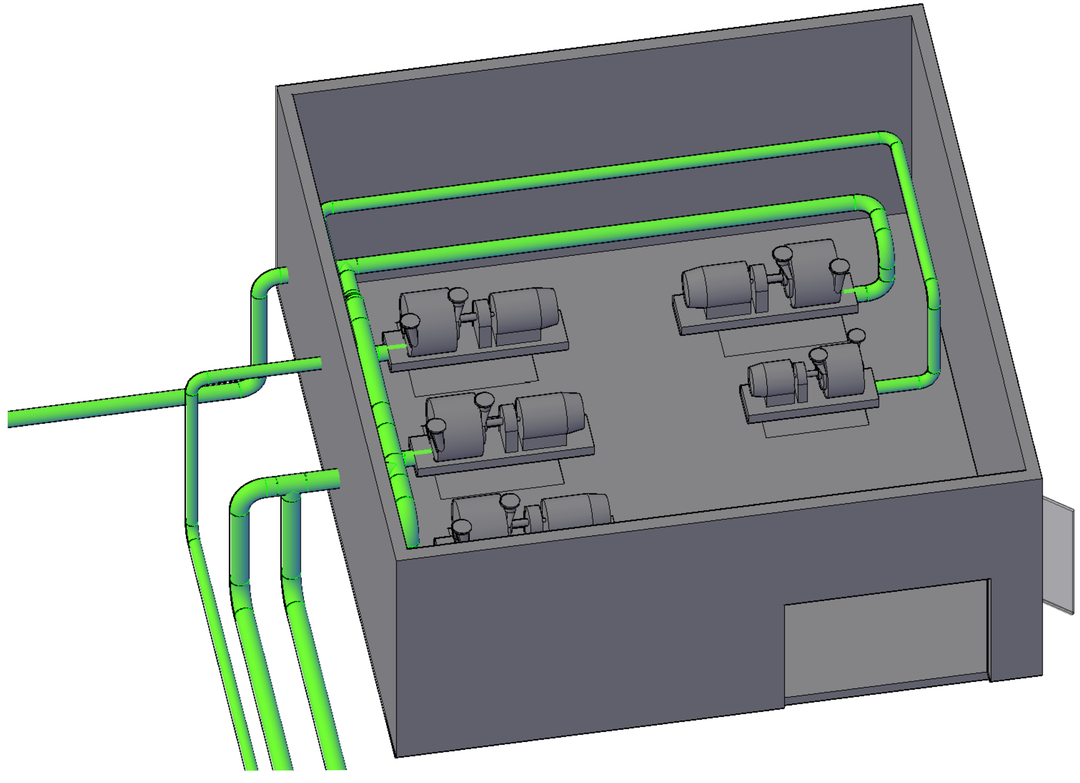


BLOWER BUILDING SECTION A-A

SCALE: 1" = 5'

AIR PIPING NOTES:

1. AIR PIPING - SCHEDULE 10S STAINLESS STEEL
2. FLANGES - 304 STAINLESS STEEL, 150# CLASS WITH NEOPRENE GASKET
3. ALL AIR PIPING BELOW 8' MEASURED FROM FIN FLOOR WILL BE INSULATED WITH 3" INSULATION
4. REAM ALL PIPE ENDS AND REMOVE BURRS.
5. REMOVE SCALE AND DIRT, ON INSIDE AND OUTSIDE BEFORE ASSEMBLY.
6. PREPARE PIPING CONNECTIONS WITH FLANGES, WHERE SHOWN.
7. BUTT WELD PIPING NON-FLANGE PIPING AND FITTINGS.
8. PROVIDE NON-CONDUCTING DIELECTRIC CONNECTIONS WHEN JOINING DISSIMILAR METALS.
9. INSTALL PIPING TO ALLOW FOR EXPANSION AND CONTRACTION WITHOUT STRESSING PIPE, JOINTS OR EQUIPMENT.
10. PROVIDE CLEARANCE FOR INSTALLATION OF INSULATION AND ACCESS TO VALVES AND FITTINGS.
11. INSTALL VALVES WITH STEMS UPRIGHT OR HORIZONTAL, NOT INVERTED
12. INSTALL 1" THICK INSULATION ON ALL AIR PIPING BELOW 8' AFF.
13. PLACE EXPANSION JOINTS IN EXTENDED POSITION WHEN PIPING IS INSTALLED.
14. EXPANSION JOINT ALONG PIPE LENGTH AS SHOWN IN CHART BELOW.
15. ALL DIMENSIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO MANUFACTURING OF AIR PIPING
16. EXPANSION JOINT SPECIFICATION ARE AS FOLLOWS:
    RESISTOFLEX # R6905-048WS3 - CONVOLUTE EXPANSION JOINT EVERY 25' FOR 3"
    RESISTOFLEX # R6906-096WS5 - CONVOLUTE EXPANSION JOINT EVERY 40' FOR 6"
    RESISITOFLEX # R6906-128WS5 - CONVOLUTE EXPANSION JOINT EVERY 40' FOR 8"



BLOWER BUILDING ISOMETRIC

NTS

SCALE BAR: 1" = 5'

5 0 2.5 5 10 20

REVISIONS:	
1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: - OSCAR GARCIA

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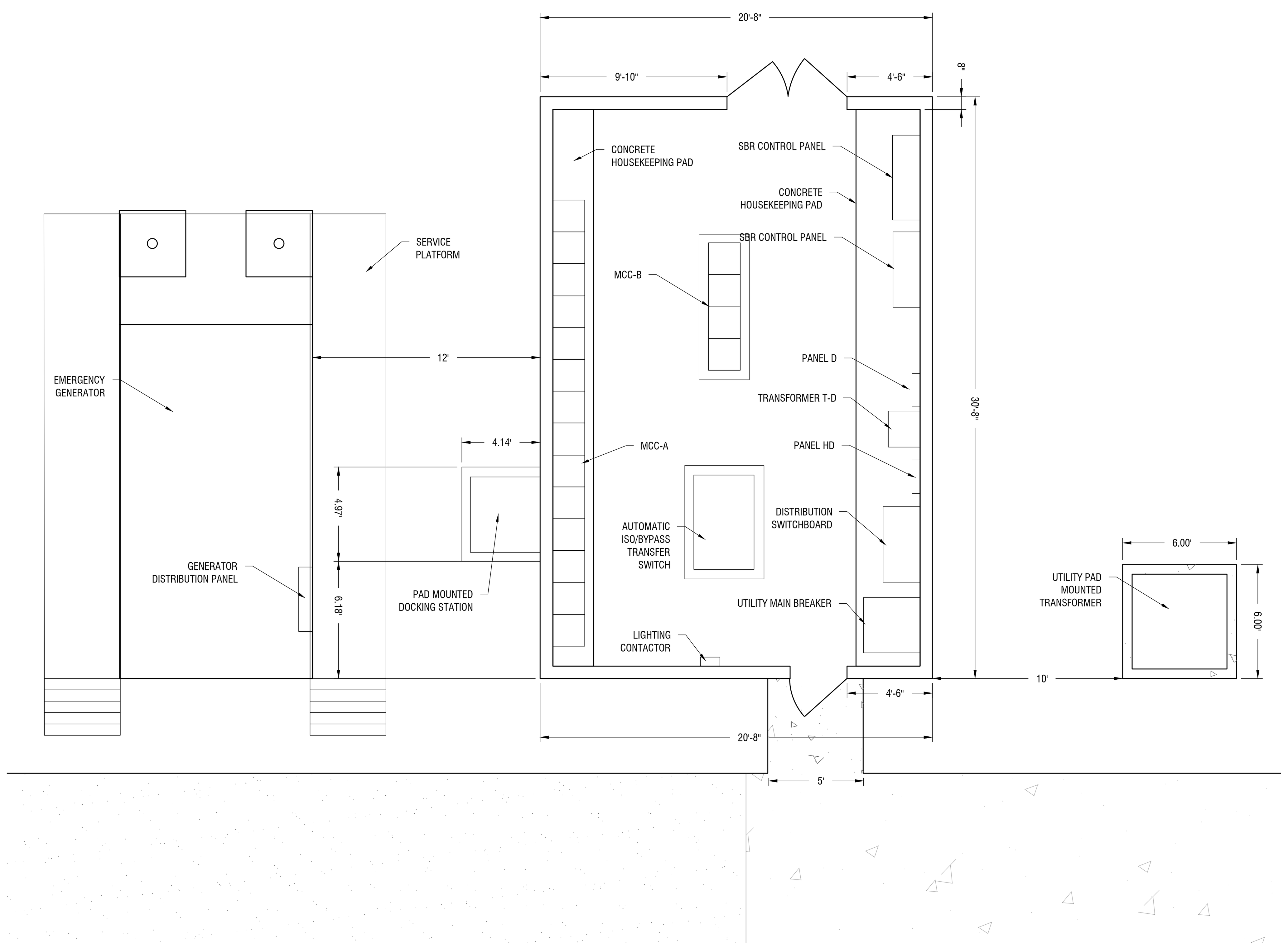
Water Pollution Control Plant

BLOWER BUILDING AND AIR PIPING

M19

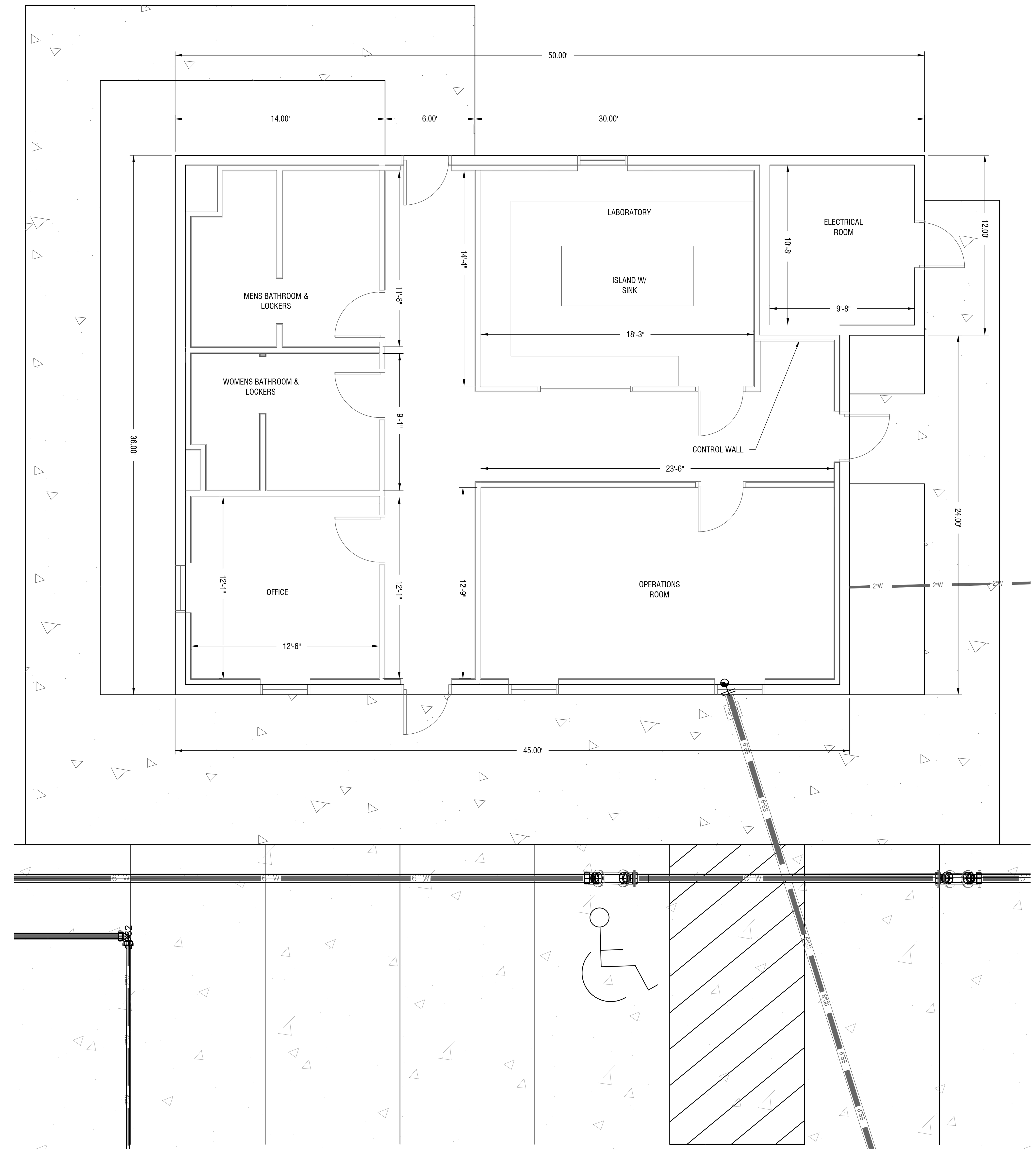
FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



ELECTRICAL BUILDING PLAN

SCALE: 1" = 5'



OPERATIONS BUILDING PLAN

SCALE: 1" = 5'

REVISIONS:	
1	GSWCC COMMENTS
2	UPDATE TO MEEW NEW WLA
3	GSWCC COMMENTS
4	DETAIL ADJUSTMENT

DRAWING COMPLETED BY: OSCAR GARCIA

DESIGN PROFESSIONAL:
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DATE: May 1, 2024

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Water Pollution Control Plant

ELECTRICAL & OPERATIONS BUILDINGS

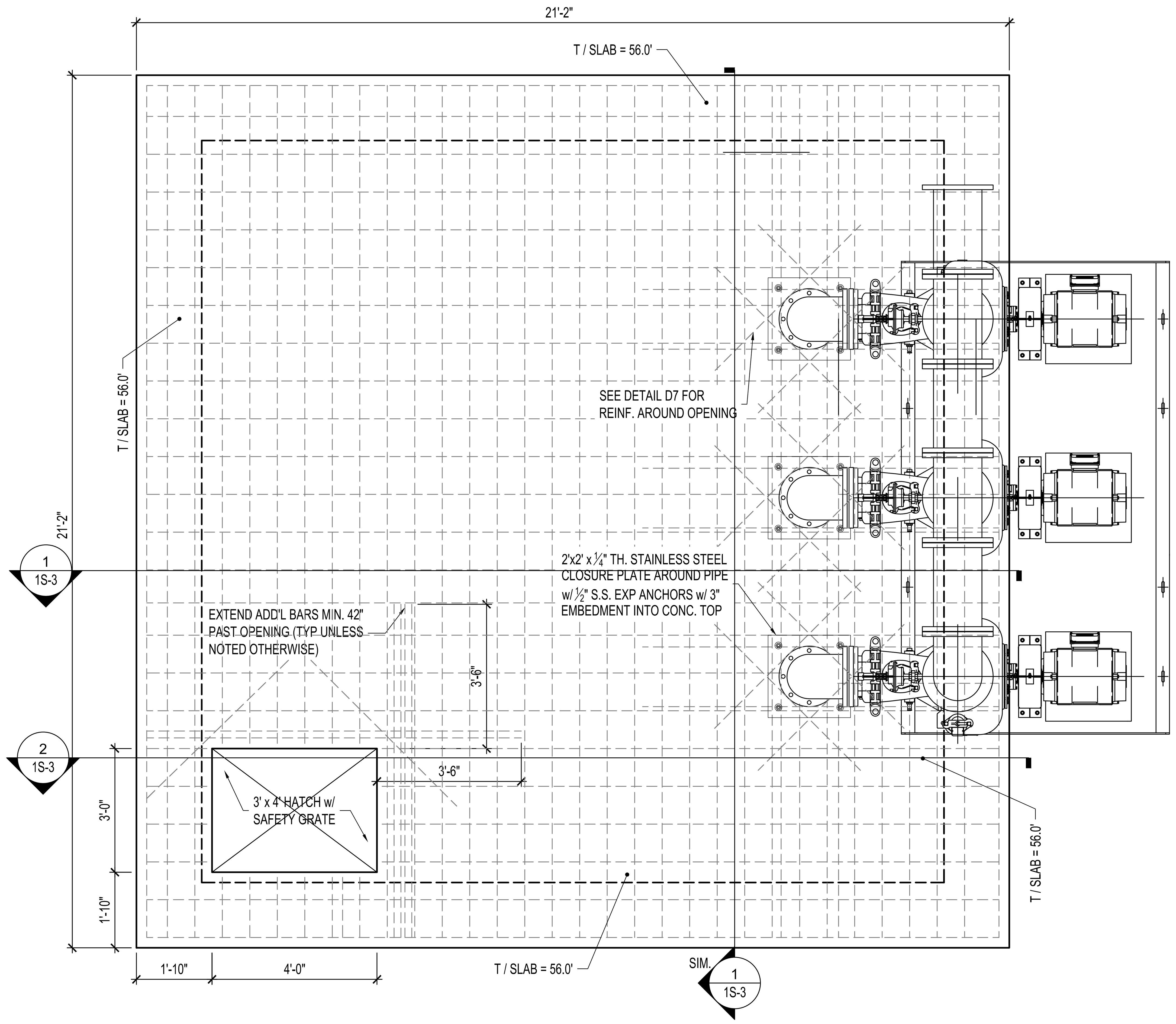
M20

SCALE BAR: 1"=5'

5 0 2.5 5 10 20

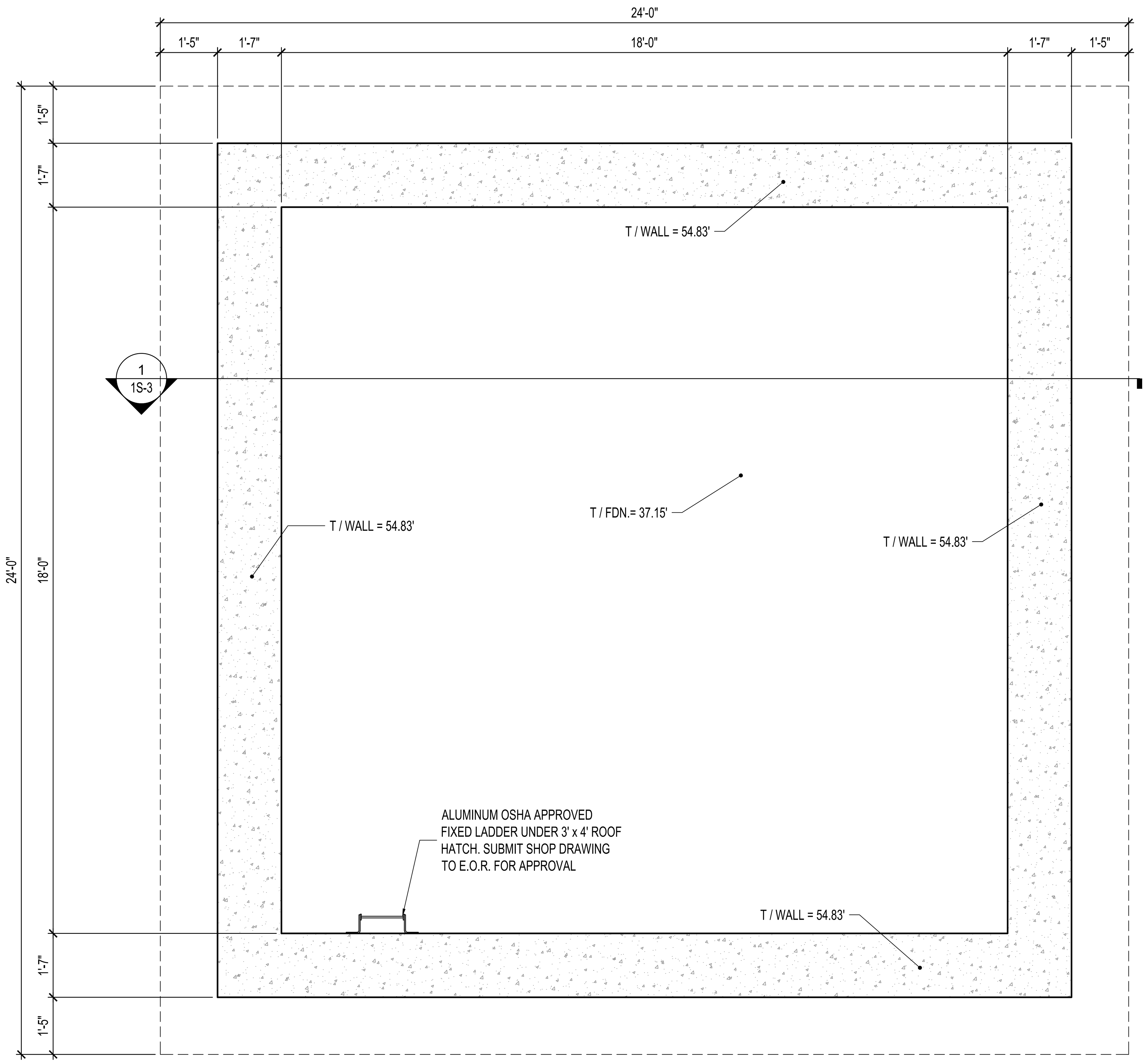
FILE NO: 2013-36.1

PLOT DATE: May 1, 2024



2 INFLUENT PUMP STATION TOP SLAB REINFORCING PLAN

3/8"=1'-0"



1 INFLUENT PUMP STATION FOUNDATION PLAN

3/8"=1'-0"

CONC REINF LAP LENGTH

4500 PSI (ACI 350-06)

BAR SIZE	TENSION SPLICE
	CLASS 'B'
#3	18"
#4	24"
#5	30"
#6	35"
#7	51"
#8	59"
#9	66"
#10	73"

CONCRETE NOTES

1. MINIMUM CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS SHALL BE 4500 PSI FOR WALLS AND SLABS IN LIQUID CONTAINING VESSELS.
2. MINIMUM CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS SHALL BE 3000 PSI FOR CAISSONS AND SLABS-ON-GRADE.
3. STRUCTURAL MEMBERS OF REINFORCED CONCRETE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 318-11.
4. PROVIDE ¾" CHAMFER AT ALL EXPOSED CORNERS OF CONCRETE W/O EMBED ANGLES.
5. PLACE ALL REBAR FOR WALLS & SLABS IN DIRECTIONS & LOCATIONS AS SHOWN IN TANK SECTIONS. DO NOT REVERSE LOCATIONS OF INSIDE/OUTSIDE BARS AT EACH FACE.
6. CONCRETE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318-11. SAMPLES FOR STRENGTH TESTS OF EACH CLASS OF CONCRETE PLACED EACH DAY SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 75 CY OF CONCRETE USED FOR FOOTINGS, NOR LESS THAN ONCE FOR EACH 5000 SQUARE FEET OF SURFACE AREA FOR SLABS. TEST REPORTS INDICATING (NON)COMPLIANCE SHALL BE PROVIDED TO THE OWNER, ENGINEER & CONTRACTOR. A COPY OF THE TEST REPORTS SHALL BE AVAILABLE AT THE JOBSITE. 4 INCH DIAMETER X 8 INCH TEST CYLINDERS ARE ACCEPTABLE.

FOUNDATION NOTES

1. DESIGN SOIL BEARING PRESSURE = 2000 PSF. SOIL BEARING PRESSURE SHALL BE VERIFIED AT TIME OF EXCAVATION AND STRUCTURAL ENGINEER SHALL BE NOTIFIED IF THE ACTUAL SOIL BEARING PRESSURE IS LOWER THAN THE DESIGN SOIL PRESSURE. FOUNDATION DESIGN AND SUBSURFACE INFORMATION IS BASED ON A SOILS REPORT PREPARED BY TERRACON CONSULTANTS, INC. (PROJECT# ES165069).
2. DEWATER, UNDERCUT, & REPLACE MATERIAL BELOW FOOTING ELEVATIONS PER GEOTECH REPORT. GRANULAR BASE BELOW FOOTING SHALL BE #57 STONE.
3. PRIOR TO POURING CONCRETE, ALL DEBRIS, WATER, AND LOOSE EARTH SHALL BE REMOVED FROM THE FOUNDATION BED.
4. GEOTECHNICAL ENGINEER SHALL VERIFY CONDITION AND/OR ADEQUACY OF ALL SUBGRADES, FILLS, AND BACKFILLS PRIOR TO PLACEMENT OF FOUNDATIONS, FOOTINGS, SLABS, WALLS, FILLS, BACKFILLS, ETC.
5. BACKFILL AGAINST WALLS SHALL BE DEPOSITED EVENLY AGAINST BOTH SIDES OF WALLS UNTIL THE LOWER FINAL GRADE IS REACHED. COMPACTION OF BACKFILL WITHIN 10 FEET OF WALLS SHOULD BE PERFORMED WITH HAND OPERATED EQUIPMENT. THE BACKFILLING OF UNDERGROUND STRUCTURES SHALL BE DONE W/ A MAX OF 4'-0" INCREMENTS ALL AROUND THE STRUCTURES.
6. PLACEMENT AND COMPACTION OF STRUCTURAL FILL SHALL BE MONITORED BY THE GEOTECHNICAL ENGINEER. COMPACTION SHALL BE 95% OF STANDARD PROCTOR.
7. WHERE ANY UTILITY LINES PASS UNDER A FOOTING, PROVIDE A PRE-CAST CONCRETE RELIEVING ARCH, A MINIMUM OF THREE TIMES THE DIAMETER OF THE UTILITY PIPE FOR PROTECTION.

STRUCTURE NOTES

1. COORD ALL STRUCTURE & PIPING ELEVATIONS & DIMENSIONS W/ MECHANICAL DRAWINGS.
2. ALL CONDUIT SHALL BE MOUNTED EXTERNALLY ON STRUCTURE USING HANGERS. FOR ANY CONDUIT PROPOSED TO BE PLACED IN THE CONCRETE POUR, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING PLACEMENT OF ANY CONDUIT IN CONCRETE STRUCTURE.
3. COORDINATE ALL EXCAVATIONS W/ EXISTING STRUCTURES SO AS TO NOT UNDERMINE THEM. APPROPRIATE MEASURES SHALL BE TAKEN TO INSURE THAT EXISTING STRUCTURES ARE NOT UNDERMINED OR OTHERWISE DAMAGED DURING THE EXCAVATION OR CONSTRUCTION OF NEW STRUCTURES.
4. DESIGN LIVE LOAD FOR TOP SLAB = 250 PSF
5. SEISMIC DESIGN CRITERIA:
   - OCCUPANCY CATEGORY = IV
   - SEISMIC IMPORTANCE FACTOR (I_E) = 1.50
   - S_S = 0.127 S_1 = 0.067
   - SITE CLASS = D
   - S_{DS} = 0.135 S_{D1} = 0.107
   - BASIC SEISMIC-FORCE-RESISTING SYSTEM (PER ASCE 7-05 TABLE 15.4-1 OR 15.4-2):
     - FLAT-BOTTOM GROUND SUPPORTED TANKS - REINFORCED NON-SLIDING BASE:
   - RESPONSE MODIFICATION FACTOR (R) = 2.0
   - SEISMIC RESPONSE COEFF. (C_S) = 0.2926
   - SEISMIC DESIGN CATEGORY = C 0.1029
   - ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE

REINFORCING STEEL NOTES

1. SHALL BE DETAILED, FABRICATED AND PLACED ACCORDING TO THE LATEST STANDARDS OF THE AMERICAN CONCRETE INSTITUTE (ACI) AND THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
2. MATERIALS:
   - 2.1. REINFORCING BARS SHALL COMPLY WITH ASTM A615 GRADE 60.
   - 2.2. WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A82 AND A185.
   - 2.3. REINFORCING BARS FOR WELDING SHALL COMPLY WITH ASTM A-706.
3. CLEAR MINIMUM COVER OF CONCRETE OVER REINFORCING BARS SHALL BE AS INDICATED ON THE DRAWINGS BUT SHALL NOT BE LESS THAN THE FOLLOWING:
   - 3.1. CONCRETE PLACED AGAINST EXPOSED EARTH (NOT FORMED) = 3"
   - 3.2. FORMED SURFACES EXPOSED TO EARTH, LIQUIDS, OR WEATHER:
     SLABS & JOISTS W/ #5 BARS & SMALLER = 1½"
     SLABS & JOISTS W/ #6 BARS & LARGER = 2"
     BEAMS, PIERS, COLUMNS, WALLS, FOOTINGS, & BASE SLABS = 2"
   - 3.3. FORMED SURFACES NOT EXPOSED TO EARTH, LIQUIDS, OR WEATHER:
     SLABS & JOISTS = ¾"
     BEAMS, PIERS, & COLUMNS = 1½"
     WALLS = ¾"
     FOOTINGS & BASE SLABS = 2"

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Greensboro, GA 30642

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 27855 RALPH H. BOSWELL 10/10/2019

FOLKSTON TREATMENT PLANT
FOR:
THE CITY OF FOLKSTON
FOLKSTON GEORGIA
CHARLTON COUNTY, GEORGIA

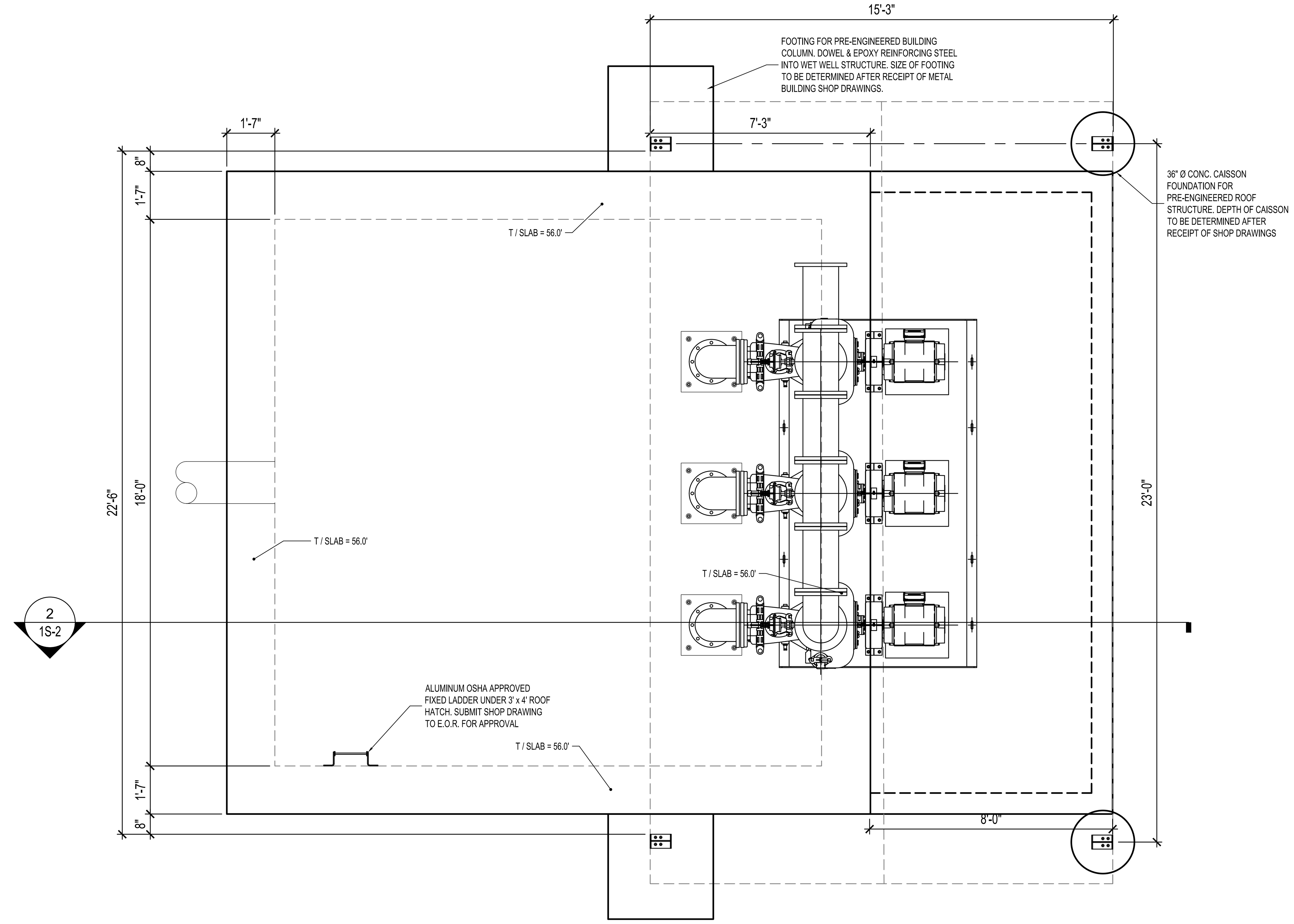
MARK	DATE	BY	DESCRIPTION
	10-10-2019		EPD SUBMITTAL
	07-8-2019		85% SET FOR REVIEW
	06-14-2019		60% SET FOR REVIEW

OE PROJECT NO: OE18132
FILE NAME: OE18132-1S-CORE
ORIGINAL DRAWING SIZE: 36"x24"
DATE: 6-14-2019

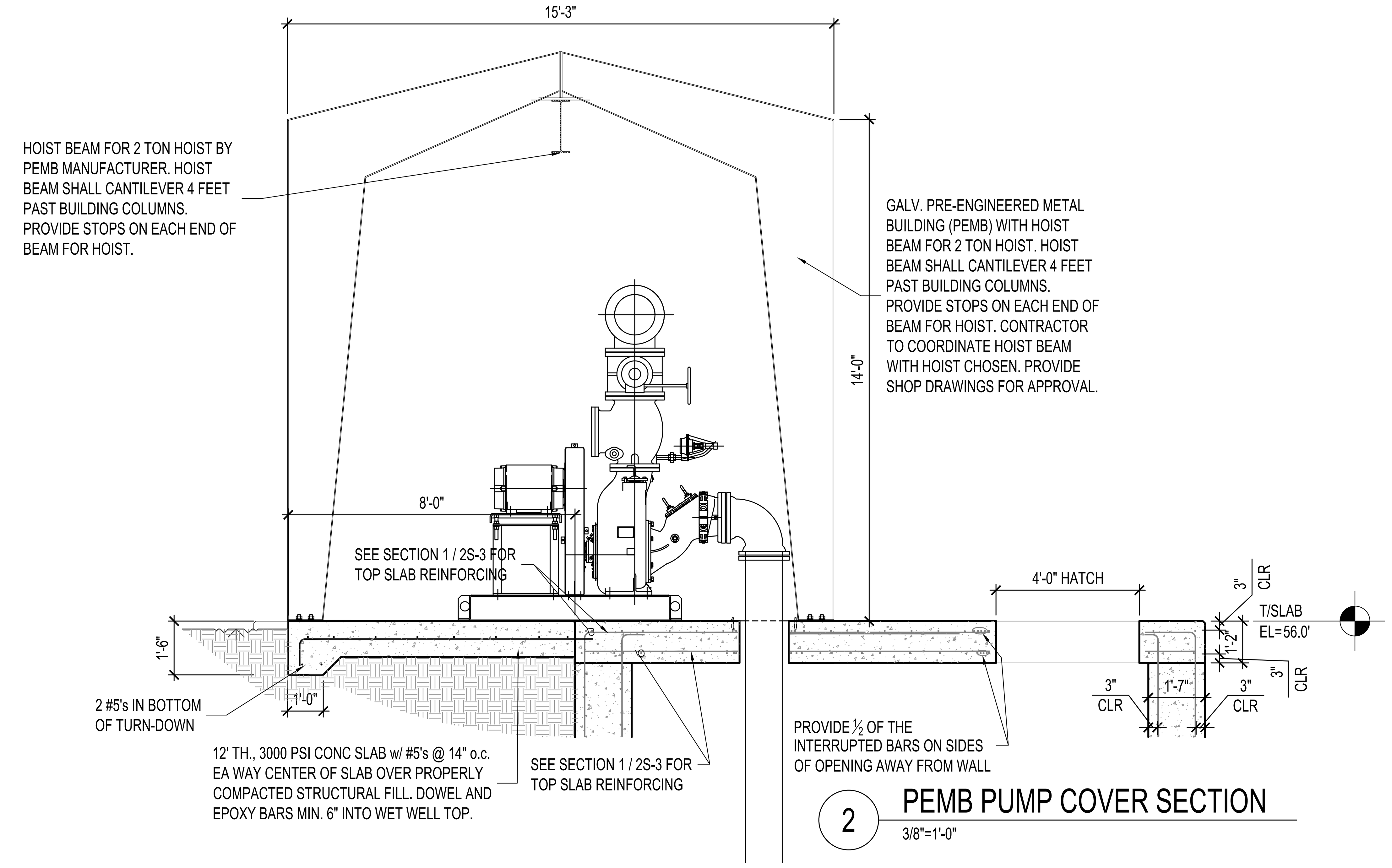
DESIGNED:
DRAWN:
CHECKED:
APPROVED:

INFLUENT PUMP STATION FOUNDATION PLAN, TOP SLAB PLAN, & GENERAL NOTES

1S-1
SHEET 1 OF 04



1 PEMB PUMP COVER PLAN
3/8"=1'-0"



2 PEMB PUMP COVER SECTION
3/8"=1'-0"

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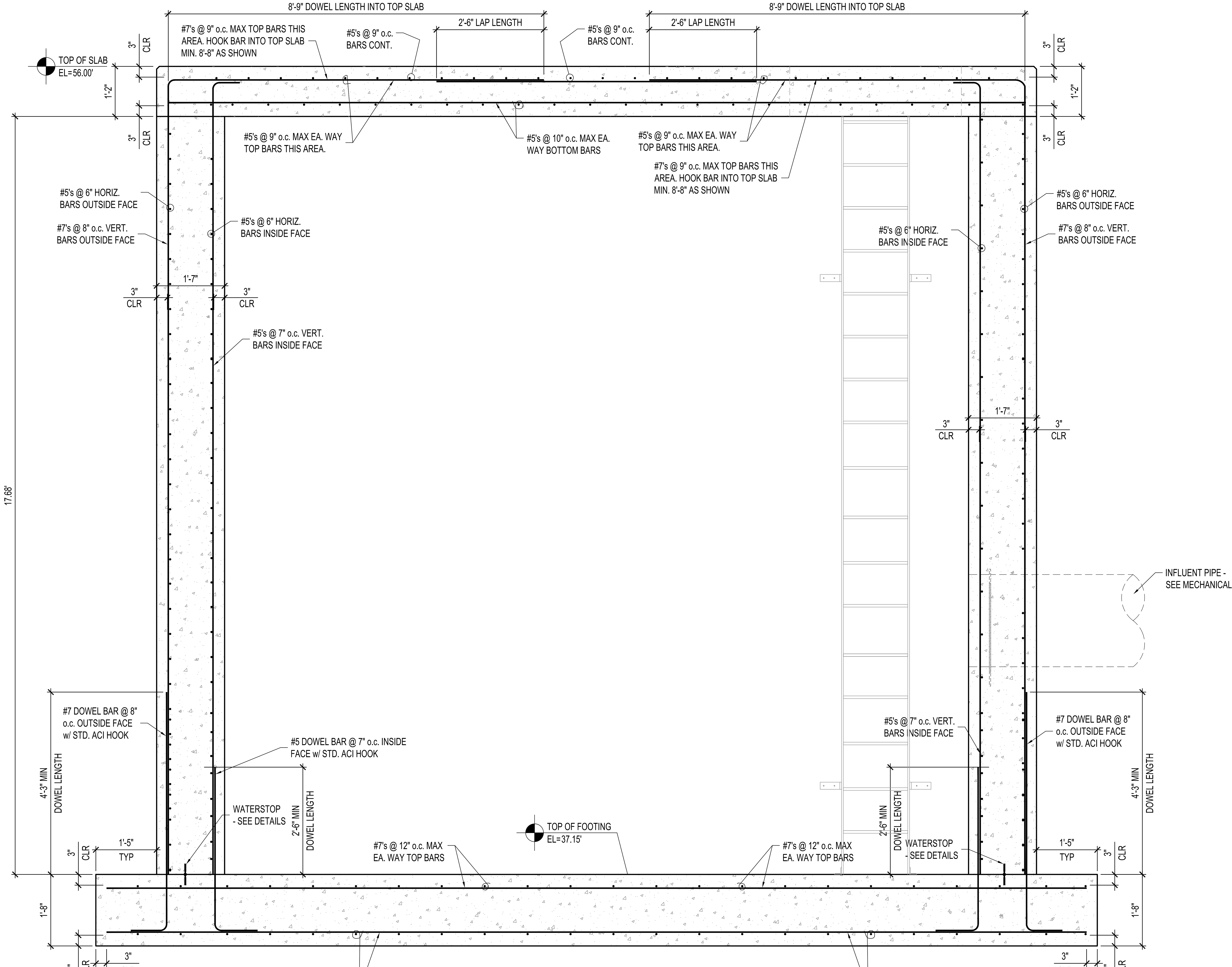
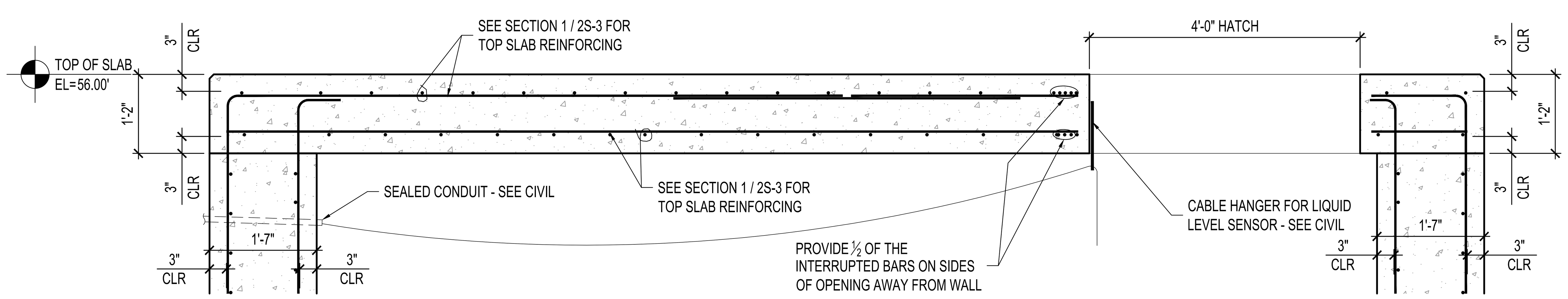
INFLUENT PUMP STATION

COVER PLAN, & SECTION

1S-2
SHEET 2 OF 04



1 INFLUENT PUMP STATION SECTION
3/4"=1'-0"



2 INFLUENT PUMP STATION SECTION
3/4"=1'-0"

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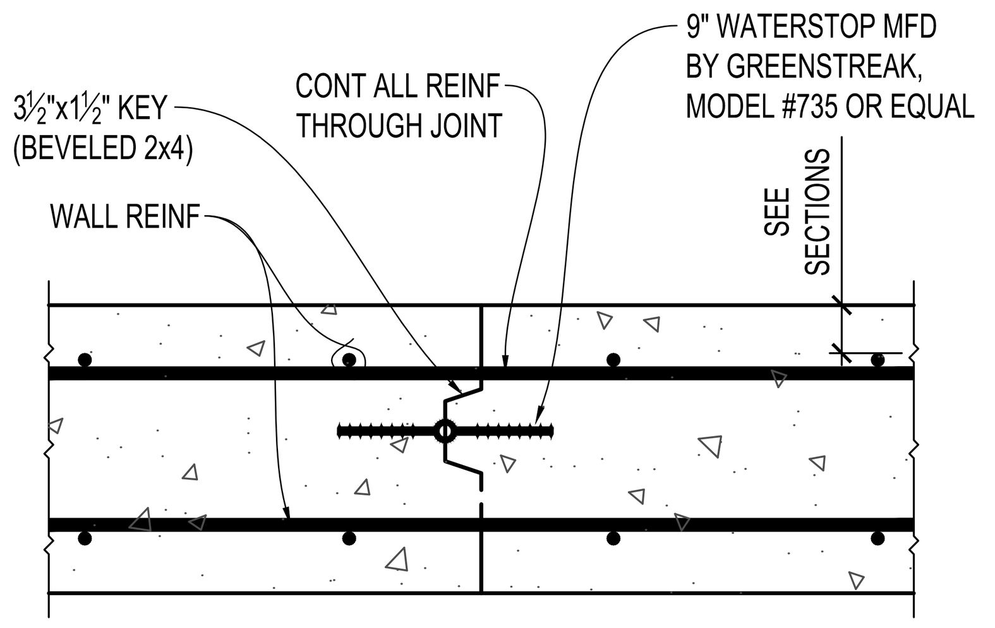
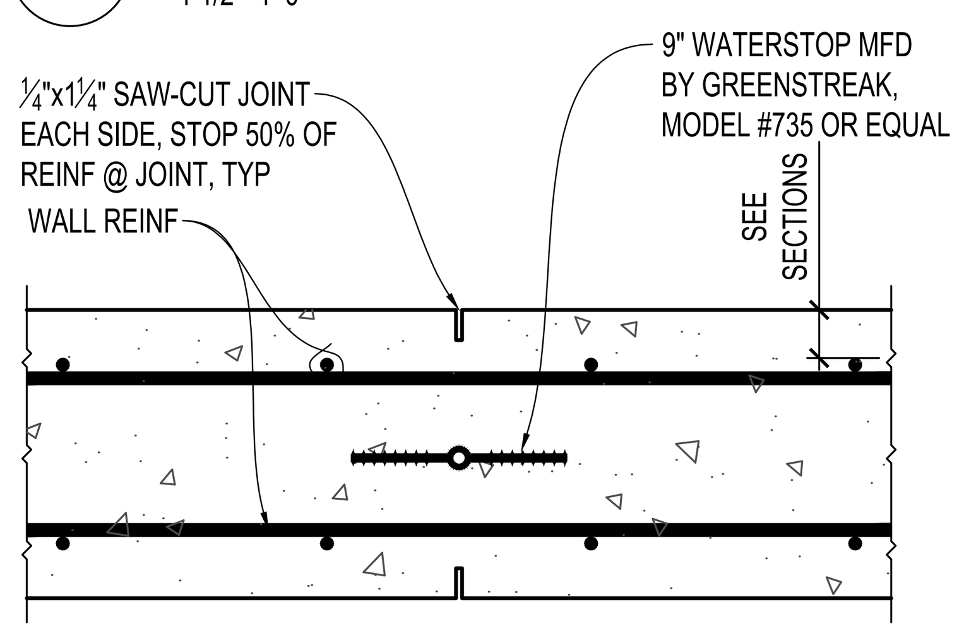
DESIGNED:
DRAWN:
CHECKED:
APPROVED:

INFLUENT PUMP STATION
SECTIONS

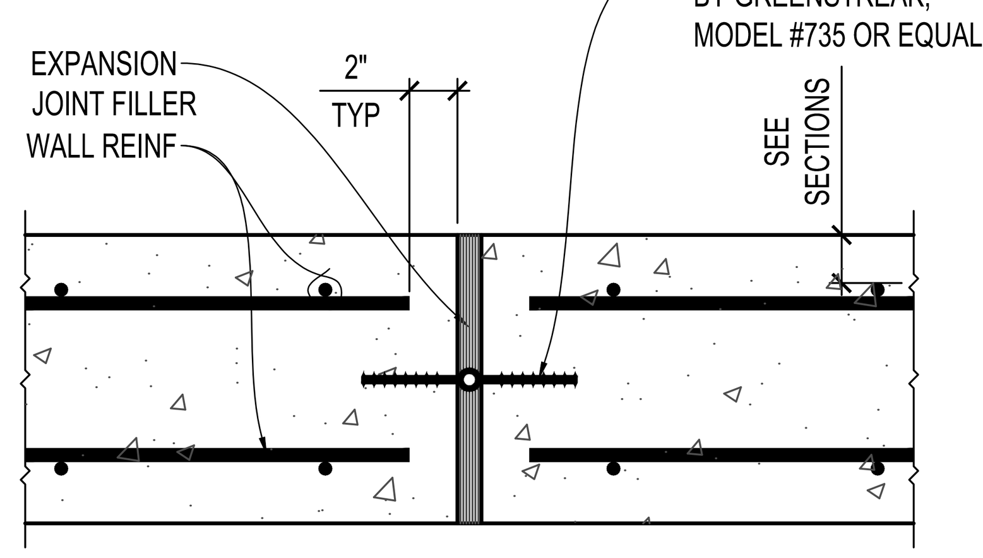
1S-3
SHEET 3 OF 04



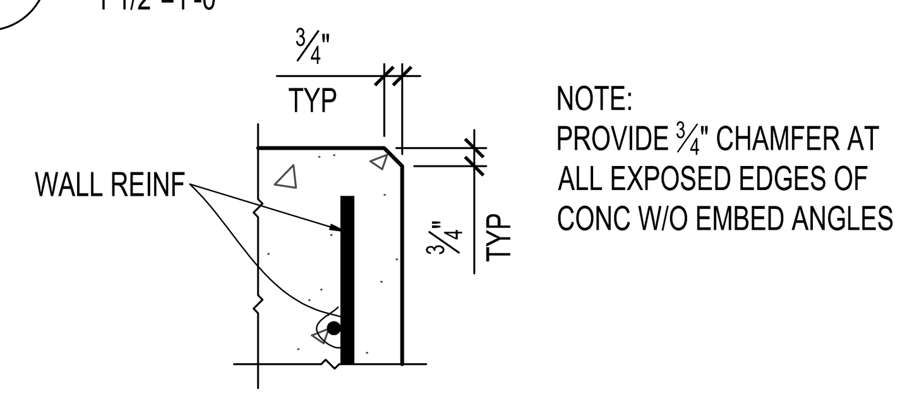
D1 CONC. CONST. JOINT DETAIL
1 1/2"=1'-0"



D2 CONC. CONTROL JOINT DETAIL
1 1/2"=1'-0"

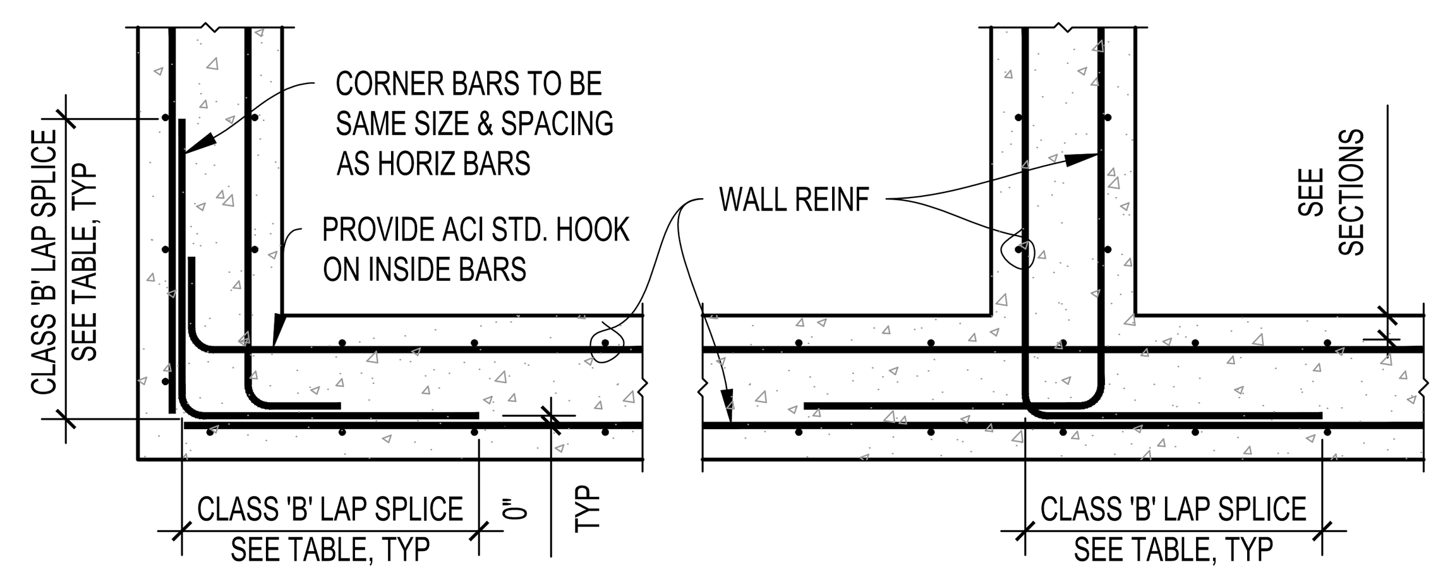


D3 CONC. EXP JOINT DETAIL
1 1/2"=1'-0"

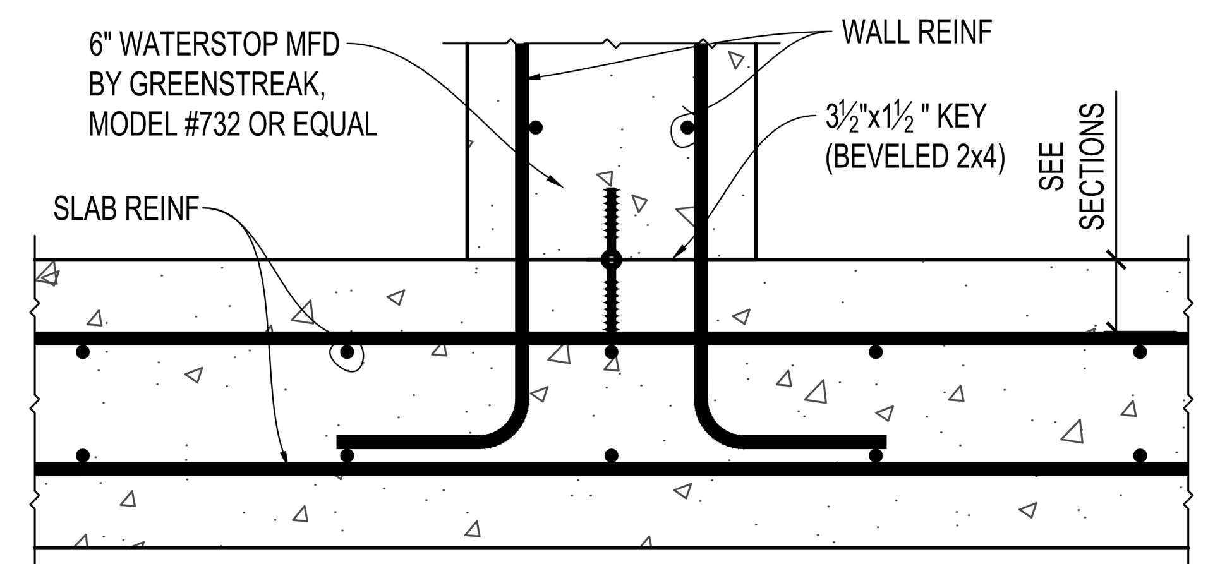


NOTE:
PROVIDE ¾" CHAMFER AT ALL EXPOSED EDGES OF CONC W/O EMBED ANGLES

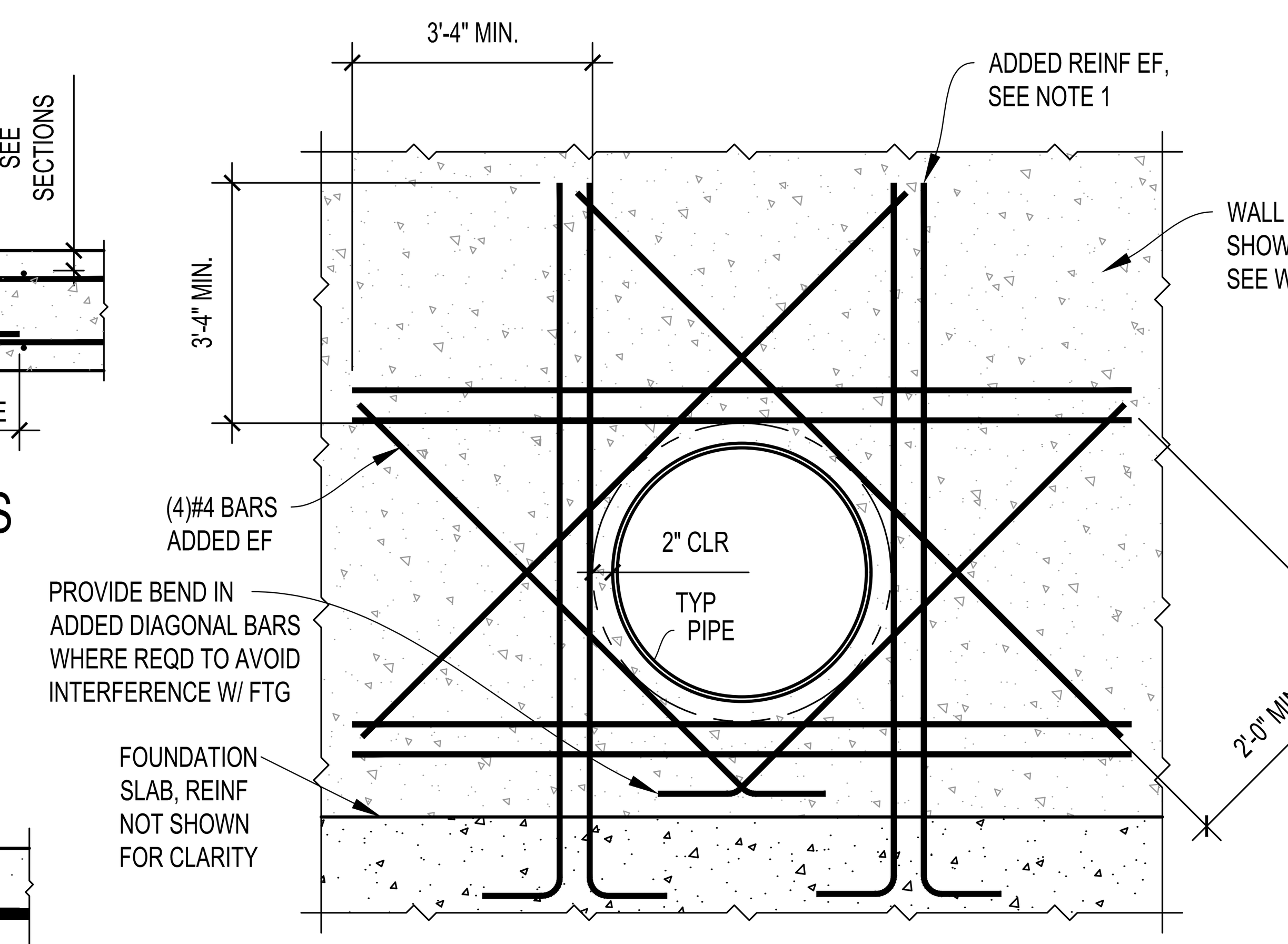
D4 CONC. CHAMFER DETAIL
1 1/2"=1'-0"



D5 TYP REINF @ WALL INTERSECTIONS
N.T.S.

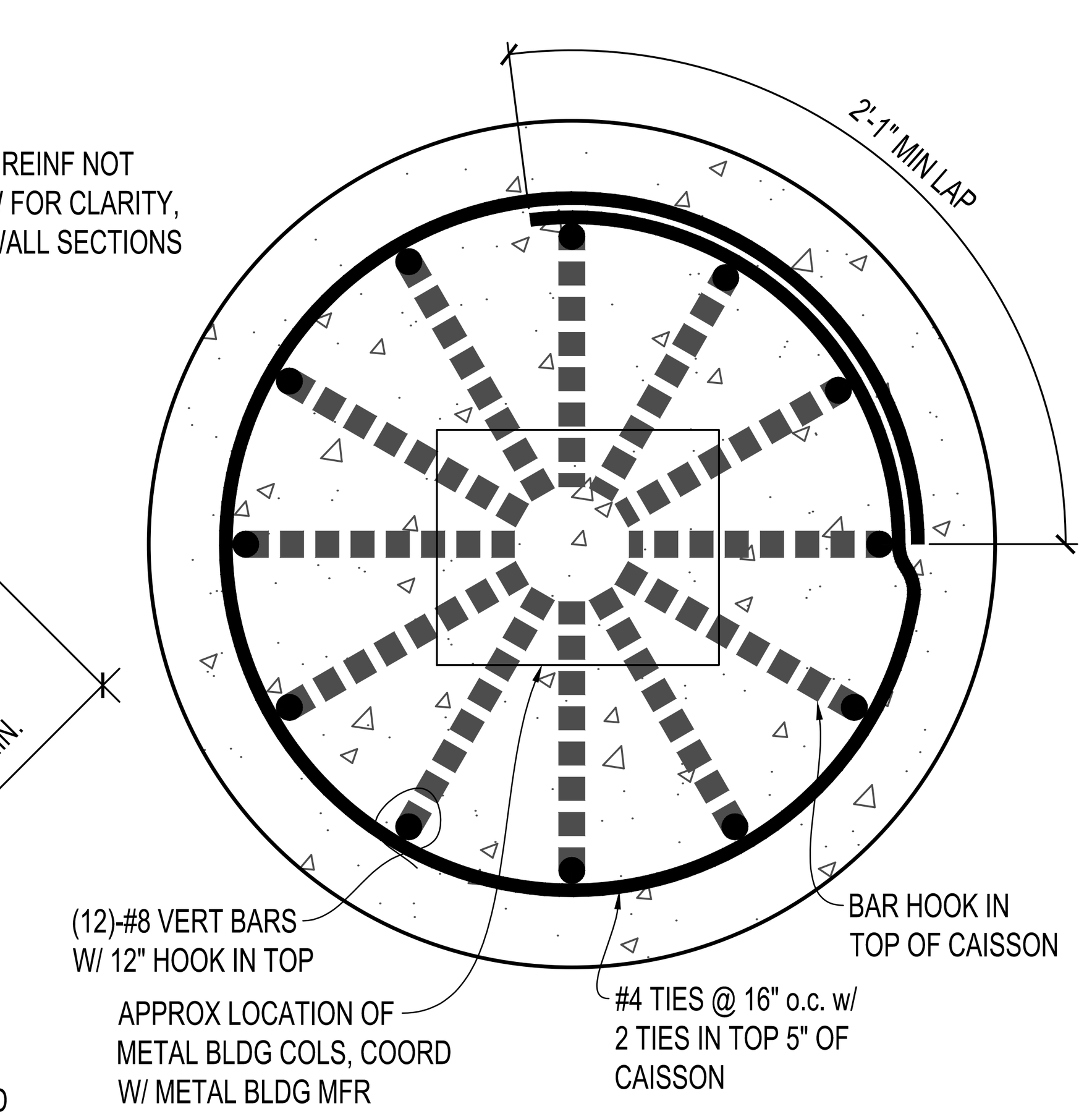


D6 WALL / FOUNDATION JOINT
1 1/2"=1'-0"



NOTES:
1. THE EQUIVALENT NUMBER OF VERT & HORIZ BARS INTERRUPTED BY OPENINGS SHALL BE PROVIDED BY PLACING ½ OF BARS ON EACH SIDE OF THE OPENING @3"OC.
2. MAINTAIN NOT LESS THAN 1½" CLEAR BETWEEN ADJACENT PARALLEL BARS.

D7 TYP WALL REINF @ PIPE OPENING
N.T.S.



D8 CAISSON REINFORCING
N.T.S.

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10/10/2019

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ORIGINAL DRAWING SIZE: 36"x24"
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DESIGNED:
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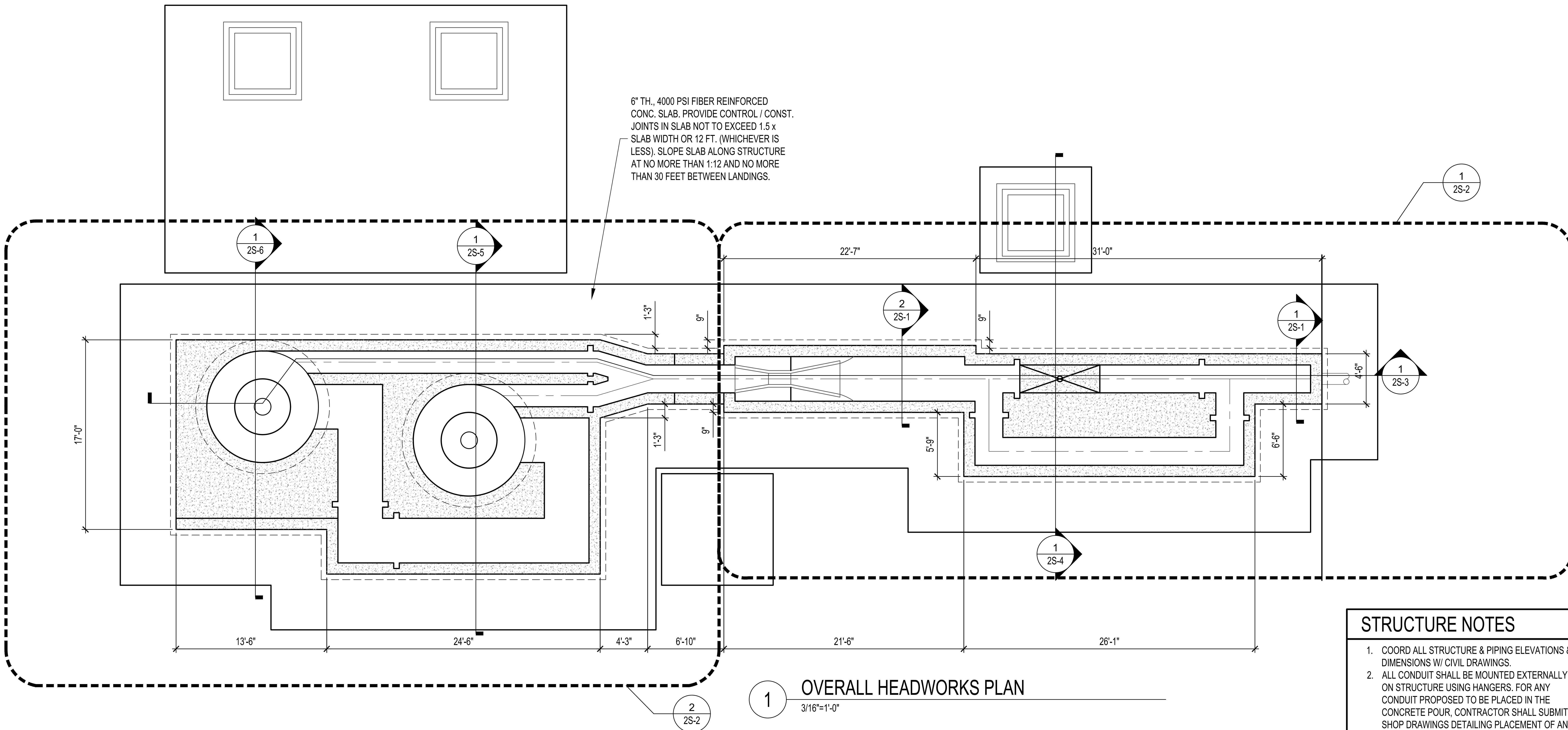
CHECKED:
APPROVED:

INFLUENT PUMP STATION

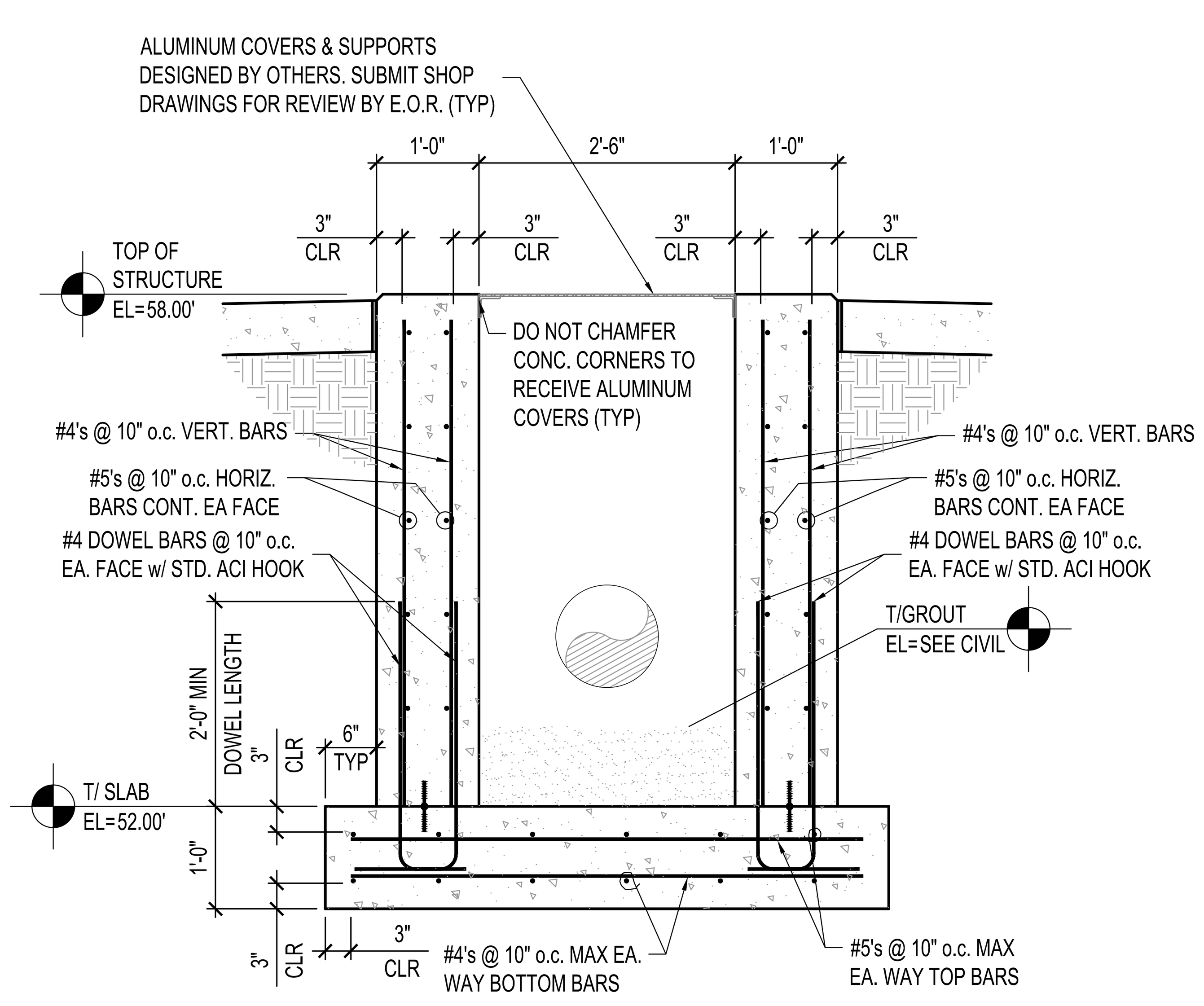
DETAILS

1S-4
SHEET 4 OF 04



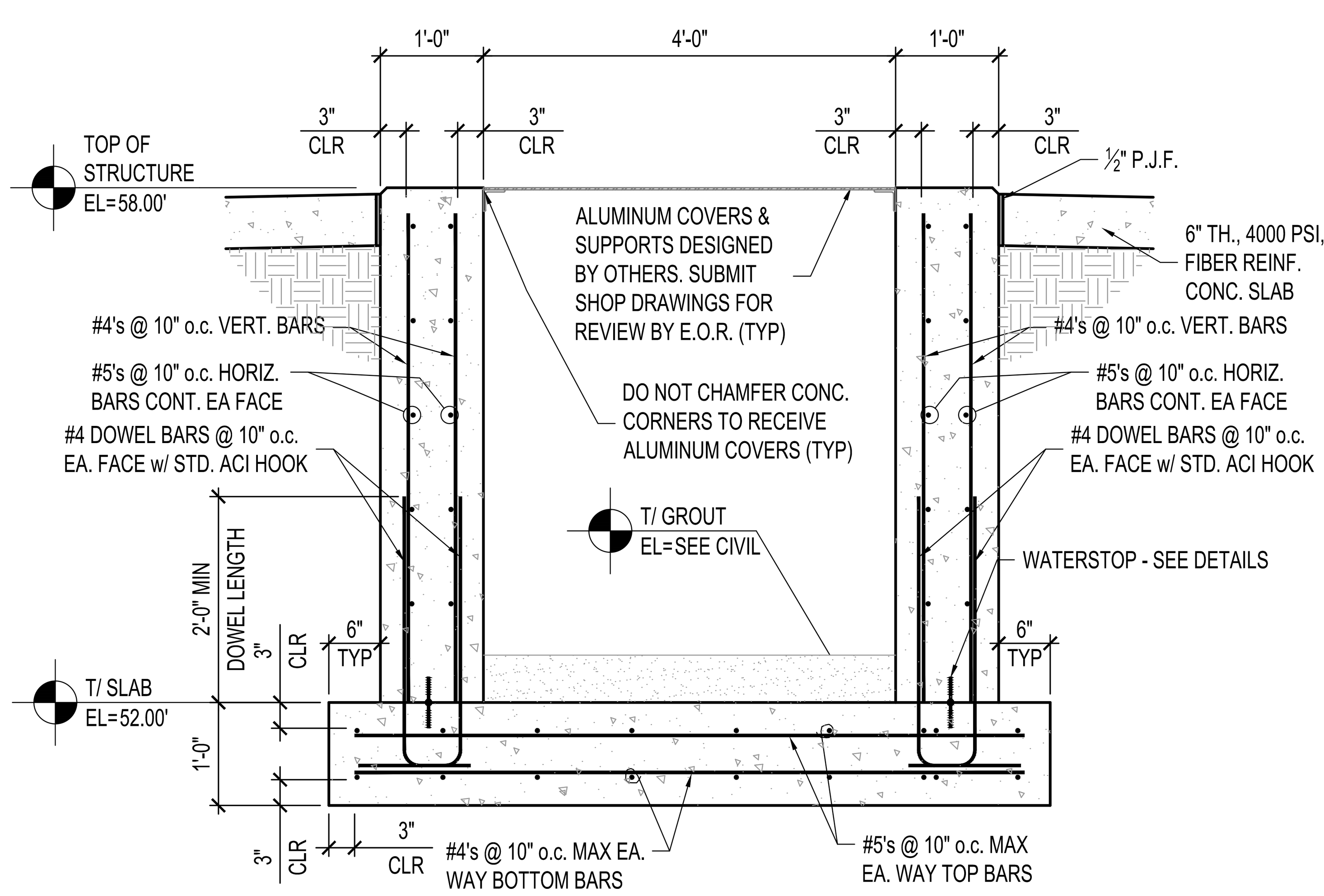
1 OVERALL HEADWORKS PLAN

3/16"=1'-0"



1 HEADWORKS SECTION

3/4"=1'-0"



2 HEADWORKS SECTION

3/4"=1'-0"

STRUCTURE NOTES

1. COORD ALL STRUCTURE & PIPING ELEVATIONS & DIMENSIONS W/ CIVIL DRAWINGS.
2. ALL CONDUIT SHALL BE MOUNTED EXTERNALLY ON STRUCTURE USING HANGERS. FOR ANY CONDUIT PROPOSED TO BE PLACED IN THE CONCRETE POUR, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING PLACEMENT OF ANY CONDUIT IN CONCRETE STRUCTURE.
3. COORDINATE ALL EXCAVATIONS W/ EXISTING STRUCTURES SO AS TO NOT UNDERMINE THEM. APPROPRIATE MEASURES SHALL BE TAKEN TO INSURE THAT EXISTING STRUCTURES ARE NOT UNDERMINED OR OTHERWISE DAMAGED DURING THE EXCAVATION OR CONSTRUCTION OF NEW STRUCTURES.
4. SEISMIC DESIGN CRITERIA:
   - OCCUPANCY CATEGORY = IV
   - SEISMIC IMPORTANCE FACTOR (I_E) = 1.50
   - S_S = 0.127 S_1 = 0.067
   - SITE CLASS = D
   - S_{DS} = 0.135 S_{D1} = 0.107
   - BASIC SEISMIC-FORCE-RESISTING SYSTEM (PER ASCE 7-05 TABLE 15.4-1 OR 15.4-2): FLAT-BOTTOM GROUND SUPPORTED TANKS - REINFORCED NON-SLIDING BASE:
   - RESPONSE MODIFICATION FACTOR (R) = 2.0
   - SEISMIC RESPONSE COEFF. (C_S) = 0.2926
   - SEISMIC DESIGN CATEGORY = C 0.1029
   - ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE

CONC REINF LAP LENGTH

4500 PSI (ACI 350-06)

BAR SIZE	TENSION SPLICE CLASS 'B'
#3	18"
#4	24"
#5	30"
#6	35"
#7	51"
#8	59"
#9	66"
#10	73"

FOUNDATION NOTES

1. DESIGN SOIL BEARING PRESSURE = 2000 PSF. SOIL BEARING PRESSURE SHALL BE VERIFIED AT TIME OF EXCAVATION AND STRUCTURAL ENGINEER SHALL BE NOTIFIED IF THE ACTUAL SOIL BEARING PRESSURE IS LOWER THAN THE DESIGN SOIL PRESSURE. FOUNDATION DESIGN AND SUBSURFACE INFORMATION IS BASED ON A SOILS REPORT PREPARED BY TERRACON CONSULTING, INC. (PROJECT# ES165069).
2. DEWATER, UNDERCUT, & REPLACE MATERIAL BELOW FOOTING ELEVATIONS PER GEOTECH REPORT. GRANULAR BASE BELOW FOOTING SHALL BE #57 STONE.
3. PRIOR TO POURING CONCRETE, ALL DEBRIS, WATER, AND LOOSE EARTH SHALL BE REMOVED FROM THE FOUNDATION BED.
4. GEOTECHNICAL ENGINEER SHALL VERIFY CONDITION AND/OR ADEQUACY OF ALL SUBGRADES, FILLS, AND BACKFILLS PRIOR TO PLACEMENT OF FOUNDATIONS, FOOTINGS, SLABS, WALLS, FILLS, BACKFILLS, ETC.
5. BACKFILL AGAINST WALLS SHALL BE DEPOSITED EVENLY AGAINST BOTH SIDES OF WALLS UNTIL THE LOWER FINAL GRADE IS REACHED. COMPACTION OF BACKFILL WITHIN 10 FEET OF WALLS SHOULD BE PERFORMED WITH HAND OPERATED EQUIPMENT. THE BACKFILLING OF UNDERGROUND STRUCTURES SHALL BE DONE W/ A MAX OF 4'-0" INCREMENTS ALL AROUND THE STRUCTURES.
6. PLACEMENT AND COMPACTION OF STRUCTURAL FILL SHALL BE MONITORED BY THE GEOTECHNICAL ENGINEER. COMPACTION SHALL BE 95% OF STANDARD PROCTOR.
7. WHERE ANY UTILITY LINES PASS UNDER A FOOTING, PROVIDE A PRE-CAST CONCRETE RELIEVING ARCH, A MINIMUM OF THREE TIMES THE DIAMETER OF THE UTILITY PIPE FOR PROTECTION.

CONCRETE NOTES

1. MINIMUM CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS SHALL BE 4500 PSI FOR WALLS AND SLABS IN LIQUID CONTAINING VESSELS.
2. STRUCTURAL MEMBERS OF REINFORCED CONCRETE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 318-11.
3. PROVIDE ¾" CHAMFER AT ALL EXPOSED CORNERS OF CONCRETE W/O EMBED ANGLES.
4. PLACE ALL REBAR FOR WALLS & SLABS IN DIRECTIONS & LOCATIONS AS SHOWN IN TANK SECTIONS. DO NOT REVERSE LOCATIONS OF INSIDE/OUTSIDE BARS AT EACH FACE.
5. CONCRETE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318-11. SAMPLES FOR STRENGTH TESTS OF EACH CLASS OF CONCRETE PLACED EACH DAY SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 75 CY OF CONCRETE USED FOR FOOTINGS, NOR LESS THAN ONCE FOR EACH 5000 SQUARE FEET OF SURFACE AREA FOR SLABS. TEST REPORTS INDICATING (NON)COMPLIANCE SHALL BE PROVIDED TO THE OWNER, ENGINEER & CONTRACTOR. A COPY OF THE TEST REPORTS SHALL BE AVAILABLE AT THE JOBSITE. 4 INCH DIAMETER X 8 INCH TEST CYLINDERS ARE ACCEPTABLE.

REINFORCING STEEL NOTES

1. SHALL BE DETAILED, FABRICATED AND PLACED ACCORDING TO THE LATEST STANDARDS OF THE AMERICAN CONCRETE INSTITUTE (ACI) AND THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
2. MATERIALS:
   - 2.1. REINFORCING BARS SHALL COMPLY WITH ASTM A615 GRADE 60.
   - 2.2. WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A82 AND A185.
   - 2.3. REINFORCING BARS FOR WELDING SHALL COMPLY WITH ASTM A-706.
3. CLEAR MINIMUM COVER OF CONCRETE OVER REINFORCING BARS SHALL BE AS INDICATED ON THE DRAWINGS BUT SHALL NOT BE LESS THAN THE FOLLOWING:
   - 3.1. CONCRETE PLACED AGAINST EXPOSED EARTH (NOT FORMED) = 3"
   - 3.2. FORMED SURFACES EXPOSED TO EARTH, LIQUIDS, OR WEATHER: SLABS & JOISTS W/ #5 BARS & SMALLER = 1½"; SLABS & JOISTS W/ #6 BARS & LARGER = 2"; BEAMS, PIERS, COLUMNS, WALLS, FOOTINGS, & BASE SLABS = 2"
   - 3.3. FORMED SURFACES NOT EXPOSED TO EARTH, LIQUIDS, OR WEATHER: SLABS & JOISTS = ¾"; BEAMS, PIERS, & COLUMNS = 1½"; WALLS = ¾"; FOOTINGS & BASE SLABS = 2"

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CHARLTON COUNTY, GEORGIA

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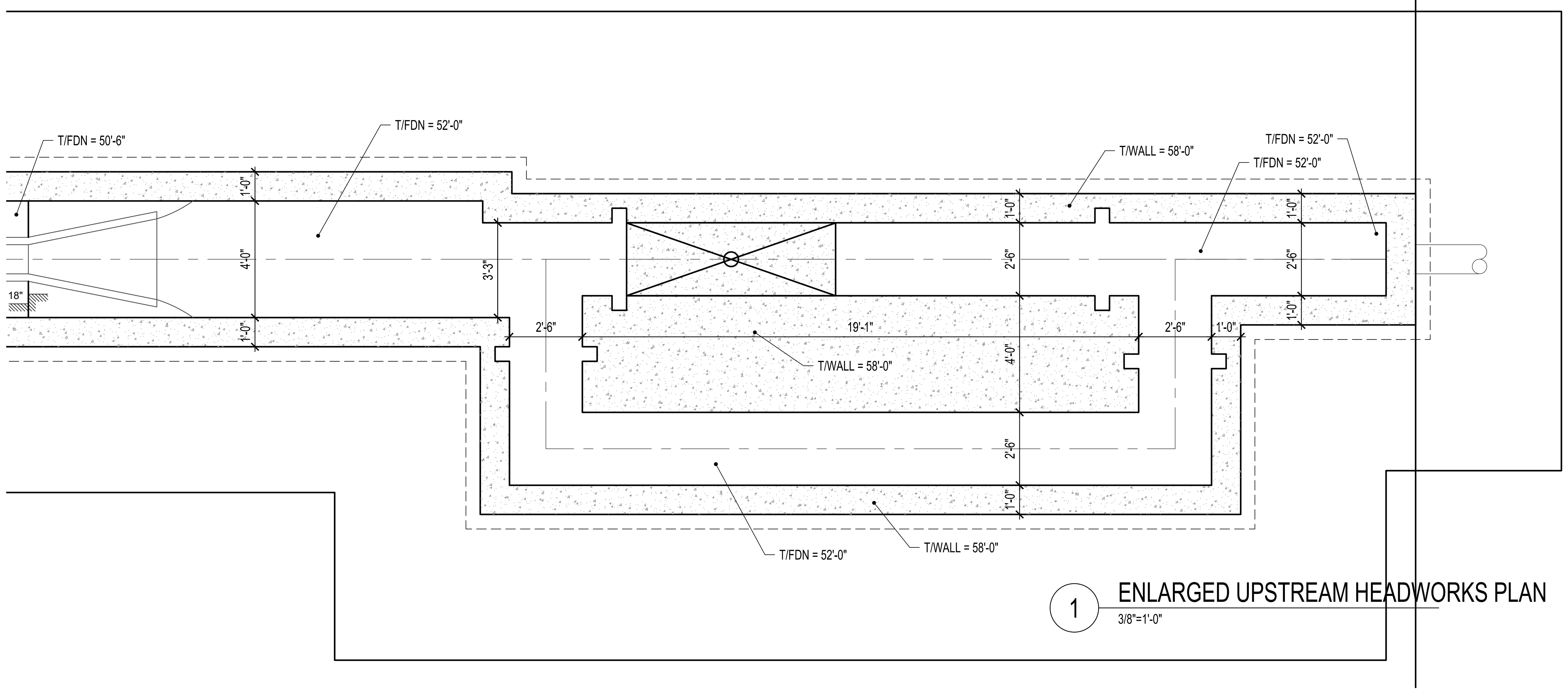
	6-14-2019		80% SET FOR REVIEW

DESIGNED:
DRAWN:
CHECKED:
APPROVED:

OE PROJECT NO: 18132-2
FILE NAME: 18132-2S-CORE
ORIGINAL DRAWING SIZE: 36"x24"
DATE: 6-14-2019

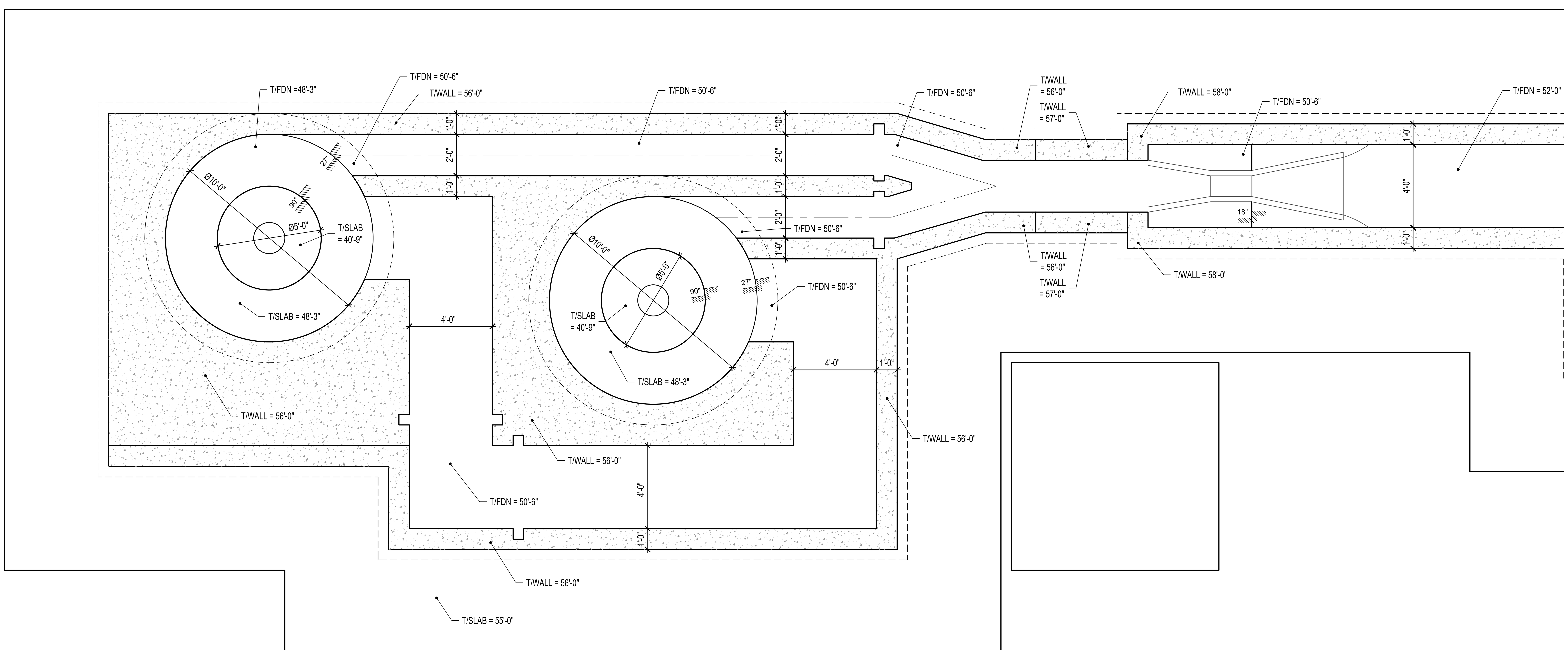
HEADWORKS
OVERALL HEADWORKS PLAN & SECTIONS

2S-1



1 ENLARGED UPSTREAM HEADWORKS PLAN

3/8"=1'-0"



2 ENLARGED DOWNSTREAM HEADWORKS PLAN

3/8"=1'-0"

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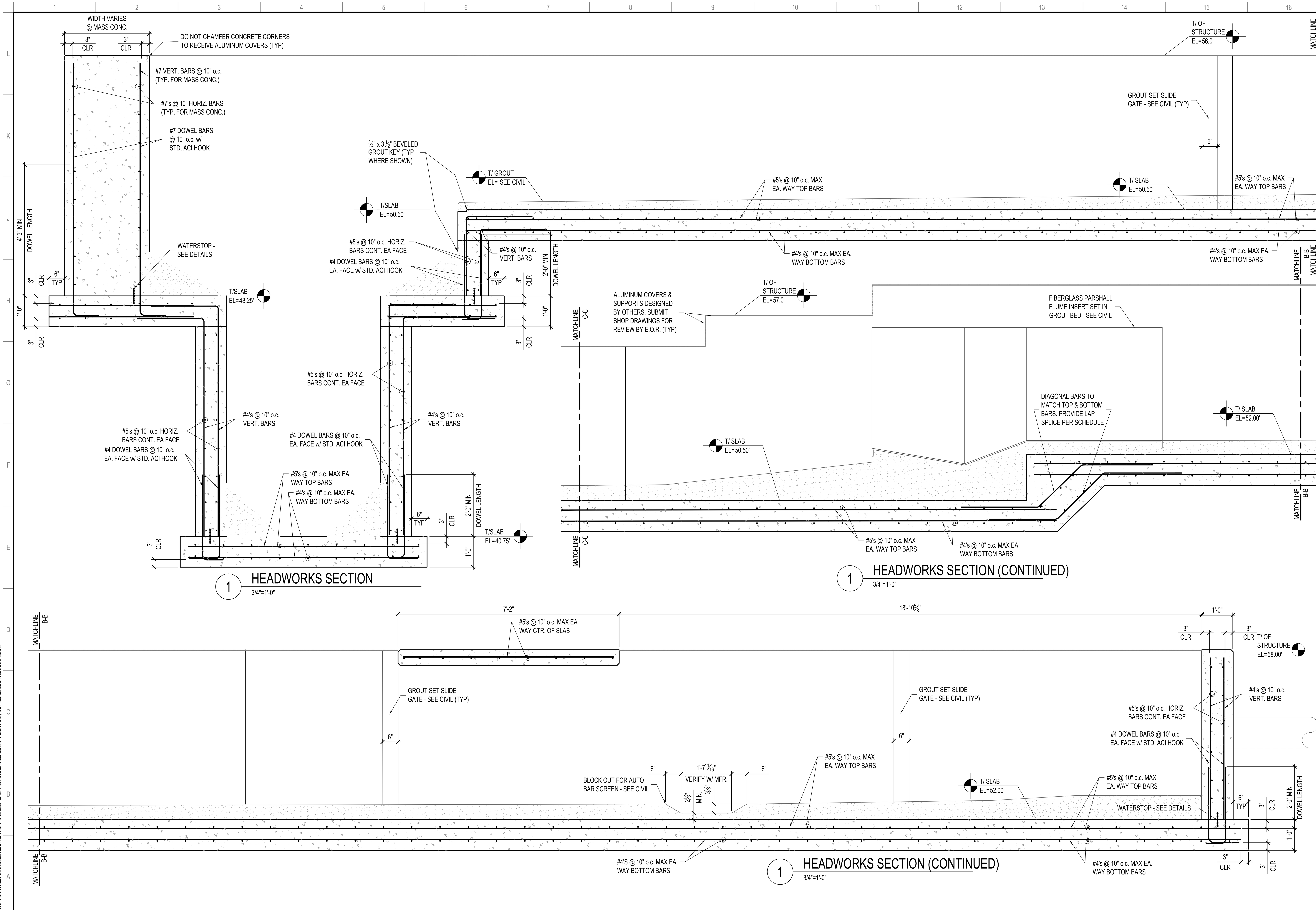
DRAWN:
CHECKED:
APPROVED:

HEADWORKS
ENLARGED UPSTREAM & DOWNSTREAM HEADWORKS PLANS

2S-2
SHEET 2 OF 7



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DRAWN:
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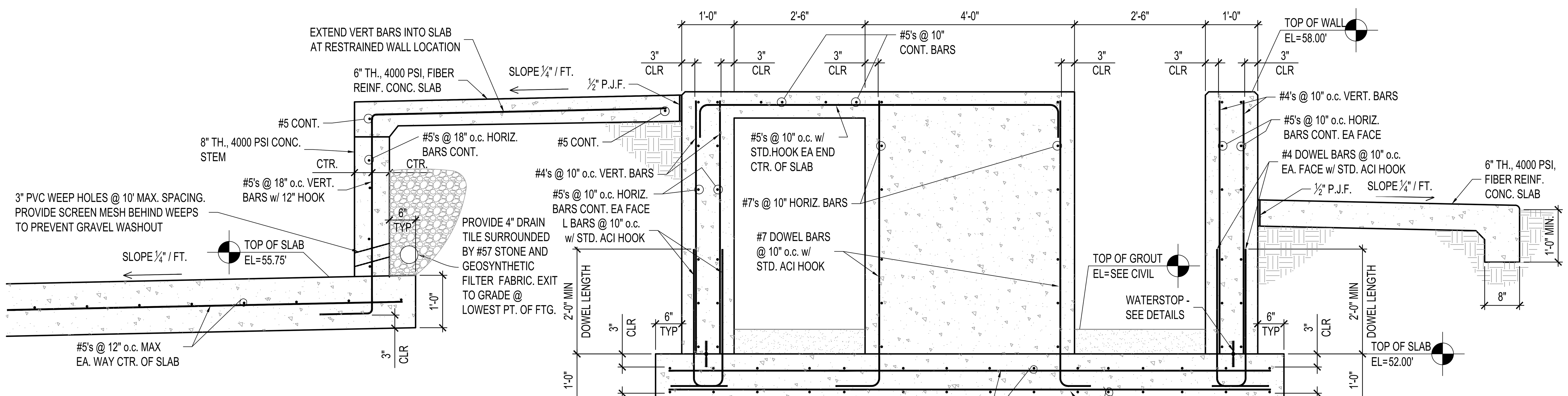
APPROVED:

OE PROJECT NO: 18132-2
FILE NAME: 18132-2S-CORE
ORIGINAL DRAWING SIZE: 36"x24"
DATE: 6-14-2019

HEADWORKS SECTIONS

2S-3
SHEET 3 OF 7



1 HEADWORKS SECTION

3/4"=1'-0"

OCONEE ENGINEERING L.L.C.
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GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 27855 RALPH H. BOSWELL
10/10/2019

FOLKSTON TREATMENT PLANT
FOR:
THE CITY OF FOLKSTON
FOLKSTON GEORGIA
CHARLTON COUNTY, GEORGIA

MARK	DATE	BY	DESCRIPTION
	6-14-2019		60% SET FOR REVIEW
	07-8-2019		90% SET FOR REVIEW
	10-10-2019		EPD SUBMITTAL

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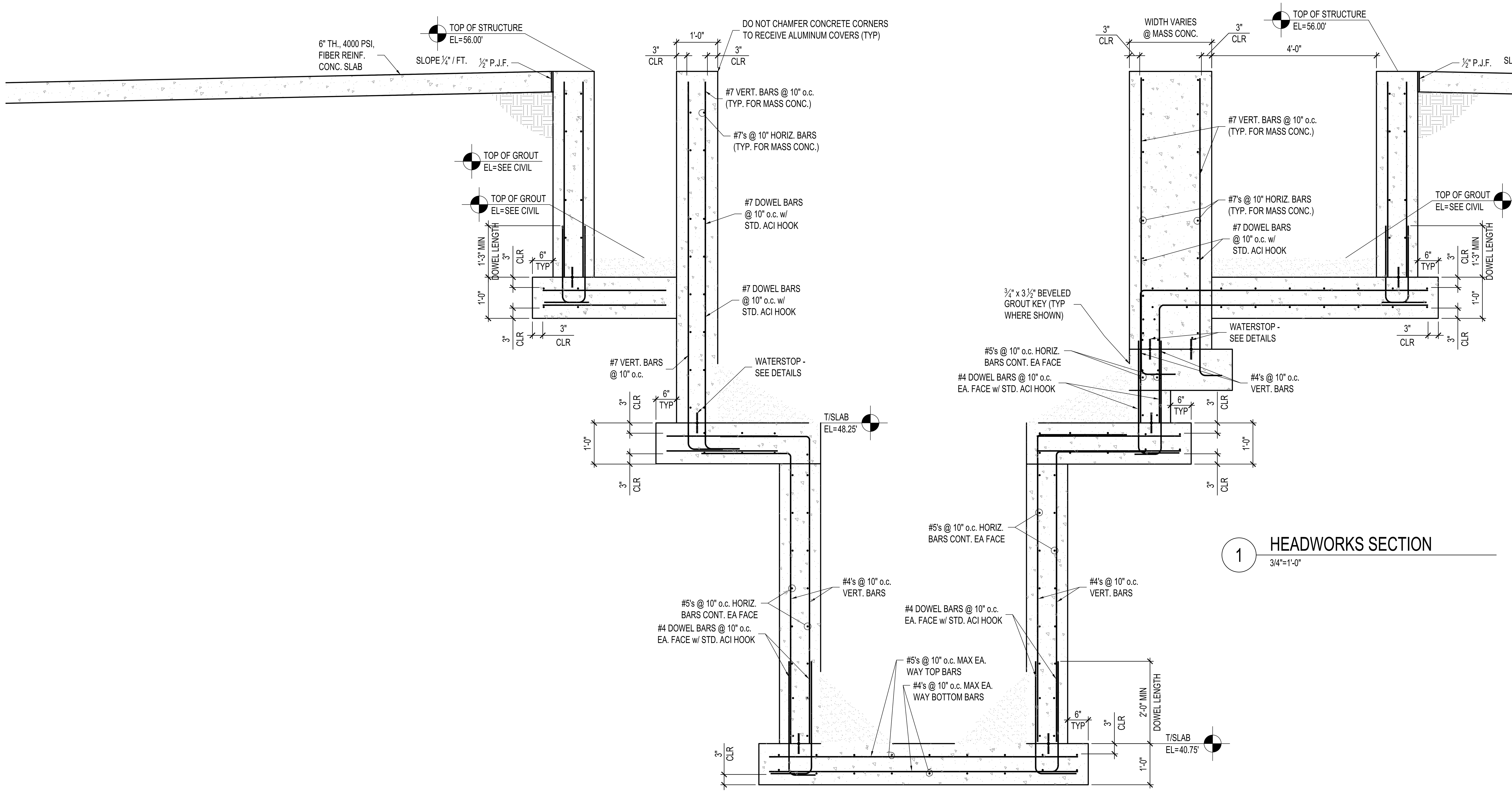
DATE: 6-14-2019

DESIGNED:
DRAWN:
CHECKED:
APPROVED:

HEADWORKS
SECTIONS

2S-4
SHEET 4 OF 7



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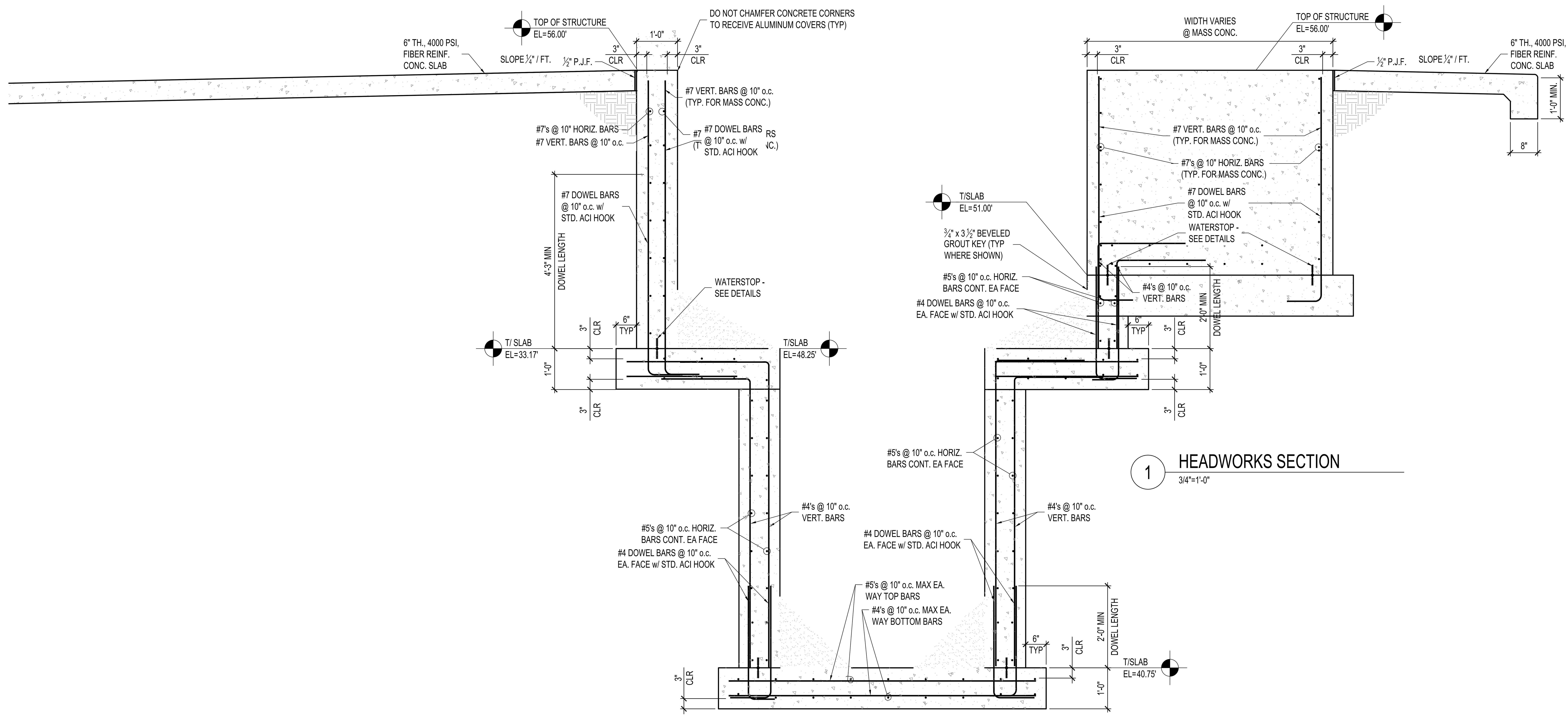
HEADWORKS SECTIONS

2S-5
SHEET 5 OF 7



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HEADWORKS
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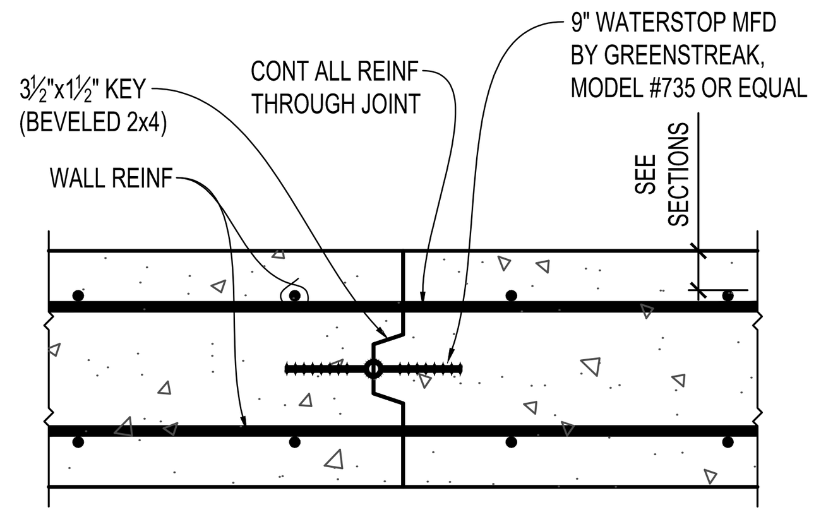
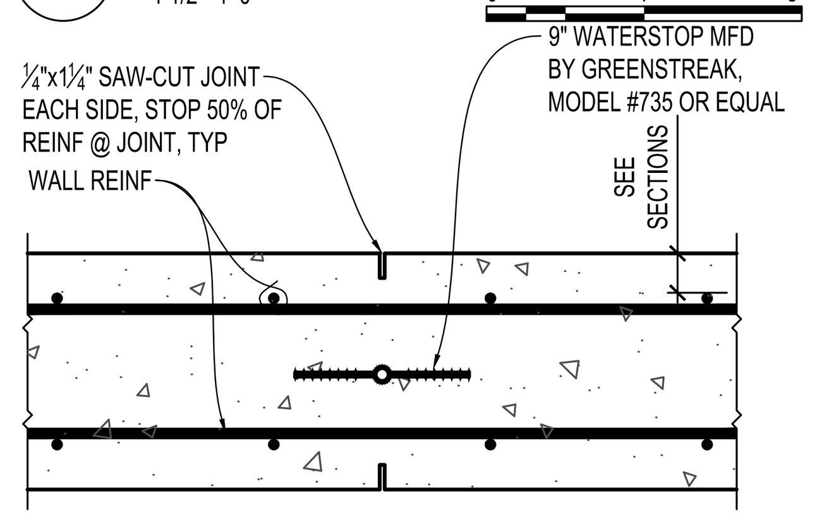


D1 CONC. CONST. JOINT DETAIL
1 1/2"=1'-0" 0 4' 8'



D2 CONC. CONTROL JOINT DETAIL
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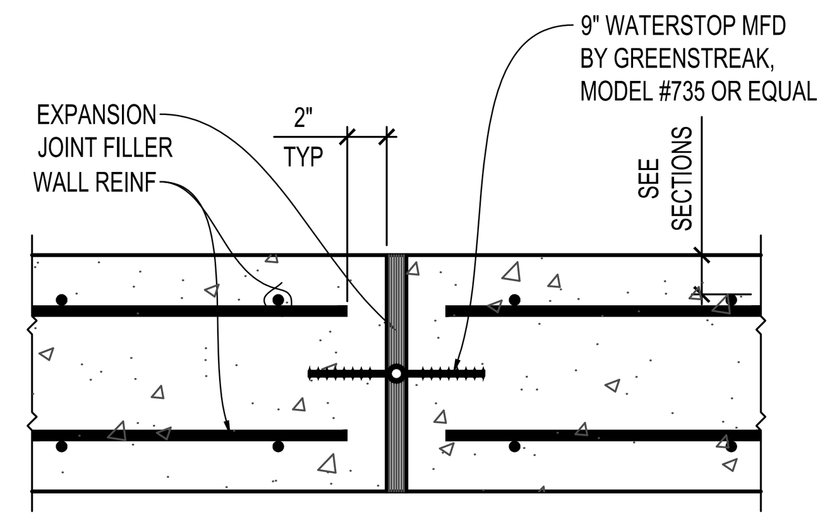
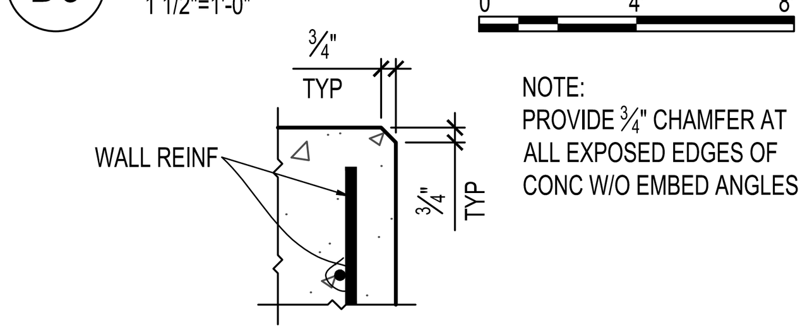
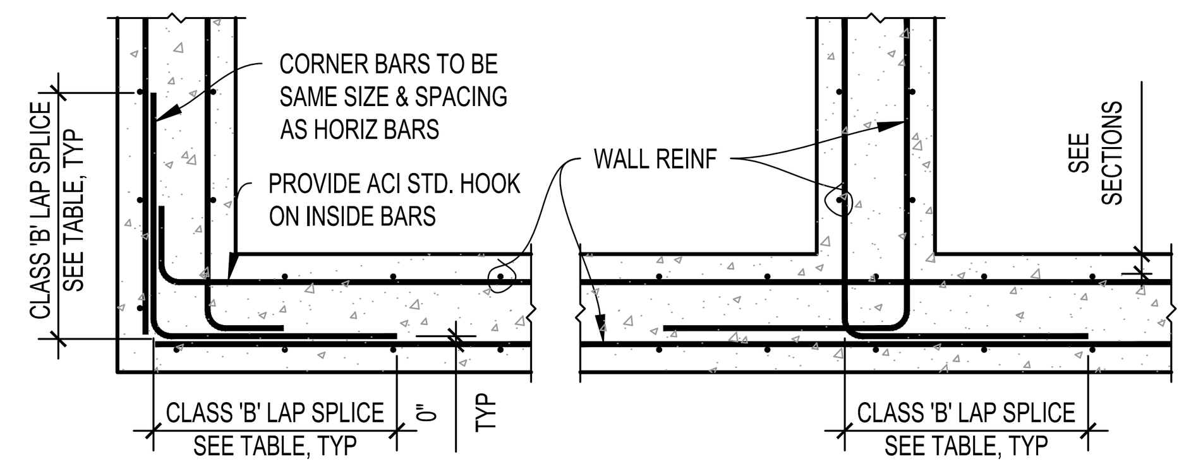


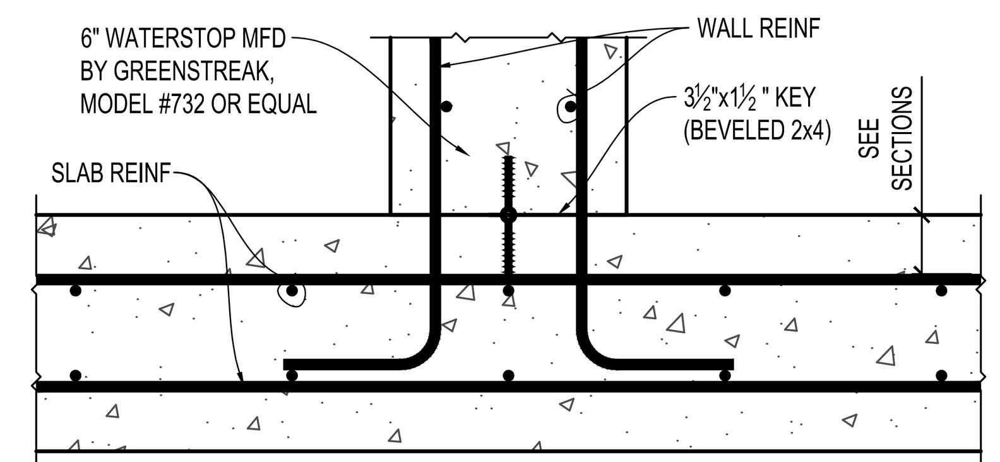
D3 CONC. EXP JOINT DETAIL
1 1/2"=1'-0" 0 4' 8'



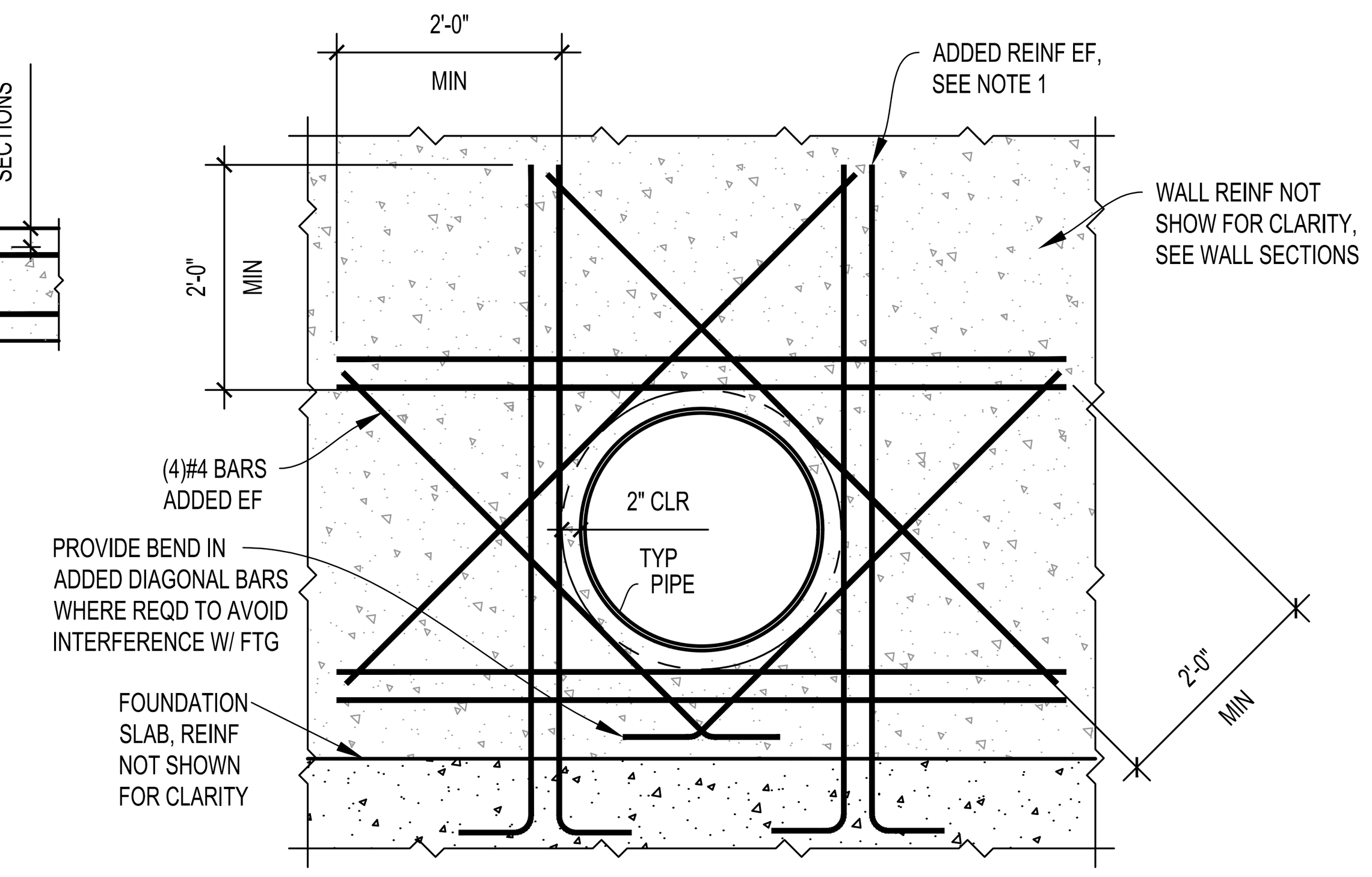
D4 CONC. CHAMFER DETAIL
1 1/2"=1'-0" 0 4' 8'



D5 TYP REINF @ WALL INTERSECTIONS
N.T.S. 0 4' 8'

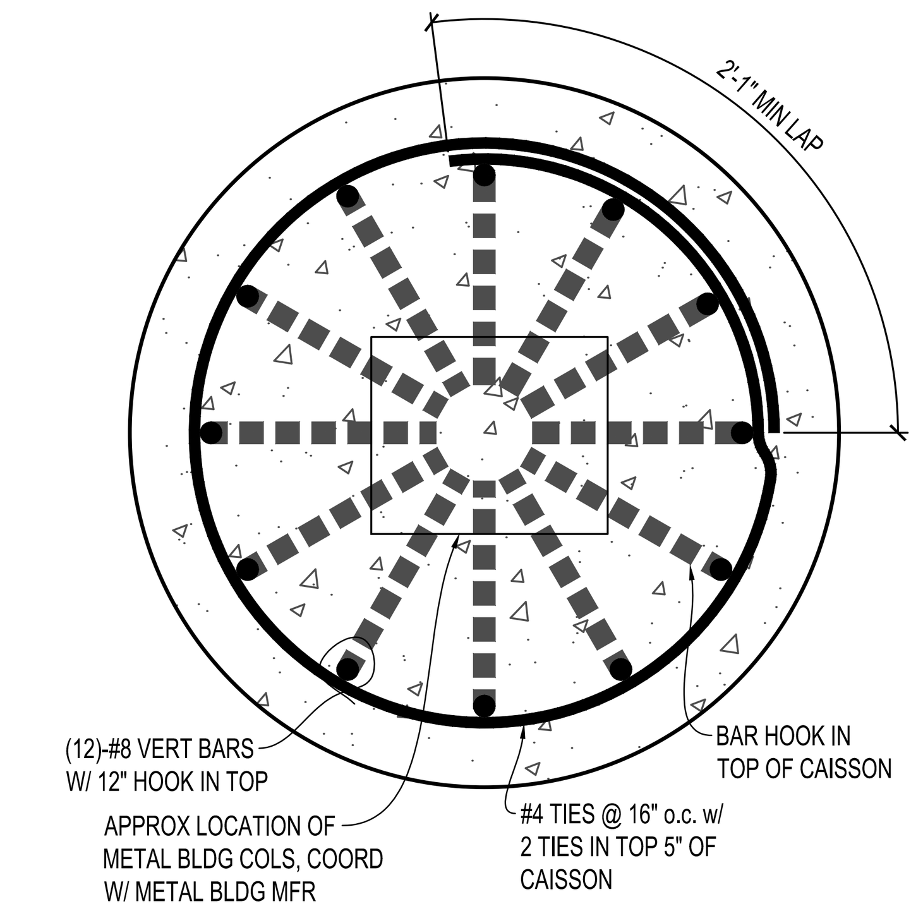


D6 WALL / FOUNDATION JOINT
1 1/2"=1'-0" 0 4' 8'



NOTES:
1. THE EQUIVALENT NUMBER OF VERT & HORIZ BARS INTERRUPTED BY OPENINGS SHALL BE PROVIDED BY PLACING ½ OF BARS ON EACH SIDE OF THE OPENING @3"OC.
2. MAINTAIN NOT LESS THAN 1¼" CLEAR BETWEEN ADJACENT PARALLEL BARS.

D7 TYP WALL REINF @ PIPE OPENING
N.T.S. 0 4' 8'



D8 CAISSON REINFORCING
N.T.S. 0 4' 8'

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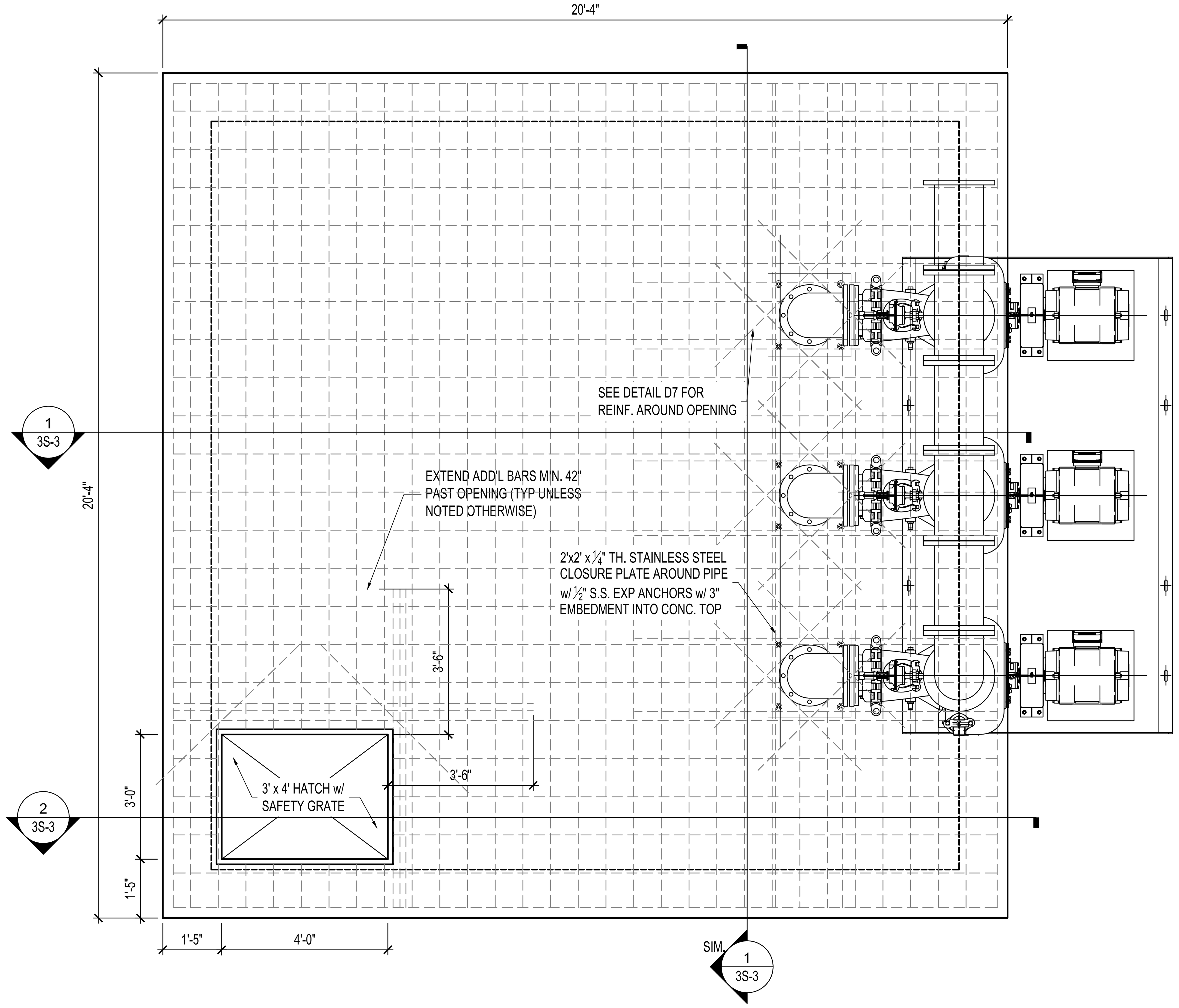
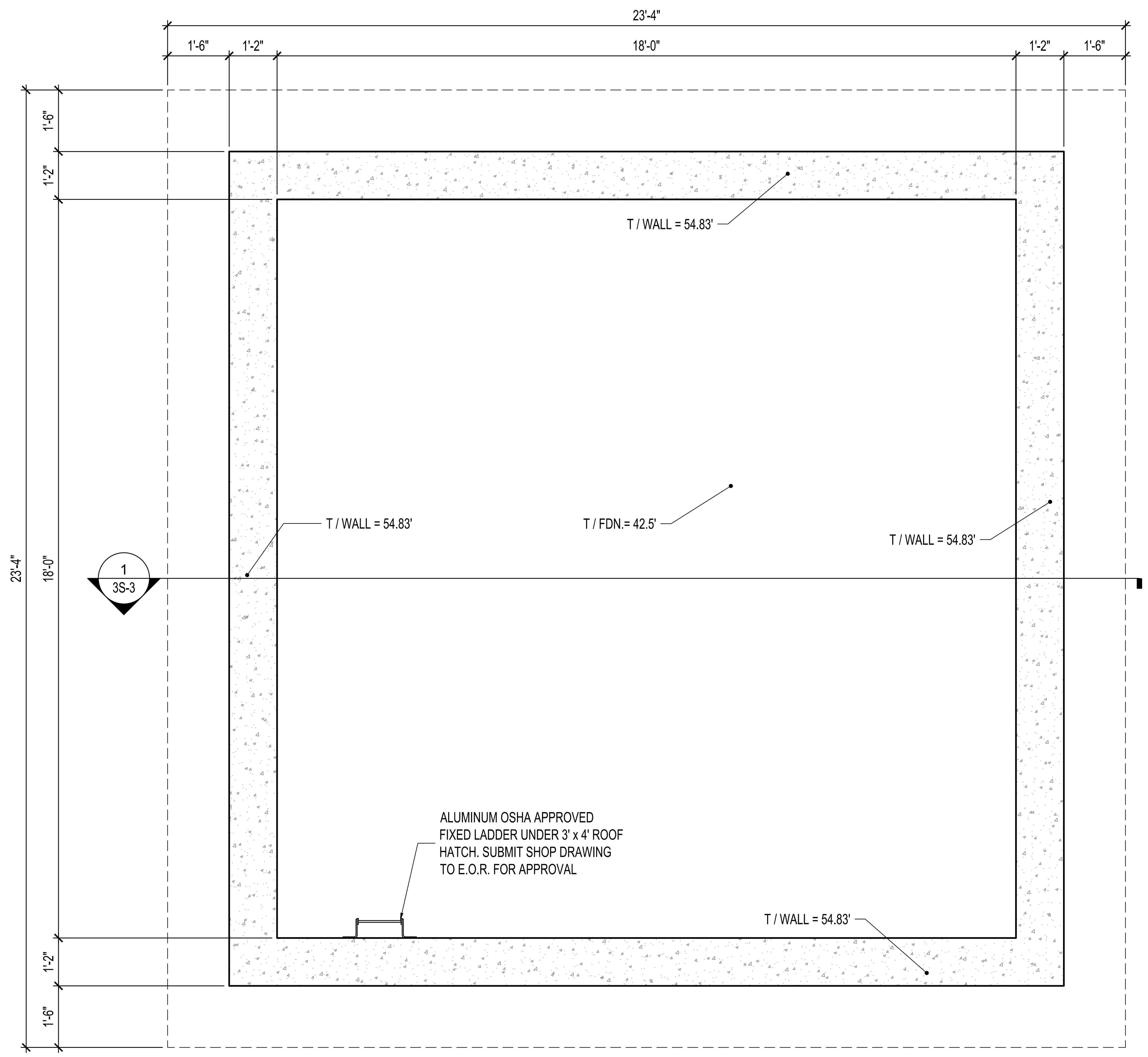
HEADWORKS
DETAILS

2S-7



2 IN-PLANT PUMP STATION TOP SLAB REINFORCING PLAN

3/8"=1'-0"



1 IN-PLANT PUMP STATION FOUNDATION PLAN

3/8"=1'-0"

CONC REINF LAP LENGTH

4500 PSI (ACI 350-06)

BAR SIZE	TENSION SPLICE
	CLASS 'B'
#3	18"
#4	24"
#5	30"
#6	35"
#7	51"
#8	59"
#9	66"
#10	73"

CONCRETE NOTES

1. MINIMUM CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS SHALL BE 4500 PSI FOR WALLS AND SLABS IN LIQUID CONTAINING VESSELS.
2. MINIMUM CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS SHALL BE 3000 PSI FOR CAISSONS AND SLABS-ON-GRADE.
3. STRUCTURAL MEMBERS OF REINFORCED CONCRETE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 318-11.
4. PROVIDE ¾" CHAMFER AT ALL EXPOSED CORNERS OF CONCRETE W/O EMBED ANGLES.
5. PLACE ALL REBAR FOR WALLS & SLABS IN DIRECTIONS & LOCATIONS AS SHOWN IN TANK SECTIONS. DO NOT REVERSE LOCATIONS OF INSIDE/OUTSIDE BARS AT EACH FACE.
6. CONCRETE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318-11. SAMPLES FOR STRENGTH TESTS OF EACH CLASS OF CONCRETE PLACED EACH DAY SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 75 CY OF CONCRETE USED FOR FOOTINGS, NOR LESS THAN ONCE FOR EACH 5000 SQUARE FEET OF SURFACE AREA FOR SLABS. TEST REPORTS INDICATING (NON)COMPLIANCE SHALL BE PROVIDED TO THE OWNER, ENGINEER & CONTRACTOR. A COPY OF THE TEST REPORTS SHALL BE AVAILABLE AT THE JOBSITE. 4 INCH DIAMETER X 8 INCH TEST CYLINDERS ARE ACCEPTABLE.

FOUNDATION NOTES

1. DESIGN SOIL BEARING PRESSURE = 2000 PSF. SOIL BEARING PRESSURE SHALL BE VERIFIED AT TIME OF EXCAVATION AND STRUCTURAL ENGINEER SHALL BE NOTIFIED IF THE ACTUAL SOIL BEARING PRESSURE IS LOWER THAN THE DESIGN SOIL PRESSURE. FOUNDATION DESIGN AND SUBSURFACE INFORMATION IS BASED ON A SOILS REPORT PREPARED BY TERRACON CONSULTING, INC. (PROJECT# ES165069).
2. DEWATER, UNDERCUT, & REPLACE MATERIAL BELOW FOOTING ELEVATIONS PER GEOTECH REPORT. GRANULAR BASE BELOW FOOTING SHALL BE #57 STONE.
3. PRIOR TO POURING CONCRETE, ALL DEBRIS, WATER, AND LOOSE EARTH SHALL BE REMOVED FROM THE FOUNDATION BED.
4. GEOTECHNICAL ENGINEER SHALL VERIFY CONDITION AND/OR ADEQUACY OF ALL SUBGRADES, FILLS, AND BACKFILLS PRIOR TO PLACEMENT OF FOUNDATIONS, FOOTINGS, SLABS, WALLS, FILLS, BACKFILLS, ETC.
5. BACKFILL AGAINST WALLS SHALL BE DEPOSITED EVENLY AGAINST BOTH SIDES OF WALLS UNTIL THE LOWER FINAL GRADE IS REACHED. COMPACTION OF BACKFILL WITHIN 10 FEET OF WALLS SHOULD BE PERFORMED WITH HAND OPERATED EQUIPMENT. THE BACKFILLING OF UNDERGROUND STRUCTURES SHALL BE DONE W/ A MAX OF 4'-0" INCREMENTS ALL AROUND THE STRUCTURES.
6. PLACEMENT AND COMPACTION OF STRUCTURAL FILL SHALL BE MONITORED BY THE GEOTECHNICAL ENGINEER. COMPACTION SHALL BE 95% OF STANDARD PROCTOR.
7. WHERE ANY UTILITY LINES PASS UNDER A FOOTING, PROVIDE A PRE-CAST CONCRETE RELIEVING ARCH, A MINIMUM OF THREE TIMES THE DIAMETER OF THE UTILITY PIPE FOR PROTECTION.

STRUCTURE NOTES

1. COORD ALL STRUCTURE & PIPING ELEVATIONS & DIMENSIONS W/ MECHANICAL DRAWINGS.
2. ALL CONDUIT SHALL BE MOUNTED EXTERNALLY ON STRUCTURE USING HANGERS. FOR ANY CONDUIT PROPOSED TO BE PLACED IN THE CONCRETE POUR, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING PLACEMENT OF ANY CONDUIT IN CONCRETE STRUCTURE.
3. COORDINATE ALL EXCAVATIONS W/ EXISTING STRUCTURES SO AS TO NOT UNDERMINE THEM. APPROPRIATE MEASURES SHALL BE TAKEN TO INSURE THAT EXISTING STRUCTURES ARE NOT UNDERMINED OR OTHERWISE DAMAGED DURING THE EXCAVATION OR CONSTRUCTION OF NEW STRUCTURES.
4. DESIGN LIVE LOAD FOR TOP SLAB = 250 PSF
5. SEISMIC DESIGN CRITERIA:
   - OCCUPANCY CATEGORY = IV
   - SEISMIC IMPORTANCE FACTOR (I_E) = 1.50
   - S_S = 0.127 S_1 = 0.067
   - SITE CLASS = D
   - S_{DS} = 0.135 S_{D1} = 0.107
   - BASIC SEISMIC-FORCE-RESISTING SYSTEM (PER ASCE 7-05 TABLE 15.4-1 OR 15.4-2):
     - FLAT-BOTTOM GROUND SUPPORTED TANKS - REINFORCED NON-SLIDING BASE:
   - RESPONSE MODIFICATION FACTOR (R) = 2.0
   - SEISMIC RESPONSE COEFF. (C_S) = 0.2926
   - SEISMIC DESIGN CATEGORY = C 0.1029
   - ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE

REINFORCING STEEL NOTES

1. SHALL BE DETAILED, FABRICATED AND PLACED ACCORDING TO THE LATEST STANDARDS OF THE AMERICAN CONCRETE INSTITUTE (ACI) AND THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
2. MATERIALS:
   - 2.1. REINFORCING BARS SHALL COMPLY WITH ASTM A615 GRADE 60.
   - 2.2. WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A82 AND A185.
   - 2.3. REINFORCING BARS FOR WELDING SHALL COMPLY WITH ASTM A-706.
3. CLEAR MINIMUM COVER OF CONCRETE OVER REINFORCING BARS SHALL BE AS INDICATED ON THE DRAWINGS BUT SHALL NOT BE LESS THAN THE FOLLOWING:
   - 3.1. CONCRETE PLACED AGAINST EXPOSED EARTH (NOT FORMED) = 3"
   - 3.2. FORMED SURFACES EXPOSED TO EARTH, LIQUIDS, OR WEATHER:
     SLABS & JOISTS W/ #5 BARS & SMALLER = 1½"
     SLABS & JOISTS W/ #6 BARS & LARGER = 2"
     BEAMS, PIERS, COLUMNS, WALLS, FOOTINGS, & BASE SLABS = 2"
   - 3.3. FORMED SURFACES NOT EXPOSED TO EARTH, LIQUIDS, OR WEATHER:
     SLABS & JOISTS = ¾"
     BEAMS, PIERS, & COLUMNS = 1½"
     WALLS = ¾"
     FOOTINGS & BASE SLABS = 2"

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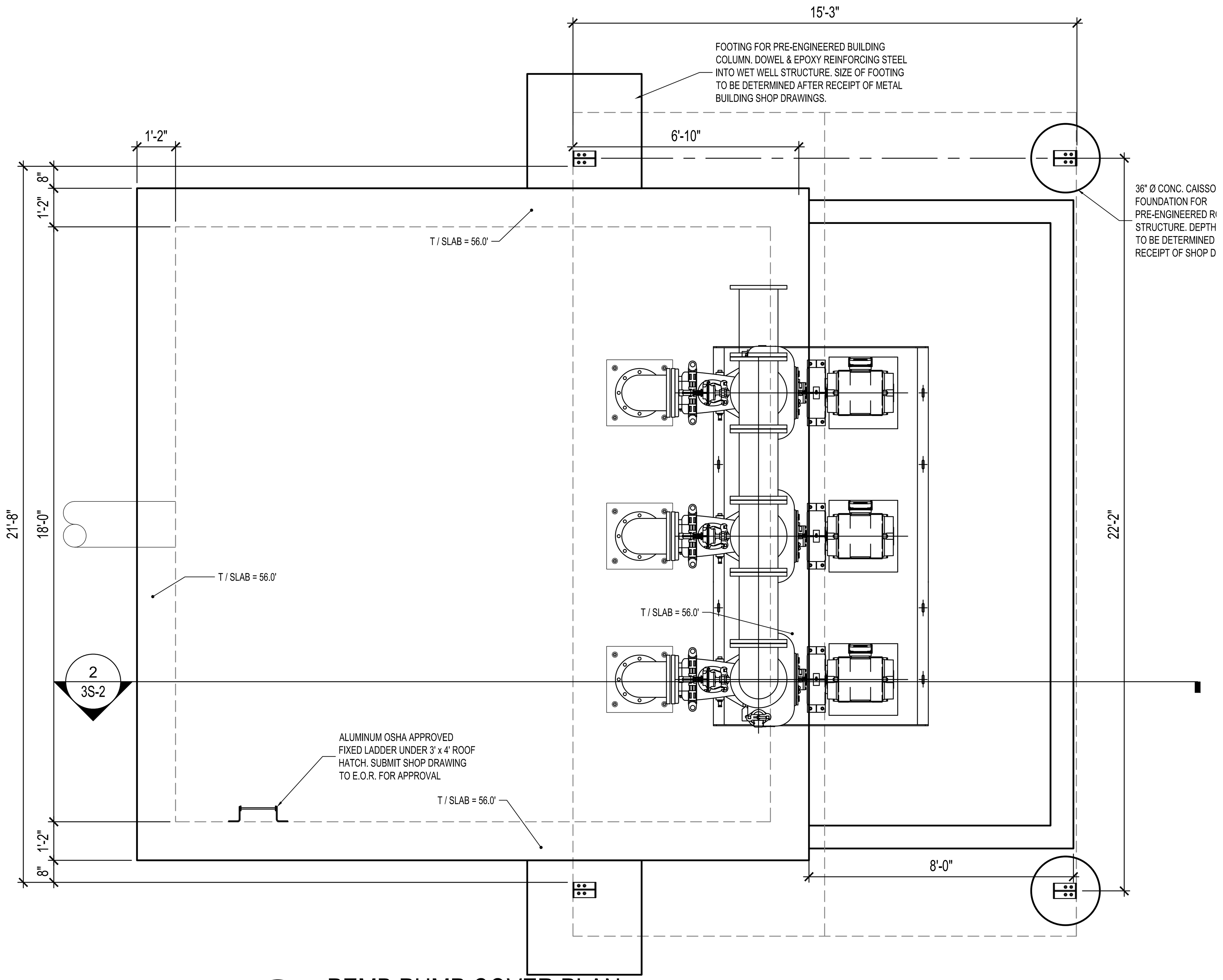
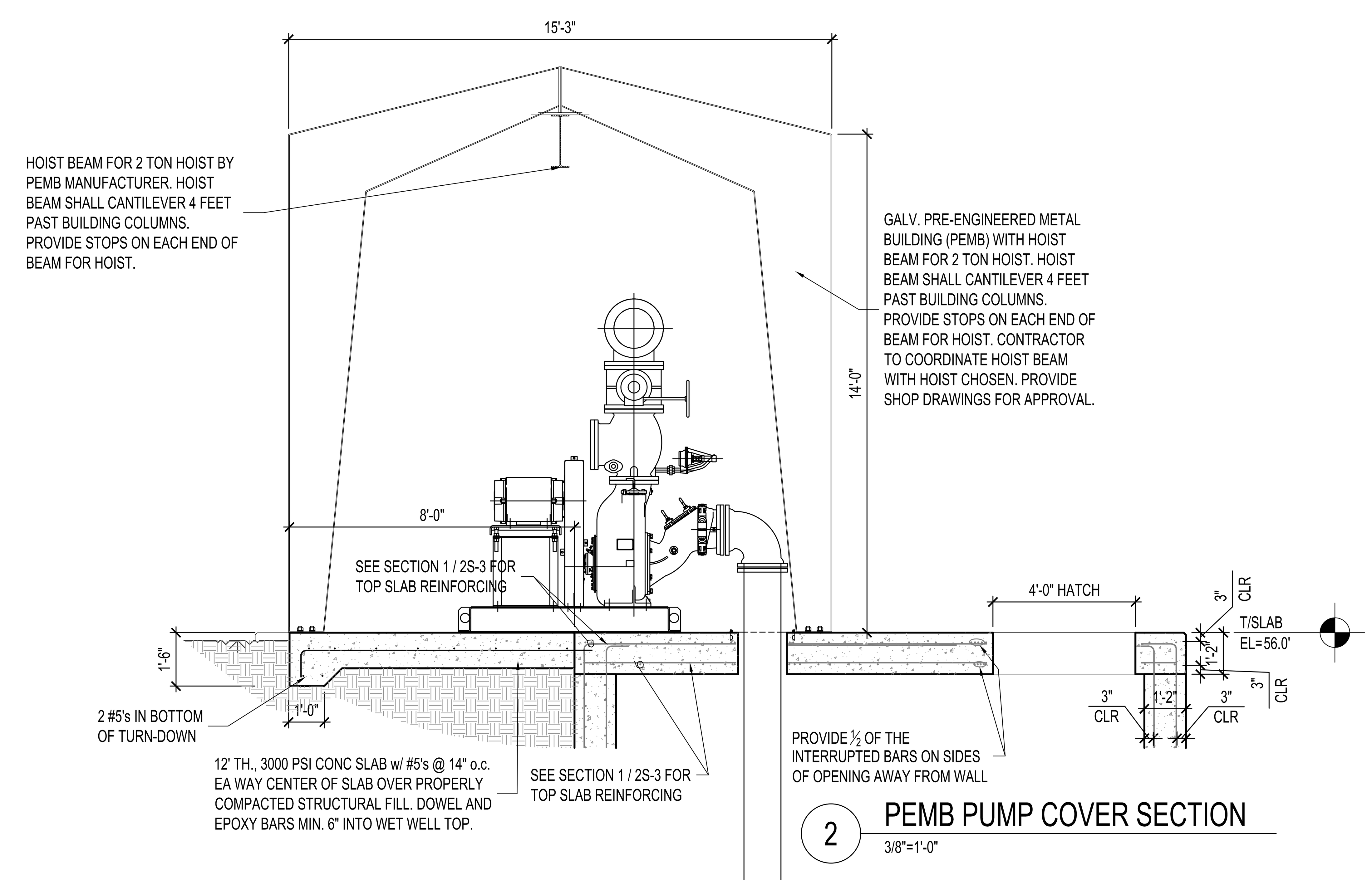
APPROVED:

IN-LINE PUMP STATION FOUNDATION PLAN, TOP SLAB PLAN, & GENERAL NOTES



1 PEMB PUMP COVER PLAN
3/8"=1'-0"



2 PEMB PUMP COVER SECTION
3/8"=1'-0"

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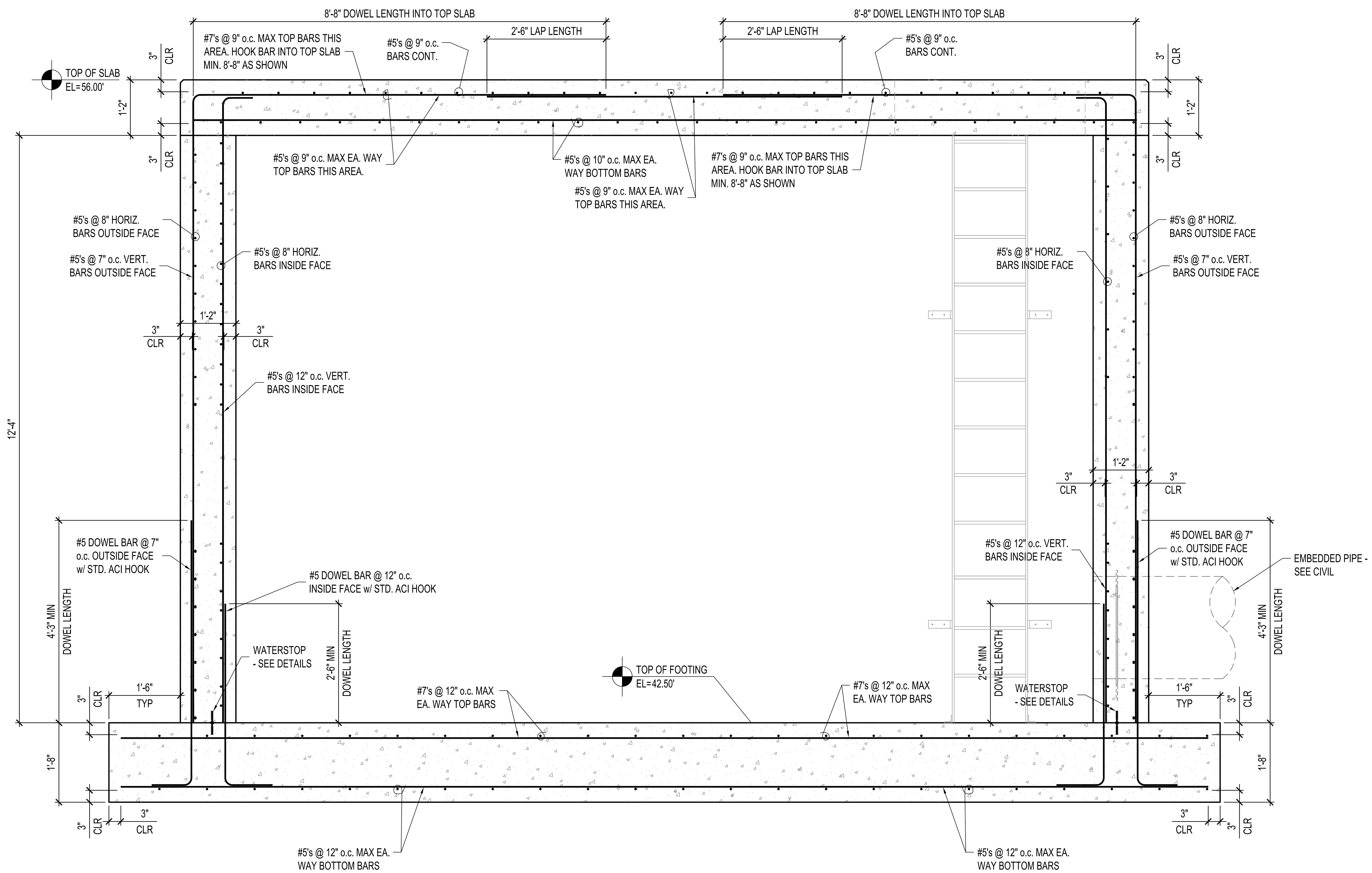
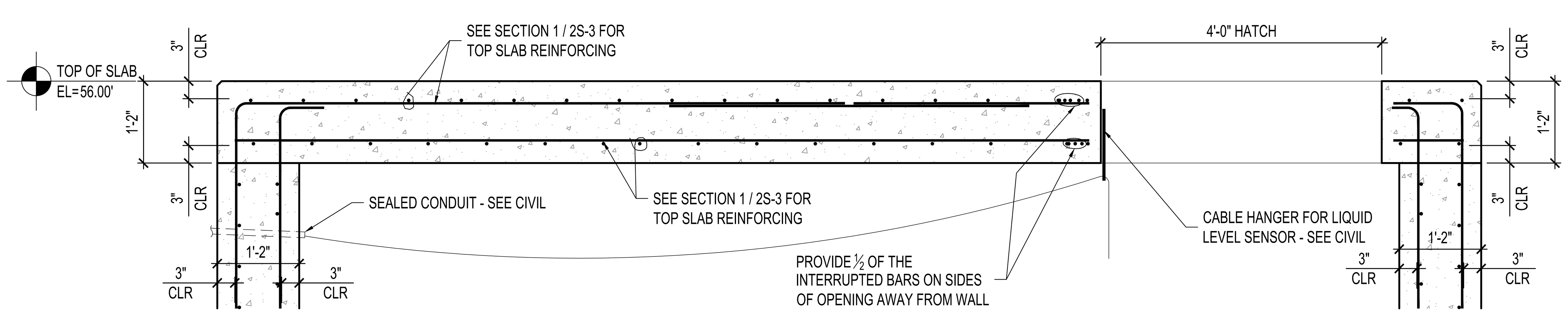
IN-LINE PUMP STATION

COVER PLAN & SECTIONS

3S - 2
SHEET 2 OF 04



1 IN-PLANT PUMP STATION SECTION
3/4"=1'-0"



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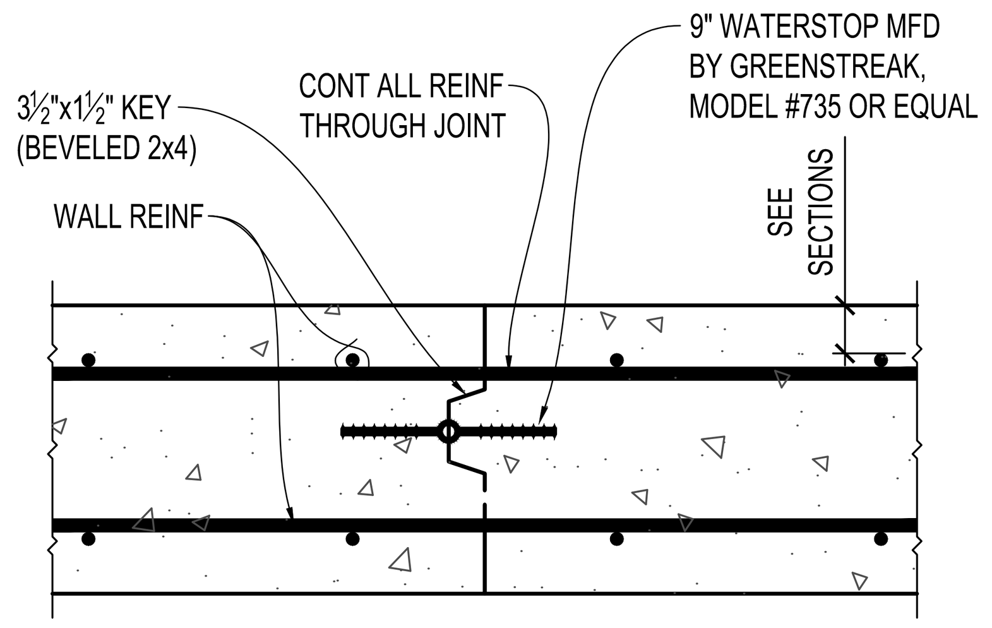
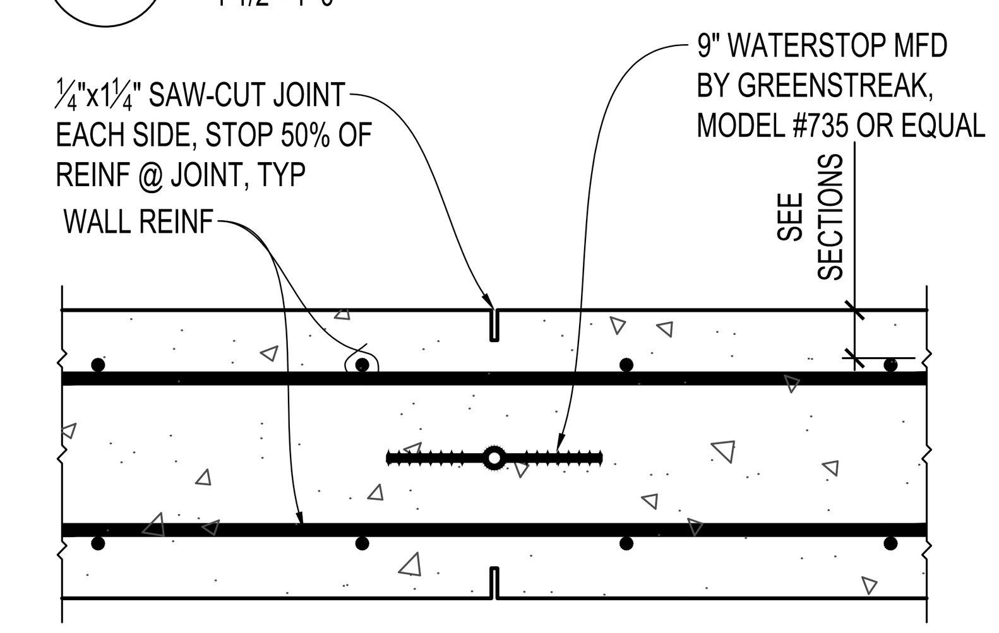
IN-LINE PUMP STATION
SECTIONS

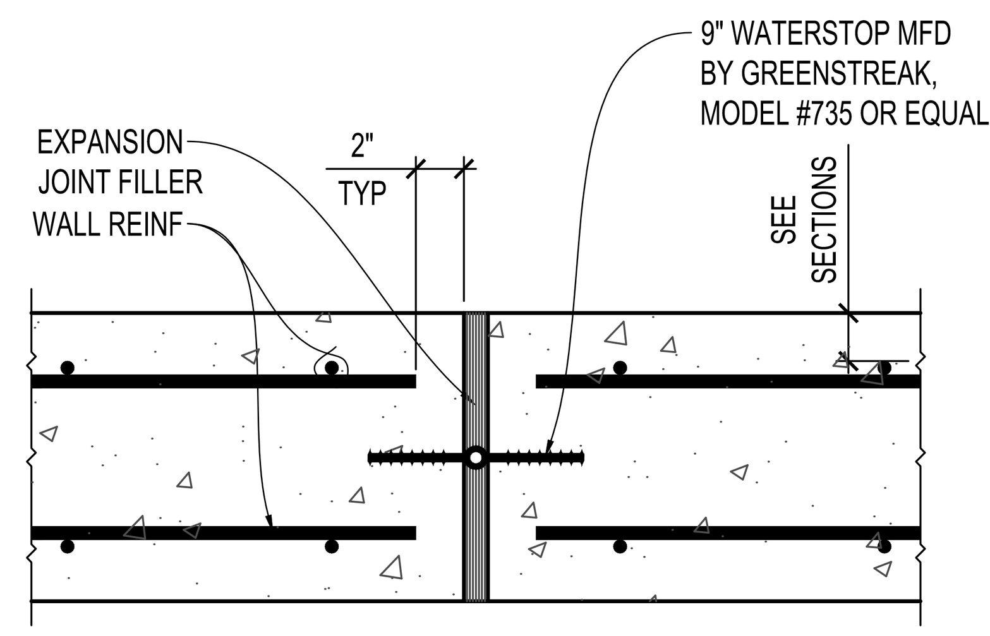
3S - 3
SHEET 3 OF 04



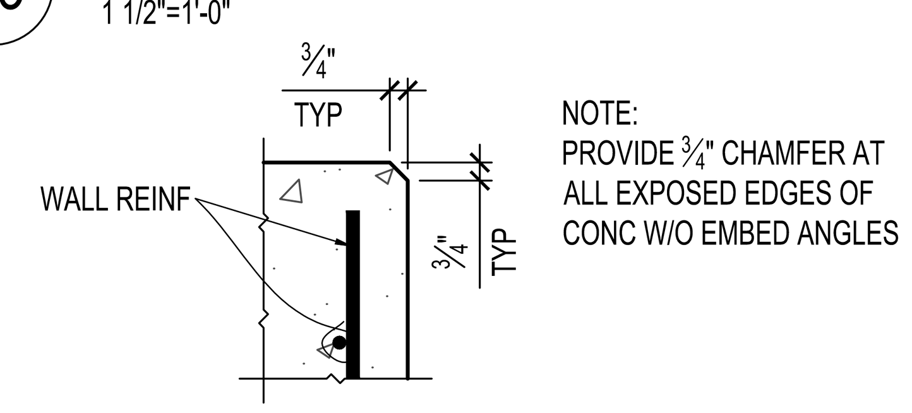
D1 CONC. CONST. JOINT DETAIL
1 1/2"=1'-0"



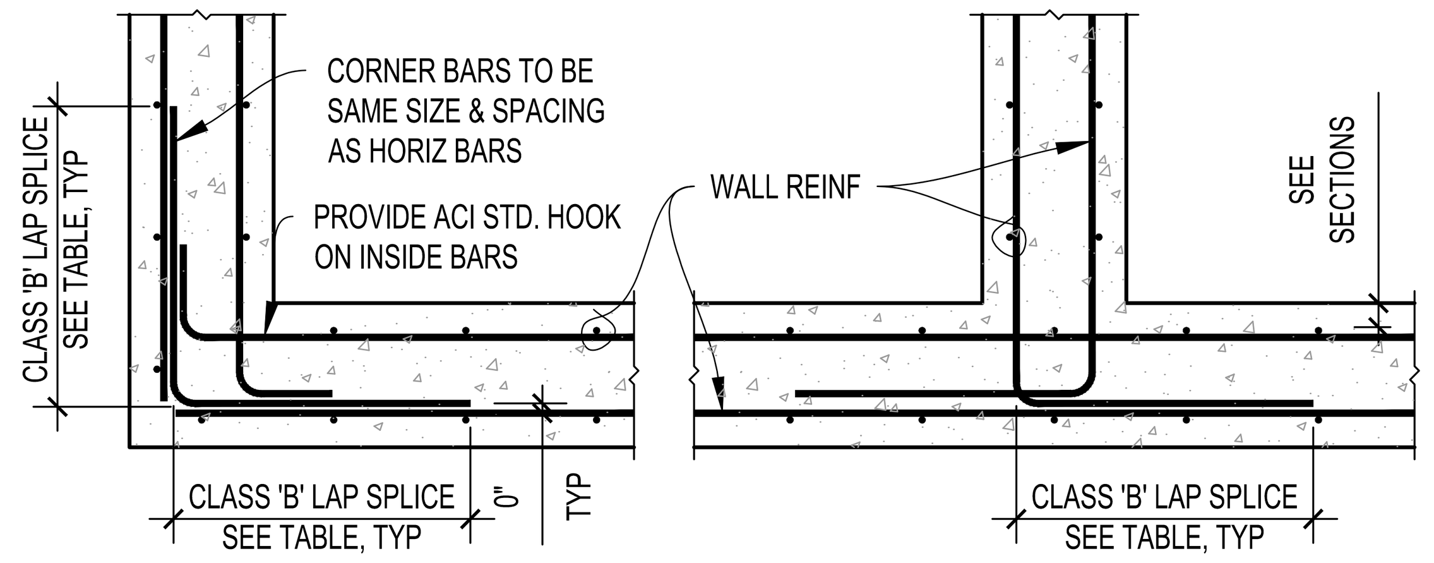
D2 CONC. CONTROL JOINT DETAIL
1 1/2"=1'-0"



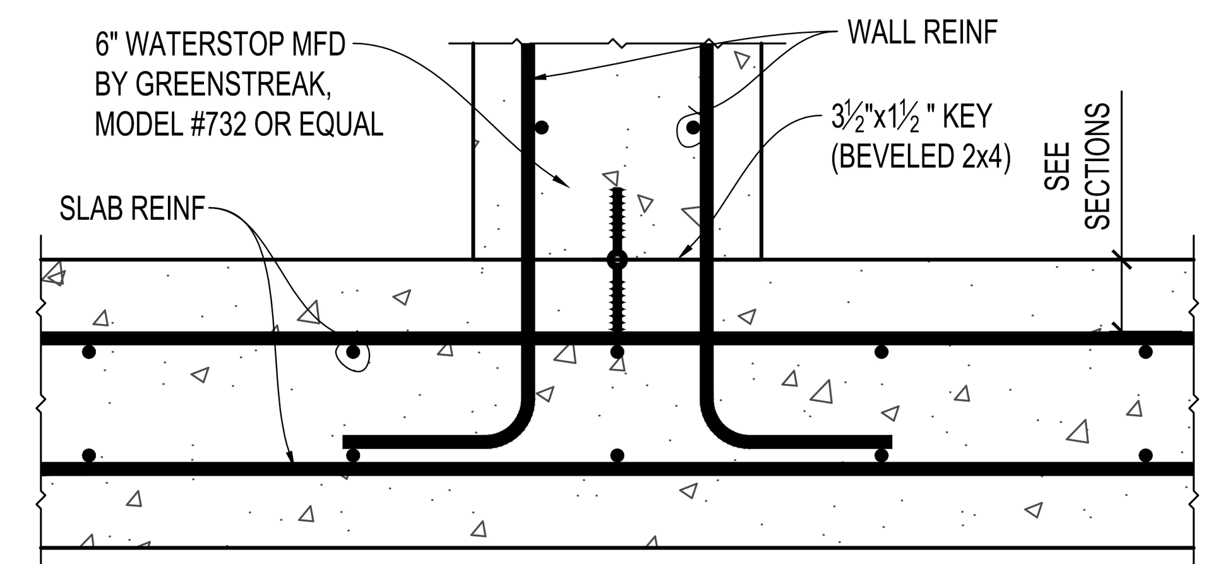
D3 CONC. EXP JOINT DETAIL
1 1/2"=1'-0"



D4 CONC. CHAMFER DETAIL
1 1/2"=1'-0"

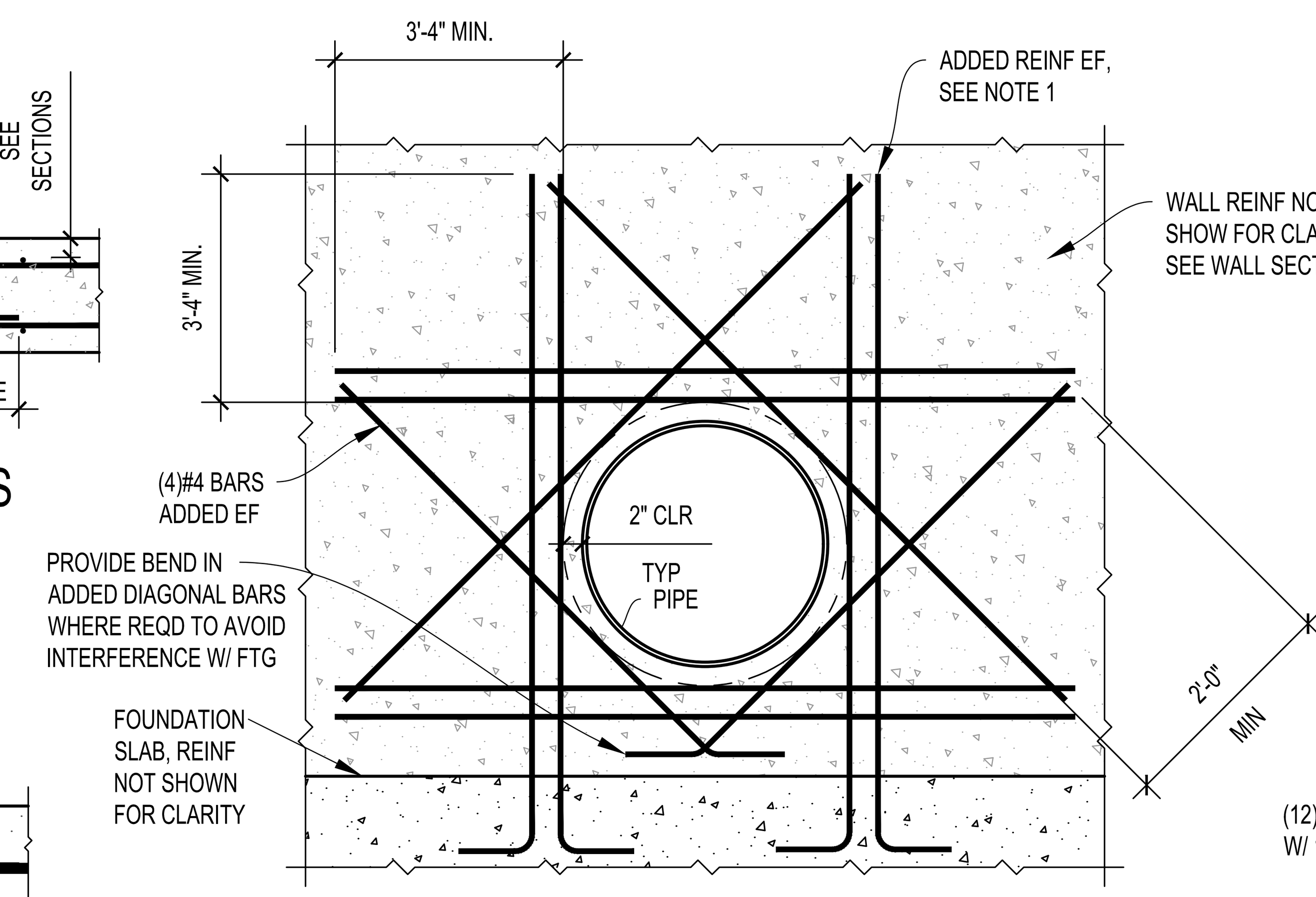


D5 TYP REINF @ WALL INTERSECTIONS
N.T.S.



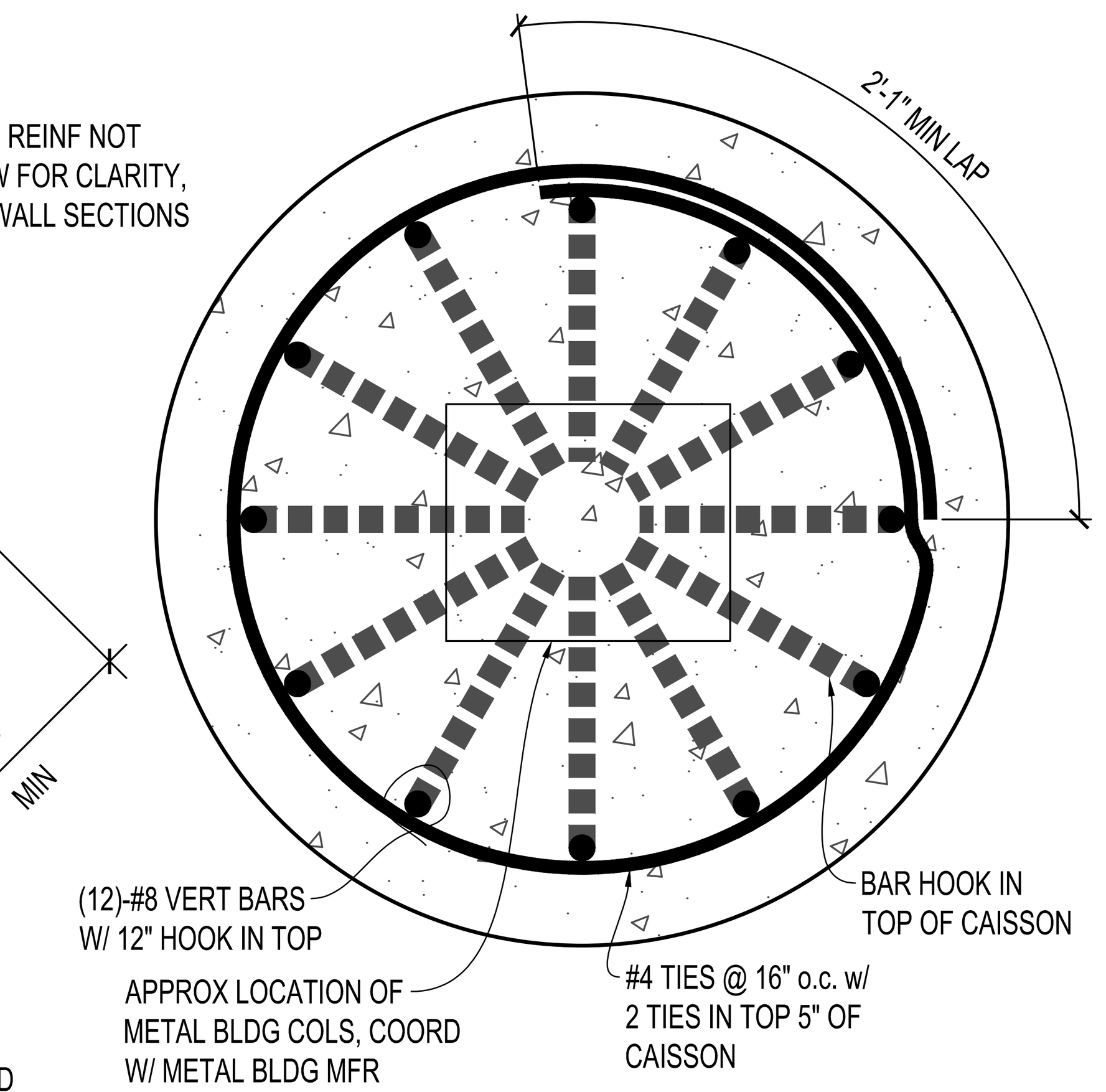
D6 WALL / FOUNDATION JOINT
1 1/2"=1'-0"

S3-
SHEET OF 04



NOTES:
1. THE EQUIVALENT NUMBER OF VERT & HORIZ BARS INTERRUPTED BY OPENINGS SHALL BE PROVIDED BY PLACING ½ OF BARS ON EACH SIDE OF THE OPENING @3"OC.
2. MAINTAIN NOT LESS THAN 1¼" CLEAR BETWEEN ADJACENT PARALLEL BARS.

D7 TYP WALL REINF @ PIPE OPENING
N.T.S.



D8 CAISSON REINFORCING
N.T.S.

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IN-LINE PUMP STATION

DETAILS

3S - 4
SHEET 4 OF 04

FOUNDATION NOTES

1. FOUNDATION DESIGN AND SUBSURFACE INFORMATION IS BASED ON A SOILS REPORT PREPARED BY TERRACON CONSULTANTS, INC. (PROJECT # ES165069). ALLOWABLE BEARING CAPACITY SHALL BE VERIFIED AT TIME OF EXCAVATION AND STRUCTURAL ENGINEER SHALL BE NOTIFIED IF THE ACTUAL SOIL BEARING PRESSURE IS LOWER THAN THE DESIGN SOIL PRESSURE.
2. DEWATER, UNDERCUT, & REPLACE MATERIAL BELOW FOOTING ELEVATIONS PER GEOTECH REPORT. GRANULAR BASE BELOW FOOTING SHALL BE #57 STONE.
3. PRIOR TO POURING CONCRETE, ALL DEBRIS, WATER, AND LOOSE EARTH SHALL BE REMOVED FROM THE FOUNDATION BED.
4. GEOTECHNICAL ENGINEER SHALL VERIFY CONDITION AND/OR ADEQUACY OF ALL SUBGRADES, FILLS, AND BACKFILLS PRIOR TO PLACEMENT OF FOUNDATIONS, FOOTINGS, SLABS, WALLS, FILLS, BACKFILLS, ETC.
5. BACKFILL AGAINST WALLS SHALL BE DEPOSITED EVENLY AGAINST BOTH SIDES OF WALLS UNTIL THE LOWER FINAL GRADE IS REACHED. COMPACTION OF BACKFILL WITHIN 10 FEET OF WALLS SHOULD BE PERFORMED WITH HAND OPERATED EQUIPMENT. THE BACKFILLING OF UNDERGROUND STRUCTURES SHALL BE DONE W/ A MAX OF 4'-0" INCREMENTS ALL AROUND THE STRUCTURES.
6. PLACEMENT AND COMPACTION OF STRUCTURAL FILL SHALL BE MONITORED BY THE GEOTECHNICAL ENGINEER. COMPACTION SHALL BE 95% OF STANDARD PROCTOR.
7. WHERE ANY UTILITY LINES PASS UNDER A FOOTING, PROVIDE A PRE-CAST CONCRETE RELIEVING ARCH, A MINIMUM OF THREE TIMES THE DIAMETER OF THE UTILITY PIPE FOR PROTECTION.

CONCRETE NOTES

1. MINIMUM CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS SHALL BE 4500 PSI FOR WALLS AND SLABS IN LIQUID CONTAINING VESSELS.
2. STRUCTURAL MEMBERS OF REINFORCED CONCRETE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 318-11.
3. PROVIDE ¾" CHAMFER AT ALL EXPOSED CORNERS OF CONCRETE W/O EMBED ANGLES.
4. PLACE ALL REBAR FOR WALLS & SLABS IN DIRECTIONS & LOCATIONS AS SHOWN IN TANK SECTIONS. DO NOT REVERSE LOCATIONS OF INSIDE/OUTSIDE BARS AT EACH FACE.
5. CONCRETE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318-11. SAMPLES FOR STRENGTH TESTS OF EACH CLASS OF CONCRETE PLACED EACH DAY SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 75 CY OF CONCRETE USED FOR FOOTINGS, NOR LESS THAN ONCE FOR EACH 5000 SQUARE FEET OF SURFACE AREA FOR SLABS. TEST REPORTS INDICATING (NON)COMPLIANCE SHALL BE PROVIDED TO THE OWNER, ENGINEER & CONTRACTOR. A COPY OF THE TEST REPORTS SHALL BE AVAILABLE AT THE JOBSITE. 4 INCH DIAMETER X 8 INCH TEST CYLINDERS ARE ACCEPTABLE.

REINFORCING STEEL NOTES

1. SHALL BE DETAILED, FABRICATED AND PLACED ACCORDING TO THE LATEST STANDARDS OF THE AMERICAN CONCRETE INSTITUTE (ACI) AND THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
2. MATERIALS:
   - 2.1. REINFORCING BARS SHALL COMPLY WITH ASTM A615 GRADE 60.
   - 2.2. WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A82 AND A185.
   - 2.3. REINFORCING BARS FOR WELDING SHALL COMPLY WITH ASTM A-706.
3. CLEAR MINIMUM COVER OF CONCRETE OVER REINFORCING BARS SHALL BE AS INDICATED ON THE DRAWINGS BUT SHALL NOT BE LESS THAN THE FOLLOWING:
   - 3.1. CONCRETE PLACED AGAINST EXPOSED EARTH (NOT FORMED) = 3"
   - 3.2. FORMED SURFACES EXPOSED TO EARTH, LIQUIDS, OR WEATHER:
     SLABS & JOISTS W/ #5 BARS & SMALLER = 1½"
     SLABS & JOISTS W/ #6 BARS & LARGER = 2"
     BEAMS, PIERS, COLUMNS, WALLS, FOOTINGS, & BASE SLABS = 2"
   - 3.3. FORMED SURFACES NOT EXPOSED TO EARTH, LIQUIDS, OR WEATHER:
     SLABS & JOISTS = ¾"
     BEAMS, PIERS, & COLUMNS = 1½"
     WALLS = ¾"
     FOOTINGS & BASE SLABS = 2"

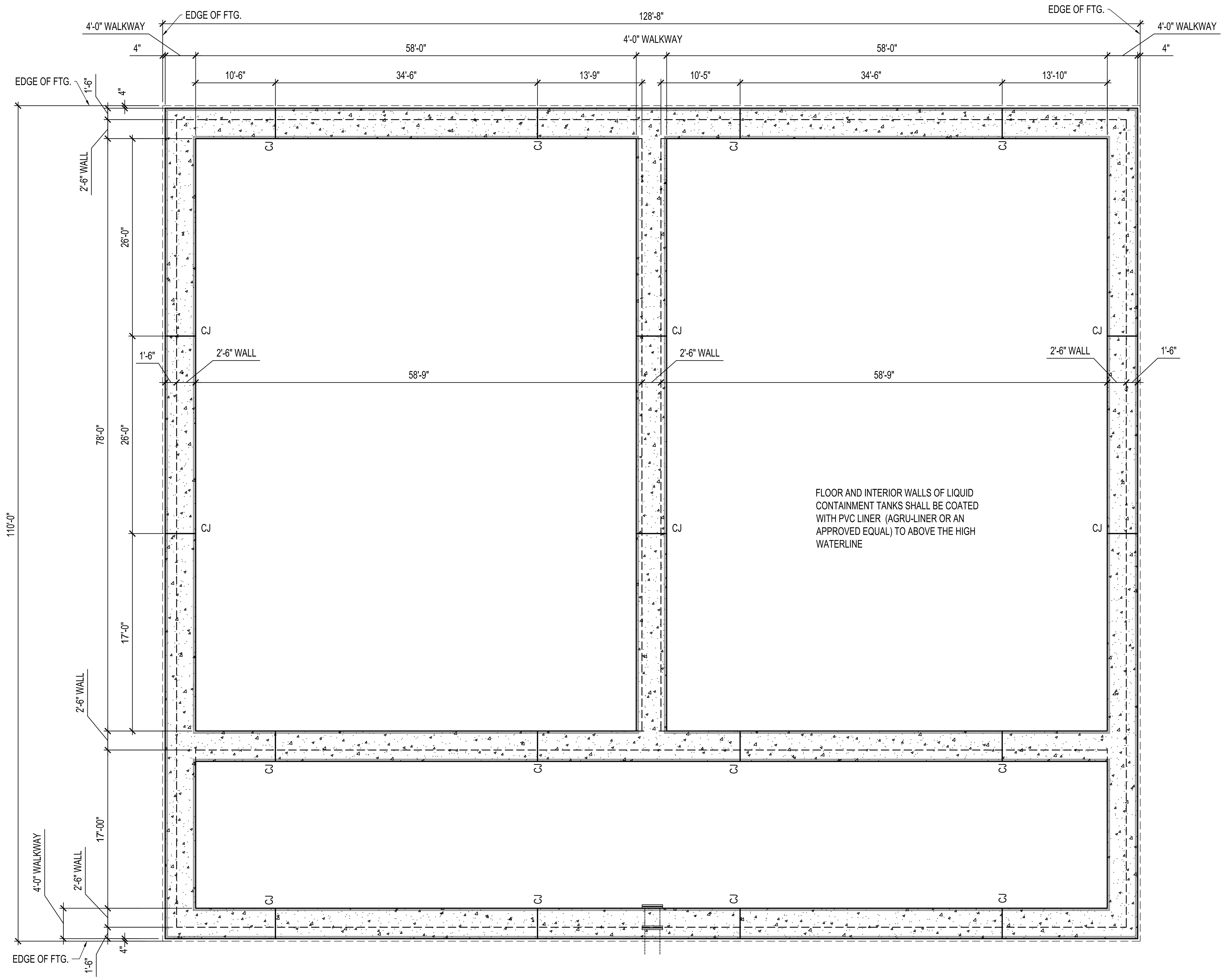
STRUCTURE NOTES

1. COORD ALL STRUCTURE & PIPING ELEVATIONS & DIMENSIONS W/ MECHANICAL DRAWINGS.
2. ALL CONDUIT SHALL BE MOUNTED EXTERNALLY ON STRUCTURE USING HANGERS. FOR ANY CONDUIT PROPOSED TO BE PLACED IN THE CONCRETE POUR, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING PLACEMENT OF ANY CONDUIT IN CONCRETE STRUCTURE.
3. CONTRACTOR SHALL SUBMIT PROPOSED LOCATIONS OF CONSTRUCTION JOINTS FOR APPROVAL BY ENGINEER OF RECORD PRIOR TO BEGINNING WORK.
4. COORDINATE ALL EXCAVATIONS W/ EXISTING STRUCTURES SO AS TO NOT UNDERMINE THEM. APPROPRIATE MEASURES SHALL BE TAKEN TO INSURE THAT EXISTING STRUCTURES ARE NOT UNDERMINED OR OTHERWISE DAMAGED DURING THE EXCAVATION OR CONSTRUCTION OF NEW STRUCTURES.
5. SEISMIC DESIGN CRITERIA:
   OCCUPANCY CATEGORY = IV
   SEISMIC IMPORTANCE FACTOR (I_E) = 1.50
   S_S = 0.127 S_1 = 0.067
   SITE CLASS = D
   S_{DS} = 0.135 S_{D1} = 0.107
   BASIC SEISMIC-FORCE-RESISTING SYSTEM (PER ASCE 7-05 TABLE 15.4-1 OR 15.4-2):
   FLAT-BOTTOM GROUND SUPPORTED TANKS - REINFORCED NON-SLIDING BASE:
   RESPONSE MODIFICATION FACTOR (R) = 2.0
   SEISMIC RESPONSE COEFF. (C_S) = 0.2926
   SEISMIC DESIGN CATEGORY = C 0.1029
   ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE

CONC REINF LAP LENGTH

4500 PSI (ACI 350-06)

BAR SIZE	TENSION SPLICE CLASS 'B'
#3	18"
#4	24"
#5	30"
#6	35"
#7	51"
#8	59"
#9	66"
#10	73"



1 SBR's TANK PLAN
1/8"=1'-0"

OCONEE ENGINEERING L.L.C.
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GEORGIA REGISTERED No. 27855 PROFESSIONAL ENGINEER RALPH H. BOSWELL
10/10/2019

FOLKSTON TREATMENT PLANT
FOR:
THE CITY OF FOLKSTON
FOLKSTON GEORGIA
CHARLTON COUNTY, GEORGIA

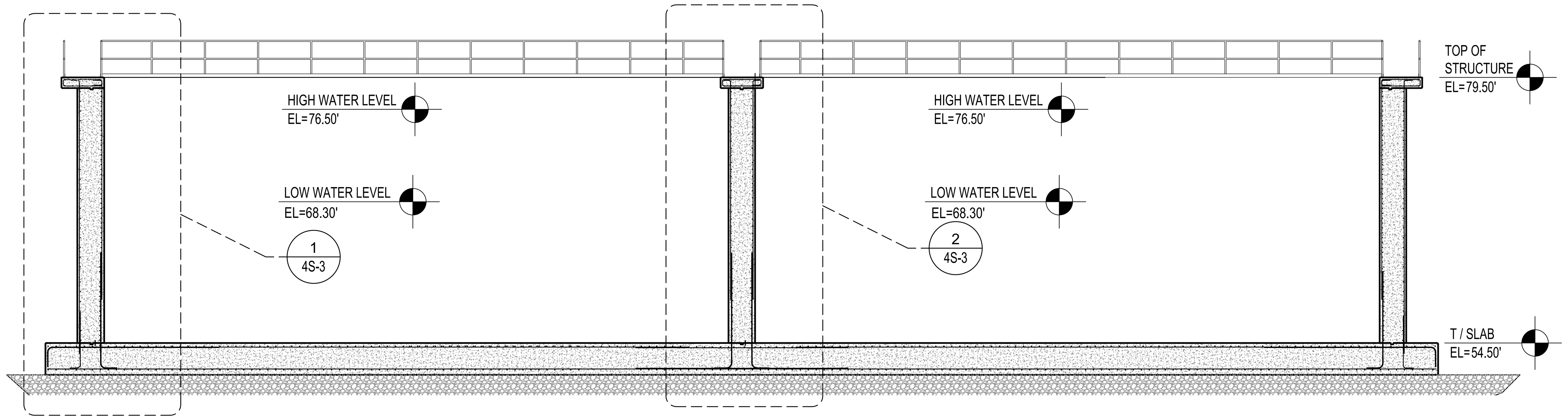
MARK	DATE	BY	DESCRIPTION
	10-10-2019		EPD SUBMITTAL
	7-8-2019		85% SET FOR REVIEW
	6-14-2019		80% SET FOR REVIEW

OE PROJECT NO: OE18132
FILE NAME: OE18132-4S-CORE
ORIGINAL DRAWING SIZE: 36"x24"
DATE: 6-14-2019

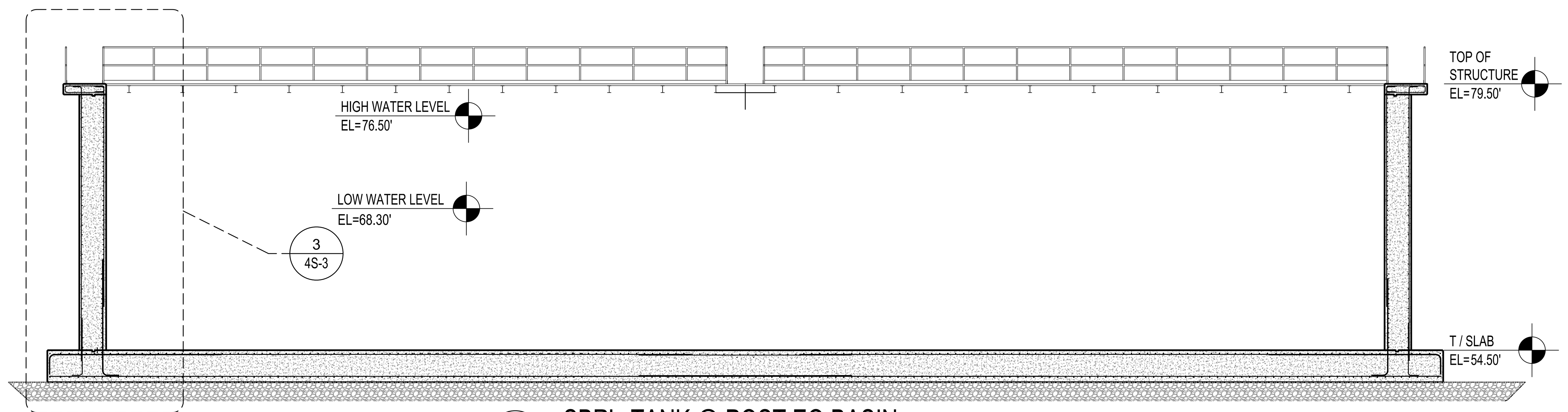
DESIGNED:
DRAWN:
CHECKED:
APPROVED:

SBR
TANK PLAN & NOTES

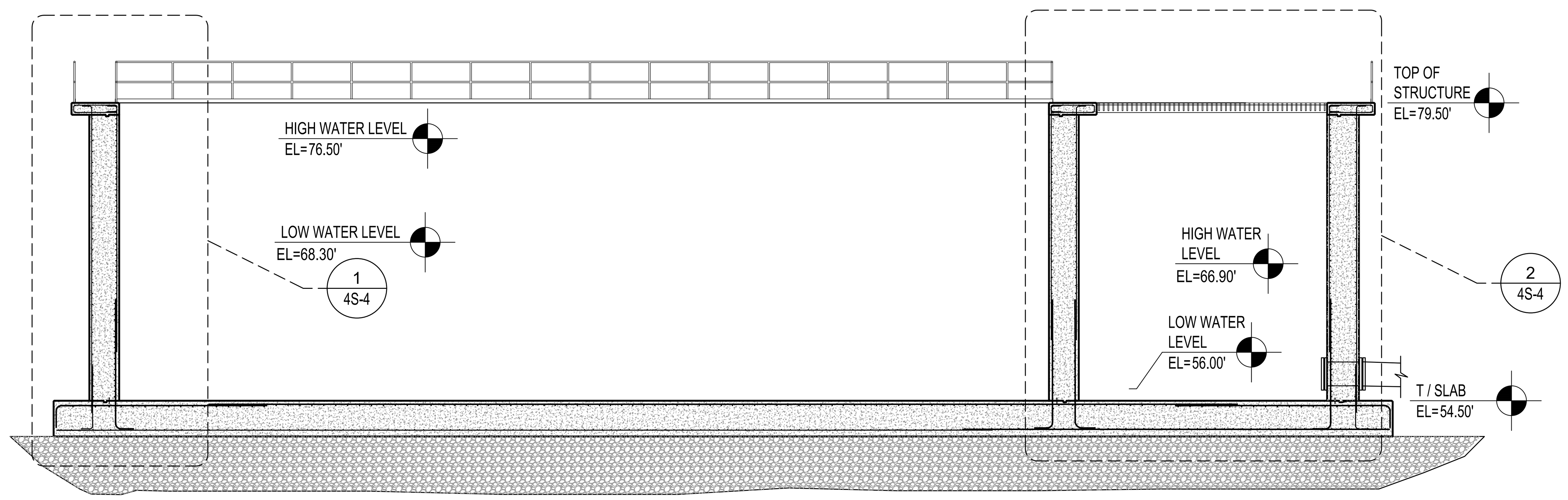
4S-1
SHEET 1 OF 05



1 SBR's TANK SECTION
1/8"=1'-0"



2 SBR's TANK @ POST EQ BASIN
1/8"=1'-0"



3 SBR's TANK SECTION @ SBR & POST EQ BASIN
1/8"=1'-0"

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FOR:
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CHARLTON COUNTY, GEORGIA

MARK	DATE	BY	DESCRIPTION
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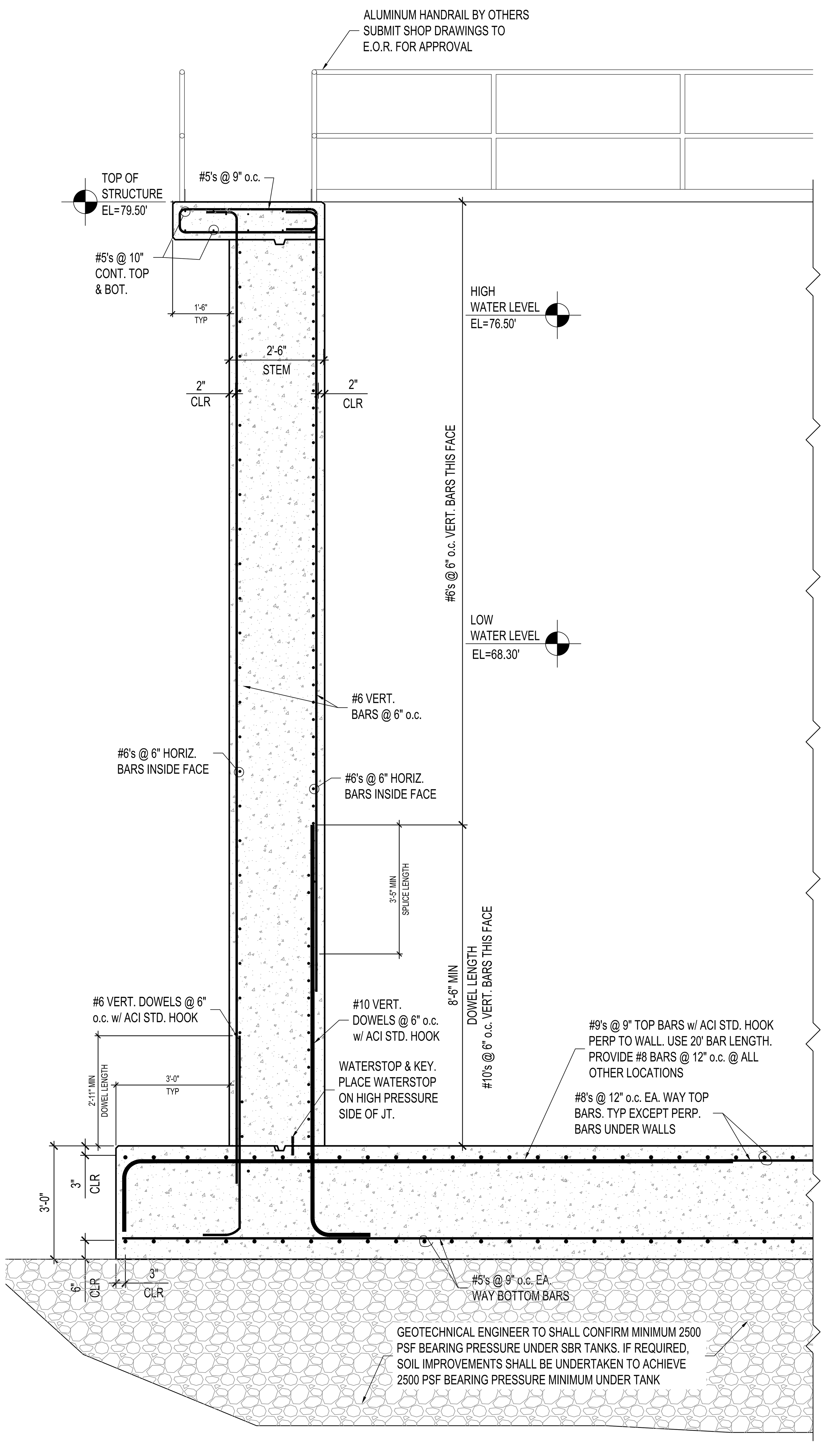
	7-8-2019		90% SET FOR REVIEW
	6-14-2019		60% SET FOR REVIEW

OE PROJECT NO: OE18132
FILE NAME: OE18132-4S-CORE
ORIGINAL DRAWING SIZE: 36"x24"
DATE: 6-14-2019

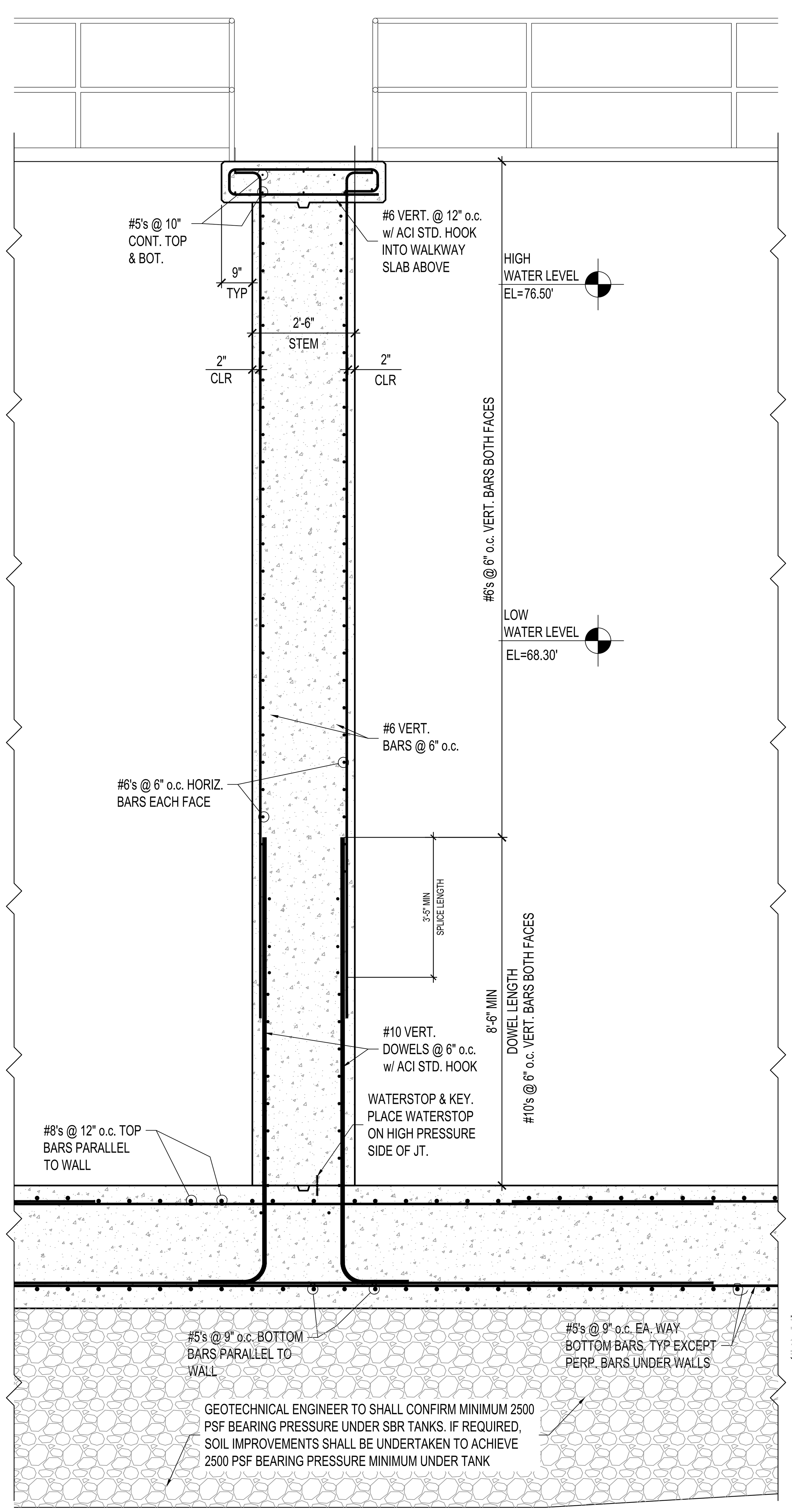
DESIGNED:
DRAWN:
CHECKED:
APPROVED:

SBR
SECTIONS

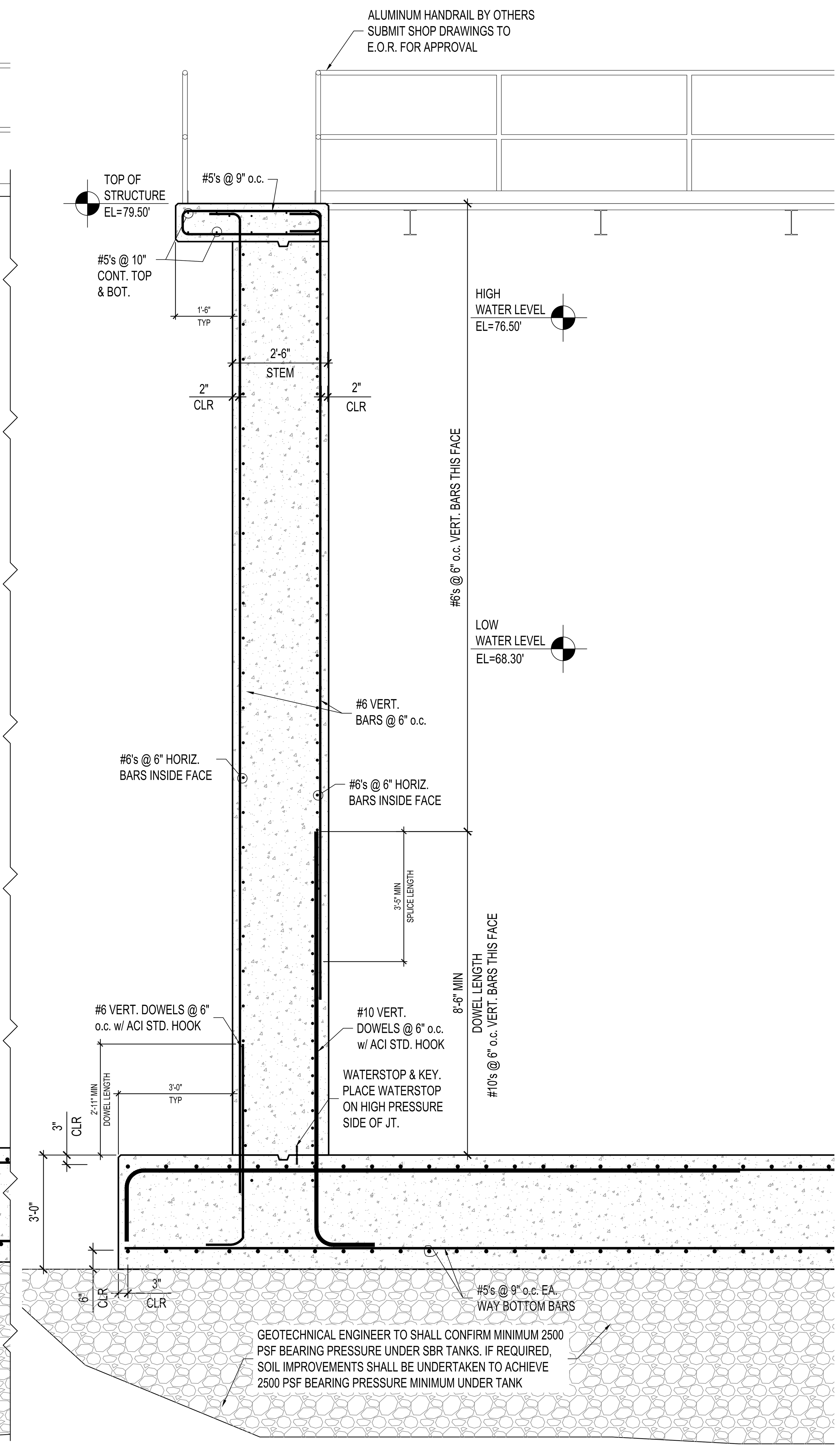
4S-2
SHEET 2 OF 05



1 SBR's TANK SECTION
1/2"=1'-0"



2 SBR's TANK SECTION
1/2"=1'-0"



3 SBR's TANK SECTION
1/2"=1'-0"

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FOR:
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FOLKSTON GEORGIA
CHARLTON COUNTY, GEORGIA

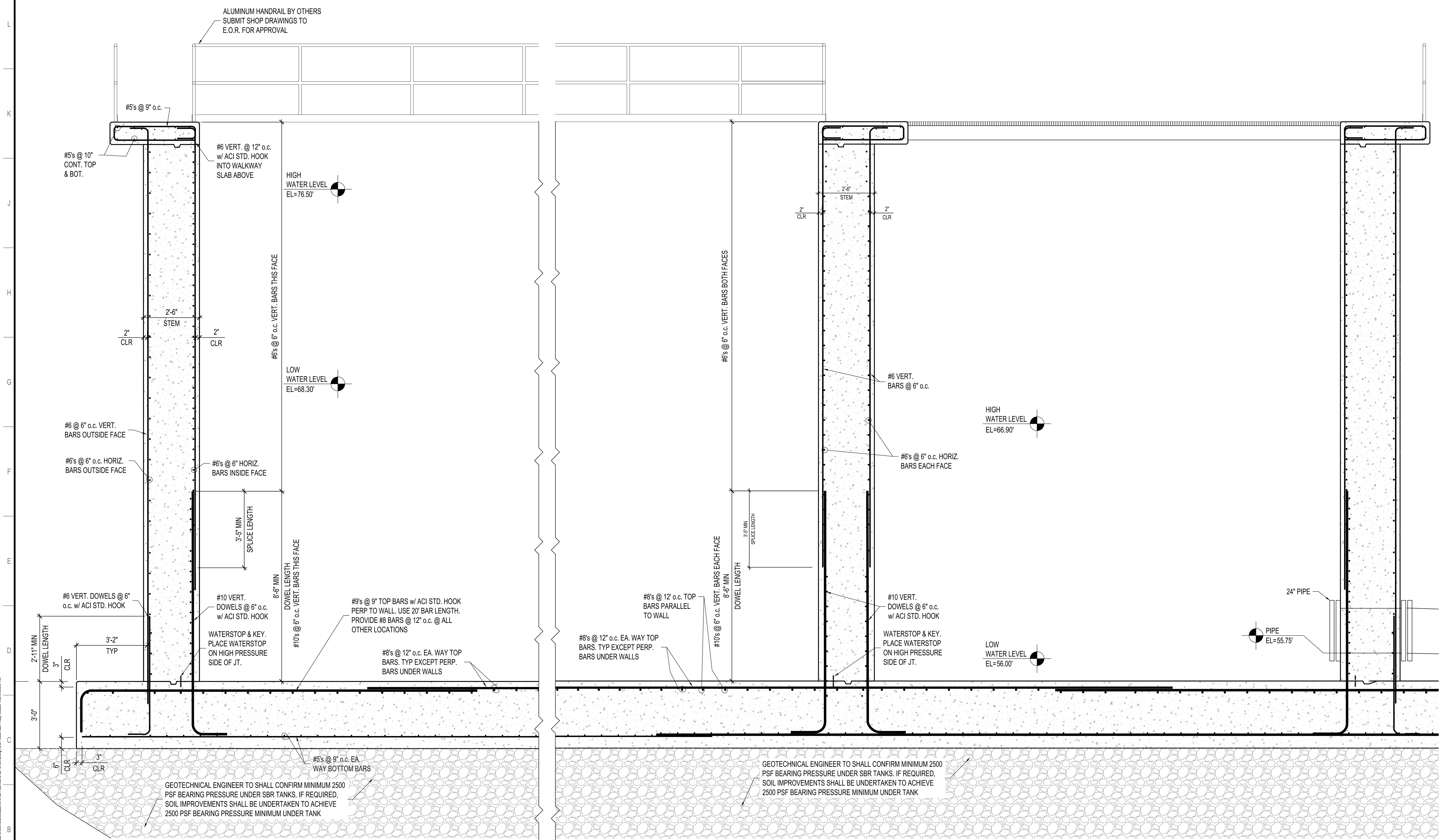
MARK	DATE	BY	DESCRIPTION
	10-10-2019		EPD SUBMITTAL
	7-8-2019		60% SET FOR REVIEW
	6-14-2019		30% SET FOR REVIEW

DESIGNED:
DRAWN:
CHECKED:
APPROVED:

OE PROJECT NO: OE18132
FILE NAME: OE18132-4S-CORE
ORIGINAL DRAWINGS SIZE: 36"x24"
DATE: 6-14-2019

SBR
SECTIONS

4S-3
SHEET 3 OF 05



1 SBR's TANK SECTION
1/2"=1'-0"

2 SBR's TANK SECTION
1/2"=1'-0"

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FOLKSTON TREATMENT PLANT
FOR:
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FOLKSTON GEORGIA
CHARLTON COUNTY, GEORGIA

MARK	DATE	BY	DESCRIPTION
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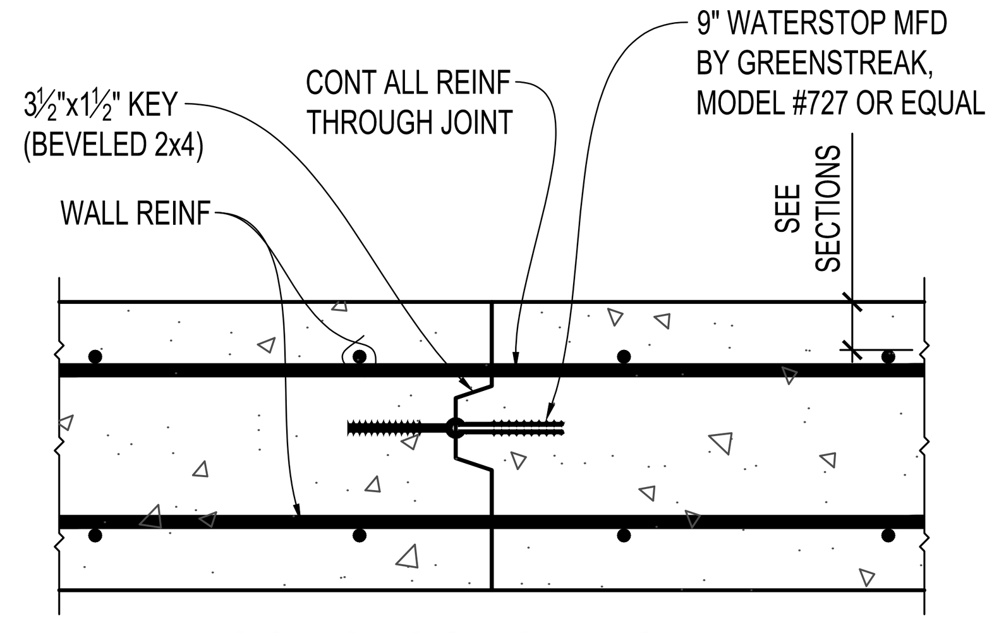
	6-14-2019		80% SET FOR REVIEW

OE PROJECT NO: OE18132
FILE NAME: OE18132-4S-CORE
ORIGINAL DRAWING SIZE: 36"x24"
DATE: 6-14-2019

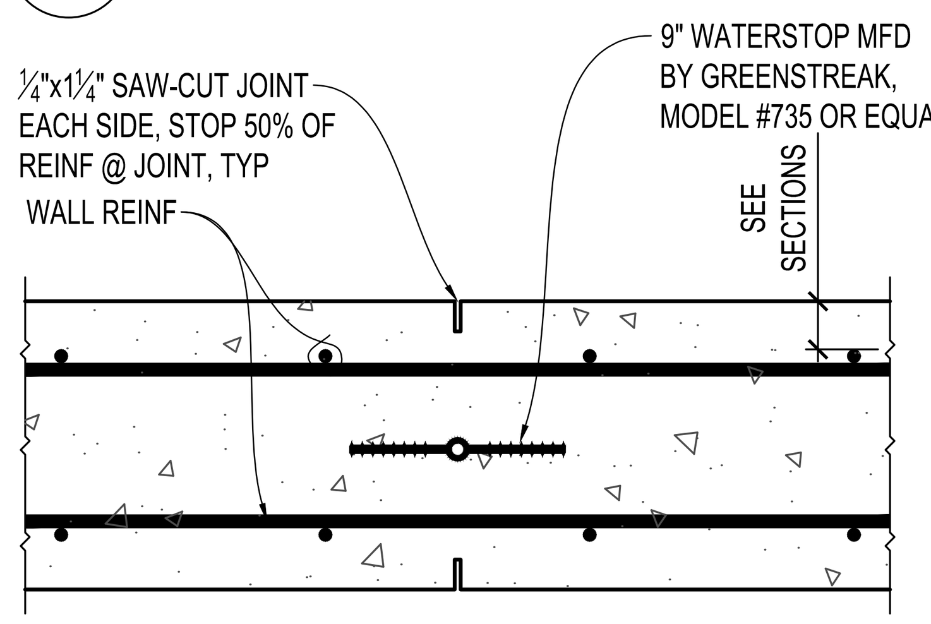
DESIGNED:
DRAWN:
CHECKED:
APPROVED:

SBR
SECTIONS

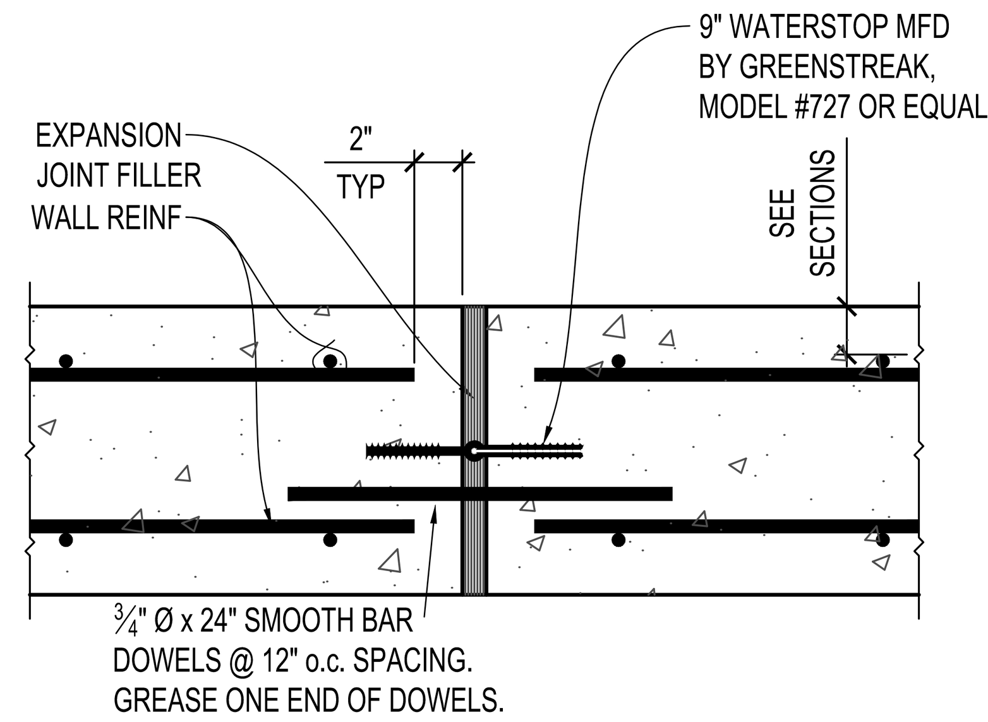
4S-4
SHEET 4 OF 05



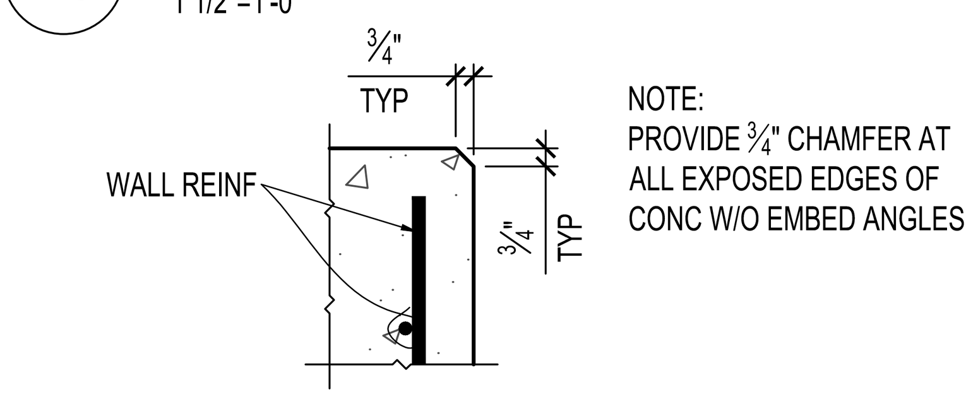
D1 CONC. CONST. JOINT DETAIL
1 1/2"=1'-0"



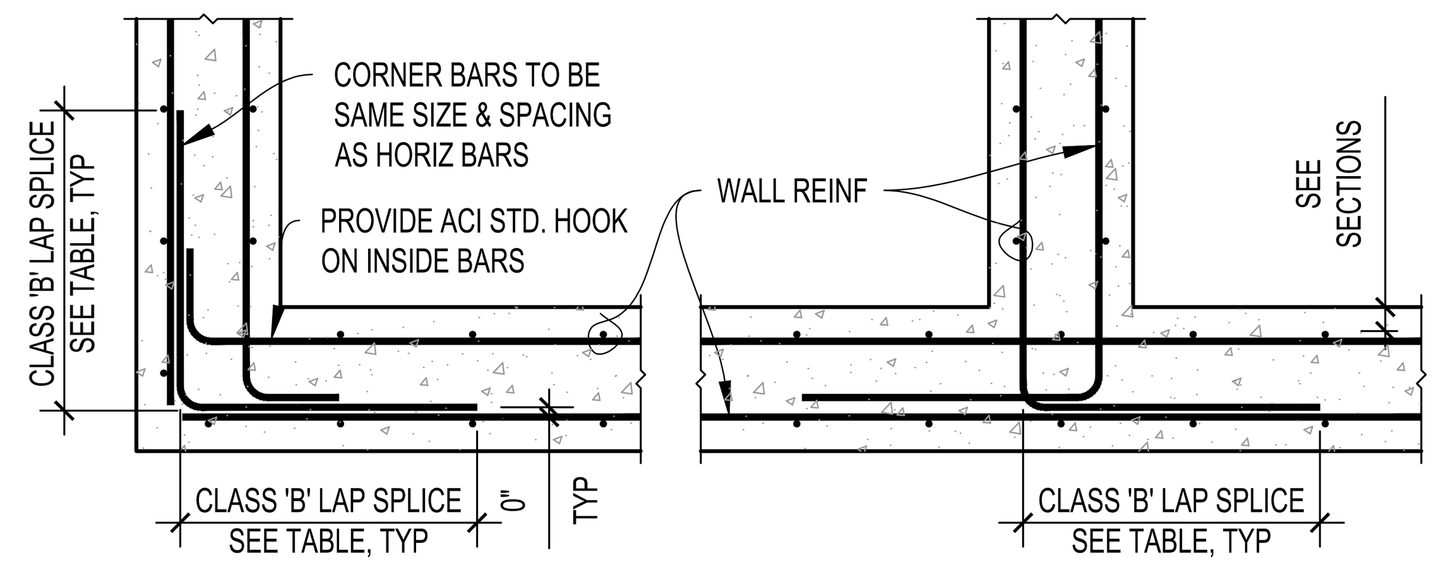
D2 CONC. CONTROL JOINT DETAIL
1 1/2"=1'-0"



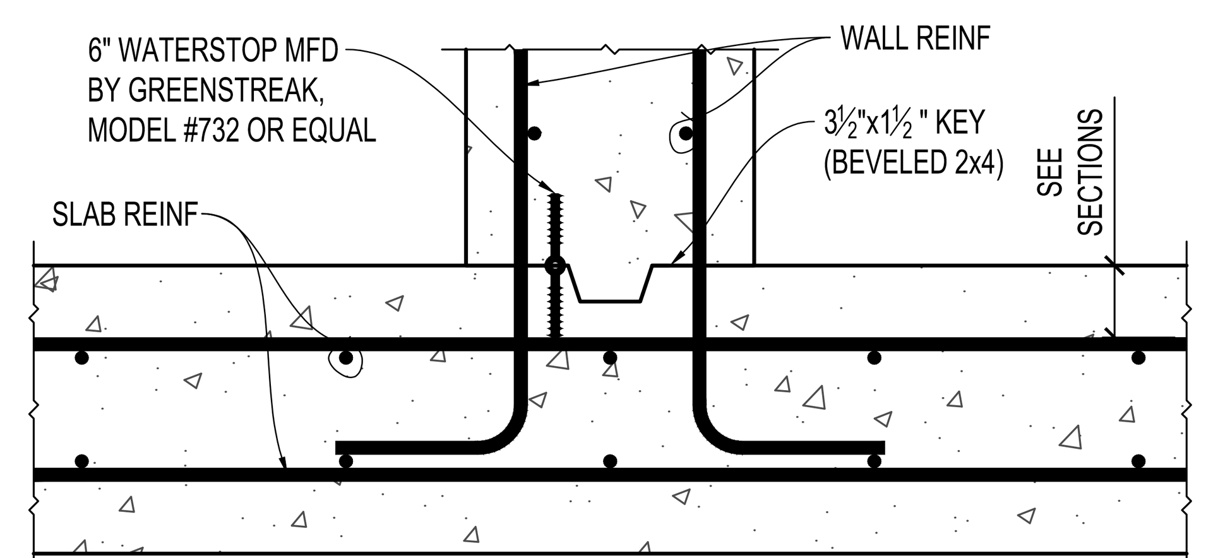
D3 CONC. EXP JOINT DETAIL
1 1/2"=1'-0"



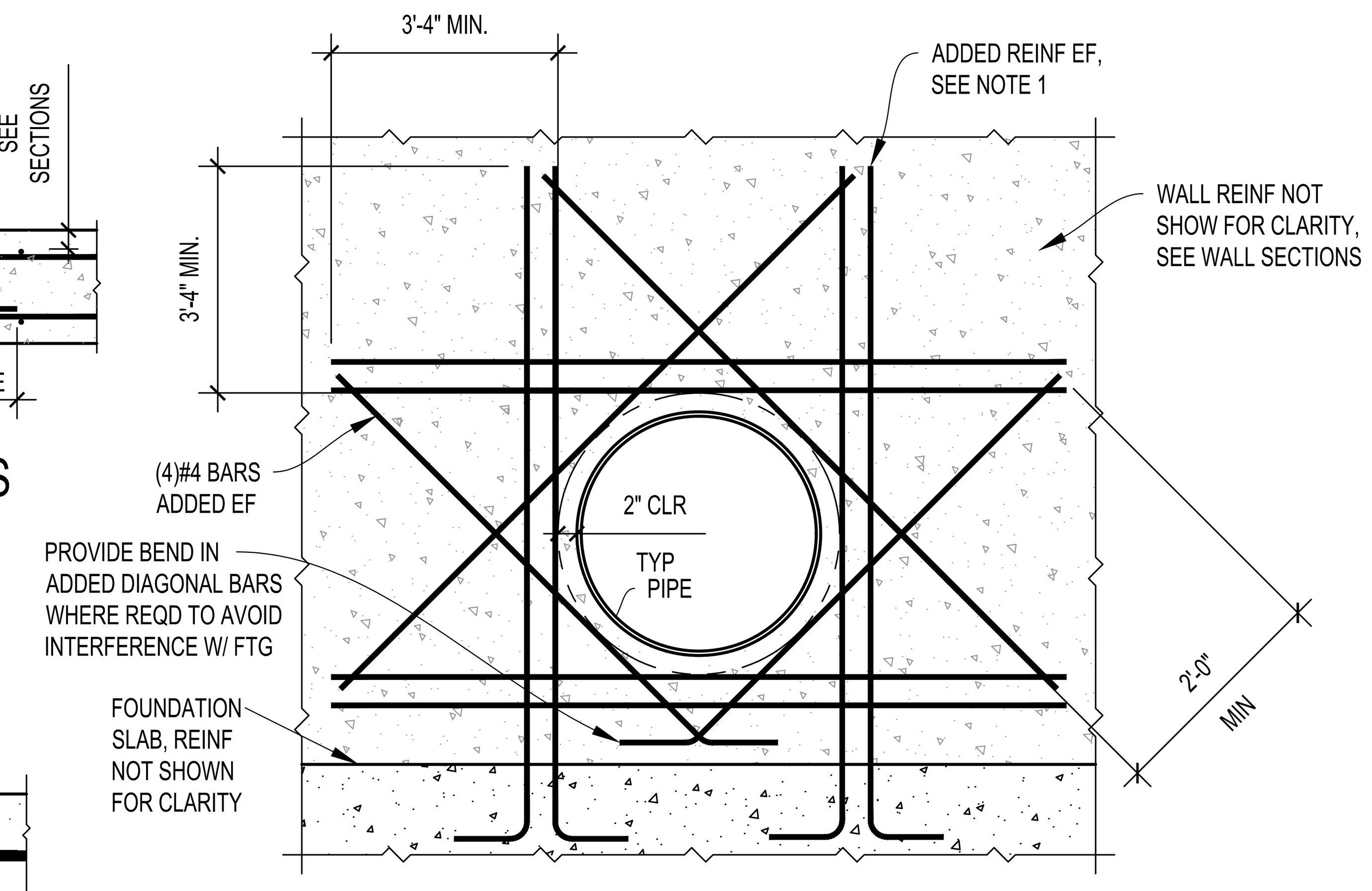
D4 CONC. CHAMFER DETAIL
1 1/2"=1'-0"



D5 TYP REINF @ WALL INTERSECTIONS
N.T.S.

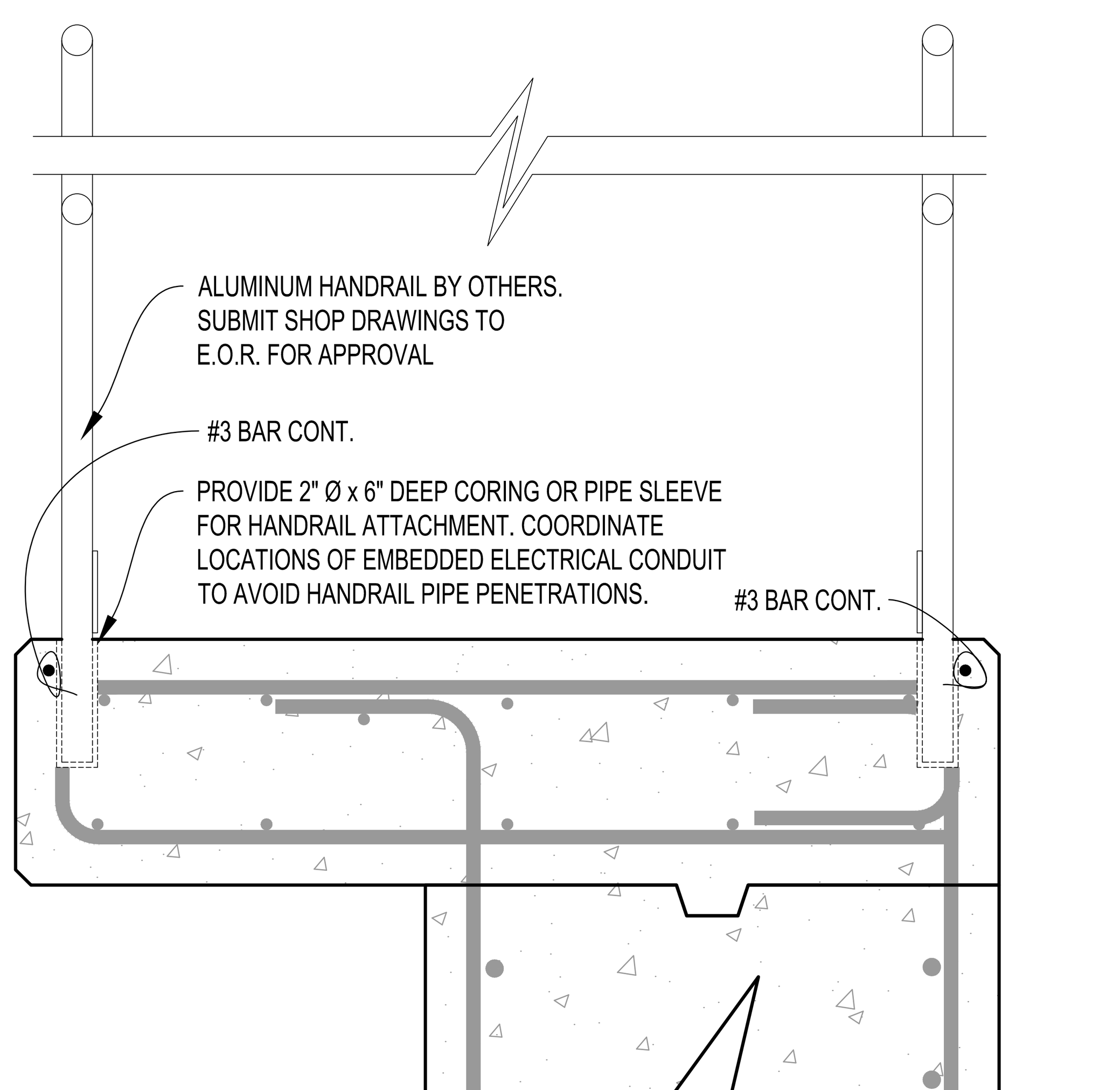


D6 WALL / FOUNDATION JOINT
1 1/2"=1'-0"

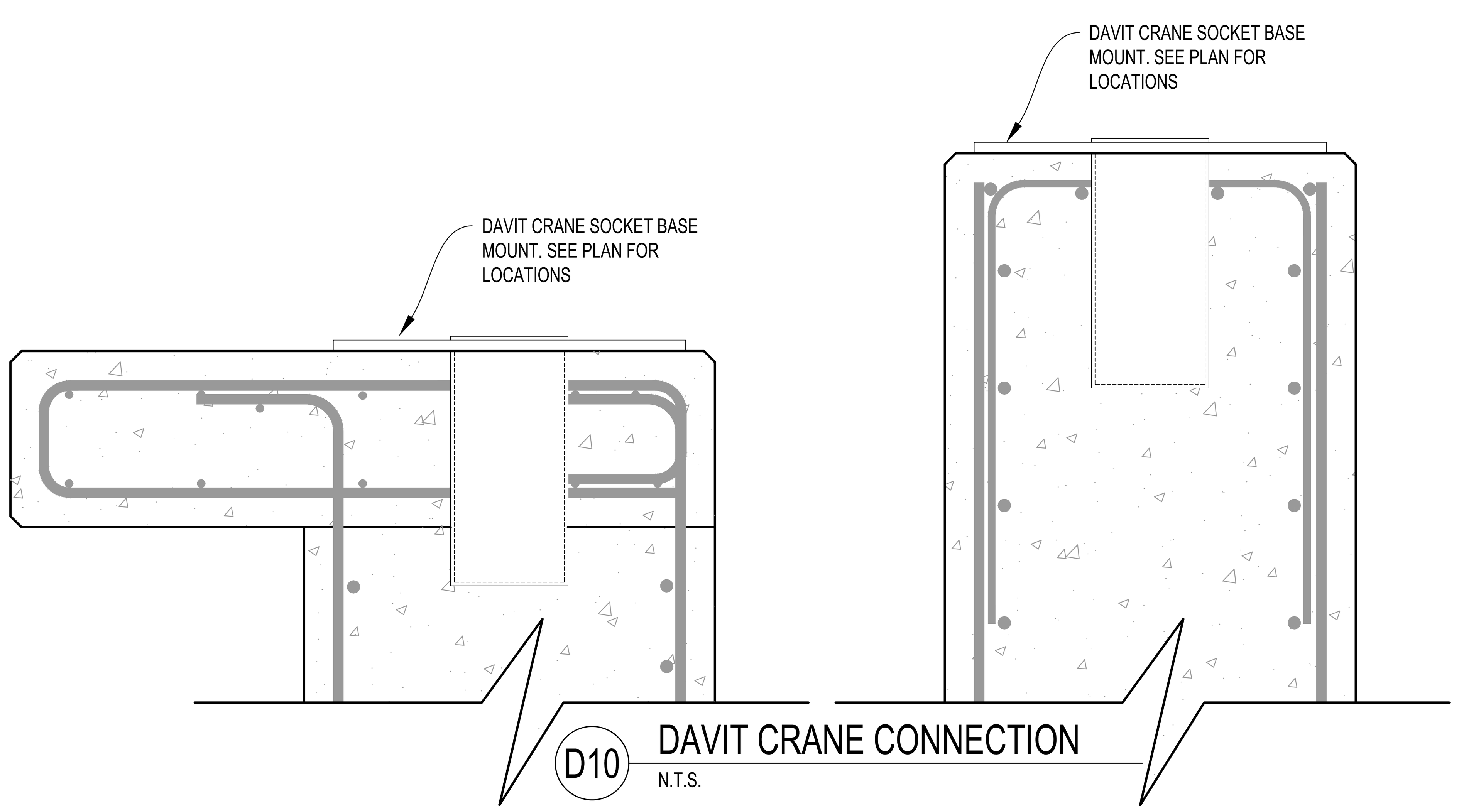


NOTES:
1. THE EQUIVALENT NUMBER OF VERT & HORIZ BARS INTERRUPTED BY OPENINGS SHALL BE PROVIDED BY PLACING ½ OF BARS ON EACH SIDE OF THE OPENING @3"OC.
2. MAINTAIN NOT LESS THAN 1¼" CLEAR BETWEEN ADJACENT PARALLEL BARS.

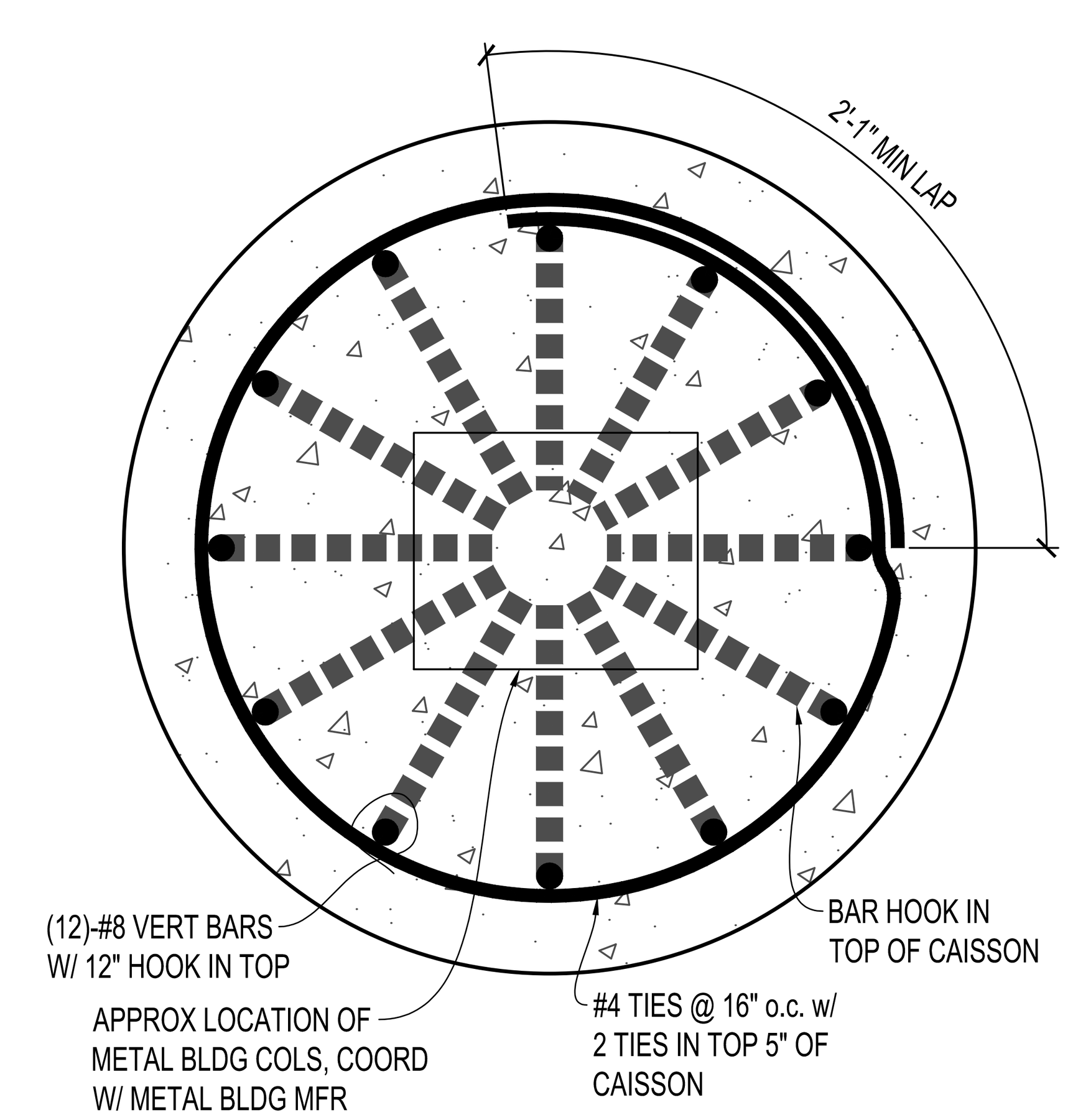
D7 TYP WALL REINF @ PIPE OPENING
N.T.S.



D9 HANDRAIL CONNECTION
N.T.S.



D10 DAVIT CRANE CONNECTION
N.T.S.



D8 CAISSON REINFORCING
N.T.S.

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GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 27855 RALPH H. BOSWELL
10/10/2019

FOLKSTON TREATMENT PLANT
FOR:
THE CITY OF FOLKSTON
FOLKSTON GEORGIA
CHARLTON COUNTY, GEORGIA

MARK	DATE	BY	DESCRIPTION
	6-14-2019		60% SET FOR REVIEW
	7-8-2019		90% SET FOR REVIEW
	10-10-2019		EPD SUBMITTAL

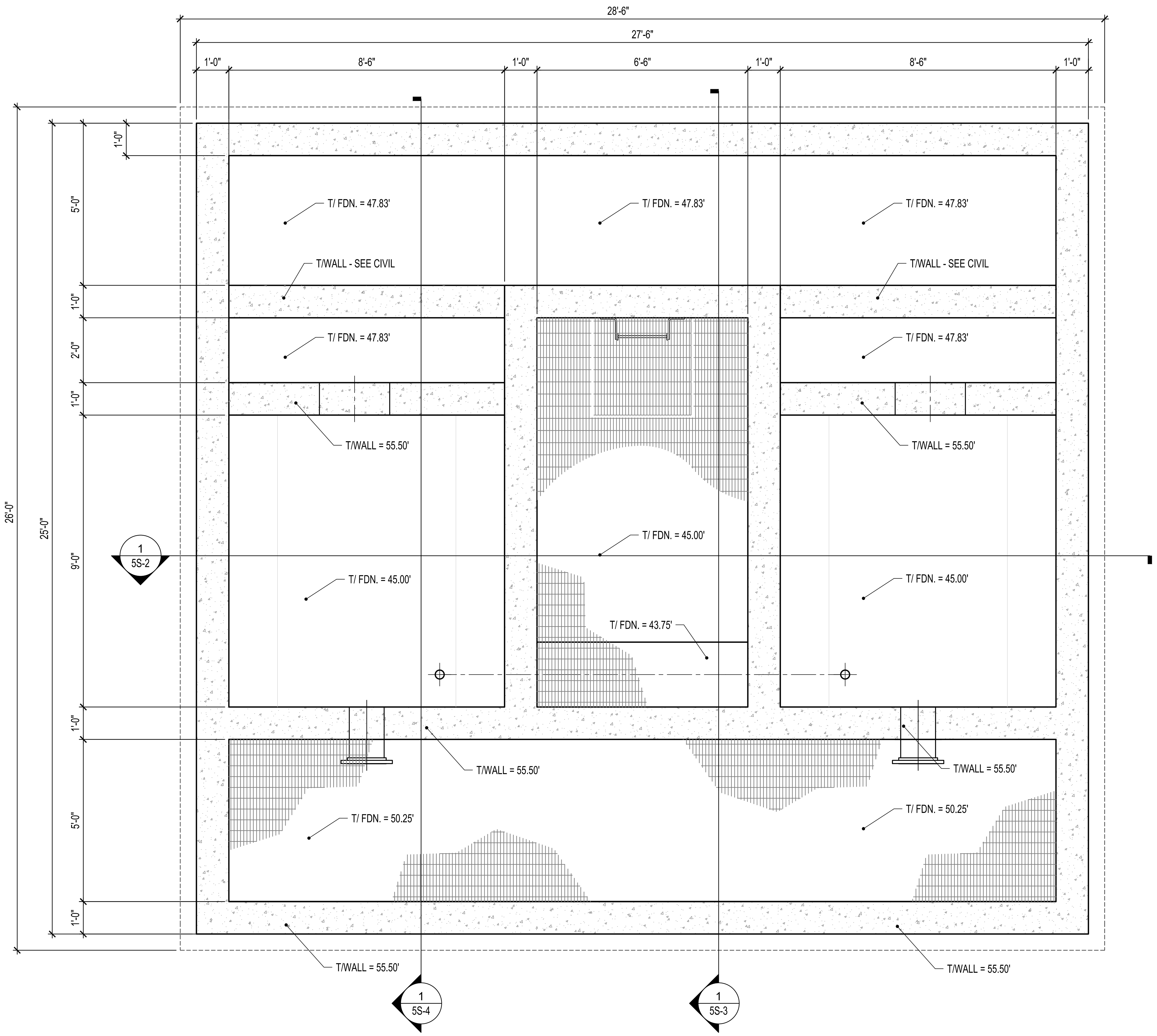
DESIGNED:
DRAWN:
CHECKED:
APPROVED:

OE PROJECT NO: OE18132
FILE NAME: OE18132-4S-CORE
ORIGINAL DRAWING SIZE: 36"x24"
DATE: 6-14-2019

SBR

DETAILS

4S-5
SHEET 5 OF 05



1 FILTER BASIN PLAN
1/2"=1'-0"

FOUNDATION NOTES

1. DESIGN SOIL BEARING PRESSURE = 2000 PSF. SOIL BEARING PRESSURE SHALL BE VERIFIED AT TIME OF EXCAVATION AND STRUCTURAL ENGINEER SHALL BE NOTIFIED IF THE ACTUAL SOIL BEARING PRESSURE IS LOWER THAN THE DESIGN SOIL PRESSURE. FOUNDATION DESIGN AND SUBSURFACE INFORMATION IS BASED ON A SOILS REPORT PREPARED BY TERRACON CONSULTING, INC. (PROJECT# ES165069).
2. DEWATER, UNDERCUT, & REPLACE MATERIAL BELOW FOOTING ELEVATIONS PER GEOTECH REPORT. GRANULAR BASE BELOW FOOTING SHALL BE #57 STONE.
3. PRIOR TO POURING CONCRETE, ALL DEBRIS, WATER, AND LOOSE EARTH SHALL BE REMOVED FROM THE FOUNDATION BED.
4. GEOTECHNICAL ENGINEER SHALL VERIFY CONDITION AND/OR ADEQUACY OF ALL SUBGRADES, FILLS, AND BACKFILLS PRIOR TO PLACEMENT OF FOUNDATIONS, FOOTINGS, SLABS, WALLS, FILLS, BACKFILLS, ETC.
5. BACKFILL AGAINST WALLS SHALL BE DEPOSITED EVENLY AGAINST BOTH SIDES OF WALLS UNTIL THE LOWER FINAL GRADE IS REACHED. COMPACTION OF BACKFILL WITHIN 10 FEET OF WALLS SHOULD BE PERFORMED WITH HAND OPERATED EQUIPMENT. THE BACKFILLING OF UNDERGROUND STRUCTURES SHALL BE DONE W/ A MAX OF 4'-0" INCREMENTS ALL AROUND THE STRUCTURES.
6. PLACEMENT AND COMPACTION OF STRUCTURAL FILL SHALL BE MONITORED BY THE GEOTECHNICAL ENGINEER. COMPACTION SHALL BE 95% OF STANDARD PROCTOR.
7. WHERE ANY UTILITY LINES PASS UNDER A FOOTING, PROVIDE A PRE-CAST CONCRETE RELIEVING ARCH, A MINIMUM OF THREE TIMES THE DIAMETER OF THE UTILITY PIPE FOR PROTECTION.

CONCRETE NOTES

1. MINIMUM CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS SHALL BE 4500 PSI FOR WALLS AND SLABS IN LIQUID CONTAINING VESSELS.
2. MINIMUM CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS SHALL BE 3000 PSI FOR CAISSONS AND SLABS-ON-GRADE.
3. STRUCTURAL MEMBERS OF REINFORCED CONCRETE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 318-11.
4. PROVIDE 3/4" CHAMFER AT ALL EXPOSED CORNERS OF CONCRETE W/O EMBED ANGLES.
5. PLACE ALL REBAR FOR WALLS & SLABS IN DIRECTIONS & LOCATIONS AS SHOWN IN TANK SECTIONS. DO NOT REVERSE LOCATIONS OF INSIDE/OUTSIDE BARS AT EACH FACE.
6. CONCRETE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318-11. SAMPLES FOR STRENGTH TESTS OF EACH CLASS OF CONCRETE PLACED EACH DAY SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 75 CY OF CONCRETE USED FOR FOOTINGS, NOR LESS THAN ONCE FOR EACH 5000 SQUARE FEET OF SURFACE AREA FOR SLABS. TEST REPORTS INDICATING (NON)COMPLIANCE SHALL BE PROVIDED TO THE OWNER, ENGINEER & CONTRACTOR. A COPY OF THE TEST REPORTS SHALL BE AVAILABLE AT THE JOBSITE. 4 INCH DIAMETER X 8 INCH TEST CYLINDERS ARE ACCEPTABLE.

REINFORCING STEEL NOTES

1. SHALL BE DETAILED, FABRICATED AND PLACED ACCORDING TO THE LATEST STANDARDS OF THE AMERICAN CONCRETE INSTITUTE (ACI) AND THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
2. MATERIALS:
   - 2.1. REINFORCING BARS SHALL COMPLY WITH ASTM A615 GRADE 60.
   - 2.2. WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A82 AND A185.
   - 2.3. REINFORCING BARS FOR WELDING SHALL COMPLY WITH ASTM A-706.
3. CLEAR MINIMUM COVER OF CONCRETE OVER REINFORCING BARS SHALL BE AS INDICATED ON THE DRAWINGS BUT SHALL NOT BE LESS THAN THE FOLLOWING:
   - 3.1. CONCRETE PLACED AGAINST EXPOSED EARTH (NOT FORMED) = 3"
   - 3.2. FORMED SURFACES EXPOSED TO EARTH, LIQUIDS, OR WEATHER:
     SLABS & JOISTS W/ #5 BARS & SMALLER = 1½"
     SLABS & JOISTS W/ #6 BARS & LARGER = 2"
     BEAMS, PIERS, COLUMNS, WALLS, FOOTINGS, & BASE SLABS = 2"
   - 3.3. FORMED SURFACES NOT EXPOSED TO EARTH, LIQUIDS, OR WEATHER:
     SLABS & JOISTS = 3/4"
     BEAMS, PIERS, & COLUMNS = 1½"
     WALLS = 3/4"
     FOOTINGS & BASE SLABS = 2"

STRUCTURE NOTES

1. COORD ALL STRUCTURE & PIPING ELEVATIONS & DIMENSIONS W/ CIVIL DRAWINGS.
2. ALL CONDUIT SHALL BE MOUNTED EXTERNALLY ON STRUCTURE USING HANGERS. FOR ANY CONDUIT PROPOSED TO BE PLACED IN THE CONCRETE POUR, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING PLACEMENT OF ANY CONDUIT IN CONCRETE STRUCTURE.
3. COORDINATE ALL EXCAVATIONS W/ EXISTING STRUCTURES SO AS TO NOT UNDERMINE THEM. APPROPRIATE MEASURES SHALL BE TAKEN TO INSURE THAT EXISTING STRUCTURES ARE NOT UNDERMINED OR OTHERWISE DAMAGED DURING THE EXCAVATION OR CONSTRUCTION OF NEW STRUCTURES.
4. SEISMIC DESIGN CRITERIA:
   OCCUPANCY CATEGORY = IV
   SEISMIC IMPORTANCE FACTOR (I_E) = 1.50
   S_S = 0.127 S_1 = 0.067
   SITE CLASS = D
   S_{DS} = 0.135 S_{D1} = 0.107
   BASIC SEISMIC-FORCE-RESISTING SYSTEM (PER ASCE 7-05 TABLE 15.4-1 OR 15.4-2):
   FLAT-BOTTOM GROUND SUPPORTED TANKS - REINFORCED NON-SLIDING BASE:
   RESPONSE MODIFICATION FACTOR (R) = 2.0
   SEISMIC RESPONSE COEFF. (C_S) = 0.2926
   SEISMIC DESIGN CATEGORY = C 0.1029
   ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE

CONC REINF LAP LENGTH

4500 PSI (ACI 350-06)

BAR SIZE	TENSION SPLICE CLASS 'B'
#3	18"
#4	24"
#5	30"
#6	35"
#7	51"
#8	59"
#9	66"
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10/10/2019

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FOR:
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FOLKSTON GEORGIA
CHARLTON COUNTY, GEORGIA

MARK	DATE	BY	DESCRIPTION
	10-10-2019		EPD SUBMITTAL
	7-8-2019		85% SET FOR REVIEW
	6-14-2019		80% SET FOR REVIEW

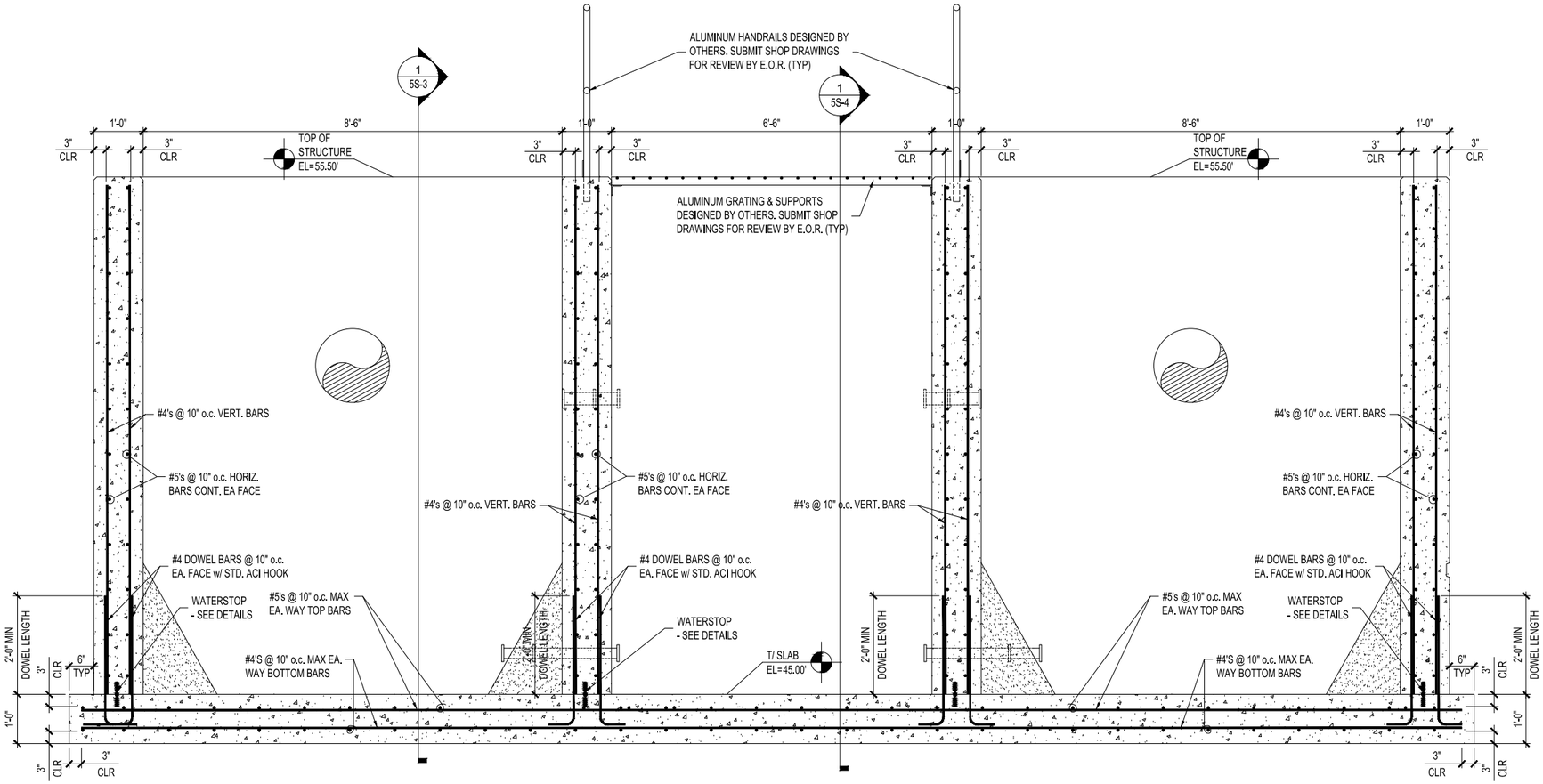
DESIGNED:
DRAWN:
CHECKED:
APPROVED:

OE PROJECT NO: OE18132
FILE NAME: OE18132-5S-CORE
ORIGINAL DRAWING SIZE: 36"x24"
DATE: 6-14-2019

DISK FILTERS

PLAN AND GENERAL NOTES

5S-1
SHEET 1 OF 05



1 FILTER BASIN SECTION

3/4"=1'-0"

OCONEE ENGINEERING L.L.C.
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GEORGIA REGISTERED No. 27855 PROFESSIONAL ENGINEER RALPH H. BOSWELL

10/10/2019

FOLKSTON TREATMENT PLANT
FOR:
THE CITY OF FOLKSTON
FOLKSTON GEORGIA
CHARLTON COUNTY, GEORGIA

MARK	DATE	BY	DESCRIPTION
			EPD SUBMITTAL
	10-15-2019		60% SET FOR REVIEW
	7-8-2019		60% SET FOR REVIEW
	6-14-2019		60% SET FOR REVIEW

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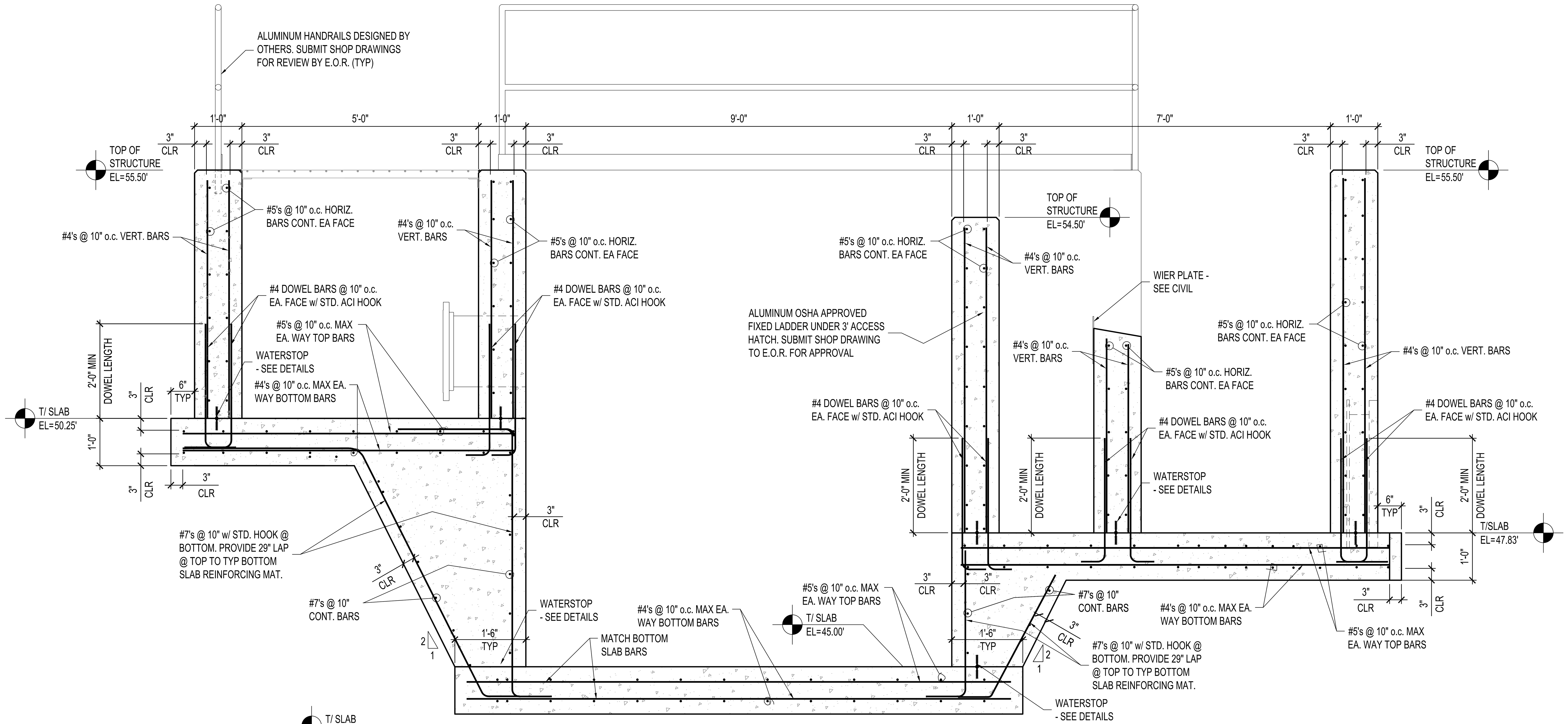
DATE: 6-14-2019

DISK FILTERS

SECTIONS

5S-2
SHEET 2 OF 05

IMAGES
OE18132-5S-CORE.DWG
PRINTED BY: RALPH BOSWELL | DATE: Friday, October 11, 2019 1:18:38 AM | DRAWING FILE: C:\work\Oconeeeast\18132\DWG\OE18132-5S-CORE.dwg | LAST MODIFIED: Friday, October 4, 2019 8:57:09 AM



1 FILTER BASIN SECTION

3/4"=1'-0"

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CHARLTON COUNTY, GEORGIA

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	6-14-2019		60% SET FOR REVIEW

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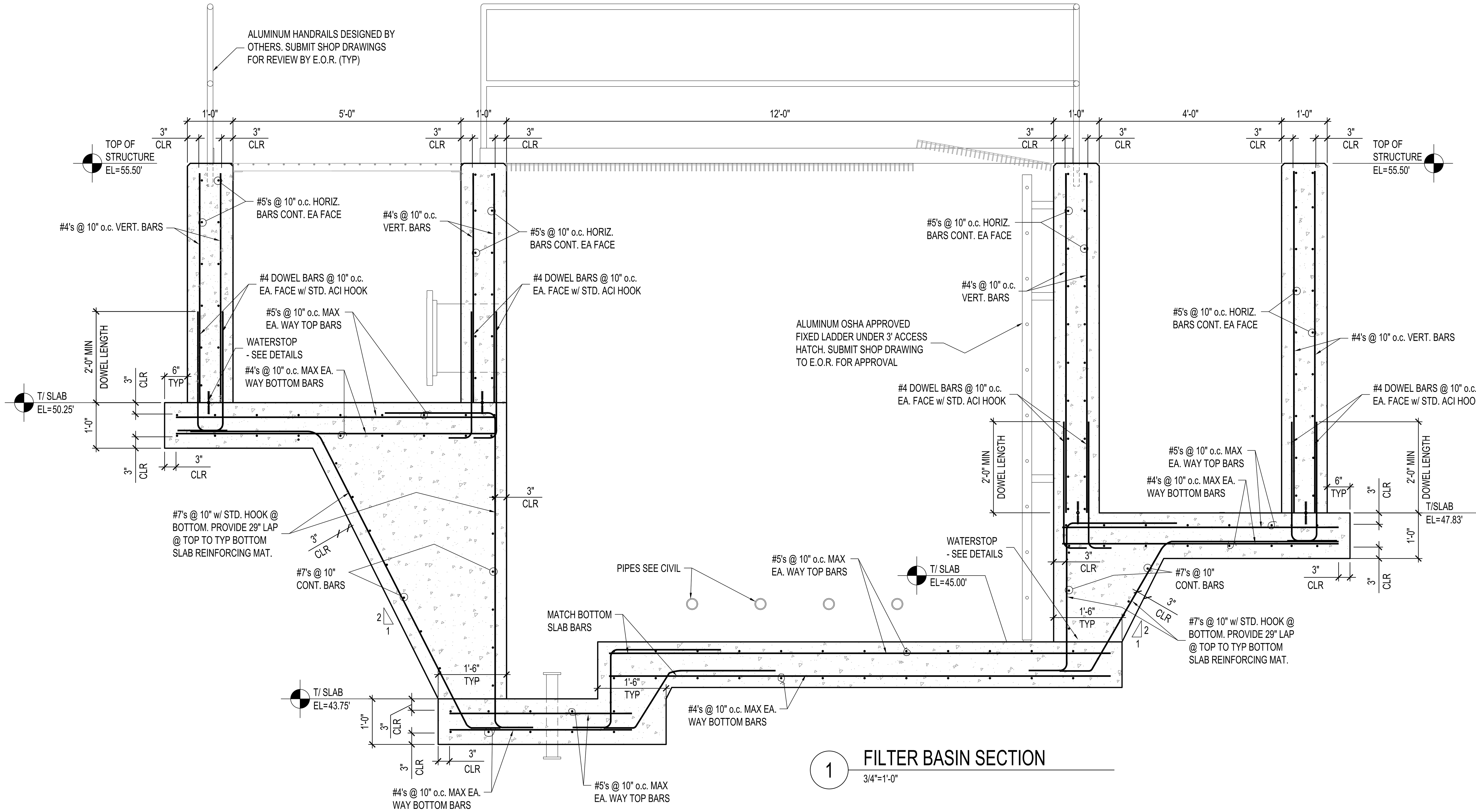
APPROVED:

DISK FILTERS
SECTIONS

5S-3
SHEET 3 OF 05



1 FILTER BASIN SECTION

3/4"=1'-0"

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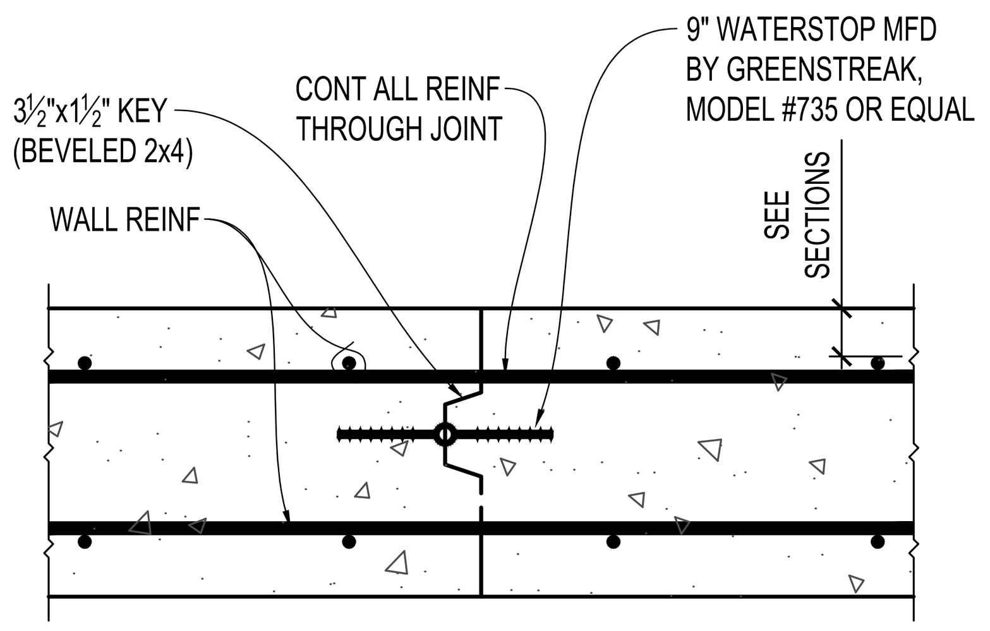
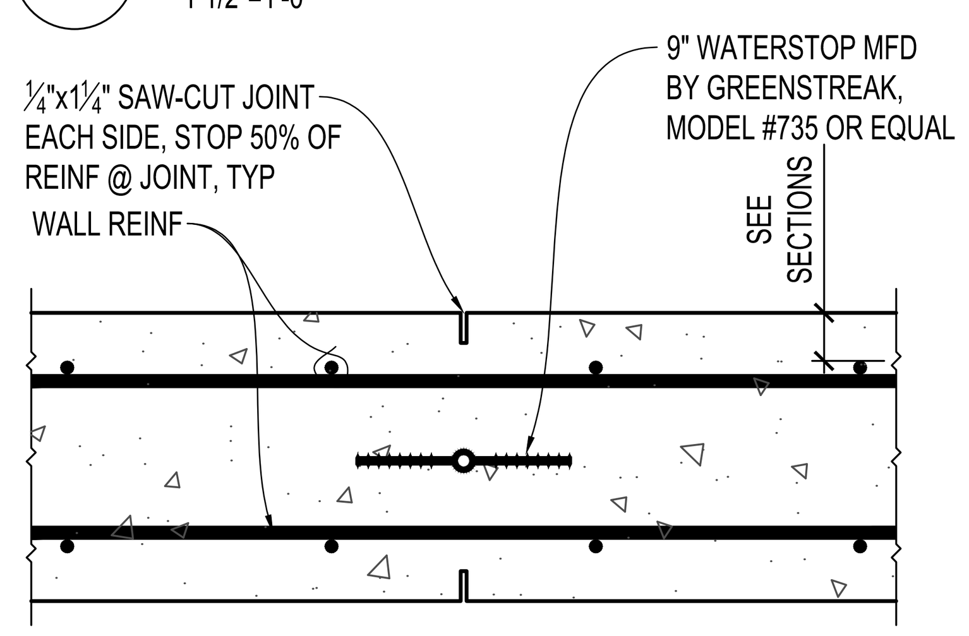
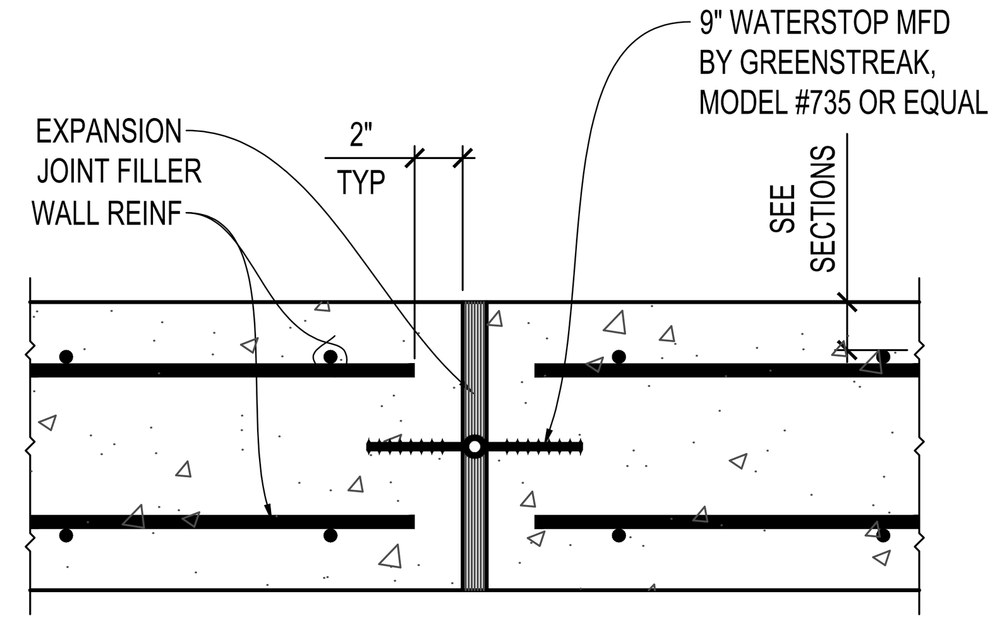
DISK FILTERS
SECTIONS



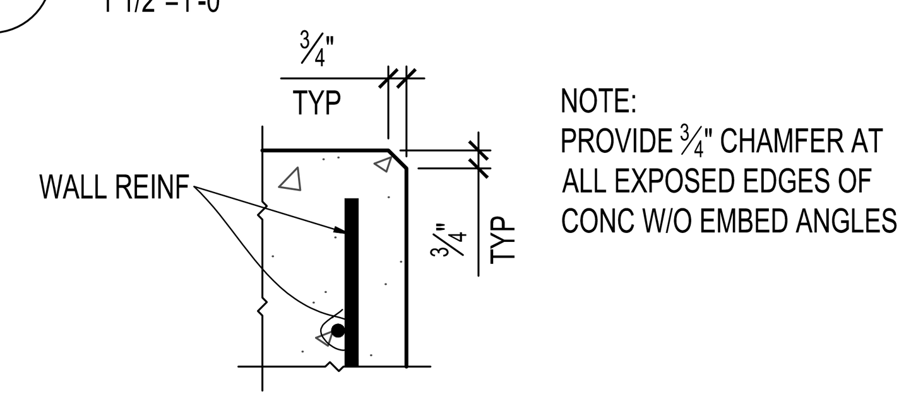
D1 CONC. CONST. JOINT DETAIL
1 1/2"=1'-0"



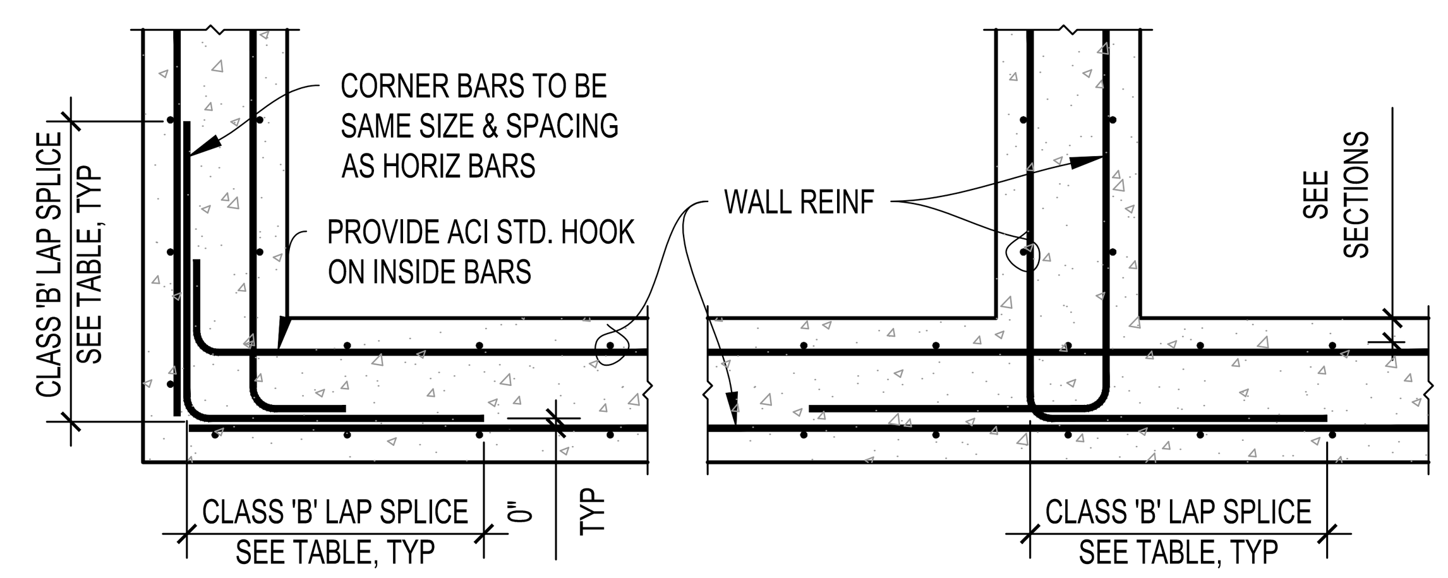
D2 CONC. CONTROL JOINT DETAIL
1 1/2"=1'-0"



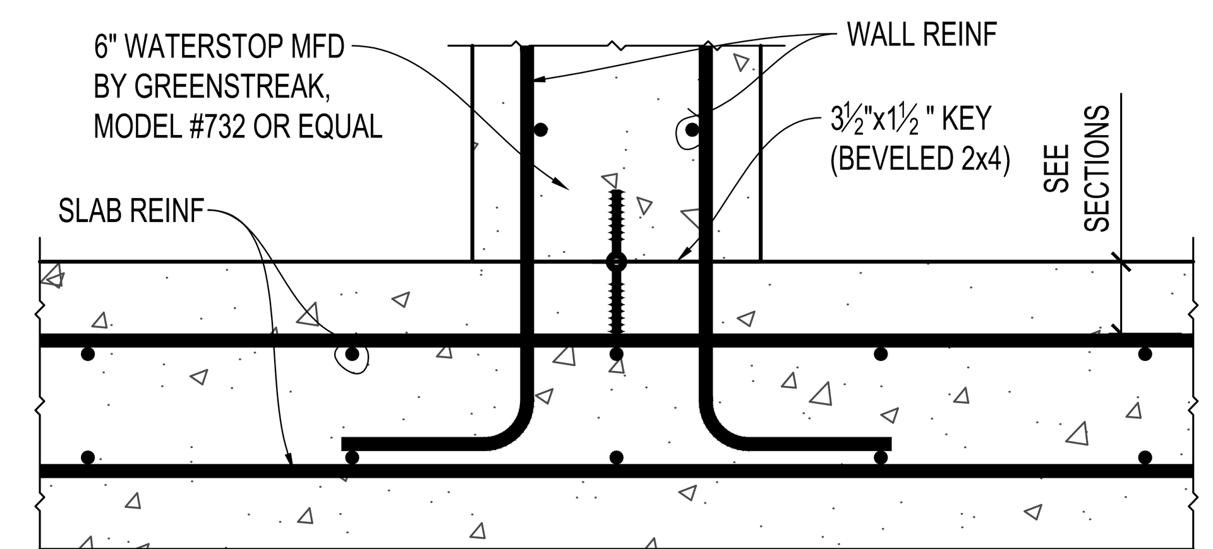
D3 CONC. EXP JOINT DETAIL
1 1/2"=1'-0"



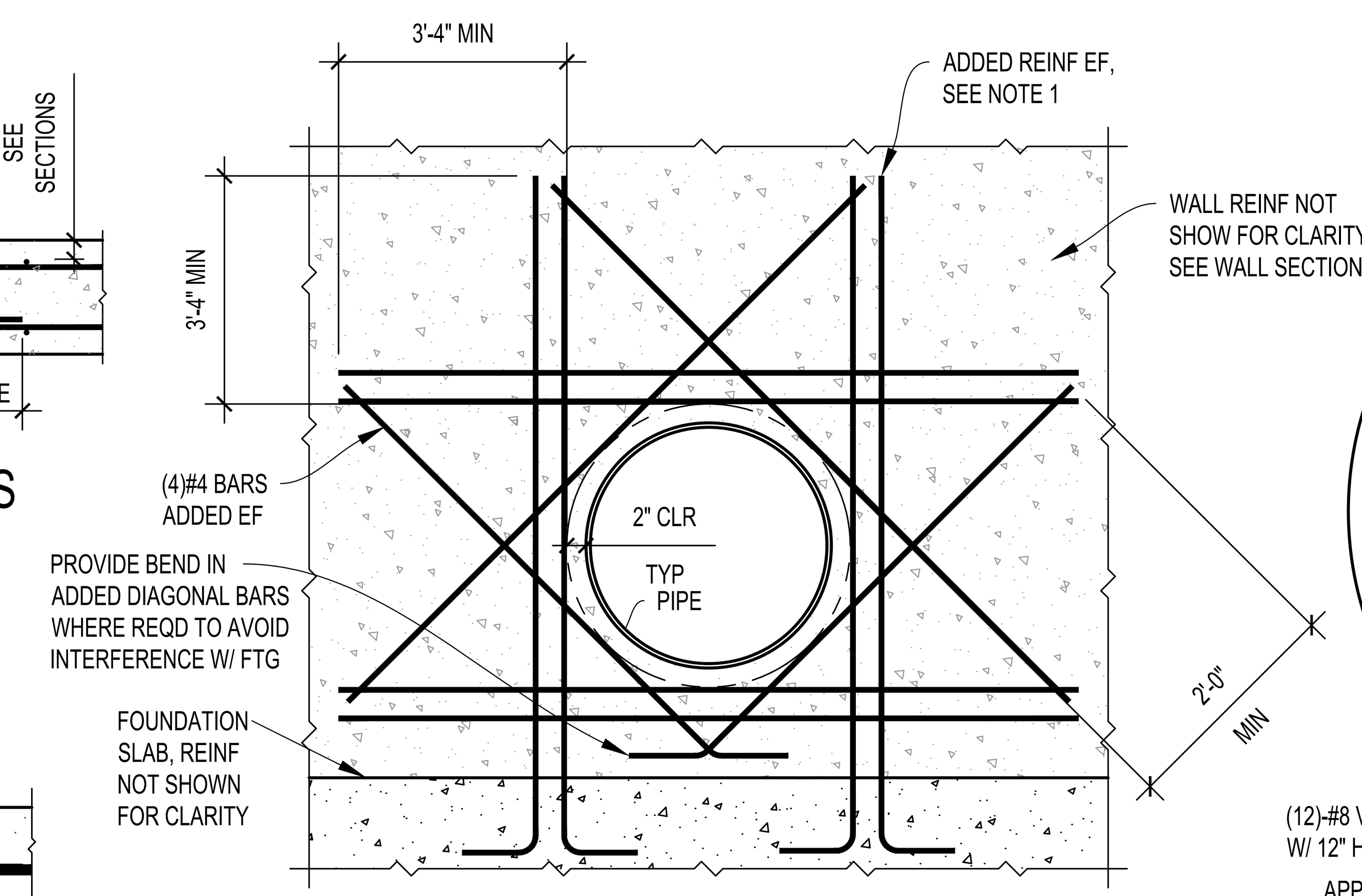
D4 CONC. CHAMFER DETAIL
1 1/2"=1'-0"



D5 TYP REINF @ WALL INTERSECTIONS
N.T.S.

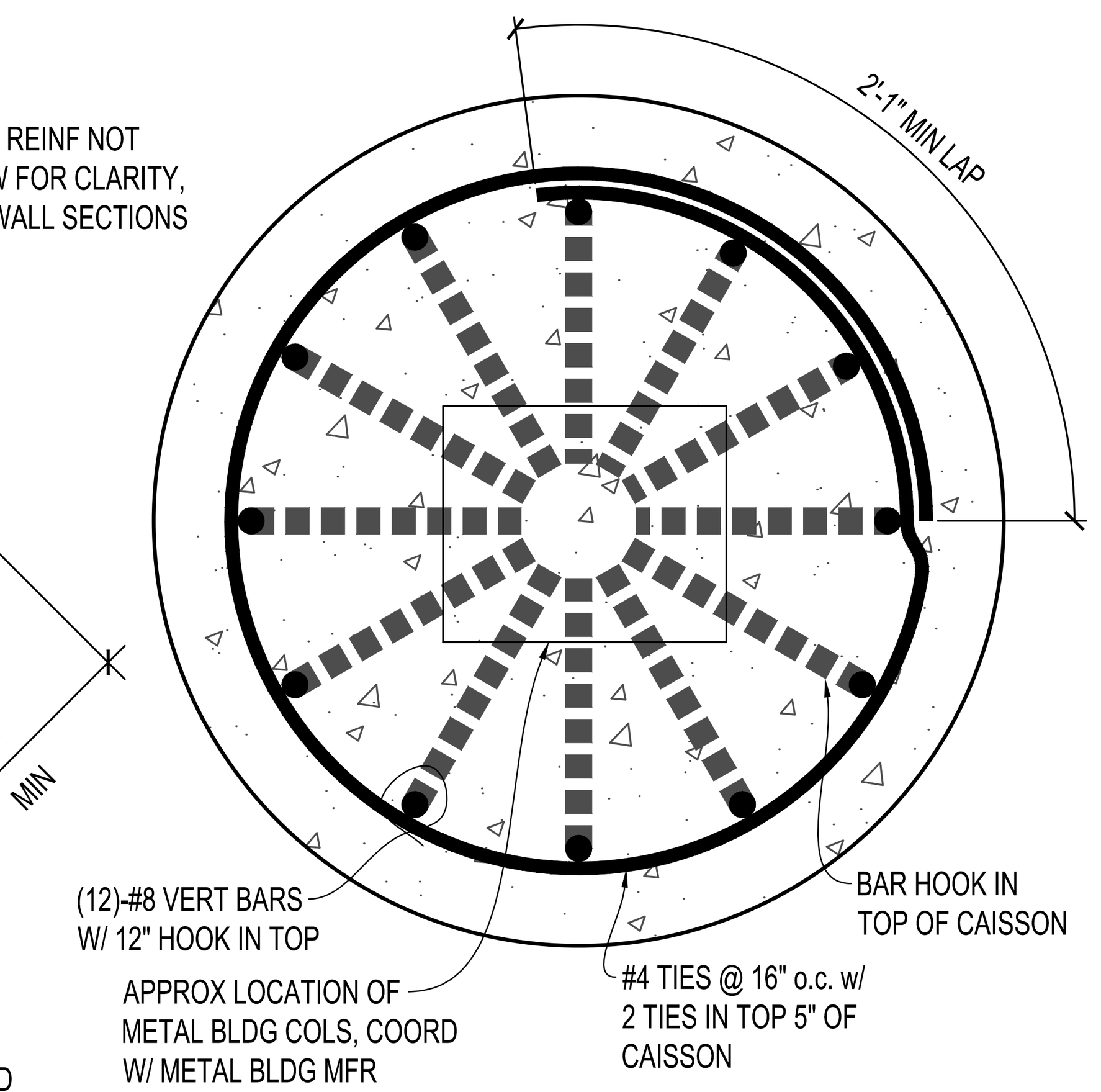


D6 WALL / FOUNDATION JOINT
1 1/2"=1'-0"



NOTES:
1. THE EQUIVALENT NUMBER OF VERT & HORIZ BARS INTERRUPTED BY OPENINGS SHALL BE PROVIDED BY PLACING ½ OF BARS ON EACH SIDE OF THE OPENING @3"OC.
2. MAINTAIN NOT LESS THAN 1¼" CLEAR BETWEEN ADJACENT PARALLEL BARS.

D7 TYP WALL REINF @ PIPE OPENING
N.T.S.



D8 CAISSON REINFORCING
N.T.S.

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GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 27855 RALPH H. BOSWELL
10/10/2019

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CHARLTON COUNTY, GEORGIA

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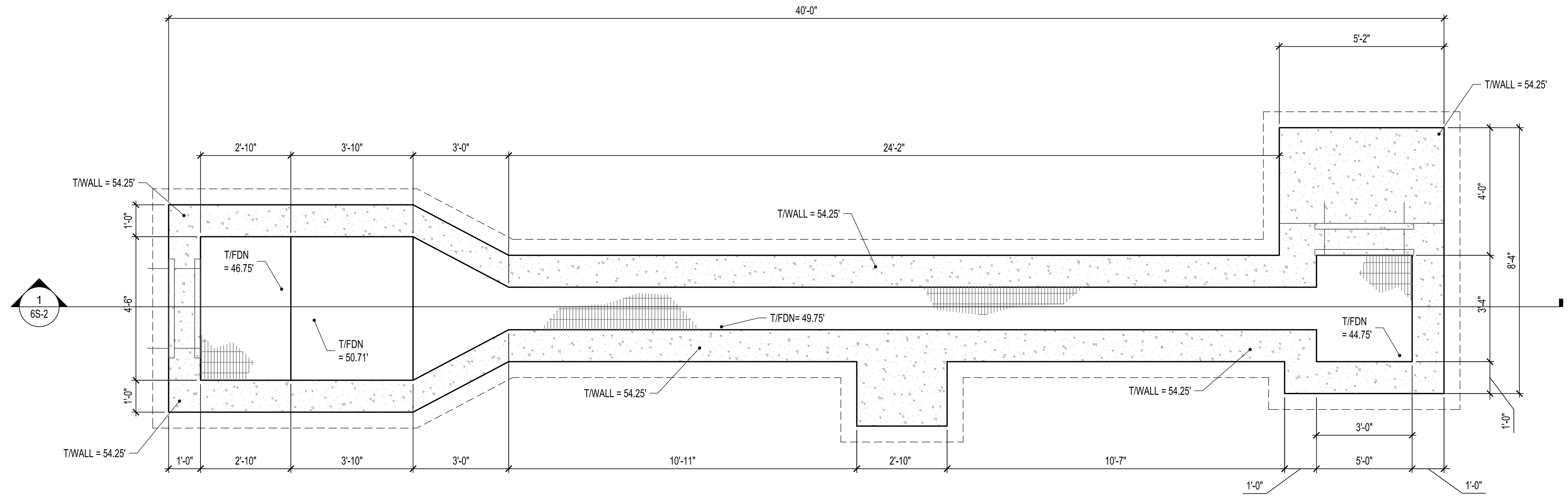
CHECKED:
APPROVED:

DISK FILTERS
DETAILS

5S-5
SHEET 5 OF 05



1 UV CHANNEL PLAN
3/8"=1'-0"

STRUCTURE NOTES

1. COORD ALL STRUCTURE & PIPING ELEVATIONS & DIMENSIONS W/ CIVIL DRAWINGS.
2. ALL CONDUIT SHALL BE MOUNTED EXTERNALLY ON STRUCTURE USING HANGERS. FOR ANY CONDUIT PROPOSED TO BE PLACED IN THE CONCRETE POUR, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING PLACEMENT OF ANY CONDUIT IN CONCRETE STRUCTURE.
3. COORDINATE ALL EXCAVATIONS W/ EXISTING STRUCTURES SO AS TO NOT UNDERMINE THEM. APPROPRIATE MEASURES SHALL BE TAKEN TO INSURE THAT EXISTING STRUCTURES ARE NOT UNDERMINED OR OTHERWISE DAMAGED DURING THE EXCAVATION OR CONSTRUCTION OF NEW STRUCTURES.
5. SEISMIC DESIGN CRITERIA:
   - OCCUPANCY CATEGORY = IV
   - SEISMIC IMPORTANCE FACTOR (I_E) = 1.50
   - S_S = 0.127 S_1 = 0.067
   - SITE CLASS = D
   - S_{DS} = 0.135 S_{D1} = 0.107
   - BASIC SEISMIC-FORCE-RESISTING SYSTEM (PER ASCE 7-05 TABLE 15.4-1 OR 15.4-2):
     - FLAT-BOTTOM GROUND SUPPORTED TANKS - REINFORCED NON-SLIDING BASE:
   - RESPONSE MODIFICATION FACTOR (R) = 2.0
   - SEISMIC RESPONSE COEFF. (C_S) = 0.1029
   - SEISMIC DESIGN CATEGORY = C
   - ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE

CONC REINF LAP LENGTH

4500 PSI (ACI 350-06)

BAR SIZE	TENSION SPLICE
	CLASS 'B'
#3	18"
#4	24"
#5	30"
#6	35"
#7	51"
#8	59"
#9	66"
#10	73"

FOUNDATION NOTES

1. DESIGN SOIL BEARING PRESSURE = 2000 PSF. SOIL BEARING PRESSURE SHALL BE VERIFIED AT TIME OF EXCAVATION AND STRUCTURAL ENGINEER SHALL BE NOTIFIED IF THE ACTUAL SOIL BEARING PRESSURE IS LOWER THAN THE DESIGN SOIL PRESSURE. FOUNDATION DESIGN AND SUBSURFACE INFORMATION IS BASED ON A SOILS REPORT PREPARED BY TERRACON CONSULTING, INC. (PROJECT# ES165069).
2. DEWATER, UNDERCUT, & REPLACE MATERIAL BELOW FOOTING ELEVATIONS PER GEOTECH REPORT. GRANULAR BASE BELOW FOOTING SHALL BE #57 STONE.
3. PRIOR TO POURING CONCRETE, ALL DEBRIS, WATER, AND LOOSE EARTH SHALL BE REMOVED FROM THE FOUNDATION BED.
4. GEOTECHNICAL ENGINEER SHALL VERIFY CONDITION AND/OR ADEQUACY OF ALL SUBGRADES, FILLS, AND BACKFILLS PRIOR TO PLACEMENT OF FOUNDATIONS, FOOTINGS, SLABS, WALLS, FILLS, BACKFILLS, ETC.
5. BACKFILL AGAINST WALLS SHALL BE DEPOSITED EVENLY AGAINST BOTH SIDES OF WALLS UNTIL THE LOWER FINAL GRADE IS REACHED. COMPACTION OF BACKFILL WITHIN 10 FEET OF WALLS SHOULD BE PERFORMED WITH HAND OPERATED EQUIPMENT. THE BACKFILLING OF UNDERGROUND STRUCTURES SHALL BE DONE W/ A MAX OF 4'-0" INCREMENTS ALL AROUND THE STRUCTURES.
6. PLACEMENT AND COMPACTION OF STRUCTURAL FILL SHALL BE MONITORED BY THE GEOTECHNICAL ENGINEER. COMPACTION SHALL BE 95% OF STANDARD PROCTOR.
7. WHERE ANY UTILITY LINES PASS UNDER A FOOTING, PROVIDE A PRE-CAST CONCRETE RELIEVING ARCH, A MINIMUM OF THREE TIMES THE DIAMETER OF THE UTILITY PIPE FOR PROTECTION.

CONCRETE NOTES

1. MINIMUM CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS SHALL BE 4500 PSI FOR WALLS AND SLABS IN LIQUID CONTAINING VESSELS.
2. MINIMUM CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS SHALL BE 3000 PSI FOR CAISSONS AND SLABS-ON-GRADE.
3. STRUCTURAL MEMBERS OF REINFORCED CONCRETE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 318-11.
4. PROVIDE ¾" CHAMFER AT ALL EXPOSED CORNERS OF CONCRETE W/O EMBED ANGLES.
5. PLACE ALL REBAR FOR WALLS & SLABS IN DIRECTIONS & LOCATIONS AS SHOWN IN TANK SECTIONS. DO NOT REVERSE LOCATIONS OF INSIDE/OUTSIDE BARS AT EACH FACE.
6. CONCRETE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318-11. SAMPLES FOR STRENGTH TESTS OF EACH CLASS OF CONCRETE PLACED EACH DAY SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 75 CY OF CONCRETE USED FOR FOOTINGS, NOR LESS THAN ONCE FOR EACH 5000 SQUARE FEET OF SURFACE AREA FOR SLABS. TEST REPORTS INDICATING (NON)COMPLIANCE SHALL BE PROVIDED TO THE OWNER, ENGINEER & CONTRACTOR. A COPY OF THE TEST REPORTS SHALL BE AVAILABLE AT THE JOBSITE. 4 INCH DIAMETER X 8 INCH TEST CYLINDERS ARE ACCEPTABLE.

REINFORCING STEEL NOTES

1. SHALL BE DETAILED, FABRICATED AND PLACED ACCORDING TO THE LATEST STANDARDS OF THE AMERICAN CONCRETE INSTITUTE (ACI) AND THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
2. MATERIALS:
   - 2.1. REINFORCING BARS SHALL COMPLY WITH ASTM A615 GRADE 60.
   - 2.2. WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A82 AND A185.
   - 2.3. REINFORCING BARS FOR WELDING SHALL COMPLY WITH ASTM A-706.
3. CLEAR MINIMUM COVER OF CONCRETE OVER REINFORCING BARS SHALL BE AS INDICATED ON THE DRAWINGS BUT SHALL NOT BE LESS THAN THE FOLLOWING:
   - 3.1. CONCRETE PLACED AGAINST EXPOSED EARTH (NOT FORMED) = 3"
   - 3.2. FORMED SURFACES EXPOSED TO EARTH, LIQUIDS, OR WEATHER:
     - SLABS & JOISTS W/ #5 BARS & SMALLER = 1½"
     - SLABS & JOISTS W/ #6 BARS & LARGER = 2"
     - BEAMS, PIERS, COLUMNS, WALLS, FOOTINGS, & BASE SLABS = 2"
   - 3.3. FORMED SURFACES NOT EXPOSED TO EARTH, LIQUIDS, OR WEATHER:
     - SLABS & JOISTS = ¾"
     - BEAMS, PIERS, & COLUMNS = 1½"
     - WALLS = ¾"
     - FOOTINGS & BASE SLABS = 2"

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10/10/2019

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CHARLTON COUNTY, GEORGIA

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ORIGINAL DRAWING SIZE: 36"x24"
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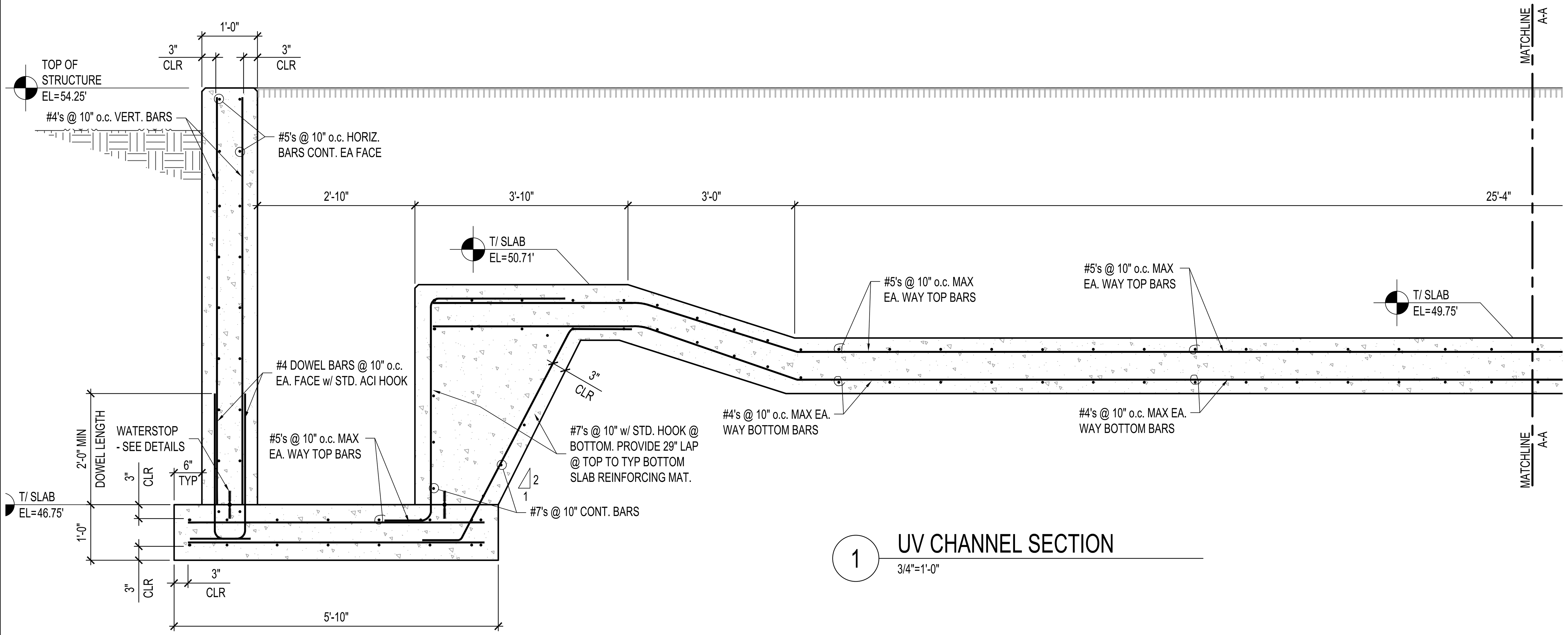
UV CHANNEL

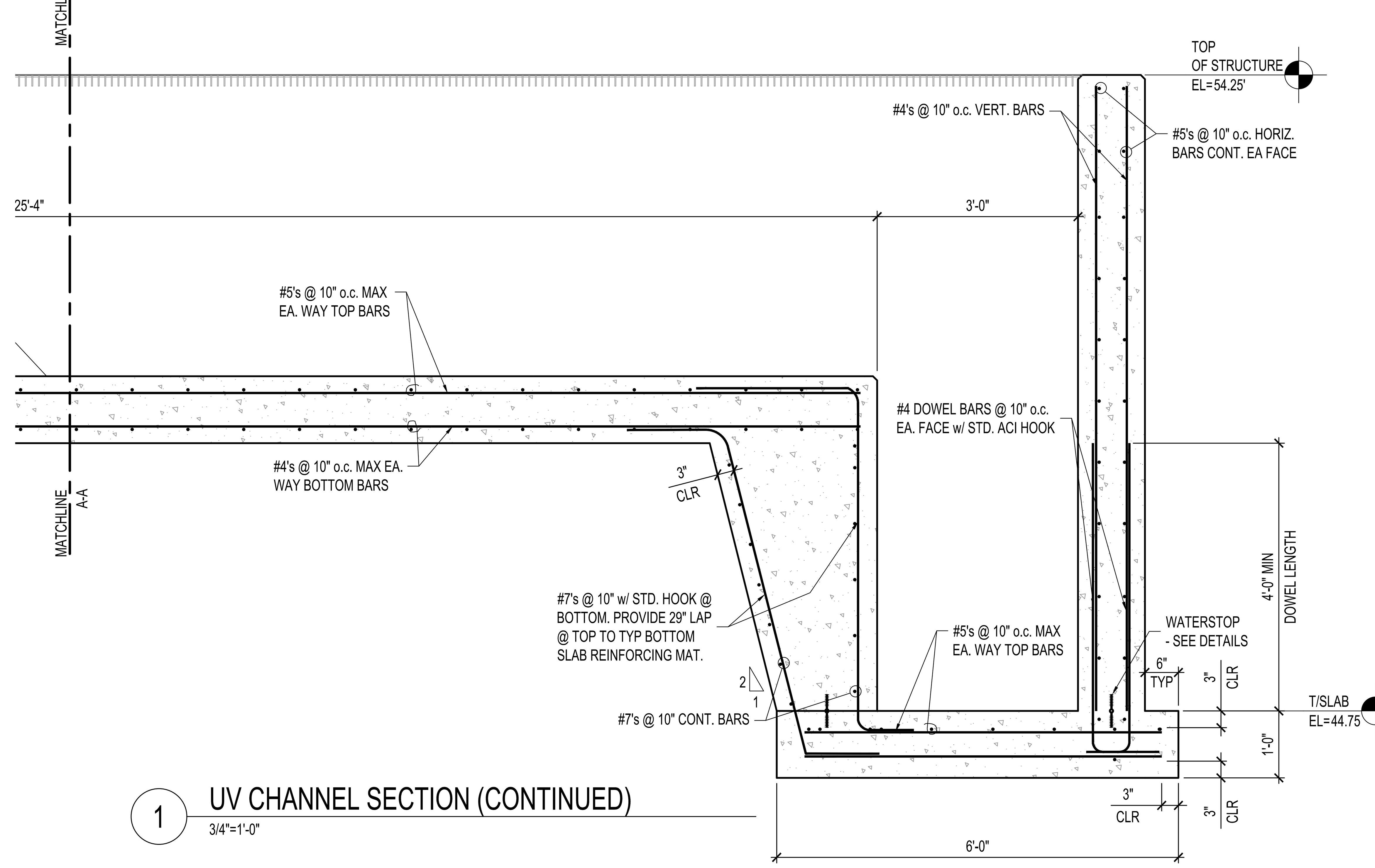
PLAN, NOTES, & SPECIFICATIONS

6S-1
SHEET 1 OF 03



1 UV CHANNEL SECTION

3/4"=1'-0"



1 UV CHANNEL SECTION (CONTINUED)

3/4"=1'-0"

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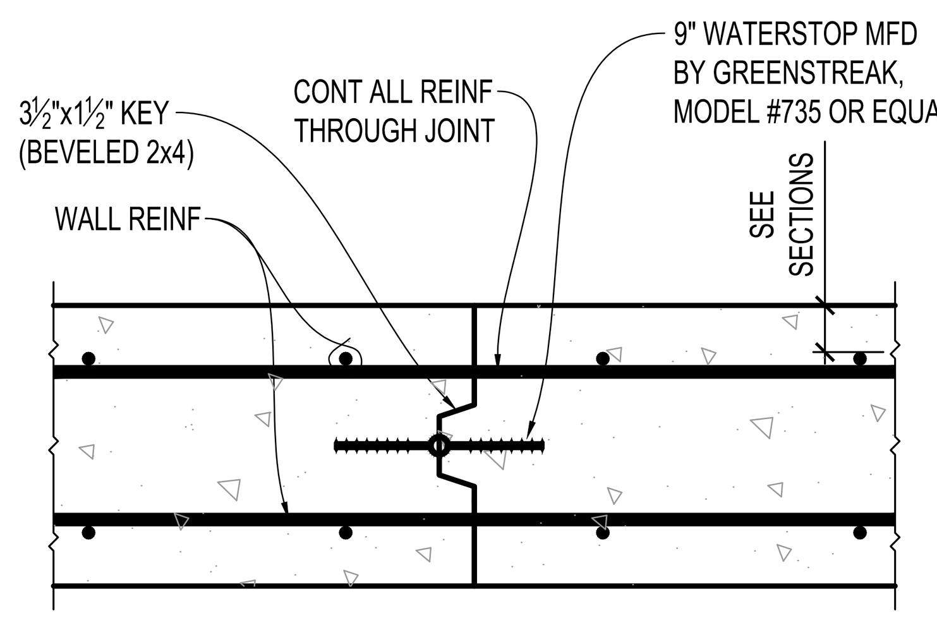
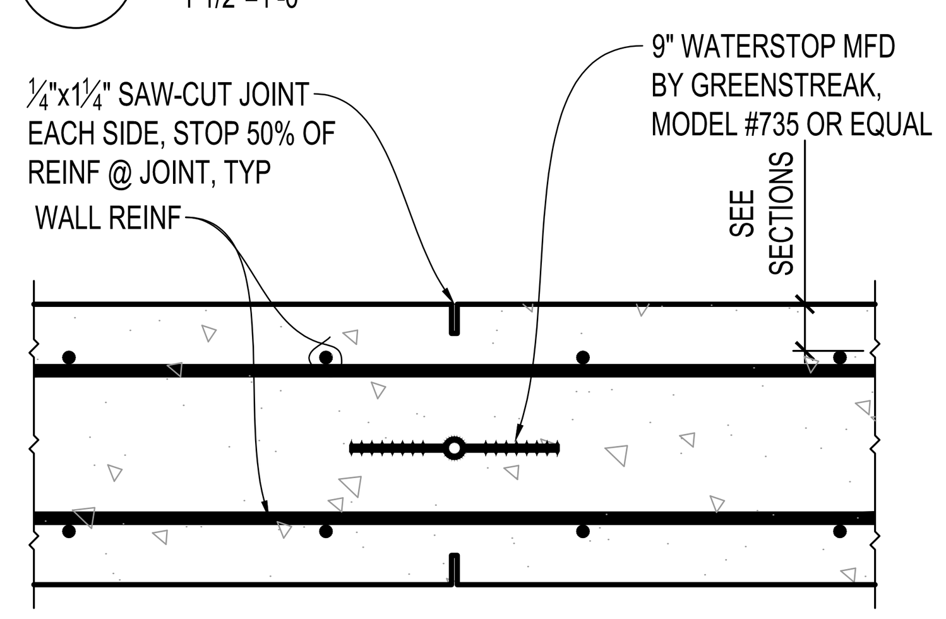
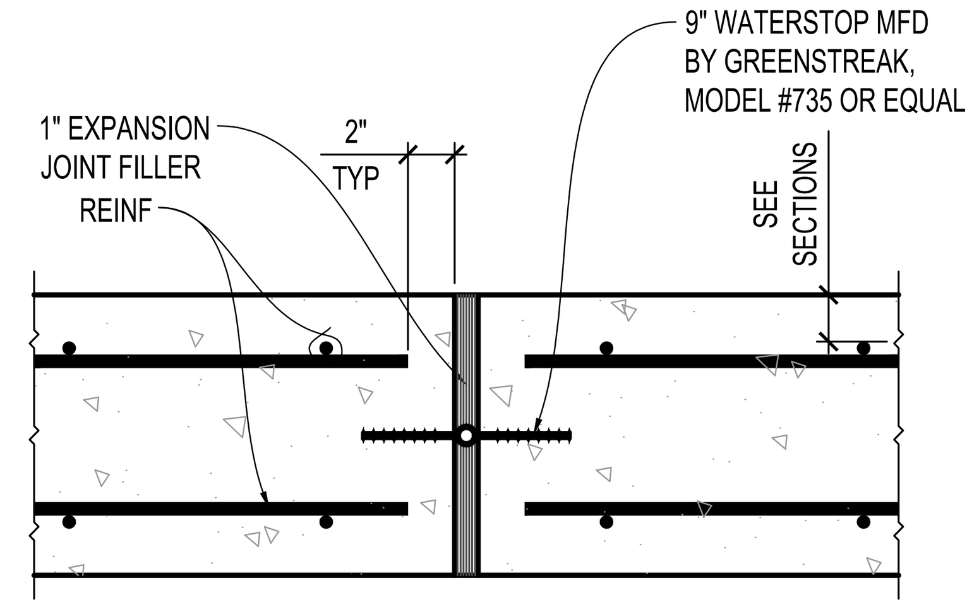
UV CHANNEL SECTIONS



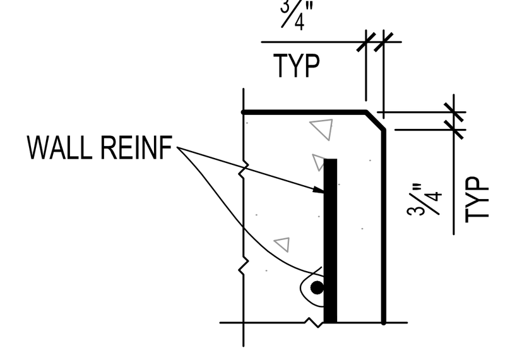
D1 CONC. CONST. JOINT DETAIL
1 1/2"=1'-0"



D2 CONC. CONTROL JOINT DETAIL
1 1/2"=1'-0"

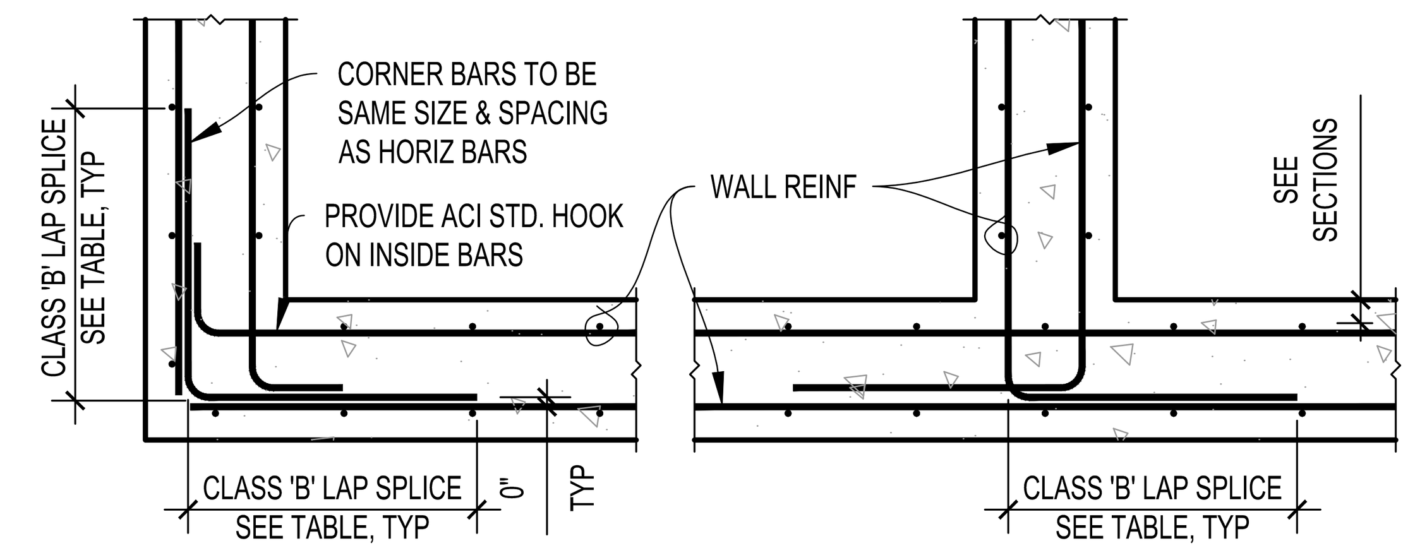


D3 CONC. EXP JOINT DETAIL
1 1/2"=1'-0"

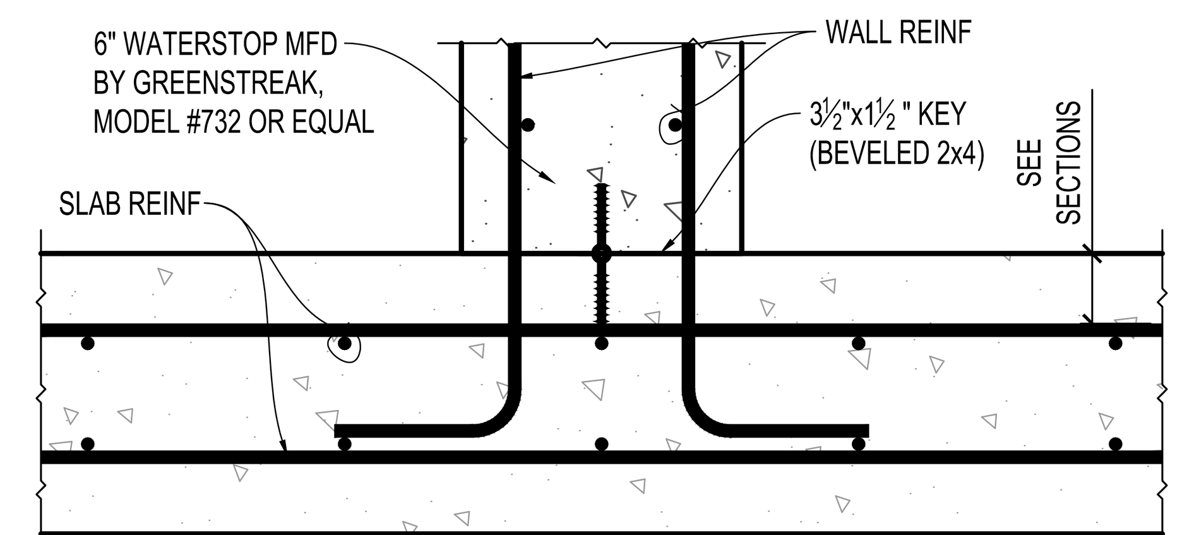


NOTE:
PROVIDE ¾" CHAMFER AT ALL EXPOSED EDGES OF CONC W/O EMBED ANGLES

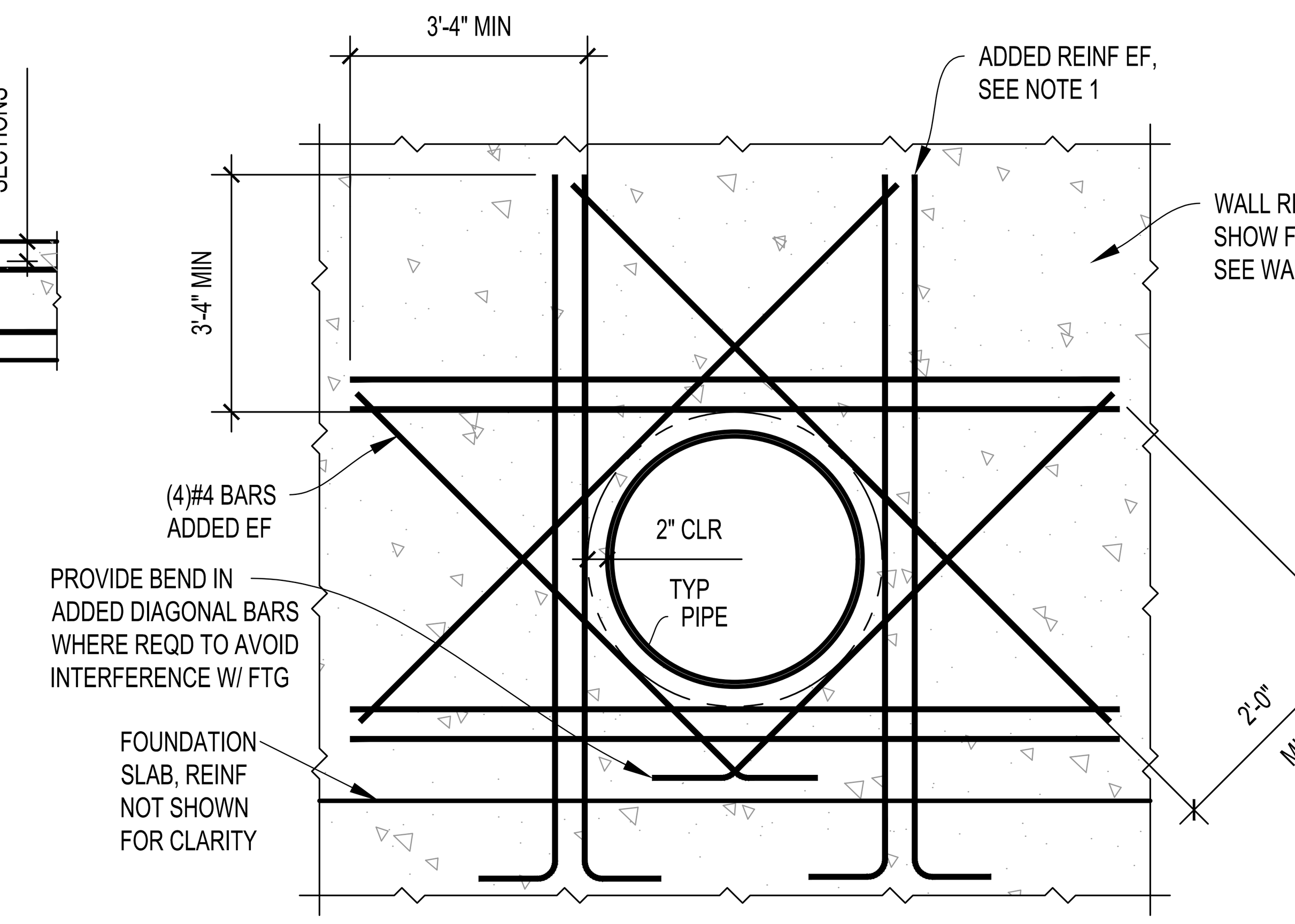
D4 CONC. CHAMFER DETAIL
1 1/2"=1'-0"



D5 TYP REINF @ WALL INTERSECTIONS
N.T.S.



D6 WALL / FOUNDATION JOINT
1 1/2"=1'-0"



NOTES:
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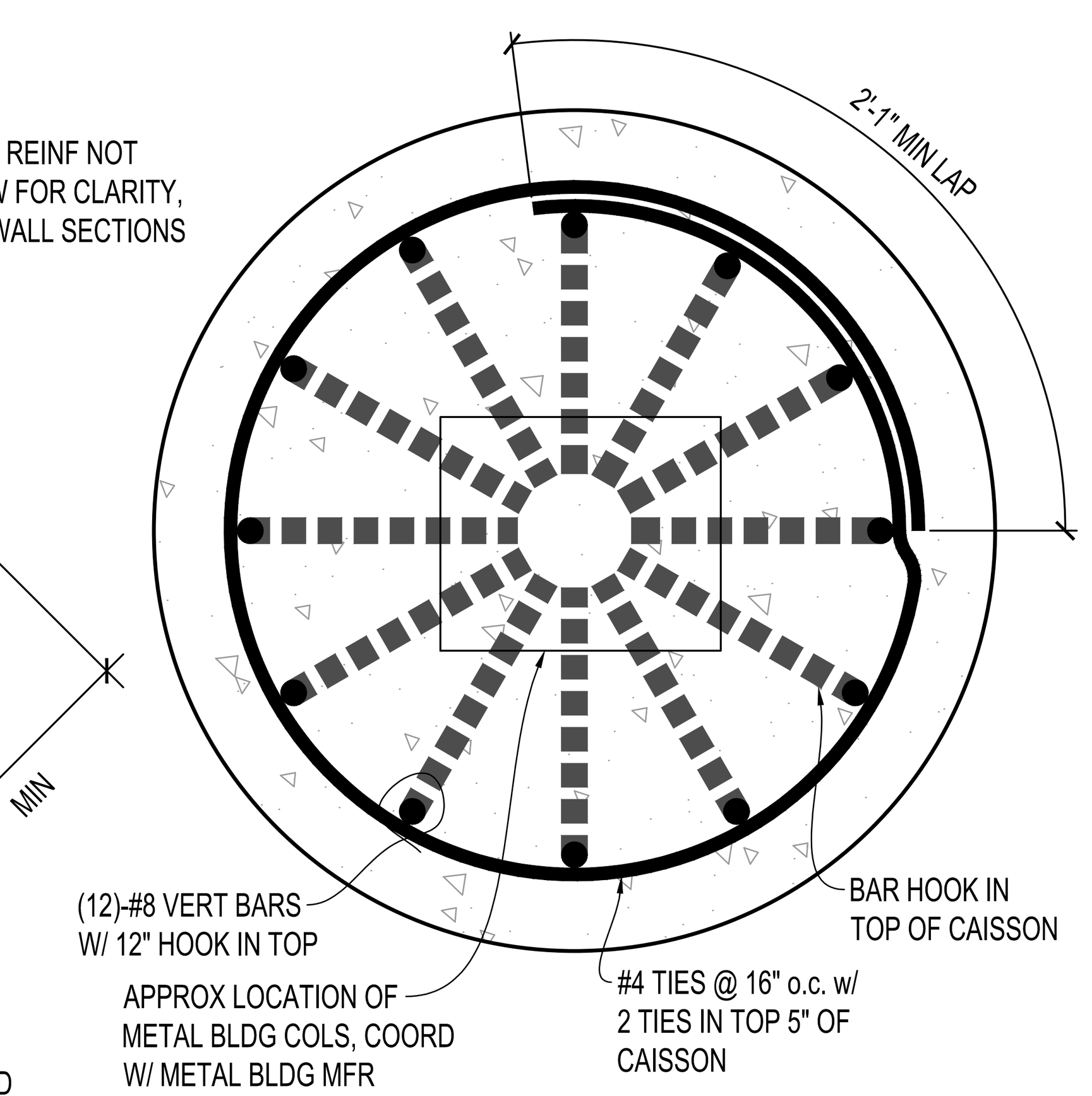
2. MAINTAIN NOT LESS THAN 1¼" CLEAR BETWEEN ADJACENT PARALLEL BARS.

D7 TYP WALL REINF @ PIPE OPENING
N.T.S.



D8 CAISSON REINFORCING
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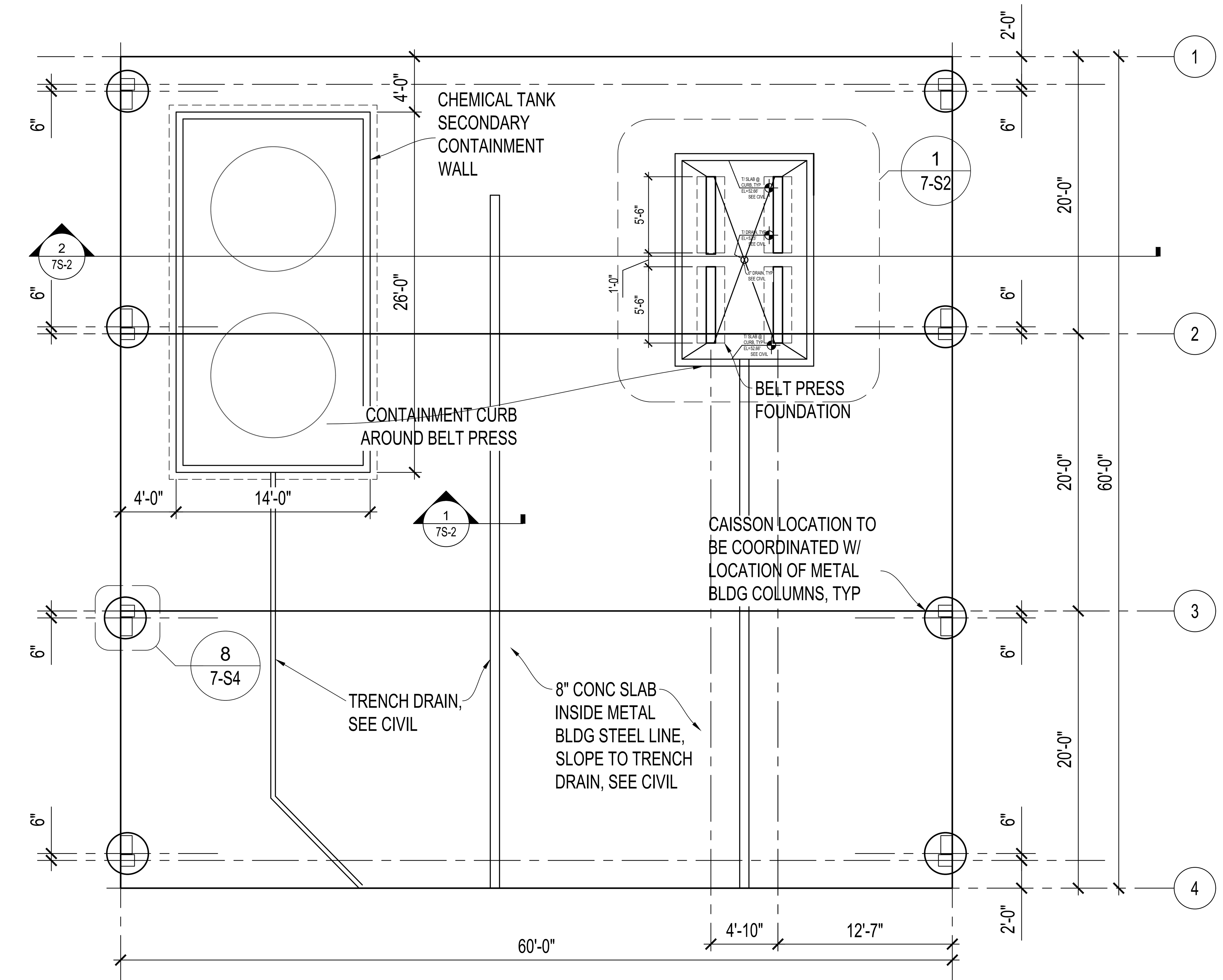
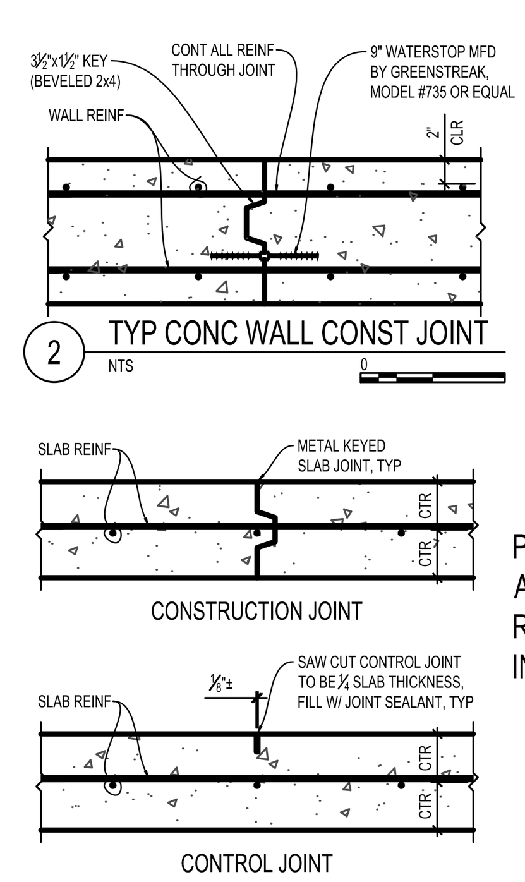
UV CHANNEL
DETAILS



1 BELT PRESS COVER FOUNDATION PLAN

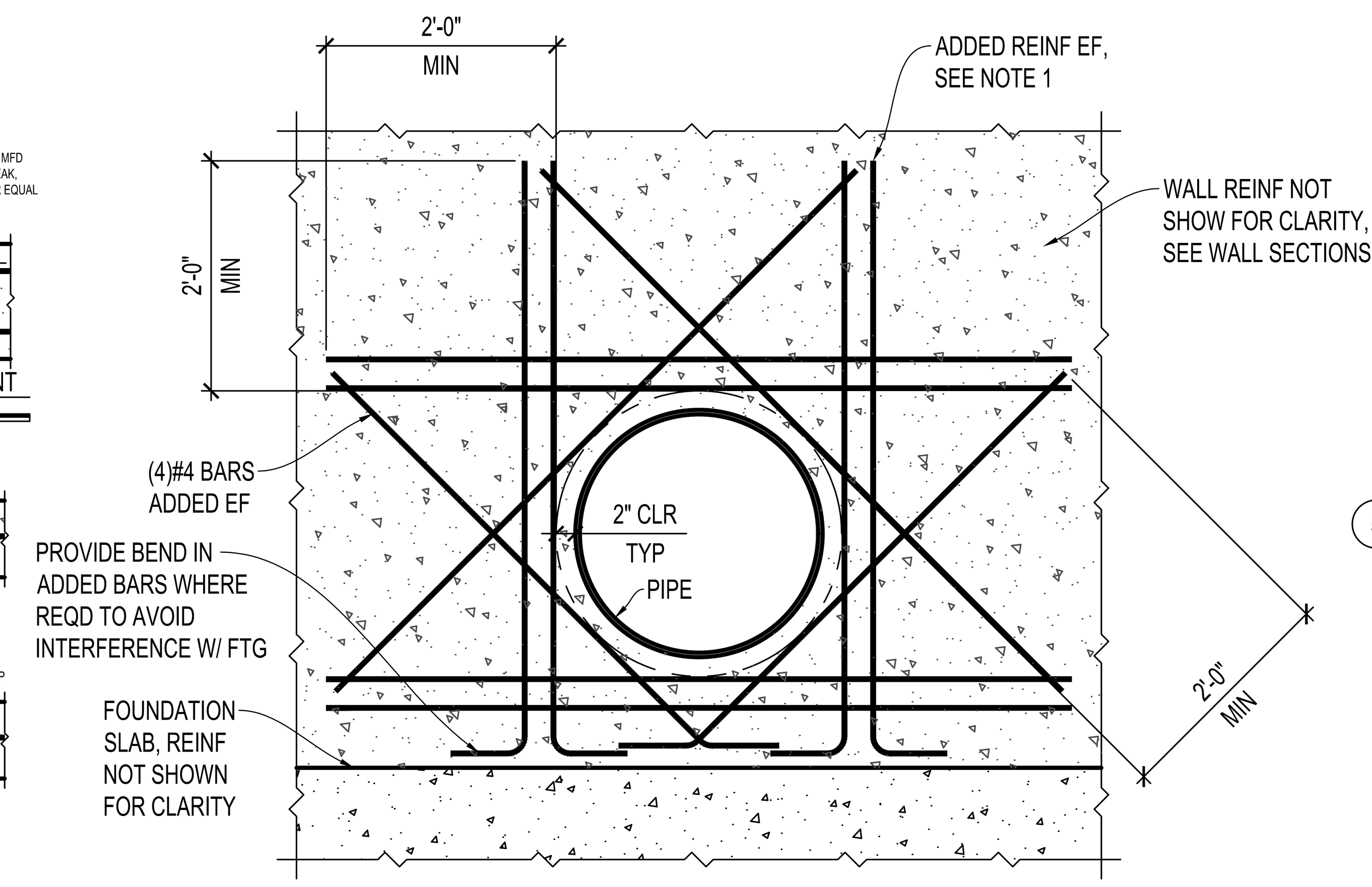
3/16"=1'-0"



NOTES:
- SAW CUT AS SOON AS SLAB CAN SUPPORT WEIGHT.
- CONTROL JOINTS MAY BE REPLACED W/ CONSTRUCTION JOINTS.
- CONTROL JOINTS SHALL BE SPACED AT NO MORE THAN 24'-0" OC. SLAB AREAS BOUNDED BY THESE JOINTS SHALL HAVE THE LENGTH NO MORE THAN 2x THE WIDTH.

1 SLAB JOINT DETAILS

NTS



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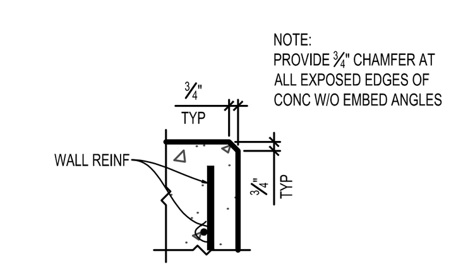
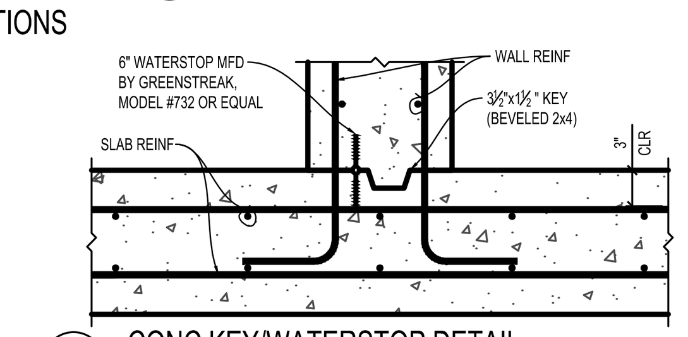
6 TYP WALL REINF @ PIPE OPENING DETAIL

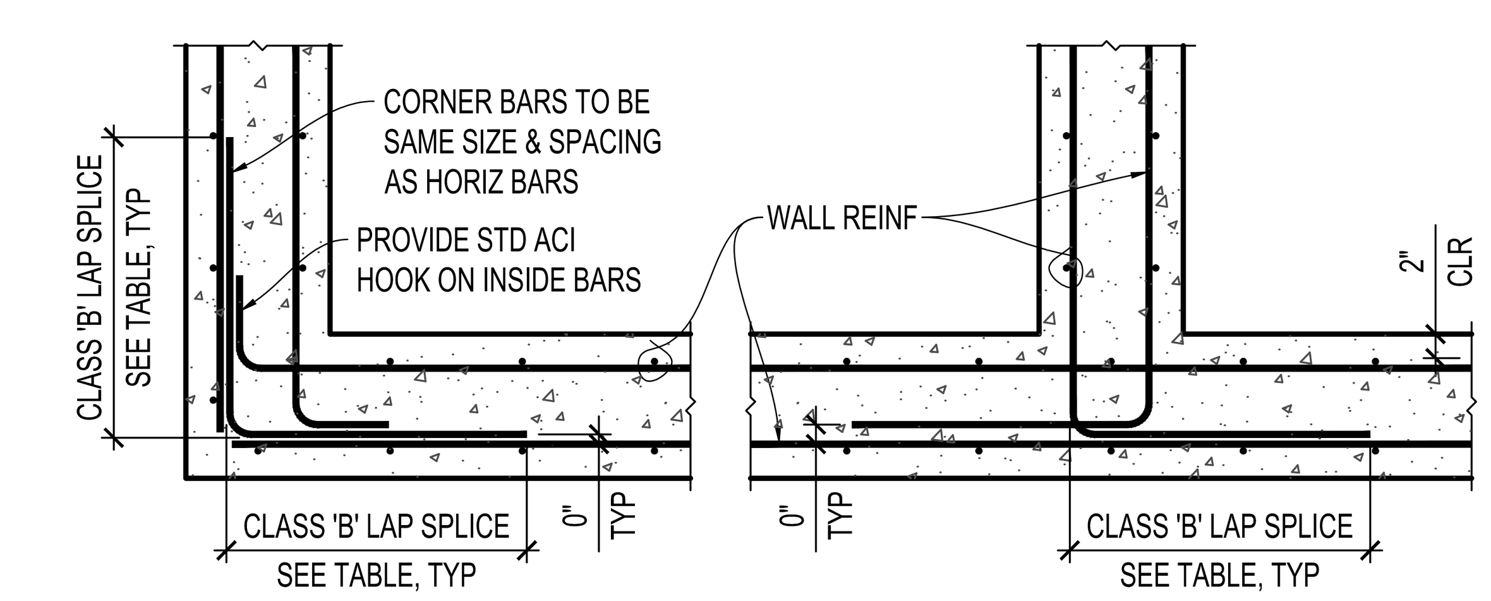
NTS



3 CONC CHAMFER DETAIL



5 CONC KEY/WATERSTOP DETAIL



4 TYP REINF @ WALL INTERSECTIONS DETAIL

NTS

STRUCTURE NOTES

1. COORD ALL STRUCTURE & PIPING ELEVATIONS & DIMENSIONS W/ MECHANICAL DRAWINGS.
2. ALL CONDUIT SHALL BE MOUNTED EXTERNALLY ON STRUCTURE USING HANGERS. FOR ANY CONDUIT PROPOSED TO BE PLACED IN THE CONCRETE POUR, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING PLACEMENT OF ANY CONDUIT IN CONCRETE STRUCTURE.
3. CONTRACTOR SHALL SUBMIT PROPOSED LOCATIONS OF CONSTRUCTION JOINTS FOR APPROVAL BY ENGINEER OF RECORD PRIOR TO BEGINNING WORK.
4. COORDINATE ALL EXCAVATIONS W/ EXISTING STRUCTURES SO AS TO NOT UNDERMINE THEM. APPROPRIATE MEASURES SHALL BE TAKEN TO INSURE THAT EXISTING STRUCTURES ARE NOT UNDERMINED OR OTHERWISE DAMAGED DURING THE EXCAVATION OR CONSTRUCTION OF NEW STRUCTURES.
5. SEISMIC DESIGN CRITERIA:
   - OCCUPANCY CATEGORY = IV
   - SEISMIC IMPORTANCE FACTOR (I_E) = 1.50
   - S_S = 0.127 S_1 = 0.067
   - SITE CLASS = D
   - S_{DS} = 0.135 S_{D1} = 0.107
   - BASIC SEISMIC-FORCE-RESISTING SYSTEM (PER ASCE 7-05 TABLE 15.4-1 OR 15.4-2):
     - FLAT-BOTTOM GROUND SUPPORTED TANKS - REINFORCED NON-SLIDING BASE:
   - RESPONSE MODIFICATION FACTOR (R) = 2.0
   - SEISMIC RESPONSE COEFF. (C_S) = 0.2926
   - SEISMIC DESIGN CATEGORY = C 0.1029
   - ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE

FOUNDATION NOTES

1. FOUNDATION DESIGN AND SUBSURFACE INFORMATION IS BASED ON A SOILS REPORT PREPARED BY TERRACON CONSULTANTS, INC. (PROJECT # ES165069). ALLOWABLE BEARING CAPACITY SHALL BE VERIFIED AT TIME OF EXCAVATION AND STRUCTURAL ENGINEER SHALL BE NOTIFIED IF THE ACTUAL SOIL BEARING PRESSURE IS LOWER THAN THE DESIGN SOIL PRESSURE.
2. DEWATER, UNDERCUT, & REPLACE MATERIAL BELOW FOOTING ELEVATIONS PER GEOTECH REPORT. GRANULAR BASE BELOW FOOTING SHALL BE #57 STONE.
3. PRIOR TO POURING CONCRETE, ALL DEBRIS, WATER, AND LOOSE EARTH SHALL BE REMOVED FROM THE FOUNDATION BED.
4. GEOTECHNICAL ENGINEER SHALL VERIFY CONDITION AND/OR ADEQUACY OF ALL SUBGRADES, FILLS, AND BACKFILLS PRIOR TO PLACEMENT OF FOUNDATIONS, FOOTINGS, SLABS, WALLS, FILLS, BACKFILLS, ETC.
5. BACKFILL AGAINST WALLS SHALL BE DEPOSITED EVENLY AGAINST BOTH SIDES OF WALLS UNTIL THE LOWER FINAL GRADE IS REACHED. COMPACTION OF BACKFILL WITHIN 10 FEET OF WALLS SHOULD BE PERFORMED WITH HAND OPERATED EQUIPMENT. THE BACKFILLING OF UNDERGROUND STRUCTURES SHALL BE DONE W/ A MAX OF 4'-0" INCREMENTS ALL AROUND THE STRUCTURES.
6. PLACEMENT AND COMPACTION OF STRUCTURAL FILL SHALL BE MONITORED BY THE GEOTECHNICAL ENGINEER. COMPACTION SHALL BE 95% OF STANDARD PROCTOR.
7. WHERE ANY UTILITY LINES PASS UNDER A FOOTING, PROVIDE A PRE-CAST CONCRETE RELIEVING ARCH, A MINIMUM OF THREE TIMES THE DIAMETER OF THE UTILITY PIPE FOR PROTECTION.

REINFORCING STEEL NOTES

1. SHALL BE DETAILED, FABRICATED AND PLACED ACCORDING TO THE LATEST STANDARDS OF THE AMERICAN CONCRETE INSTITUTE (ACI) AND THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
2. MATERIALS:
   - 2.1. REINFORCING BARS SHALL COMPLY WITH ASTM A615 GRADE 60.
   - 2.2. WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A82 AND A185.
   - 2.3. REINFORCING BARS FOR WELDING SHALL COMPLY WITH ASTM A-706.
3. CLEAR MINIMUM COVER OF CONCRETE OVER REINFORCING BARS SHALL BE AS INDICATED ON THE DRAWINGS BUT SHALL NOT BE LESS THAN THE FOLLOWING:
   - 3.1. CONCRETE PLACED AGAINST EXPOSED EARTH (NOT FORMED) = 3"
   - 3.2. FORMED SURFACES EXPOSED TO EARTH, LIQUIDS, OR WEATHER:
     SLABS & JOISTS W/ #5 BARS & SMALLER = 1½"
     SLABS & JOISTS W/ #6 BARS & LARGER = 2"
     BEAMS, PIERS, COLUMNS, WALLS, FOOTINGS, & BASE SLABS = 2"
   - 3.3. FORMED SURFACES NOT EXPOSED TO EARTH, LIQUIDS, OR WEATHER:
     SLABS & JOISTS = ¾"
     BEAMS, PIERS, & COLUMNS = 1½"
     WALLS = ¾"
     FOOTINGS & BASE SLABS = 2"

CONCRETE NOTES

1. MINIMUM CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS SHALL BE 4500 PSI FOR WALLS AND SLABS IN LIQUID CONTAINING VESSELS.
2. STRUCTURAL MEMBERS OF REINFORCED CONCRETE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 318-11.
3. PROVIDE ¾" CHAMFER AT ALL EXPOSED CORNERS OF CONCRETE W/O EMBED ANGLES.
4. PLACE ALL REBAR FOR WALLS & SLABS IN DIRECTIONS & LOCATIONS AS SHOWN IN TANK SECTIONS. DO NOT REVERSE LOCATIONS OF INSIDE/OUTSIDE BARS AT EACH FACE.
5. CONCRETE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318-11. SAMPLES FOR STRENGTH TESTS OF EACH CLASS OF CONCRETE PLACED EACH DAY SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 75 CY OF CONCRETE USED FOR FOOTINGS, NOR LESS THAN ONCE FOR EACH 5000 SQUARE FEET OF SURFACE AREA FOR SLABS. TEST REPORTS INDICATING (NON)COMPLIANCE SHALL BE PROVIDED TO THE OWNER, ENGINEER & CONTRACTOR. A COPY OF THE TEST REPORTS SHALL BE AVAILABLE AT THE JOBSITE. 4 INCH DIAMETER X 8 INCH TEST CYLINDERS ARE ACCEPTABLE.

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Greensboro, GA 30642

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 27855 RALPH H. BOSWELL
10/10/2019

FOLKSTON TREATMENT PLANT
FOR:
THE CITY OF FOLKSTON
FOLKSTON GEORGIA
CHARLTON COUNTY, GEORGIA

MARK	DATE	BY	DESCRIPTION
	10-10-2019		EPD SUBMITTAL
	07-8-2019		95% SET FOR REVIEW
	06-14-2019		80% SET FOR REVIEW

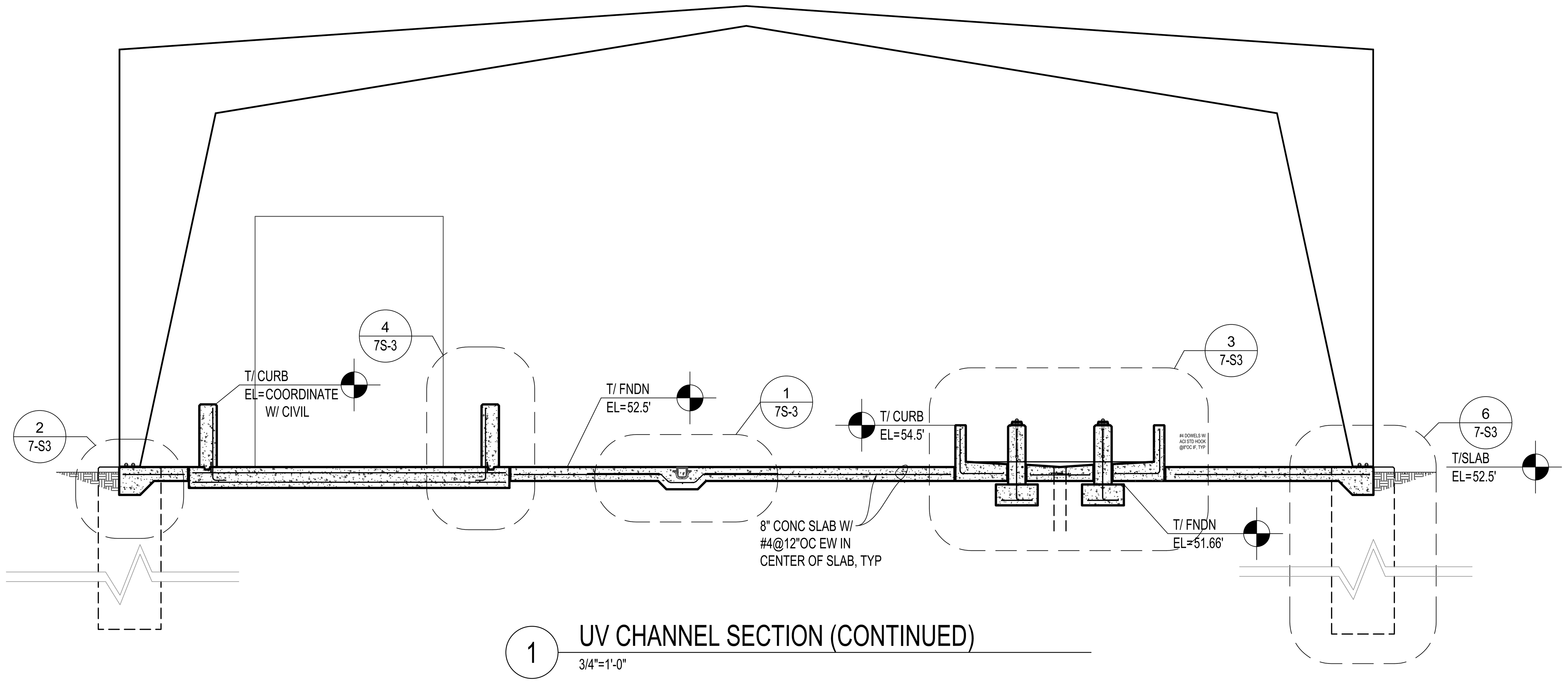
OE PROJECT NO: OE18132
FILE NAME: OE18132-7S-core
ORIGINAL DRAWING SIZE: 36"x24"
DATE: 6-14-2019

DESIGNED:
DRAWN:
CHECKED:
APPROVED:

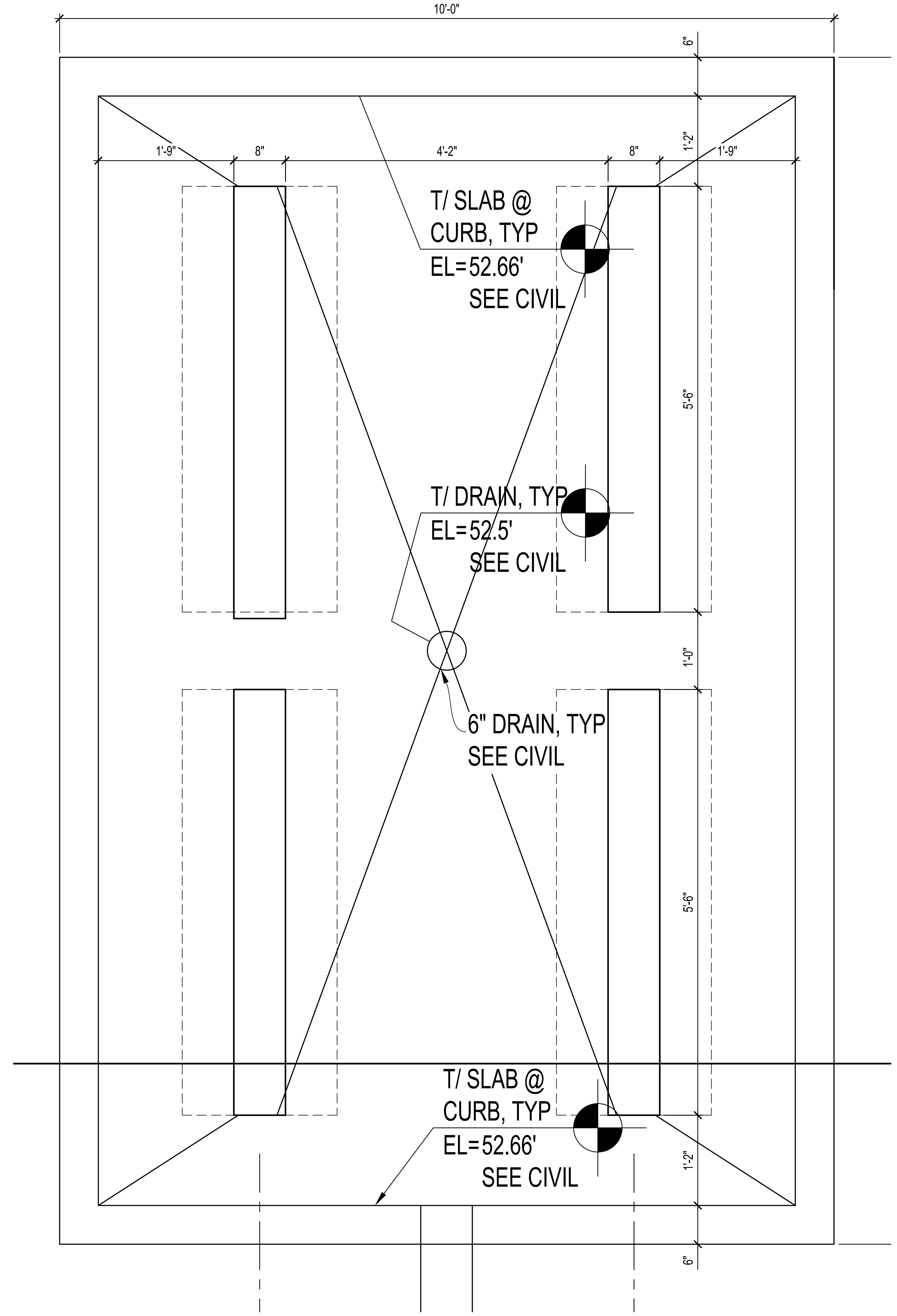
BELT PRESS & CHEMICAL STORAGE PLAN, NOTES, & DETAILS

7S-1

SHEET 1 OF 03



1 UV CHANNEL SECTION (CONTINUED)
3/4"=1'-0"



1 BELT PRESS ENLARGED FOUNDATION PLAN
3/4"=1'-0"

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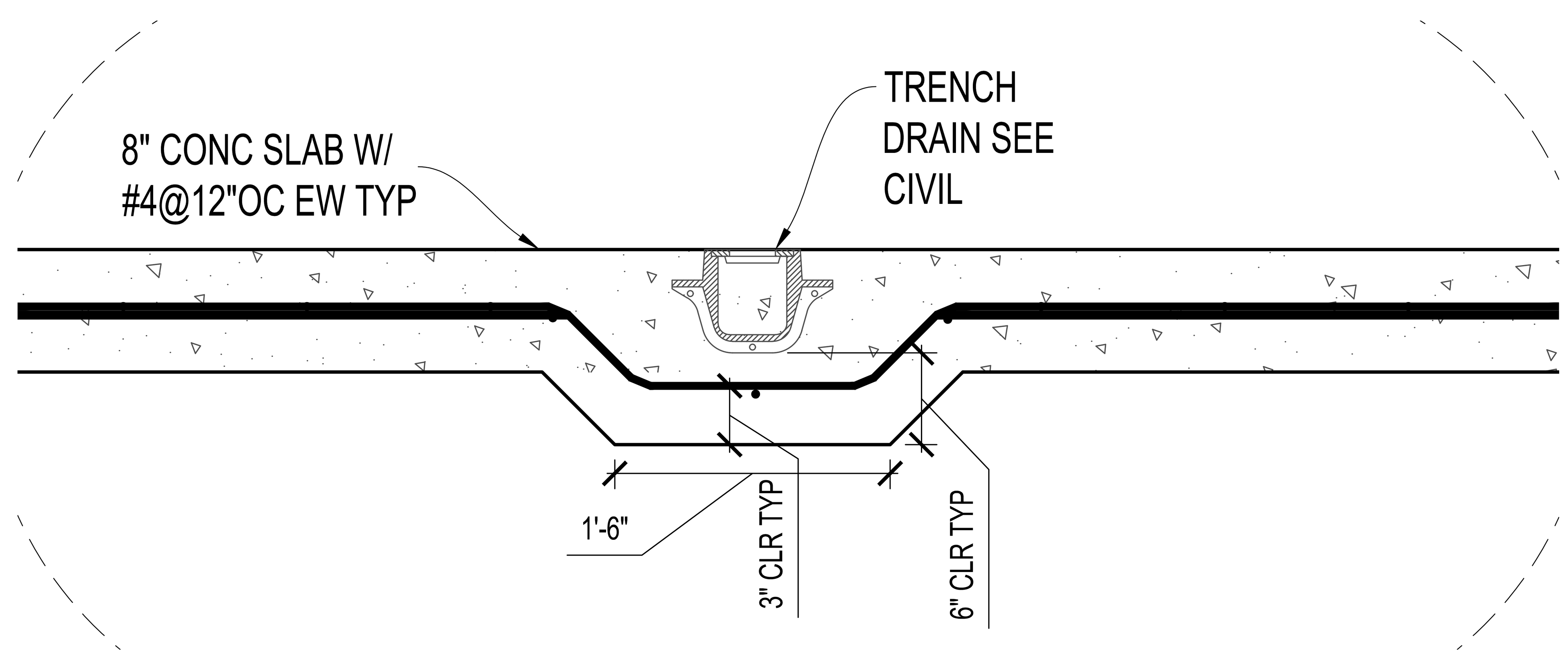
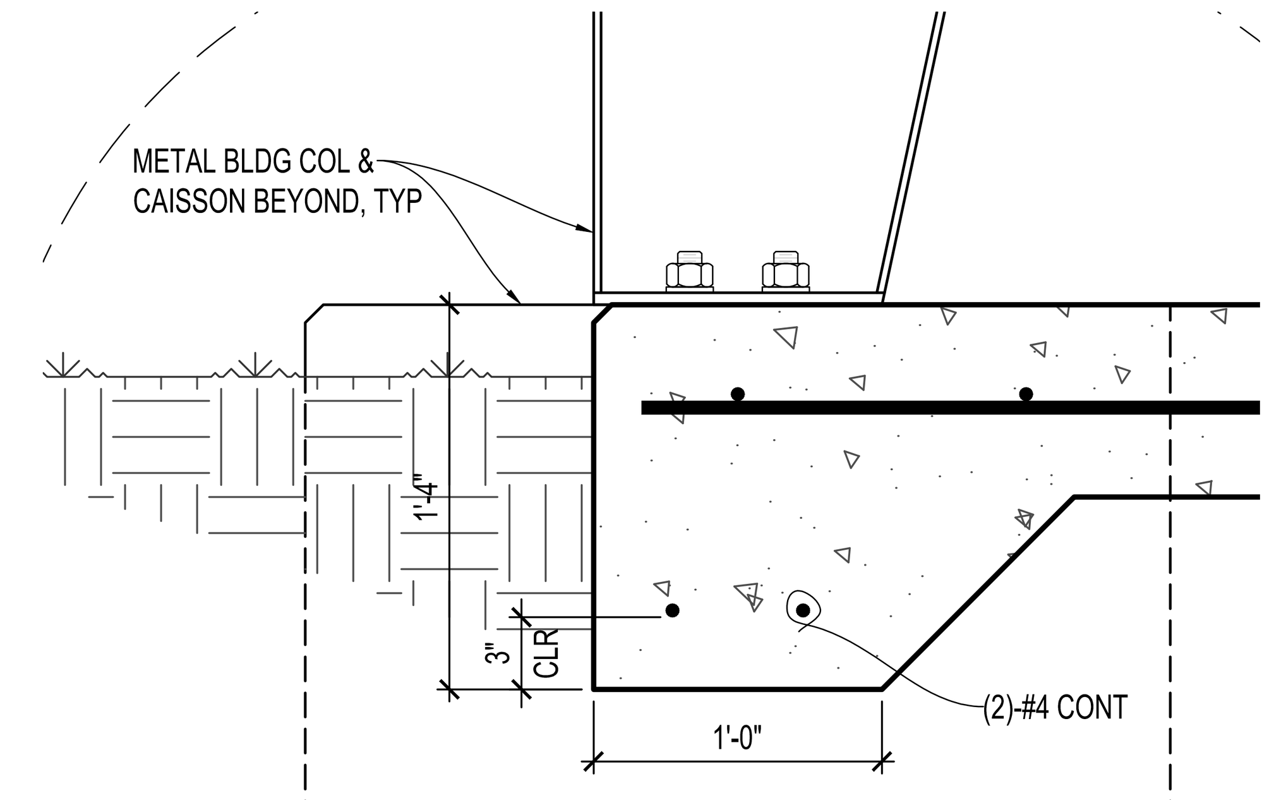
BELT PRESS & CHEMICAL STORAGE

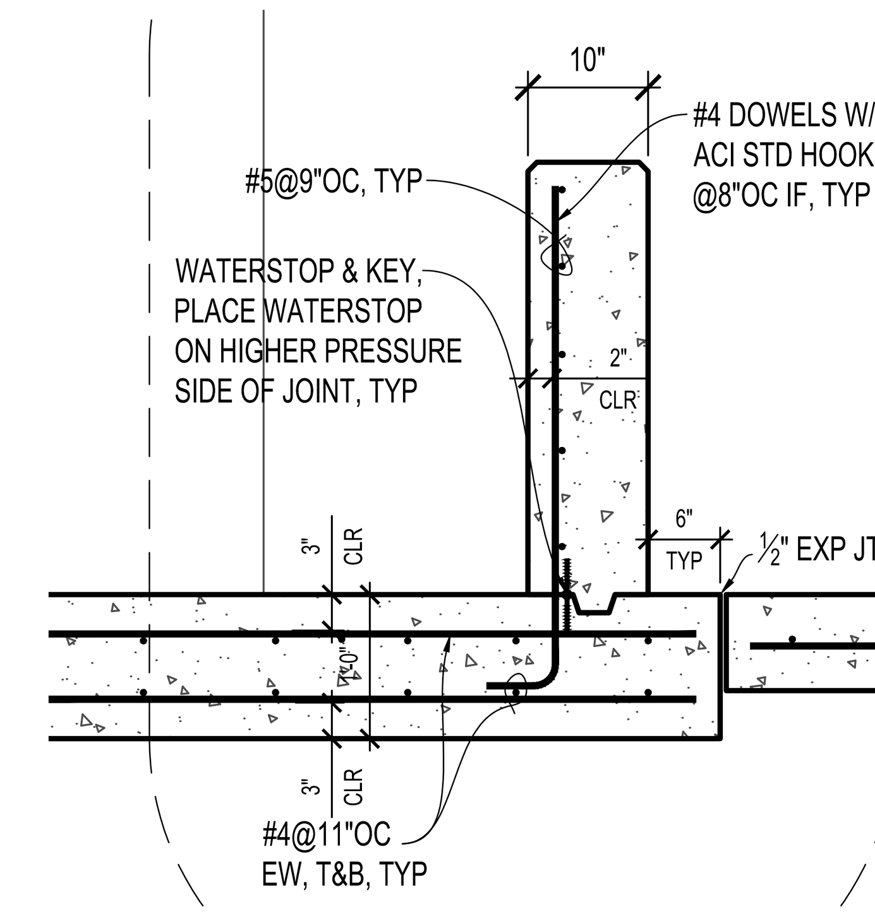
PLANS & SECTIONS



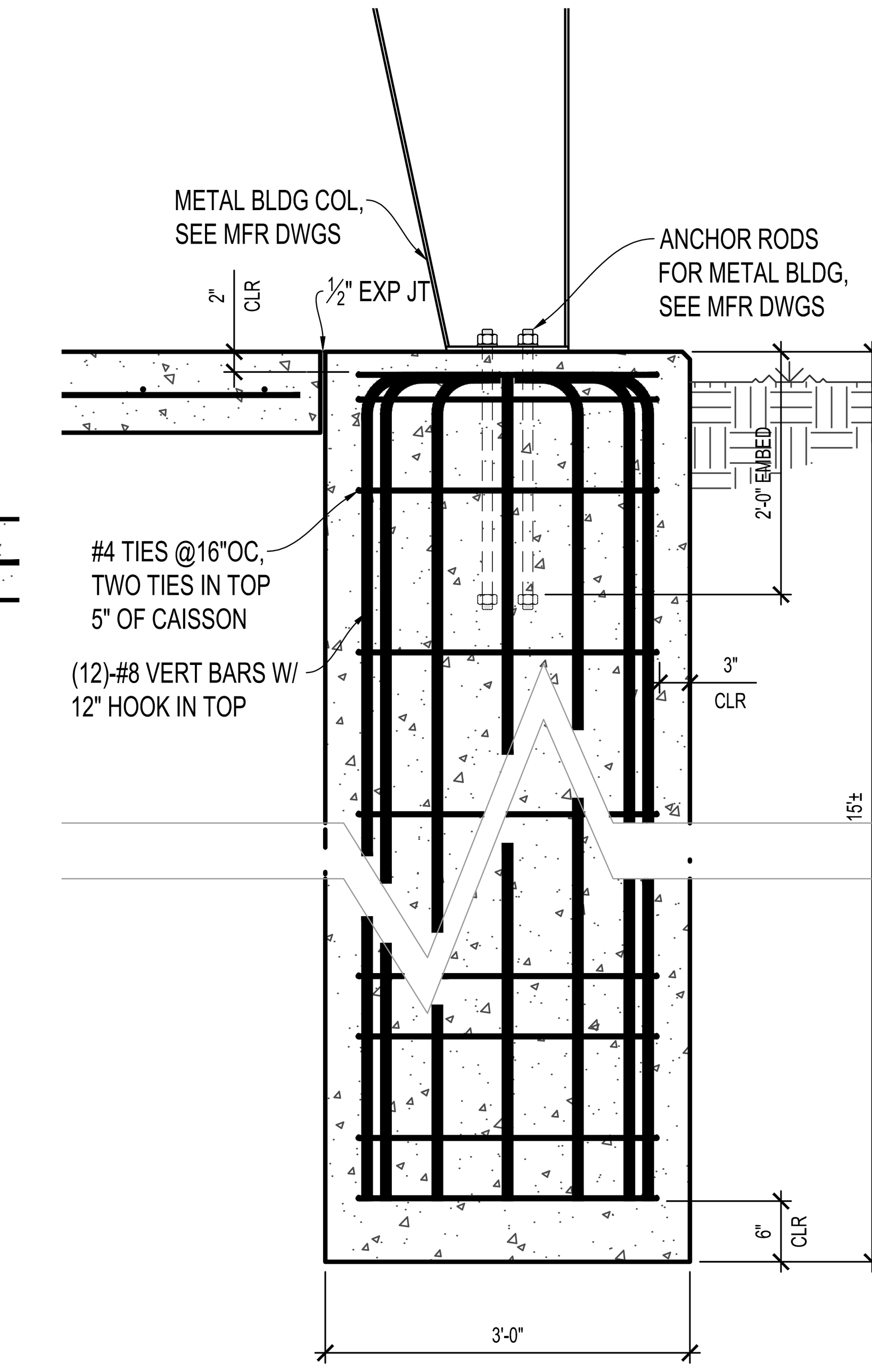
1 TRENCH DRAIN SECTION
3/4"=1'-0"



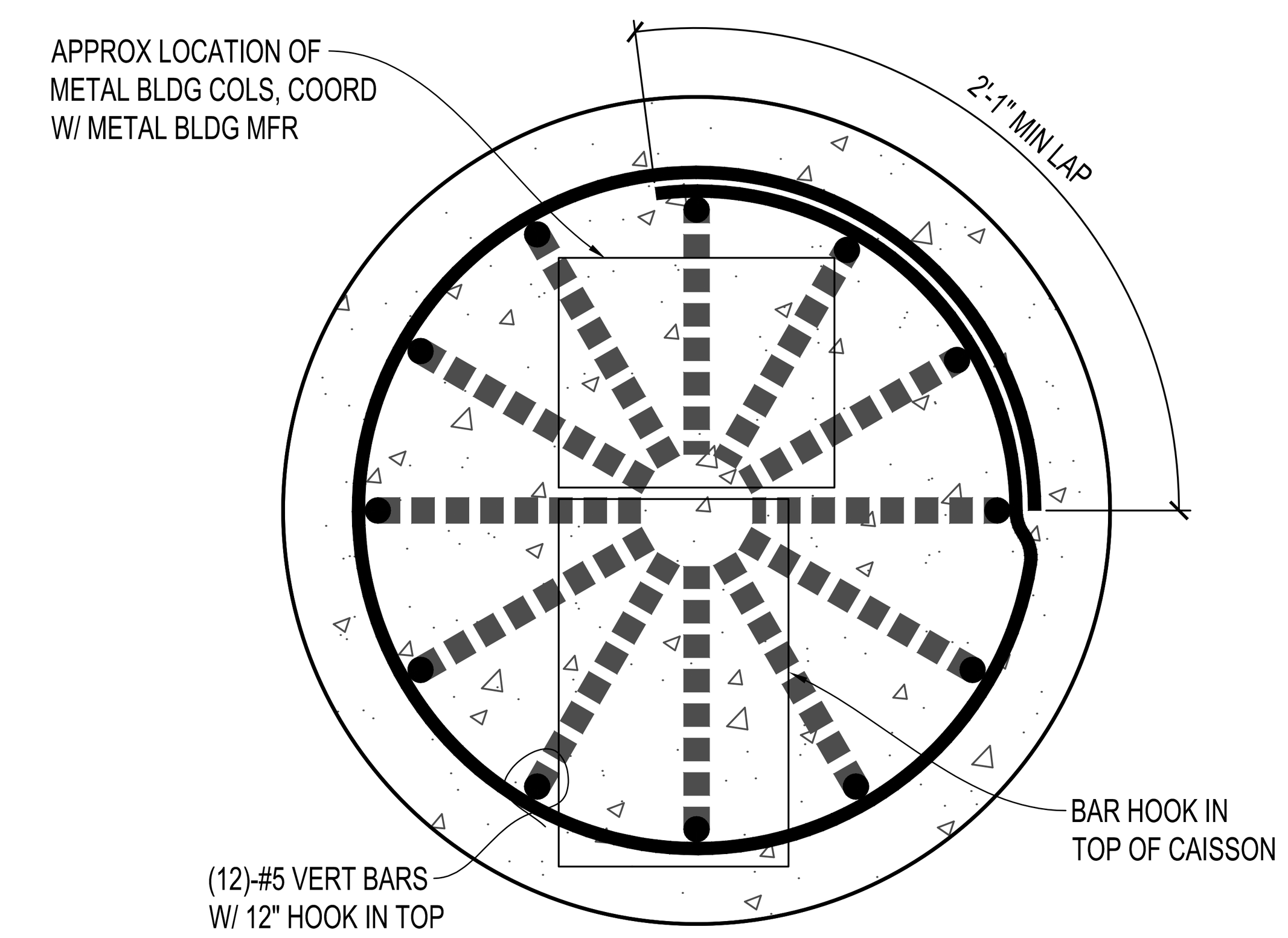
2 CAISSION REINFORCING
1-1/2"=1'-0"



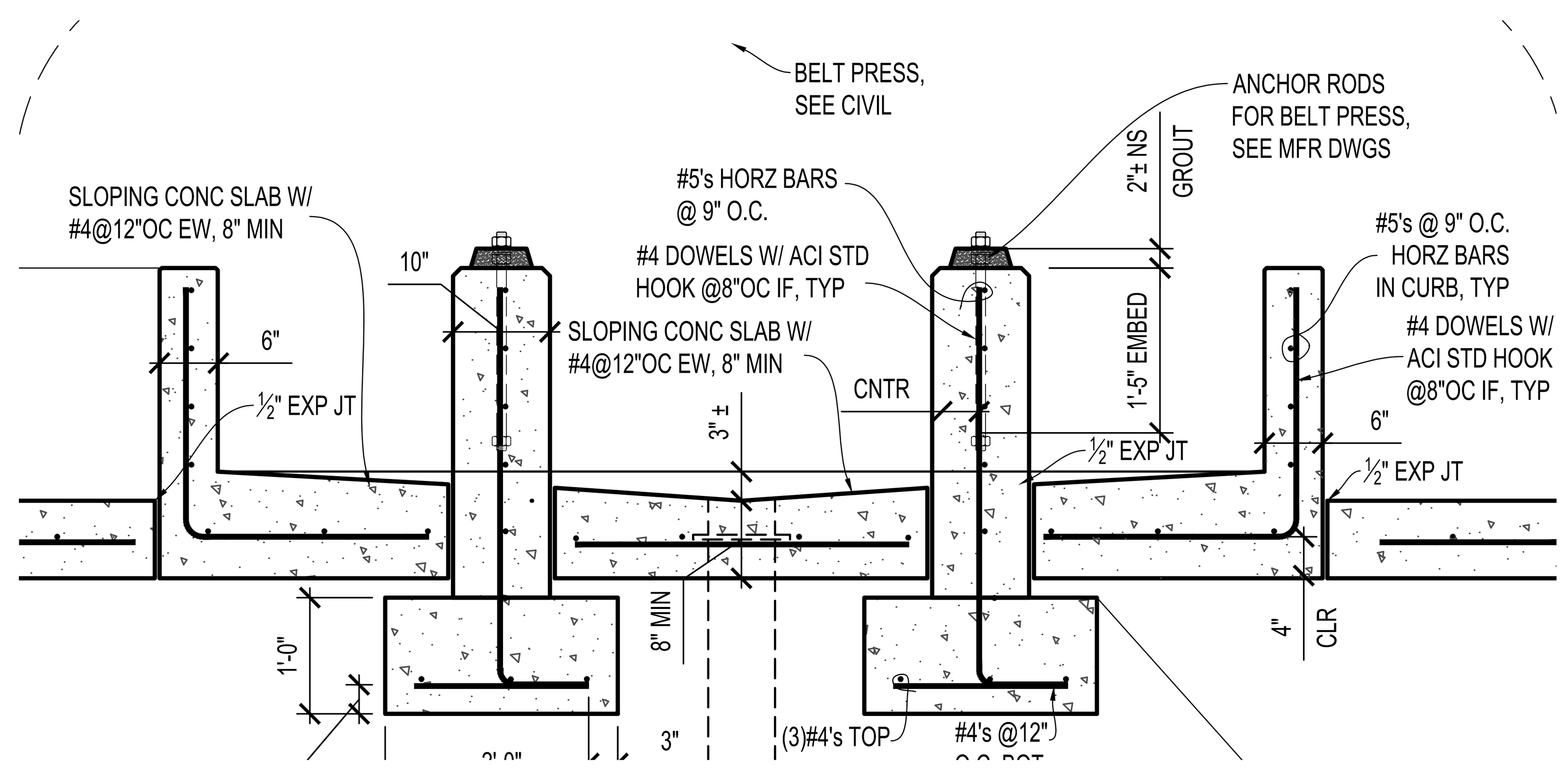
4 TANK CONTAINMENT WALL SECTION
1/2"=1'-0"



6 CAISSION SECTION
3/4"=1'-0"



5 CAISSION REINFORCING
1-1/2"=1'-0"



3 BELT PRESS FOUNDATION SECTION
1/2"=1'-0"

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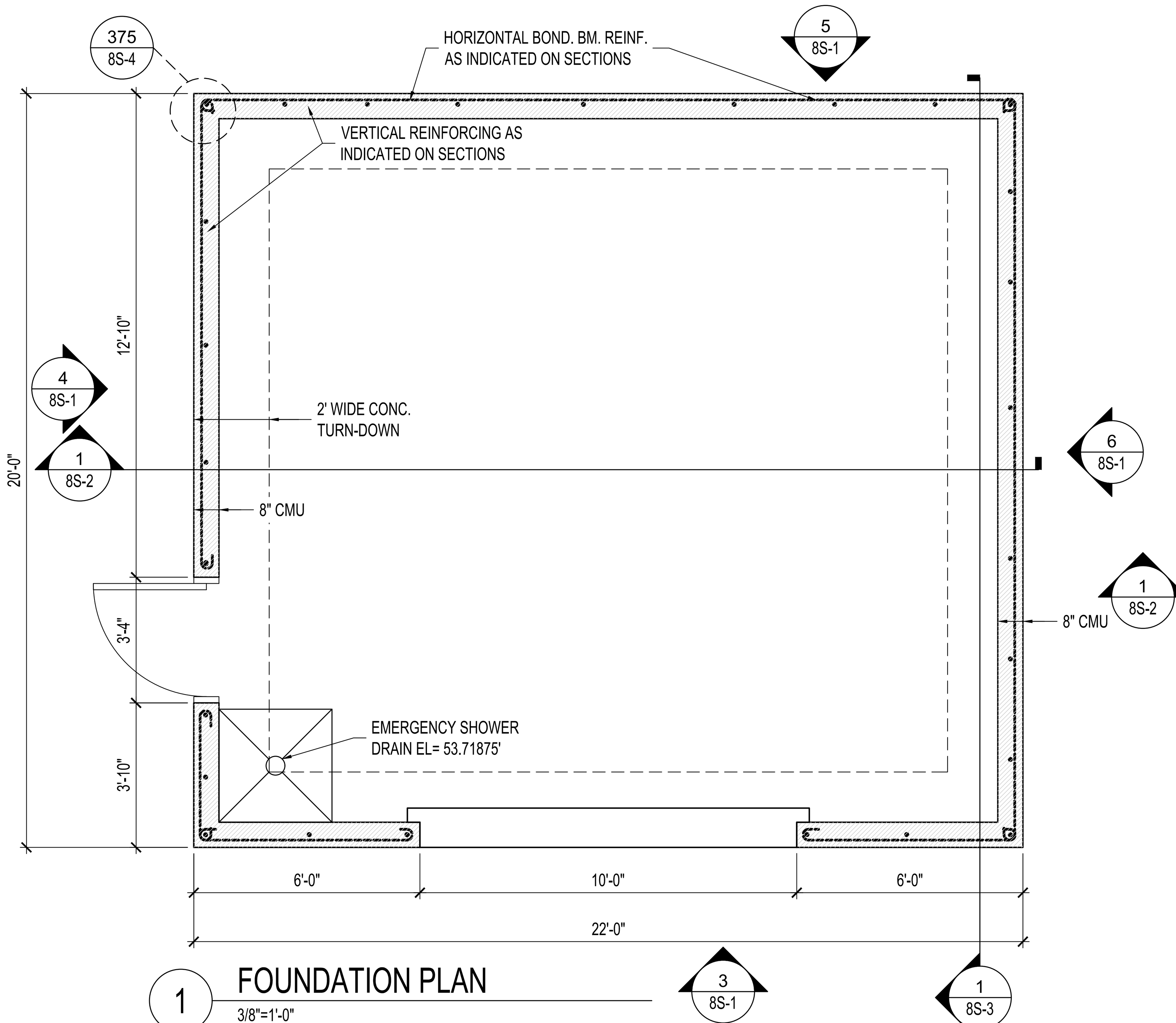
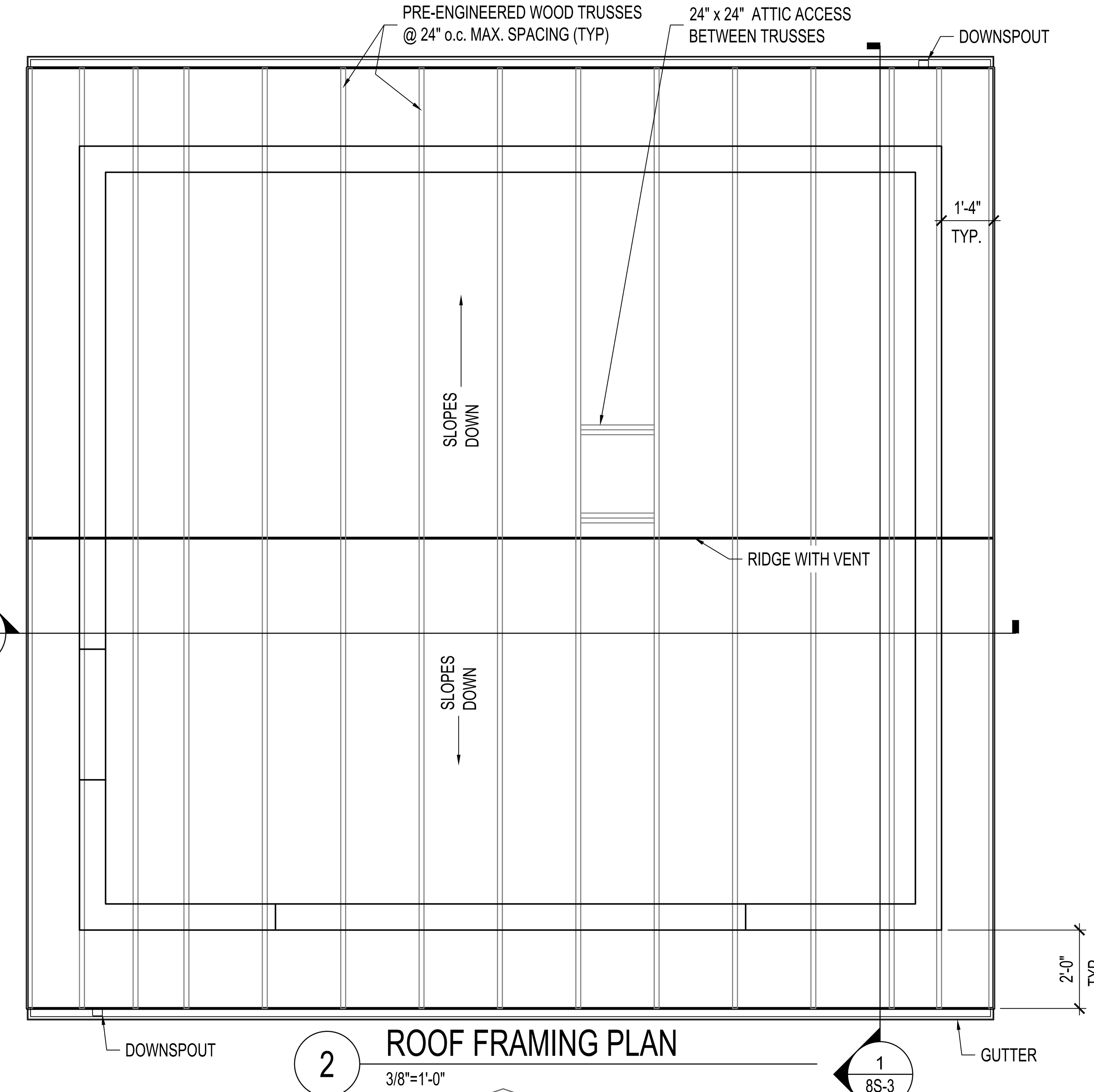
DESIGNED:
DRAWN:
CHECKED:
APPROVED:

BELT PRESS & CHEMICAL STORAGE
DETAILS

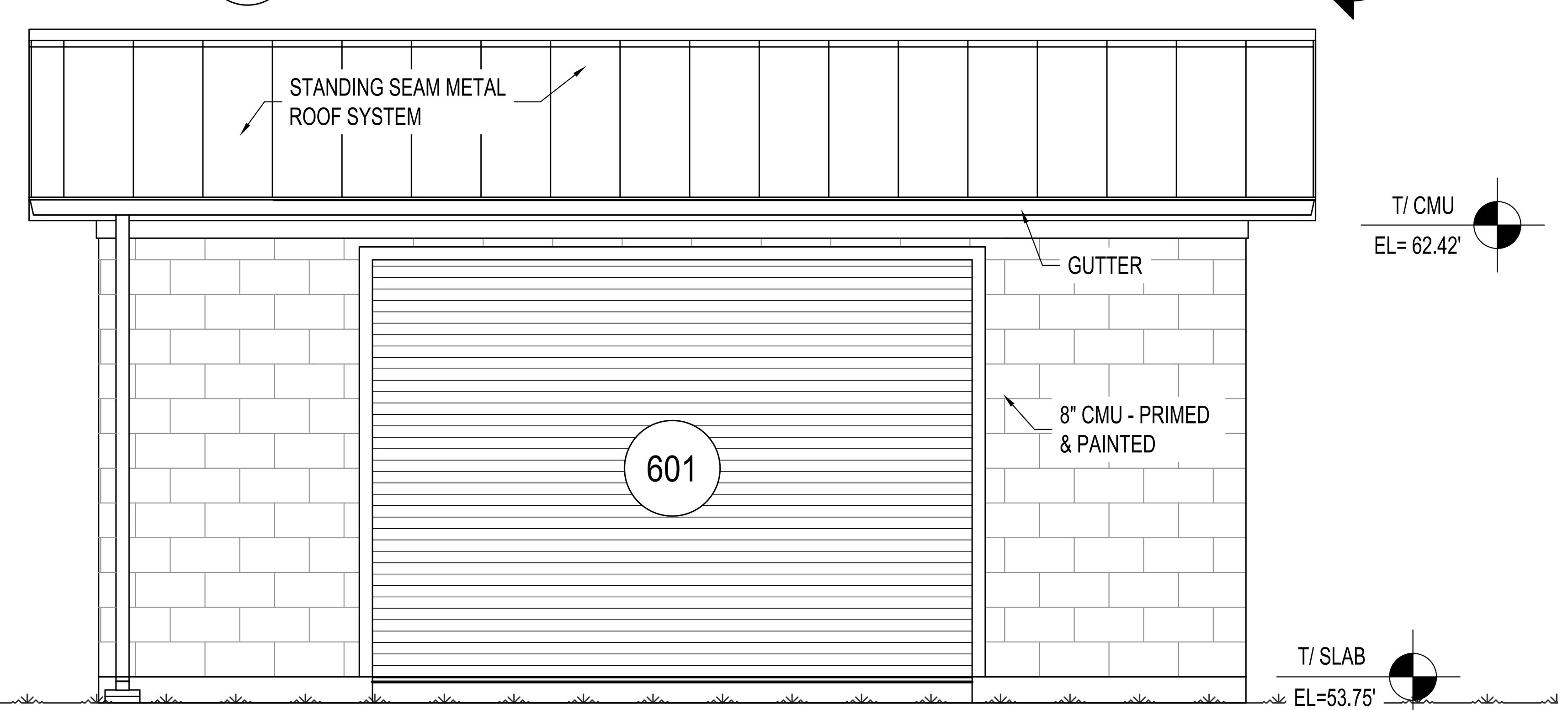
7S-3
SHEET 3 OF 03



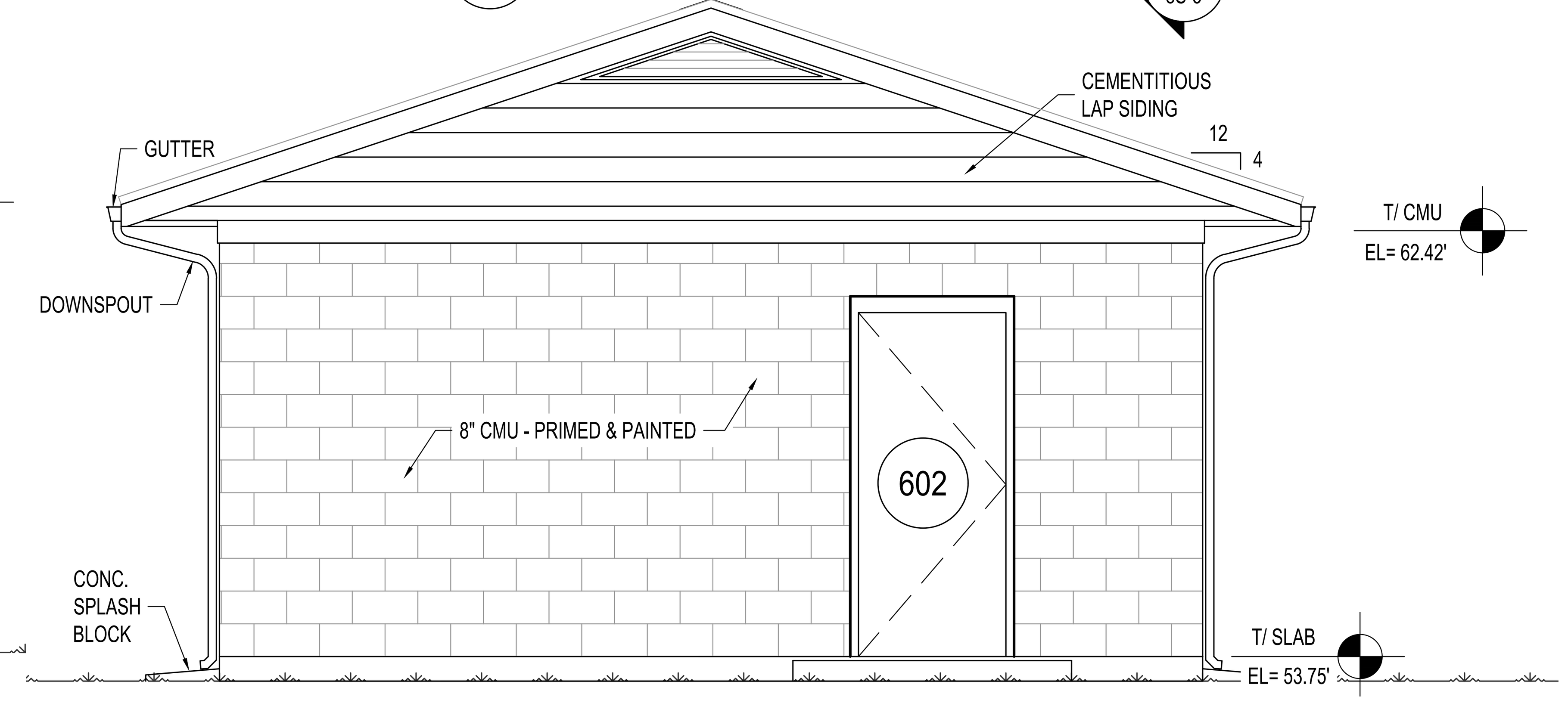
1 FOUNDATION PLAN
3/8"=1'-0"



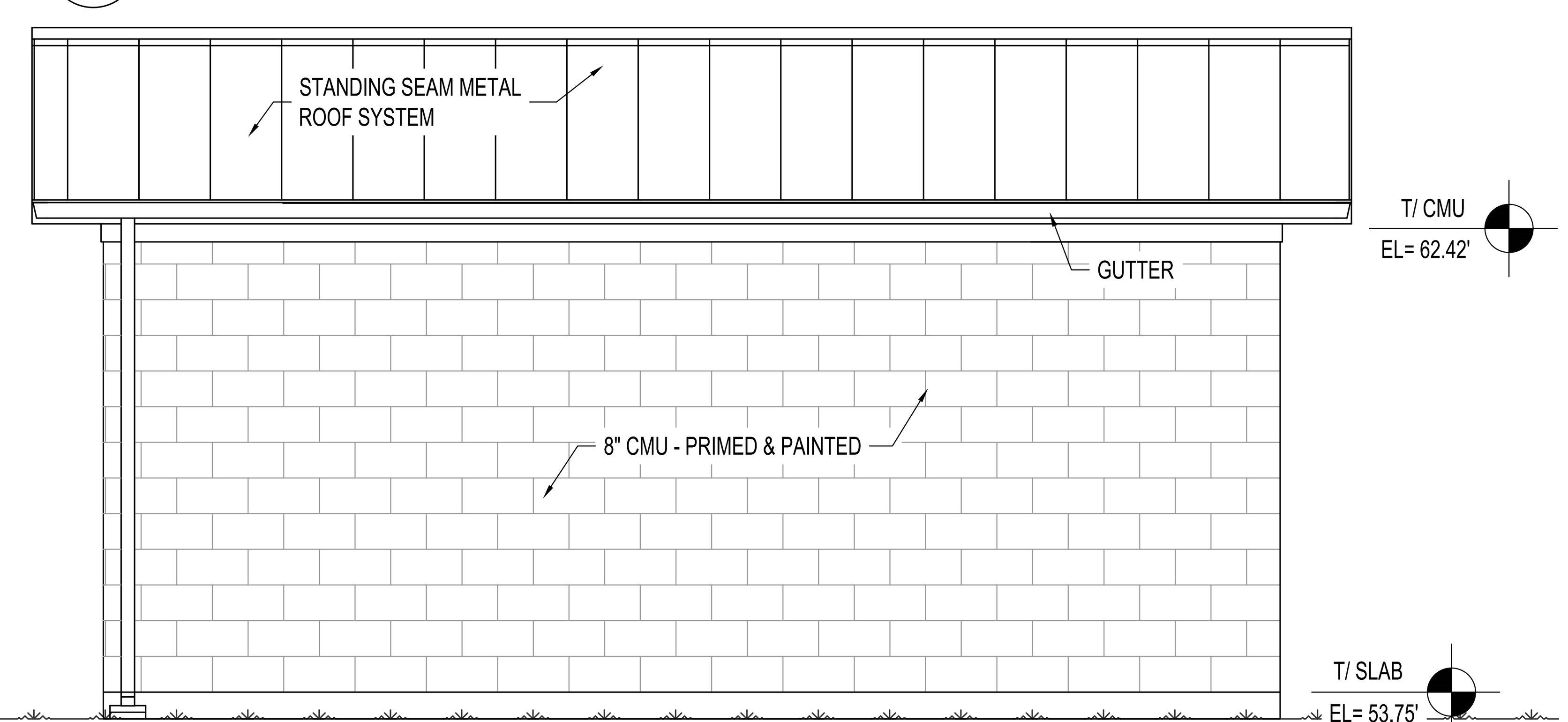
2 ROOF FRAMING PLAN
3/8"=1'-0"



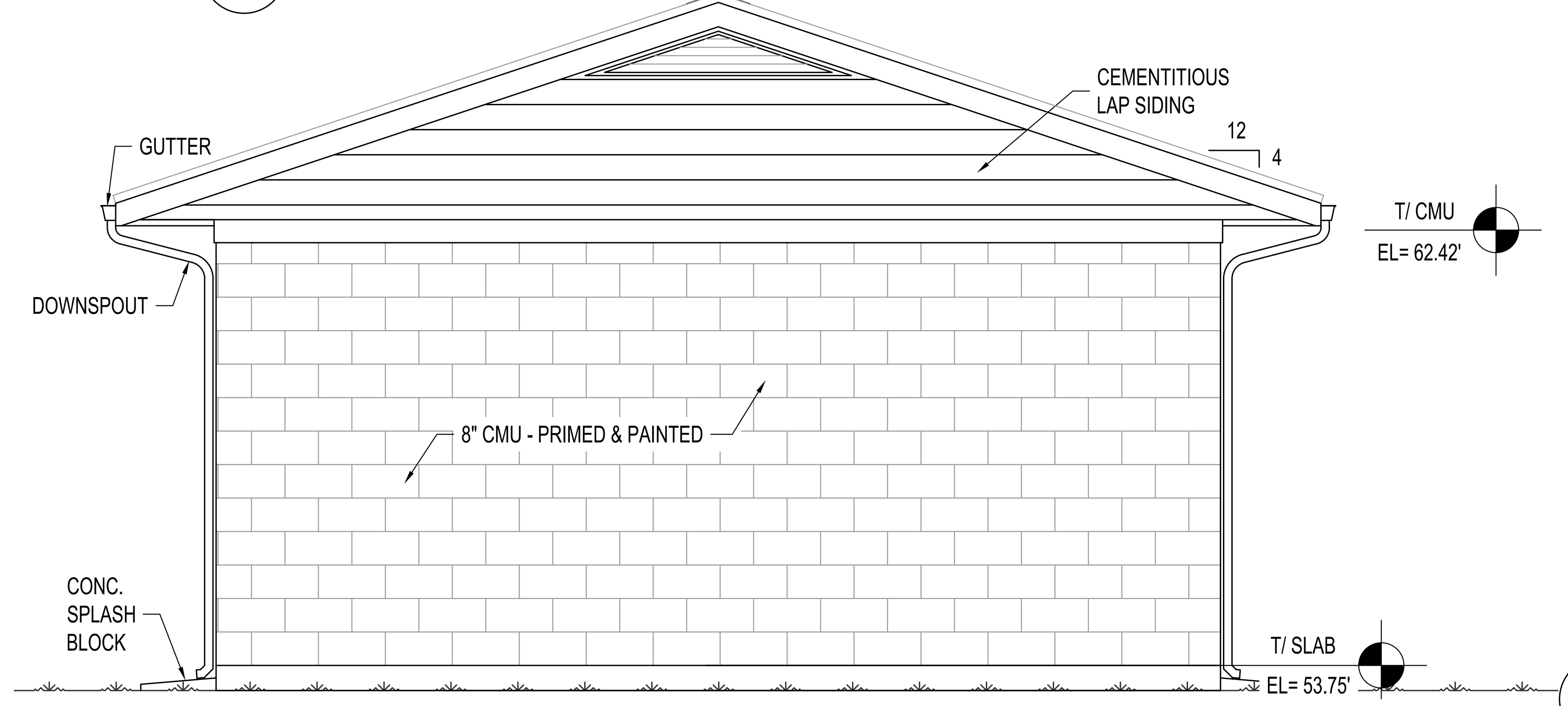
3 FRONT ELEVATION
3/8"=1'-0"



4 LEFT SIDE ELEVATION
3/8"=1'-0"



5 REAR ELEVATION
3/8"=1'-0"



6 RIGHT SIDE ELEVATION
3/8"=1'-0"

CMU WALL NOTES

1. REINF CMU WALLS W/ #4@32"OC UNO.
2. ADDITIONAL #4 VERT REINF AT:
   - 2.1. EACH SIDE OF OPENINGS
   - 2.2. WALL INTERSECTIONS
   - 2.3. ENDS OF WALLS
   - 2.4. AS NOTED & DETAILED ON DRAWINGS
3. PROVIDE BOND BEAMS REINF W/ (2)-#4 CONT AT:
   - 3.1. T&B OF OPENINGS
   - 3.2. TRUSS BEARING (CONT)
   - 3.3. TOP COURSE OF MASONRY WALLS
   - 3.4. AS NOTED & DETAILED ON DRAWINGS
4. PROVIDE MATCHING DOWELS FOR VERT REINF INTO FOUNDATION AND BOND BEAM @ TOP.
5. FILL ALL CMU CELLS BELOW FINISHED FLOOR & BELOW GRADE. FILL MATERIAL SHALL BE 3000 PSI GROUT, MIN.

WOOD FRAMING NOTES

1. SEE PRE-ENGINEERED METAL TRUSS NOTES FOR ROOF TRUSSES.
2. ROOF SHEATHING SHALL BE 5/8" APA RATED SHEATHING W/ #10 TEKS WOOD TO METAL FASTENERS @6"OC @ PANEL EDGES & @12"OC @ INTERMEDIATE SUPPORTS.

CONC REINF LAP LENGTH

3000 PSI (ACI 318-05)

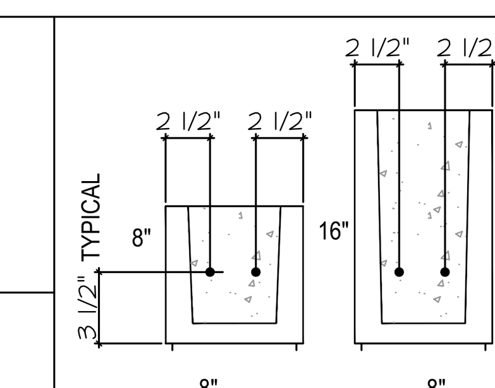
BAR SIZE	TENSION SPLICE CLASS 'B'
#3	22"
#4	29"
#5	36"
#6	43"
#7	63"
#8	72"
#9	81"

CMU REINF LAP LENGTH

Fy=60 KSI, f'm=1500 PSI

BAR SIZE	SPLICE LENGTH
#3	19"
#4	25"
#5	31"
#6	57"
#7	70"
#8	98"

MASONRY LINTEL SCHEDULE



OPENING WIDTH		8" CMU	16" CMU
MINIMUM	MAXIMUM		
	3'-4"	2 - #4	2 - #4
3'-4"	5'-4"	2 - #5	2 - #5
5'-4"	7'-4"	2 - #6	2 - #5
7'-4"	10'-0"	———	2 - #6

1. EXTEND BOND BEAM REINFORCING 24" OR 40 BAR DIAMETERS (WHICHEVER IS GREATER) BEYOND THE EXTENTS OF THE OPENING. VERTICAL REINFORCING AT THE SIDES OF THE OPENING SHALL BE CONTINUOUS THROUGH THE BOND BEAM. PROVIDE KNOCK OUTS IN THE BOTTOM OF THE BOND BEAM BLOCK AS REQUIRED TO ALLOW REINFORCING TO PASS THROUGH.
2. SEE DETAILS 373 & 374 FOR ADDITIONAL REINFORCING AT OPENINGS.

STRUCTURE NOTES

1. DESIGN SOIL BEARING PRESSURE = 2000 PSF. SOIL BRN'G PRESSURE SHALL BE VERIFIED AT TIME OF EXCAVATION AND ENGINEER SHALL BE NOTIFIED IF ACTUAL SOIL BEARING PRESSURE IS LOWER THAN DESIGN VALUE. FOUNDATION DESIGN & SUBSURFACE INFORMATION IS BASED ON A SOILS REPORT PREPARED BY TERRACON CONSULTING, INC. (PROJECT# ES165069).
2. FLOOR LIVE LOAD = 100 PSF
3. PRE-ENGINEERED TRUSS DESIGN LOADS:
   - TOP CHORD:
     - DEAD LOAD = 10 PSF + TRUSS WEIGHT
     - LIVE LOAD = 20 PSF
   - BOT CHORD:
     - DEAD LOAD = 5 PSF + TRUSS WEIGHT
     - LIVE LOAD = 10 PSF (60 PSF @ ACCESS LOCATIONS)
     - MECH LOAD = 200# CONCENTRATED LOAD @ ANY LOCATION ALONG BOT CHORD
4. WIND LOADS:
   - BASIC WIND SPEED (V, 3 SEC GUST) = 110 MPH
   - OCCUPANCY CATEGORY = IV
   - WIND IMPORTANCE FACTOR (I_W) = 1.15
   - UPWIND EXPOSURE CATEGORY = B
   - INTERNAL PRESSURE COEFF. (GC_{PI}) = ±0.18
   - COMPONENTS & CLADDING NET DESIGN PRESSURES (P_{NET} PER ASCE 7-10, METHOD 1)
     - ROOF COMPONENTS & CLADDING DESIGN PRESSURES:
       - MAIN ROOF = -55.1 PSF, +13.1 PSF (BASED ON 20 SF AREA)
       - OVERHANG = -70.8 PSF
     - WALL COMPONENTS & CLADDING DESIGN PRESSURES = -33.5 PSF, + 25.0 PSF (BASED ON 10 SF AREA)
5. SEISMIC DESIGN CRITERIA:
   - OCCUPANCY CATEGORY = IV
   - SEISMIC IMPORTANCE FACTOR (I_E) = 0.127
   - S_S = 0.127 S_1 = 0.067
   - SITE CLASS = D
   - S_{DS} = 0.135 S_{D1} = 0.107
   - BASIC SEISMIC-FORCE-RESISTING SYSTEM (PER ASCE 7-10 TABLE 12.2-1 OR 12.14-1):
     - BEARING WALL SYSTEM - LATER MEDIATE REINFORCED MASONRY SHEAR WALLS
   - RESPONSE MODIFICATION FACTOR (R) = 3.5
   - SEISMIC RESPONSE COEFF. (C_S) = 0.059
   - SEISMIC DESIGN CATEGORY = C
   - DESIGN BASE SHEAR = 3.4 K
   - ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE

FOUNDATION NOTES

1. STEP FOOTINGS DOWN BELOW MECHANICAL, ELECTRICAL, OR PLUMBING LINES AS REQUIRED TO AVOID INTERFERENCE. SEE TYP FOOTING STEP DETAIL. COORDINATE W/ OTHER TRADES. PROVIDE PIPE SLEEVE TWO PIPE SIZES GREATER THAN THE PIPE PASSING THROUGH THE WALL.
2. WHERE UTILITY LINES PASS UNDER A FOOTING, PROVIDE RELIEVING ARCH FOR PROTECTION.

CONC SLAB NOTES

1. SIDEWALK SLABS SHALL BE 3000 PSI, 4" THICK CONC REINF W/ 6x6-W1.4xW1.4 WWF @ CENTER OF SLAB. FLOOR SLAB SHALL BE 3000 PSI, 6" THICK CONC. REINFORCED W/#4'S @18" o.c. EA WAY CTR. OF SLAB. SEE PLAN FOR FINISHED FLOOR ELEVATIONS. (REFER TO CIVIL DRAWINGS FOR SIDEWALK, PLANTER, & PAVER LOCATIONS & DETAILS.
2. PROVIDE 4" THICK NO. 57 STONE GRANULAR BASE & VAPOR BARRIER UNDER INTERIOR FLOOR SLAB.
3. CONDUITS & PIPES EMBEDDED IN SLABS:
   - 3.1. SHALL NOT BE LARGER IN OUTSIDE DIM THAN 1/3 THE OVERALL THICKNESS OF SLAB.
   - 3.2. SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS OR WIDTHS ON CENTER.
   - 3.3. MIN SLAB THICKNESS OF 2½" MUST BE MAINTAINED OVER THE EMBEDDED ITEMS.

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DESIGNED:
DRAWN:
CHECKED:
APPROVED:

OE PROJECT NO: OE18132
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ORIGINAL DRAWING SIZE: 36"x24"
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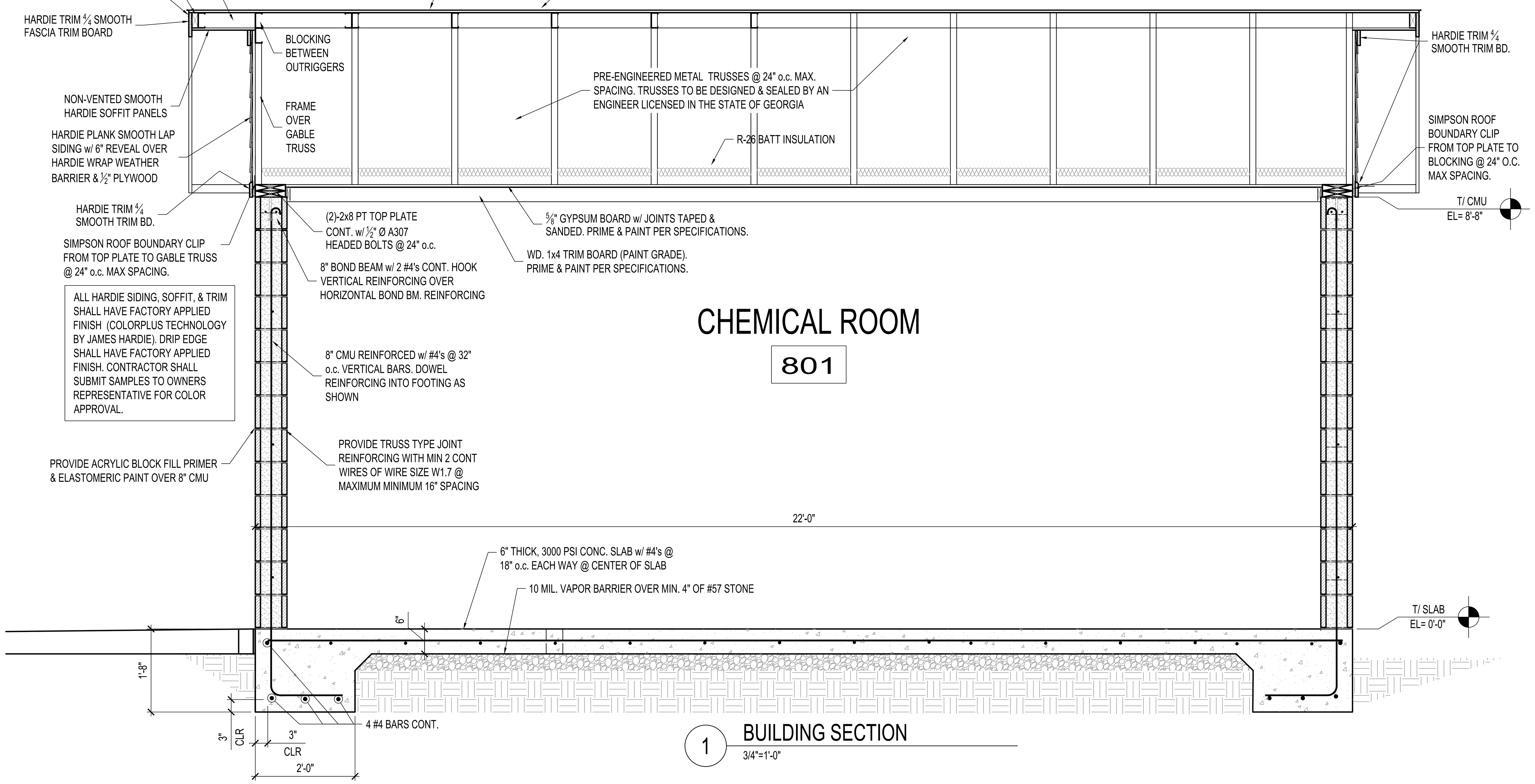
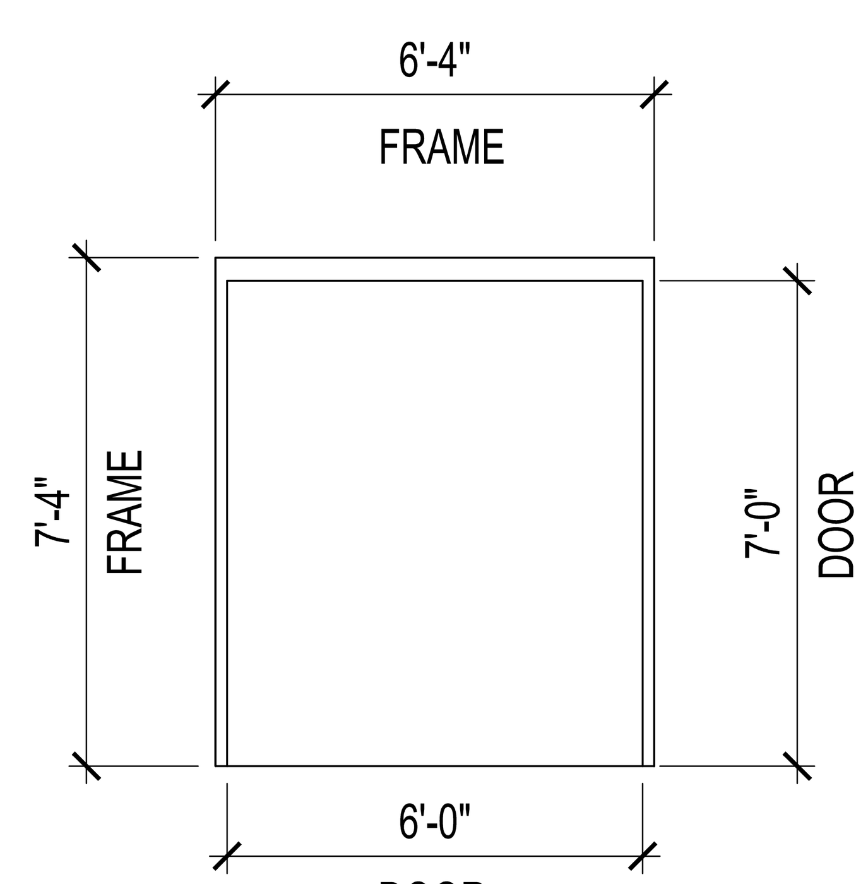
CHEMICAL BUILDING

NOTES, PLANS, & ELEVATIONS

8S-1
SHEET 1 OF 06



1 BUILDING SECTION
3/4"=1'-0"



3 DOOR & FRAME ELEVATION
N.T.S.

FINISH SCHEDULE

ROOM NUMBER	FLOORS	WALLS	CEILING	REMARKS
801	SEALED CONCRETE	PAINTED CMU	PAINTED GYP. BOARD	

DOOR SCHEDULE

DR. #	WIDTH	HEIGHT	THK.	TYPE	MATERIAL	FIRE LABEL	FRAME MTL.	REMARKS
701	3-0	7-0	1 3/4"	CC	FRP		FRP	SEE NOTE FOR MFR.

NOTE: DOOR #801 BY CHEM-PRUF DOOR CO. OR APPROVED EQUAL.

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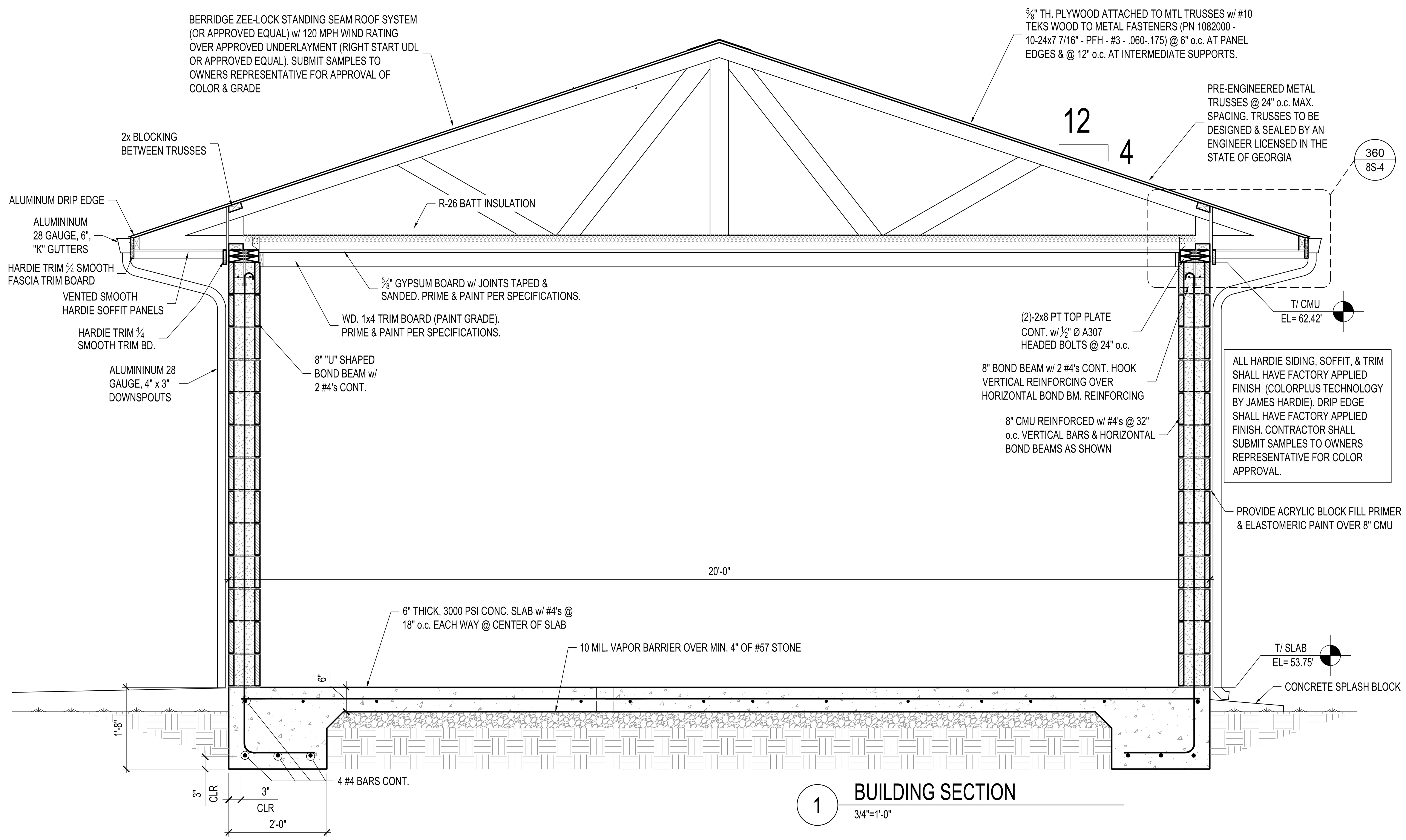
CHECKED:
APPROVED:

CHEMICAL BUILDING
SECTIONS

8S-2
SHEET 2 OF 06



1 **BUILDING SECTION**
3/4"=1'-0"

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GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 27855 RALPH H. BOSWELL
10/10/2019

FOLKSTON TREATMENT PLANT
FOR:
THE CITY OF FOLKSTON
FOLKSTON GEORGIA
CHARLTON COUNTY, GEORGIA

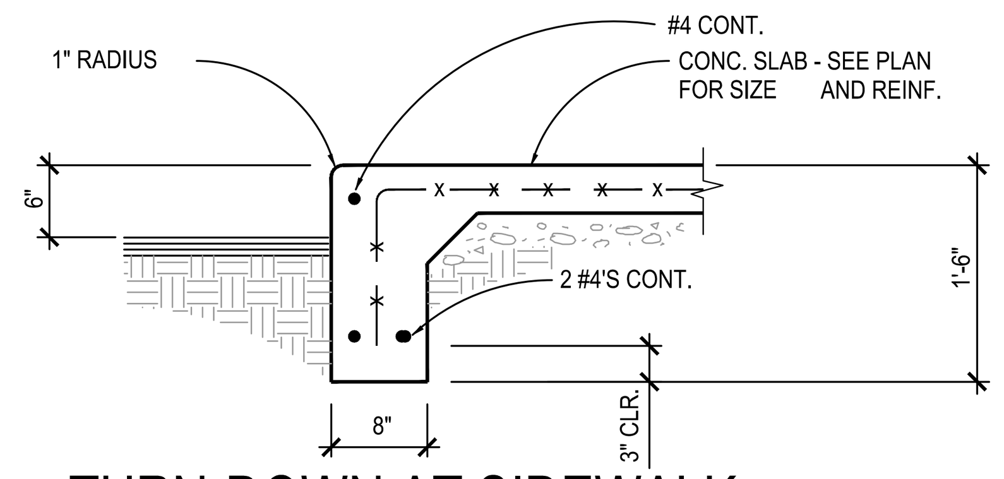
MARK	DATE	BY	DESCRIPTION
	10-10-2019		EPD SUBMITTAL
	07-08-2019		95% SET FOR REVIEW
	06-14-2019		60% SET FOR REVIEW

OE PROJECT NO: OE18132
FILE NAME: OE18132-8S-CORE
ORIGINAL DRAWING SIZE: 36"x24"
DATE: 6-14-2019

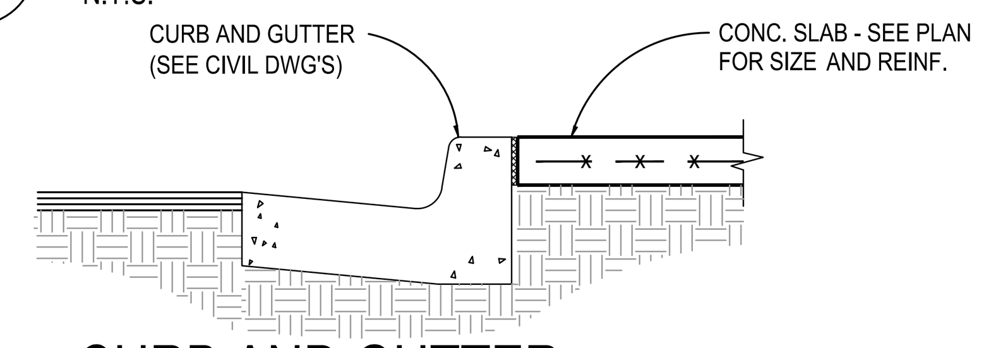
DESIGNED:
DRAWN:
CHECKED:
APPROVED:

CHEMICAL BUILDING
SECTIONS

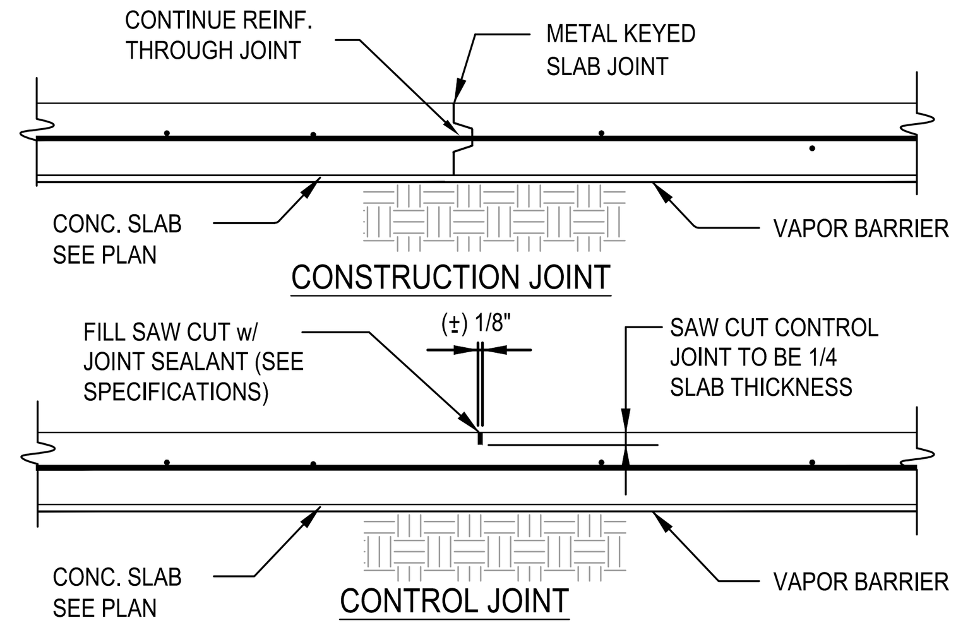
8S-3
SHEET 3 OF 06



341 TURN-DOWN AT SIDEWALK
N.T.S.



342 CURB AND GUTTER
N.T.S.



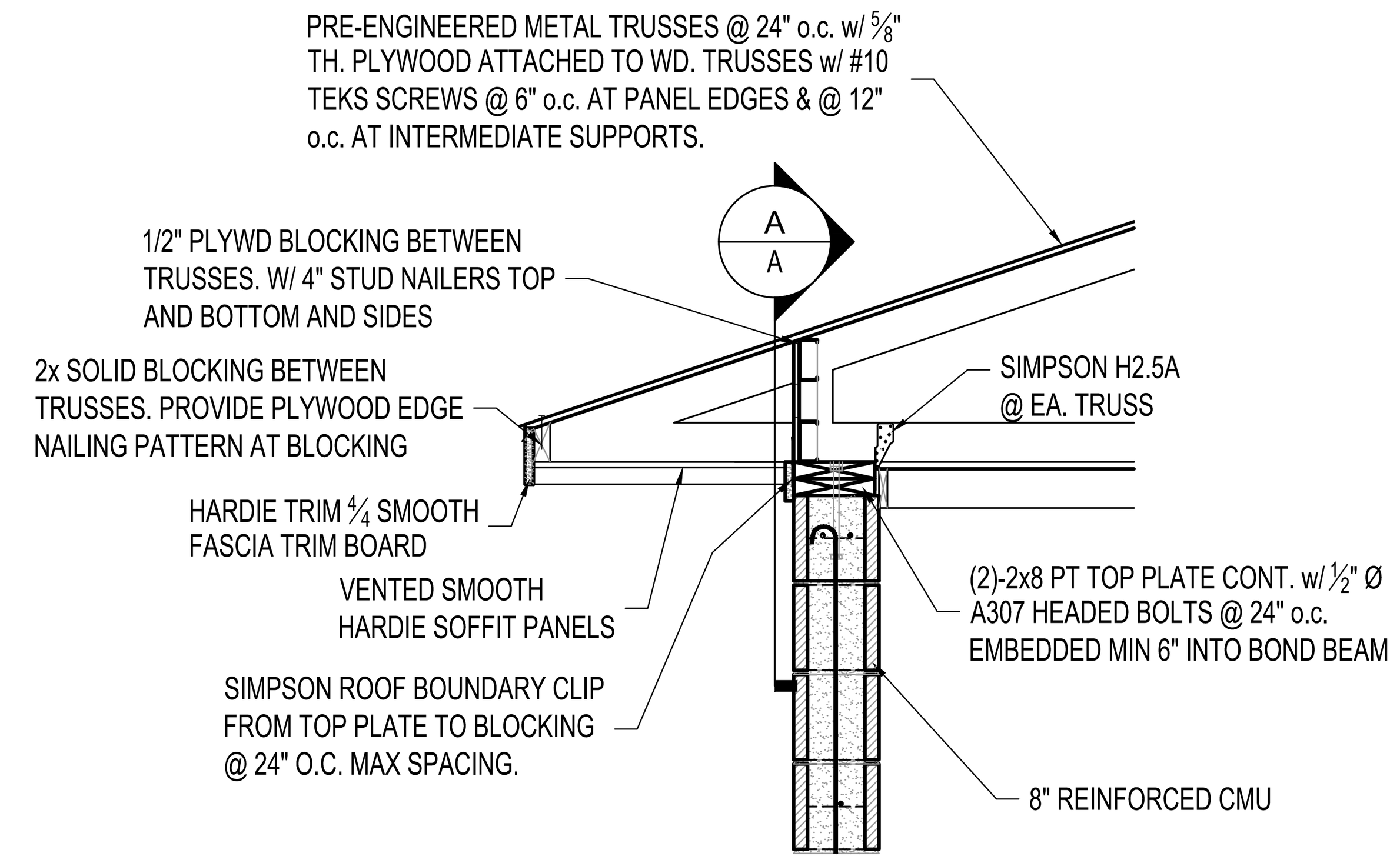
NOTES:

SAW CUT AS SOON AS SLAB CAN SUPPORT WEIGHT.

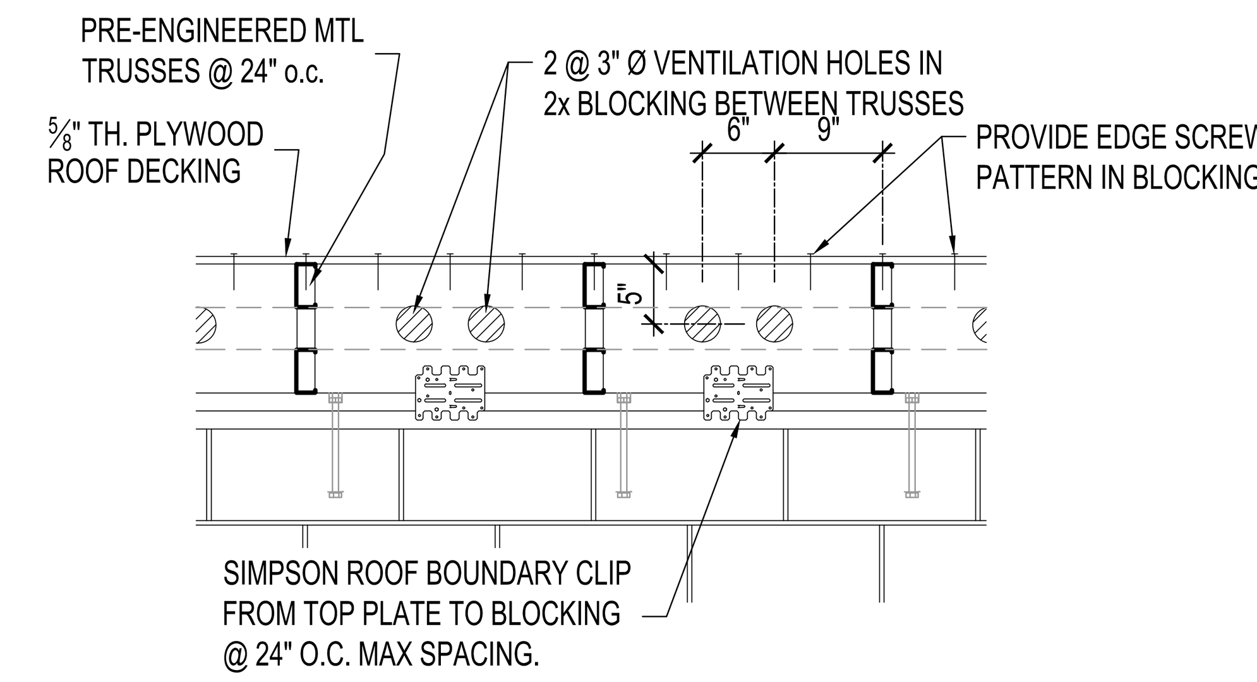
CONTROL JOINTS MAY BE REPLACED WITH CONSTRUCTION JOINTS.

CONTROL JOINTS SHALL BE SPACED AT NO MORE THAN 18'-0" O.C. SLAB AREAS BOUNDED BY THESE JOINTS, SHALL HAVE THE LENGTH NO MORE THAN 2x THE WIDTH.

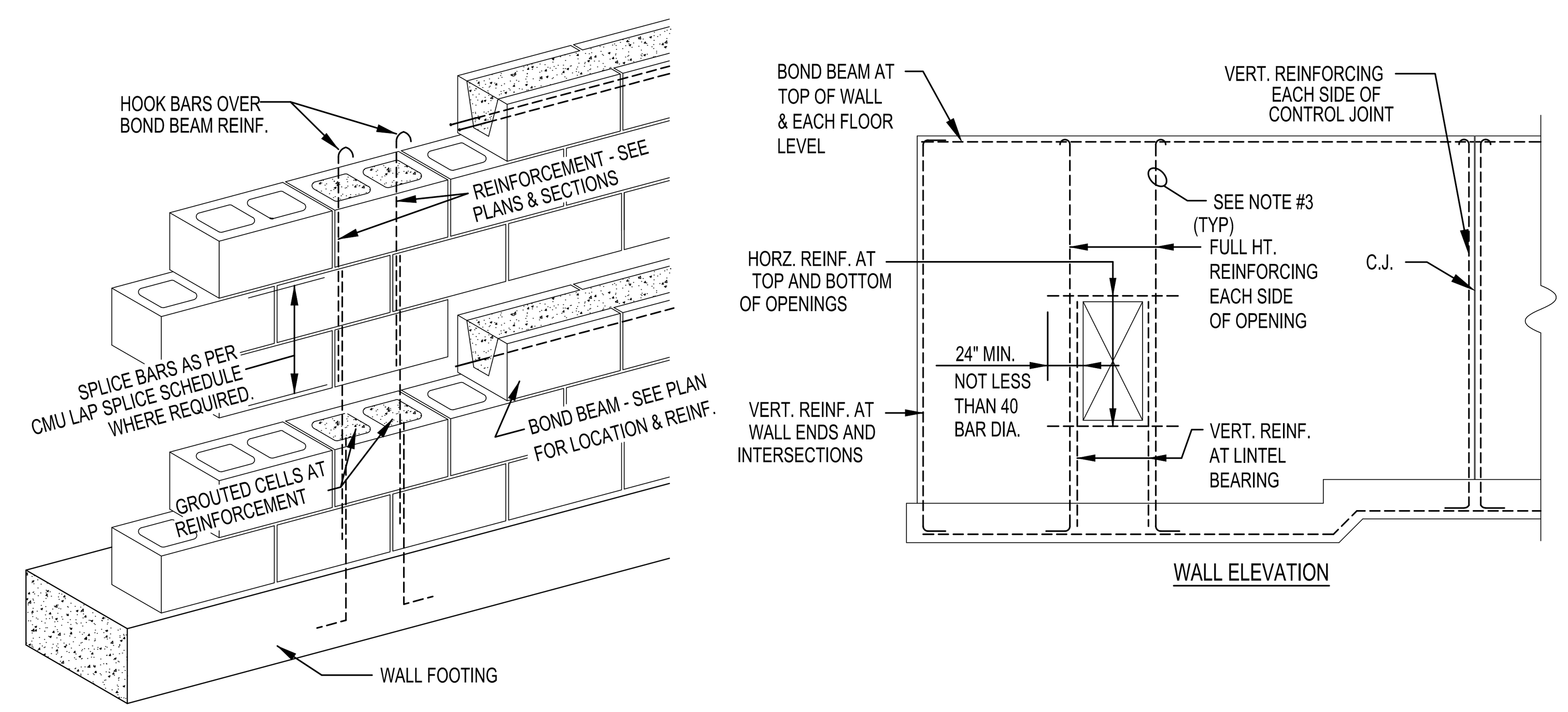
344 6" SLAB JOINT DETAILS
N.T.S.



360 TRUSS TO WALL CONNECTION DETAIL
N.T.S.



A/A SECTION A-A
N.T.S.



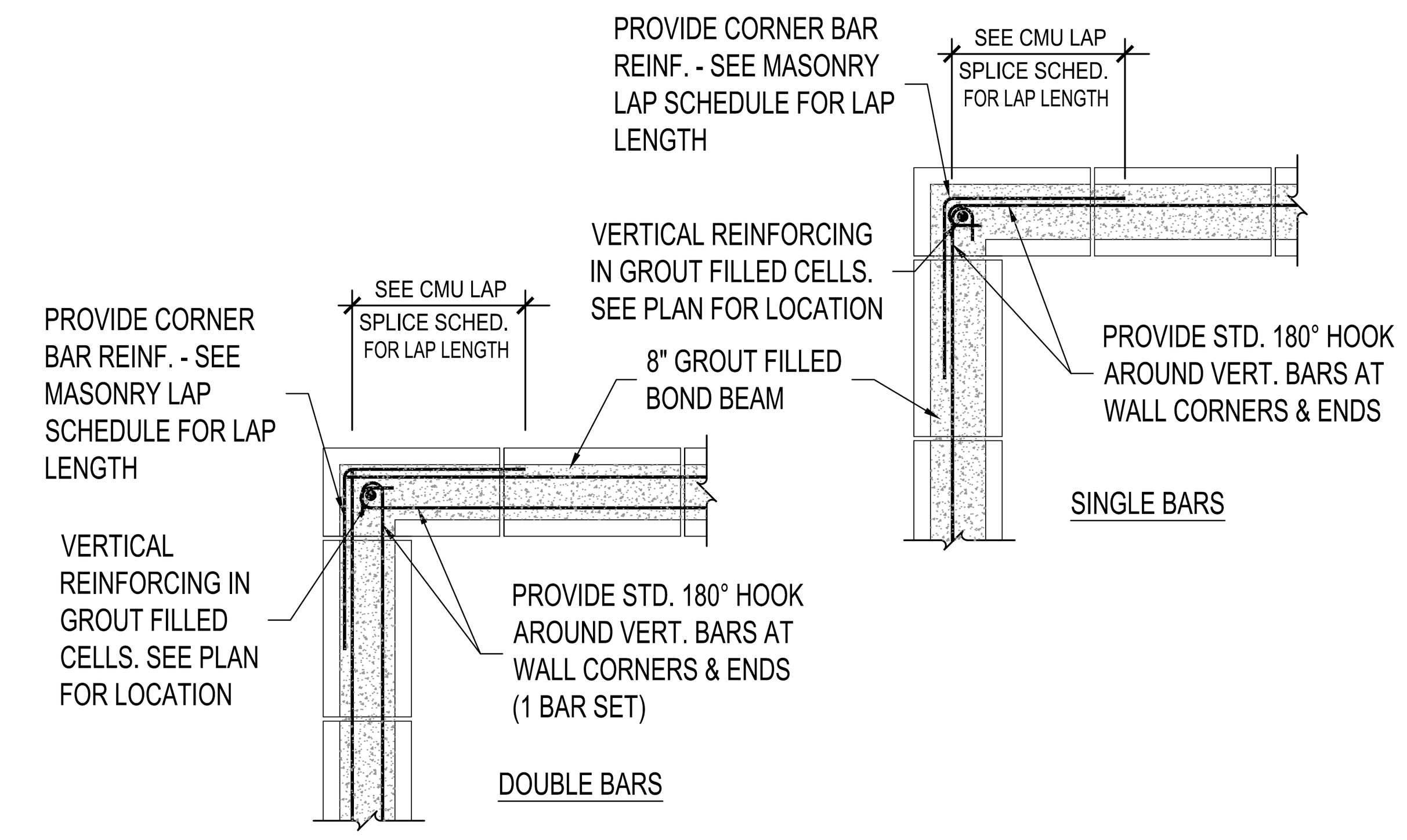
LOW LIFT GROUTING PROCEDURE:

1. CONSTRUCT WALL TO HEIGHT OF 4'-0". ALLOW MORTAR TO SET SUFFICIENTLY TO WITHSTAND GROUT PRESSURE.
2. INSPECT UNITS FOR ALIGNMENT. CLEAN OUT CELLS TO BE FILLED.
3. LIGHTLY WET THE UNITS AND FILL CELLS TO 1 1/2" BELOW TOP COURSE.
4. DELAY 3 TO 5 MINUTES PRIOR TO CONSOLIDATING TO ALLOW WATER TO BE ABSORBED BY MASONRY.

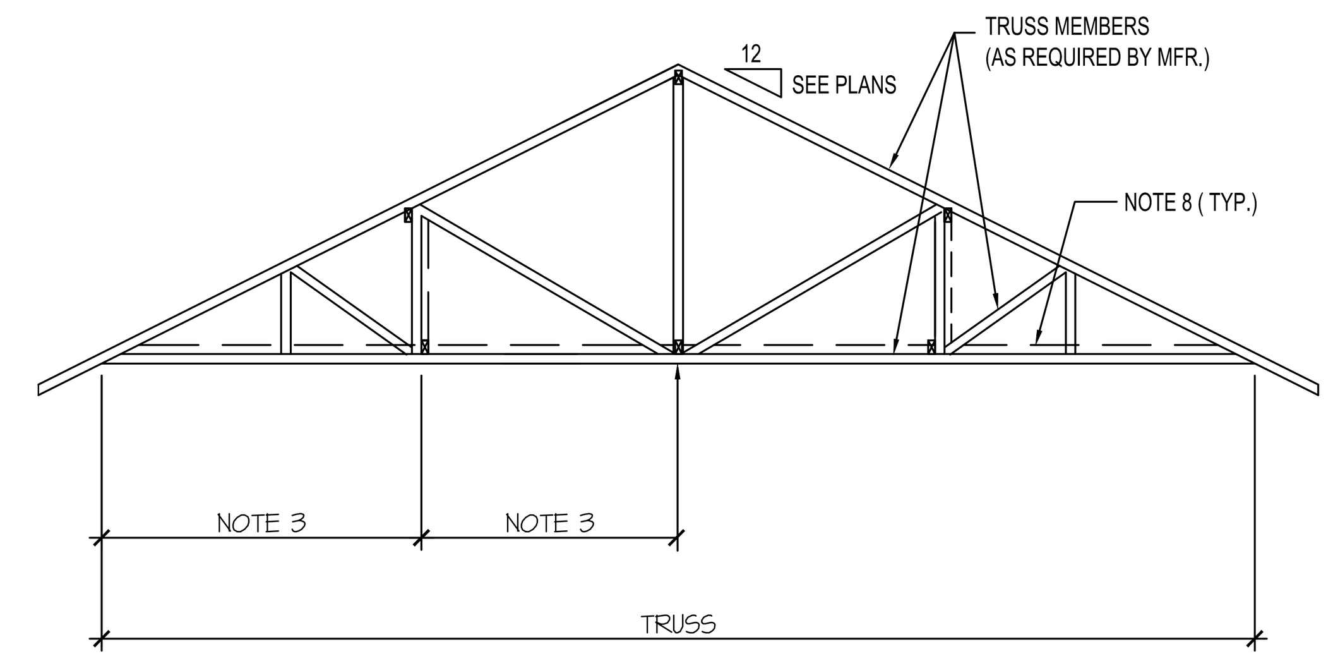
ELEVATION NOTES:

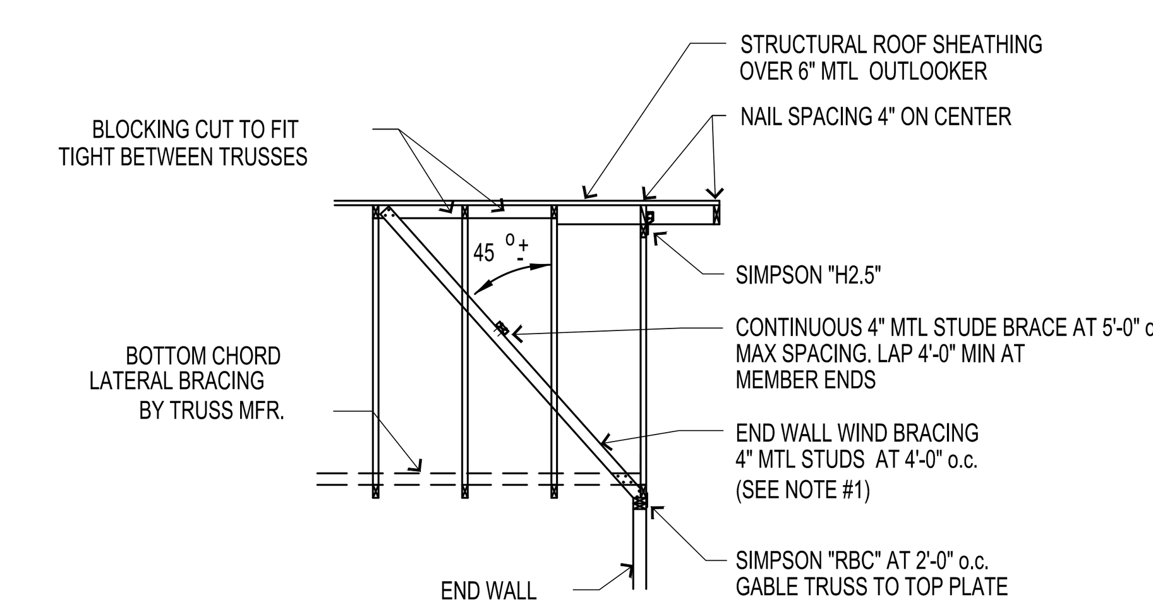
1. REINFORCING SHOWN SHALL BE MINIMUM #4 RE-BAR UNLESS SHOWN OTHERWISE ON PLANS AND DETAILS.
2. BOND BEAM REINFORCING SHOWN SHALL BE DISCONTINUED AT CONTROL JOINTS.
3. PROVIDE 4" x 4" OPENING IN BOTTOM OF BOND BEAM FOR PASSAGE OF VERTICAL REINFORCING IN CMU BOND BEAM. PROVIDE 1" HOLE IN BOTTOM OF PRECAST LINTEL FOR PASSAGE OF VERT REINF.

370 REINFORCED MASONRY CONSTRUCTION & REINFORCING
N.T.S.



375 CMU CORNER WALL DETAIL
N.T.S.





SECTION at GABLE END

1. END WALL WIND BRACING MAY BE OMITTED IF GYPSUM BOARD DIAPHRAGM IS NAILED TO TRUSS BOTTOM CHORD.

1. TRUSS AS SHOWN DOES NOT REPRESENT ACTUAL TRUSS DESIGN OR LAYOUT. SECTION SHOWN IS INTENDED FOR PERMANENT BRACING REFERENCE ONLY. SEE ARCHITECTURAL DRAWINGS FOR TRUSS CONFIGURATION.

2. TEMPORARY BRACING FOR ERECTION PURPOSES IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

3. MAXIMUM HORIZONTAL DISTANCE BETWEEN VERTICAL DIAGONAL BRACING SHALL BE 8'-0". BRACING MEMBERS BRACING SHALL BE 2x4 MIN.

4. 3 ROWS OF BRACING AS SHOWN IS MINIMUM BRACING REQUIRED.

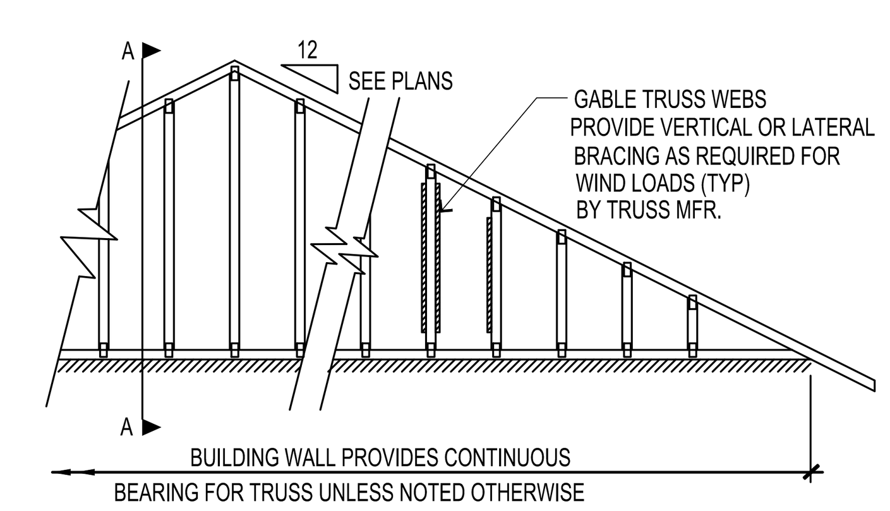
5. LAP LATERAL BRACING OVER AT LEAST TWO TRUSSES.

6. USE 16d NAILS TO ATTACH LATERAL BRACING AT EACH TRUSS.

7. PROVIDE VERTICAL X-BRACING AT EACH END FOR NOT LESS THAN 3 TRUSSES AT FIRST PANEL POINT FROM EACH END AND 5 TRUSSES AT INTERIOR PANEL POINTS.

8. PROVIDE BOTTOM CHORD HORIZONTAL V-BRACING AT EACH END ENGAGING NOT LESS THAN 5 TRUSSES. PROVIDE ADDITIONAL DIAGONAL BRACING AT INTERVALS NOT TO EXCEED 20 FEET.

9. FOR PURPOSES OF BRACING, DOUBLE TRUSSES SHOULD BE TREATED AS A SINGLE TRUSS.



380 PERMANENT TRUSS BRACING DETAIL
N.T.S.

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CHEMICAL BUILDING
DETAILS

8S-4
SHEET 4 OF 06

DOOR SCHEDULE

DOOR NUMBER	DOOR LOCATION	DOORS TYPE	DOORS SIZE WIDTH	DOORS SIZE HEIGHT	DOORS SIZE THICK	DOORS MAT'L	DOORS FINISH	FRAME SIZE	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	FRAME HEAD	FRAME JAMB	FRAME THR.	LABEL	HDW. SET (NOTE 1)	REMARKS	DOOR NUMBER
801	CHEMICAL METER'G	B	PR3'-0"	7'-0"	1-3/4"	FIBERGLASS	PAINT	7-1/4"	1	H.M.	PAINT	1/A-5	2/A-5	———		1		601
																		602
																		603

NOTES:

1. ALL DOOR HARDWARE SHALL BE OPERABLE LEVER TYPE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST TO OPERATE.

ROOM FINISH SCHEDULE

KEY: (X) -

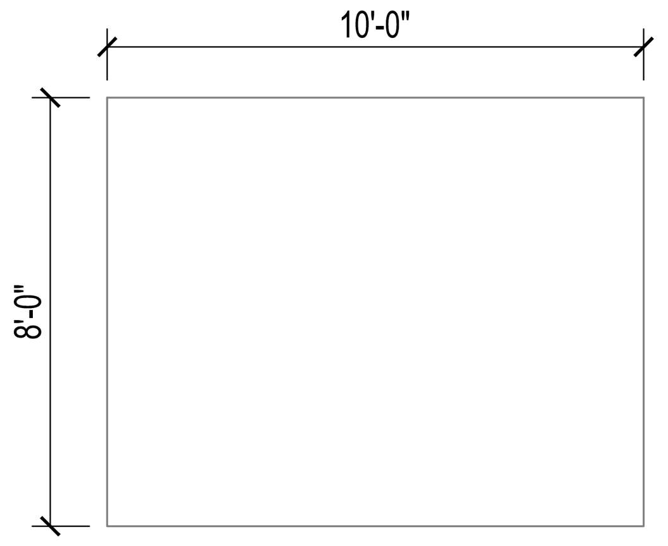
NO.	NAME	FLOOR: SEALED CONCRETE	BASE: NONE	WALLS: PAINTED CMU -P1	CEILING: PAINTED GYPSUM BD	CEILING: HEIGHT	NOTES
	BLOWER ROOM	(X)	(X)	(X)	(X)	8'-8"	-

ROOM FINISH NOTES

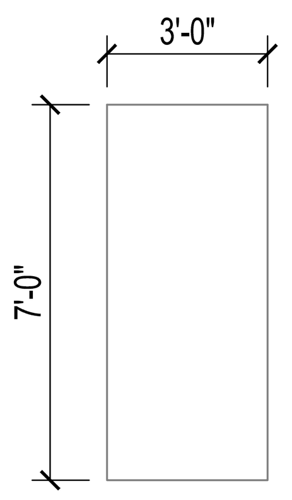
LIST OF FINISHES

INTERIOR PAINT

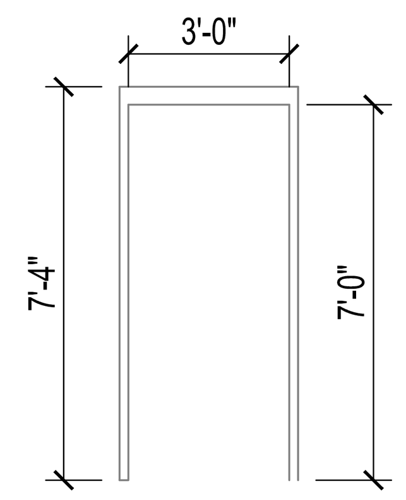
ITEM	MANUFACTURER	SPECIFICATION	COLOR NUMBER	COLOR	REMARKS
P-1	SHERWIN WILLIAMS	FLAT	-	BY OWNER	WALL
P-2	SHERWIN WILLIAMS	FLAT	-	BY OWNER	CEILING



A



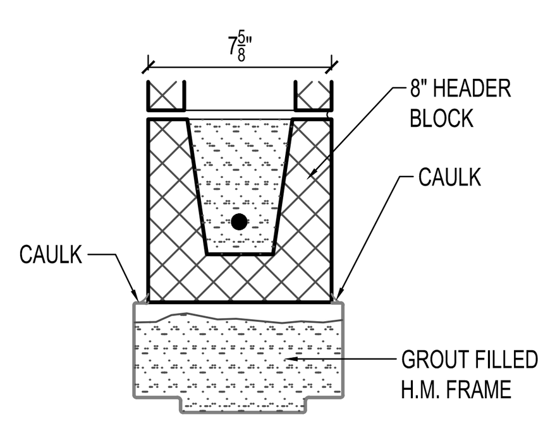
B



1

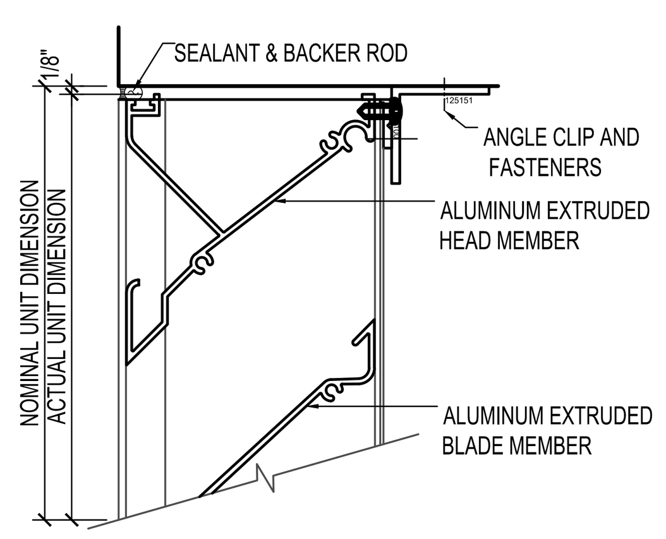
DOOR AND LOUVER DETAILS

DOOR AND LOUVER DETAILS

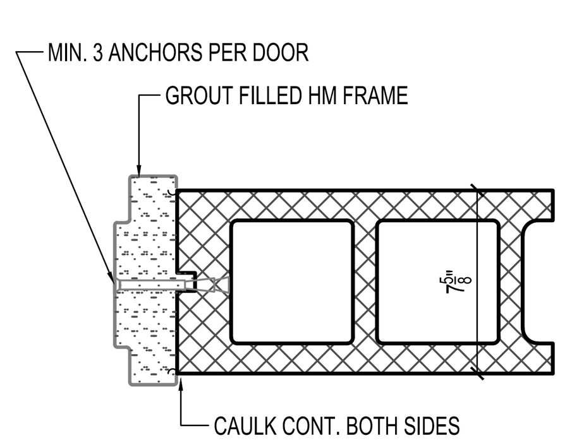


H-1

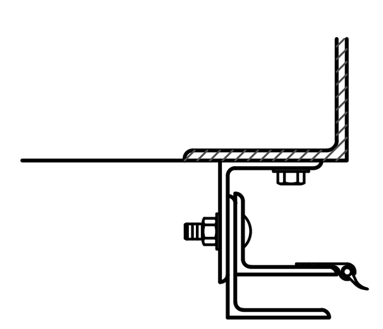
H-2

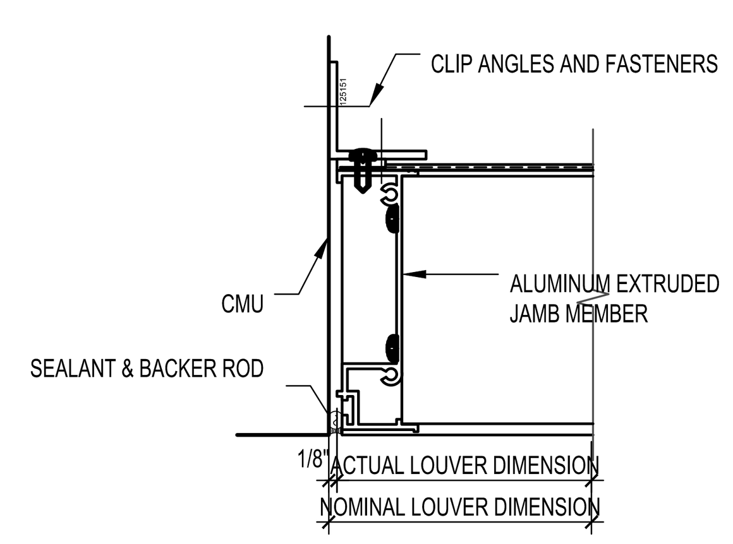


H-3 TYP. LOUVER

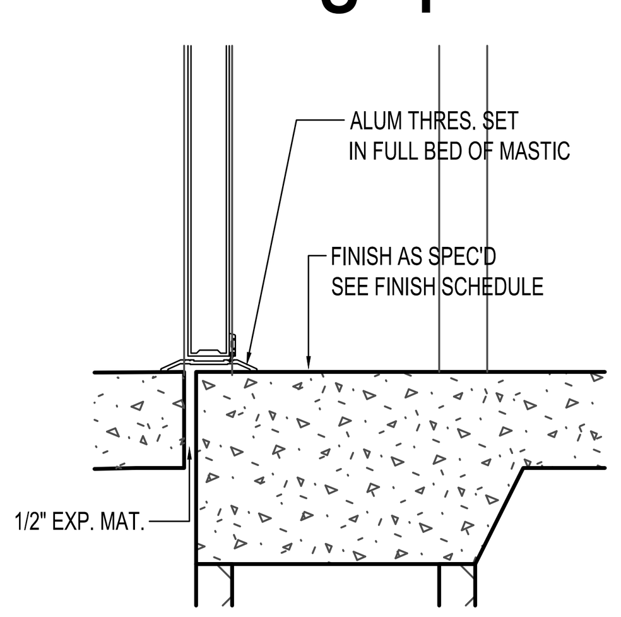


J-1


J-2

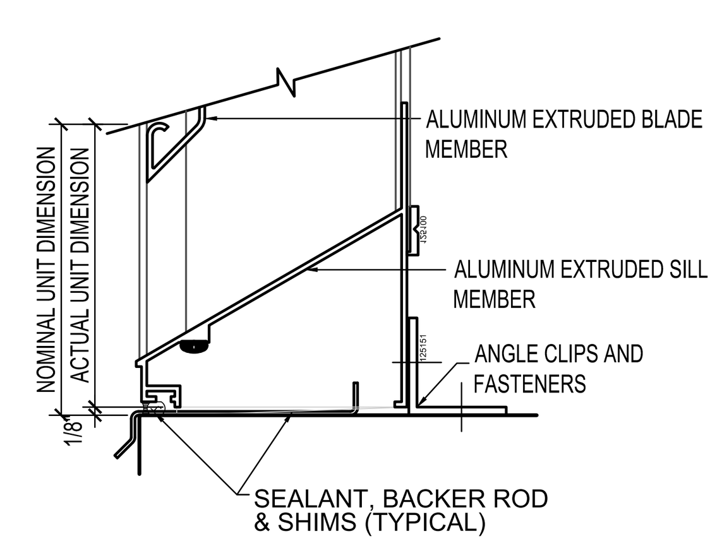


J-3 TYP. LOUVER



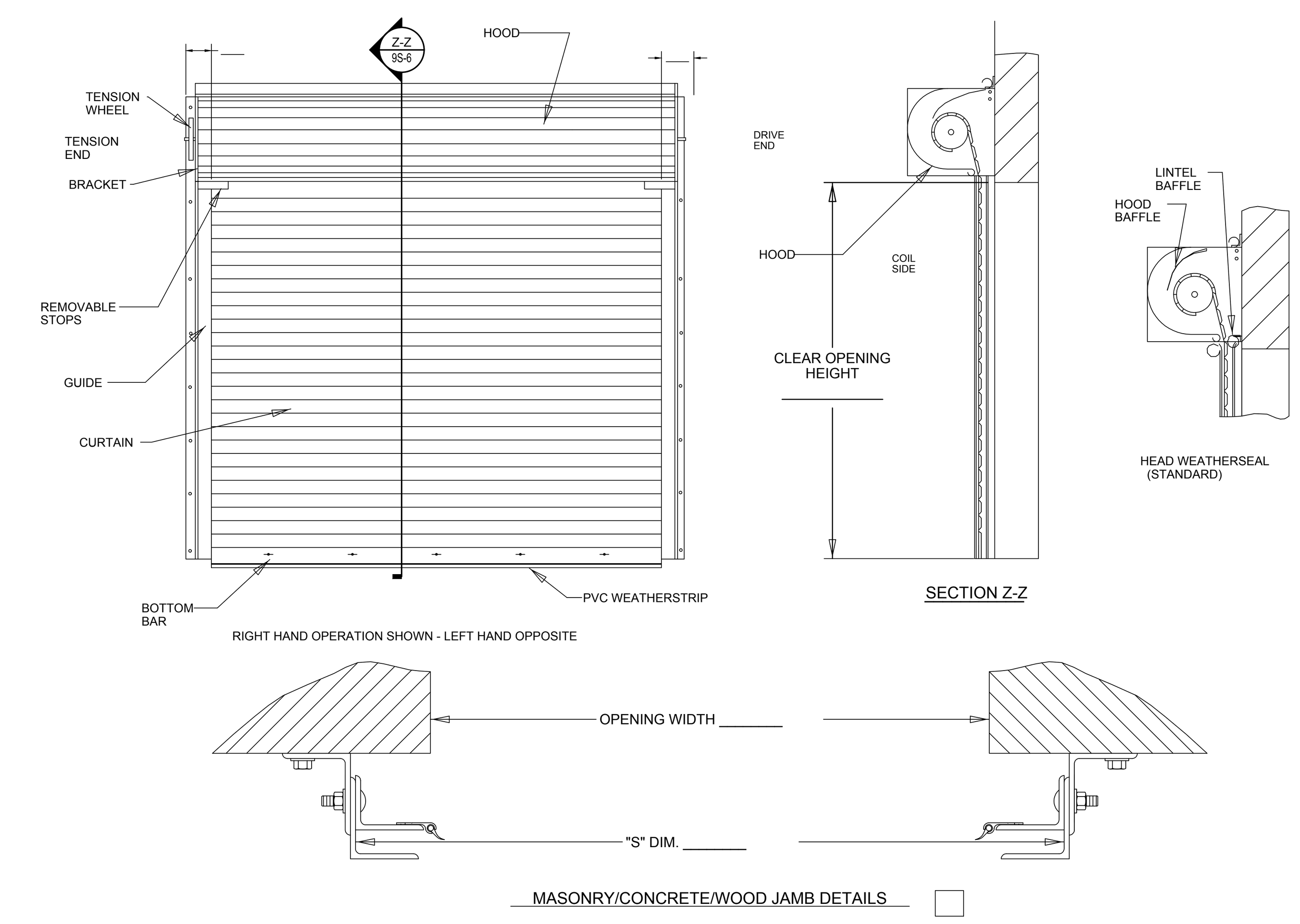
S-1

S-2



S-3 TYP. LOUVER

ROLL UP DOOR DETAIL



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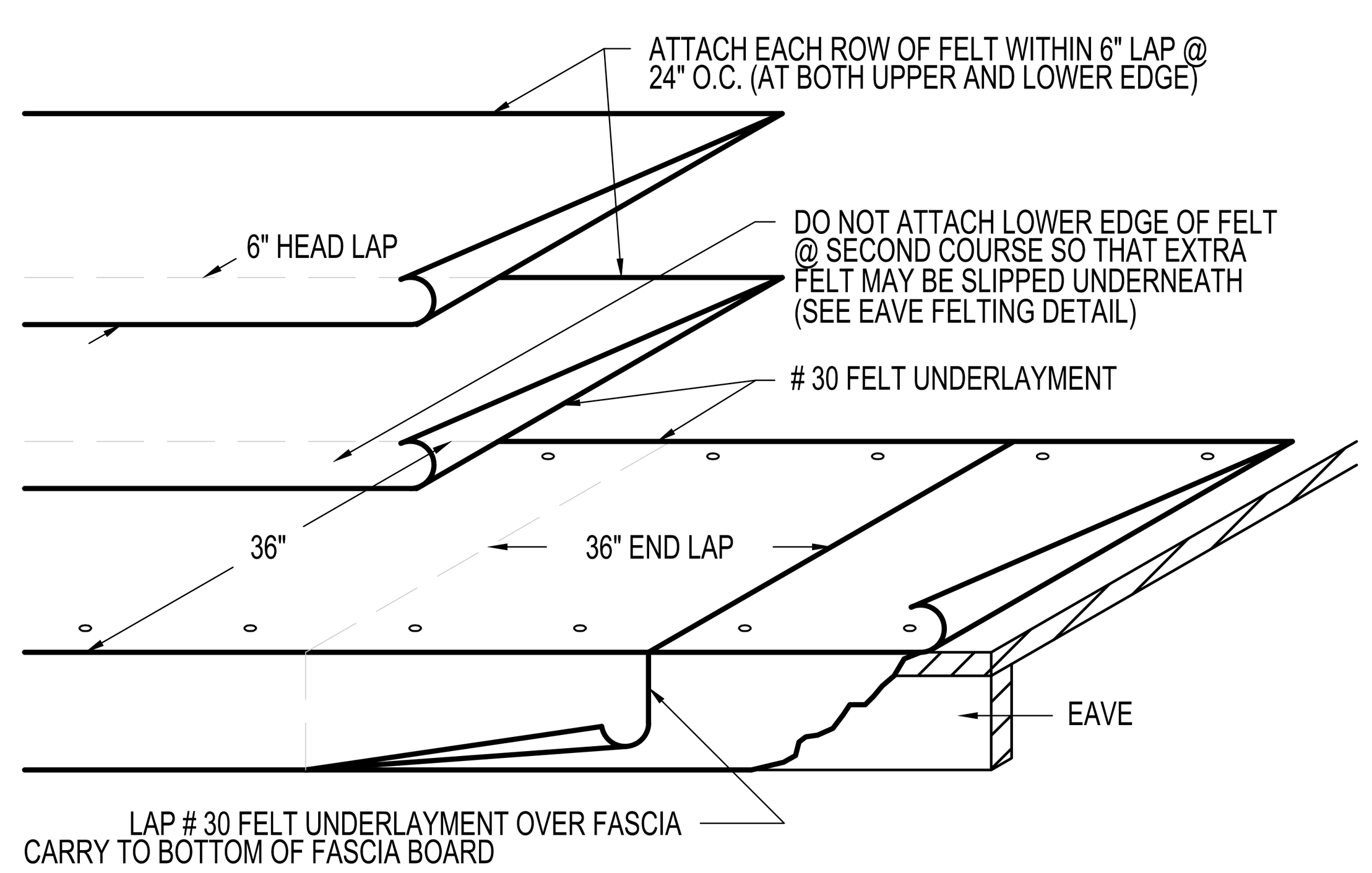
CHEMICAL BUILDING

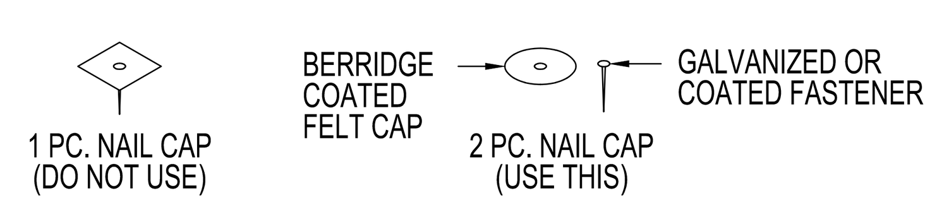
DETAILS & SCHEDULES

8S-5

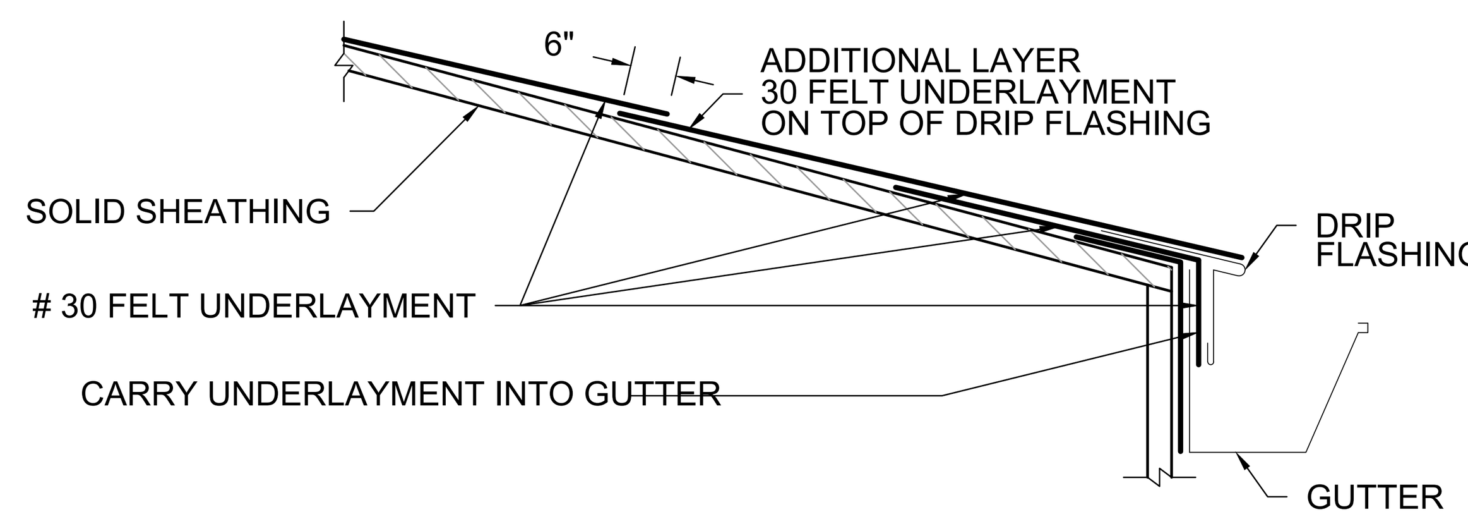
SHEET 5 OF 06



1. CLEAN ROOF SURFACE OF ALL OBJECTS WHICH MAY PUNCTURE OR TEAR FELT UNDERLAYMENT.
2. ATTACH FELT UNDERLAYMENT TO DECK BELOW USING COATED FELT CAPS. FASTENERS MUST BE TOTALLY FLUSH WITH SUBSTRATE. DO NOT USE ONE PIECE NAIL CAPS, AS THESE WILL "READ THROUGH" THE SURFACE.
3. DO NOT FASTEN LOWER EDGE OF FELT @ SECOND COURSE (SEE ABOVE ILLUSTRATION).
4. ALWAYS RUN FELT UNDERLAYMENT HORIZONTALLY STARTING @ THE EAVE AND LAP SHINGLE FASHION.
5. NEVER INSTALL BERRIDGE PRODUCTS OVER FELT UNDERLAYMENT THAT IS NOT LAID HORIZONTAL, FLAT, SMOOTH AND FREE FROM PUNCTURES AND TEARS.
6. DO NOT APPLY PANELS OVER DRY OR BRITTLE FELT (A CONDITION CAUSED BY EXTENDED EXPOSURE TO THE ELEMENTS).
7. DO NOT USE RED ROSIN PAPER UNDER ANY BERRIDGE METAL PRODUCT.



GRACE ICE AND WATERSHIELD OR EQUAL MAY BE USED IN PLACE OF # 30 FELT UNDERLAYMENT. NOTE ICE AND WATERSHIELD MAY BE REQUIRED REFERENCE INSTALLATION INSTRUCTIONS.



EAVE WITH GUTTER

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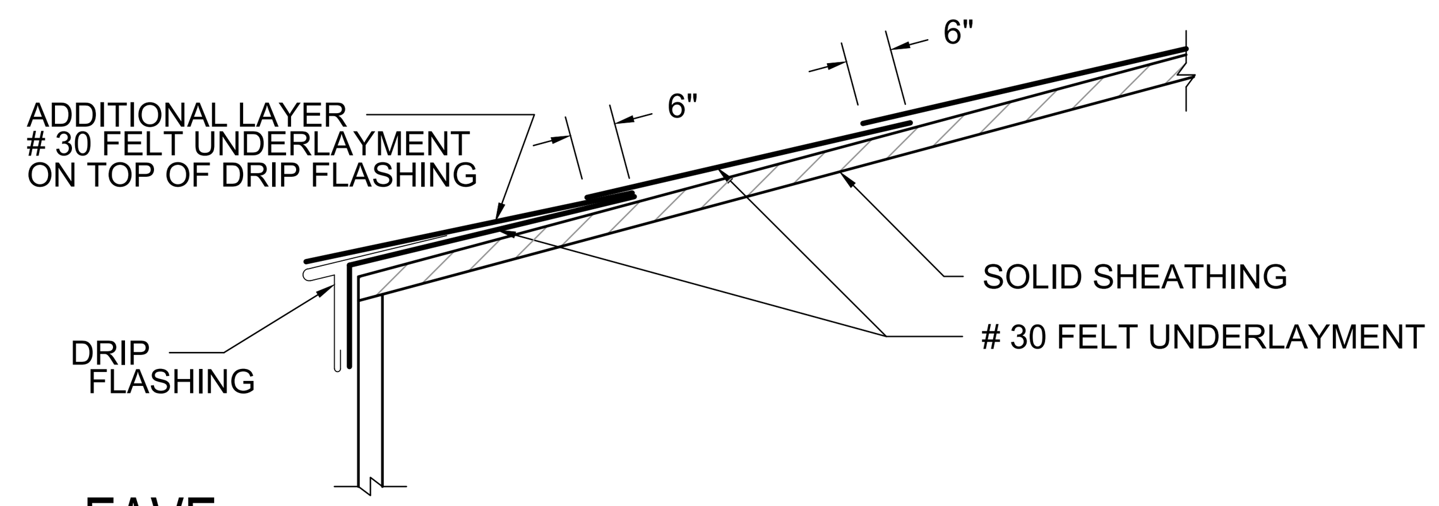
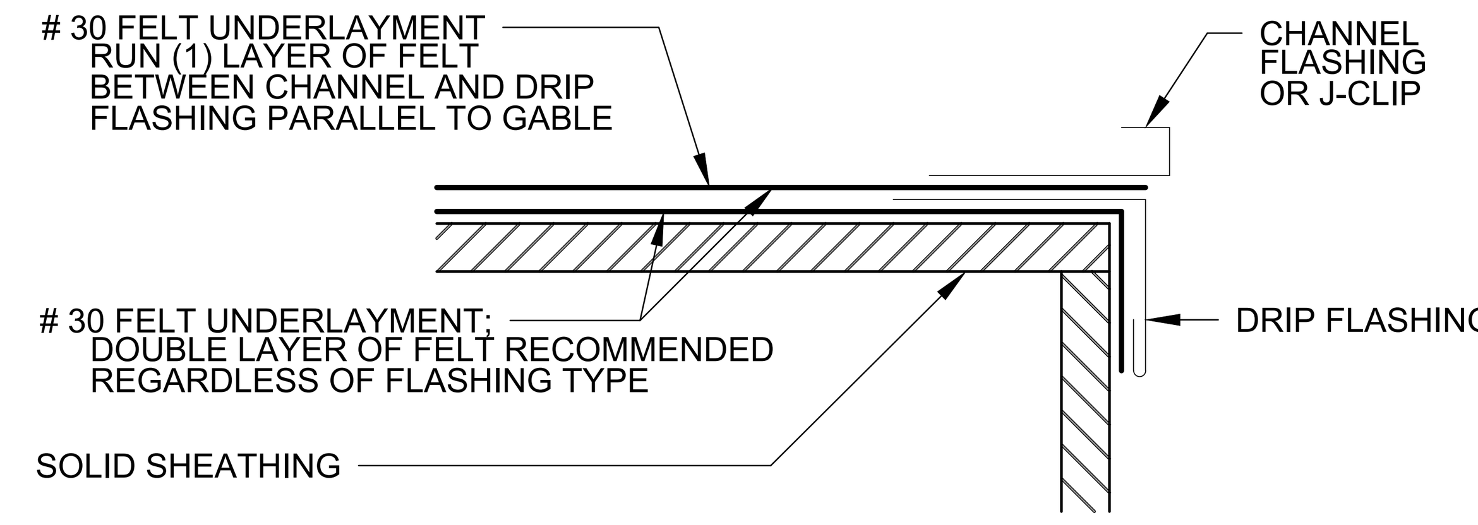


EAVE

EAVE WITH GUTTER EAVE UNDERLAYMENT



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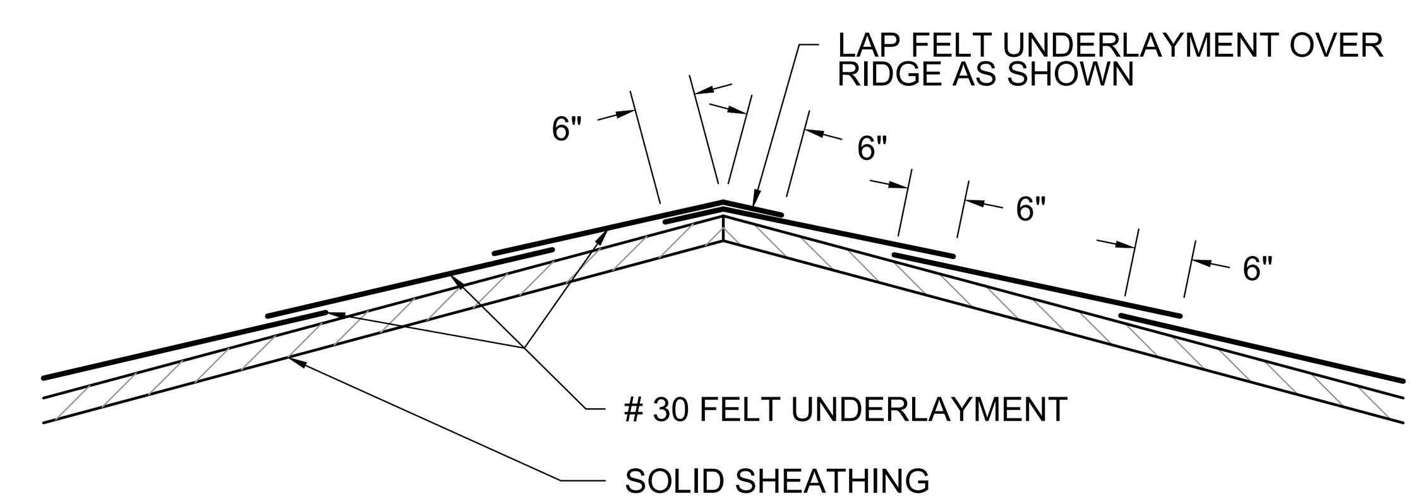
GABLE

GABLE UNDERLAYMENT



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RIDGE

RIDGE UNDERLAYMENT

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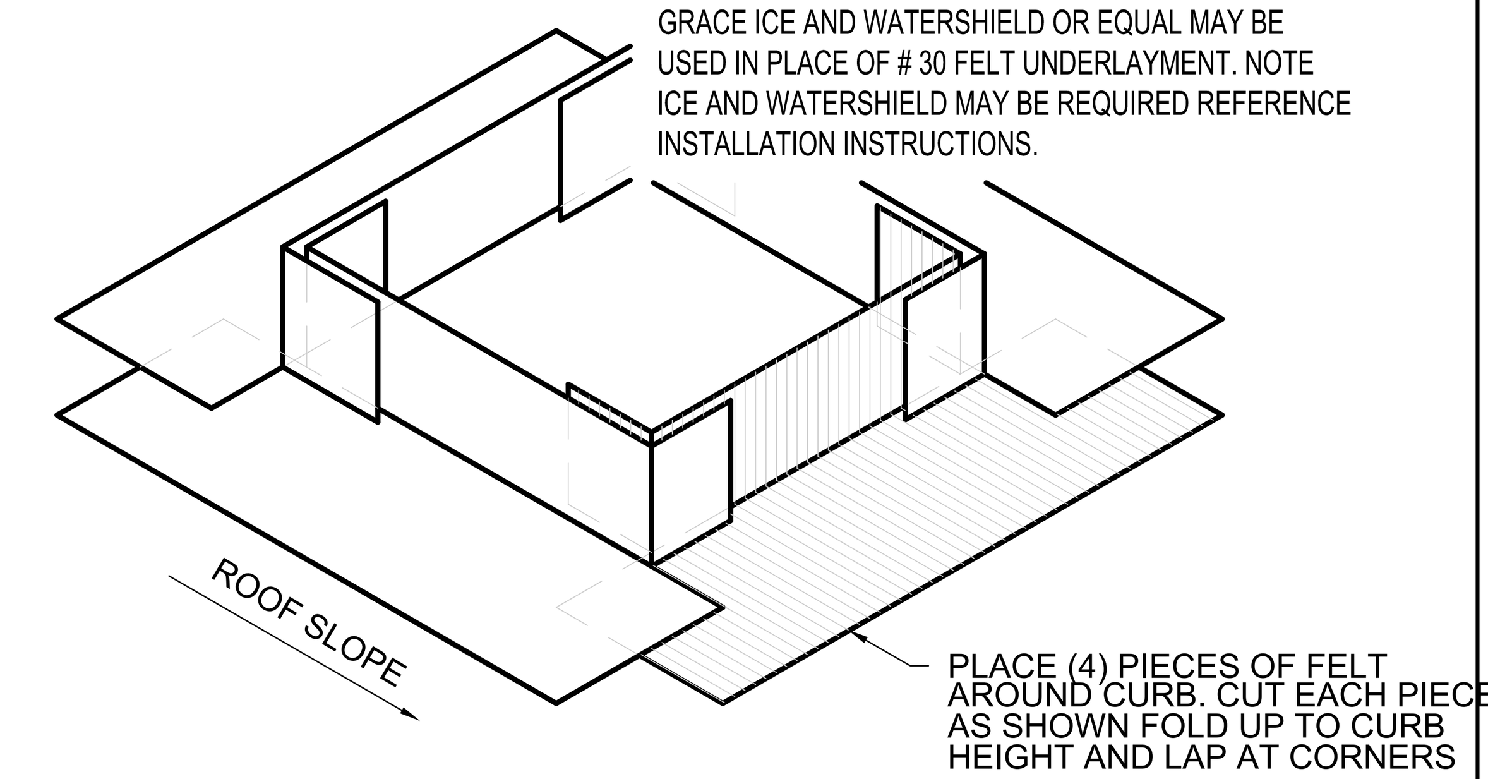
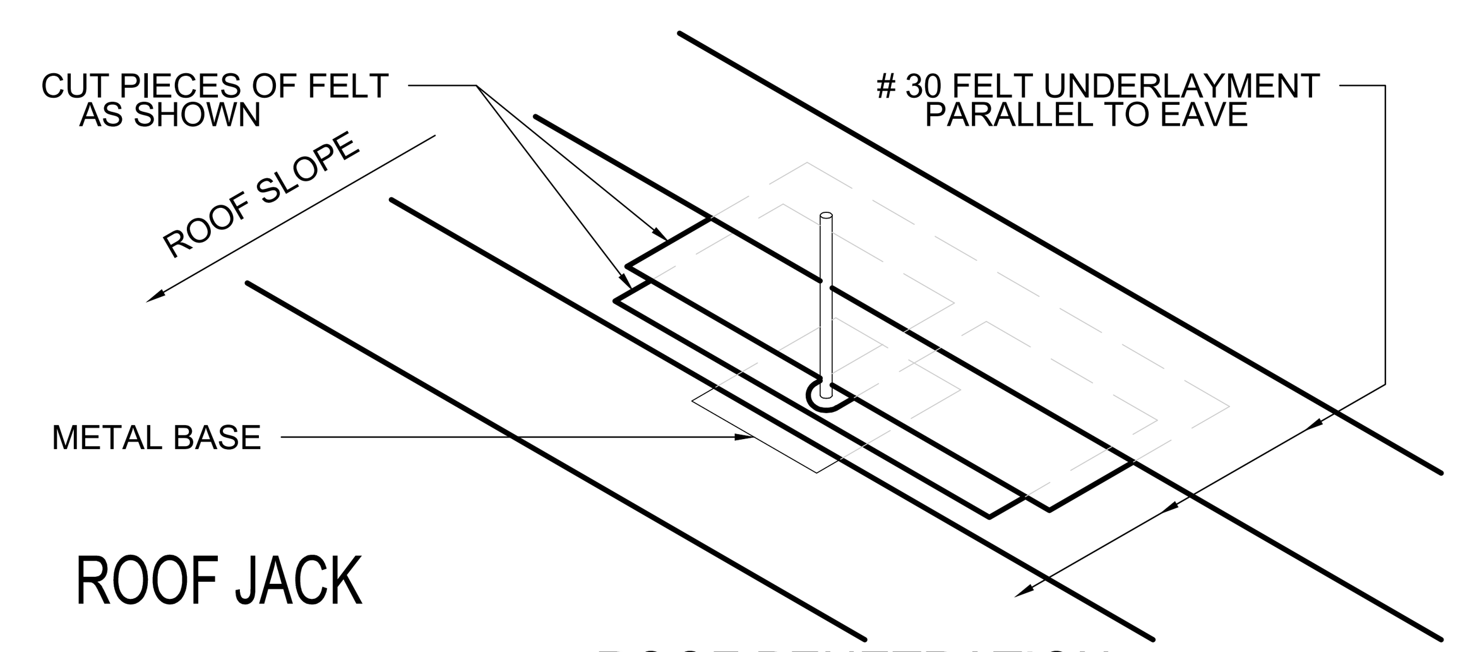


ROOF PENETRATION

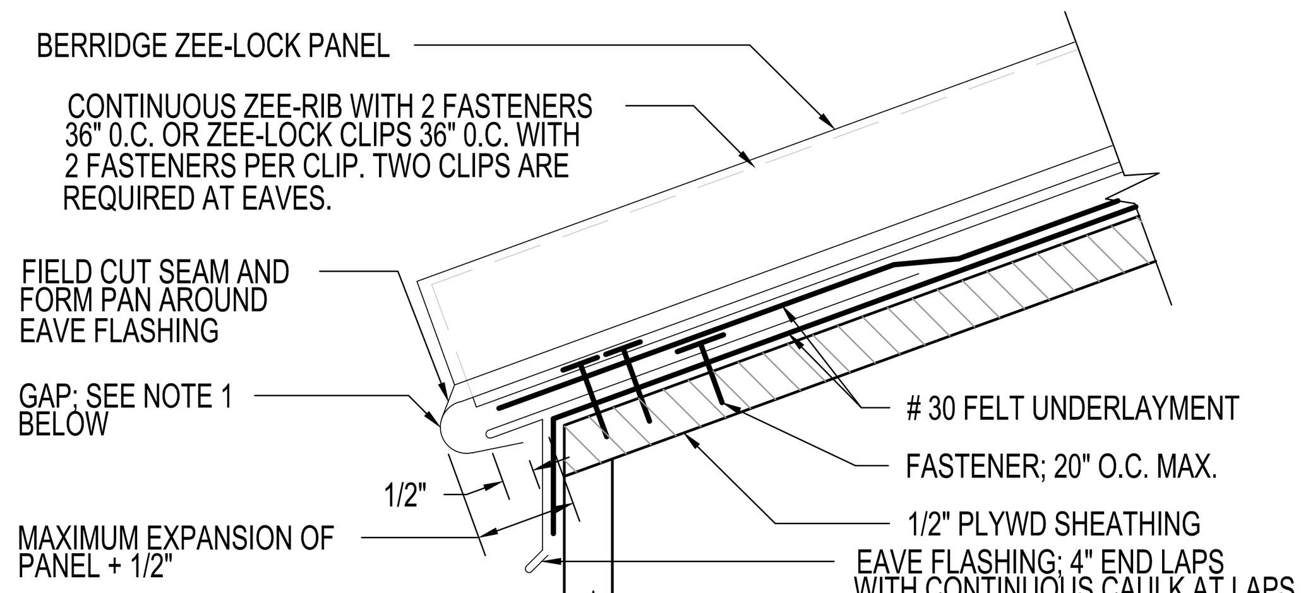
LAP FELT OVER TOP OF BASE. INSULATE BETWEEN DISSIMILAR METALS WITH ROOFING FELT

GRACE ICE AND WATERSHIELD OR EQUAL MAY BE USED IN PLACE OF # 30 FELT UNDERLAYMENT. NOTE ICE AND WATERSHIELD MAY BE REQUIRED REFERENCE INSTALLATION INSTRUCTIONS.



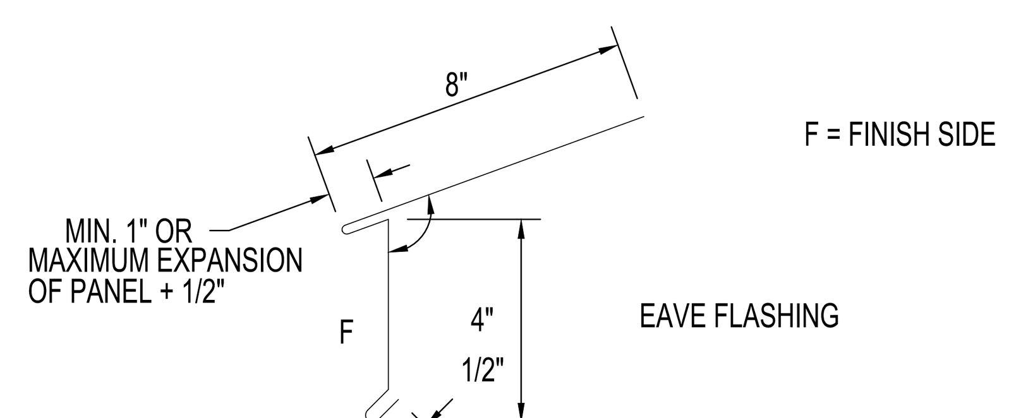
ROOF JACK

ROOF PENETRATION ROOF JACK UNDERLAYMENT

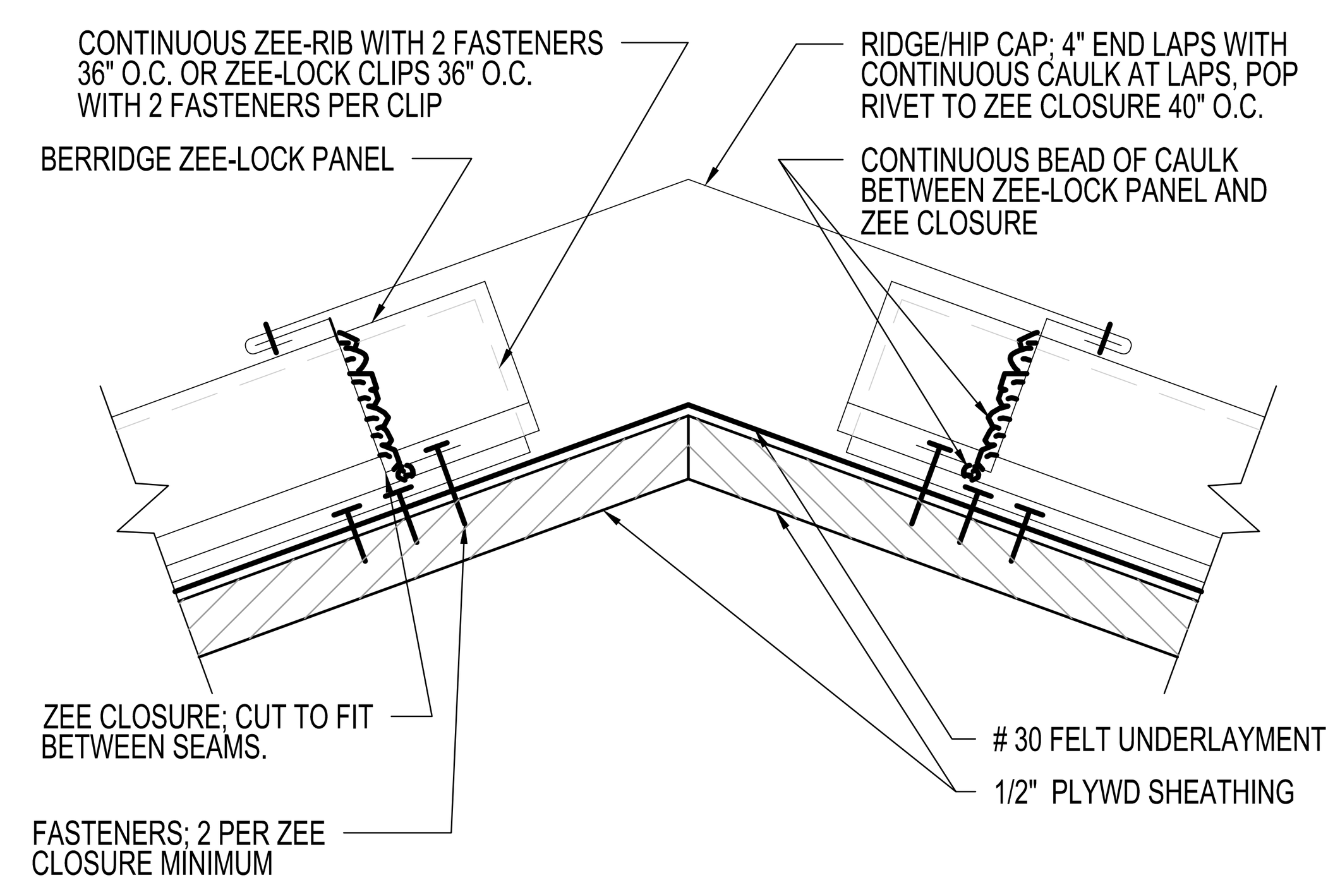


1. THE "GAP" BETWEEN EAVE FLASHING AND PANEL (SEE DETAIL ABOVE) CAN BE INCREASED TO ALLOW FOR LINEAR EXPANSION AND CONTRACTION OF PANELS. NOTE 1/2" OF PAN MUST BE ENGAGED WITH EAVE FLASHING WHEN PANEL HAS EXPANDED TO ITS MAXIMUM LENGTH.
2. GAP BETWEEN EAVE FLASHING AND PANEL MUST BE ADJUSTED TO SUIT TEMPERATURE DURING INSTALLATION.

F = FINISH SIDE

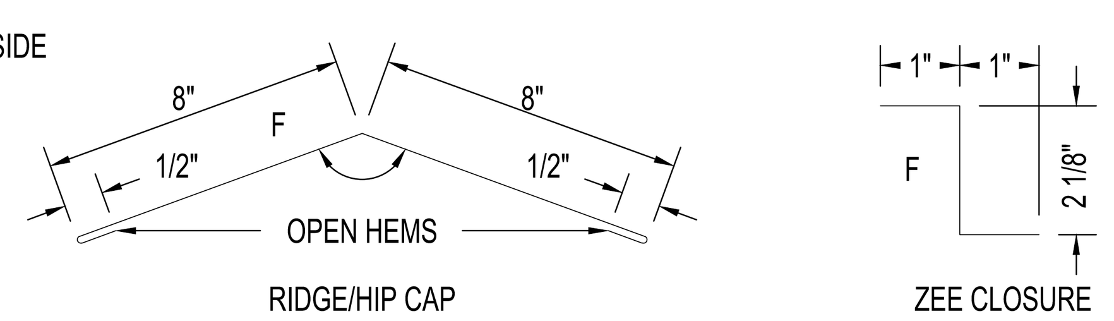


EAVE DETAIL

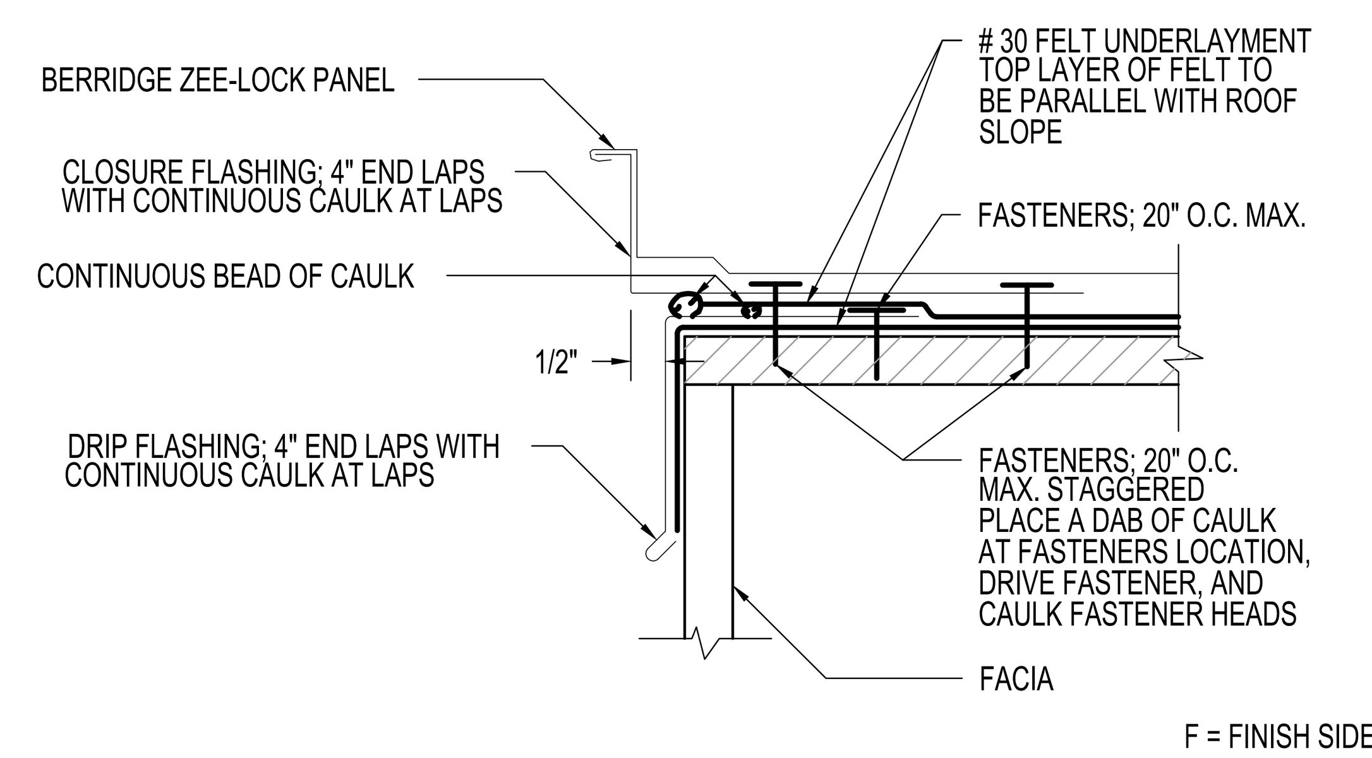


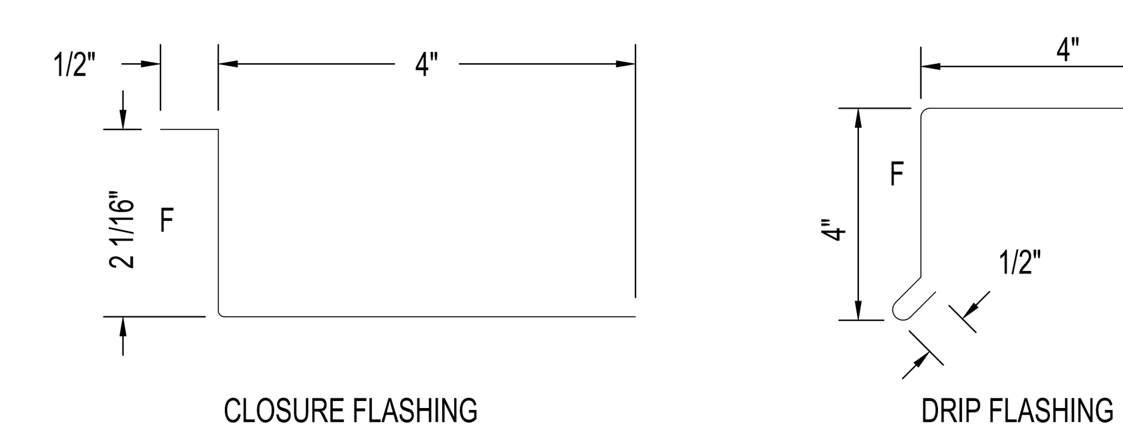
1. FIELD CUT ZEE CLOSURE TO FIT BETWEEN PANEL SEAMS FOR RIDGE.

F = FINISH SIDE

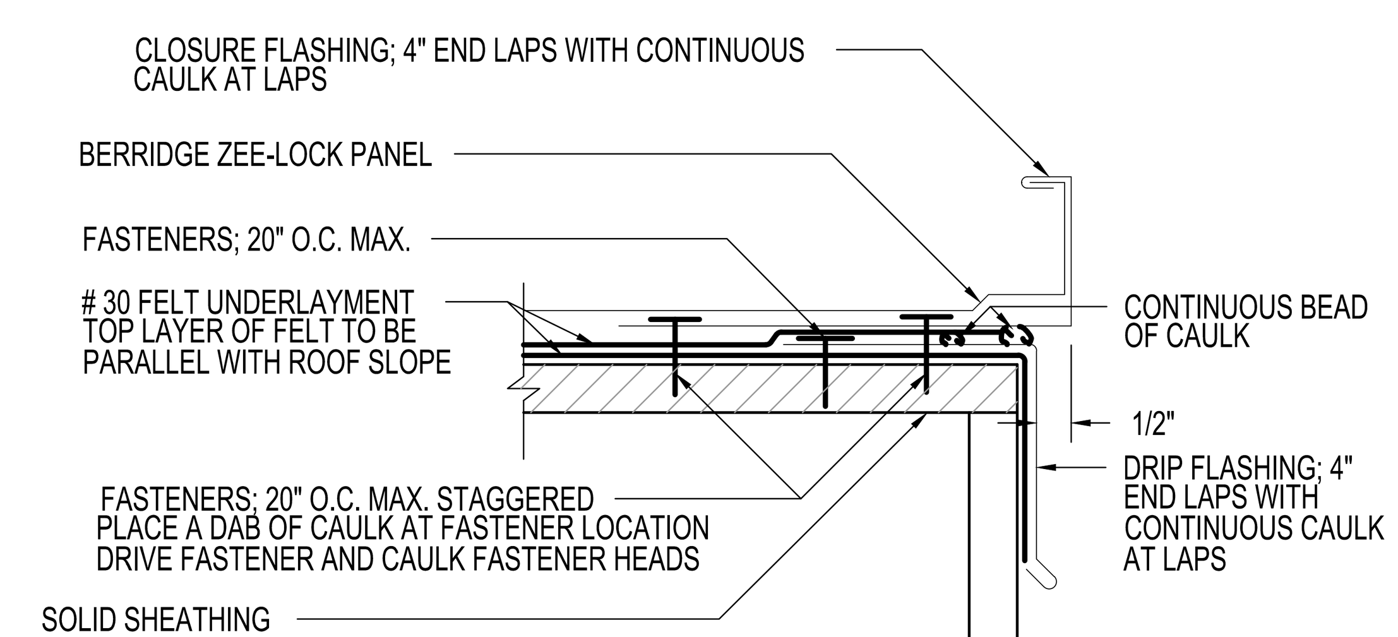


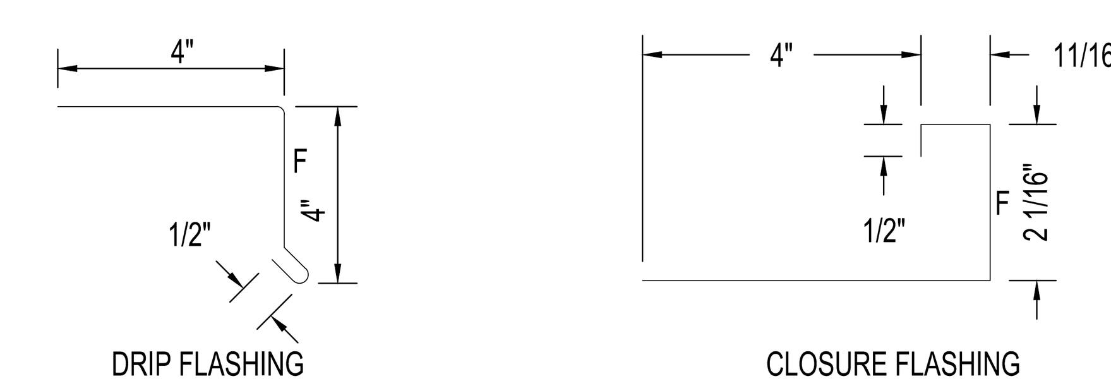
RIDGE DETAIL





GABLE DETAIL LEFT SIDE; CLOSURE FLASHING;





GABLE DETAIL RIGHT SIDE; CLOSURE FLASHING;

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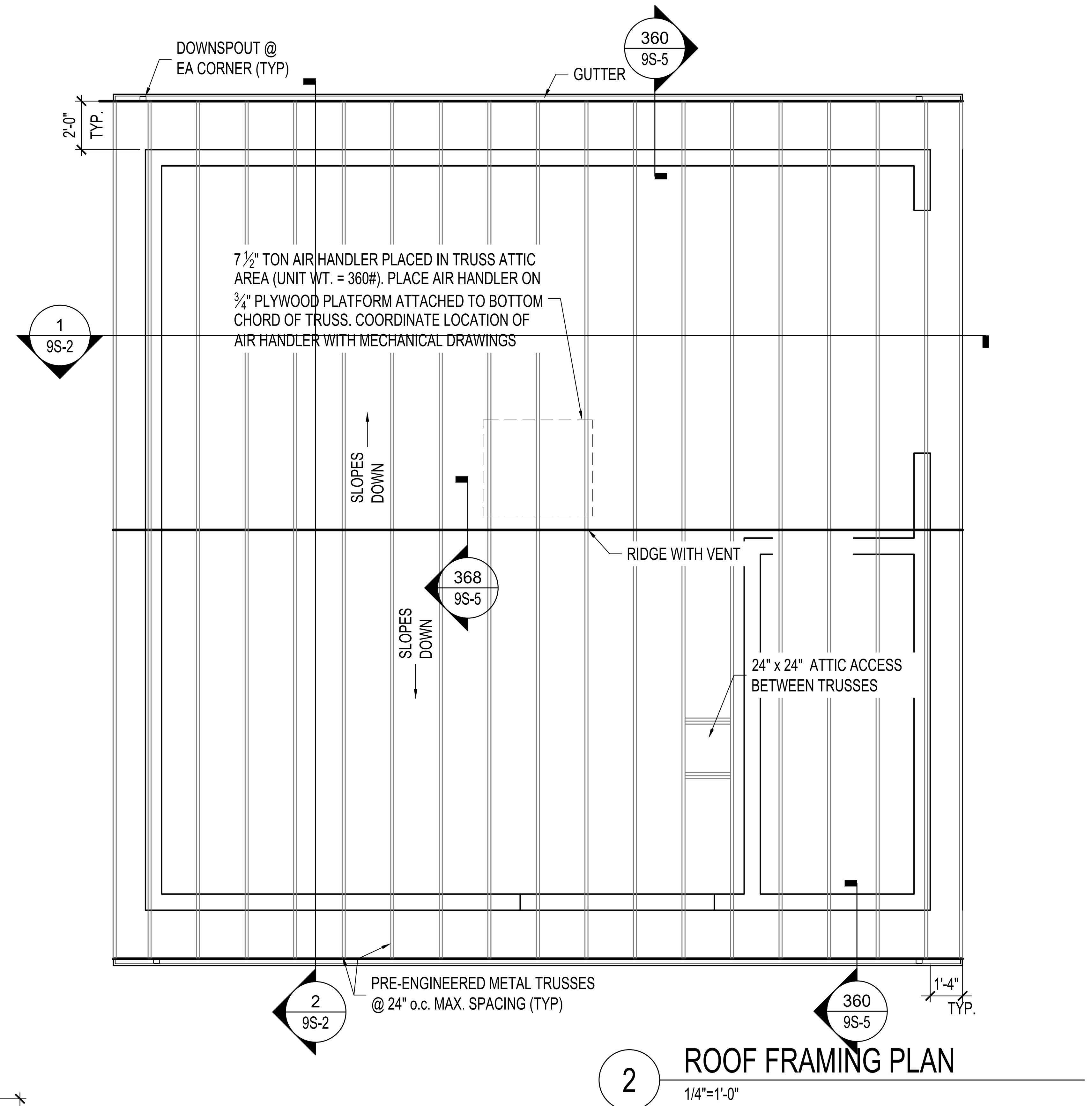
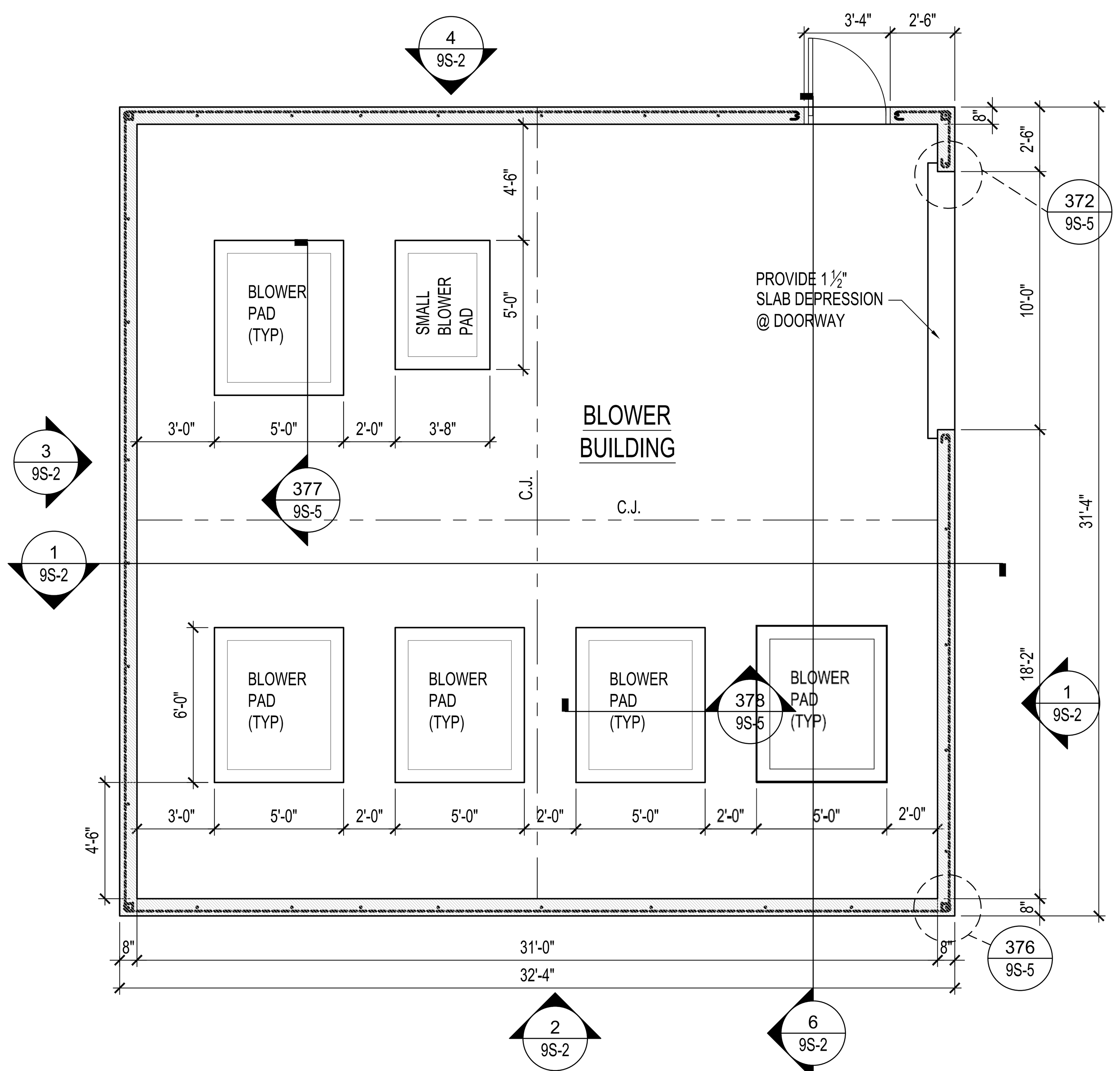
DETAILS

8S-6
SHEET 6 OF 06



2 ROOF FRAMING PLAN
1/4"=1'-0"



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

CMU WALL NOTES

1. REINF CMU WALLS W/ #4@48"OC UNO.
2. ADDITIONAL #4 VERT REINF AT:
   - 2.1. EACH SIDE OF OPENINGS
   - 2.2. WALL INTERSECTIONS
   - 2.3. ENDS OF WALLS
   - 2.4. AS NOTED & DETAILED ON DRAWINGS
3. PROVIDE BOND BEAMS REINF W/ (2)-#4 CONT AT:
   - 3.1. T&B OF OPENINGS
   - 3.2. TRUSS BEARING (CONT)
   - 3.3. TOP COURSE OF MASONRY WALLS
   - 3.4. AS NOTED & DETAILED ON DRAWINGS
4. PROVIDE MATCHING DOWELS FOR VERT REINF INTO FOUNDATION AND BOND BEAM @ TOP.
5. FILL ALL CMU CELLS BELOW FINISHED FLOOR & BELOW GRADE. FILL MATERIAL SHALL BE 3000 PSI GROUT, MIN.

WOOD FRAMING NOTES

1. SEE PRE-ENGINEERED METAL TRUSS NOTES FOR ROOF TRUSSES.
2. ROOF SHEATHING SHALL BE ⅝" APA RATED SHEATHING W/ #10 TEKS WOOD TO METAL FASTNERS AT 6" o.c. @ PANEL EDGES & @12"o.c. @ INTERMEDIATE SUPPORTS.

CONC REINF LAP LENGTH

3000 PSI (ACI 318-05)

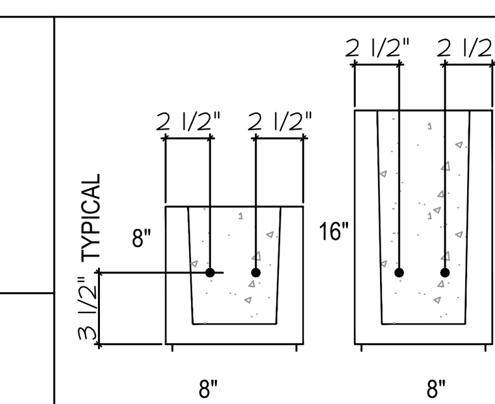
BAR SIZE	TENSION SPLICE
	CLASS 'B'
#3	22"
#4	29"
#5	36"
#6	43"
#7	63"
#8	72"
#9	81"

CMU REINF LAP LENGTH

Fy=60 KSI, f'm=1500 PSI

BAR SIZE	SPLICE LENGTH
#3	19"
#4	25"
#5	31"
#6	57"
#7	70"
#8	98"

MASONRY LINTEL SCHEDULE



OPENING WIDTH			
MINIMUM	MAXIMUM	8" CMU	16" CMU
	3'-4"	2 - #4	2 - #4
3'-4"	5'-4"	2 - #5	2 - #5
5'-4"	7'-4"	2 - #6	2 - #5
7'-4"	10'-0"	———	2 - #6

1. EXTEND BOND BEAM REINFORCING 24" OR 40 BAR DIAMETERS (WHICHEVER IS GREATER) BEYOND THE EXTENTS OF THE OPENING. VERTICAL REINFORCING AT THE SIDES OF THE OPENING SHALL BE CONTINUOUS THROUGH THE BOND BEAM. PROVIDE KNOCK OUTS IN THE BOTTOM OF THE BOND BEAM BLOCK AS REQUIRED TO ALLOW REINFORCING TO PASS THROUGH.
2. SEE DETAILS 373 & 374 FOR ADDITIONAL REINFORCING AT OPENINGS.

STRUCTURE NOTES

1. DESIGN SOIL BEARING PRESSURE = 2000 PSF. SOIL BRN'G PRESSURE SHALL BE VERIFIED AT TIME OF EXCAVATION AND ENGINEER SHALL BE NOTIFIED IF ACTUAL SOIL BEARING PRESSURE IS LOWER THAN DESIGN VALUE. FOUNDATION DESIGN & SUBSURFACE INFORMATION IS BASED ON A SOILS REPORT PREPARED BY TERRACON CONSULTING, INC. (PROJECT# ES165069).
2. FLOOR LIVE LOAD = 100 PSF
3. PRE-ENGINEERED TRUSS DESIGN LOADS:
   TOP CHORD:
   DEAD LOAD = 10 PSF + TRUSS WEIGHT
   LIVE LOAD = 20 PSF
   BOT CHORD:
   DEAD LOAD = 5 PSF + TRUSS WEIGHT
   LIVE LOAD = 10 PSF (60 PSF @ ACCESS LOCATIONS)
   MECH LOAD = 200# CONCENTRATED LOAD @ ANY LOCATION ALONG BOT CHORD
4. WIND LOADS:
   BASIC WIND SPEED (V, 3 SEC GUST) = 110 MPH
   OCCUPANCY CATEGORY = IV
   WIND IMPORTANCE FACTOR (I_W) = 1.15
   UPWIND EXPOSURE CATEGORY = B
   INTERNAL PRESSURE COEFF. (GC_{PI}) = ±0.18
   COMPONENTS & CLADDING NET DESIGN PRESSURES (P_{NET} PER ASCE 7-10, METHOD 1)
   ROOF COMPONENTS & CLADDING DESIGN PRESSURES:
   MAIN ROOF = -55.1 PSF, +13.1 PSF (BASED ON 20 SF AREA)
   OVERHANG = -70.8 PSF
   WALL COMPONENTS & CLADDING DESIGN PRESSURES = -33.5 PSF, + 25.0 PSF (BASED ON 10 SF AREA)
5. SEISMIC DESIGN CRITERIA:
   OCCUPANCY CATEGORY = IV
   SEISMIC IMPORTANCE FACTOR (I_E) = 0.127
   S_S = 0.127 S_1 = 0.067
   SITE CLASS = D
   S_{DS} = 0.135 S_{D1} = 0.107
   BASIC SEISMIC-FORCE-RESISTING SYSTEM (PER ASCE 7-10 TABLE 12.2-1 OR 12.14-1):
   BEARING WALL SYSTEM - LATER MEDIATE REINFORCED MASONRY SHEAR WALLS
   RESPONSE MODIFICATION FACTOR (R) = 3.5
   SEISMIC RESPONSE COEFF. (C_S) = 0.059
   SEISMIC DESIGN CATEGORY = C
   DESIGN BASE SHEAR = 23.6 K
   ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE

FOUNDATION NOTES

1. STEP FOOTINGS DOWN BELOW MECHANICAL, ELECTRICAL, OR PLUMBING LINES AS REQUIRED TO AVOID INTERFERENCE. SEE TYP FOOTING STEP DETAIL. COORDINATE W/ OTHER TRADES. PROVIDE PIPE SLEEVE TWO PIPE SIZES GREATER THAN THE PIPE PASSING THROUGH THE WALL.
2. WHERE UTILITY LINES PASS UNDER A FOOTING, PROVIDE RELIEVING ARCH FOR PROTECTION.

CONC SLAB NOTES

1. SIDEWALK SLABS SHALL BE 3000 PSI, 4" THICK CONC REINF W/ 6x6-W1.4xW1.4 WWF @ CENTER OF SLAB. FLOOR SLAB SHALL BE 3000 PSI, 8" THICK CONC. REINFORCED W/#4'S @12" o.c. EA WAY CTR. OF SLAB. SEE PLAN FOR FINISHED FLOOR ELEVATIONS. (REFER TO CIVIL DRAWINGS FOR SIDEWALK LOCATIONS & DETAILS.
2. PROVIDE 4" THICK NO. 57 STONE GRANULAR BASE & VAPOR BARRIER UNDER INTERIOR FLOOR SLAB.
3. CONDUITS & PIPES EMBEDDED IN SLABS:
   - 3.1. SHALL NOT BE LARGER IN OUTSIDE DIM THAN ⅓ THE OVERALL THICKNESS OF SLAB.
   - 3.2. SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS OR WIDTHS ON CENTER.
   - 3.3. MIN SLAB THICKNESS OF 2½" MUST BE MAINTAINED OVER THE EMBEDDED ITEMS.

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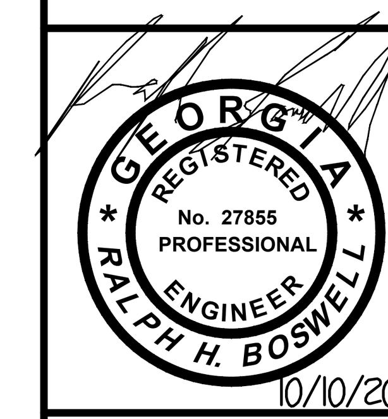


FOLKSTON TREATMENT PLANT
FOR:
THE CITY OF FOLKSTON
FOLKSTON GEORGIA
CHARLTON COUNTY, GEORGIA

MARK	DATE	BY	DESCRIPTION
	10-10-2019		EPD SUBMITTAL
	07-08-2019		85% SET FOR REVIEW
	06-14-2019		60% SET FOR REVIEW

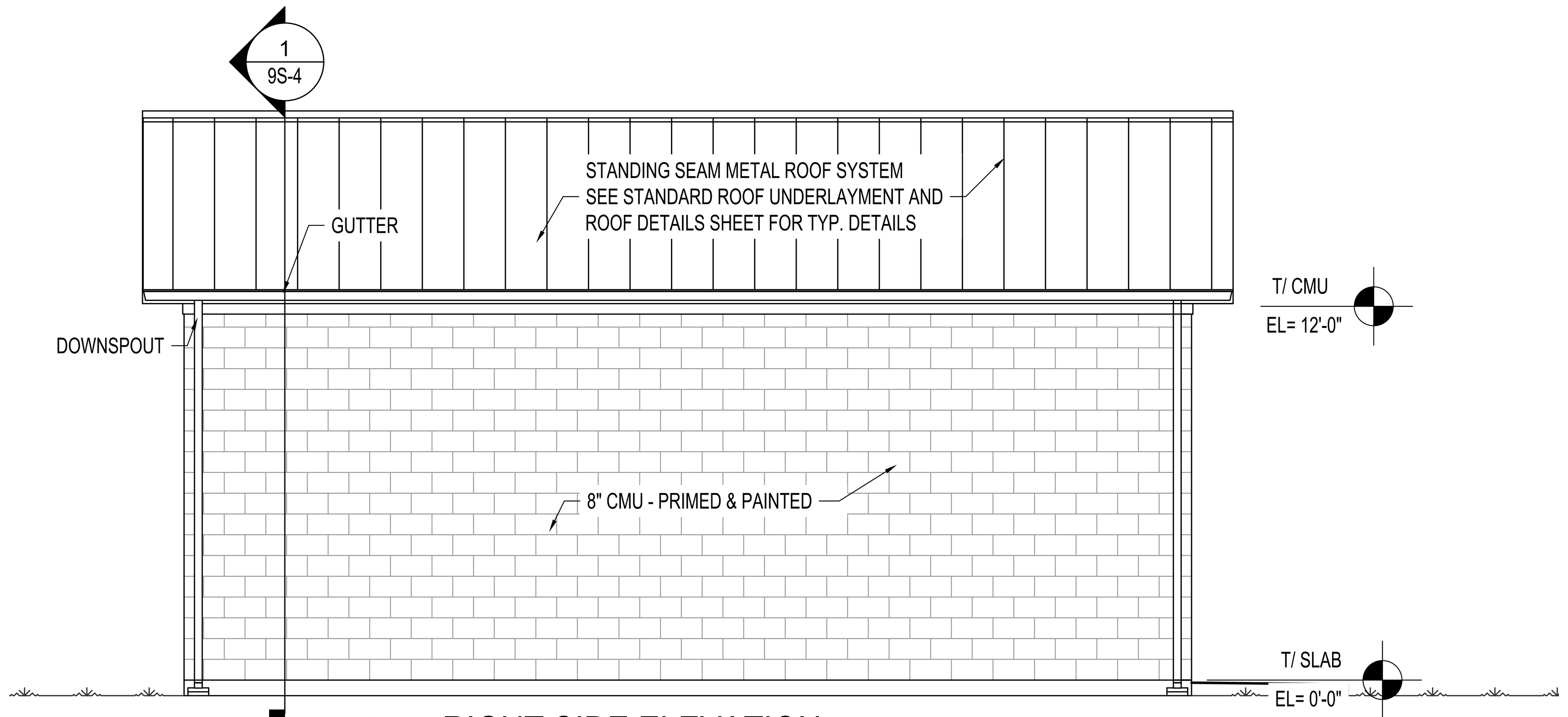
DESIGNED:
DRAWN:
CHECKED:
APPROVED:

OE PROJECT NO: OE18132
FILE NAME: OE18132-9S-CORE
ORIGINAL DRAWING SIZE: 36"x24"
DATE: 6-14-2019

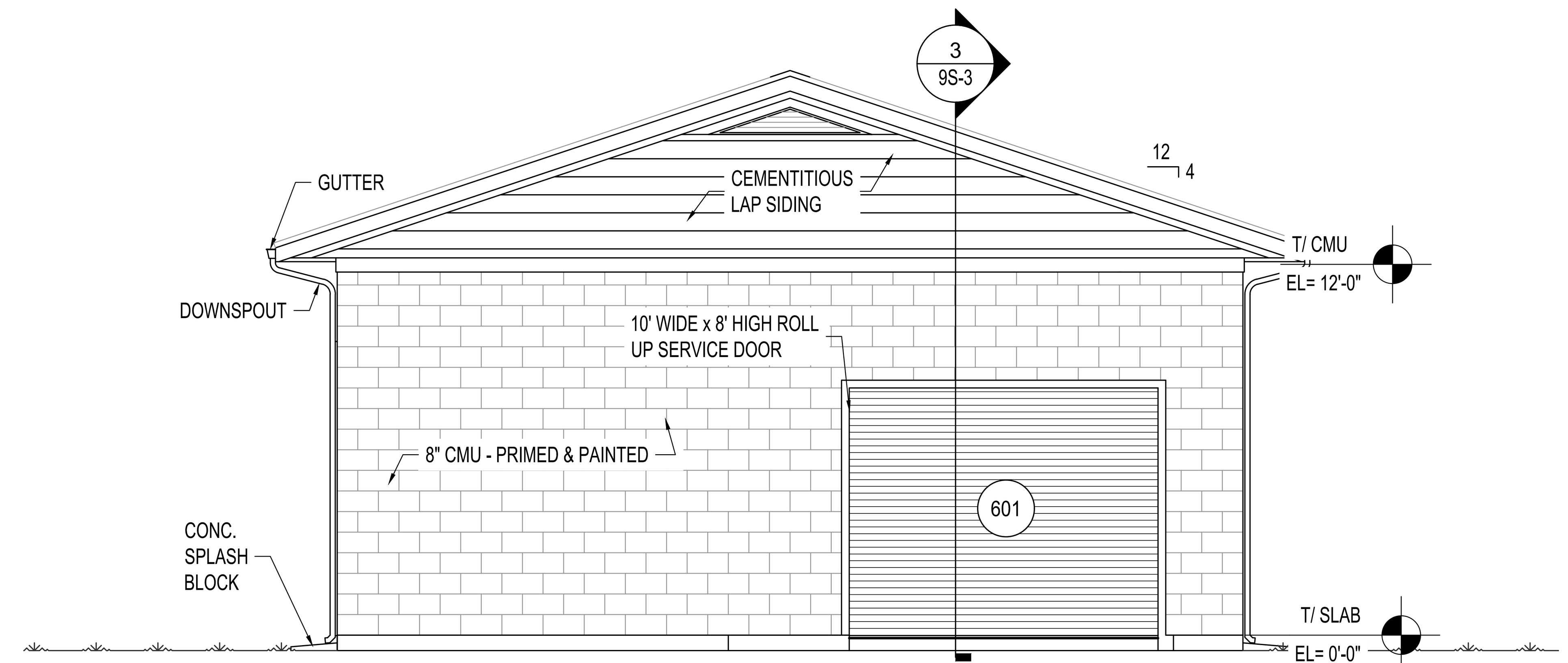
BLOWER BUILDING

NOTES AND PLANS

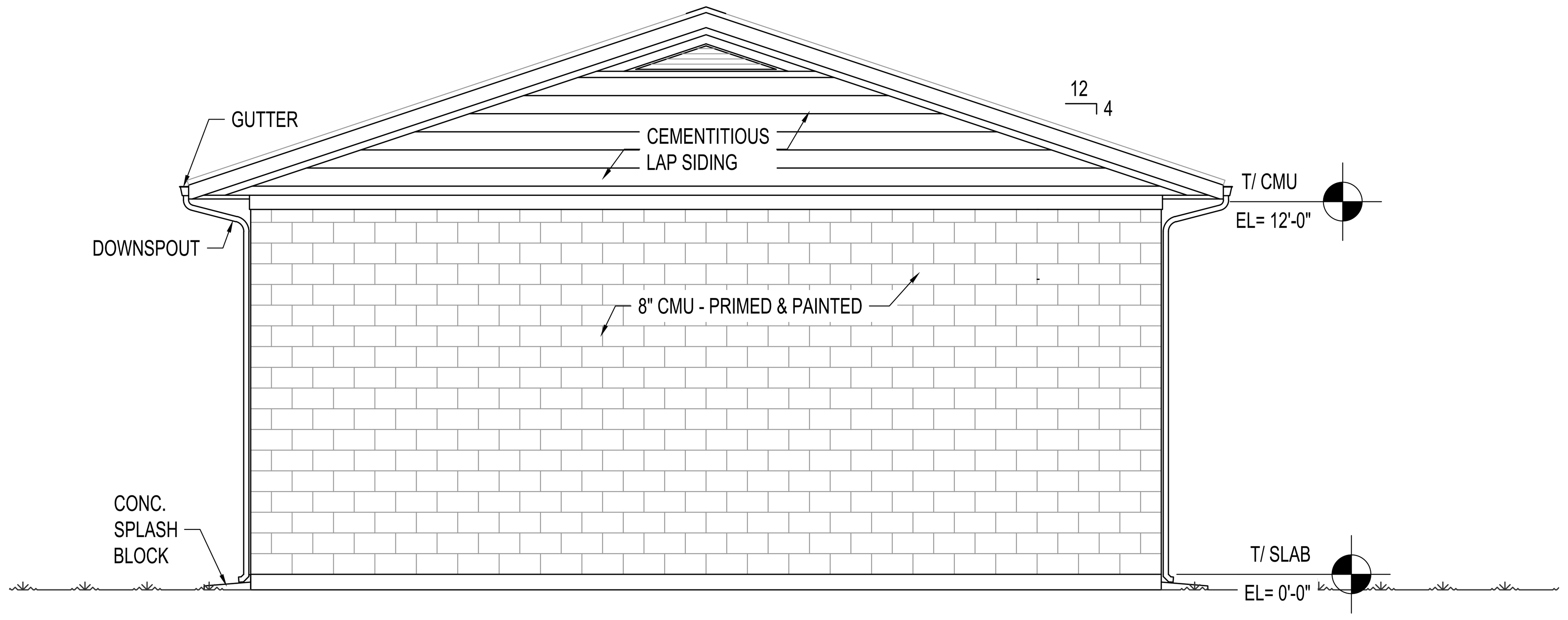
9S-1
SHEET 1 OF 07



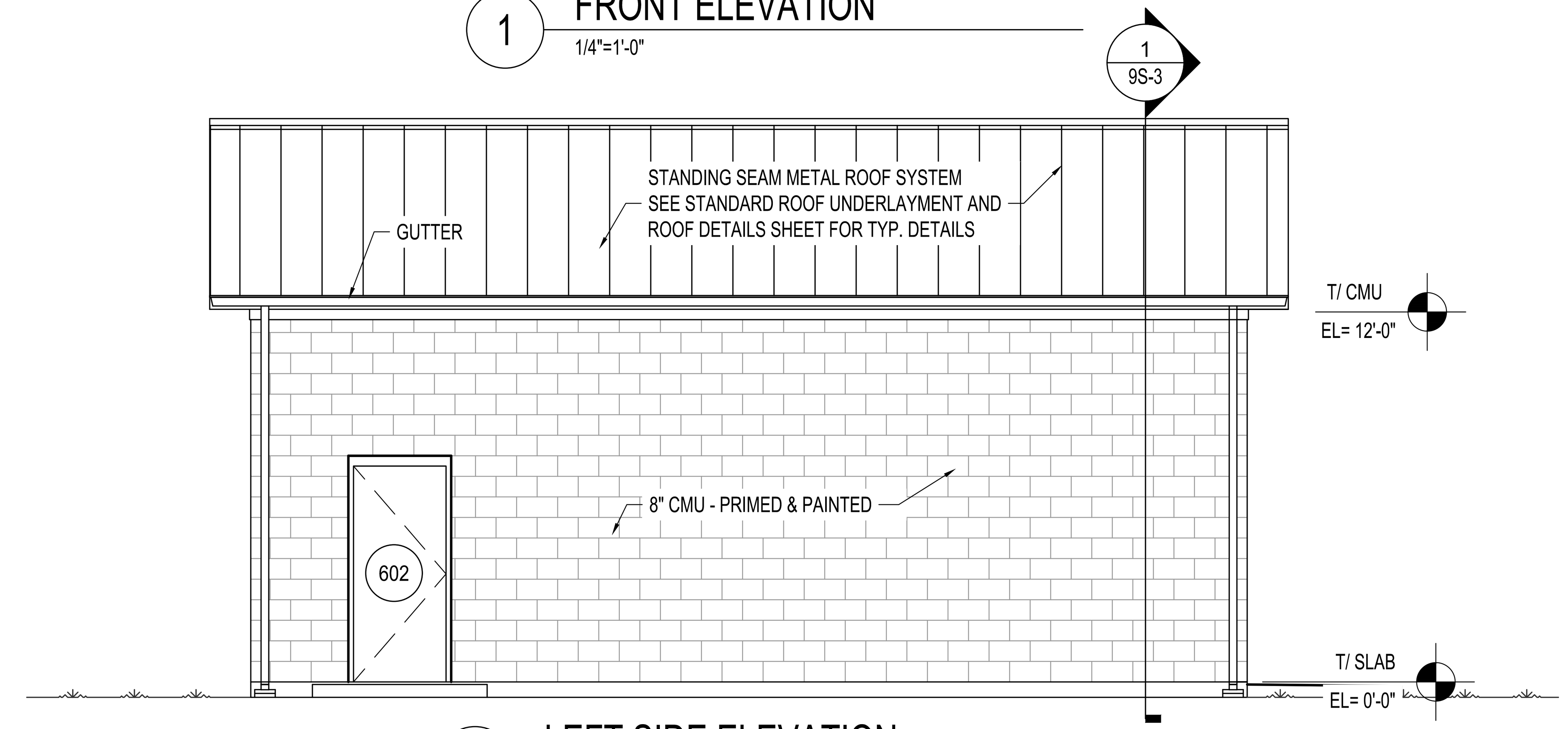
2 RIGHT SIDE ELEVATION
1/4"=1'-0"



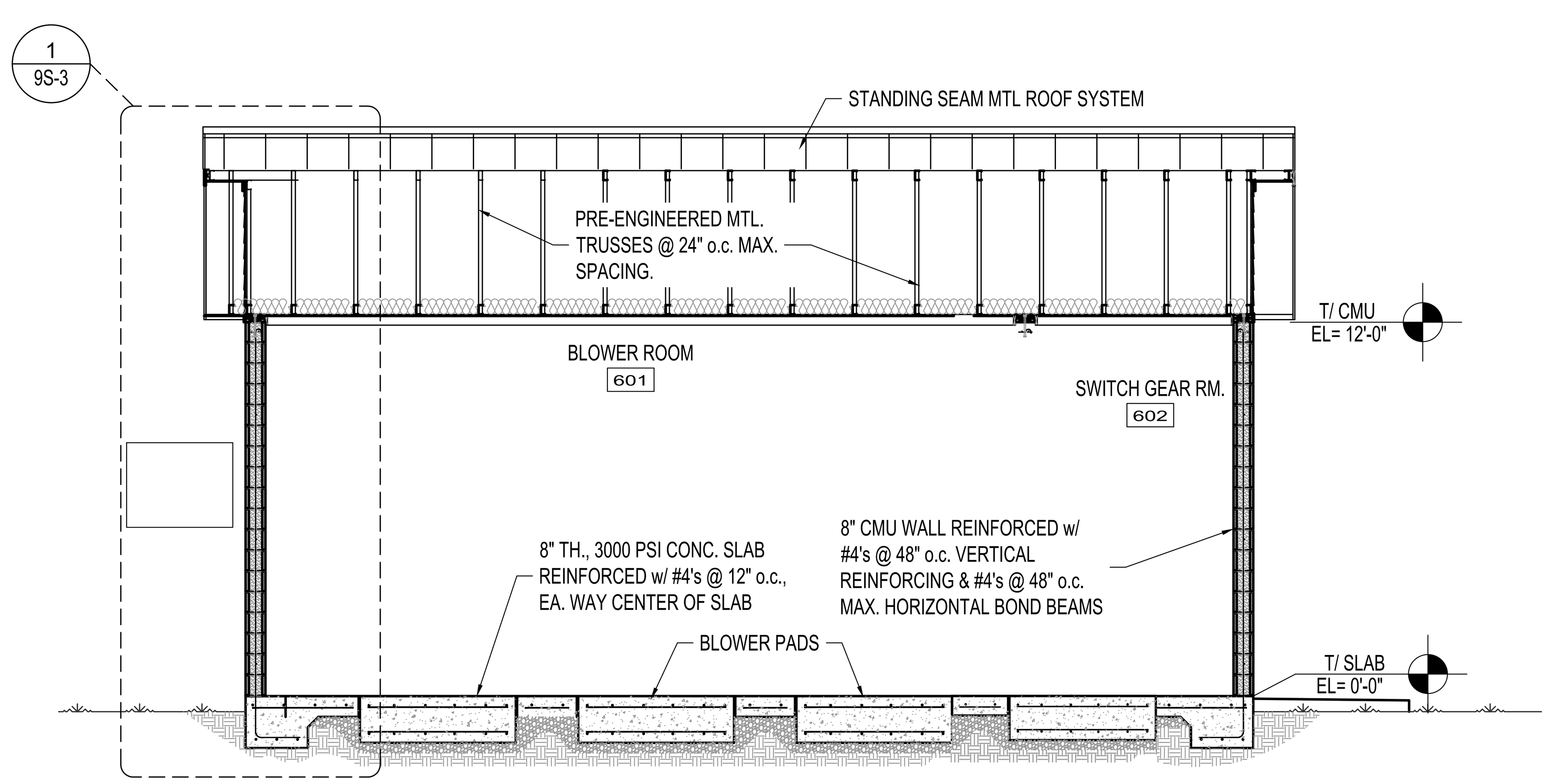
1 FRONT ELEVATION
1/4"=1'-0"



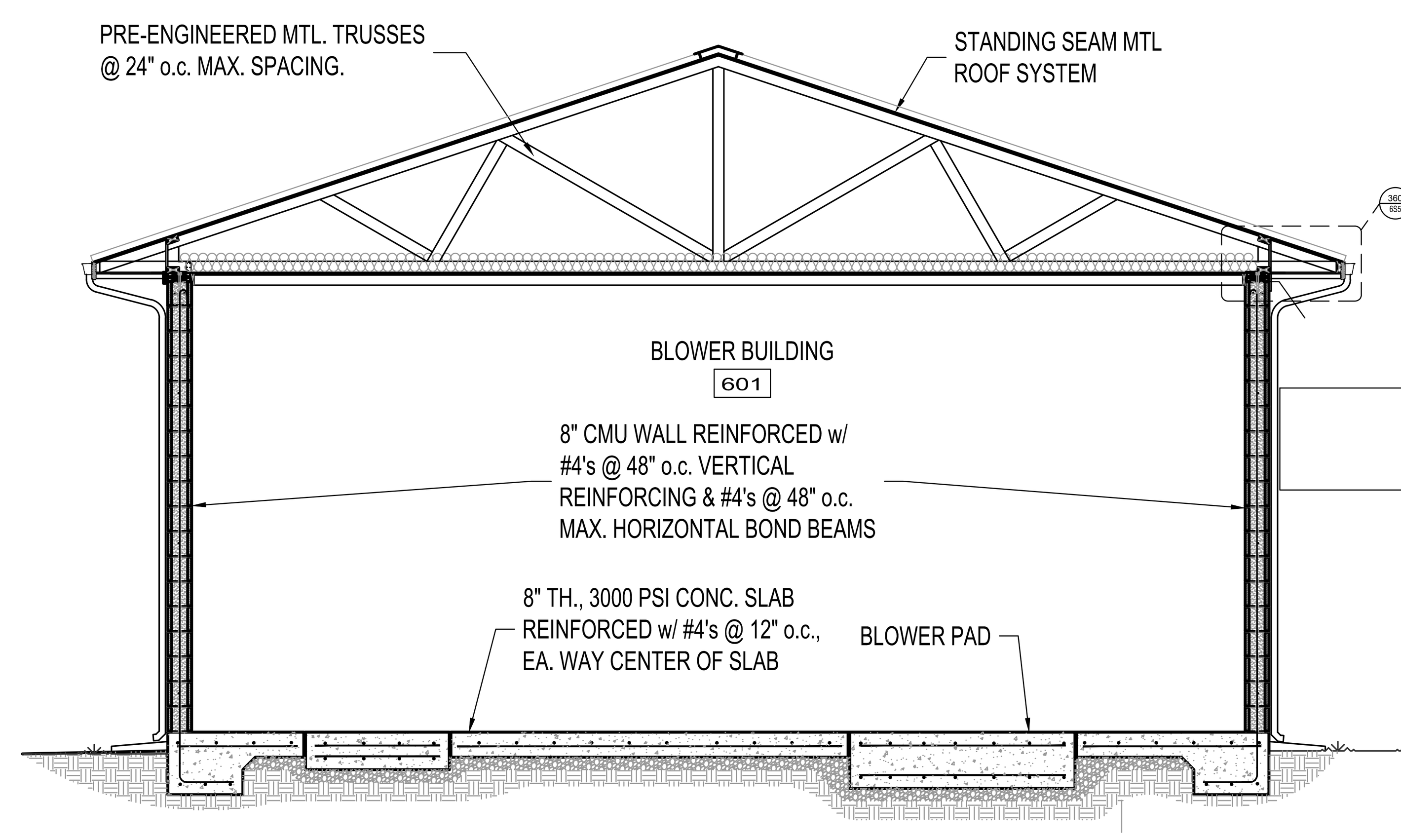
3 REAR ELEVATION
1/4"=1'-0"



4 LEFT SIDE ELEVATION
1/4"=1'-0"



5 LONGITUDINAL BUILDING SECTION
1/4"=1'-0"



6 TRANSVERSE BUILDING SECTION
1/4"=1'-0"

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GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 27855 RALPH H. BOSWELL
10/10/2019

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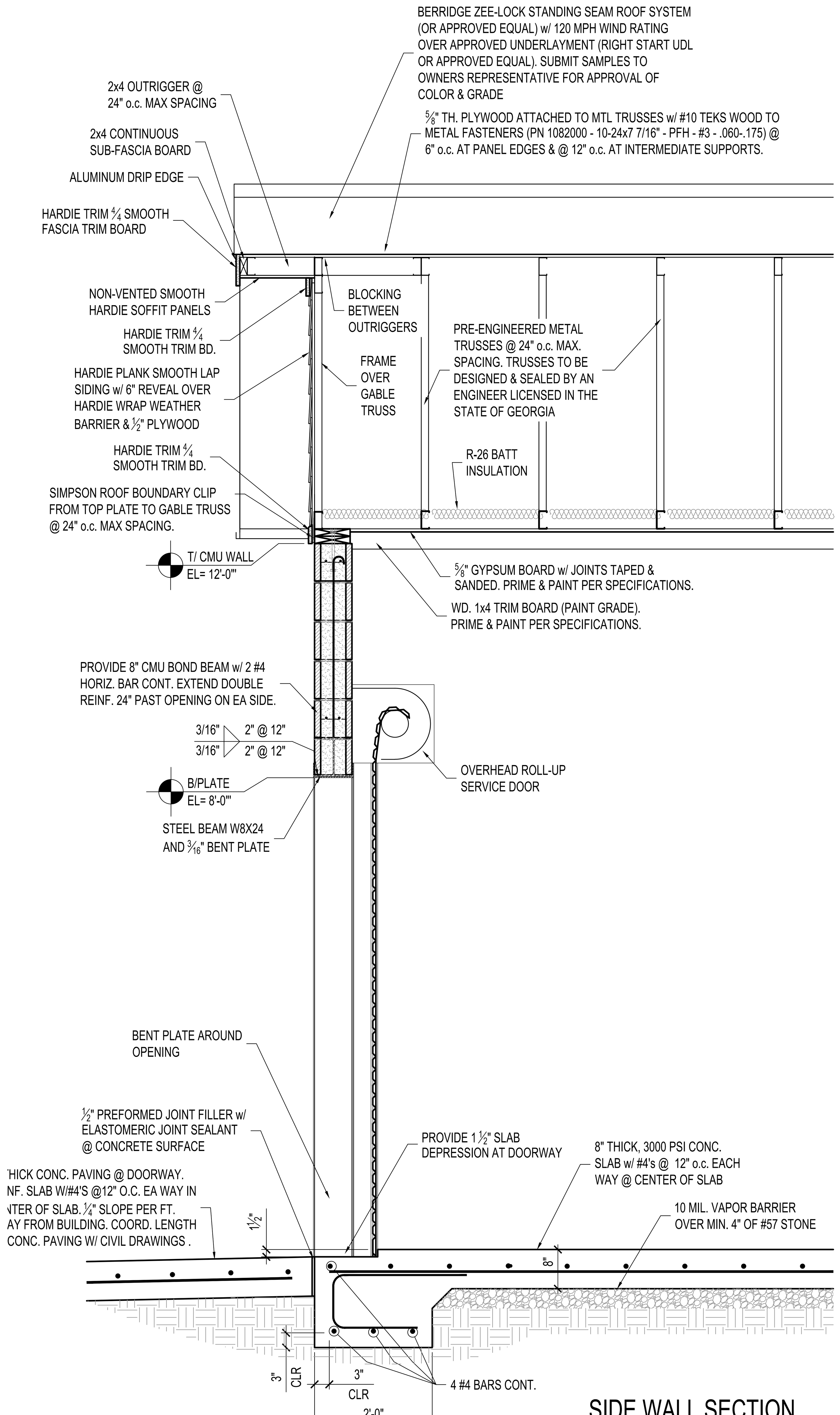
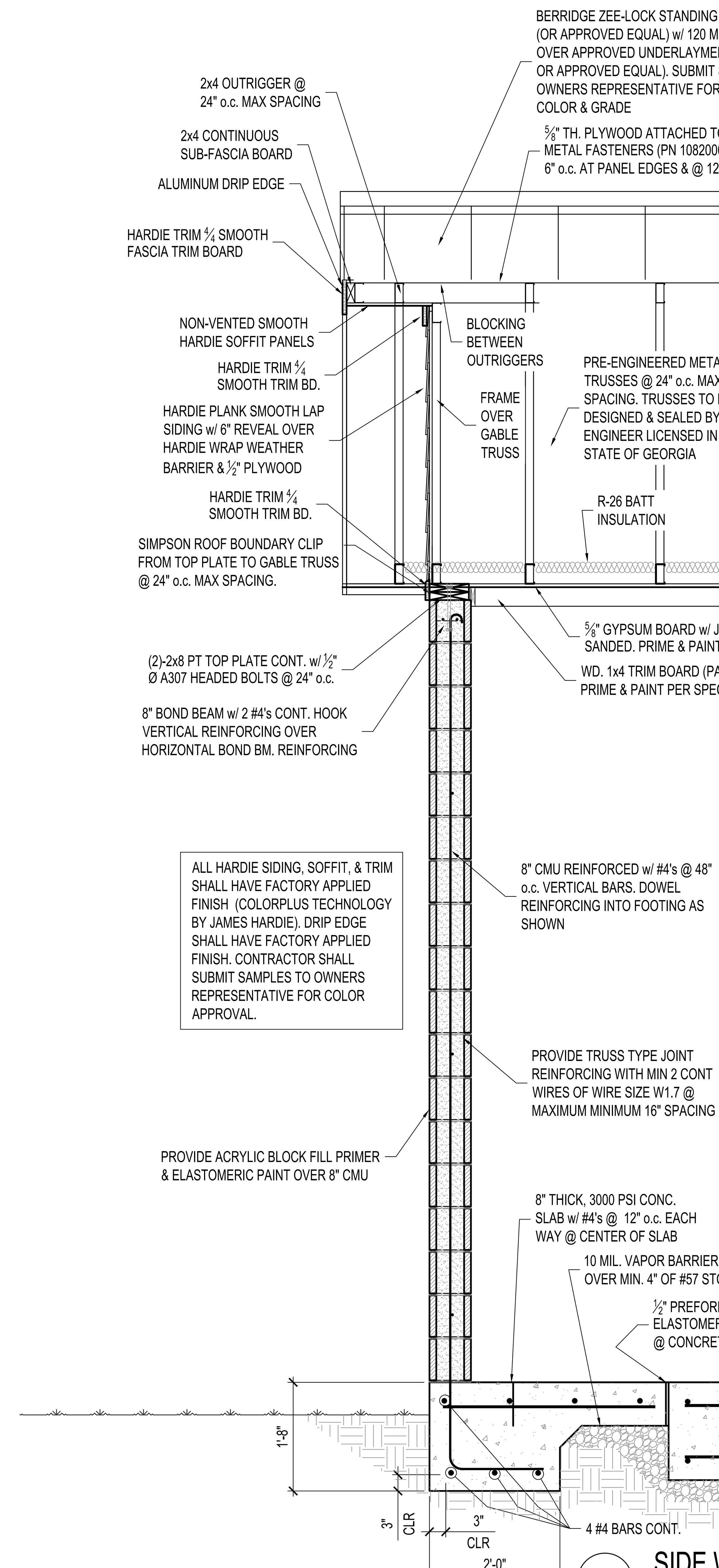
APPROVED:

BLOWER BUILDING

SECTIONS & ELEVATIONS



3 SIDE WALL SECTION @ ROLL-UP DOOR
3/4"=1'-0"



ALL HARDIE SIDING, SOFFIT, & TRIM SHALL HAVE FACTORY APPLIED FINISH (COLORPLUS TECHNOLOGY BY JAMES HARDIE). DRIP EDGE SHALL HAVE FACTORY APPLIED FINISH. CONTRACTOR SHALL SUBMIT SAMPLES TO OWNERS REPRESENTATIVE FOR COLOR APPROVAL.

1 SIDE WALL SECTION
3/4"=1'-0"

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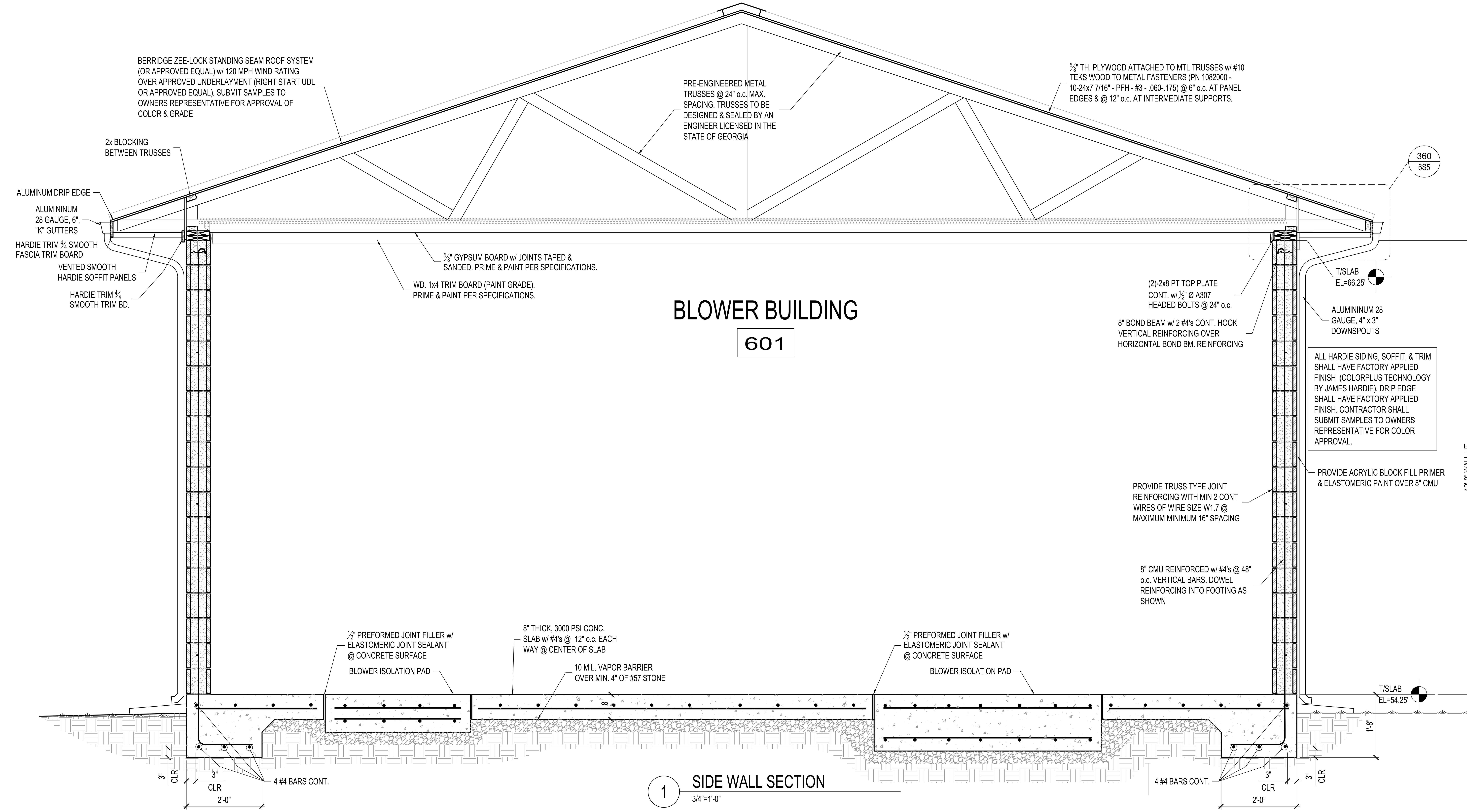
BLOWER BUILDING

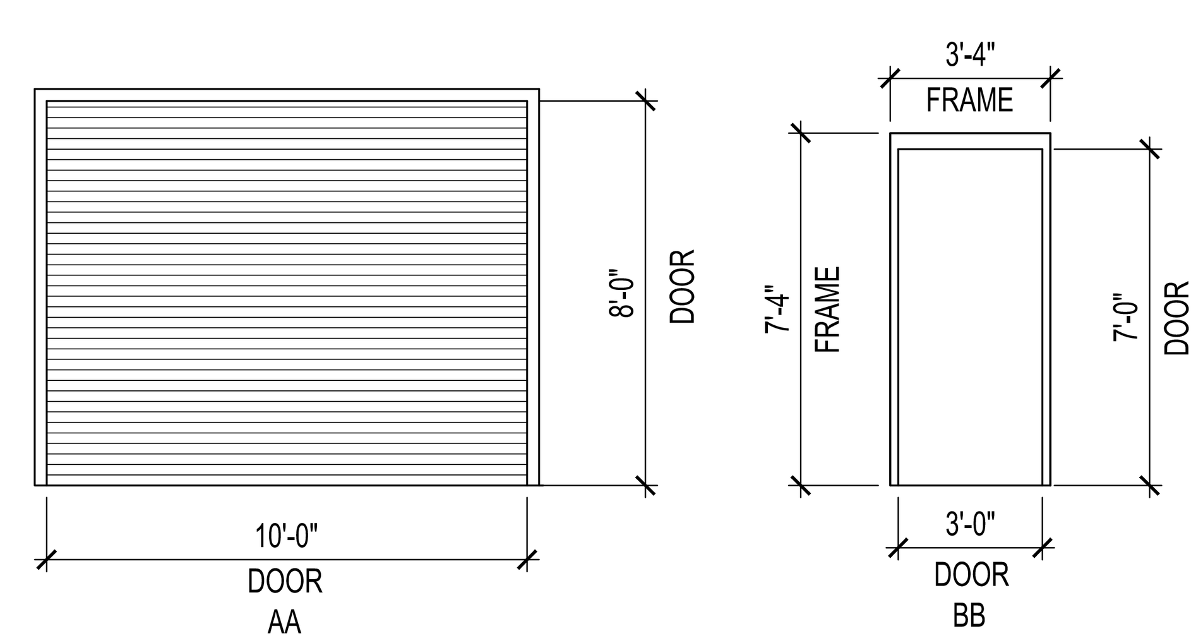
SECTIONS

9S-3

SHEET 3 OF 07



1 SIDE WALL SECTION
3/4"=1'-0"



3 DOOR & FRAME ELEVATIONS
N.T.S.

FINISH SCHEDULE

ROOM NUMBER	FLOORS	WALLS	CEILING	REMARKS
601	SEALED CONCRETE	PAINTED CMU	PAINTED GYP. BOARD	
602	SEALED CONCRETE	PAINTED CMU	PAINTED GYP. BOARD	

DOOR SCHEDULE

DR. #	WIDTH	HEIGHT	THK.	TYPE	MATERIAL	FIRE LABEL	FRAME MTL.	REMARKS
601	10-0	8-0	5/8"	AA	GALV. STEEL		GALV. STEEL	FINISH SEE SPECS.
602	3-0	7-0	1 3/4"	BB	FRP		FRP	SEE NOTE FOR MFR.

NOTE: DOOR #602 BY CHEM-PRUF DOOR CO. OR APPROVED EQUAL.

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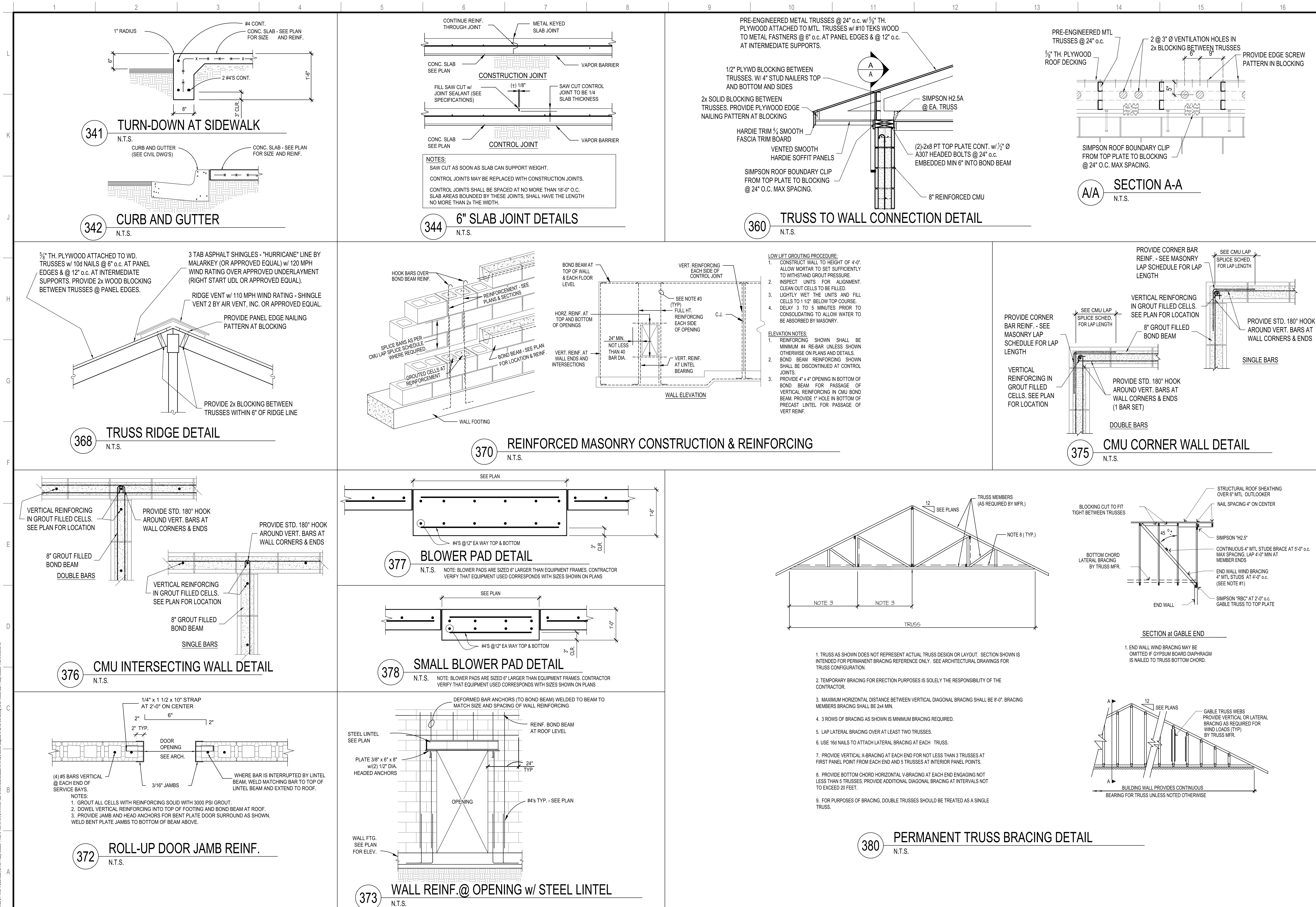
SECTIONS

9S-4


1" RADIUS
#4 CONT.
CONC. SLAB - SEE PLAN FOR SIZE AND REINF.
2 #4'S CONT.
6"
1'-6"
8"
3" CLR.
341 TURN-DOWN AT SIDEWALK
N.T.S.
CURB AND GUTTER (SEE CIVIL DWG'S)
CONC. SLAB - SEE PLAN FOR SIZE AND REINF.
342 CURB AND GUTTER
N.T.S.
CONTINUE REINF. THROUGH JOINT
METAL KEYED SLAB JOINT
CONC. SLAB SEE PLAN
CONSTRUCTION JOINT
VAPOR BARRIER
FILL SAW CUT w/ JOINT SEALANT (SEE SPECIFICATIONS)
(±) 1/8"
SAW CUT CONTROL JOINT TO BE 1/4 SLAB THICKNESS
CONC. SLAB SEE PLAN
CONTROL JOINT
VAPOR BARRIER
NOTES:
SAW CUT AS SOON AS SLAB CAN SUPPORT WEIGHT.
CONTROL JOINTS MAY BE REPLACED WITH CONSTRUCTION JOINTS.
CONTROL JOINTS SHALL BE SPACED AT NO MORE THAN 18'-0" O.C. SLAB AREAS BOUNDED BY THESE JOINTS, SHALL HAVE THE LENGTH NO MORE THAN 2x THE WIDTH.
344 6" SLAB JOINT DETAILS
N.T.S.
PRE-ENGINEERED METAL TRUSSES @ 24" o.c. w/ 5/8" TH. PLYWOOD ATTACHED TO MTL. TRUSSES w/ #10 TEKS WOOD TO METAL FASTNERS @ 6" o.c. AT PANEL EDGES & @ 12" o.c. AT INTERMEDIATE SUPPORTS.
1/2" PLYWD BLOCKING BETWEEN TRUSSES. W/ 4" STUD NAILERS TOP AND BOTTOM AND SIDES
2x SOLID BLOCKING BETWEEN TRUSSES. PROVIDE PLYWOOD EDGE NAILING PATTERN AT BLOCKING
HARDIE TRIM 5/4 SMOOTH FASCIA TRIM BOARD
VENTED SMOOTH HARDIE SOFFIT PANELS
SIMPSON ROOF BOUNDARY CLIP FROM TOP PLATE TO BLOCKING @ 24" O.C. MAX SPACING.
SIMPSON H2.5A @ EA. TRUSS
(2)-2x8 PT TOP PLATE CONT. w/ 1/2" Ø A307 HEADED BOLTS @ 24" o.c. EMBEDDED MIN 6" INTO BOND BEAM
8" REINFORCED CMU
A A
360 TRUSS TO WALL CONNECTION DETAIL
N.T.S.
PRE-ENGINEERED MTL TRUSSES @ 24" o.c.
5/8" TH. PLYWOOD ROOF DECKING
2 @ 3" Ø VENTILATION HOLES IN 2x BLOCKING BETWEEN TRUSSES
6" 9"
PROVIDE EDGE SCREW PATTERN IN BLOCKING
SIMPSON ROOF BOUNDARY CLIP FROM TOP PLATE TO BLOCKING @ 24" O.C. MAX SPACING.
A/A SECTION A-A
N.T.S.
5/8" TH. PLYWOOD ATTACHED TO WD. TRUSSES w/ 10d NAILS @ 6" o.c. AT PANEL EDGES & @ 12" o.c. AT INTERMEDIATE SUPPORTS. PROVIDE 2x WOOD BLOCKING BETWEEN TRUSSES @ PANEL EDGES.
3 TAB ASPHALT SHINGLES - "HURRICANE" LINE BY MALARKEY (OR APPROVED EQUAL) w/ 120 MPH WIND RATING OVER APPROVED UNDERLAYMENT (RIGHT START UDL OR APPROVED EQUAL).
RIDGE VENT w/ 110 MPH WIND RATING - SHINGLE VENT 2 BY AIR VENT, INC. OR APPROVED EQUAL.
PROVIDE PANEL EDGE NAILING PATTERN AT BLOCKING
PROVIDE 2x BLOCKING BETWEEN TRUSSES WITHIN 6" OF RIDGE LINE
368 TRUSS RIDGE DETAIL
N.T.S.
HOOK BARS OVER BOND BEAM REINF.
REINFORCEMENT - SEE PLANS & SECTIONS
SPLICE BARS AS PER CMU LAP SPLICE SCHEDULE WHERE REQUIRED
BOND BEAM - SEE PLAN FOR LOCATION & REINF.
GROUTED CELLS AT REINFORCEMENT
WALL FOOTING
BOND BEAM AT TOP OF WALL & EACH FLOOR LEVEL
HORZ. REINF. AT TOP AND BOTTOM OF OPENINGS
VERT. REINF. AT WALL ENDS AND INTERSECTIONS
24" MIN. NOT LESS THAN 40 BAR DIA.
VERT. REINFORCING EACH SIDE OF CONTROL JOINT
SEE NOTE #3 (TYP)
FULL HT. REINFORCING EACH SIDE OF OPENING
C.J.
VERT. REINF. AT LINTEL BEARING
WALL ELEVATION
LOW LIFT GROUTING PROCEDURE:
1. CONSTRUCT WALL TO HEIGHT OF 4'-0". ALLOW MORTAR TO SET SUFFICIENTLY TO WITHSTAND GROUT PRESSURE.
2. INSPECT UNITS FOR ALIGNMENT. CLEAN OUT CELLS TO BE FILLED.
3. LIGHTLY WET THE UNITS AND FILL CELLS TO 1 1/2" BELOW TOP COURSE.
4. DELAY 3 TO 5 MINUTES PRIOR TO CONSOLIDATING TO ALLOW WATER TO BE ABSORBED BY MASONRY.
ELEVATION NOTES:
1. REINFORCING SHOWN SHALL BE MINIMUM #4 RE-BAR UNLESS SHOWN OTHERWISE ON PLANS AND DETAILS.
2. BOND BEAM REINFORCING SHOWN SHALL BE DISCONTINUED AT CONTROL JOINTS.
3. PROVIDE 4" x 4" OPENING IN BOTTOM OF BOND BEAM FOR PASSAGE OF VERTICAL REINFORCING IN CMU BOND BEAM. PROVIDE 1" HOLE IN BOTTOM OF PRECAST LINTEL FOR PASSAGE OF VERT REINF.
370 REINFORCED MASONRY CONSTRUCTION & REINFORCING
N.T.S.
PROVIDE CORNER BAR REINF. - SEE MASONRY LAP SCHEDULE FOR LAP LENGTH
SEE CMU LAP SPLICE SCHED. FOR LAP LENGTH
VERTICAL REINFORCING IN GROUT FILLED CELLS. SEE PLAN FOR LOCATION
8" GROUT FILLED BOND BEAM
PROVIDE STD. 180° HOOK AROUND VERT. BARS AT WALL CORNERS & ENDS
SINGLE BARS
PROVIDE CORNER BAR REINF. - SEE MASONRY LAP SCHEDULE FOR LAP LENGTH
SEE CMU LAP SPLICE SCHED. FOR LAP LENGTH
VERTICAL REINFORCING IN GROUT FILLED CELLS. SEE PLAN FOR LOCATION
PROVIDE STD. 180° HOOK AROUND VERT. BARS AT WALL CORNERS & ENDS (1 BAR SET)
DOUBLE BARS
375 CMU CORNER WALL DETAIL
N.T.S.
VERTICAL REINFORCING IN GROUT FILLED CELLS. SEE PLAN FOR LOCATION
PROVIDE STD. 180° HOOK AROUND VERT. BARS AT WALL CORNERS & ENDS
8" GROUT FILLED BOND BEAM
DOUBLE BARS
PROVIDE STD. 180° HOOK AROUND VERT. BARS AT WALL CORNERS & ENDS
VERTICAL REINFORCING IN GROUT FILLED CELLS. SEE PLAN FOR LOCATION
8" GROUT FILLED BOND BEAM
SINGLE BARS
376 CMU INTERSECTING WALL DETAIL
N.T.S.
SEE PLAN
1'-6"
3" CLR.
#4'S @12" EA WAY TOP & BOTTOM
377 BLOWER PAD DETAIL
N.T.S. NOTE: BLOWER PADS ARE SIZED 6" LARGER THAN EQUIPMENT FRAMES. CONTRACTOR VERIFY THAT EQUIPMENT USED CORRESPONDS WITH SIZES SHOWN ON PLANS
SEE PLAN
1'-0"
3" CLR.
#4'S @12" EA WAY TOP & BOTTOM
378 SMALL BLOWER PAD DETAIL
N.T.S. NOTE: BLOWER PADS ARE SIZED 6" LARGER THAN EQUIPMENT FRAMES. CONTRACTOR VERIFY THAT EQUIPMENT USED CORRESPONDS WITH SIZES SHOWN ON PLANS
TRUSS MEMBERS (AS REQUIRED BY MFR.)
12 SEE PLANS
NOTE 8 (TYP.)
NOTE 3
NOTE 3
TRUSS
1. TRUSS AS SHOWN DOES NOT REPRESENT ACTUAL TRUSS DESIGN OR LAYOUT. SECTION SHOWN IS INTENDED FOR PERMANENT BRACING REFERENCE ONLY. SEE ARCHITECTURAL DRAWINGS FOR TRUSS CONFIGURATION.
2. TEMPORARY BRACING FOR ERECTION PURPOSES IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
3. MAXIMUM HORIZONTAL DISTANCE BETWEEN VERTICAL DIAGONAL BRACING SHALL BE 8'-0". BRACING MEMBERS BRACING SHALL BE 2x4 MIN.
4. 3 ROWS OF BRACING AS SHOWN IS MINIMUM BRACING REQUIRED.
5. LAP LATERAL BRACING OVER AT LEAST TWO TRUSSES.
6. USE 16d NAILS TO ATTACH LATERAL BRACING AT EACH TRUSS.
7. PROVIDE VERTICAL X-BRACING AT EACH END FOR NOT LESS THAN 3 TRUSSES AT FIRST PANEL POINT FROM EACH END AND 5 TRUSSES AT INTERIOR PANEL POINTS.
8. PROVIDE BOTTOM CHORD HORIZONTAL V-BRACING AT EACH END ENGAGING NOT LESS THAN 5 TRUSSES. PROVIDE ADDITIONAL DIAGONAL BRACING AT INTERVALS NOT TO EXCEED 20 FEET.
9. FOR PURPOSES OF BRACING, DOUBLE TRUSSES SHOULD BE TREATED AS A SINGLE TRUSS.
BLOCKING CUT TO FIT TIGHT BETWEEN TRUSSES
STRUCTURAL ROOF SHEATHING OVER 6" MTL OUTLOOKER
NAIL SPACING 4" ON CENTER
SIMPSON "H2.5"
CONTINUOUS 4" MTL STUDE BRACE AT 5'-0" o.c. MAX SPACING. LAP 4'-0" MIN AT MEMBER ENDS
BOTTOM CHORD LATERAL BRACING BY TRUSS MFR.
END WALL WIND BRACING 4" MTL STUDS AT 4'-0" o.c. (SEE NOTE #1)
SIMPSON "RBC" AT 2'-0" o.c. GABLE TRUSS TO TOP PLATE
END WALL
SECTION at GABLE END
1. END WALL WIND BRACING MAY BE OMITTED IF GYPSUM BOARD DIAPHRAGM IS NAILED TO TRUSS BOTTOM CHORD.
12 SEE PLANS
GABLE TRUSS WEBS PROVIDE VERTICAL OR LATERAL BRACING AS REQUIRED FOR WIND LOADS (TYP) BY TRUSS MFR.
BUILDING WALL PROVIDES CONTINUOUS BEARING FOR TRUSS UNLESS NOTED OTHERWISE
380 PERMANENT TRUSS BRACING DETAIL
N.T.S.
1/4" x 1 1/2 x 10" STRAP AT 2'-0" ON CENTER
2" 6" 2"
2" TYP.
DOOR OPENING
SEE ARCH.
(4) #5 BARS VERTICAL @ EACH END OF SERVICE BAYS.
3/16" JAMBS
WHERE BAR IS INTERRUPTED BY LINTEL BEAM, WELD MATCHING BAR TO TOP OF LINTEL BEAM AND EXTEND TO ROOF.
NOTES:
1. GROUT ALL CELLS WITH REINFORCING SOLID WITH 3000 PSI GROUT.
2. DOWEL VERTICAL REINFORCING INTO TOP OF FOOTING AND BOND BEAM AT ROOF.
3. PROVIDE JAMB AND HEAD ANCHORS FOR BENT PLATE DOOR SURROUND AS SHOWN. WELD BENT PLATE JAMBS TO BOTTOM OF BEAM ABOVE.
372 ROLL-UP DOOR JAMB REINF.
N.T.S.
DEFORMED BAR ANCHORS (TO BOND BEAM) WELDED TO BEAM TO MATCH SIZE AND SPACING OF WALL REINFORCING
STEEL LINTEL SEE PLAN
REINF. BOND BEAM AT ROOF LEVEL
PLATE 3/8" x 6" x 8" w/(2) 1/2" DIA. HEADED ANCHORS
24" TYP
OPENING
#4's TYP. - SEE PLAN
WALL FTG. SEE PLAN FOR ELEV.
373 WALL REINF.@ OPENING w/ STEEL LINTEL
N.T.S.

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GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 27855 RALPH H. BOSWELL
10/10/2019

FOLKSTON TREATMENT PLANT
FOR:
THE CITY OF FOLKSTON
FOLKSTON GEORGIA
CHARLTON COUNTY, GEORGIA

MARK	DATE	BY	DESCRIPTION
	10-10-2019		EPD SUBMITTAL
	07-08-2019		95% SET FOR REVIEW
	06-14-2019		60% SET FOR REVIEW

OE PROJECT NO: OE18132
FILE NAME: OE18132-9S-CORE
ORIGINAL DRAWING SIZE: 36"x24"
DATE: 6-14-2019

DESIGNED:
DRAWN:
CHECKED:
APPROVED:

BLOWER BUILDING

DETAILS

9S-5
SHEET 5 OF 07

DOOR SCHEDULE

DOOR NUMBER	DOOR LOCATION	DOORS TYPE	DOORS SIZE WIDTH	DOORS SIZE HEIGHT	DOORS SIZE THICK	DOORS MAT'L	DOORS FINISH	FRAME SIZE	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	FRAME HEAD	FRAME JAMB	FRAME THR.	LABEL	HDW. SET (NOTE 1)	REMARKS	DOOR NUMBER
601	BLOWER BUILDING	A	10'-0"	8'-0"	-	STL	PREFINISHED	-	-	-	-	1/A-5	2/A-5	——		-		601
602	BLOWER BUILDING	B	3'-0"	7'-0"	1-3/4"	FIBERGLASS	PAINT	7-1/4"	1	H.M.	PAINT	1/A-5	2/A-5	——		1		602
603	SWITCH GEAR	B	3'-0"	7'-0"	1-3/4"	FIBERGLASS	PAINT	7-1/4"	1	H.M.	PAINT	1/A-5	2/A-5	——	45 MIN	1		603

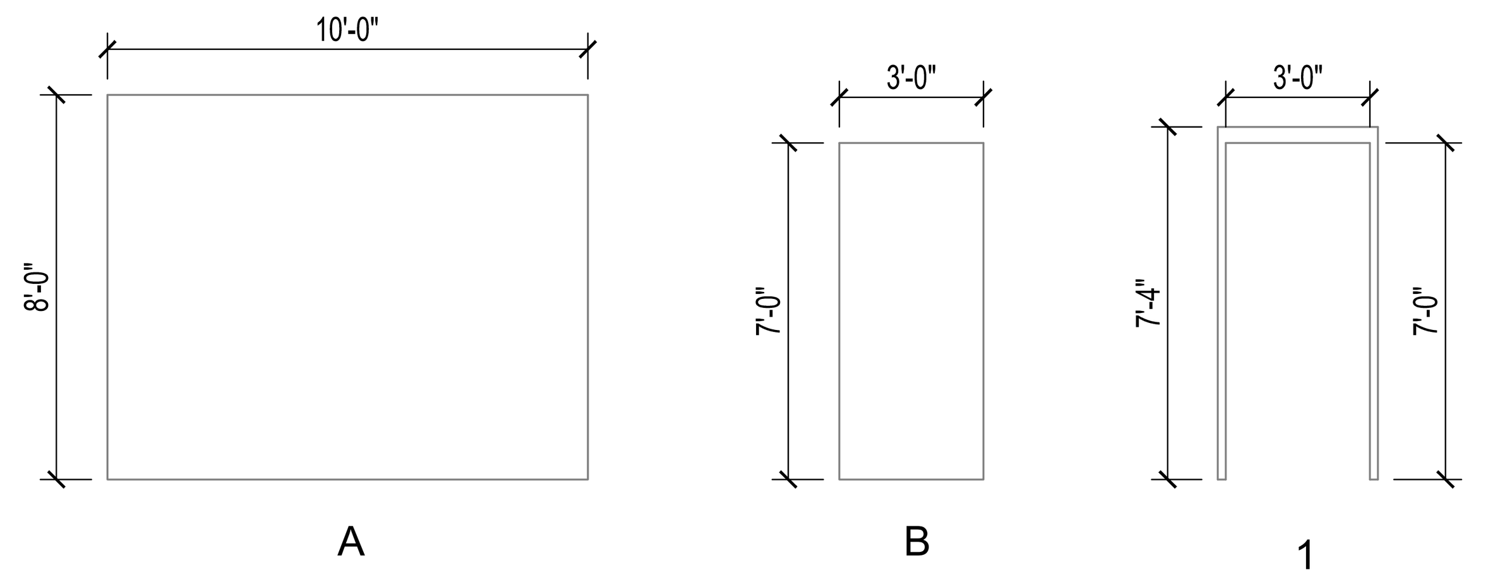
NOTES: 1. ALL DOOR HARDWARE SHALL BE OPERABLE LEVER TYPE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST TO OPERATE.

ROOM FINISH SCHEDULE

KEY: (X) -

NO.	NAME	FLOOR: SEALED CONCRETE	BASE: NONE	WALLS: PAINTED CMU -P1	CEILING: PAINTED GYPSUM BD	CEILING: HEIGHT	NOTES
	BLOWER ROOM	X	X	X	X	12'	-
	SWITCH GEAR ROOM	X	X	X	X	12'	-

DOOR AND FRAME TYPES



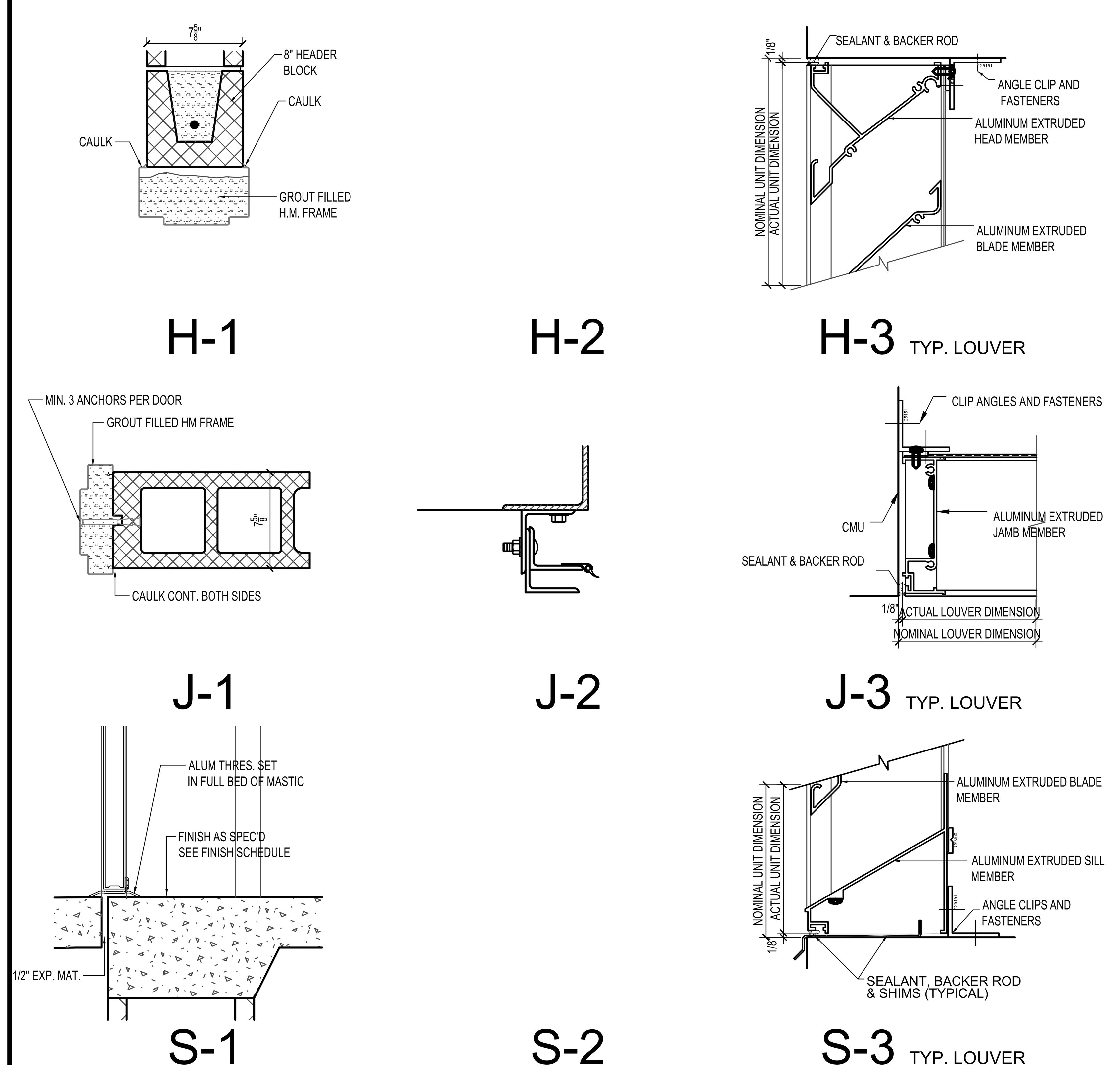
ROOM FINISH NOTES

LIST OF FINISHES

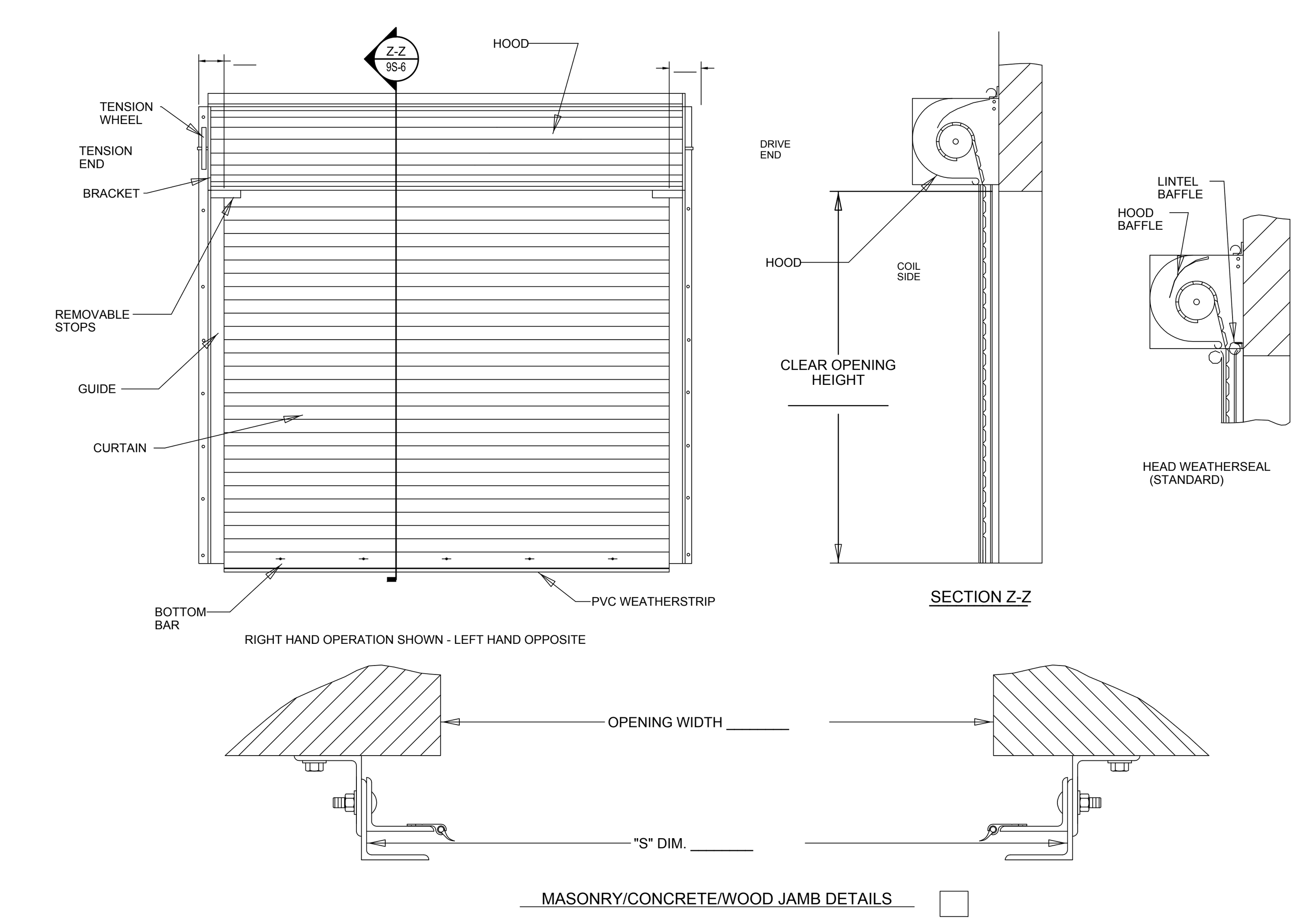
INTERIOR PAINT

ITEM	MANUFACTURER	SPECIFICATION	COLOR NUMBER	COLOR	REMARKS
P-1	SHERWIN WILLIAMS	FLAT	-	BY OWNER	WALL
P-2	SHERWIN WILLIAMS	FLAT	-	BY OWNER	CEILING

DOOR AND LOUVER DETAILS



ROLL UP DOOR DETAIL



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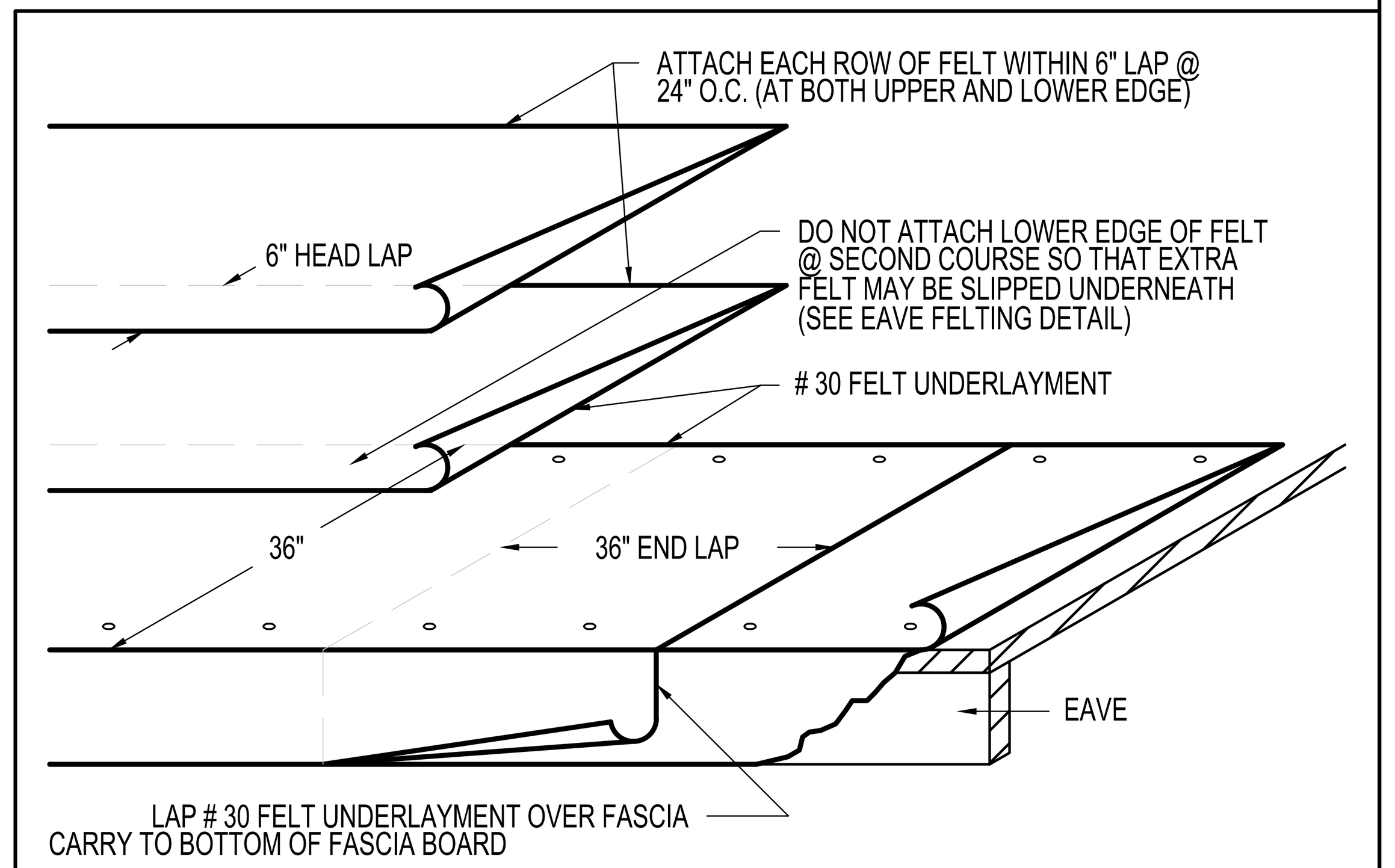
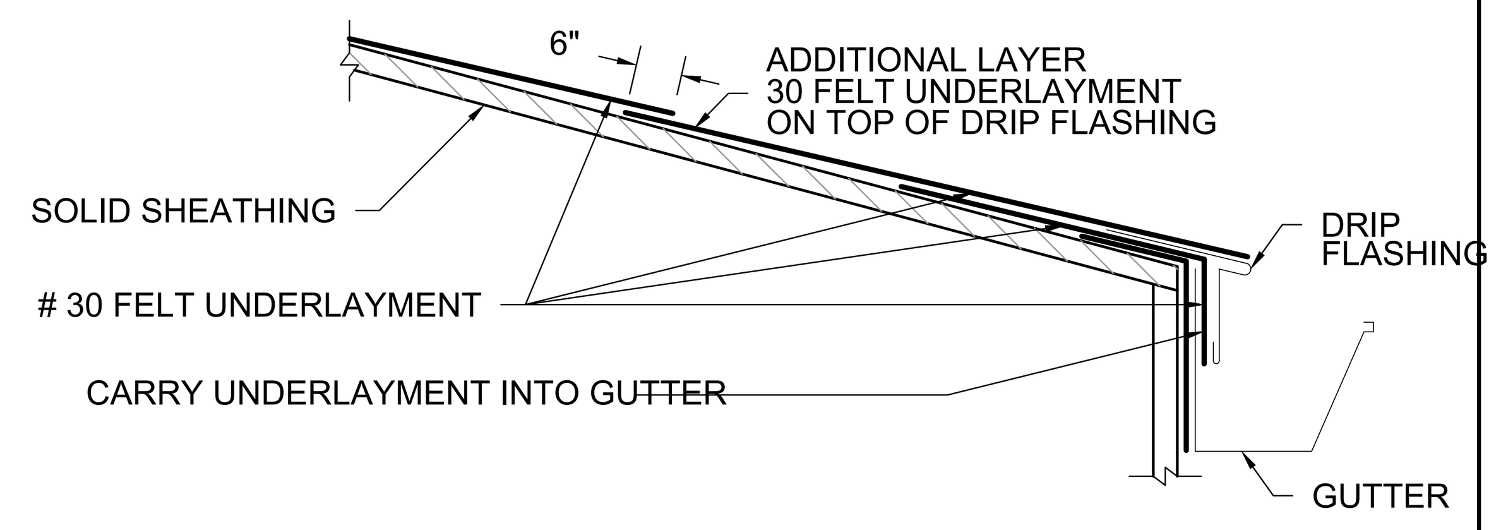


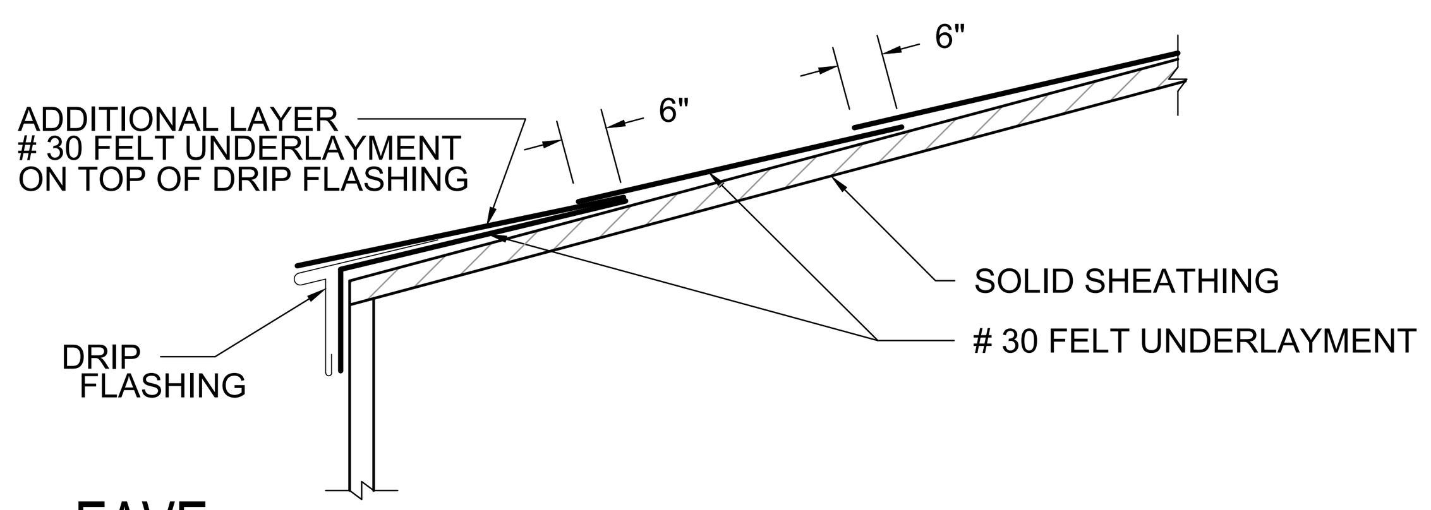
1. CLEAN ROOF SURFACE OF ALL OBJECTS WHICH MAY PUNCTURE OR TEAR FELT UNDERLAYMENT.
2. ATTACH FELT UNDERLAYMENT TO DECK BELOW USING COATED FELT CAPS. FASTENERS MUST BE TOTALLY FLUSH WITH SUBSTRATE. DO NOT USE ONE PIECE NAIL CAPS, AS THESE WILL "READ THROUGH" THE SURFACE.
3. DO NOT FASTEN LOWER EDGE OF FELT @ SECOND COURSE (SEE ABOVE ILLUSTRATION).
4. ALWAYS RUN FELT UNDERLAYMENT INTO STARTING @ THE EAVE AND LAP SHINGLE FASHION.
5. NEVER INSTALL BERRIDGE PRODUCTS OVER FELT UNDERLAYMENT THAT IS NOT LAID HORIZONTAL, FLAT, SMOOTH AND FREE FROM PUNCTURES AND TEARS.
6. DO NOT APPLY PANELS OVER DRY OR BRITTLE FELT (A CONDITION CAUSED BY EXTENDED EXPOSURE TO THE ELEMENTS).
7. DO NOT USE RED ROSIN PAPER UNDER ANY BERRIDGE METAL PRODUCT.

GRACE ICE AND WATERSHIELD OR EQUAL MAY BE USED IN PLACE OF # 30 FELT UNDERLAYMENT. NOTE ICE AND WATERSHIELD MAY BE REQUIRED REFERENCE INSTALLATION INSTRUCTIONS.



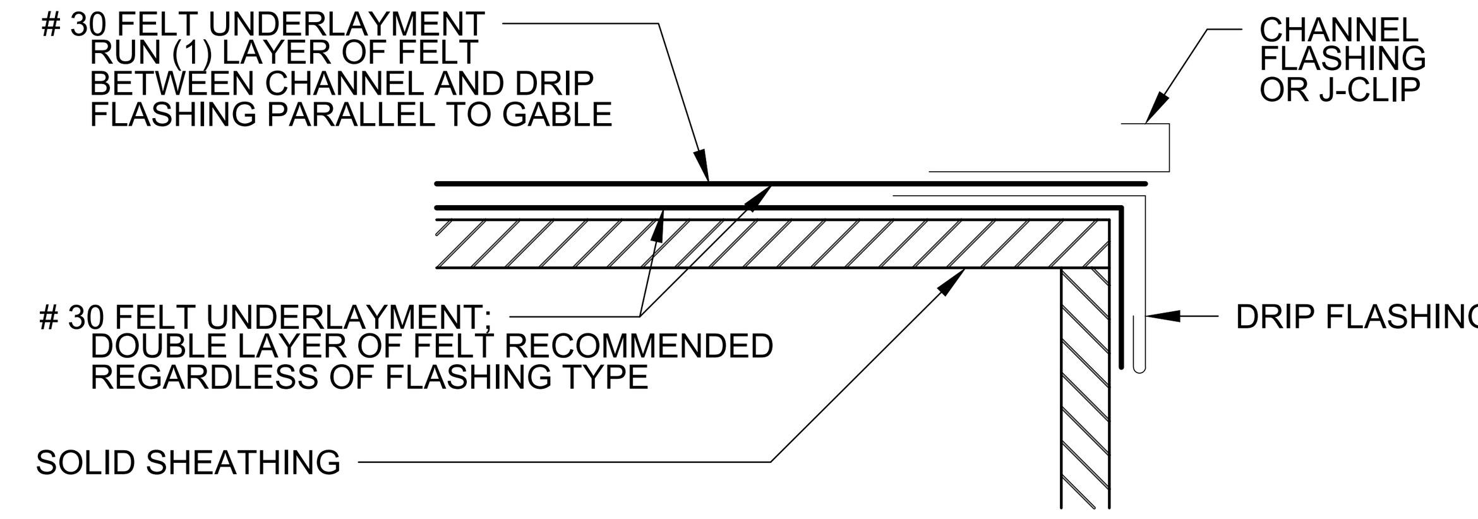
EAVE WITH GUTTER

GRACE ICE AND WATERSHIELD OR EQUAL MAY BE USED IN PLACE OF # 30 FELT UNDERLAYMENT. NOTE ICE AND WATERSHIELD MAY BE REQUIRED REFERENCE INSTALLATION INSTRUCTIONS.



EAVE

EAVE WITH GUTTER EAVE UNDERLAYMENT



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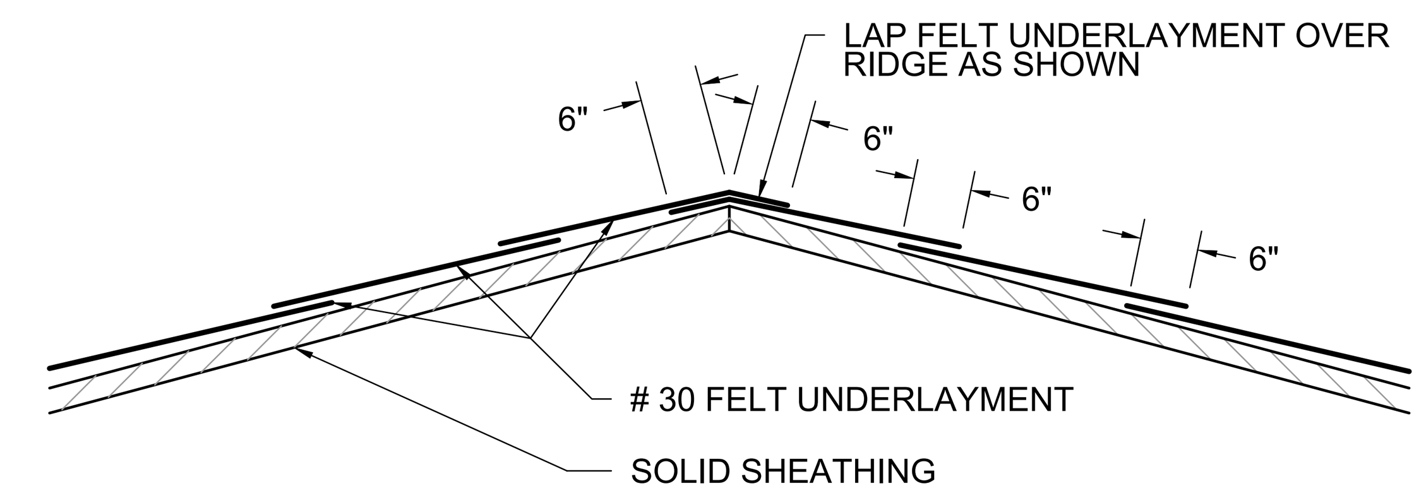
GABLE

GABLE UNDERLAYMENT



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RIDGE

RIDGE UNDERLAYMENT

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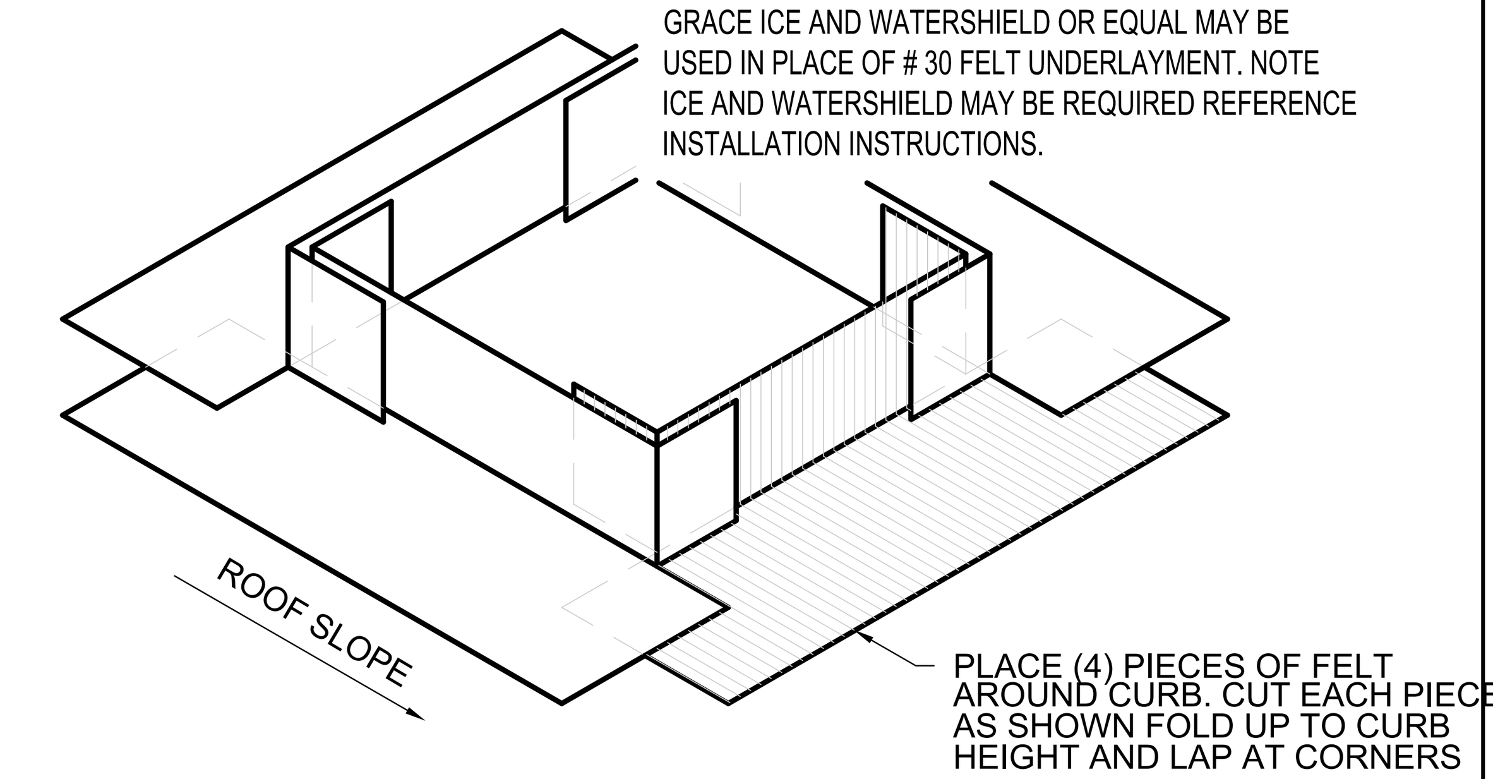
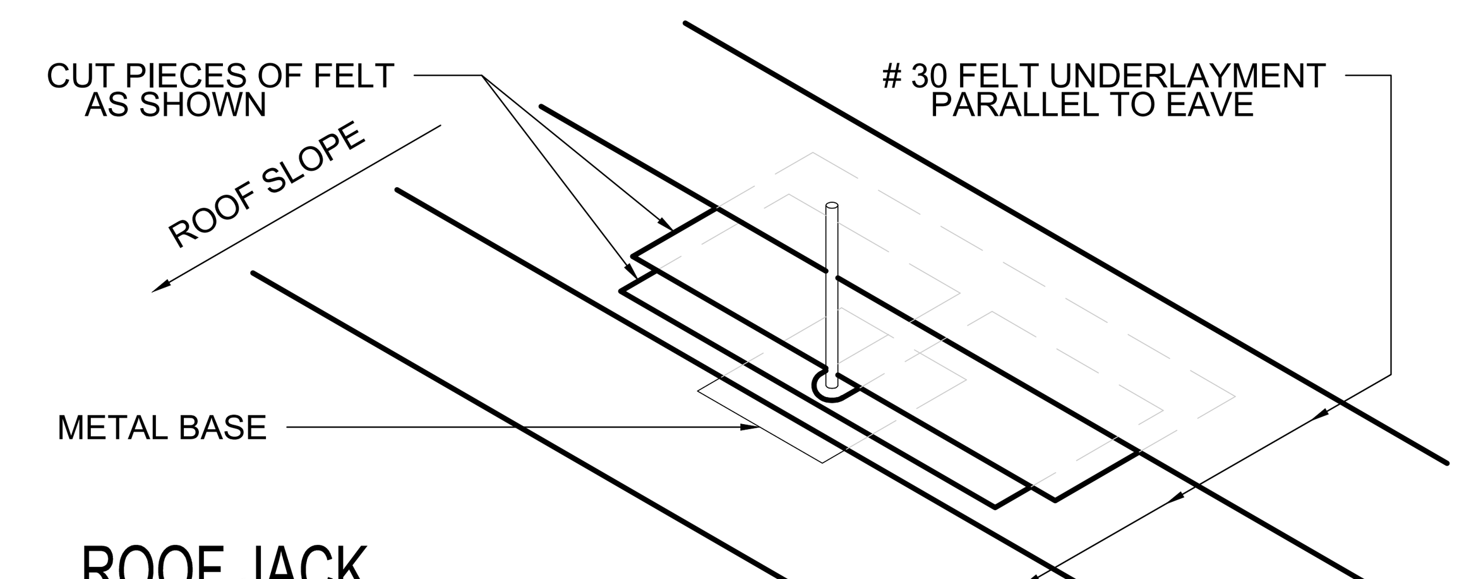


ROOF PENETRATION

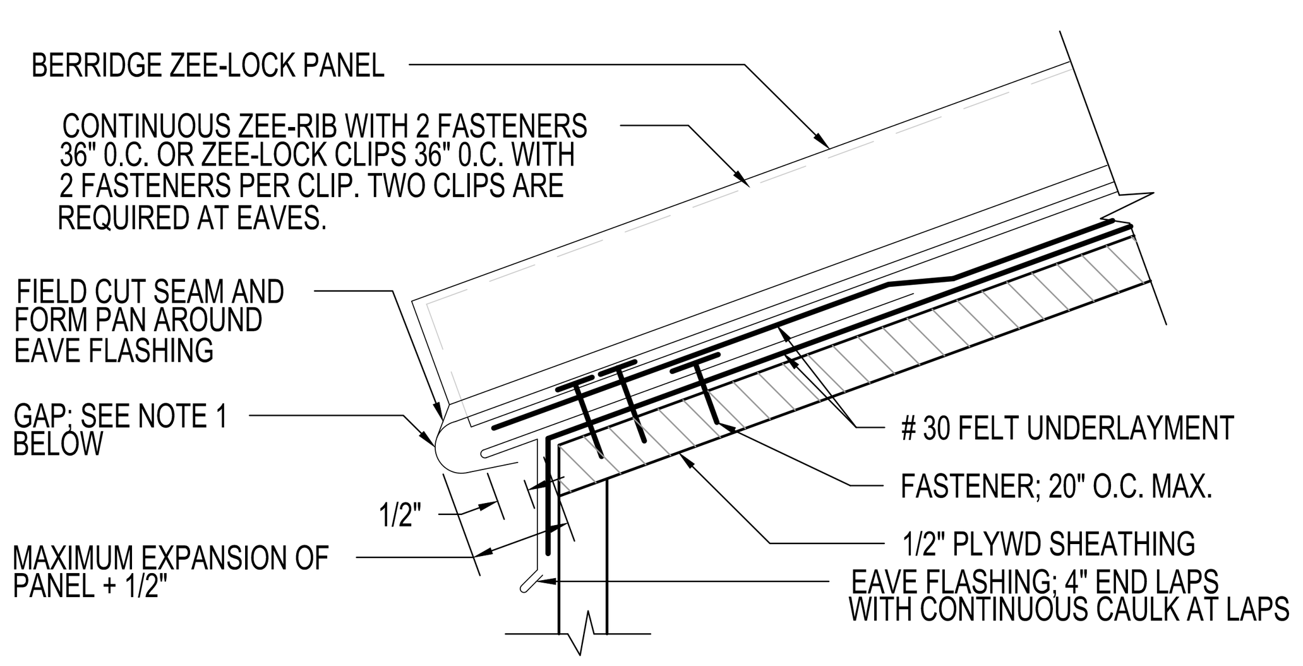
LAP FELT OVER TOP OF BASE. INSULATE BETWEEN DISSIMILAR METALS WITH ROOFING FELT

GRACE ICE AND WATERSHIELD OR EQUAL MAY BE USED IN PLACE OF # 30 FELT UNDERLAYMENT. NOTE ICE AND WATERSHIELD MAY BE REQUIRED REFERENCE INSTALLATION INSTRUCTIONS.

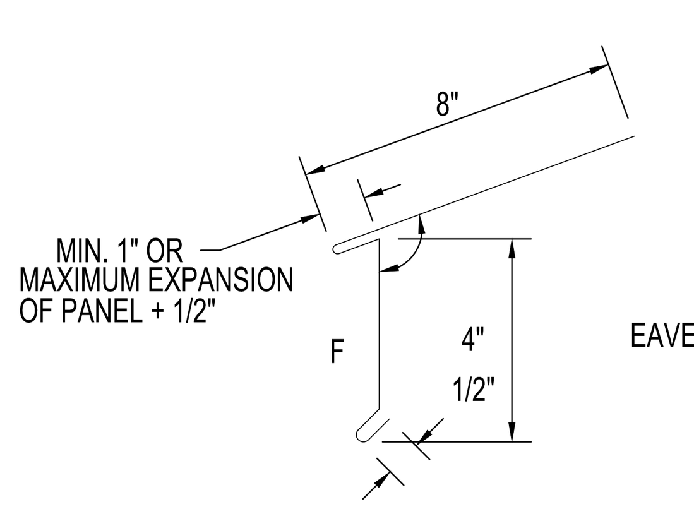


ROOF JACK

ROOF PENETRATION ROOF JACK UNDERLAYMENT

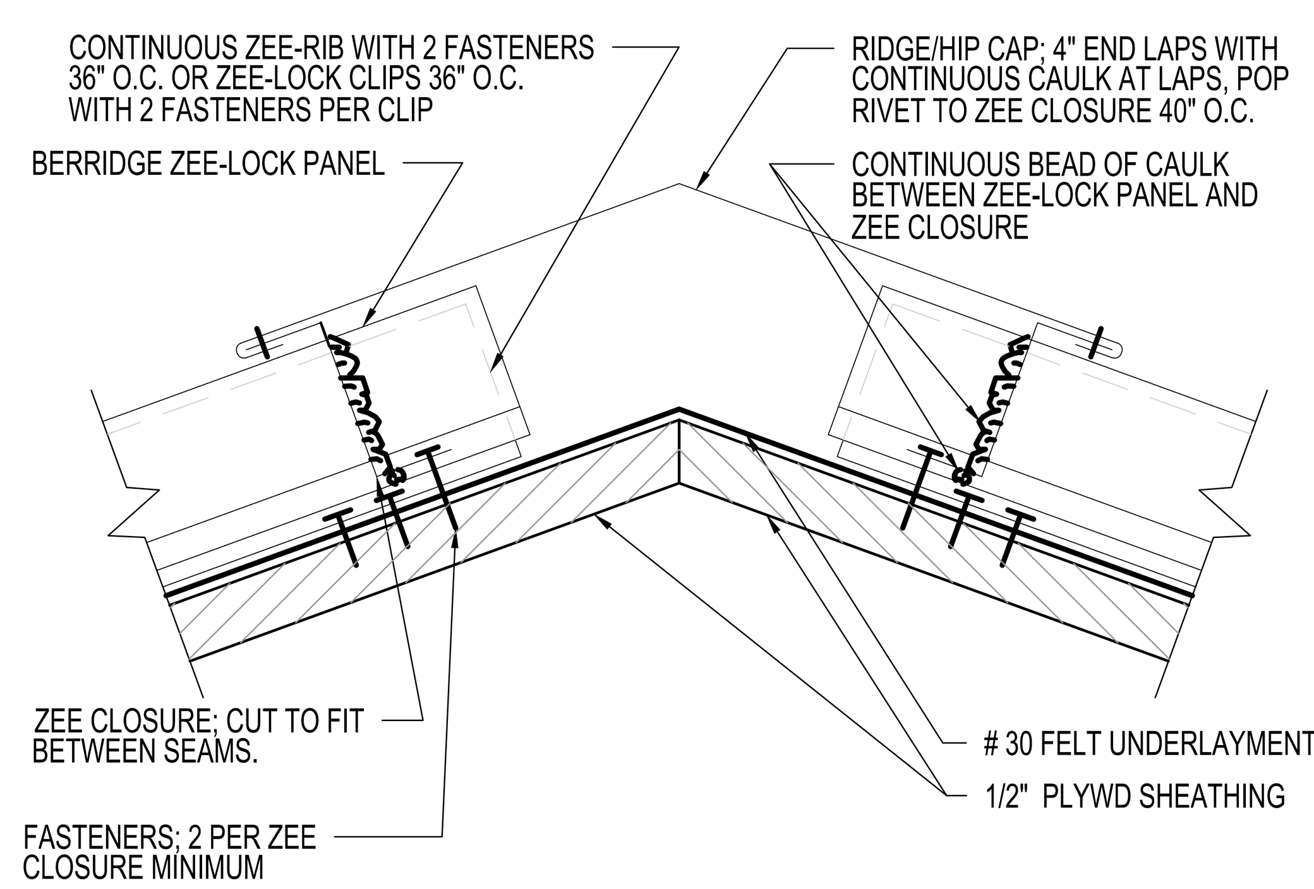


1. THE "GAP" BETWEEN EAVE FLASHING AND PANEL (SEE DETAIL ABOVE) CAN BE INCREASED TO ALLOW FOR LINEAR EXPANSION AND CONTRACTION OF PANELS. NOTE 1/2" OF PAN MUST BE ENGAGED WITH EAVE FLASHING WHEN PANEL HAS EXPANDED TO ITS MAXIMUM LENGTH.
2. GAP BETWEEN EAVE FLASHING AND PANEL MUST BE ADJUSTED TO SUIT TEMPERATURE DURING INSTALLATION.



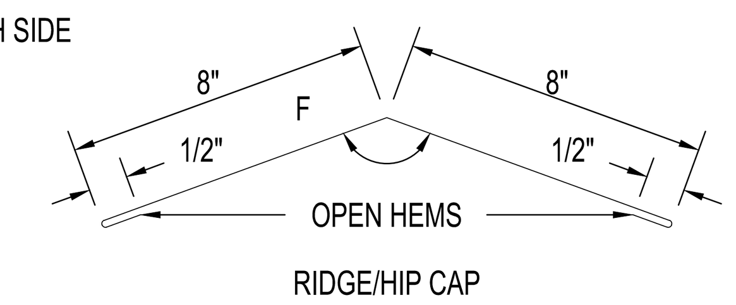
F = FINISH SIDE

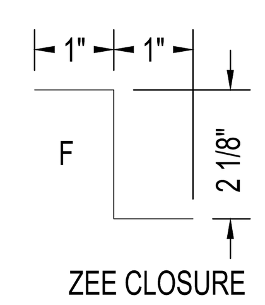
EAVE DETAIL



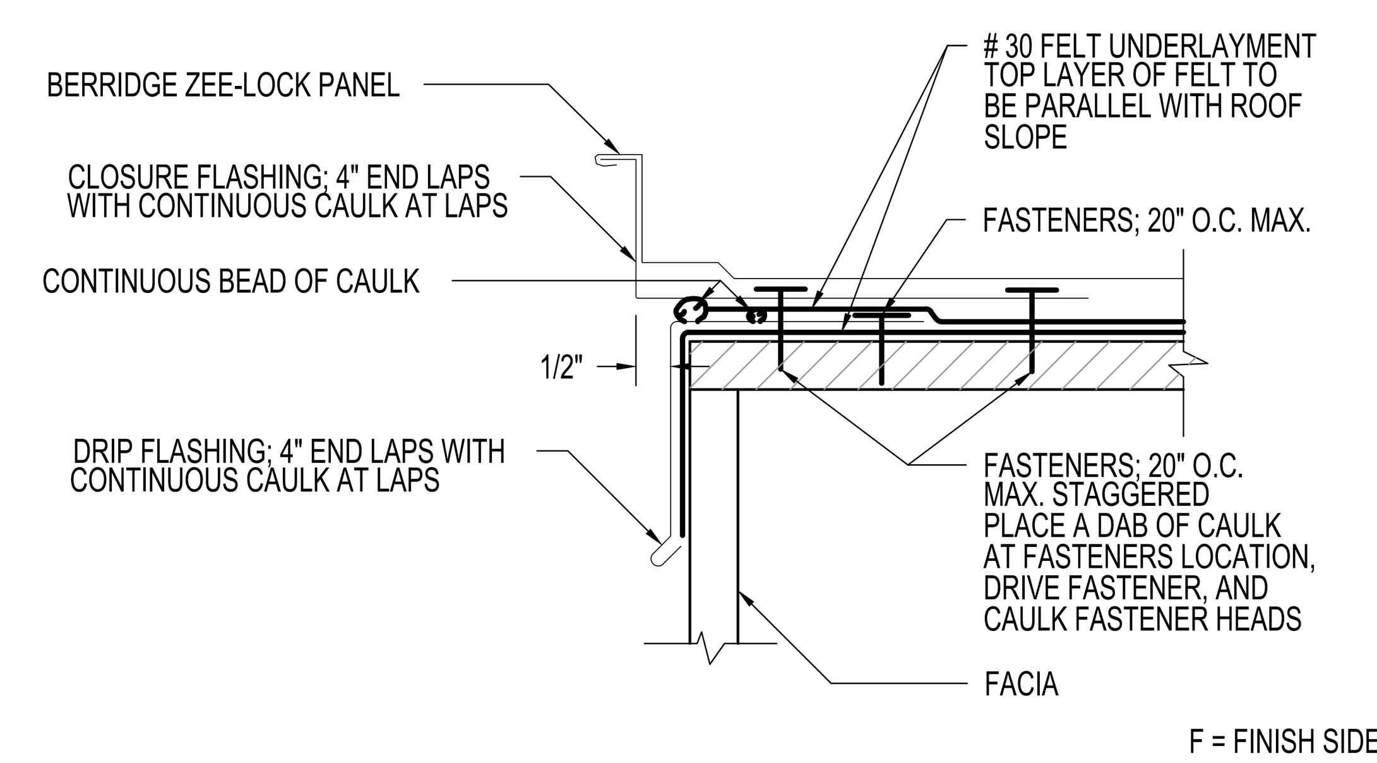
1. FIELD CUT ZEE CLOSURE TO FIT BETWEEN PANEL SEAMS FOR RIDGE.

F = FINISH SIDE





RIDGE DETAIL



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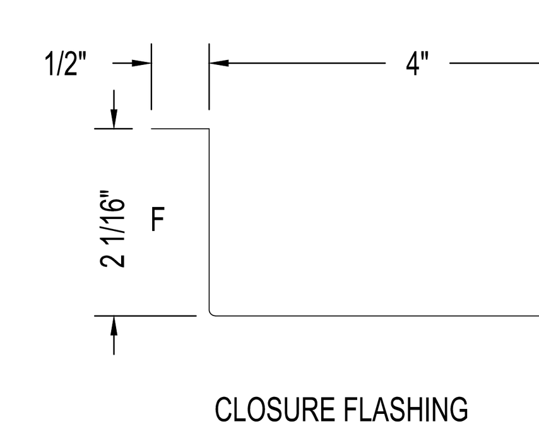
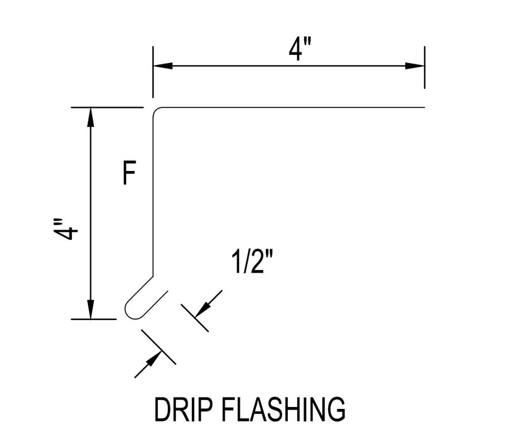
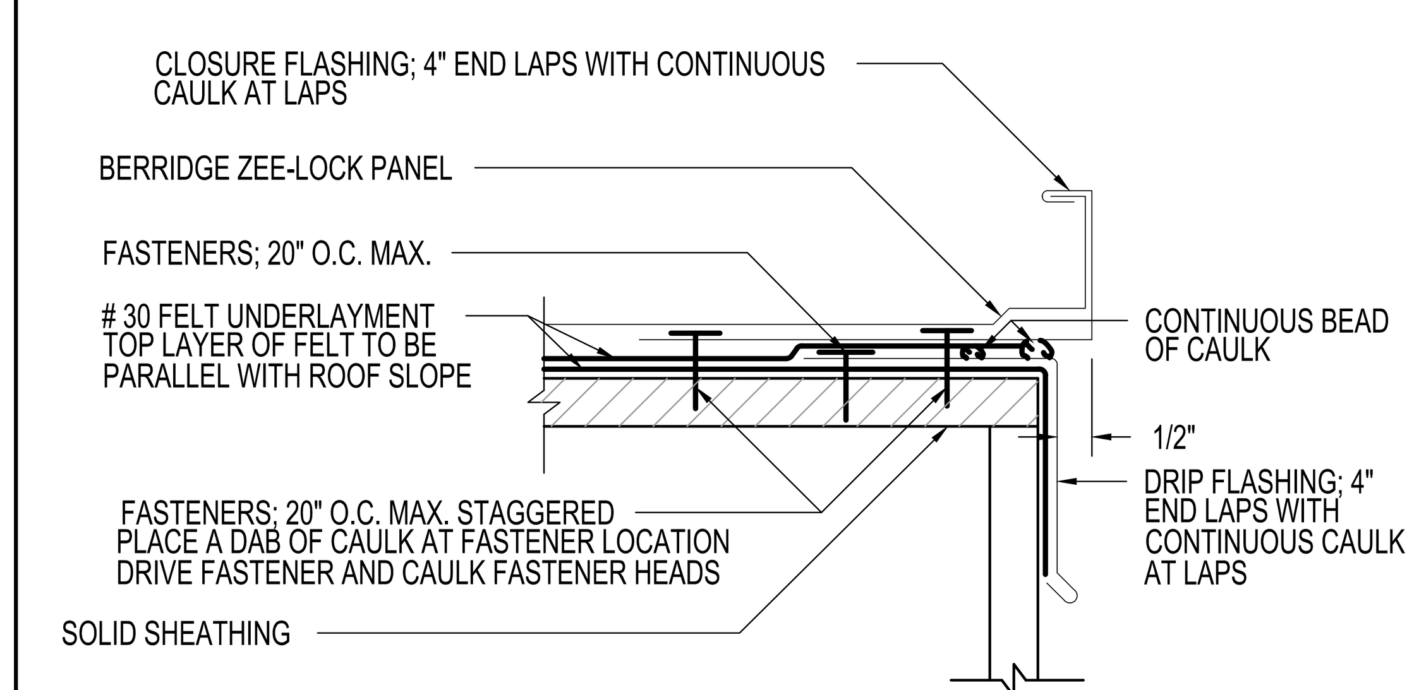
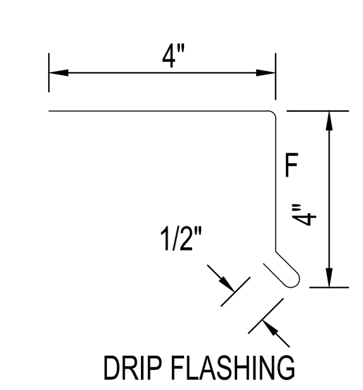


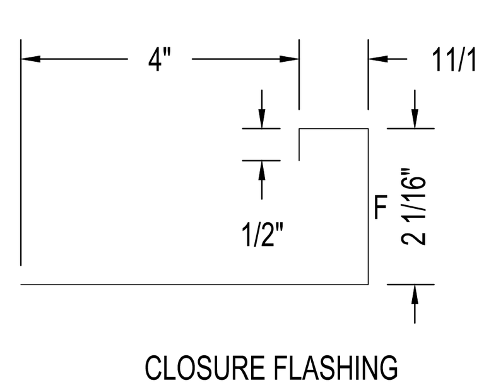


GABLE DETAIL LEFT SIDE; CLOSURE FLASHING;



F = FINISH SIDE





GABLE DETAIL RIGHT SIDE; CLOSURE FLASHING;

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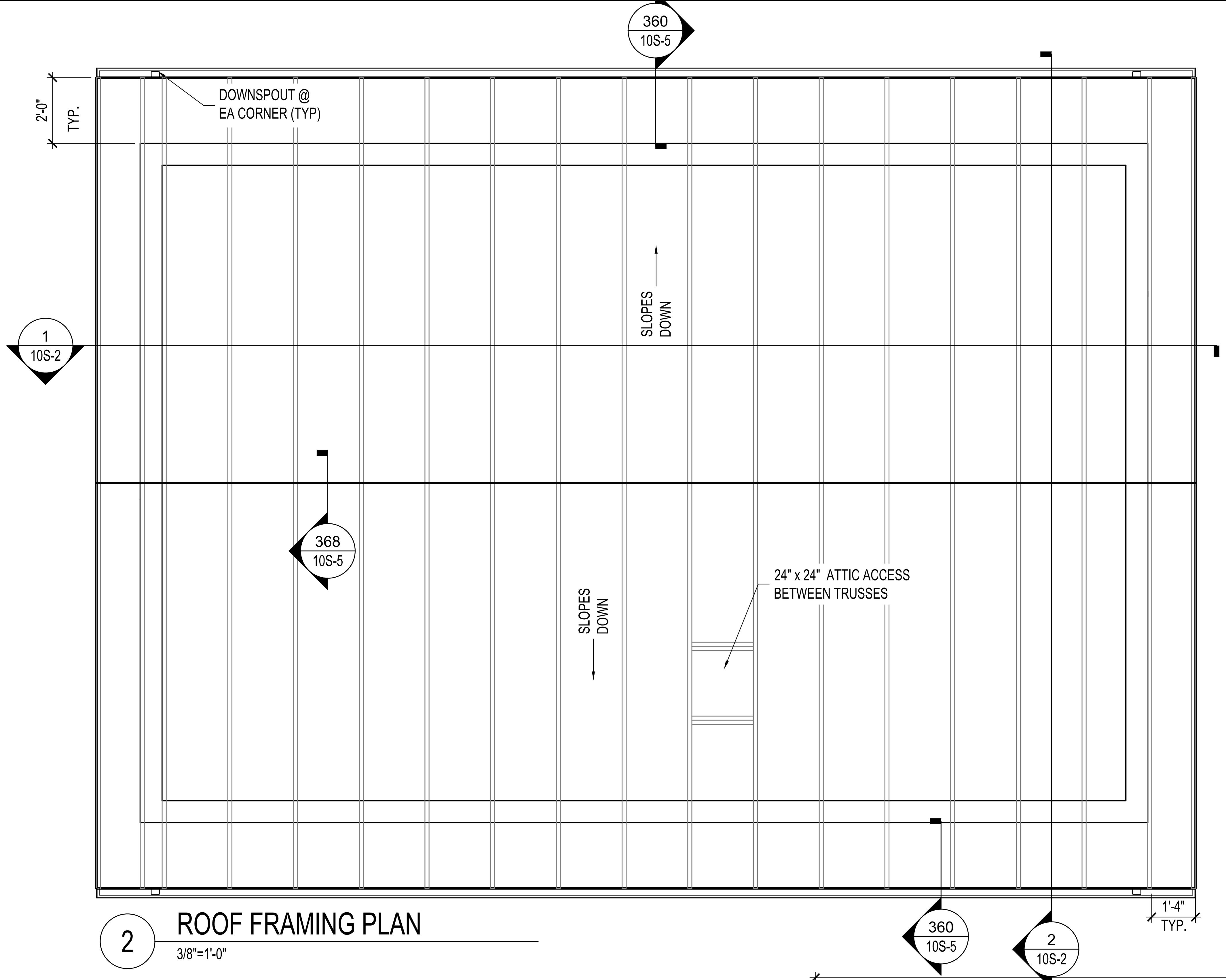
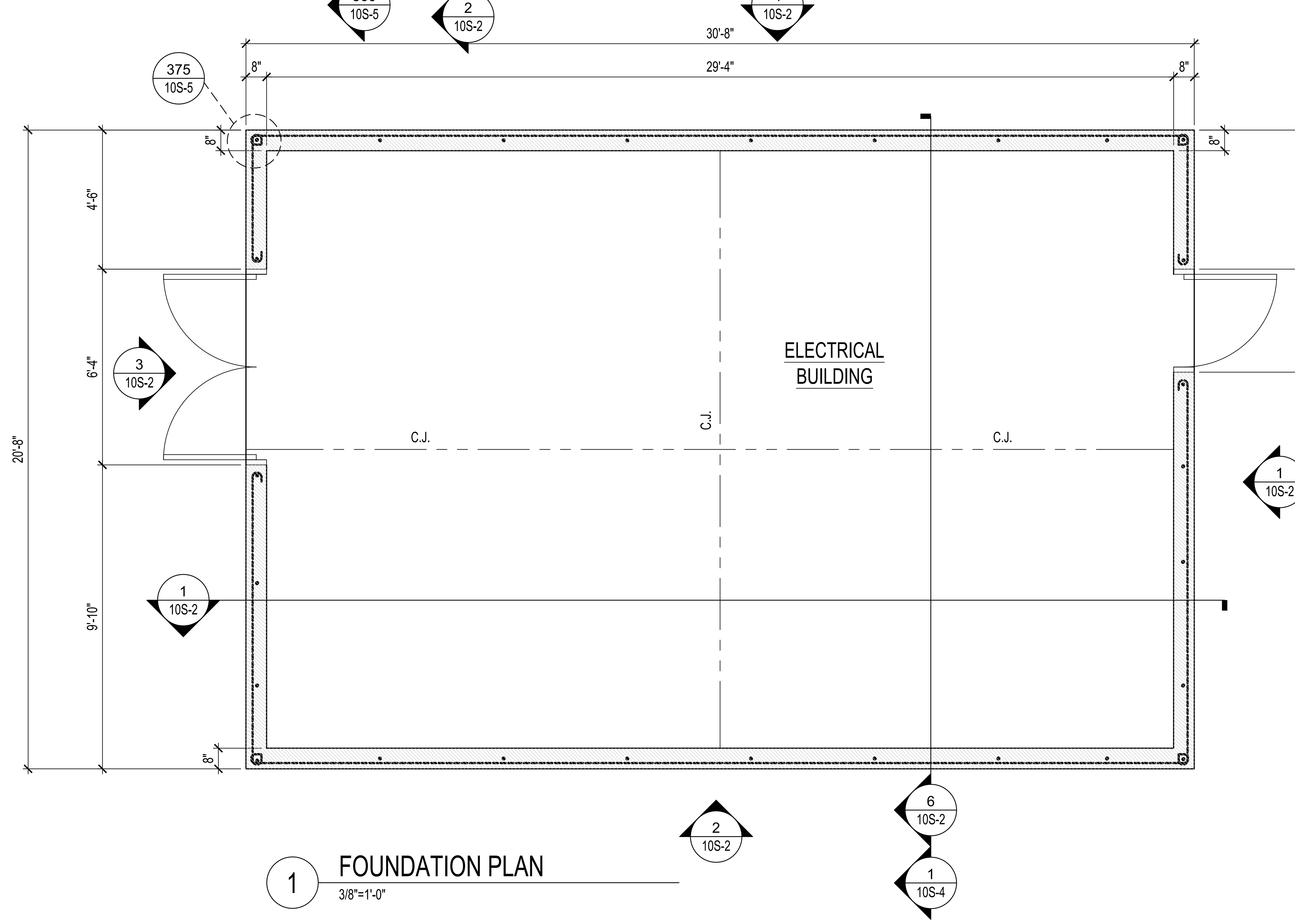
BLOWER BUILDING

DETAILS

9S-7



2 ROOF FRAMING PLAN
3/8"=1'-0"



1 FOUNDATION PLAN
3/8"=1'-0"

CMU WALL NOTES

1. REINF CMU WALLS W/ #4@48"OC UNO.
2. ADDITIONAL #4 VERT REINF AT:
   - 2.1. EACH SIDE OF OPENINGS
   - 2.2. WALL INTERSECTIONS
   - 2.3. ENDS OF WALLS
   - 2.4. AS NOTED & DETAILED ON DRAWINGS
3. PROVIDE BOND BEAMS REINF W/ (2)-#4 CONT AT:
   - 3.1. T&B OF OPENINGS
   - 3.2. TRUSS BEARING (CONT)
   - 3.3. TOP COURSE OF MASONRY WALLS
   - 3.4. AS NOTED & DETAILED ON DRAWINGS
4. PROVIDE MATCHING DOWELS FOR VERT REINF INTO FOUNDATION AND BOND BEAM @ TOP.
5. FILL ALL CMU CELLS BELOW FINISHED FLOOR & BELOW GRADE. FILL MATERIAL SHALL BE 3000 PSI GROUT, MIN.

WOOD FRAMING NOTES

1. SEE PRE-ENGINEERED METAL TRUSS NOTES FOR ROOF TRUSSES.
2. ROOF SHEATHING SHALL BE 5/8" APA RATED SHEATHING W/ #10 TEKS SCREWS @6"OC @ PANEL EDGES & @12"OC @ INTERMEDIATE SUPPORTS.

CONC REINF LAP LENGTH

3000 PSI (ACI 318-05)

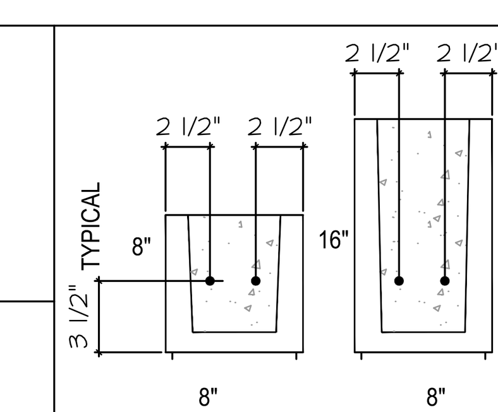
BAR SIZE	TENSION SPLICE CLASS 'B'
#3	22"
#4	29"
#5	36"
#6	43"
#7	63"
#8	72"
#9	81"

CMU REINF LAP LENGTH

Fy=60 KSI, f'm=1500 PSI

BAR SIZE	SPLICE LENGTH
#3	19"
#4	25"
#5	31"
#6	57"
#7	70"
#8	98"

MASONRY LINTEL SCHEDULE



OPENING WIDTH			
MINIMUM	MAXIMUM	8" CMU	16" CMU
	3'-4"	2 - #4	2 - #4
3'-4"	5'-4"	2 - #5	2 - #5
5'-4"	7'-4"	2 - #6	2 - #5
7'-4"	10'-0"	——	2 - #6

1. EXTEND BOND BEAM REINFORCING 24" OR 40 BAR DIAMETERS (WHICHEVER IS GREATER) BEYOND THE EXTENTS OF THE OPENING. VERTICAL REINFORCING AT THE SIDES OF THE OPENING SHALL BE CONTINUOUS THROUGH THE BOND BEAM. PROVIDE KNOCK OUTS IN THE BOTTOM OF THE BOND BEAM BLOCK AS REQUIRED TO ALLOW REINFORCING TO PASS THROUGH.
2. SEE DETAILS 373 & 374 FOR ADDITIONAL REINFORCING AT OPENINGS.

STRUCTURE NOTES

1. DESIGN SOIL BEARING PRESSURE = 2000 PSF. SOIL BRN'G PRESSURE SHALL BE VERIFIED AT TIME OF EXCAVATION AND ENGINEER SHALL BE NOTIFIED IF ACTUAL SOIL BEARING PRESSURE IS LOWER THAN DESIGN VALUE. FOUNDATION DESIGN & SUBSURFACE INFORMATION IS BASED ON A SOILS REPORT PREPARED BY TERRACON CONSULTING, INC. (PROJECT# ES165069).
2. FLOOR LIVE LOAD = 100 PSF
3. PRE-ENGINEERED TRUSS DESIGN LOADS:
   TOP CHORD:
   - DEAD LOAD = 10 PSF + TRUSS WEIGHT
   - LIVE LOAD = 20 PSF

   BOT CHORD:
   - DEAD LOAD = 5 PSF + TRUSS WEIGHT
   - LIVE LOAD = 10 PSF (60 PSF @ ACCESS LOCATIONS)
   - MECH LOAD = 200# CONCENTRATED LOAD @ ANY LOCATION ALONG BOT CHORD
4. WIND LOADS:
   - BASIC WIND SPEED (V, 3 SEC GUST) = 110 MPH
   - OCCUPANCY CATEGORY = IV
   - WIND IMPORTANCE FACTOR (I_W) = 1.15
   - UPWIND EXPOSURE CATEGORY = B
   - INTERNAL PRESSURE COEFF. (GC_{PI}) = ±0.18
   - COMPONENTS & CLADDING NET DESIGN PRESSURES (P_{NET} PER ASCE 7-10, METHOD 1)
     - ROOF COMPONENTS & CLADDING DESIGN PRESSURES:
       - MAIN ROOF = -55.1 PSF, +13.1 PSF (BASED ON 20 SF AREA)
       - OVERHANG = -70.8 PSF
     - WALL COMPONENTS & CLADDING DESIGN PRESSURES = -33.5 PSF, + 25.0 PSF (BASED ON 10 SF AREA)
5. SEISMIC DESIGN CRITERIA:
   - OCCUPANCY CATEGORY = IV
   - SEISMIC IMPORTANCE FACTOR (I_E) = 0.127
   - S_S = 0.127 S_1 = 0.067
   - SITE CLASS = D
   - S_{DS} = 0.135 S_{D1} = 0.107
   - BASIC SEISMIC-FORCE-RESISTING SYSTEM (PER ASCE 7-10 TABLE 12.2-1 OR 12.14-1):
     - BEARING WALL SYSTEM - LATER MEDIATE REINFORCED MASONRY SHEAR WALLS
   - RESPONSE MODIFICATION FACTOR (R) = 3.5
   - SEISMIC RESPONSE COEFF. (C_S) = 0.059
   - SEISMIC DESIGN CATEGORY = C
   - DESIGN BASE SHEAR = 23.6 K
   - ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE

FOUNDATION NOTES

1. STEP FOOTINGS DOWN BELOW MECHANICAL, ELECTRICAL, OR PLUMBING LINES AS REQUIRED TO AVOID INTERFERENCE. SEE TYP FOOTING STEP DETAIL. COORDINATE W/ OTHER TRADES. PROVIDE PIPE SLEEVE TWO PIPE SIZES GREATER THAN THE PIPE PASSING THROUGH THE WALL.
2. WHERE UTILITY LINES PASS UNDER A FOOTING, PROVIDE RELIEVING ARCH FOR PROTECTION.

CONC SLAB NOTES

1. SIDEWALK SLABS SHALL BE 3000 PSI, 4" THICK CONC REINF W/ 6x6-W1.4xW1.4 WWF @ CENTER OF SLAB. FLOOR SLAB SHALL BE 3000 PSI, 8" THICK CONC. REINFORCED W/#4'S @12" o.c. EA WAY CTR. OF SLAB. SEE PLAN FOR FINISHED FLOOR ELEVATIONS. (REFER TO CIVIL DRAWINGS FOR SIDEWALK LOCATIONS & DETAILS.
2. PROVIDE 4" THICK NO. 57 STONE GRANULAR BASE & VAPOR BARRIER UNDER INTERIOR FLOOR SLAB.
3. CONDUITS & PIPES EMBEDDED IN SLABS:
   - 3.1. SHALL NOT BE LARGER IN OUTSIDE DIM THAN 1/3 THE OVERALL THICKNESS OF SLAB.
   - 3.2. SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS OR WIDTHS ON CENTER.
   - 3.3. MIN SLAB THICKNESS OF 2½" MUST BE MAINTAINED OVER THE EMBEDDED ITEMS.

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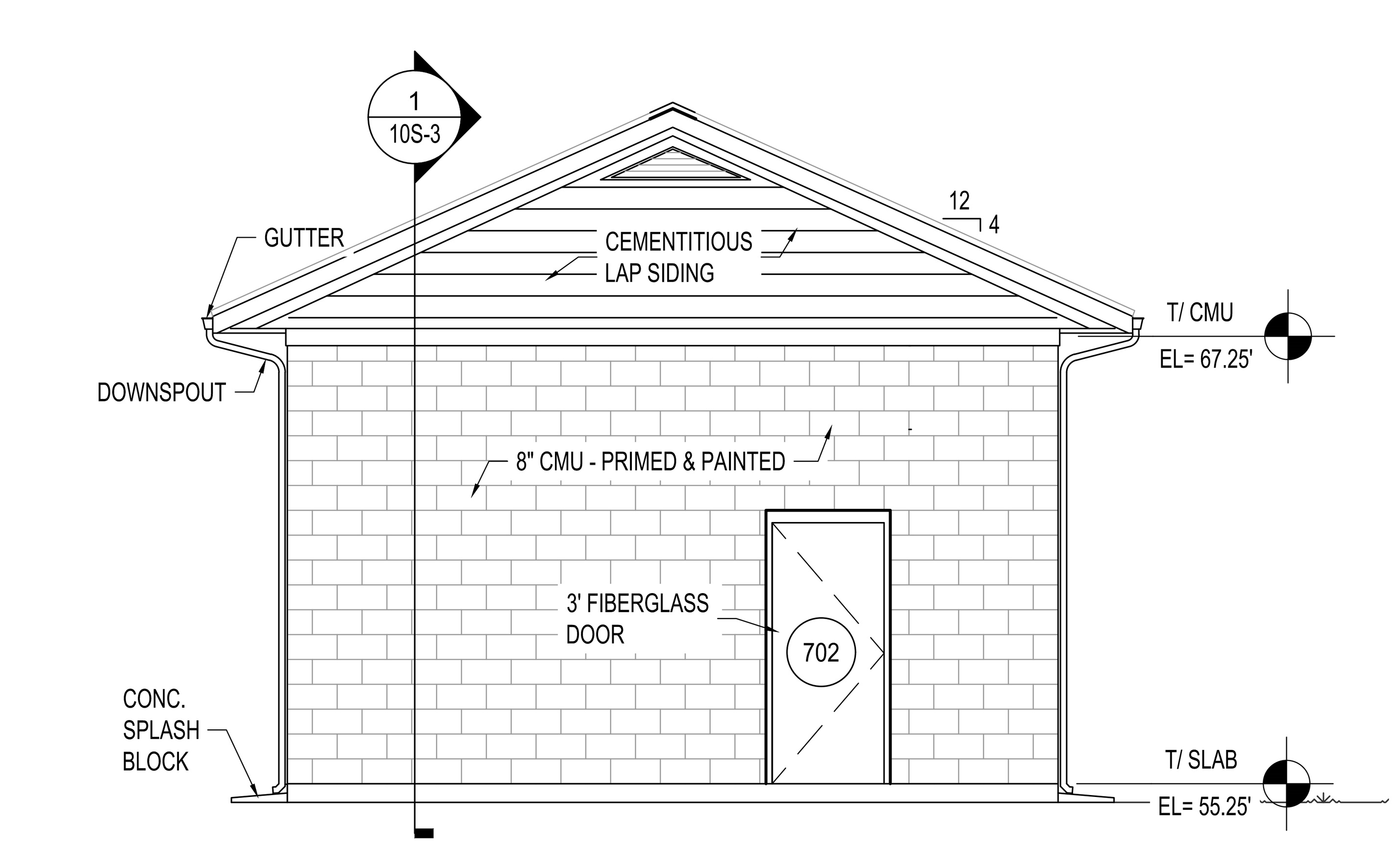
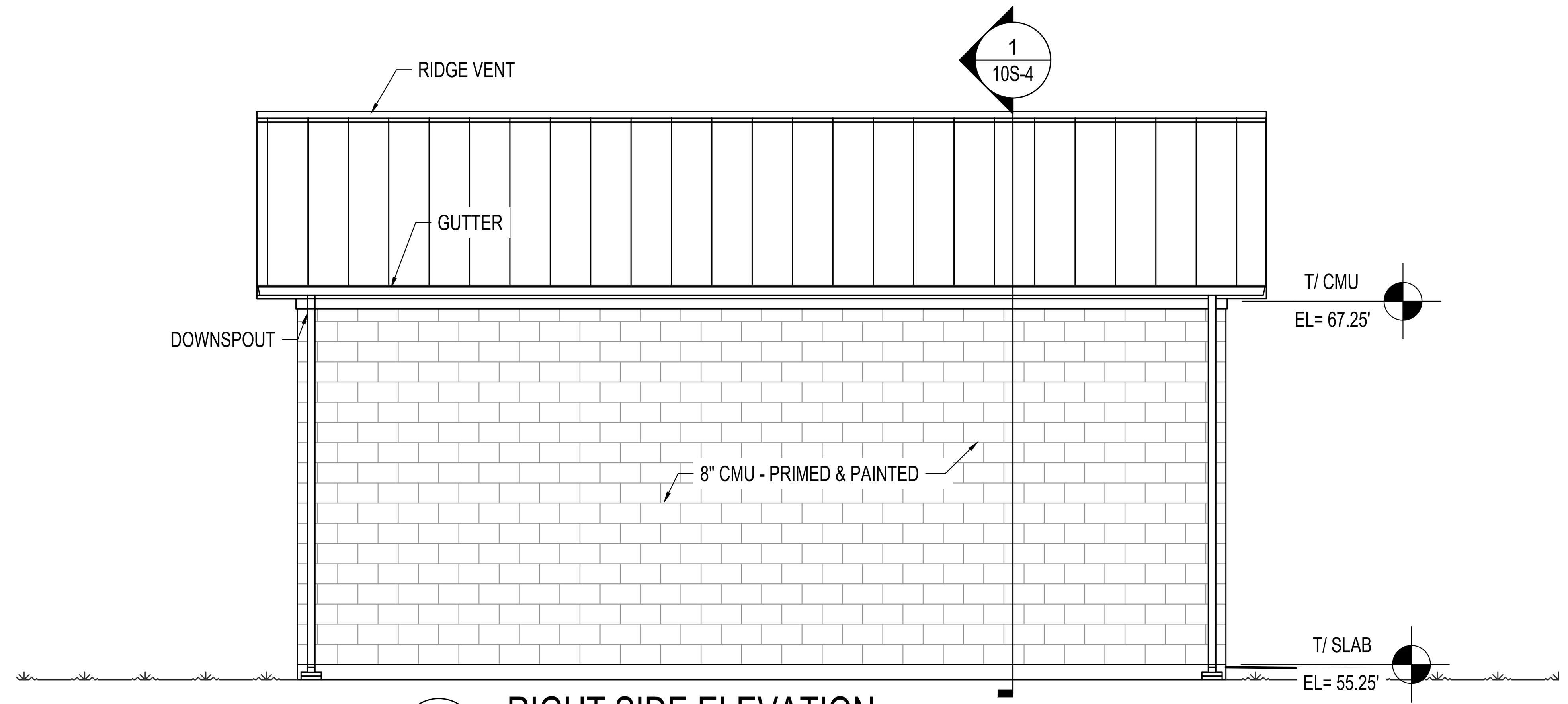
ELECTRICAL BUILDING

NOTES AND PLANS

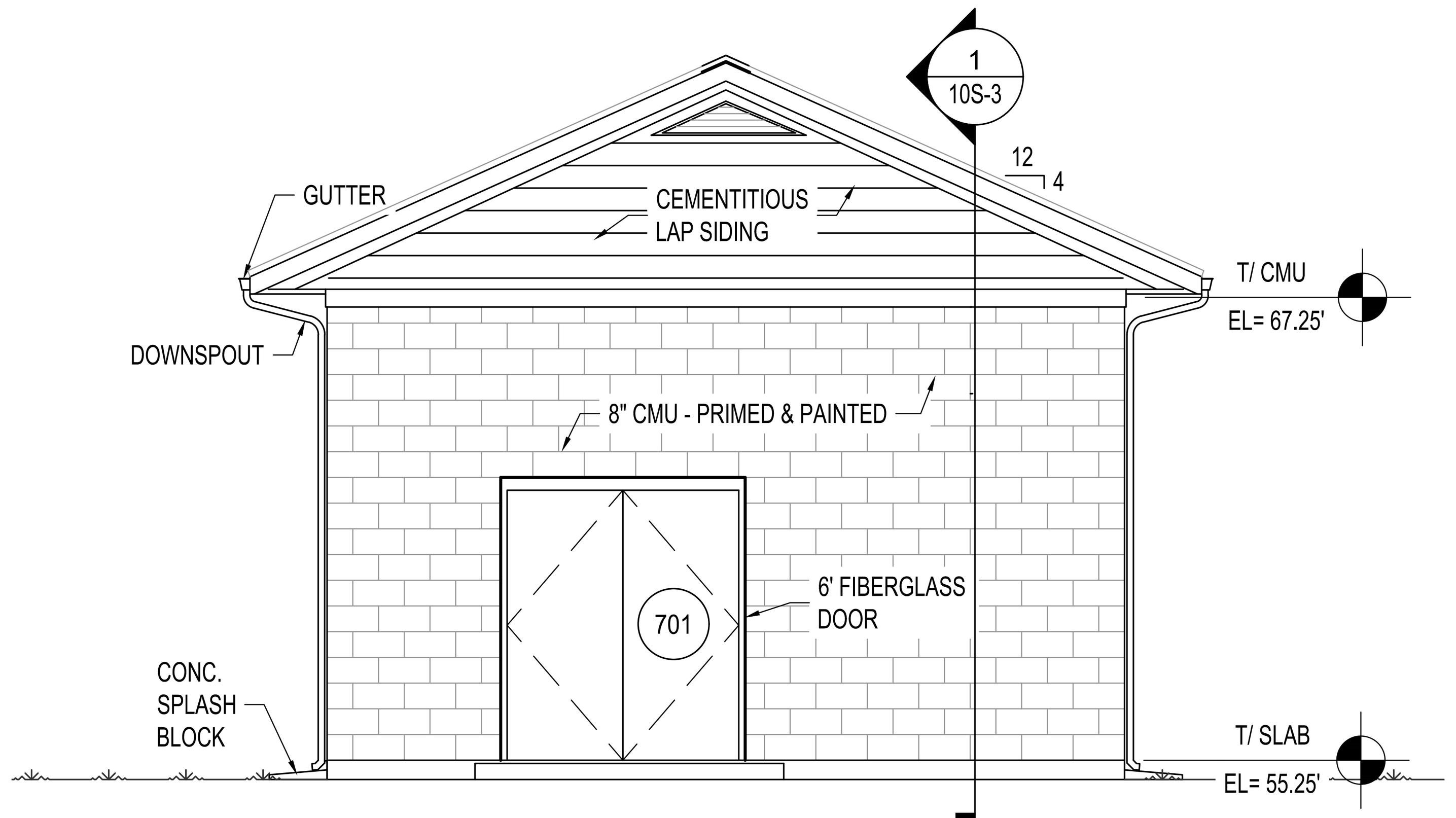
10S-1
SHEET 1 OF 07



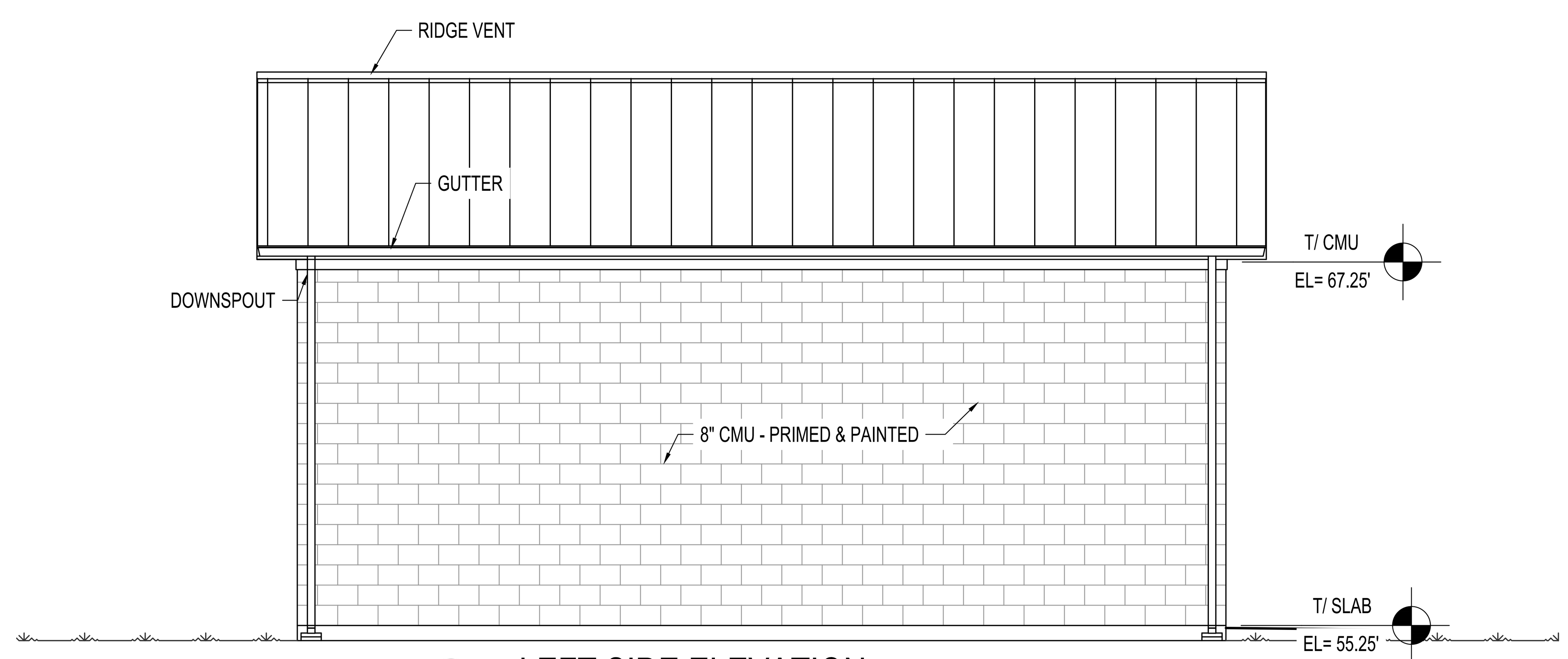
1 FRONT ELEVATION
1/4"=1'-0"



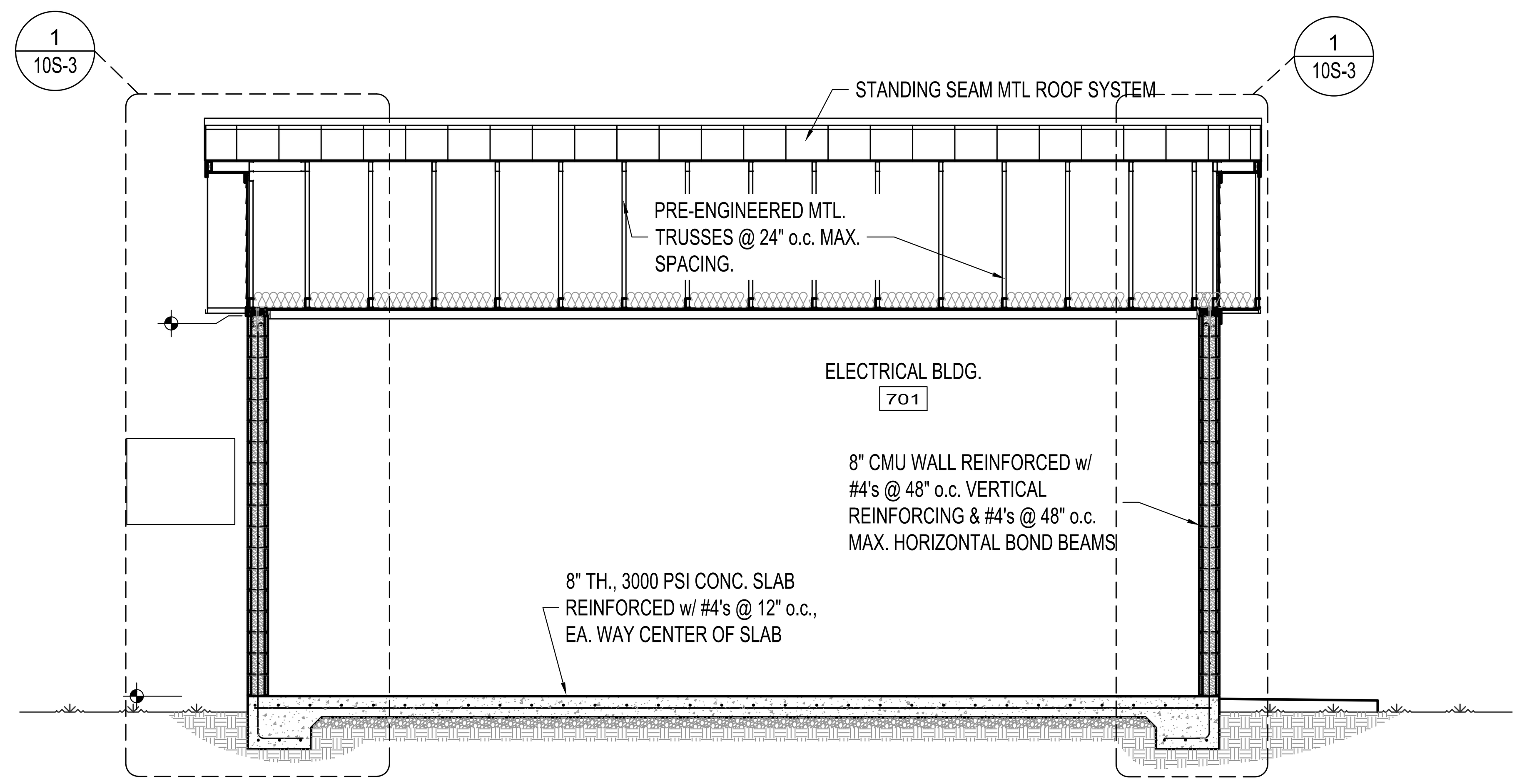
2 RIGHT SIDE ELEVATION
1/4"=1'-0"



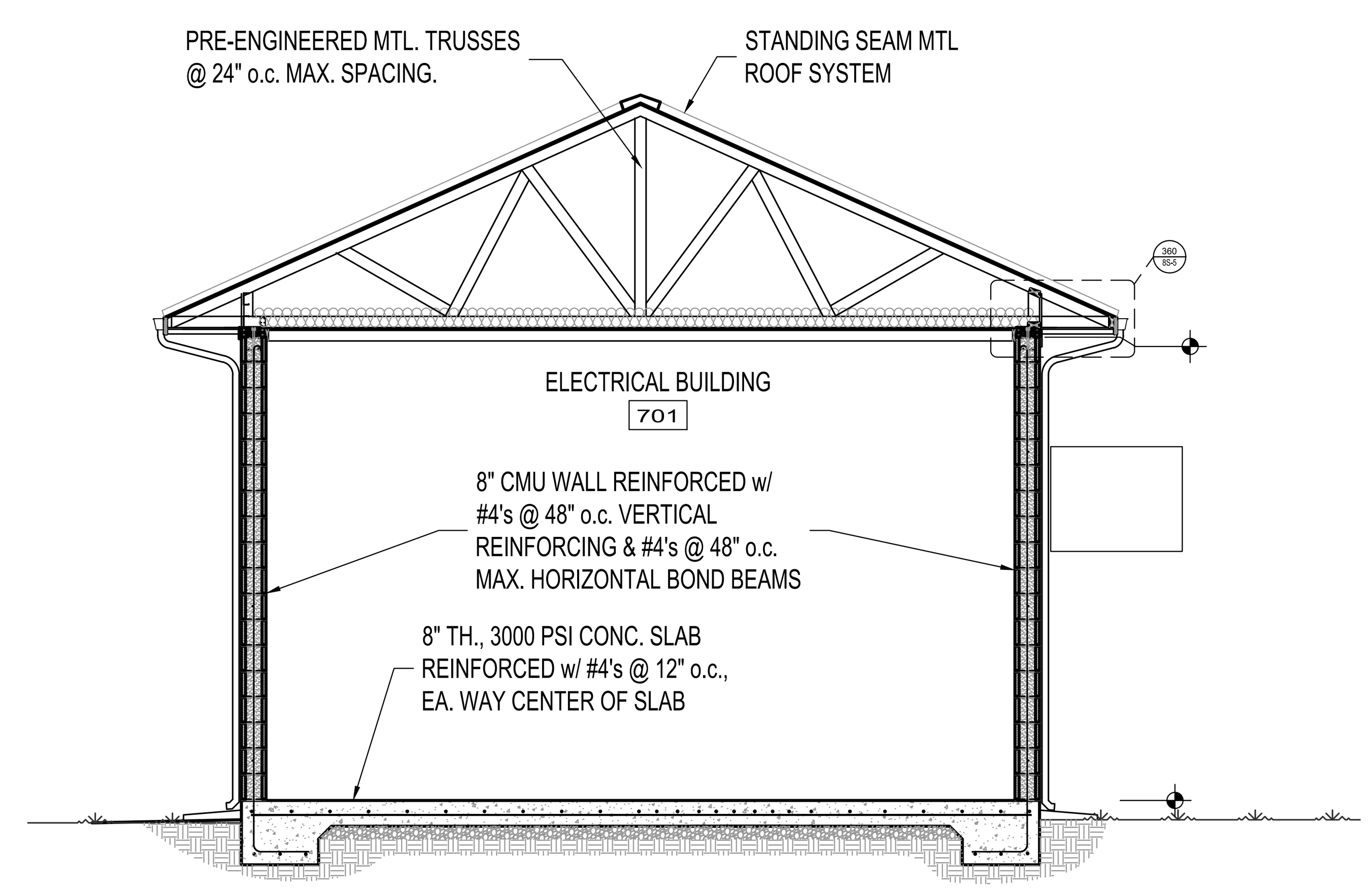
3 REAR ELEVATION
1/4"=1'-0"



4 LEFT SIDE ELEVATION
1/4"=1'-0"



5 LONGITUDINAL BUILDING SECTION
1/4"=1'-0"



6 TRANSVERSE BUILDING SECTION
1/4"=1'-0"

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Greensboro, GA 30642

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 27855 RALPH H. BOSWELL
10/10/2019

FOLKSTON TREATMENT PLANT
FOR:
THE CITY OF FOLKSTON
FOLKSTON GEORGIA
CHARLTON COUNTY, GEORGIA

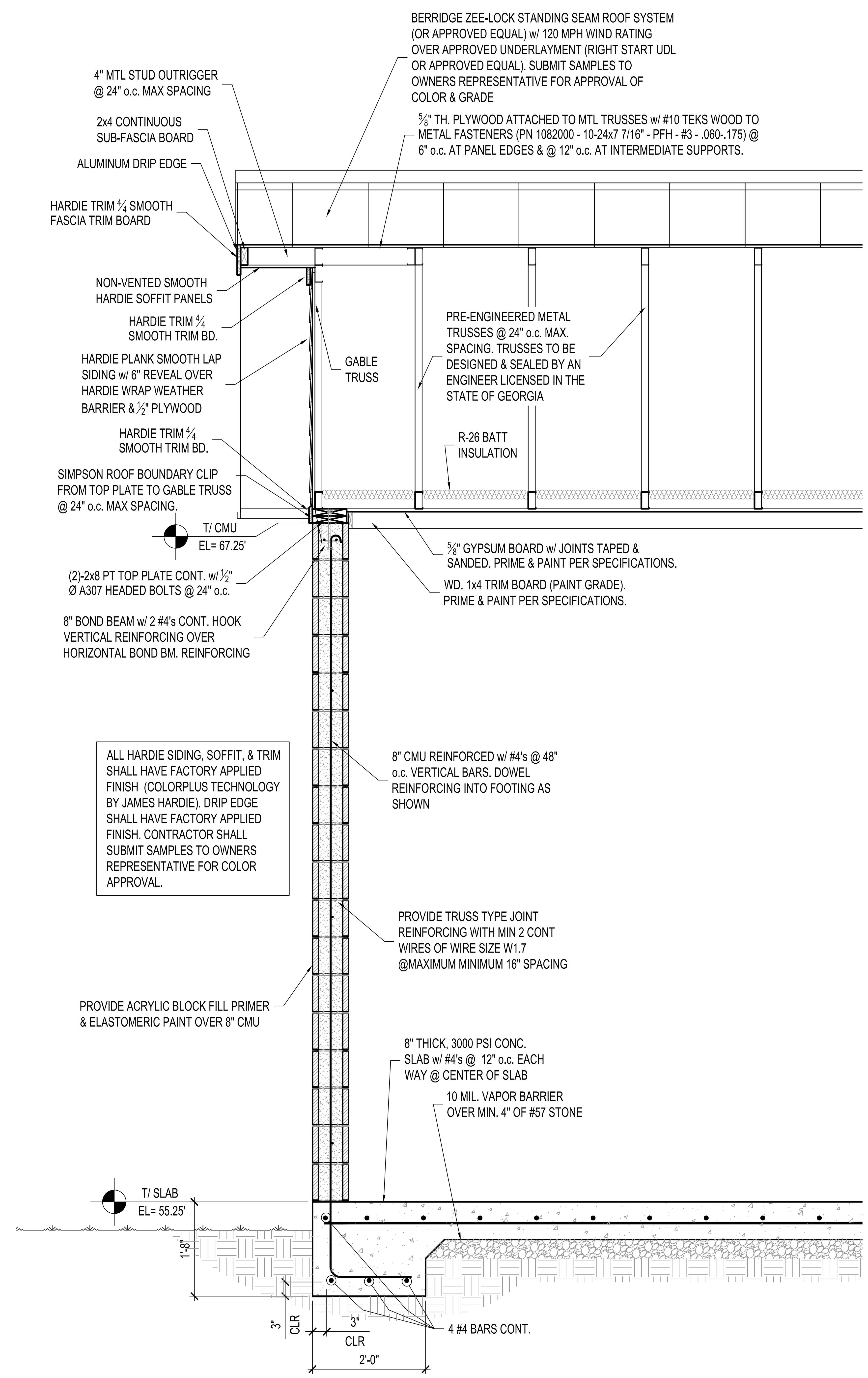
MARK	DATE	BY	DESCRIPTION
	10-10-2019		EPD SUBMITTAL
	07-08-2019		85% SET FOR REVIEW
	06-14-2019		80% SET FOR REVIEW

OE PROJECT NO: OE18132
FILE NAME: OE18132-10S-CORE
ORIGINAL DRAWING SIZE: 36"x24"
DATE: 6-14-2019

DESIGNED:
DRAWN:
CHECKED:
APPROVED:

ELECTRICAL BUILDING

NOTES AND PLANS



1 **SIDE WALL SECTION**
3/4"=1'-0"

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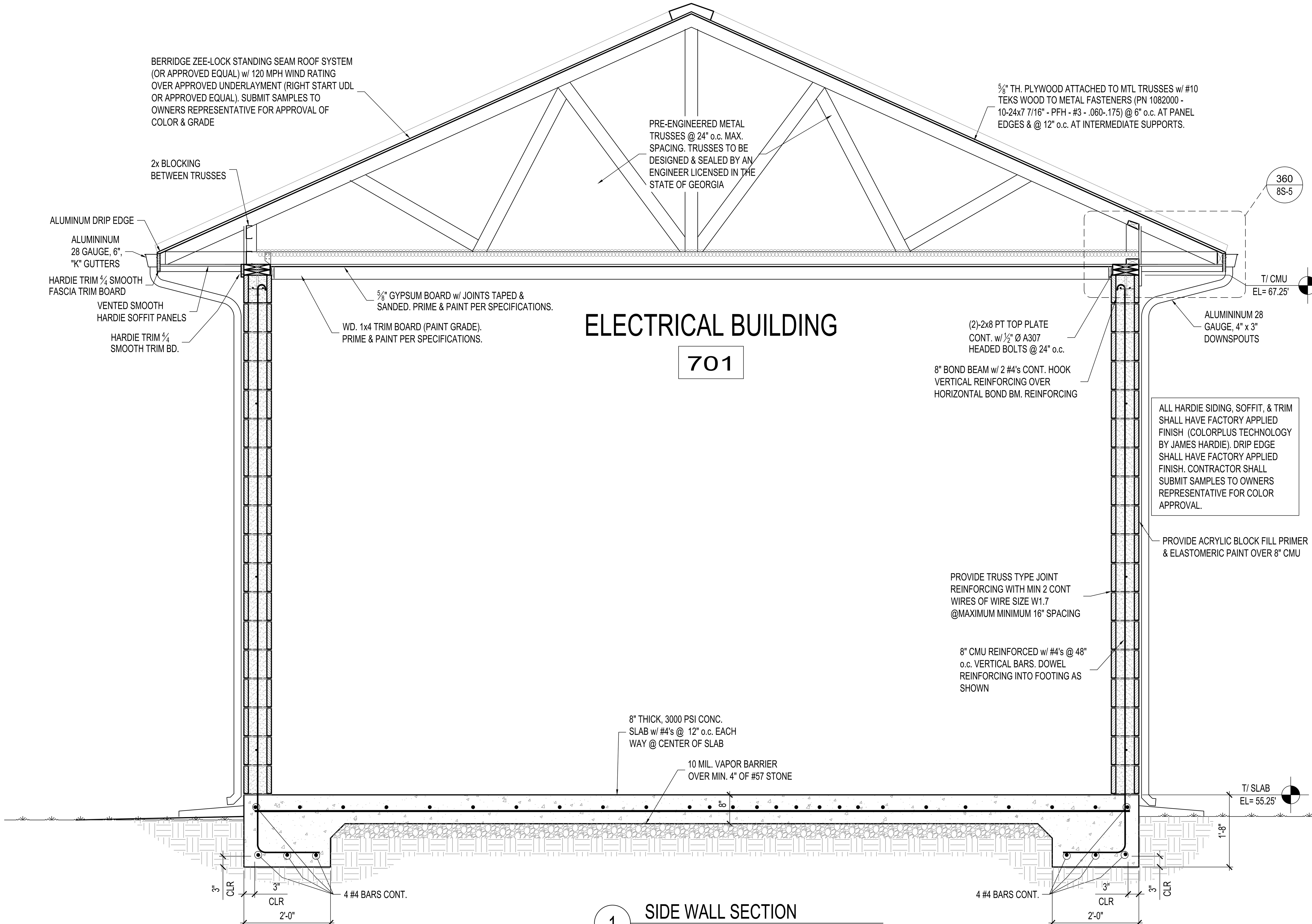
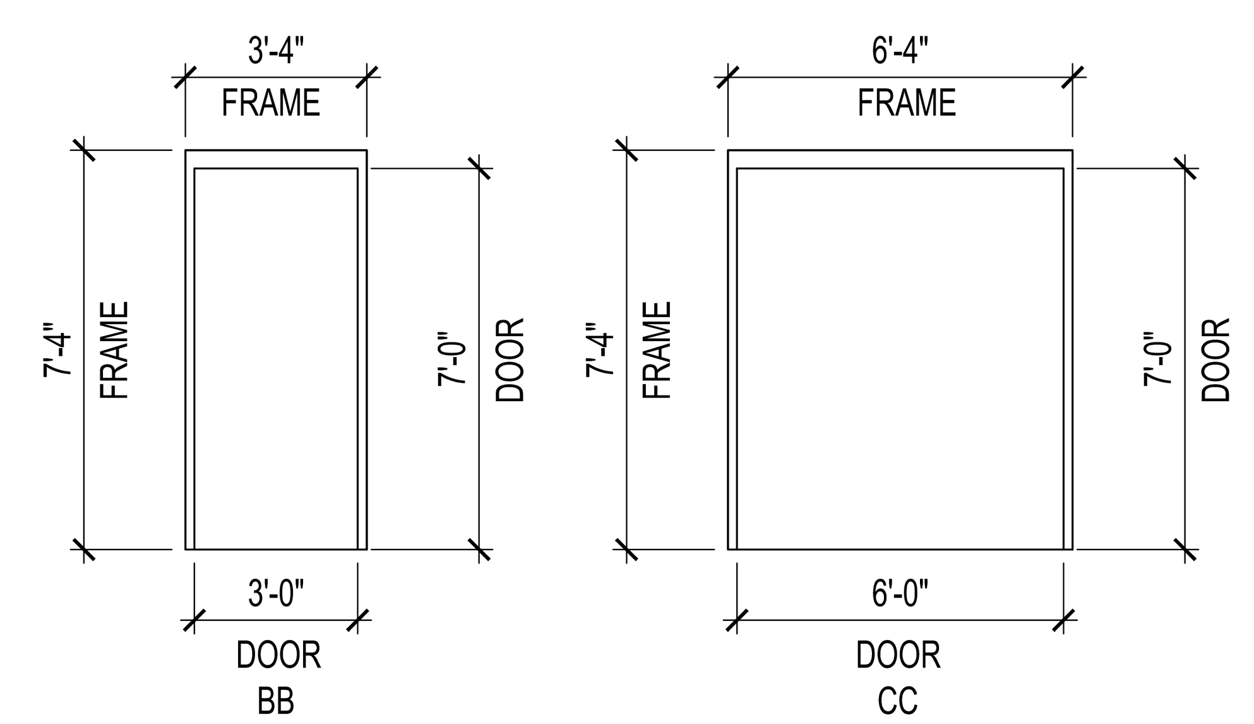
NOTES AND PLANS

10S-3
SHEET 3 OF 07



1 SIDE WALL SECTION
3/4"=1'-0"



3 DOOR & FRAME ELEVATIONS
N.T.S.

FINISH SCHEDULE

ROOM NUMBER	FLOORS	WALLS	CEILING	REMARKS
701	SEALED CONCRETE	PAINTED CMU	PAINTED GYP. BOARD	

DOOR SCHEDULE

DR. #	WIDTH	HEIGHT	THK.	TYPE	MATERIAL	FIRE LABEL	FRAME MTL.	REMARKS
701	6-0	7-0	1 3/4"	CC	FRP		FRP	SEE NOTE FOR MFR.
702	3-0	7-0	1 3/4"	BB	FRP		FRP	SEE NOTE FOR MFR.

NOTE: DOOR #701 & #702 BY CHEM-PRUF DOOR CO. OR APPROVED EQUAL.

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CHECKED:
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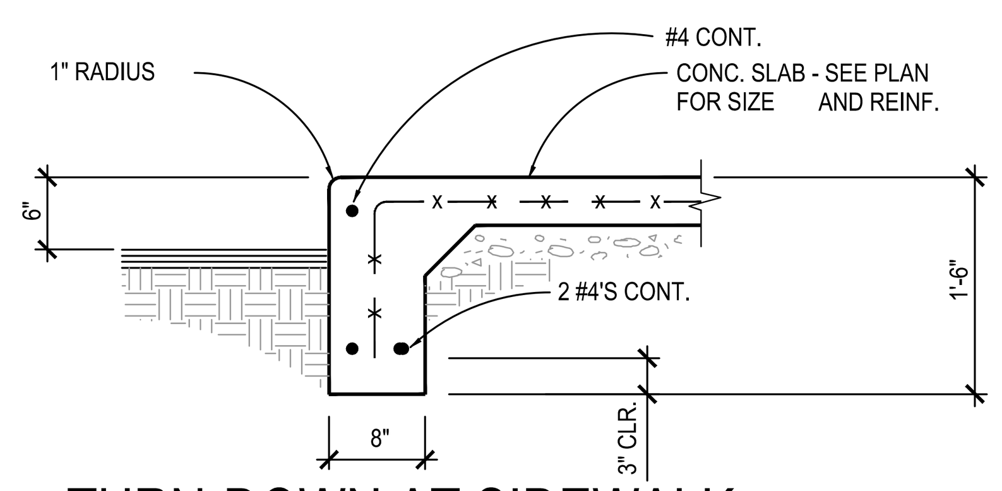
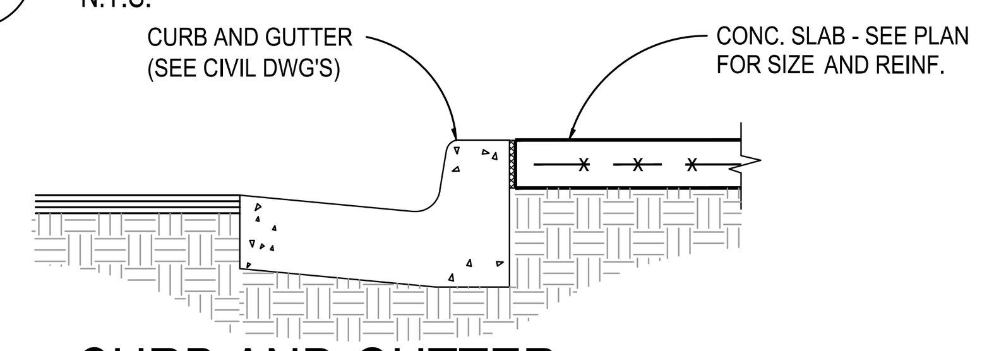
ELECTRICAL BUILDING

NOTES AND PLANS

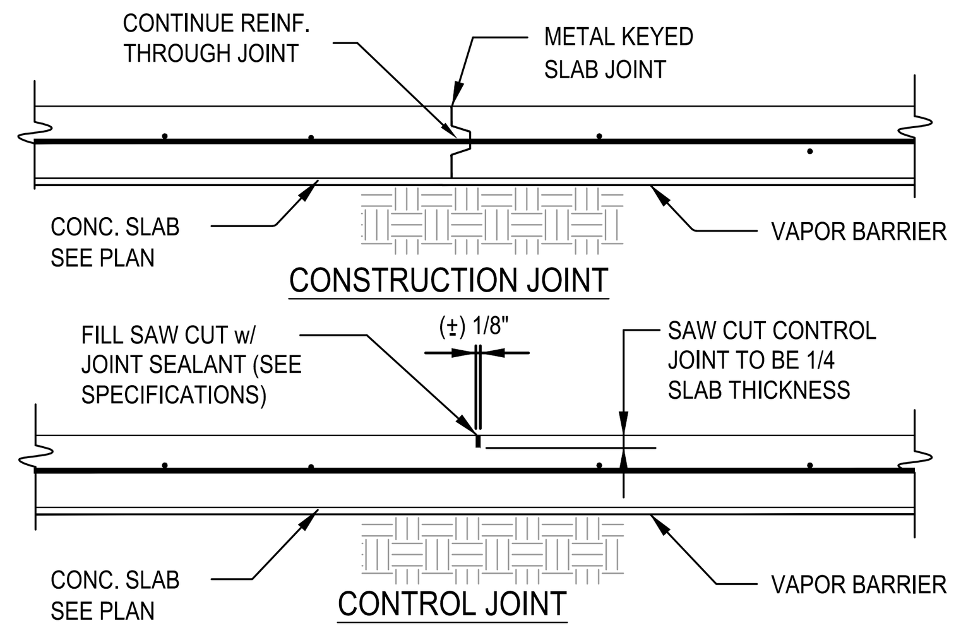
10S-4



341 TURN-DOWN AT SIDEWALK
N.T.S.



342 CURB AND GUTTER
N.T.S.



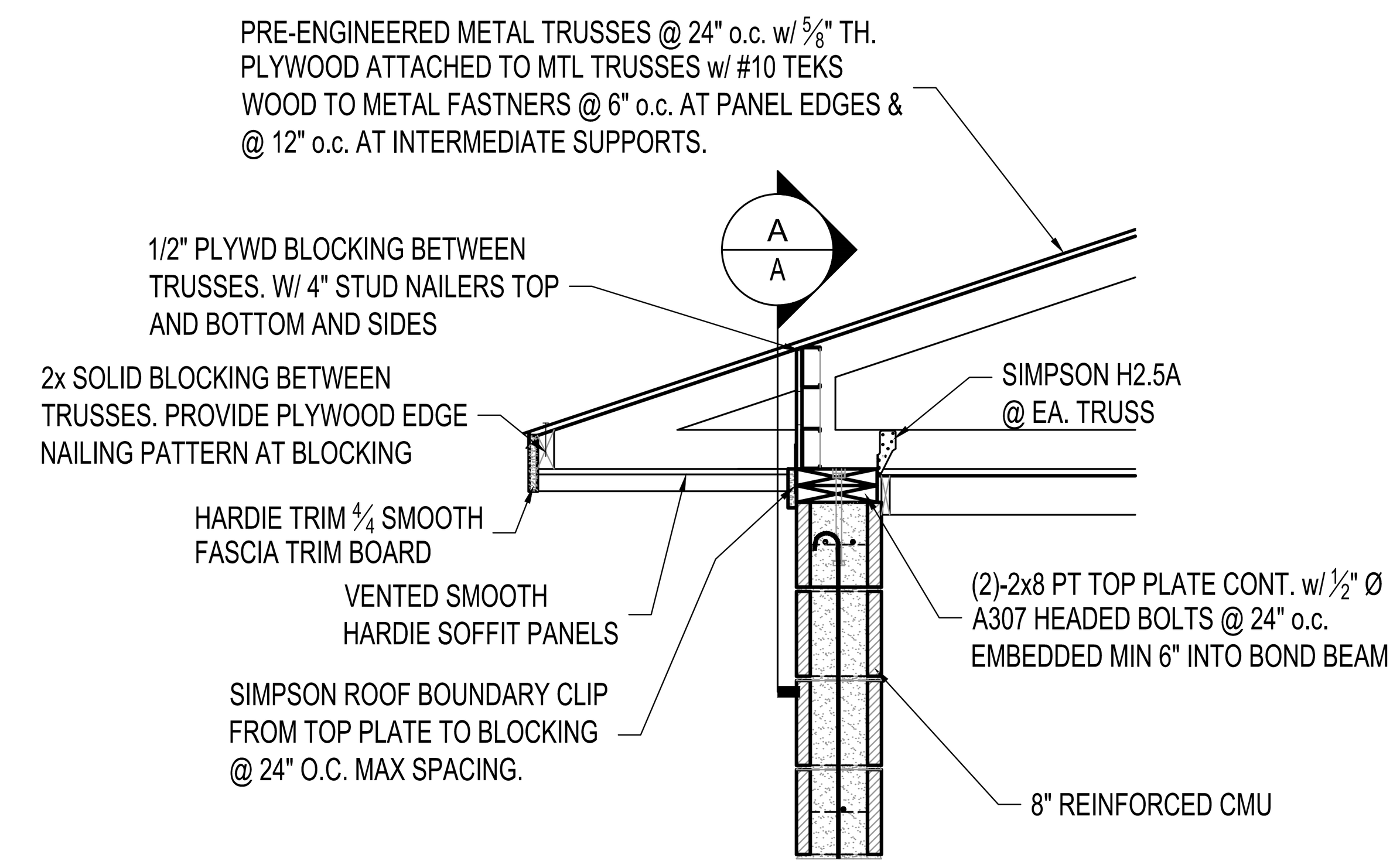
NOTES:

SAW CUT AS SOON AS SLAB CAN SUPPORT WEIGHT.

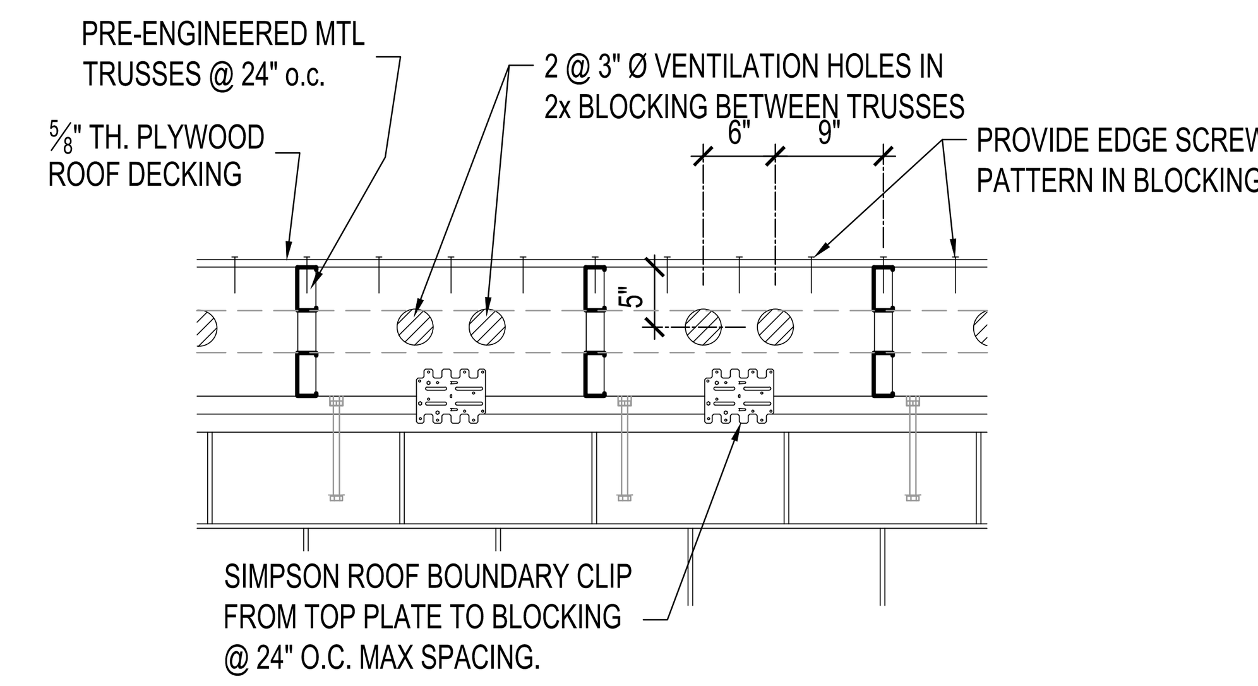
CONTROL JOINTS MAY BE REPLACED WITH CONSTRUCTION JOINTS.

CONTROL JOINTS SHALL BE SPACED AT NO MORE THAN 18'-0" O.C. SLAB AREAS BOUNDED BY THESE JOINTS, SHALL HAVE THE LENGTH NO MORE THAN 2x THE WIDTH.

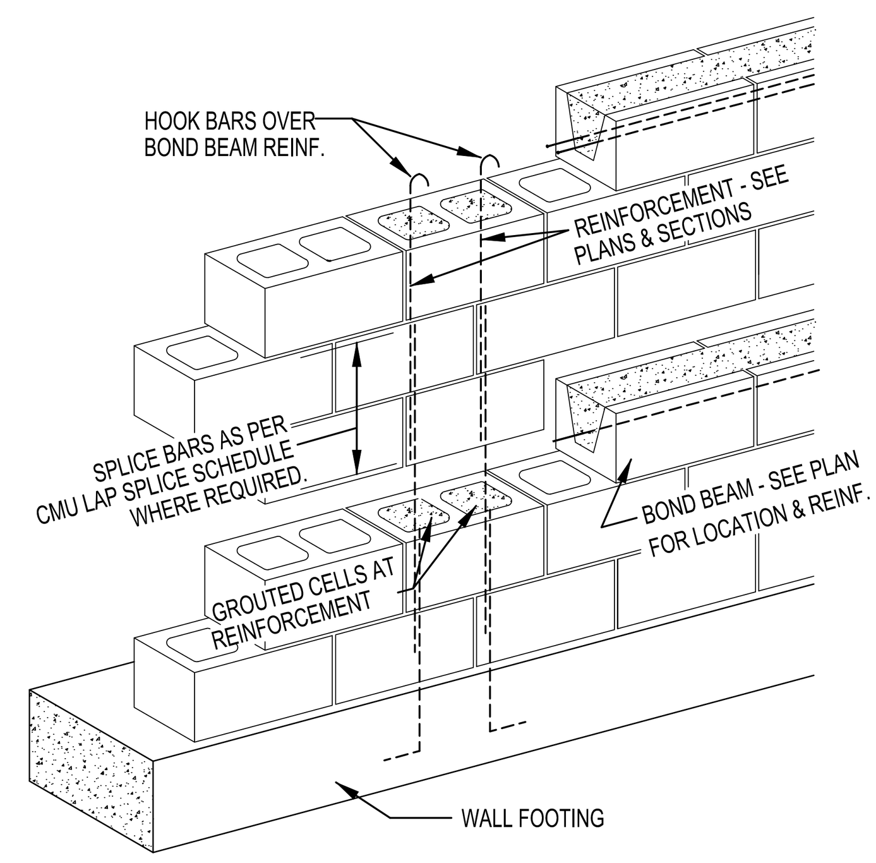
344 6" SLAB JOINT DETAILS
N.T.S.

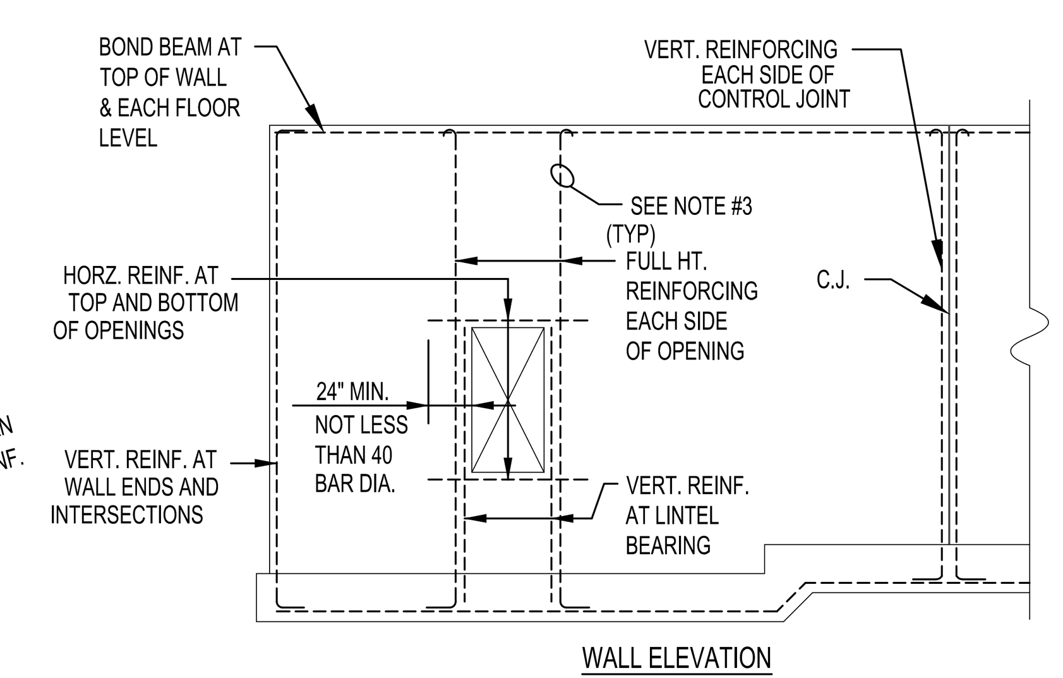


360 TRUSS TO WALL CONNECTION DETAIL
N.T.S.



A/A SECTION A-A
N.T.S.

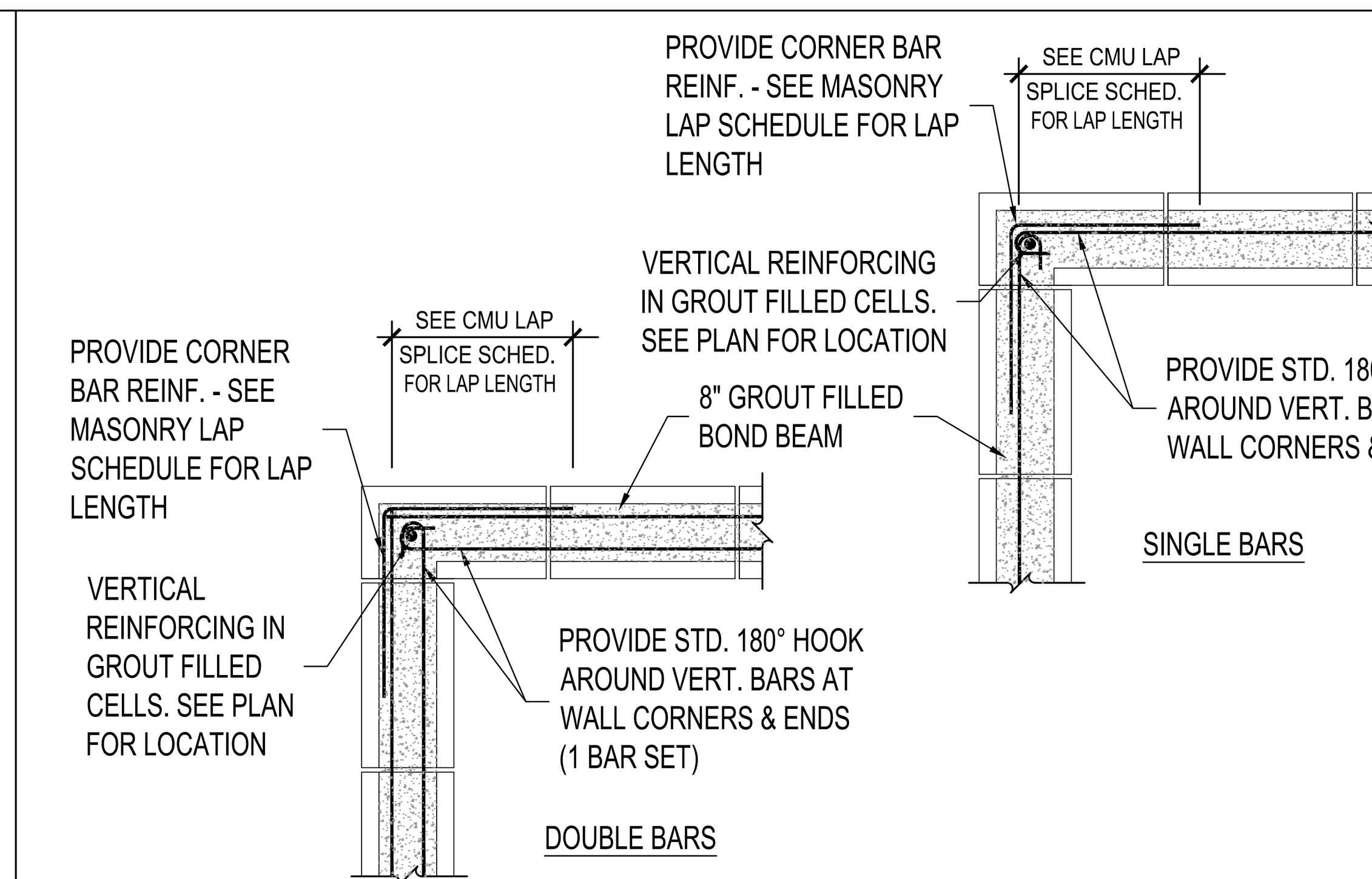




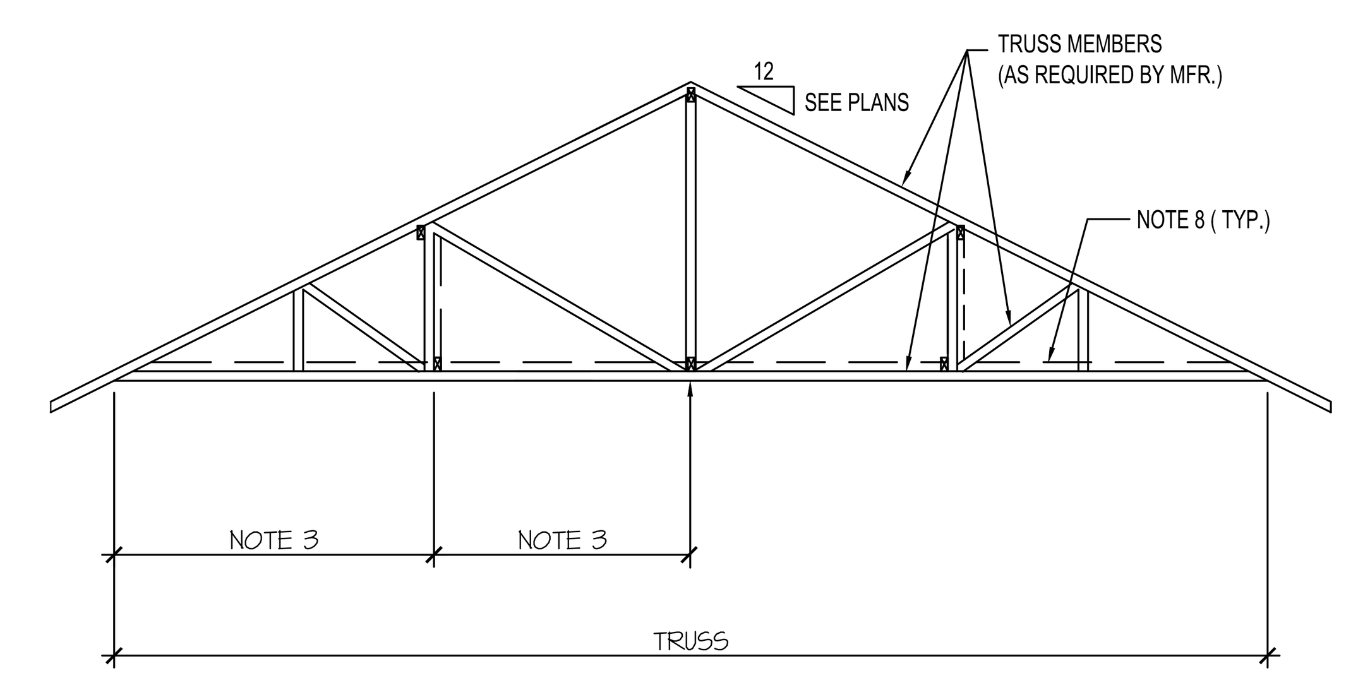
LOW LIFT GROUTING PROCEDURE:
1. CONSTRUCT WALL TO HEIGHT OF 4'-0". ALLOW MORTAR TO SET SUFFICIENTLY TO WITHSTAND GROUT PRESSURE.
2. INSPECT UNITS FOR ALIGNMENT. CLEAN OUT CELLS TO BE FILLED.
3. LIGHTLY WET THE UNITS AND FILL CELLS TO 1 1/2" BELOW TOP COURSE.
4. DELAY 3 TO 5 MINUTES PRIOR TO CONSOLIDATING TO ALLOW WATER TO BE ABSORBED BY MASONRY.

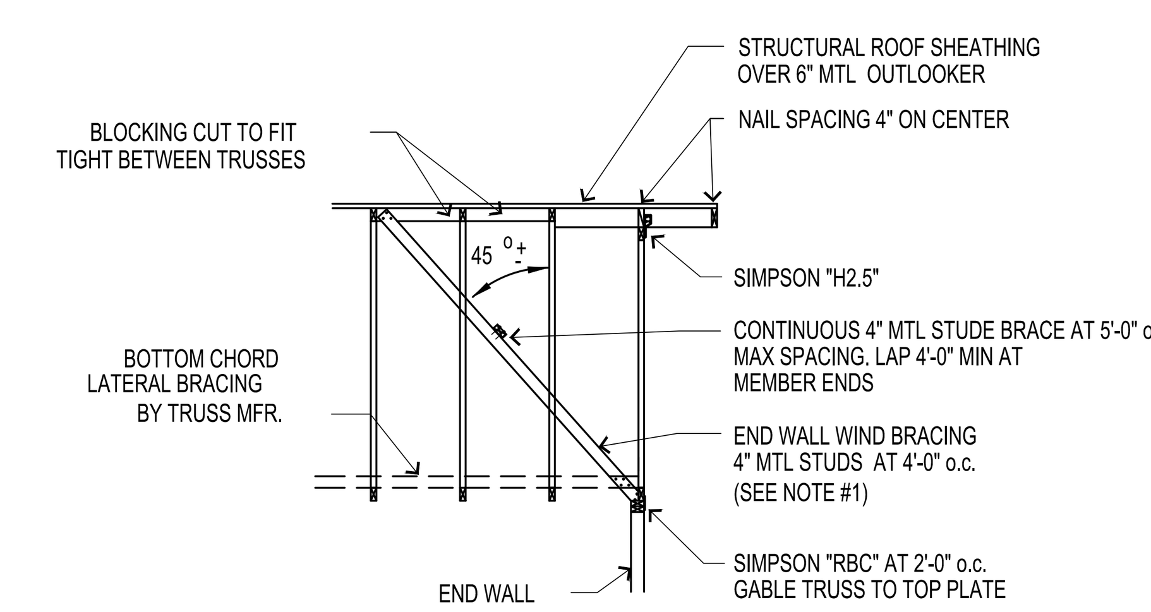
ELEVATION NOTES:
1. REINFORCING SHOWN SHALL BE MINIMUM #4 RE-BAR UNLESS SHOWN OTHERWISE ON PLANS AND DETAILS.
2. BOND BEAM REINFORCING SHOWN SHALL BE DISCONTINUED AT CONTROL JOINTS.
3. PROVIDE 4" x 4" OPENING IN BOTTOM OF BOND BEAM FOR PASSAGE OF VERTICAL REINFORCING IN CMU BOND BEAM. PROVIDE 1" HOLE IN BOTTOM OF PRECAST LINTEL FOR PASSAGE OF VERT REINF.

370 REINFORCED MASONRY CONSTRUCTION & REINFORCING
N.T.S.



375 CMU CORNER WALL DETAIL
N.T.S.





SECTION at GABLE END

1. END WALL WIND BRACING MAY BE OMITTED IF GYPSUM BOARD DIAPHRAGM IS NAILED TO TRUSS BOTTOM CHORD.

1. TRUSS AS SHOWN DOES NOT REPRESENT ACTUAL TRUSS DESIGN OR LAYOUT. SECTION SHOWN IS INTENDED FOR PERMANENT BRACING REFERENCE ONLY. SEE ARCHITECTURAL DRAWINGS FOR TRUSS CONFIGURATION.

2. TEMPORARY BRACING FOR ERECTION PURPOSES IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

3. MAXIMUM HORIZONTAL DISTANCE BETWEEN VERTICAL DIAGONAL BRACING SHALL BE 8'-0". BRACING MEMBERS BRACING SHALL BE 2x4 MIN.

4. 3 ROWS OF BRACING AS SHOWN IS MINIMUM BRACING REQUIRED.

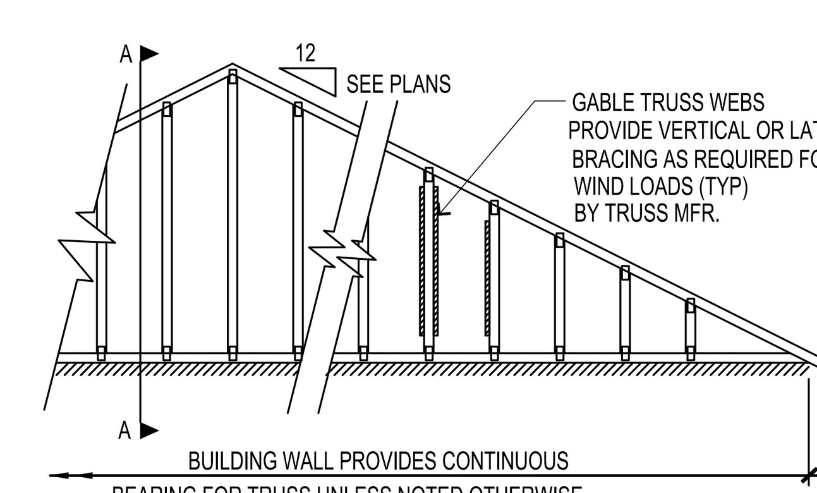
5. LAP LATERAL BRACING OVER AT LEAST TWO TRUSSES.

6. USE 16d NAILS TO ATTACH LATERAL BRACING AT EACH TRUSS.

7. PROVIDE VERTICAL X-BRACING AT EACH END FOR NOT LESS THAN 3 TRUSSES AT FIRST PANEL POINT FROM EACH END AND 5 TRUSSES AT INTERIOR PANEL POINTS.

8. PROVIDE BOTTOM CHORD HORIZONTAL V-BRACING AT EACH END ENGAGING NOT LESS THAN 5 TRUSSES. PROVIDE ADDITIONAL DIAGONAL BRACING AT INTERVALS NOT TO EXCEED 20 FEET.

9. FOR PURPOSES OF BRACING, DOUBLE TRUSSES SHOULD BE TREATED AS A SINGLE TRUSS.



380 PERMANENT TRUSS BRACING DETAIL
N.T.S.

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DESIGNED:
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CHECKED:
APPROVED:

ELECTRICAL BUILDING

NOTES AND PLANS

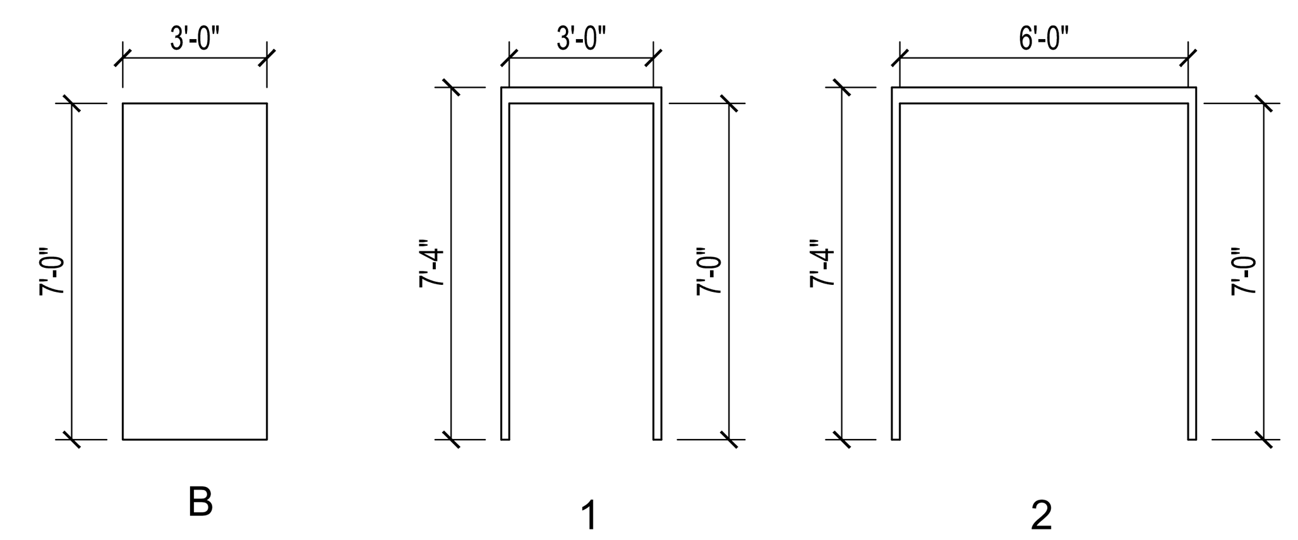
10S-5
SHEET 5 OF 07

DOOR SCHEDULE

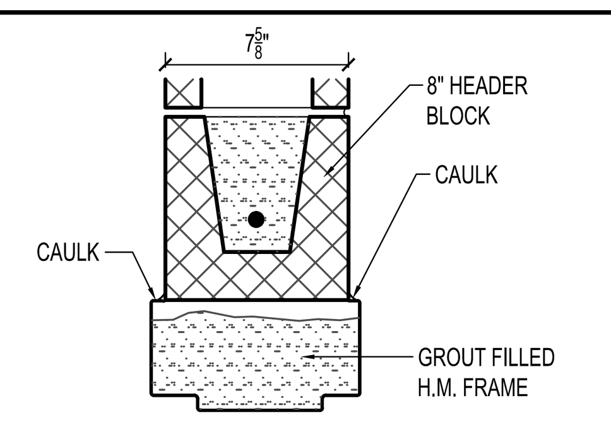
DOOR NUMBER	DOOR LOCATION	DOORS TYPE	SIZE WIDTH	SIZE HEIGHT	THICK	MAT'L	FINISH	FRAME SIZE	TYPE	MATERIAL	FINISH	HEAD	JAMB	THR.	LABEL	HDW. SET (NOTE 1)	REMARKS	DOOR NUMBER
																		601
701	ELECTRICAL BLDG	B	PR3'-0"	7'-0"	1-3/4"	FIBERGLASS	PAINT	7-1/4"	2	H.M.	PAINT	1/A-5	2/A-5	——		1		602
702	ELECTRICAL BLDG	B	3'-0"	7'-0"	1-3/4"	FIBERGLASS	PAINT	7-1/4"	1	H.M.	PAINT	1/A-5	2/A-5	——	45 MIN.	1		603

NOTES: 1. ALL DOOR HARDWARE SHALL BE OPERABLE LEVER TYPE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST TO OPERATE.

DOOR AND FRAME TYPES

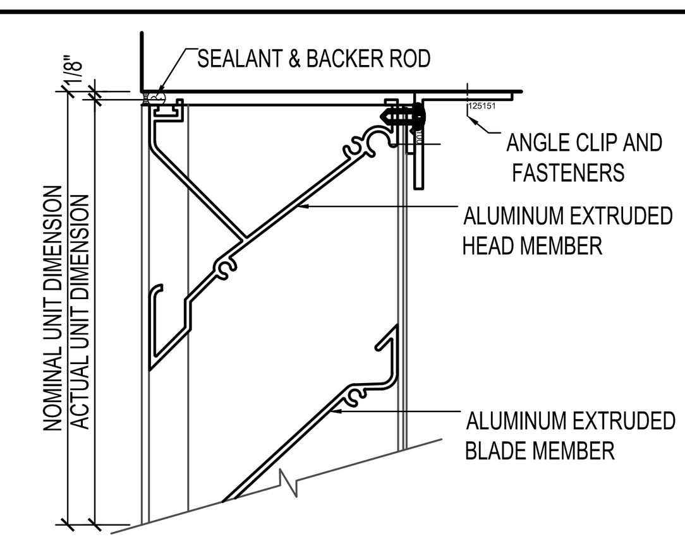


DOOR AND LOUVER DETAILS

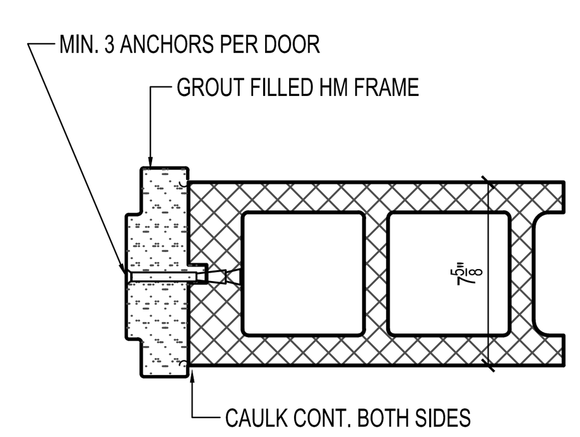


H-1

H-2

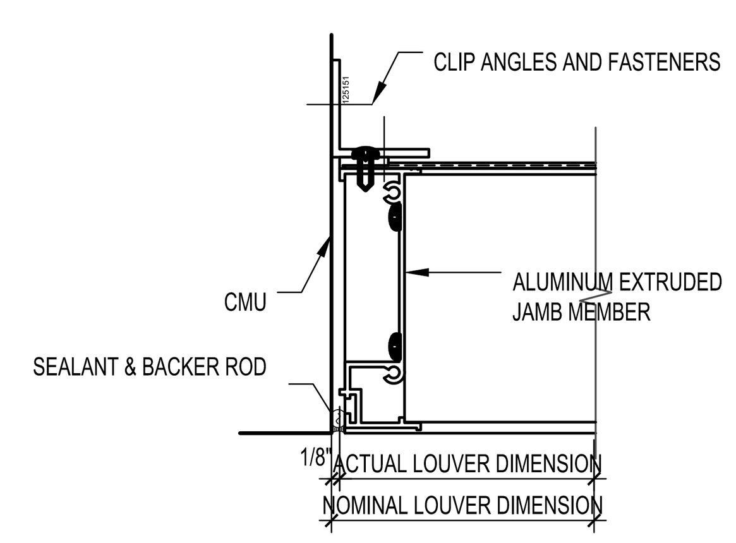


H-3 TYP. LOUVER

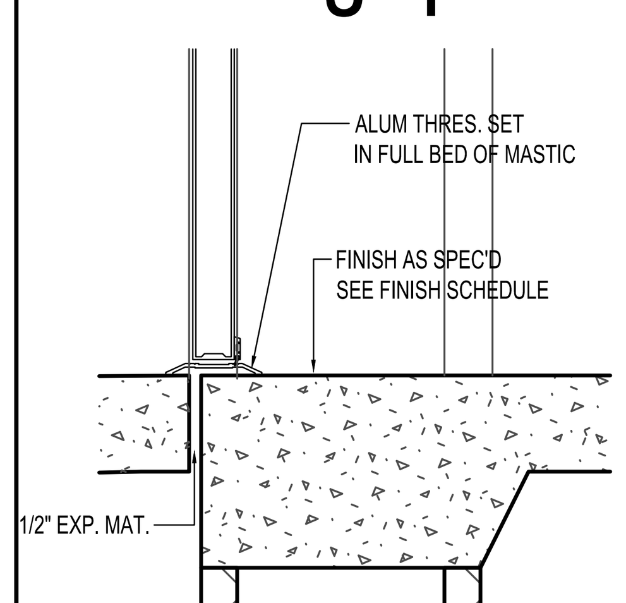


J-1

J-2

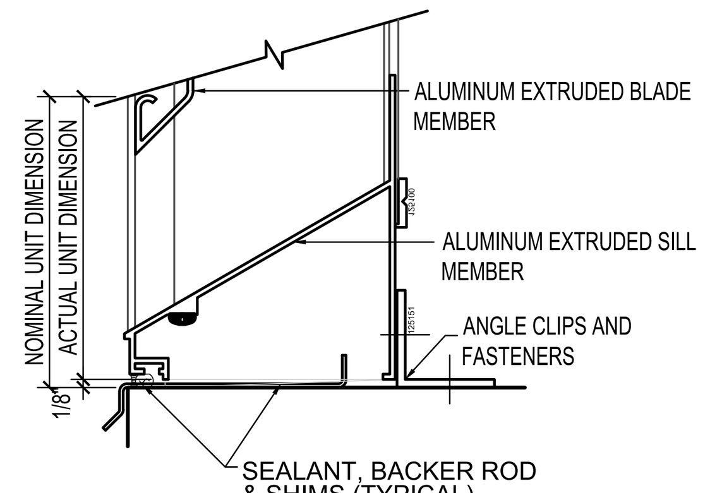


J-3 TYP. LOUVER



S-1

S-2



S-3 TYP. LOUVER

ROOM FINISH SCHEDULE

KEY: (X) -

NO.	NAME	FLOOR: SEALED CONCRETE	BASE: NONE	WALLS: PAINTED CMU -P1	CEILING: PAINTED GYPSUM BD	HEIGHT	NOTES
	ELECTRICAL BLDG	(X)	(X)	(X)	(X)	12'	-

ROOM FINISH NOTES

LIST OF FINISHES

INTERIOR PAINT

ITEM	MANUFACTURER	SPECIFICATION	COLOR NUMBER	COLOR	REMARKS
P-1	SHERWIN WILLIAMS	FLAT	-	BY OWNER	WALL
P-2	SHERWIN WILLIAMS	FLAT	-	BY OWNER	CEILING

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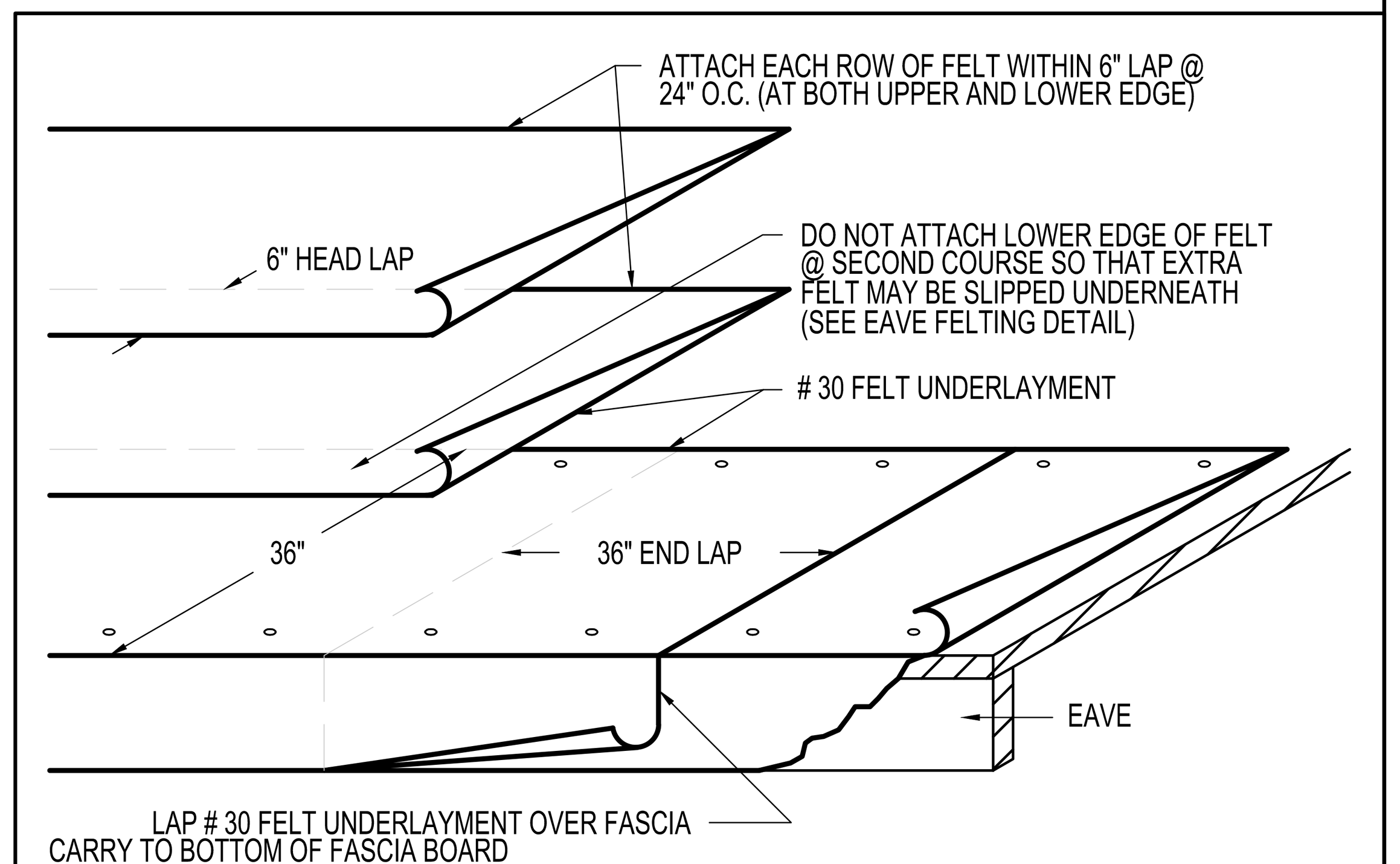
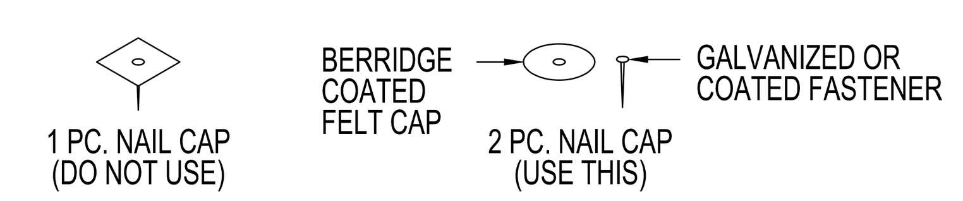
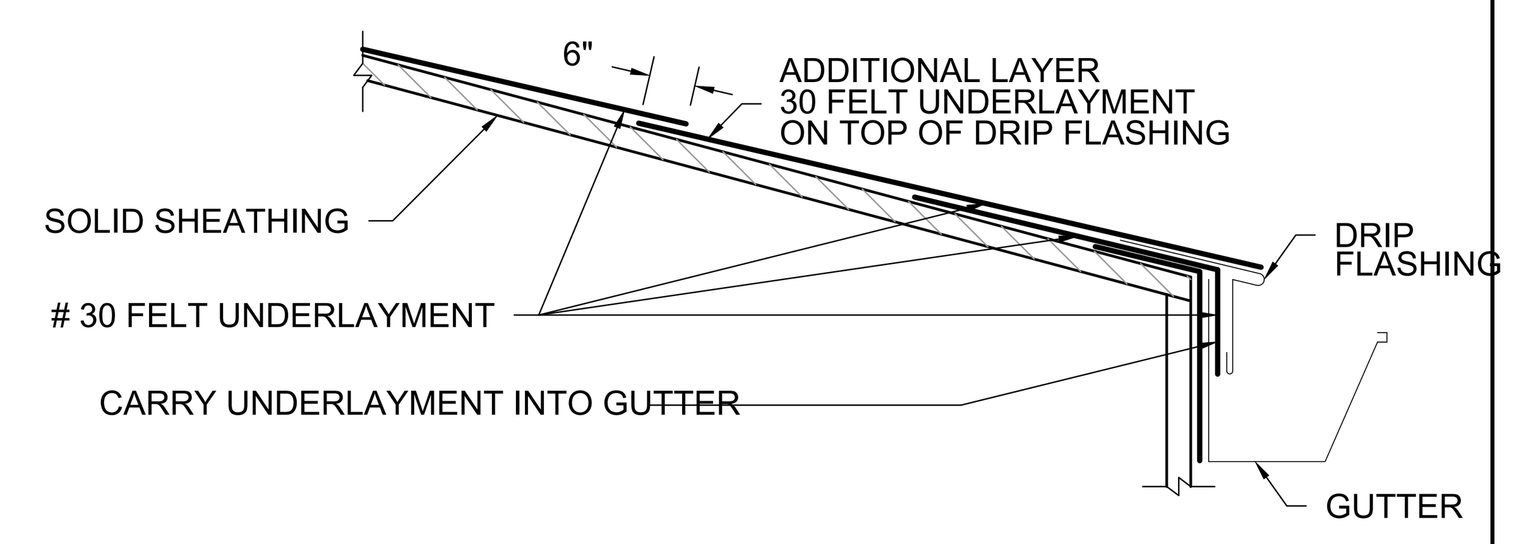
10S-6
SHEET 6 OF 07



1. CLEAN ROOF SURFACE OF ALL OBJECTS WHICH MAY PUNCTURE OR TEAR FELT UNDERLAYMENT.
2. ATTACH FELT UNDERLAYMENT TO DECK BELOW USING COATED FELT CAPS. FASTENERS MUST BE TOTALLY FLUSH WITH SUBSTRATE. DO NOT USE ONE PIECE NAIL CAPS, AS THESE WILL "READ THROUGH" THE SURFACE.
3. DO NOT FASTEN LOWER EDGE OF FELT @ SECOND COURSE (SEE ABOVE ILLUSTRATION).
4. ALWAYS RUN FELT UNDERLAYMENT HORIZONTALLY STARTING @ THE EAVE AND LAP SHINGLE FASHION.
5. NEVER INSTALL BERRIDGE PRODUCTS OVER FELT UNDERLAYMENT THAT IS NOT LAID HORIZONTAL, FLAT, SMOOTH AND FREE FROM PUNCTURES AND TEARS.
6. DO NOT APPLY PANELS OVER DRY OR BRITTLE FELT (A CONDITION CAUSED BY EXTENDED EXPOSURE TO THE ELEMENTS).
7. DO NOT USE RED ROSIN PAPER UNDER ANY BERRIDGE METAL PRODUCT.



GRACE ICE AND WATERSHIELD OR EQUAL MAY BE USED IN PLACE OF # 30 FELT UNDERLAYMENT. NOTE ICE AND WATERSHIELD MAY BE REQUIRED REFERENCE INSTALLATION INSTRUCTIONS.



EAVE WITH GUTTER

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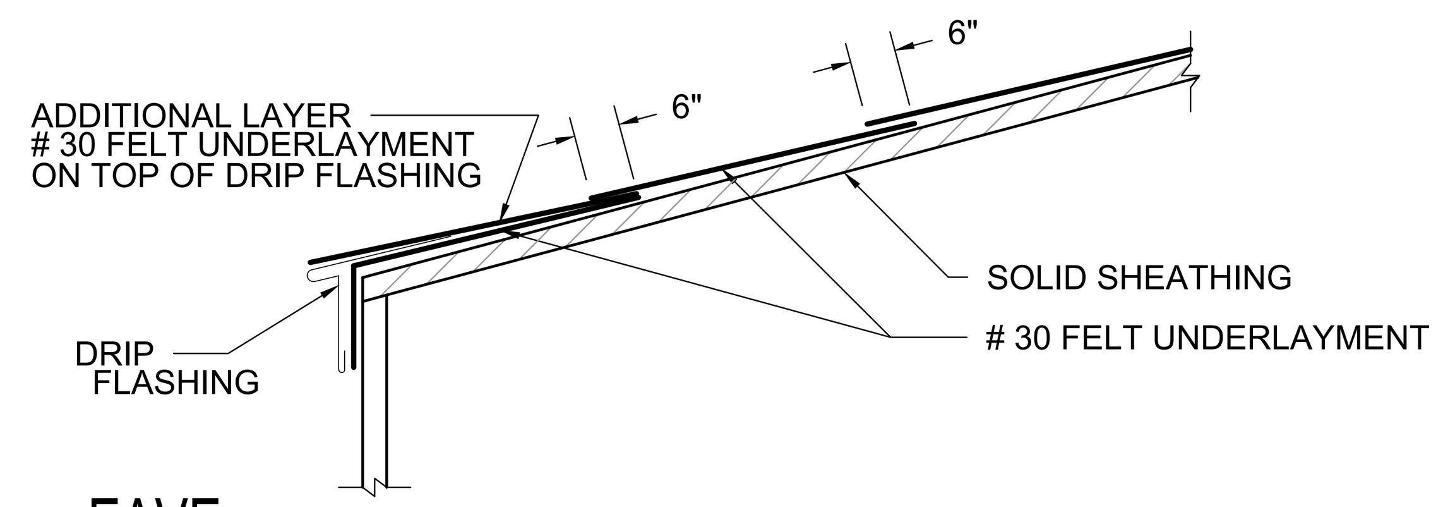
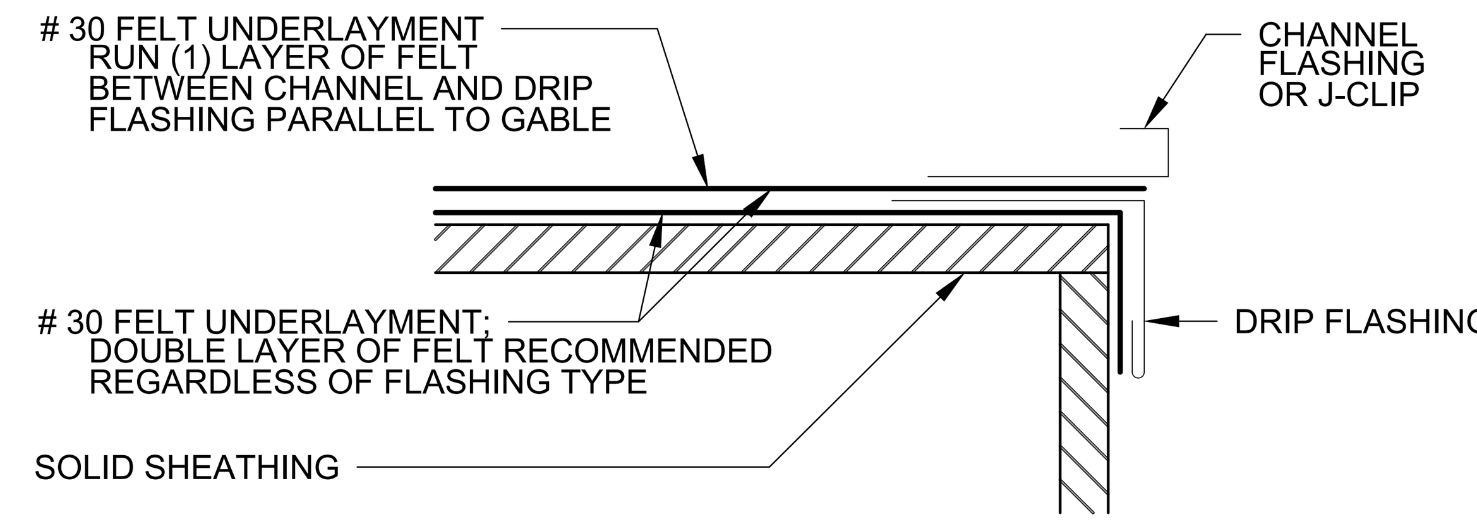


EAVE

EAVE WITH GUTTER EAVE UNDERLAYMENT



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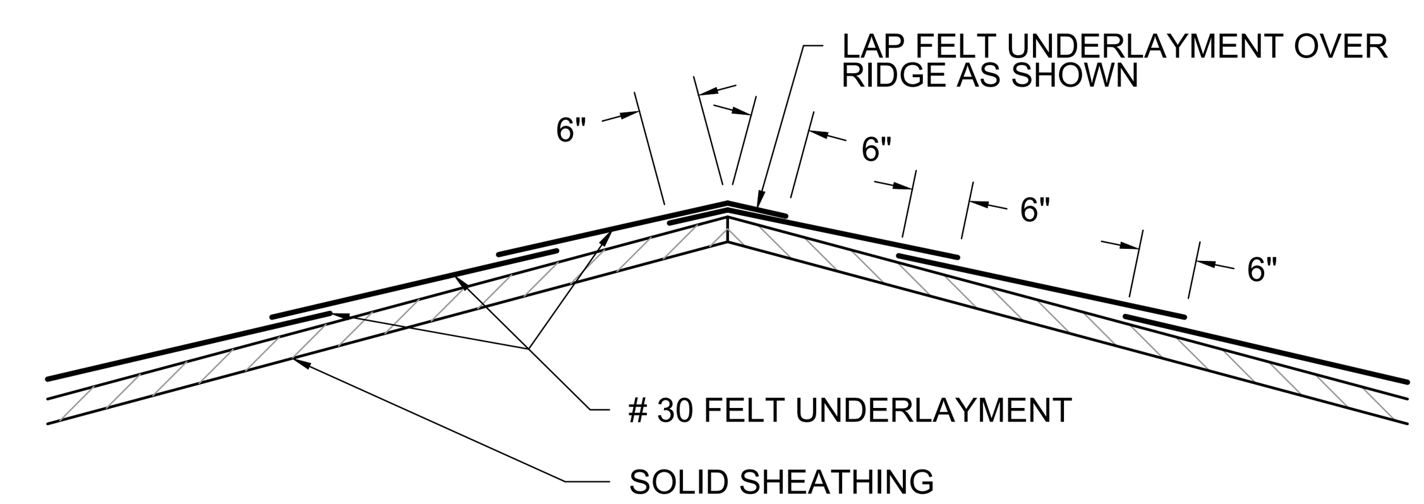
GABLE

GABLE UNDERLAYMENT



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RIDGE

RIDGE UNDERLAYMENT

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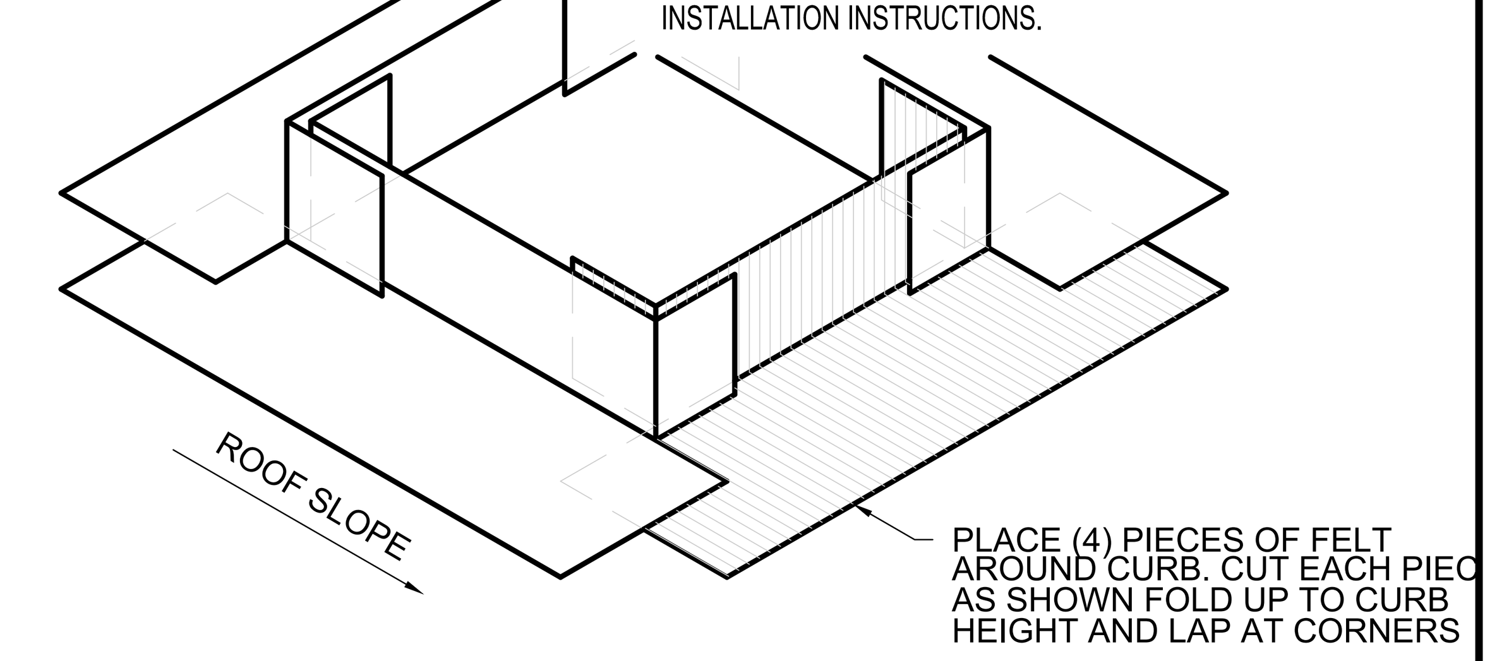
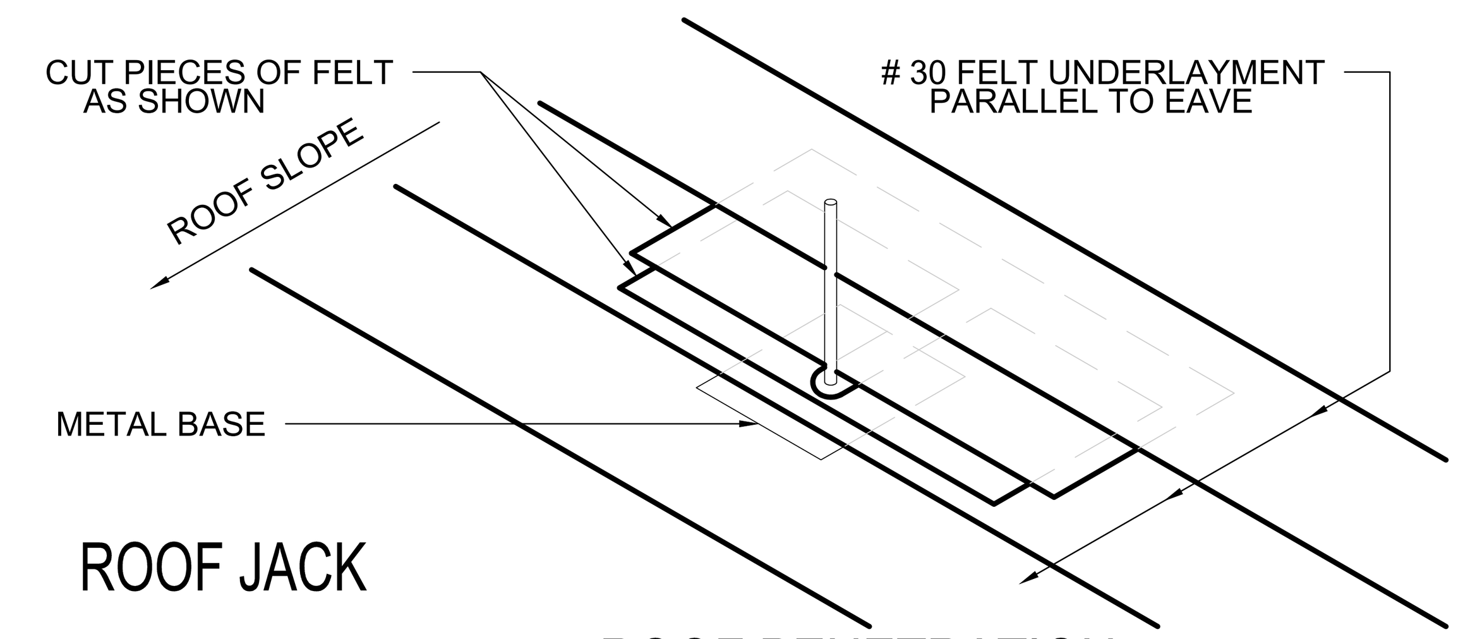


ROOF PENETRATION

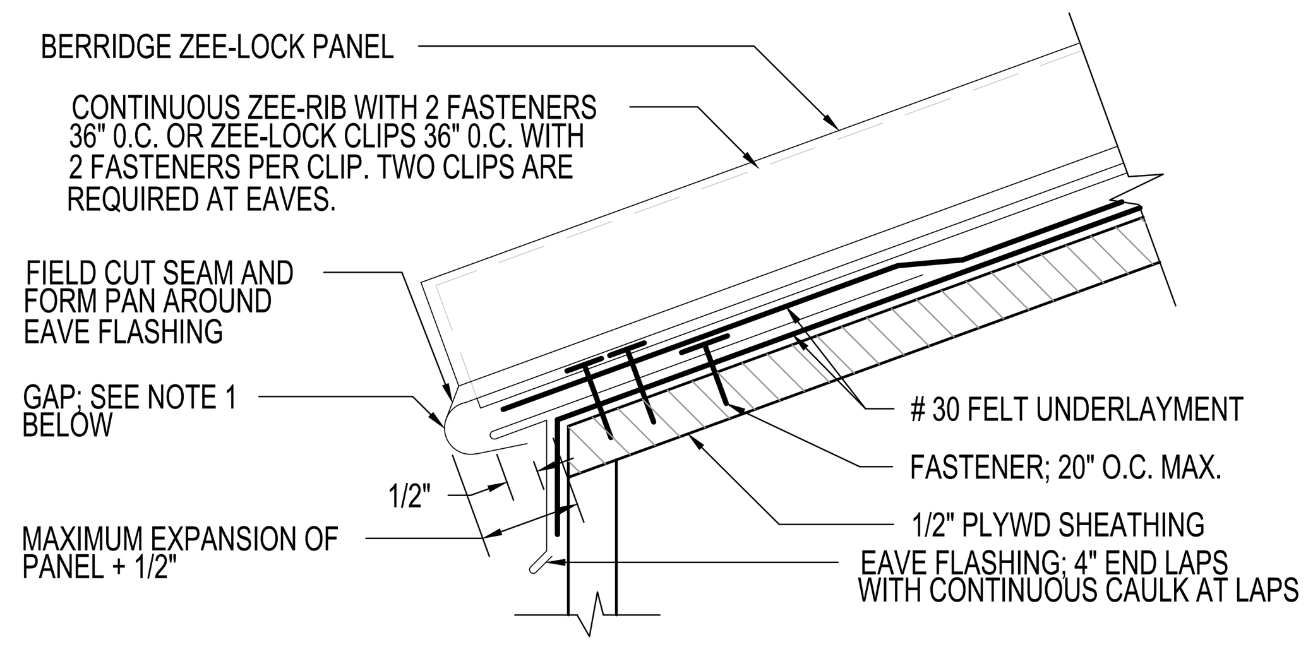
LAP FELT OVER TOP OF BASE. INSULATE BETWEEN DISSIMILAR METALS WITH ROOFING FELT

GRACE ICE AND WATERSHIELD OR EQUAL MAY BE USED IN PLACE OF # 30 FELT UNDERLAYMENT. NOTE ICE AND WATERSHIELD MAY BE REQUIRED REFERENCE INSTALLATION INSTRUCTIONS.



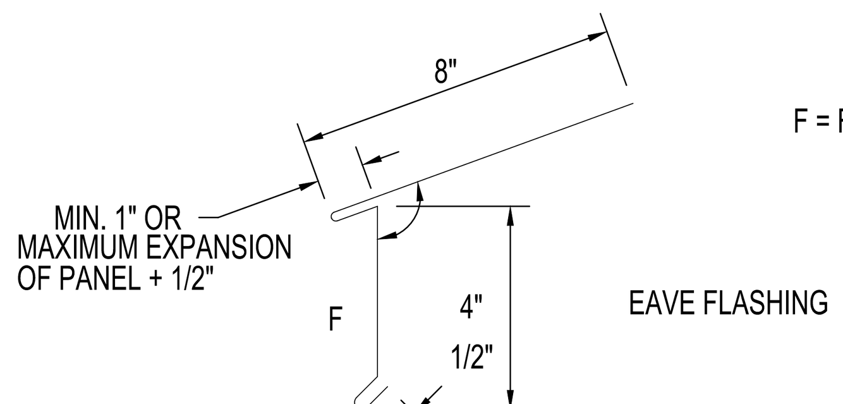
ROOF JACK

ROOF PENETRATION ROOF JACK UNDERLAYMENT

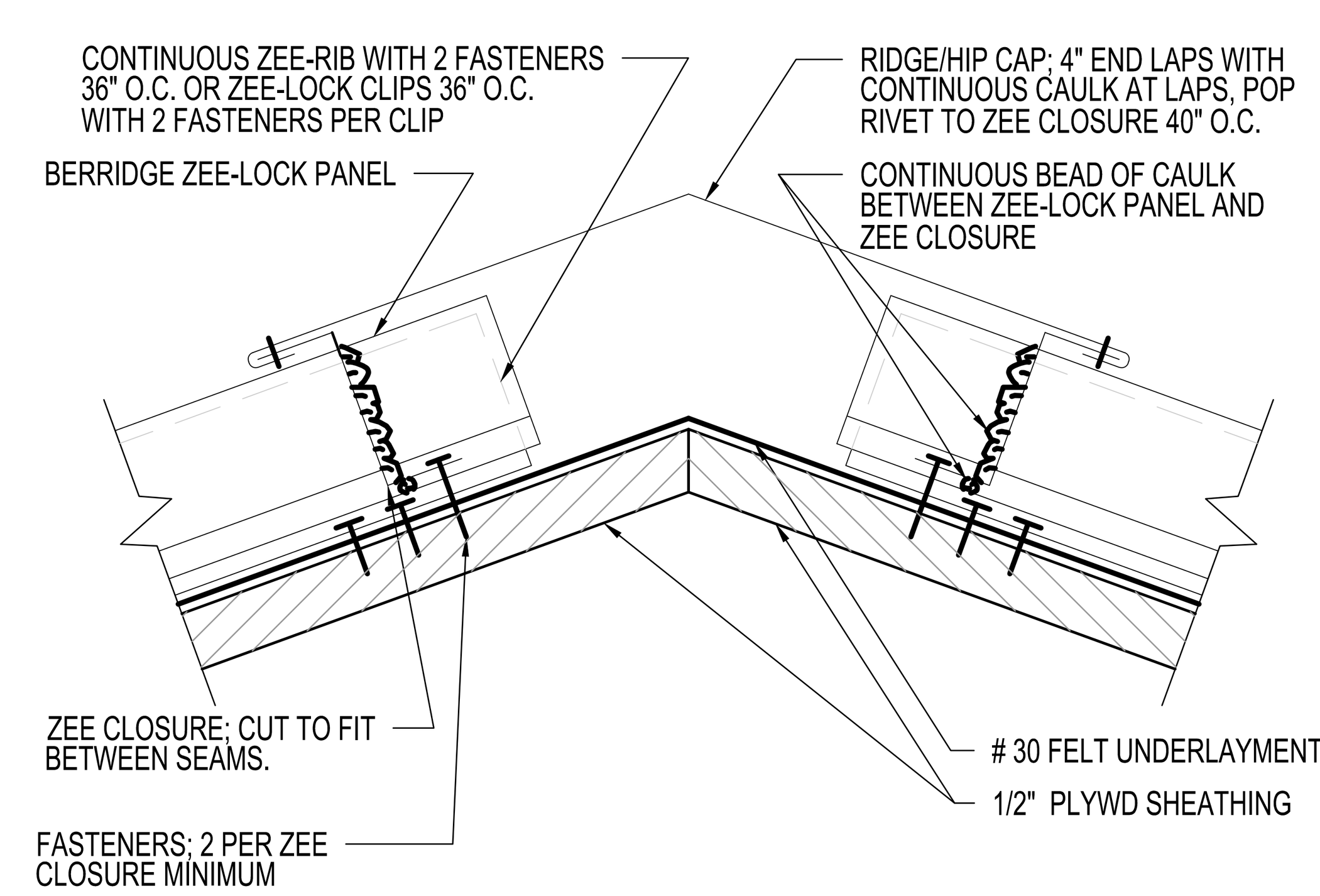


1. THE "GAP" BETWEEN EAVE FLASHING AND PANEL (SEE DETAIL ABOVE) CAN BE INCREASED TO ALLOW FOR LINEAR EXPANSION AND CONTRACTION OF PANELS. NOTE 1/2" OF PAN MUST BE ENGAGED WITH EAVE FLASHING WHEN PANEL HAS EXPANDED TO ITS MAXIMUM LENGTH.
2. GAP BETWEEN EAVE FLASHING AND PANEL MUST BE ADJUSTED TO SUIT TEMPERATURE DURING INSTALLATION.

F = FINISH SIDE

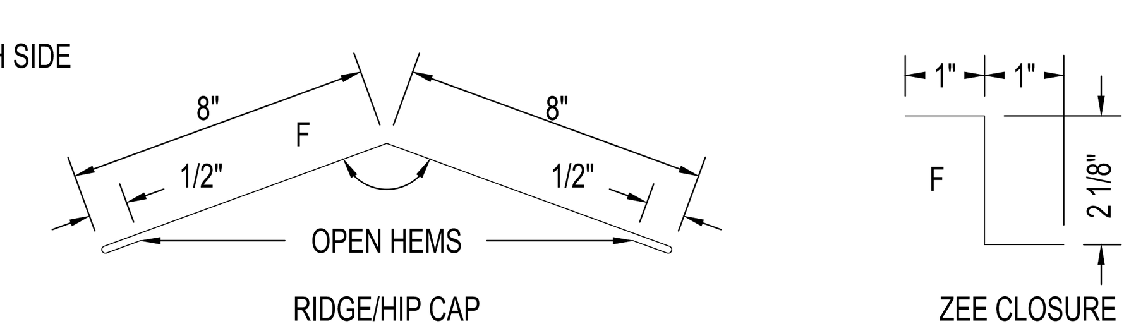


EAVE DETAIL

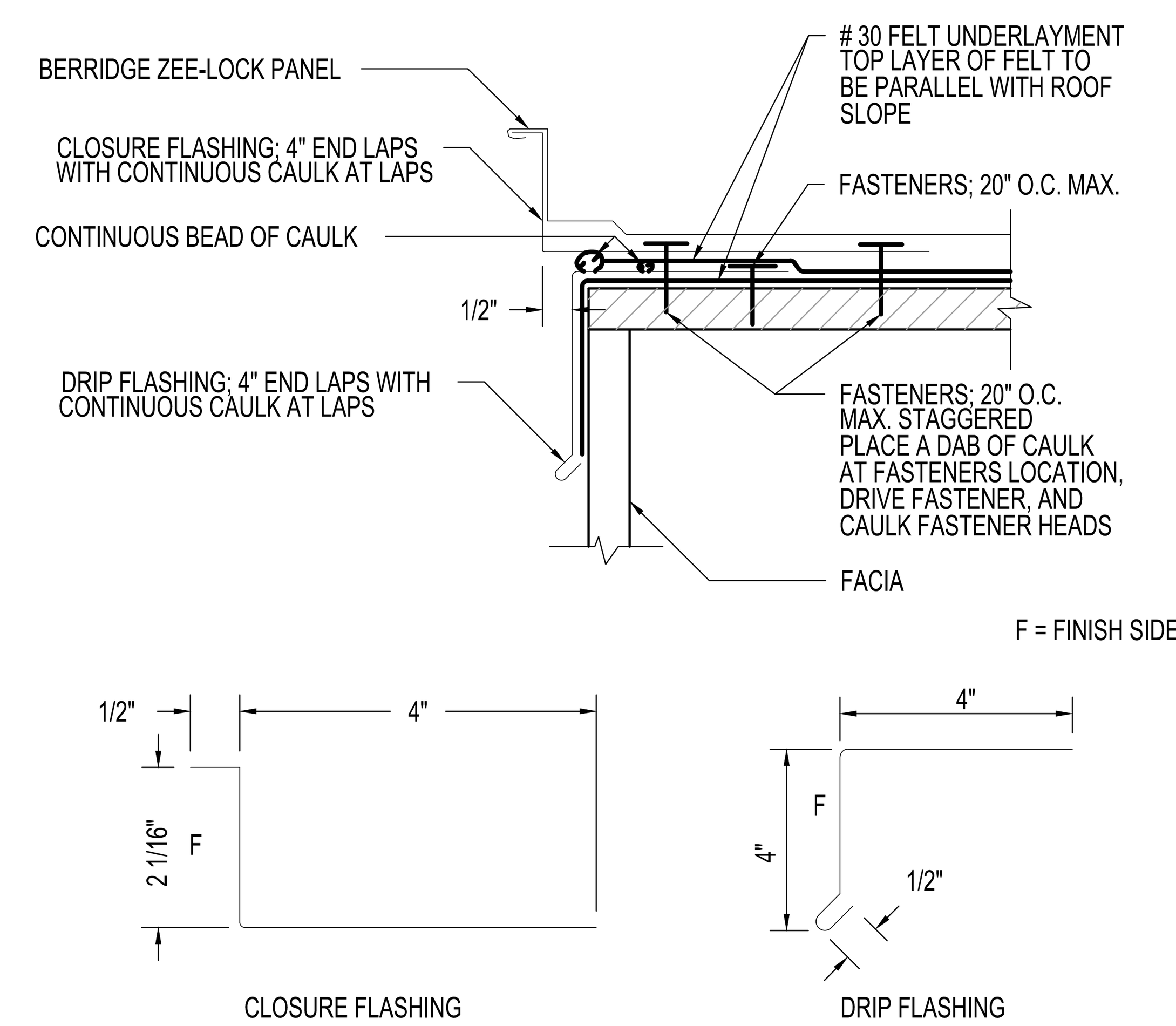


1. FIELD CUT ZEE CLOSURE TO FIT BETWEEN PANEL SEAMS FOR RIDGE.

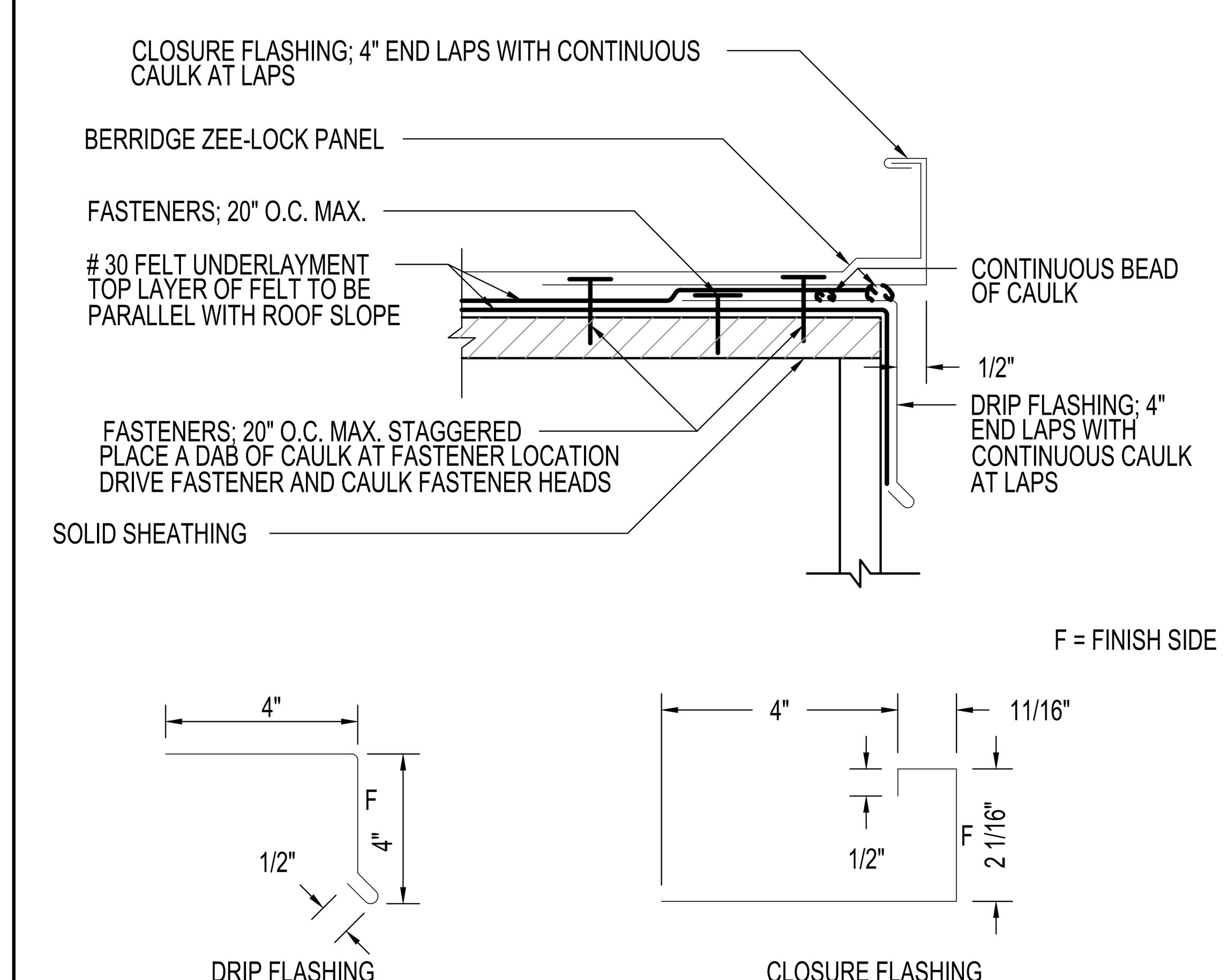
F = FINISH SIDE



RIDGE DETAIL



GABLE DETAIL LEFT SIDE; CLOSURE FLASHING;



GABLE DETAIL RIGHT SIDE; CLOSURE FLASHING;

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GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 27855 RALPH H. BOSWELL
10/10/2019

FOLKSTON TREATMENT PLANT
FOR:
THE CITY OF FOLKSTON
FOLKSTON GEORGIA
CHARLTON COUNTY, GEORGIA

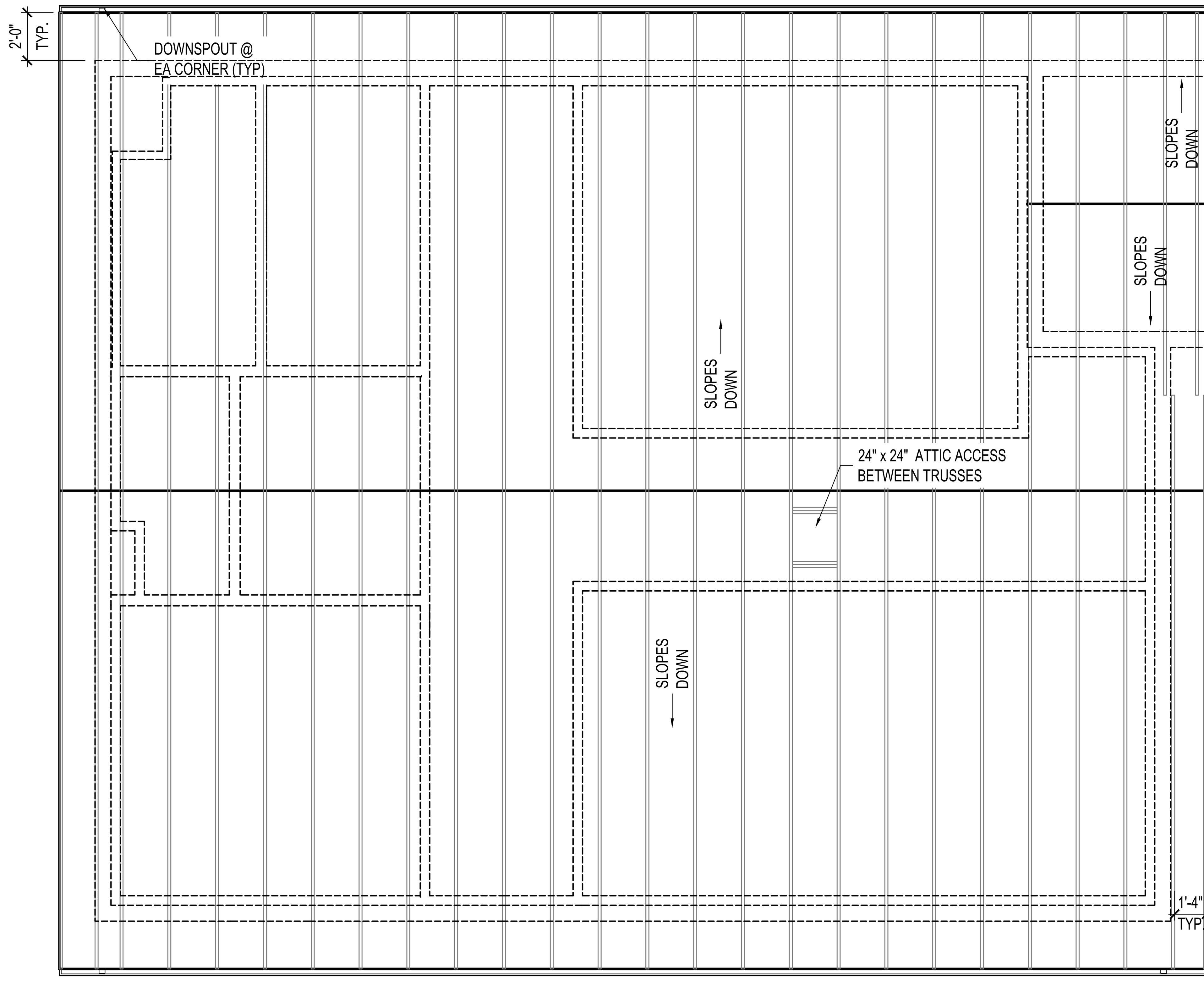
MARK	DATE	BY	DESCRIPTION
	06-14-2019		60% SET FOR REVIEW
	07-08-2019		90% SET FOR REVIEW
	10-10-2019		EPD SUBMITTAL

OE PROJECT NO: OE18132
FILE NAME: OE18132-10S-CORE
ORIGINAL DRAWING SIZE: 36"x24"
DATE: 6-14-2019

DESIGNED:
DRAWN:
CHECKED:
APPROVED:

ELECTRICAL BUILDING

NOTES AND PLANS



2 ROOF FRAMING PLAN
3/8"=1'-0"

LIFE SAFETY NOTES

1. EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. MAIN EXIT DOORS TO BE PROVIDED WITH A READILY VISIBLE, DURABLE SIGN ON OR ADJACENT TO THE DOOR STATING, "THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS." IBC 1008.1.9 AND IBC 1008.1.9.3
2. THE PATH OF TRAVEL TO EXITS IN A BUILDING SHALL BE IDENTIFIED BY EXIT SIGNS COMPLYING WITH SECTION 1011. EXIT SIGNS SHALL BE READILY VISIBLE FROM ANY DIRECTION OF APPROACH. EXIT SIGNS SHALL BE LOCATED AS NECESSARY TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL. NO POINT SHALL BE MORE THAN 100 FEET FROM THE NEAREST VISIBLE EXIT SIGN.
3. EXIT SIGN CURRENT POWER SUPPLY TO ONE OF THE LAMPS SHALL BE PROVIDED BY THE PREMISES' WIRING SYSTEM; POWER SUPPLY TO THE LAMP SHALL BE FROM STORAGE BATTERIES OR AN ON-SITE GENERATOR. IN THE EVENT OF A POWER FAILURE, ILLUMINATION SHALL AUTOMATICALLY BE PROVIDED BY AN EMERGENCY SYSTEM FOR A DURATION OF 90 MIN. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
4. EACH EXIT ACCESS FROM AN INTERIOR ROOM OR AREA TO A CORRIDOR OR HALLWAY THAT IS REQUIRED TO HAVE A VISUAL EXIT SIGN, SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS, "EXIT ROUTE".
5. TACTILE (RAISED CHARACTERS AND BRAILLE) EXIT SIGNS ARE PLACED ON THE WALL ADJACENT TO THE LATCH SIDE AT 60" ABOVE THE FINISH FLOOR TO THE CENTERLINE OF THE SIGN.
6. PANIC HARDWARE NEEDS TO BE ON FRONT DOOR OR IF DOUBLE DOORS, BOTH DOORS NEED TO BE UNLOCKED DURING BUSINESS HOURS.
7. THE EXITS MUST BE CLEARLY MARKED AND ALSO ILLUMINATED NOT LESS THAN ONE FOOT CANDLE AT FLOOR LEVEL.

LIFE SAFETY CALC'S

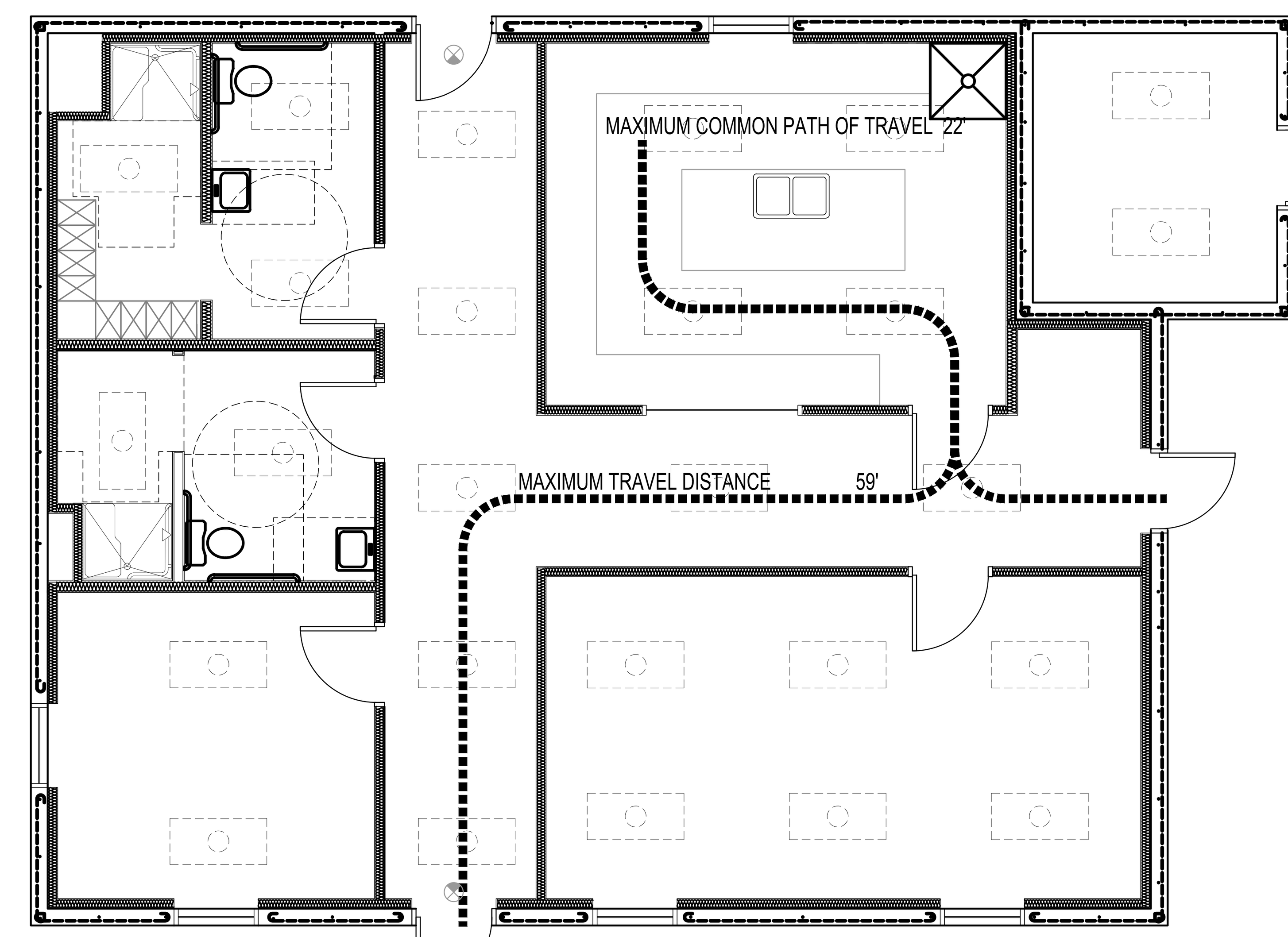
BUILDING TYPE			BUSINESS
CONSTRUCTION TYPE			V-B
FIRST FLOOR			1680 SF
TOTAL			1680 SF
OCCUPANCY CALCULATIONS			
FIRST FLOOR	1/100	1680 SF	17 OC
TOTAL			17 OC
MAXIMUM TRAVEL DISTANCE			59'
MAXIMUM COMMON PATH OF TRAVEL			22'

LIFE SAFETY LEDGEND

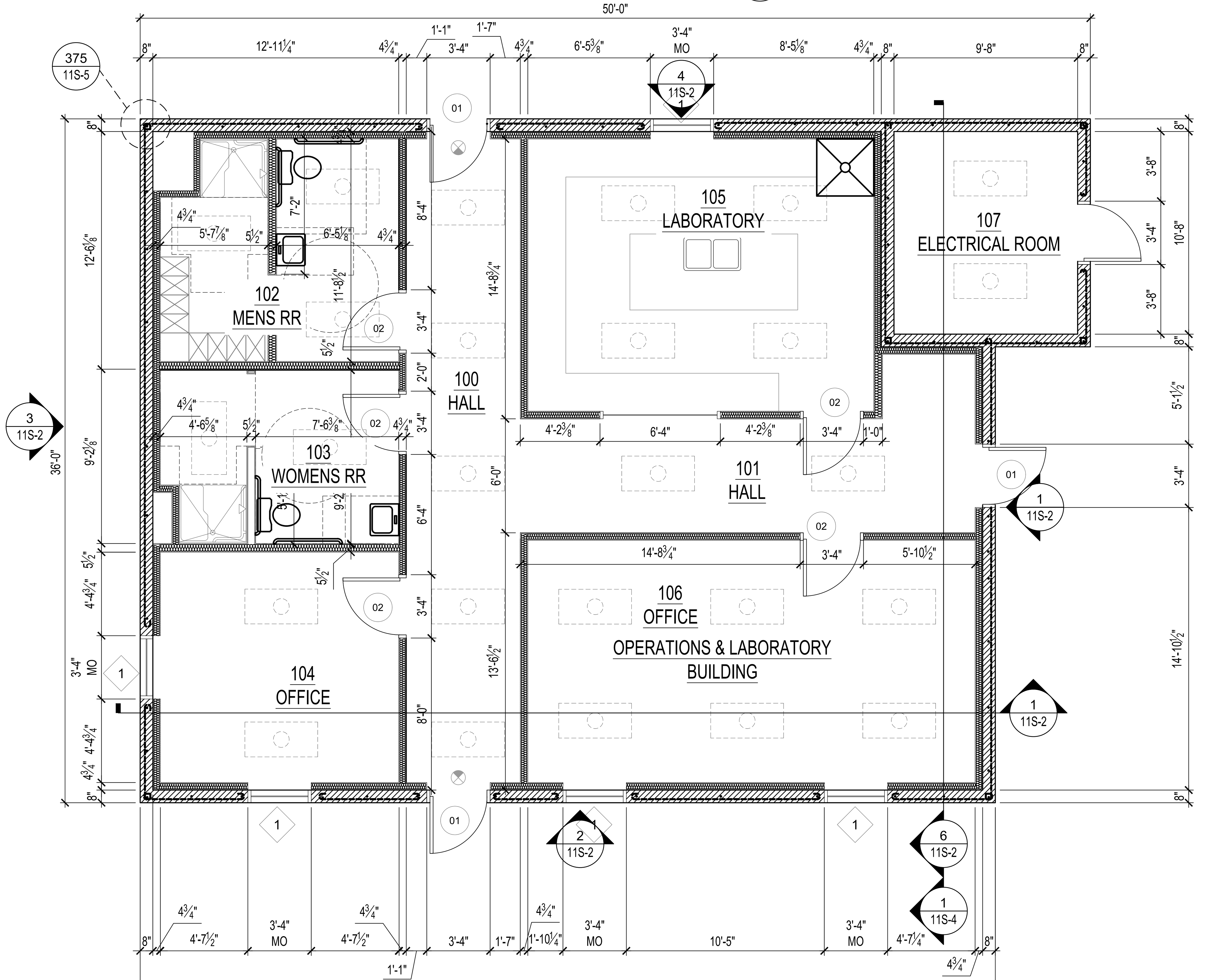
MEANS OF EGRESS COMPONENT TAG

COMPONENT:DOOR	
OCCUPANTS: 25	UNITS: 0.2 "
REQUIRED WIDTH: 5"	PROVIDED WIDTH: 34"

NUMBER OF OCCUPANTS SERVED BY COMPONENT
MEANS OF EGRESS COMPONENT
WIDTH REQUIRED PER OCCUPANT
PROVIDED COMPONENT WIDTH
REQUIRED WIDTH



2 LIFE SAFETY PLAN
3/16"=1'-0"



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

STRUCTURE NOTES

1. DESIGN SOIL BEARING PRESSURE = 2000 PSF. SOIL BRN'G PRESSURE SHALL BE VERIFIED AT TIME OF EXCAVATION AND ENGINEER SHALL BE NOTIFIED IF ACTUAL SOIL BEARING PRESSURE IS LOWER THAN DESIGN VALUE. FOUNDATION DESIGN & SUBSURFACE INFORMATION IS BASED ON A SOILS REPORT PREPARED BY TERRACON CONSULTING, INC. (PROJECT# ES165069).
2. FLOOR LIVE LOAD = 100 PSF
3. PRE-ENGINEERED TRUSS DESIGN LOADS:
   - TOP CHORD:
     - DEAD LOAD = 10 PSF + TRUSS WEIGHT
     - LIVE LOAD = 20 PSF
   - BOT CHORD:
     - DEAD LOAD = 5 PSF + TRUSS WEIGHT
     - LIVE LOAD = 10 PSF (60 PSF @ ACCESS LOCATIONS)
     - MECH LOAD = 200# CONCENTRATED LOAD @ ANY LOCATION ALONG BOT CHORD
4. WIND LOADS:
   - BASIC WIND SPEED (V, 3 SEC GUST) = 110 MPH
   - OCCUPANCY CATEGORY = IV
   - WIND IMPORTANCE FACTOR (I_W) = 1.15
   - UPWIND EXPOSURE CATEGORY = B
   - INTERNAL PRESSURE COEFF. (GC_{PI}) = ±0.18
   - COMPONENTS & CLADDING NET DESIGN PRESSURES (P_{NET} PER ASCE 7-10, METHOD 1)
     - ROOF COMPONENTS & CLADDING DESIGN PRESSURES:
       - MAIN ROOF = -55.1 PSF, +13.1 PSF (BASED ON 20 SF AREA)
       - OVERHANG = -70.8 PSF
     - WALL COMPONENTS & CLADDING DESIGN PRESSURES = -33.5 PSF, + 25.0 PSF (BASED ON 10 SF AREA)
5. SEISMIC DESIGN CRITERIA:
   - OCCUPANCY CATEGORY = IV
   - SEISMIC IMPORTANCE FACTOR (I_E) = 0.127
   - S_S = 0.127 S_1 = 0.067
   - SITE CLASS = D
   - S_{DS} = 0.135 S_{D1} = 0.107
   - BASIC SEISMIC-FORCE-RESISTING SYSTEM (PER ASCE 7-10 TABLE 12.2-1 OR 12.14-1):
     - BEARING WALL SYSTEM - LATER MEDIATE REINFORCED MASONRY SHEAR WALLS
   - RESPONSE MODIFICATION FACTOR (R) = 3.5
   - SEISMIC RESPONSE COEFF. (C_S) = 0.059
   - SEISMIC DESIGN CATEGORY = C
   - DESIGN BASE SHEAR = 23.6 K
   - ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE

CMU WALL NOTES

1. REINF CMU WALLS W/ #4@48"OC UNO.
2. ADDITIONAL #4 VERT REINF AT:
   - 2.1. EACH SIDE OF OPENINGS
   - 2.2. WALL INTERSECTIONS
   - 2.3. ENDS OF WALLS
   - 2.4. AS NOTED & DETAILED ON DRAWINGS
3. PROVIDE BOND BEAMS REINF W/ (2)-#4 CONT AT:
   - 3.1. T&B OF OPENINGS
   - 3.2. TRUSS BEARING (CONT)
   - 3.3. TOP COURSE OF MASONRY WALLS
   - 3.4. AS NOTED & DETAILED ON DRAWINGS
4. PROVIDE MATCHING DOWELS FOR VERT REINF INTO FOUNDATION AND BOND BEAM @ TOP.
5. FILL ALL CMU CELLS BELOW FINISHED FLOOR & BELOW GRADE. FILL MATERIAL SHALL BE 3000 PSI GROUT, MIN.

WOOD FRAMING NOTES

1. SEE PRE-ENGINEERED METAL TRUSS NOTES FOR ROOF TRUSSES.
2. ROOF SHEATHING SHALL BE ⅝" APA RATED SHEATHING W/ #10 TEKS SCREWS @6"OC @ PANEL EDGES & @12"OC @ INTERMEDIATE SUPPORTS.

FOUNDATION NOTES

1. STEP FOOTINGS DOWN BELOW MECHANICAL, ELECTRICAL, OR PLUMBING LINES AS REQUIRED TO AVOID INTERFERENCE. SEE TYP FOOTING STEP DETAIL. COORDINATE W/ OTHER TRADES. PROVIDE PIPE SLEEVE TWO PIPE SIZES GREATER THAN THE PIPE PASSING THROUGH THE WALL.
2. WHERE UTILITY LINES PASS UNDER A FOOTING, PROVIDE RELIEVING ARCH FOR PROTECTION.

CONC SLAB NOTES

1. SIDEWALK SLABS SHALL BE 3000 PSI, 4" THICK CONC REINF W/ 6x6-W1.4xW1.4 WWF @ CENTER OF SLAB. FLOOR SLAB SHALL BE 3000 PSI, 8" THICK CONC. REINFORCED W/#4'S @12" o.c. EA WAY CTR. OF SLAB. SEE PLAN FOR FINISHED FLOOR ELEVATIONS. (REFER TO CIVIL DRAWINGS FOR SIDEWALK LOCATIONS & DETAILS.
2. PROVIDE 4" THICK NO. 57 STONE GRANULAR BASE & VAPOR BARRIER UNDER INTERIOR FLOOR SLAB.
3. CONDUITS & PIPES EMBEDDED IN SLABS:
   - 3.1. SHALL NOT BE LARGER IN OUTSIDE DIM THAN ⅓ THE OVERALL THICKNESS OF SLAB.
   - 3.2. SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS OR WIDTHS ON CENTER.
   - 3.3. MIN SLAB THICKNESS OF 2½" MUST BE MAINTAINED OVER THE EMBEDDED ITEMS.

CONC REINF LAP LENGTH

3000 PSI (ACI 318-11)

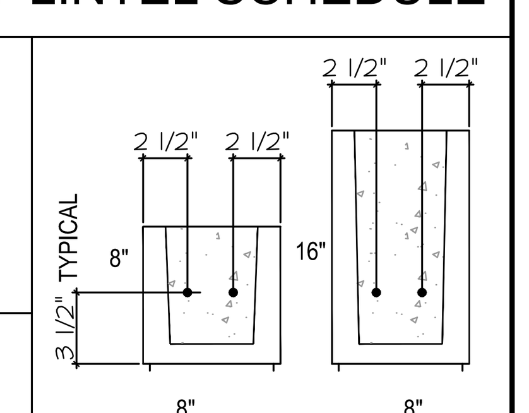
BAR SIZE	TENSION SPLICE CLASS 'B'
#3	22"
#4	29"
#5	36"
#6	43"
#7	63"
#8	72"
#9	81"

CMU REINF LAP LENGTH

Fy=60 KSI, f'm=1500 PSI

BAR SIZE	SPLICE LENGTH
#3	19"
#4	25"
#5	31"
#6	57"
#7	70"
#8	98"

MASONRY LINTEL SCHEDULE



OPENING WIDTH MINIMUM	OPENING WIDTH MAXIMUM	8" CMU	16" CMU
	3'-4"	2 - #4	2 - #4
3'-4"	5'-4"	2 - #5	2 - #5
5'-4"	7'-4"	2 - #6	2 - #5
7'-4"	10'-0"	———	2 - #6

1. EXTEND BOND BEAM REINFORCING 24" OR 40 BAR DIAMETERS (WHICHEVER IS GREATER) BEYOND THE EXTENTS OF THE OPENING. VERTICAL REINFORCING AT THE SIDES OF THE OPENING SHALL BE CONTINUOUS THROUGH THE BOND BEAM. PROVIDE KNOCK OUTS IN THE BOTTOM OF THE BOND BEAM BLOCK AS REQUIRED TO ALLOW REINFORCING TO PASS THROUGH.
2. SEE DETAILS 373 & 374 FOR ADDITIONAL REINFORCING AT OPENINGS.

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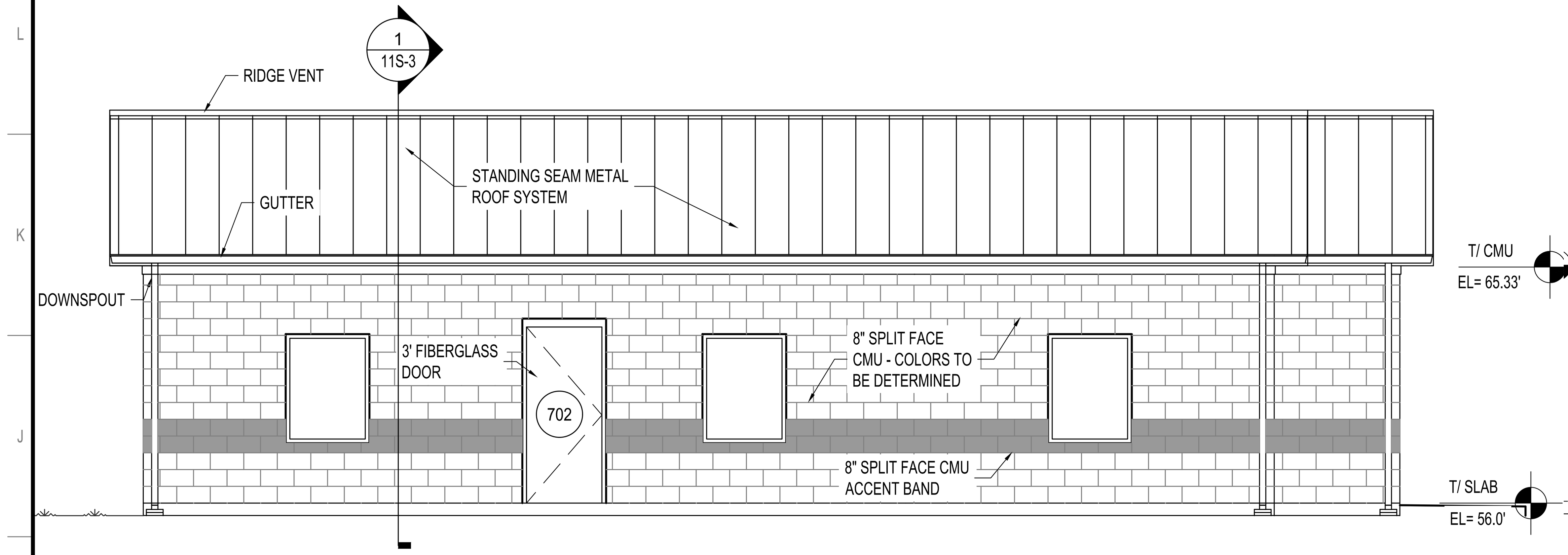
DESIGNED:
DRAWN:
CHECKED:
APPROVED:

OE PROJECT NO: OE18132
FILE NAME: OE18132-11S-CORE
ORIGINAL DRAWING SIZE: 36"x24"
DATE: 6-14-2019

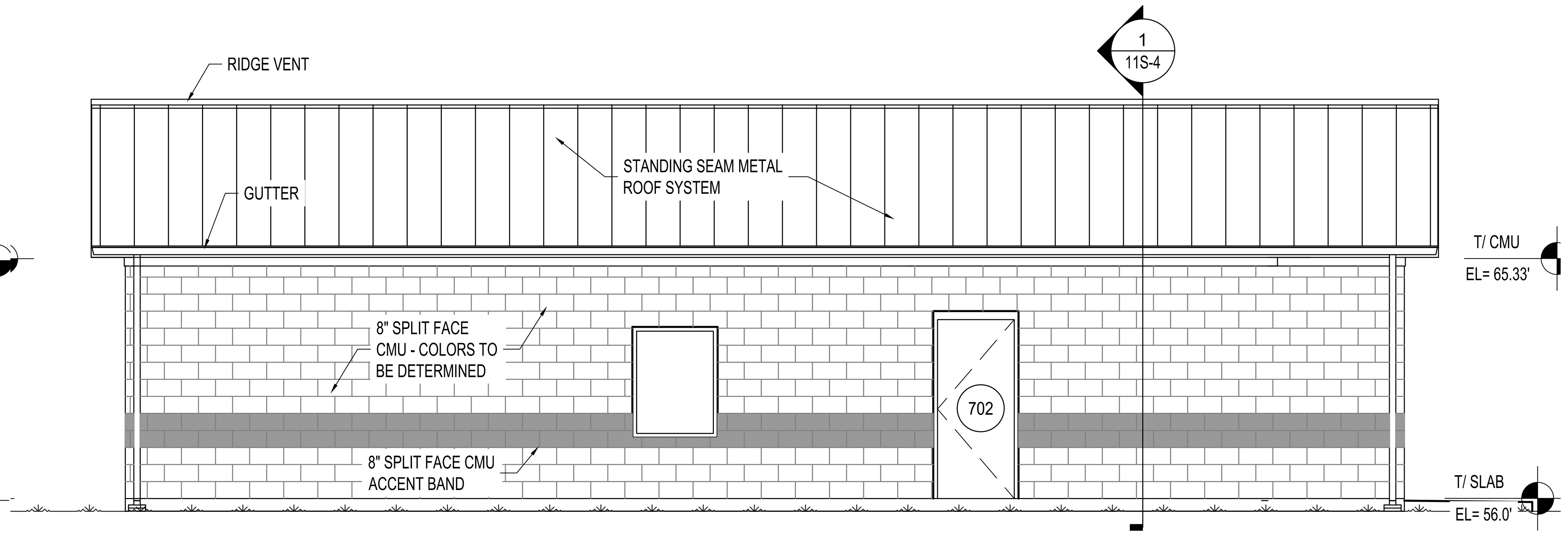
OPERATIONS BUILDING

NOTES AND PLANS

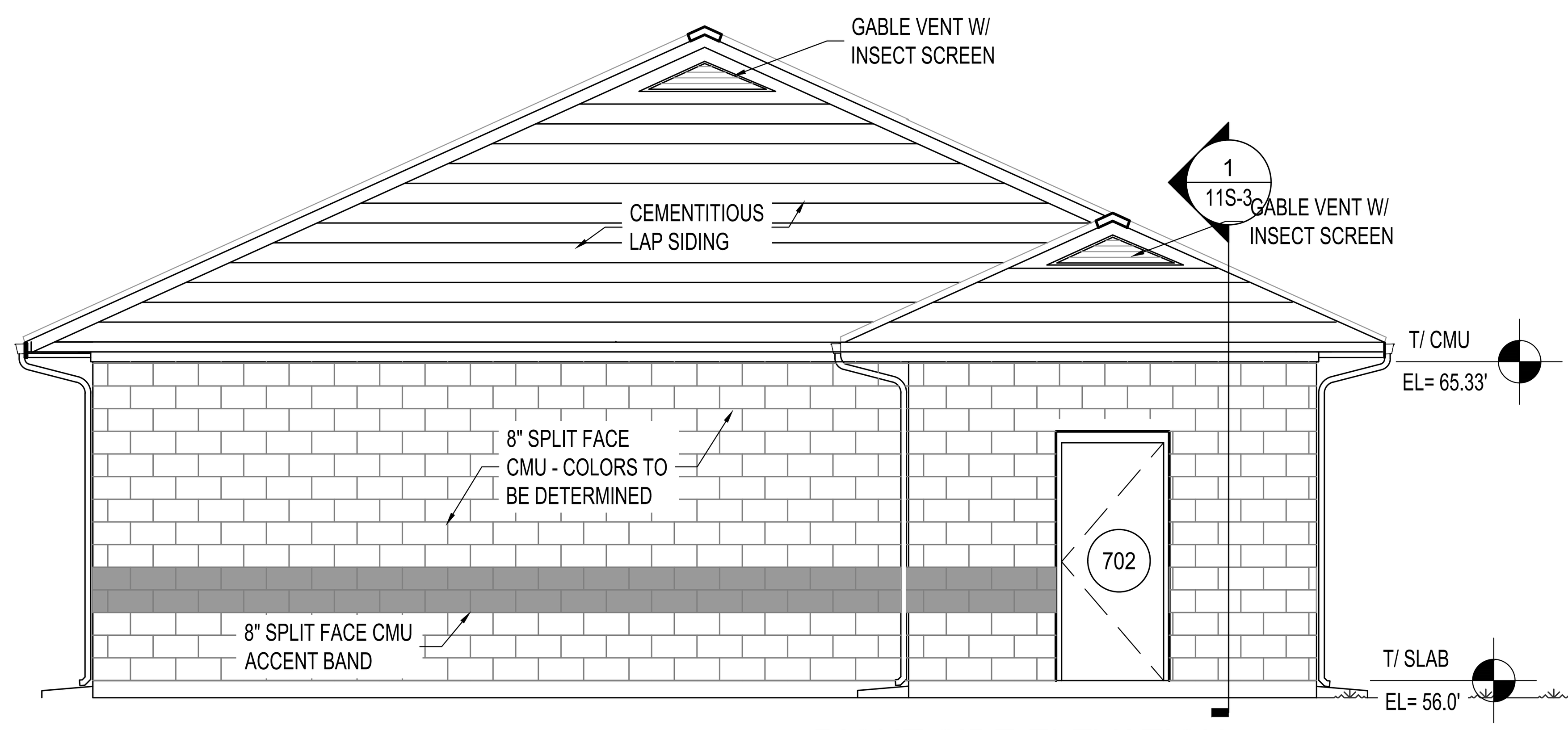
11S-1
SHEET 1 OF 07



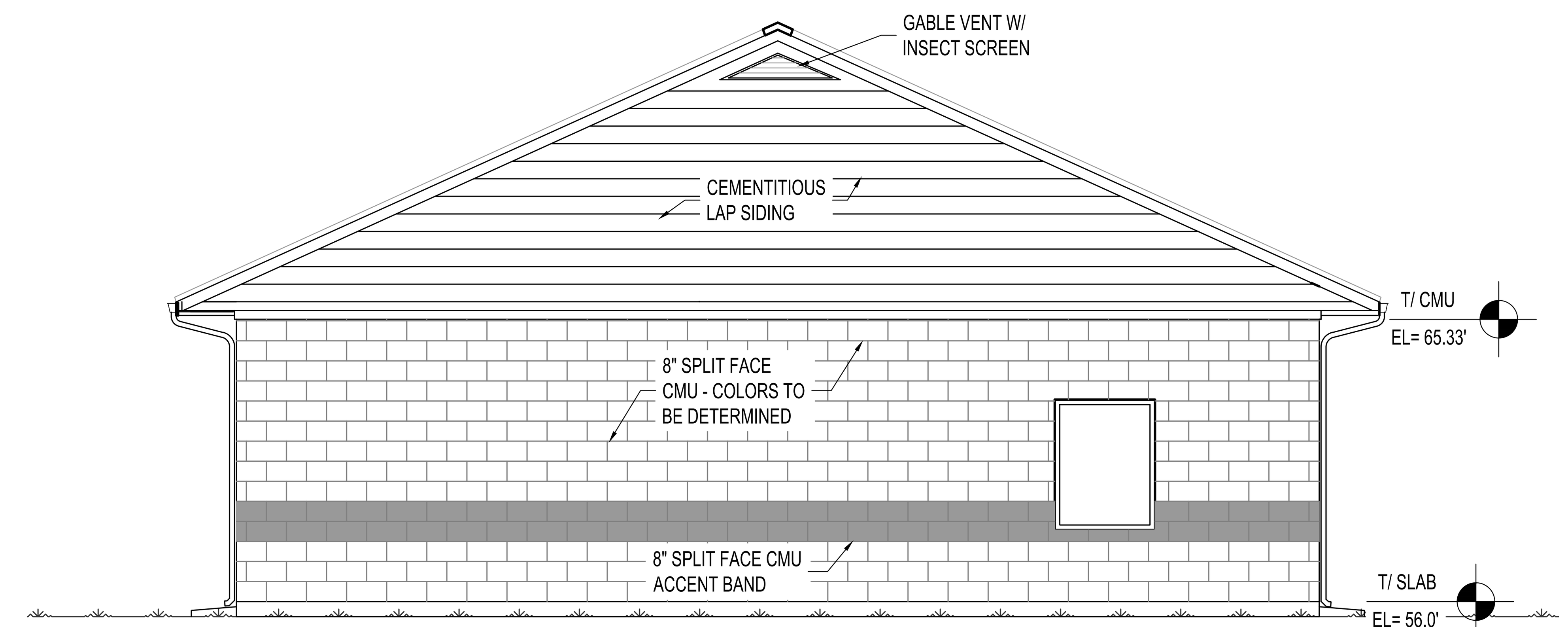
1 FRONT ELEVATION
1/4"=1'-0"



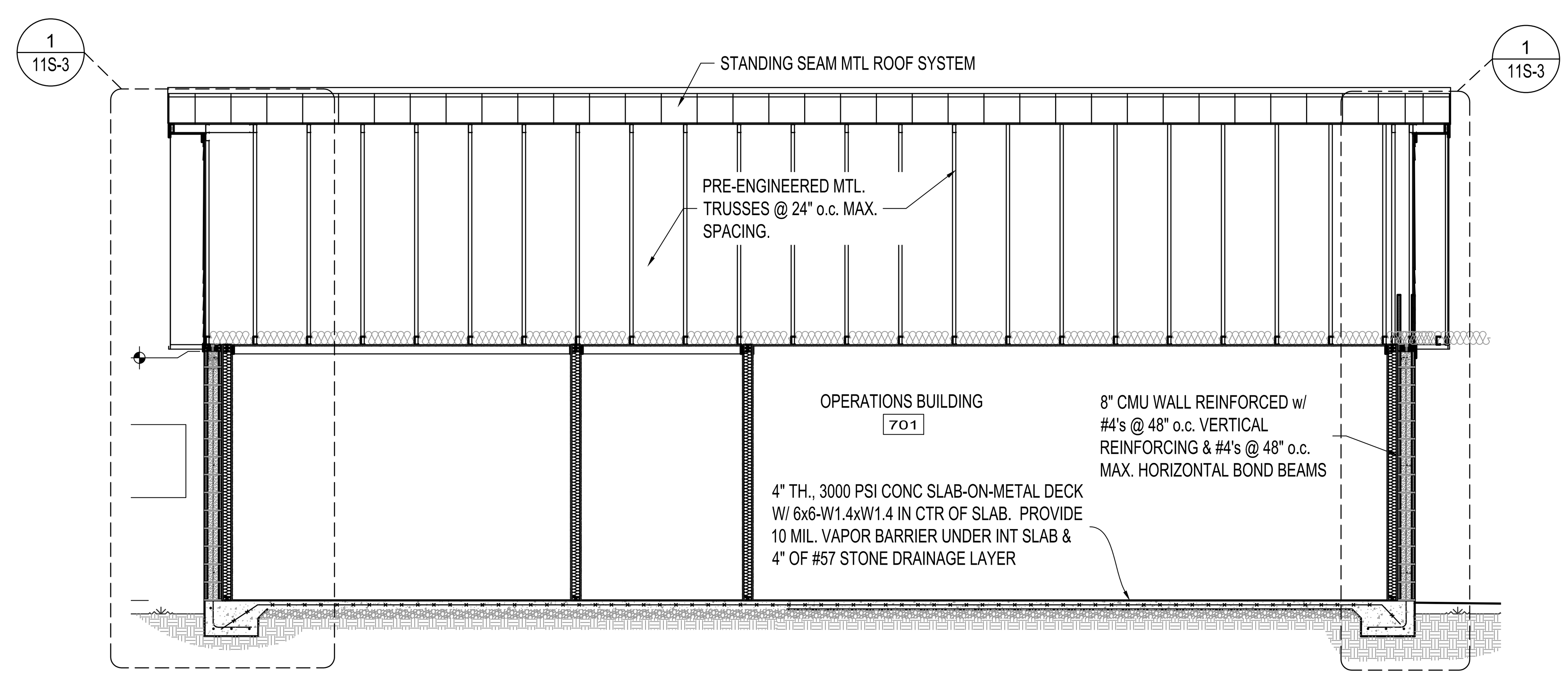
3 REAR ELEVATION
1/4"=1'-0"



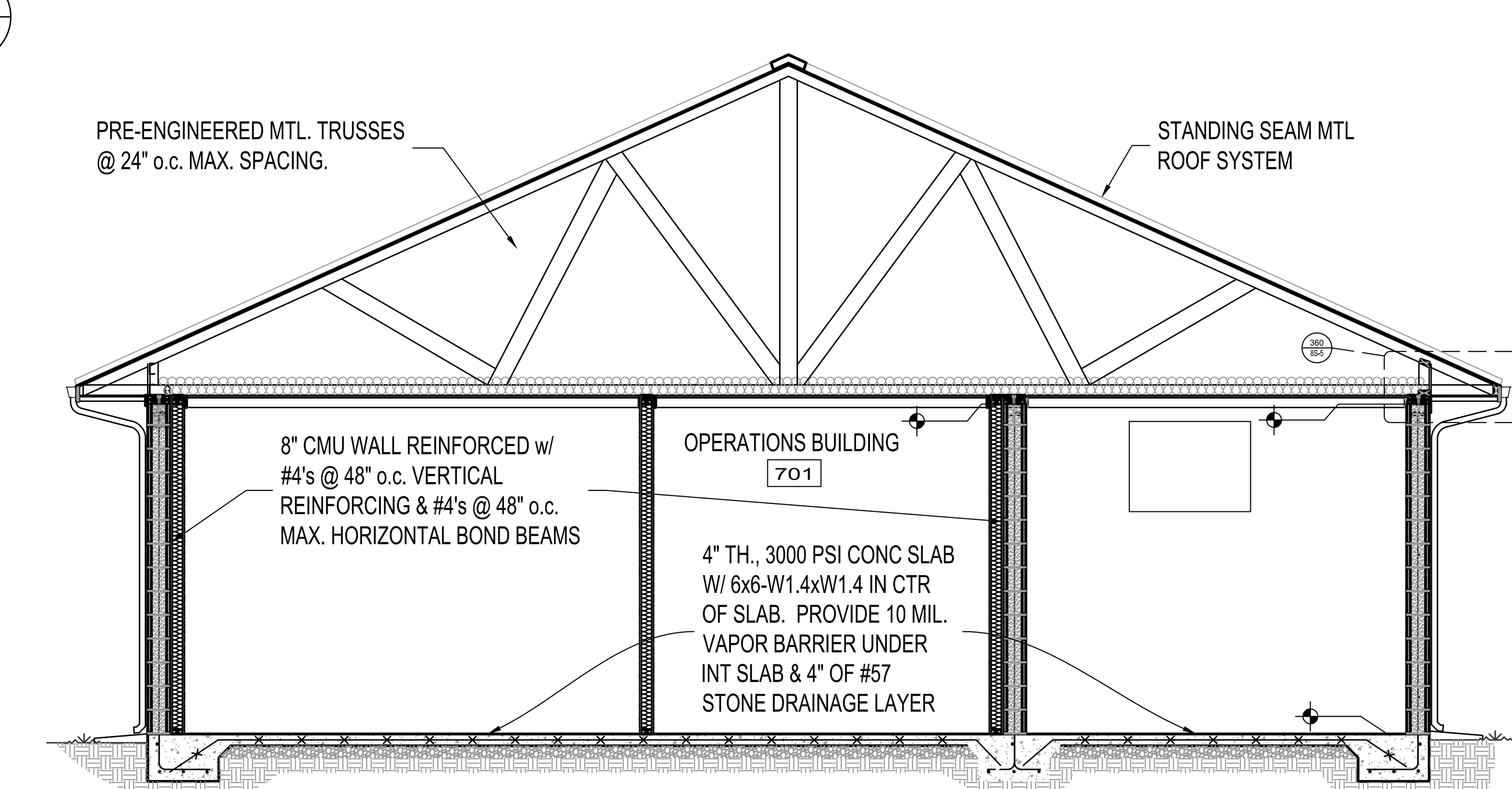
2 RIGHT SIDE ELEVATION
1/4"=1'-0"



4 LEFT SIDE ELEVATION
1/4"=1'-0"



5 LONGITUDINAL BUILDING SECTION
1/4"=1'-0"



6 TRANSVERSE BUILDING SECTION
1/4"=1'-0"

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ORIGINAL DRAWING SIZE: 36"x24"
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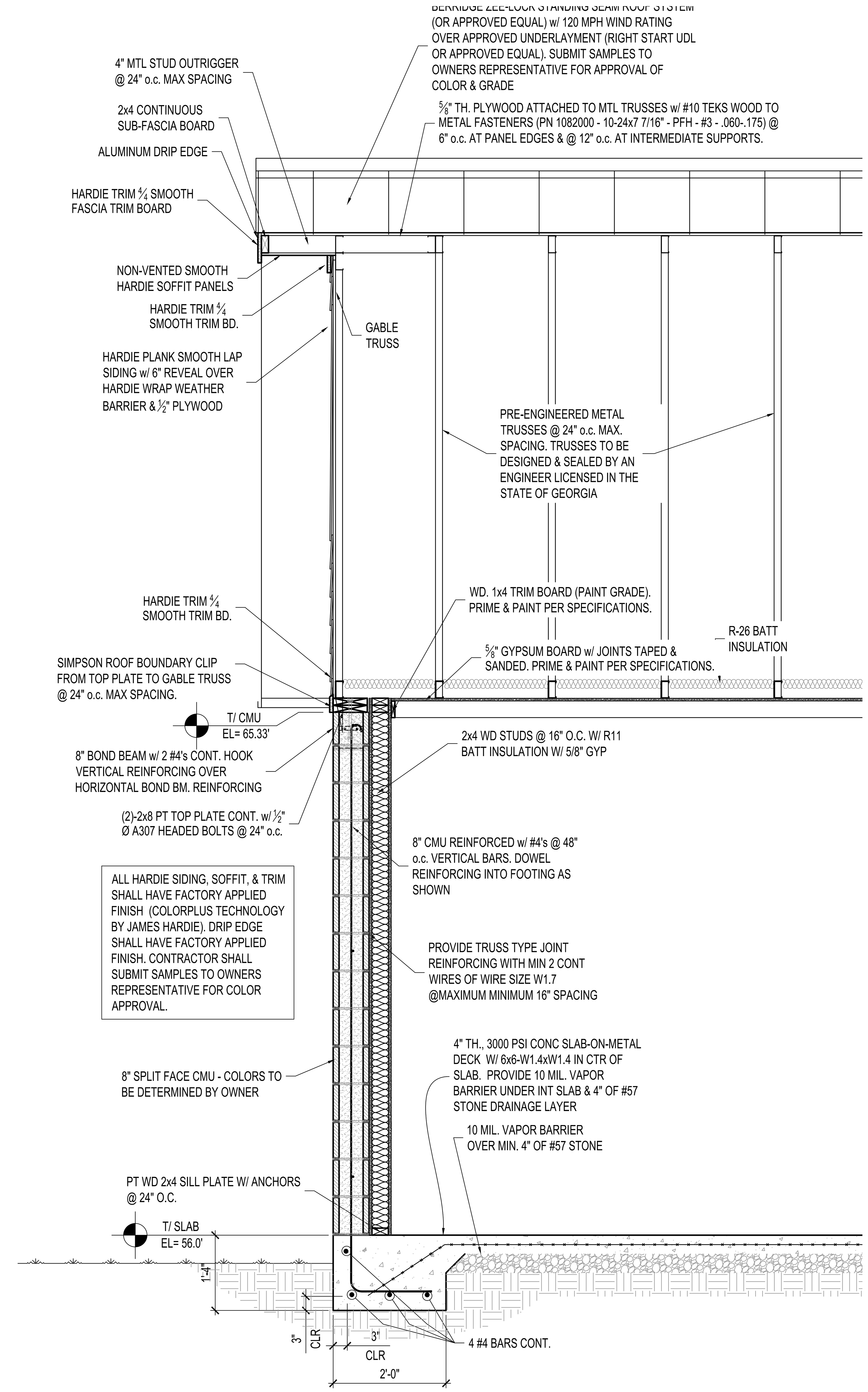
OPERATIONS BUILDING

ELEVATIONS AND SECTIONS

11S-2
SHEET 2 OF 07



1 SIDE WALL SECTION
3/4"=1'-0"

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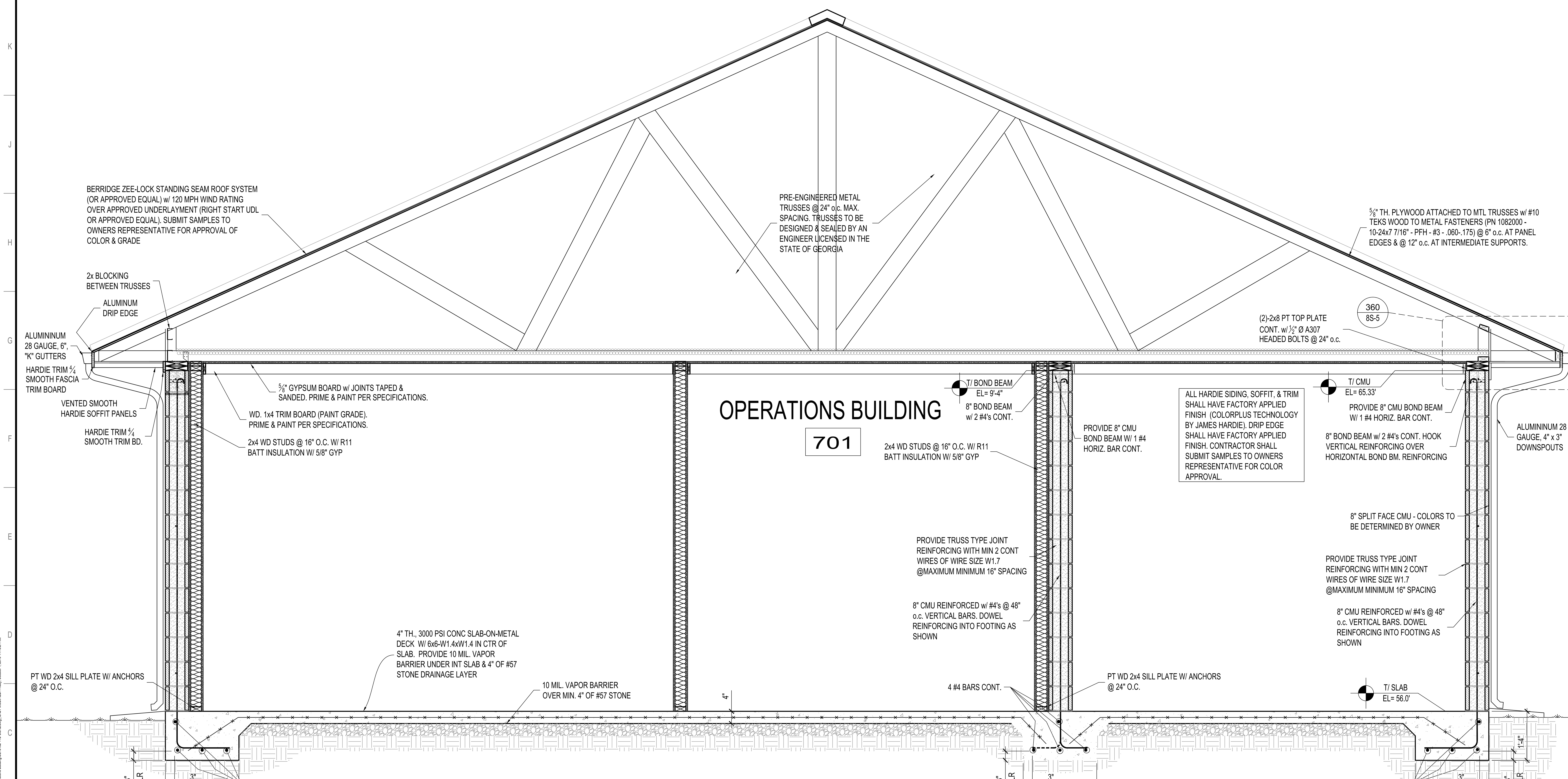
OPERATIONS BUILDING

SECTIONS

11S-3
SHEET 3 OF 07



BERRIDGE ZEE-LOCK STANDING SEAM ROOF SYSTEM (OR APPROVED EQUAL) w/ 120 MPH WIND RATING OVER APPROVED UNDERLAYMENT (RIGHT START UDL OR APPROVED EQUAL). SUBMIT SAMPLES TO OWNERS REPRESENTATIVE FOR APPROVAL OF COLOR & GRADE
PRE-ENGINEERED METAL TRUSSES @ 24" o.c. MAX. SPACING. TRUSSES TO BE DESIGNED & SEALED BY AN ENGINEER LICENSED IN THE STATE OF GEORGIA
5/8" TH. PLYWOOD ATTACHED TO MTL TRUSSES w/ #10 TEKS WOOD TO METAL FASTENERS (PN 1082000 - 10-24x7 7/16" - PFH - #3 - .060-.175) @ 6" o.c. AT PANEL EDGES & @ 12" o.c. AT INTERMEDIATE SUPPORTS.
2x BLOCKING BETWEEN TRUSSES
ALUMINUM DRIP EDGE
ALUMININUM 28 GAUGE, 6", "K" GUTTERS
HARDIE TRIM 5/4 SMOOTH FASCIA TRIM BOARD
VENTED SMOOTH HARDIE SOFFIT PANELS
HARDIE TRIM 5/4 SMOOTH TRIM BD.
360
8S-5
(2)-2x8 PT TOP PLATE CONT. w/ 1/2" Ø A307 HEADED BOLTS @ 24" o.c.
5/8" GYPSUM BOARD w/ JOINTS TAPED & SANDED. PRIME & PAINT PER SPECIFICATIONS.
WD. 1x4 TRIM BOARD (PAINT GRADE). PRIME & PAINT PER SPECIFICATIONS.
2x4 WD STUDS @ 16" O.C. W/ R11 BATT INSULATION W/ 5/8" GYP
OPERATIONS BUILDING
701
T/ BOND BEAM EL= 9'-4"
8" BOND BEAM w/ 2 #4's CONT.
2x4 WD STUDS @ 16" O.C. W/ R11 BATT INSULATION W/ 5/8" GYP
PROVIDE 8" CMU BOND BEAM W/ 1 #4 HORIZ. BAR CONT.
ALL HARDIE SIDING, SOFFIT, & TRIM SHALL HAVE FACTORY APPLIED FINISH (COLORPLUS TECHNOLOGY BY JAMES HARDIE). DRIP EDGE SHALL HAVE FACTORY APPLIED FINISH. CONTRACTOR SHALL SUBMIT SAMPLES TO OWNERS REPRESENTATIVE FOR COLOR APPROVAL.
T/ CMU EL= 65.33'
PROVIDE 8" CMU BOND BEAM W/ 1 #4 HORIZ. BAR CONT.
8" BOND BEAM w/ 2 #4's CONT. HOOK VERTICAL REINFORCING OVER HORIZONTAL BOND BM. REINFORCING
ALUMININUM 28 GAUGE, 4" x 3" DOWNSPOUTS
8" SPLIT FACE CMU - COLORS TO BE DETERMINED BY OWNER
PROVIDE TRUSS TYPE JOINT REINFORCING WITH MIN 2 CONT WIRES OF WIRE SIZE W1.7 @MAXIMUM MINIMUM 16" SPACING
8" CMU REINFORCED w/ #4's @ 48" o.c. VERTICAL BARS. DOWEL REINFORCING INTO FOOTING AS SHOWN
PROVIDE TRUSS TYPE JOINT REINFORCING WITH MIN 2 CONT WIRES OF WIRE SIZE W1.7 @MAXIMUM MINIMUM 16" SPACING
8" CMU REINFORCED w/ #4's @ 48" o.c. VERTICAL BARS. DOWEL REINFORCING INTO FOOTING AS SHOWN
4" TH., 3000 PSI CONC SLAB-ON-METAL DECK W/ 6x6-W1.4xW1.4 IN CTR OF SLAB. PROVIDE 10 MIL. VAPOR BARRIER UNDER INT SLAB & 4" OF #57 STONE DRAINAGE LAYER
PT WD 2x4 SILL PLATE W/ ANCHORS @ 24" O.C.
10 MIL. VAPOR BARRIER OVER MIN. 4" OF #57 STONE
4"
4 #4 BARS CONT.
PT WD 2x4 SILL PLATE W/ ANCHORS @ 24" O.C.
T/ SLAB EL= 56.0'
3" CLR
3" CLR
2'-0"
4 #4 BARS CONT.
3" CLR
3" CLR
2'-0"
4 #4 BARS CONT.
1'-4"
3" CLR
3" CLR
2'-0"

1 SIDE WALL SECTION
3/4"=1'-0"

DOOR SCHEDULE

DR. #	WIDTH	HEIGHT	THK.	TYPE	MATERIAL	FIRE LABEL	FRAME MTL.	REMARKS
701	6-0	7-0	1 3/4"	CC	FRP		FRP	SEE NOTE FOR MFR.
702	3-0	7-0	1 3/4"	BB	FRP		FRP	SEE NOTE FOR MFR.

NOTE: DOOR #701 & #702 BY CHEM-PRUF DOOR CO. OR APPROVED EQUAL.

FINISH SCHEDULE

ROOM NUMBER	FLOORS	WALLS	CEILING	REMARKS
701	SEALED CONCRETE	PAINTED CMU	PAINTED GYP. BOARD	

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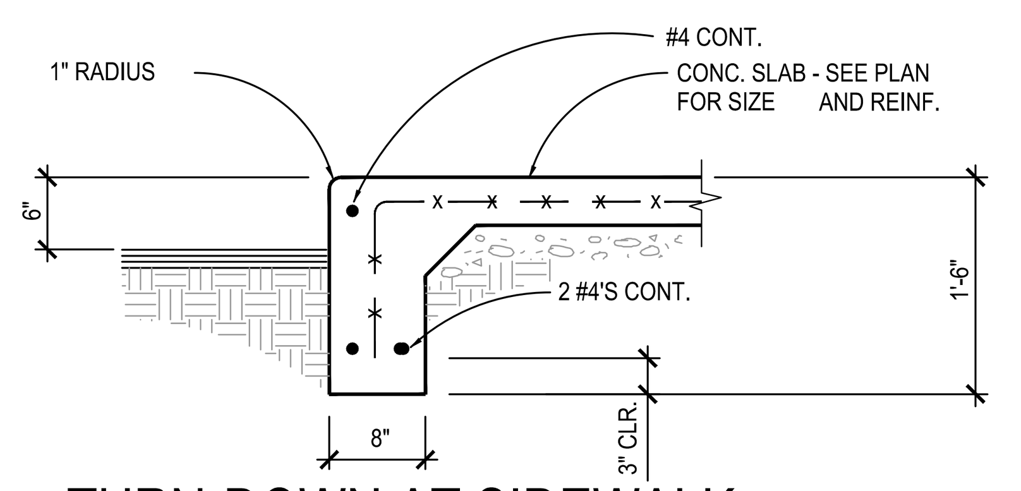
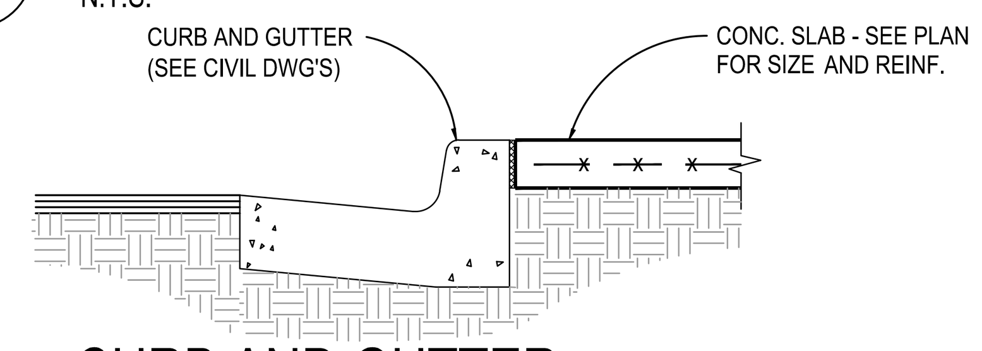
OPERATIONS BUILDING

SECTIONS

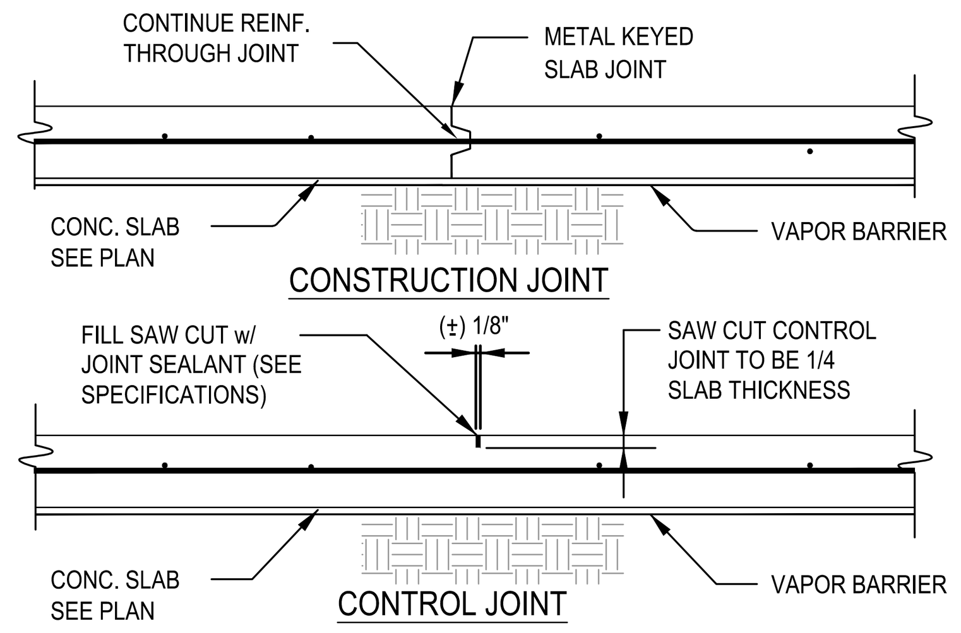
11S-4
SHEET 4 OF 07



341 TURN-DOWN AT SIDEWALK
N.T.S.



342 CURB AND GUTTER
N.T.S.



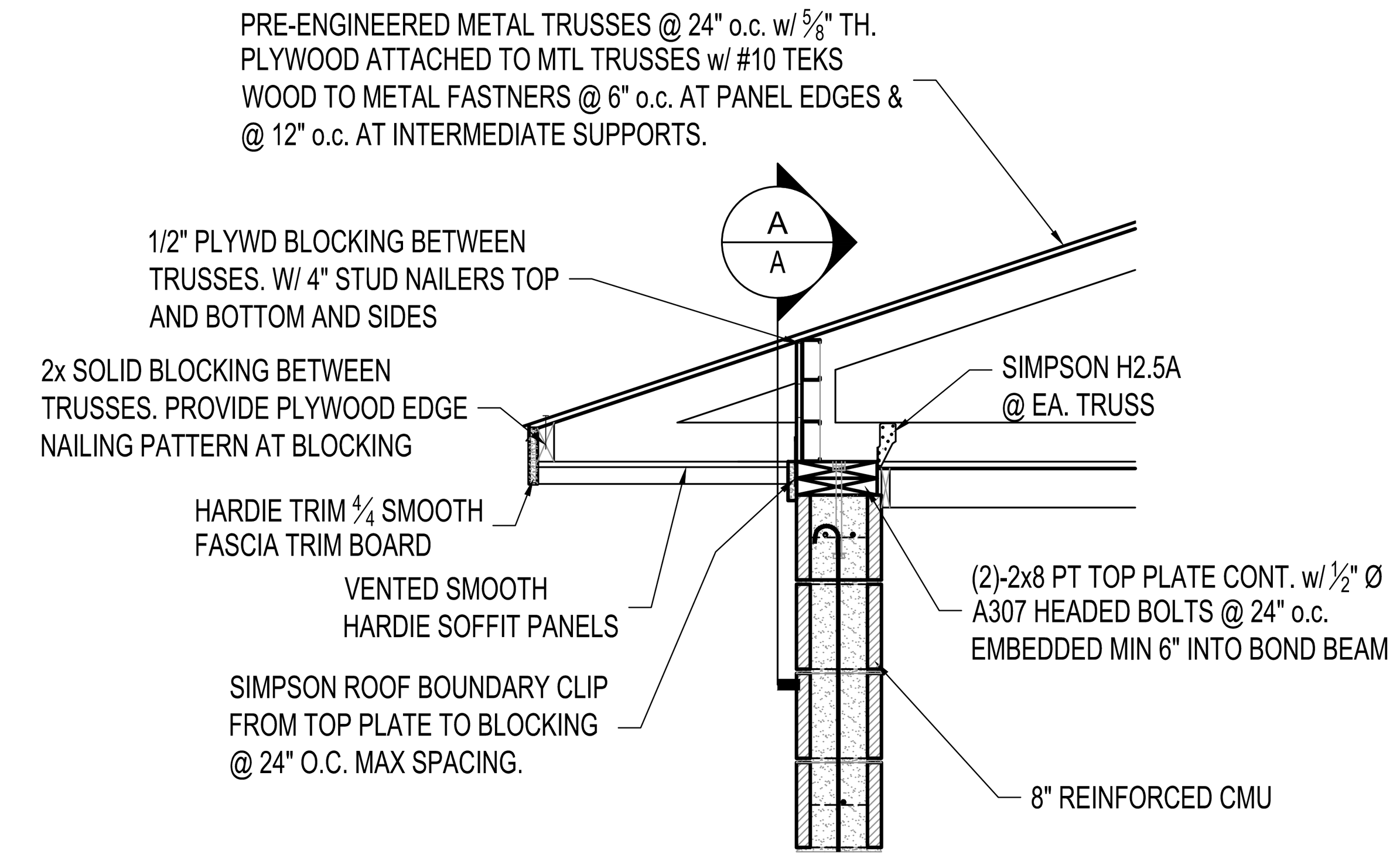
NOTES:

SAW CUT AS SOON AS SLAB CAN SUPPORT WEIGHT.

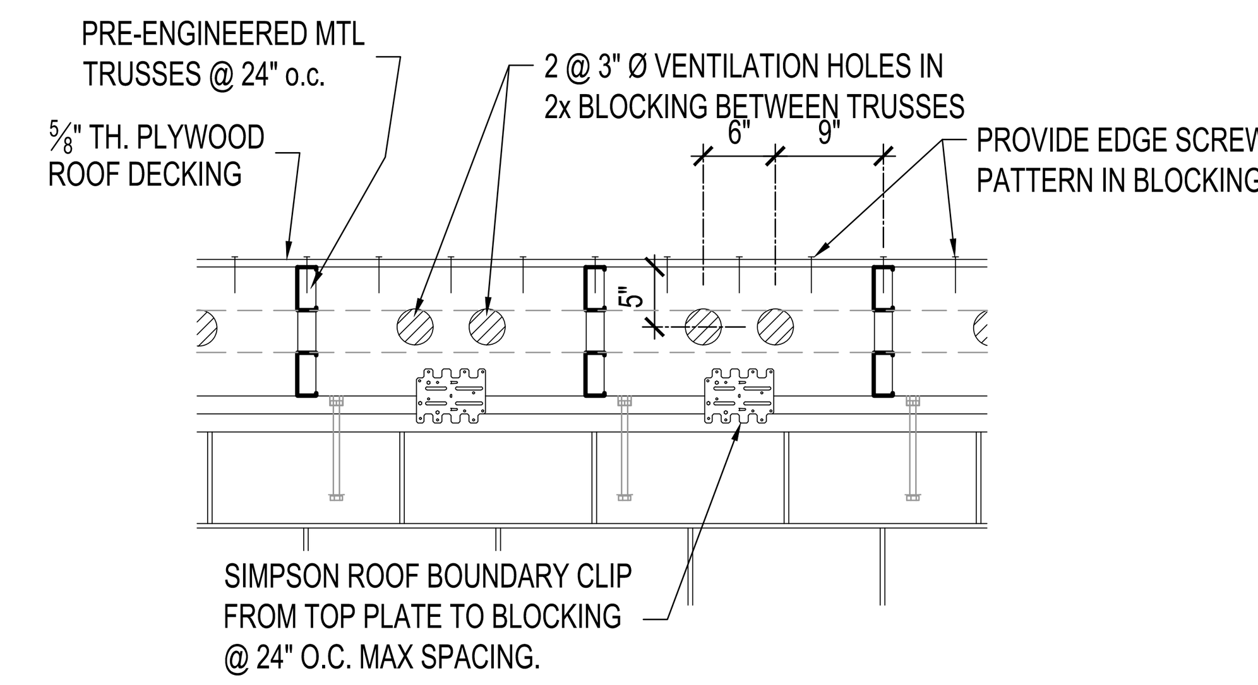
CONTROL JOINTS MAY BE REPLACED WITH CONSTRUCTION JOINTS.

CONTROL JOINTS SHALL BE SPACED AT NO MORE THAN 18'-0" O.C. SLAB AREAS BOUNDED BY THESE JOINTS, SHALL HAVE THE LENGTH NO MORE THAN 2x THE WIDTH.

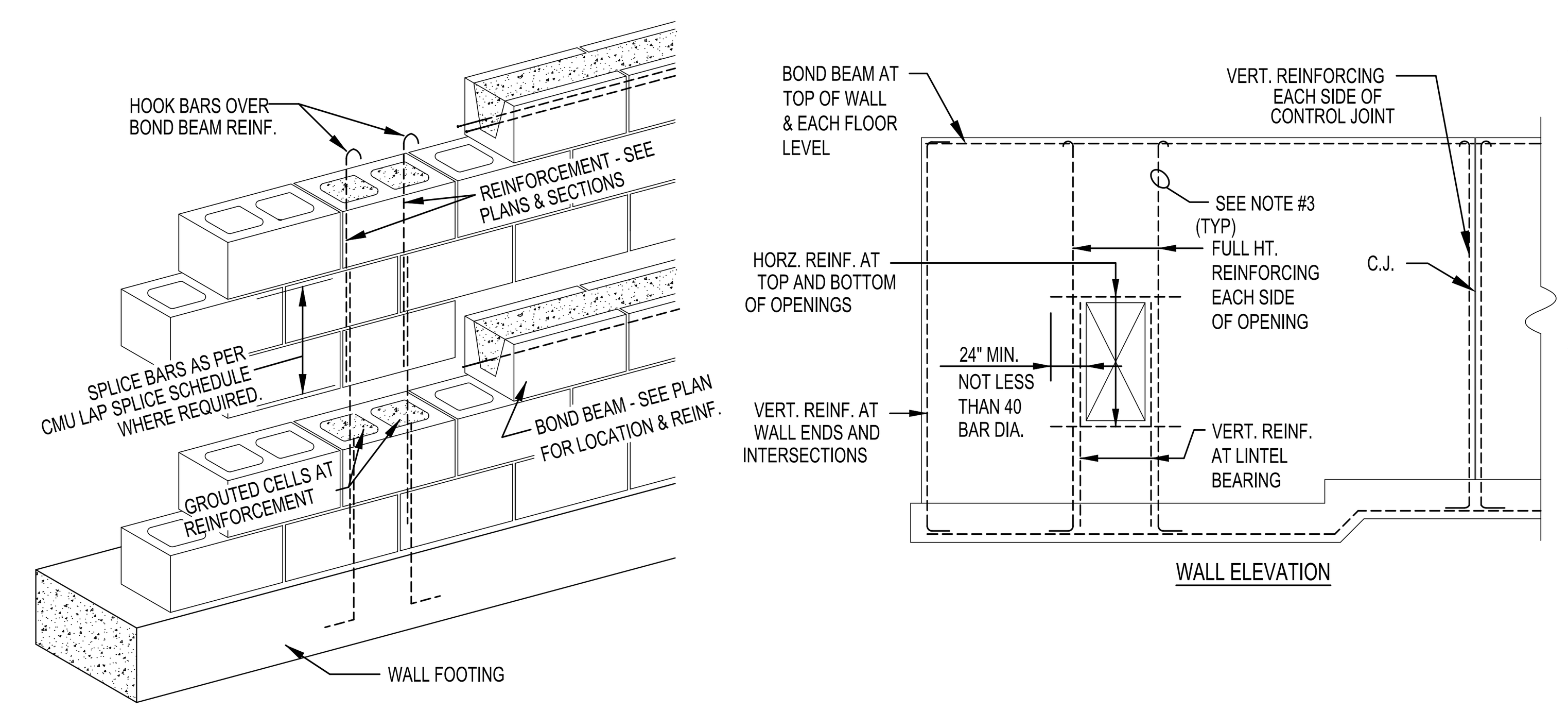
344 6" SLAB JOINT DETAILS
N.T.S.



360 TRUSS TO WALL CONNECTION DETAIL
N.T.S.



A/A SECTION A-A
N.T.S.



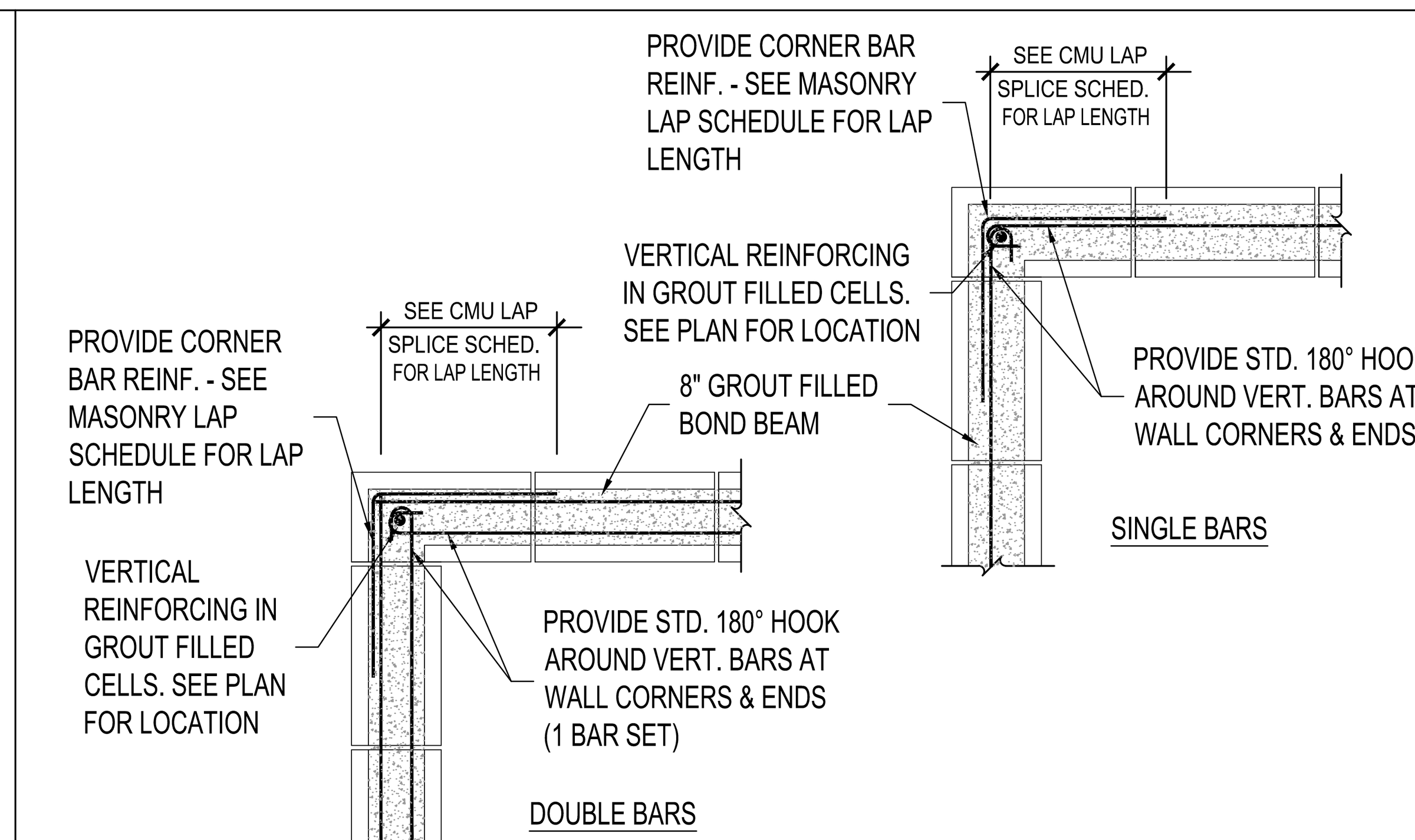
LOW LIFT GROUTING PROCEDURE:

1. CONSTRUCT WALL TO HEIGHT OF 4'-0". ALLOW MORTAR TO SET SUFFICIENTLY TO WITHSTAND GROUT PRESSURE.
2. INSPECT UNITS FOR ALIGNMENT. CLEAN OUT CELLS TO BE FILLED.
3. LIGHTLY WET THE UNITS AND FILL CELLS TO 1 1/2" BELOW TOP COURSE.
4. DELAY 3 TO 5 MINUTES PRIOR TO CONSOLIDATING TO ALLOW WATER TO BE ABSORBED BY MASONRY.

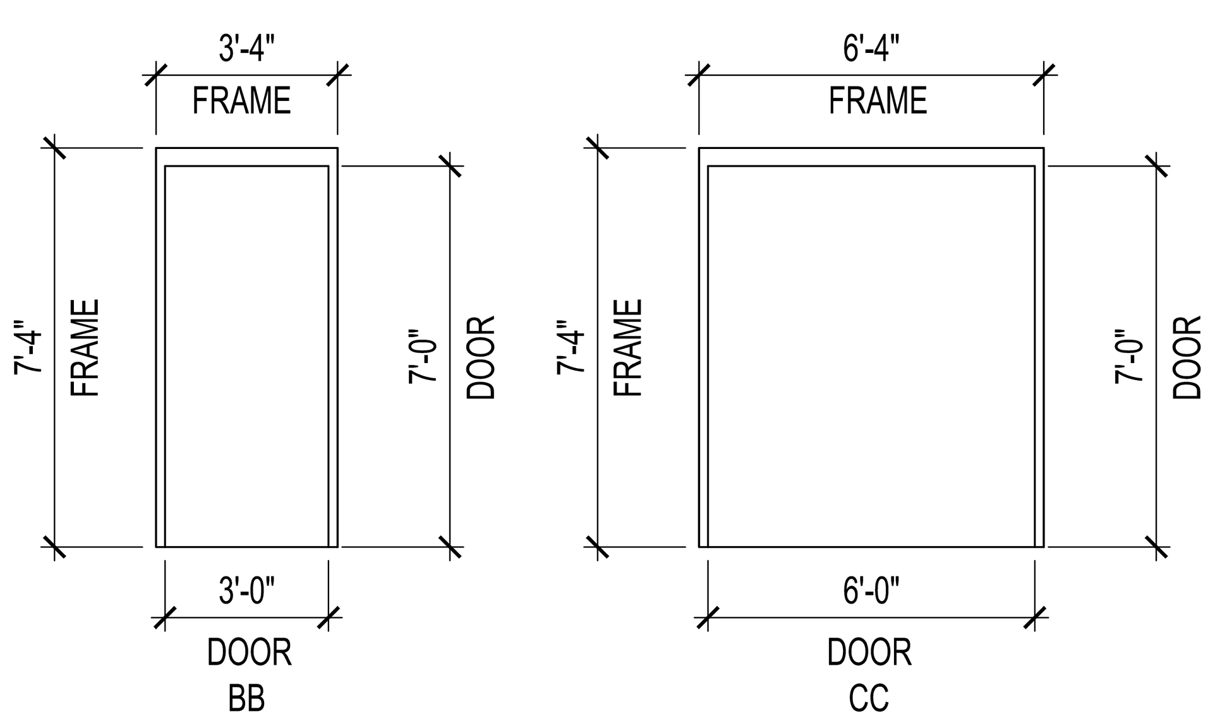
ELEVATION NOTES:

1. REINFORCING SHOWN SHALL BE MINIMUM #4 RE-BAR UNLESS SHOWN OTHERWISE ON PLANS AND DETAILS.
2. BOND BEAM REINFORCING SHOWN SHALL BE DISCONTINUED AT CONTROL JOINTS.
3. PROVIDE 4" x 4" OPENING IN BOTTOM OF BOND BEAM FOR PASSAGE OF VERTICAL REINFORCING IN CMU BOND BEAM. PROVIDE 1" HOLE IN BOTTOM OF PRECAST LINTEL FOR PASSAGE OF VERT REINF.

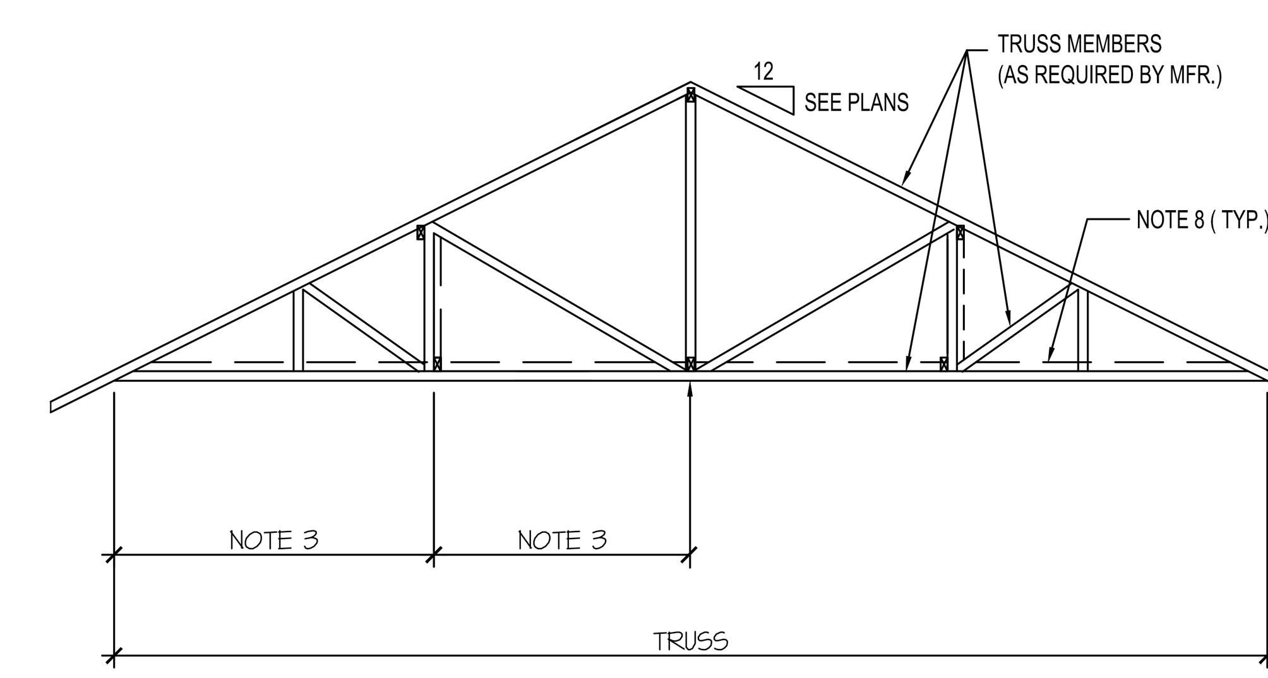
370 REINFORCED MASONRY CONSTRUCTION & REINFORCING
N.T.S.

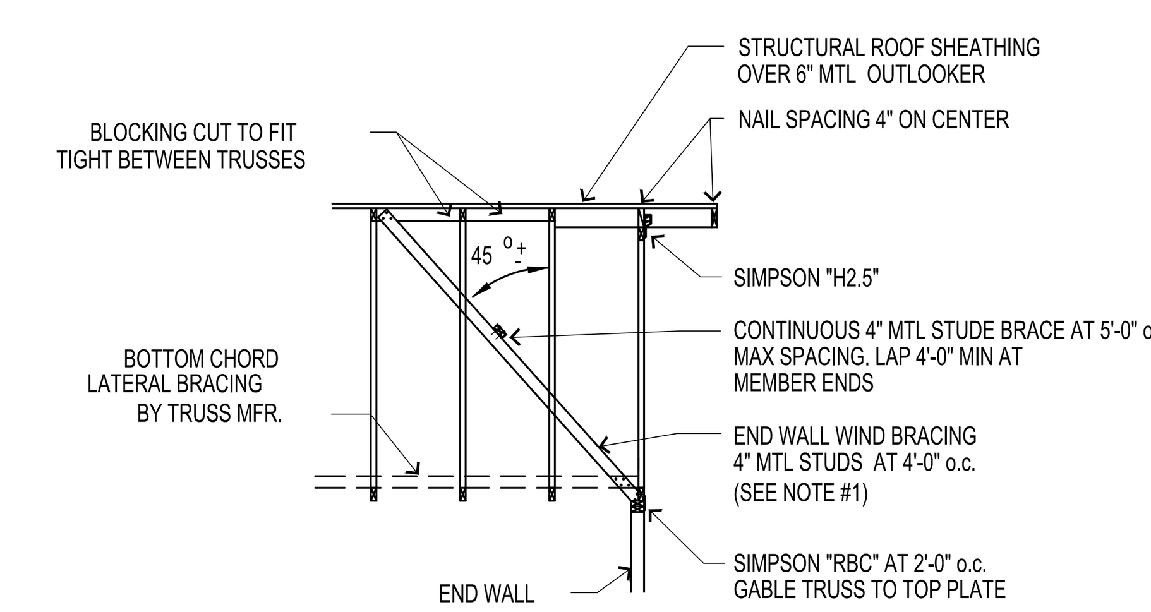


375 CMU CORNER WALL DETAIL
N.T.S.



3 DOOR & FRAME ELEVATIONS
N.T.S.





SECTION at GABLE END

1. END WALL WIND BRACING MAY BE OMITTED IF GYPSUM BOARD DIAPHRAGM IS NAILED TO TRUSS BOTTOM CHORD.

1. TRUSS AS SHOWN DOES NOT REPRESENT ACTUAL TRUSS DESIGN OR LAYOUT. SECTION SHOWN IS INTENDED FOR PERMANENT BRACING REFERENCE ONLY. SEE ARCHITECTURAL DRAWINGS FOR TRUSS CONFIGURATION.

2. TEMPORARY BRACING FOR ERECTION PURPOSES IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

3. MAXIMUM HORIZONTAL DISTANCE BETWEEN VERTICAL DIAGONAL BRACING SHALL BE 8'-0". BRACING MEMBERS BRACING SHALL BE 2x4 MIN.

4. 3 ROWS OF BRACING AS SHOWN IS MINIMUM BRACING REQUIRED.

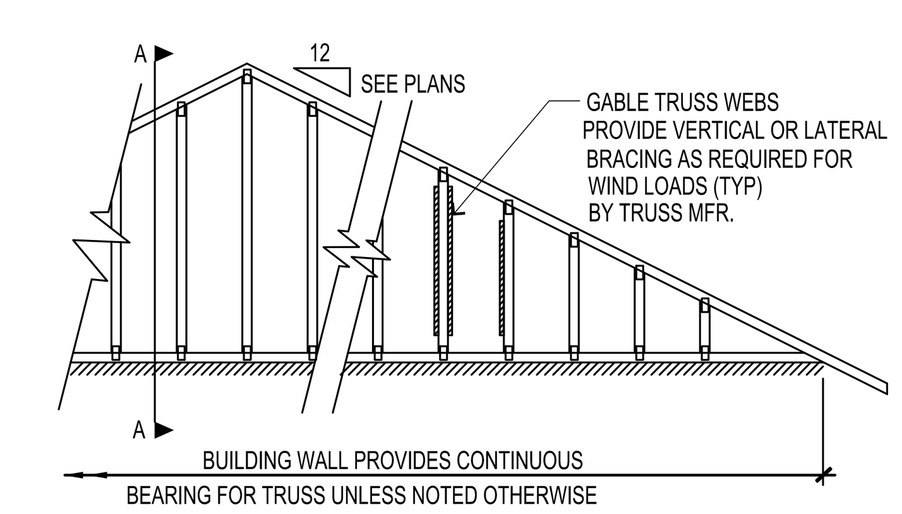
5. LAP LATERAL BRACING OVER AT LEAST TWO TRUSSES.

6. USE 16d NAILS TO ATTACH LATERAL BRACING AT EACH TRUSS.

7. PROVIDE VERTICAL X-BRACING AT EACH END FOR NOT LESS THAN 3 TRUSSES AT FIRST PANEL POINT FROM EACH END AND 5 TRUSSES AT INTERIOR PANEL POINTS.

8. PROVIDE BOTTOM CHORD HORIZONTAL V-BRACING AT EACH END ENGAGING NOT LESS THAN 5 TRUSSES. PROVIDE ADDITIONAL DIAGONAL BRACING AT INTERVALS NOT TO EXCEED 20 FEET.

9. FOR PURPOSES OF BRACING, DOUBLE TRUSSES SHOULD BE TREATED AS A SINGLE TRUSS.



380 PERMANENT TRUSS BRACING DETAIL
N.T.S.

OCONEE ENGINEERING L.L.C.
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GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 27855 RALPH H. BOSWELL
10/10/2019

FOLKSTON TREATMENT PLANT
FOR:
THE CITY OF FOLKSTON
FOLKSTON GEORGIA
CHARLTON COUNTY, GEORGIA

MARK	DATE	BY	DESCRIPTION
	6-14-2019		60% SET FOR REVIEW
	07-08-2019		90% SET FOR REVIEW
	10-10-2019		EPD SUBMITTAL

OE PROJECT NO: OE18132
FILE NAME: OE18132-11S-CORE
ORIGINAL DRAWING SIZE: 36"x24"
DATE: 6-14-2019

DESIGNED:
DRAWN:
CHECKED:
APPROVED:

OPERATIONS BUILDING

DETAILS

11S-5

SHEET 5 OF 07

DOOR SCHEDULE

DOOR NUMBER	DOOR LOCATION	DOORS TYPE	DOORS SIZE WIDTH	DOORS SIZE HEIGHT	DOORS SIZE THICK	DOORS MAT'L	DOORS FINISH	FRAME SIZE	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	FRAME HEAD	FRAME JAMB	FRAME THR.	LABEL	HDW. SET (NOTE 1)	REMARKS	DOOR NUMBER
01	OP AND LAB BLDG	B	3'-0"	7'-0"	1-3/4"	FIBERGLASS	PAINT	7-1/4"	1	H.M.	PAINT	1/A-5	2/A-5	ALUM		1		01
02	OP AND LAB BLDG	B	3'-0"	7'-0"	1-3/4"	FIBERGLASS	PAINT	7-1/4"	1	H.M.	PAINT	1/A-5	2/A-5	———		1		02

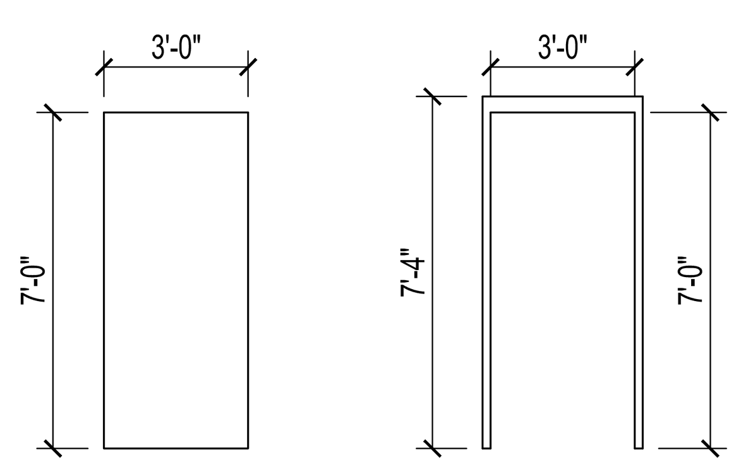
NOTES: 1. ALL DOOR HARDWARE SHALL BE OPERABLE LEVER TYPE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST TO OPERATE.

WINDOW SCHEDULE

WINDOW NUMBER	WINDOW LOCATION	WINDOW TYPE	WINDOW SIZE WIDTH	WINDOW SIZE HEIGHT	WINDOW SIZE THICK	MAT'L	FINISH	REMARKS	WINDOW NUMBER
1		A	3'-4"	4'-4"	4"	ALUM	CLEAR ANODIZED	ALUM STOREFRONT WINDOW W/ 1/2" INSULATED LOW E GLAZING	1

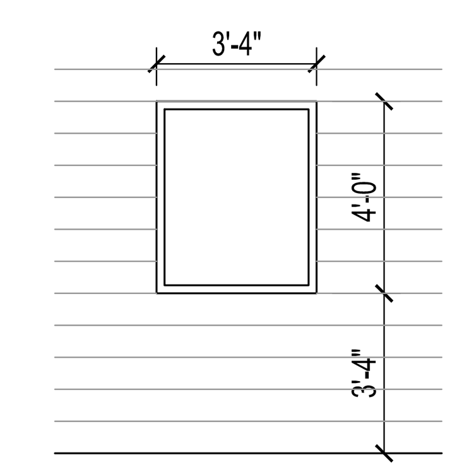
NOTES:
1. STOREFRONT MANUFACTURE IS YKK AP STOREFRONT SYSTEM YES 40 FS 1-3/4 X4

DOOR AND FRAME TYPES



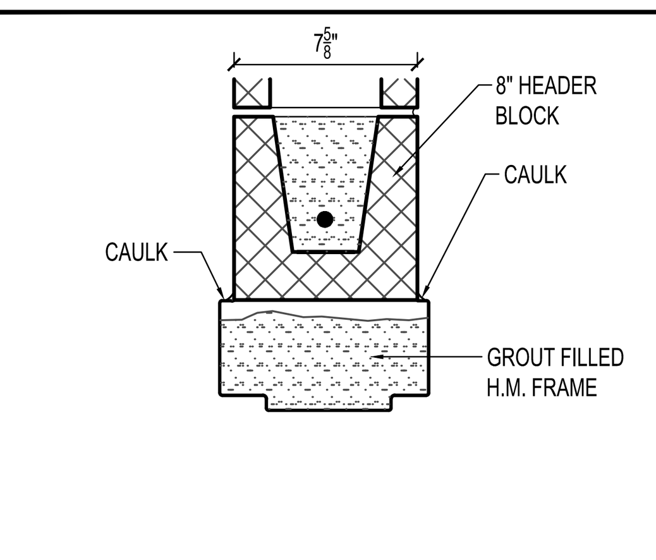
B 1

DOOR AND FRAME TYPES

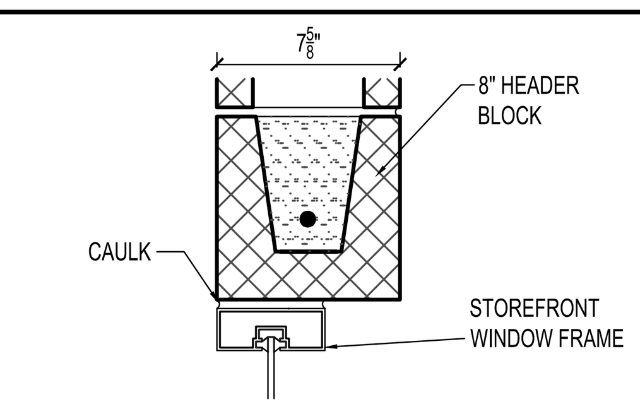


A

DOOR, WINDOW AND LOUVER DETAILS



H-1



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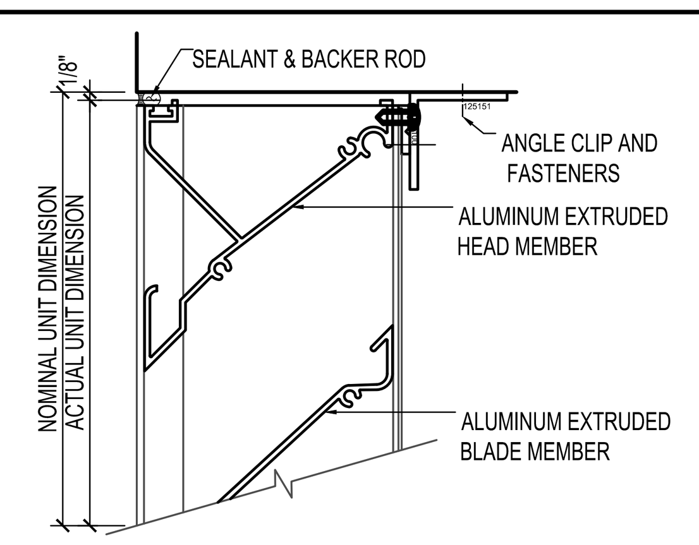
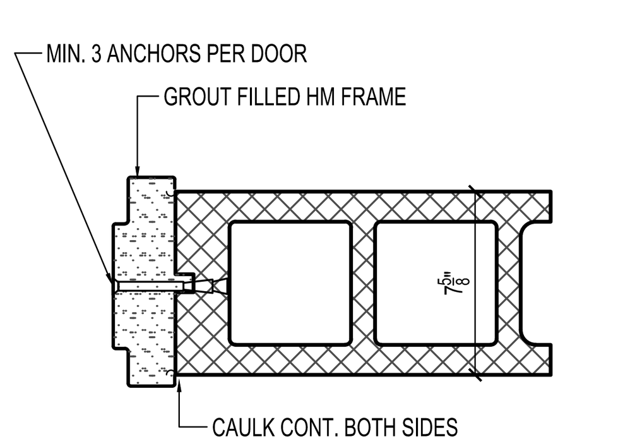
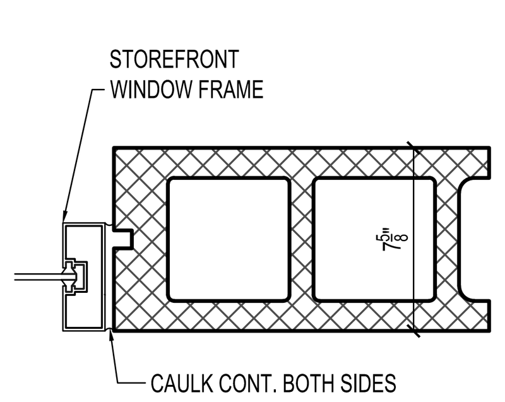


H-3 TYP. LOUVER



J-1



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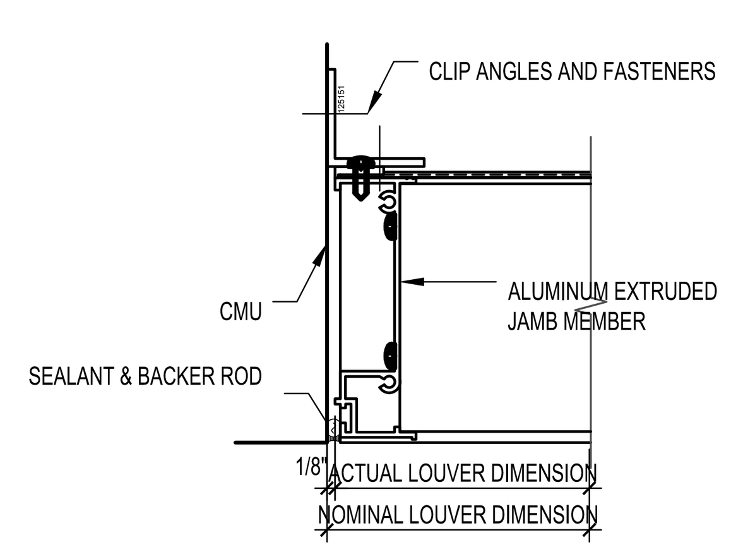
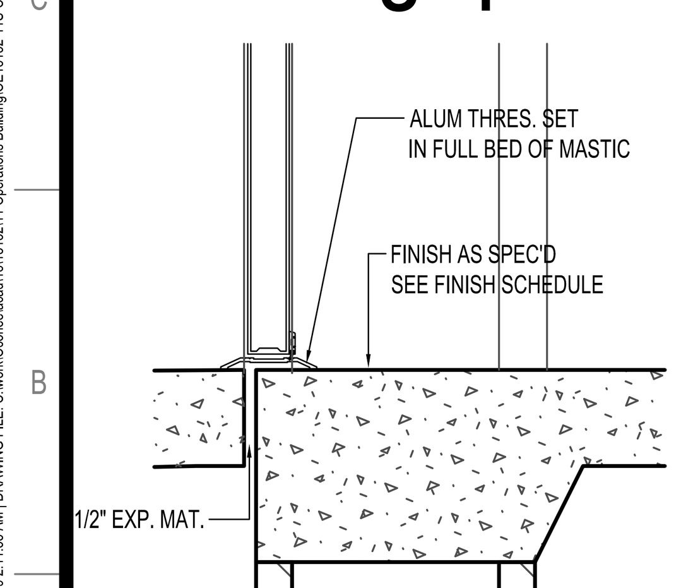


J-3 TYP. LOUVER



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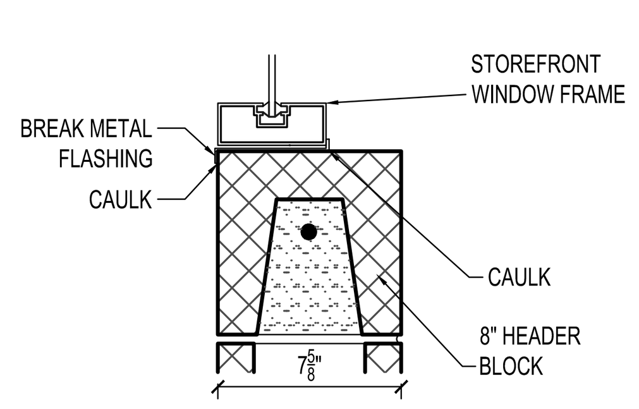
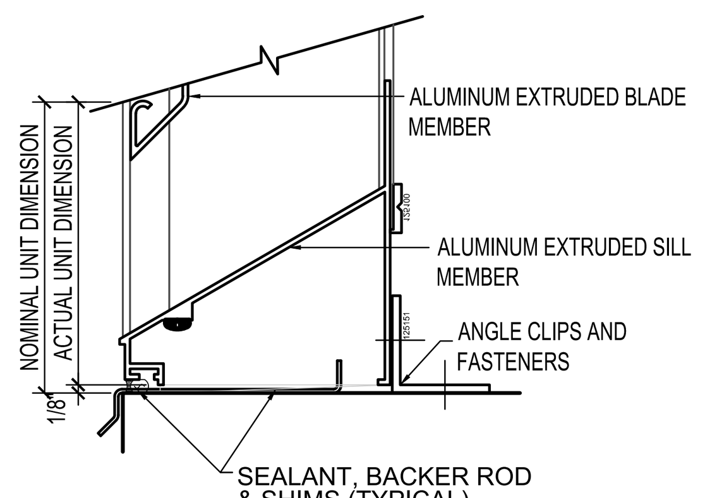


S-2



S-3 TYP. LOUVER

ROOM FINISH SCHEDULE

NO.	NAME	FLOOR: SEALED CONCRETE	FLOOR: FLOOR FINISH BY OWNER	BASE: NONE	BASE: RUBBER BASE - BY OWNER	WALLS: PAINTED CMU -P1	WALLS: PAINTED GYP BOARD -P1	CEILING: PAINTED GYPSUM BD - P2	CEILING: HEIGHT	NOTES
	OPERATIONS AND LAB BUILDING									-
100	HALL		⊗		⊗		⊗	⊗	9'-5 1/2	
101	HALL		⊗		⊗		⊗	⊗	9'-5 1/2	
102	MEN'S RR		⊗		⊗		⊗	⊗	9'-5 1/2	
103	WOMEN'S HALL		⊗		⊗		⊗	⊗	9'-5 1/2	
104	OFFICE		⊗		⊗		⊗	⊗	9'-5 1/2	
105	LABORATORY		⊗		⊗		⊗	⊗	9'-5 1/2	
106	WOMEN'S HALL		⊗		⊗		⊗	⊗	9'-5 1/2	
107	ELECTRICAL ROOM	⊗		⊗		⊗		⊗	9'-5 1/2	

ROOM FINISH NOTES

NOTES:
1. ALL INTERIOR FINISHES BY OWNER

LIST OF FINISHES

INTERIOR PAINT

ITEM	MANUFACTURER	SPECIFICATION	COLOR NUMBER	COLOR	REMARKS

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GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 27855 RALPH H. BOSWELL
10/10/2019

FOLKSTON TREATMENT PLANT
FOR:
THE CITY OF FOLKSTON
FOLKSTON GEORGIA
CHARLTON COUNTY, GEORGIA

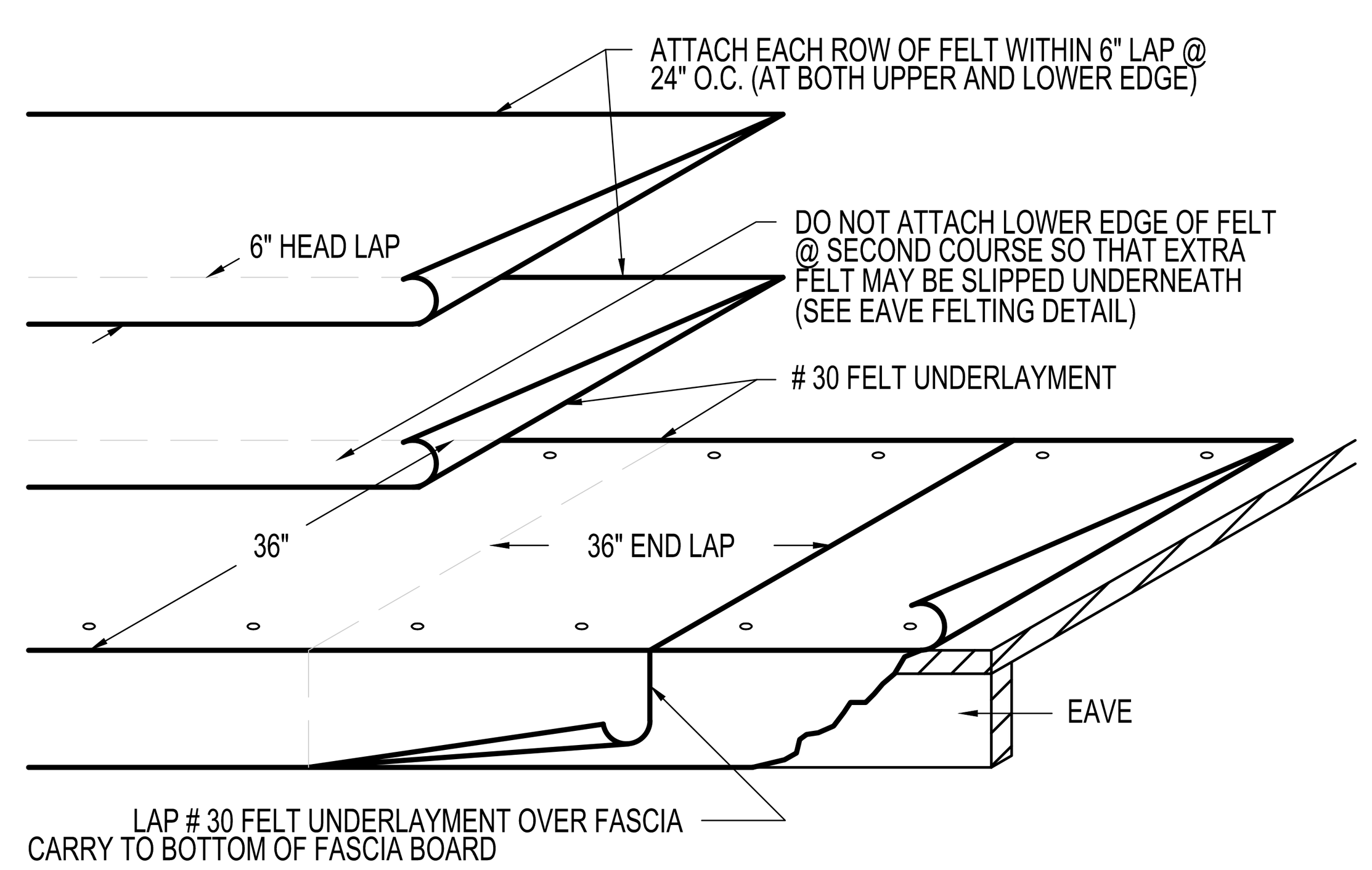
MARK	DATE	BY	DESCRIPTION
	10-10-2019		EPD SUBMITTAL
	07-08-2019		85% SET FOR REVIEW
	6-14-2019		80% SET FOR REVIEW

DESIGNED:
DRAWN:
CHECKED:
APPROVED:

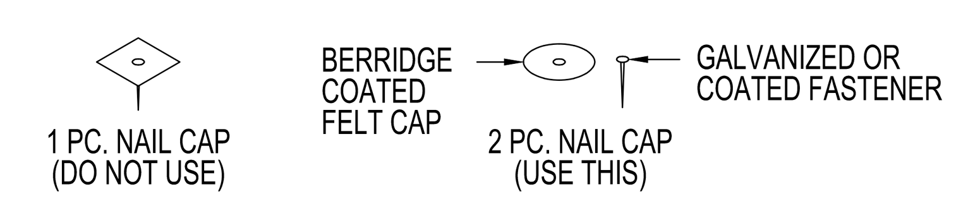
OE PROJECT NO: OE18132
FILE NAME: OE18132-11S-CORE
ORIGINAL DRAWING SIZE: 36"x24"
DATE: 6-14-2019

OPERATIONS BUILDING
SECTIONS AND SCHEDULES

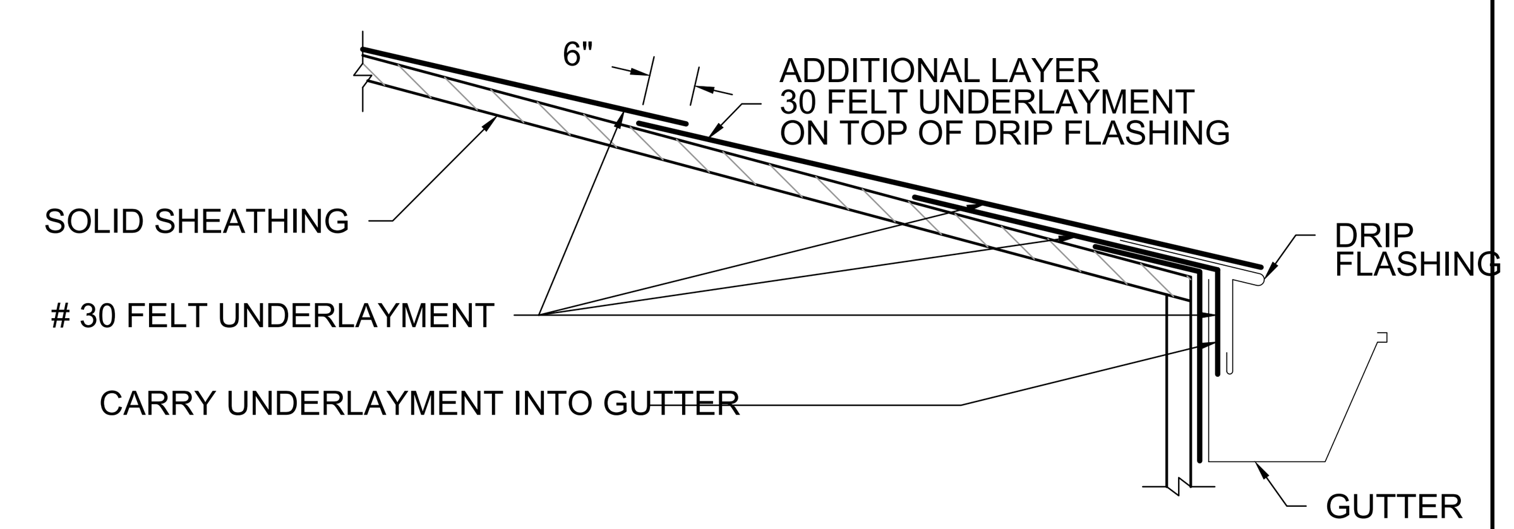
11S-6
SHEET 6 OF 07



1. CLEAN ROOF SURFACE OF ALL OBJECTS WHICH MAY PUNCTURE OR TEAR FELT UNDERLAYMENT.
2. ATTACH FELT UNDERLAYMENT TO DECK BELOW USING COATED FELT CAPS. FASTENERS MUST BE TOTALLY FLUSH WITH SUBSTRATE. DO NOT USE ONE PIECE NAIL CAPS, AS THESE WILL "READ THROUGH" THE SURFACE.
3. DO NOT FASTEN LOWER EDGE OF FELT @ SECOND COURSE (SEE ABOVE ILLUSTRATION).
4. ALWAYS RUN FELT UNDERLAYMENT HORIZONTALLY STARTING @ THE EAVE AND LAP SHINGLE FASHION.
5. NEVER INSTALL BERRIDGE PRODUCTS OVER FELT UNDERLAYMENT THAT IS NOT LAID HORIZONTAL, FLAT, SMOOTH AND FREE FROM PUNCTURES AND TEARS.
6. DO NOT APPLY PANELS OVER DRY OR BRITTLE FELT (A CONDITION CAUSED BY EXTENDED EXPOSURE TO THE ELEMENTS).
7. DO NOT USE RED ROSIN PAPER UNDER ANY BERRIDGE METAL PRODUCT.

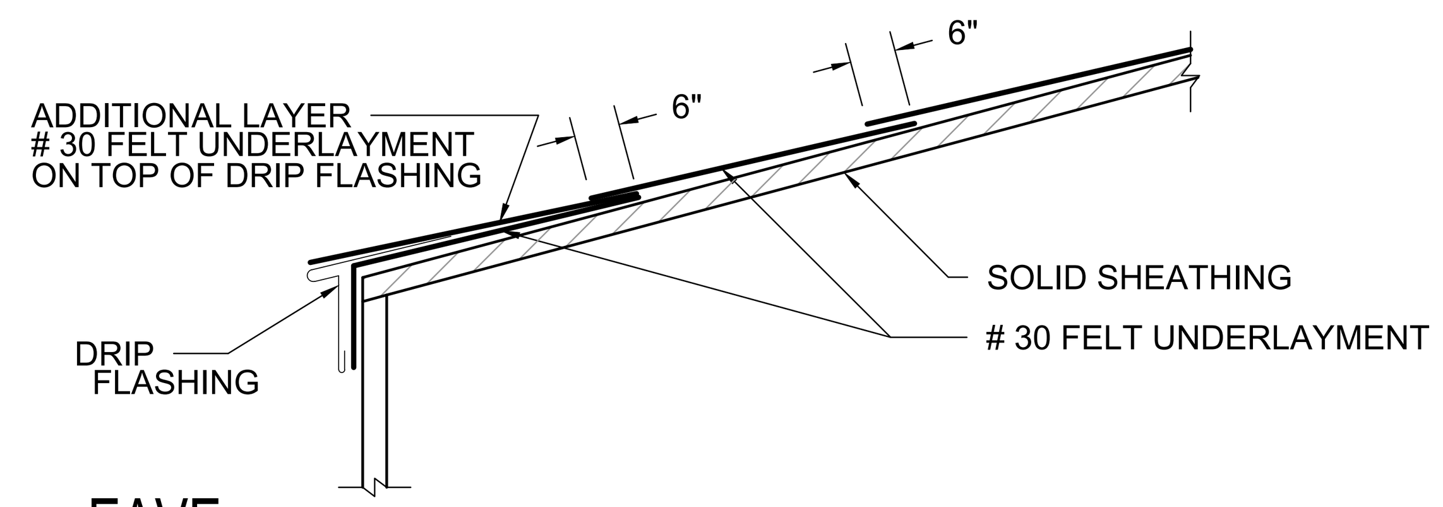


GRACE ICE AND WATERSHIELD OR EQUAL MAY BE USED IN PLACE OF # 30 FELT UNDERLAYMENT. NOTE ICE AND WATERSHIELD MAY BE REQUIRED REFERENCE INSTALLATION INSTRUCTIONS.



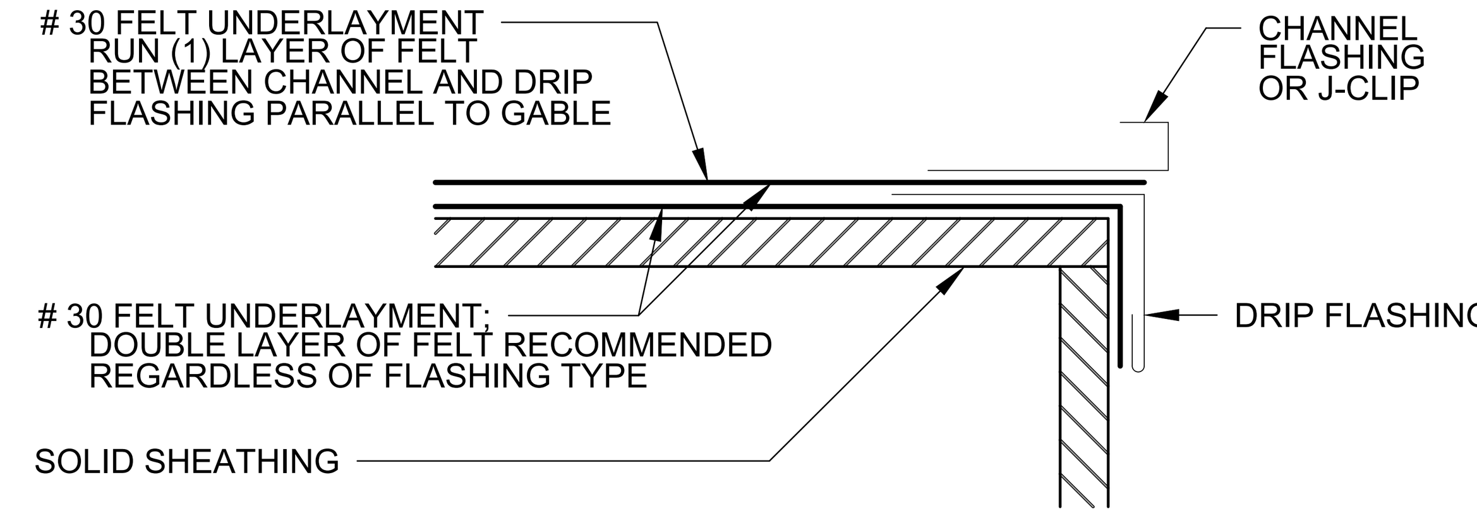
EAVE WITH GUTTER

GRACE ICE AND WATERSHIELD OR EQUAL MAY BE USED IN PLACE OF # 30 FELT UNDERLAYMENT. NOTE ICE AND WATERSHIELD MAY BE REQUIRED REFERENCE INSTALLATION INSTRUCTIONS.



EAVE

EAVE WITH GUTTER EAVE UNDERLAYMENT



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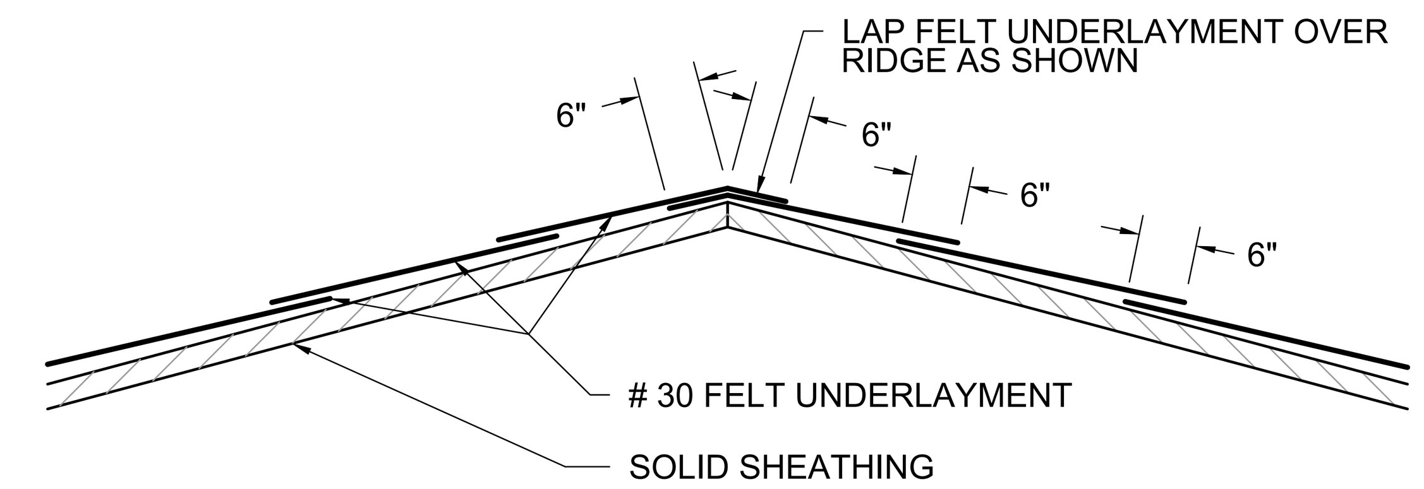
GABLE

GABLE UNDERLAYMENT



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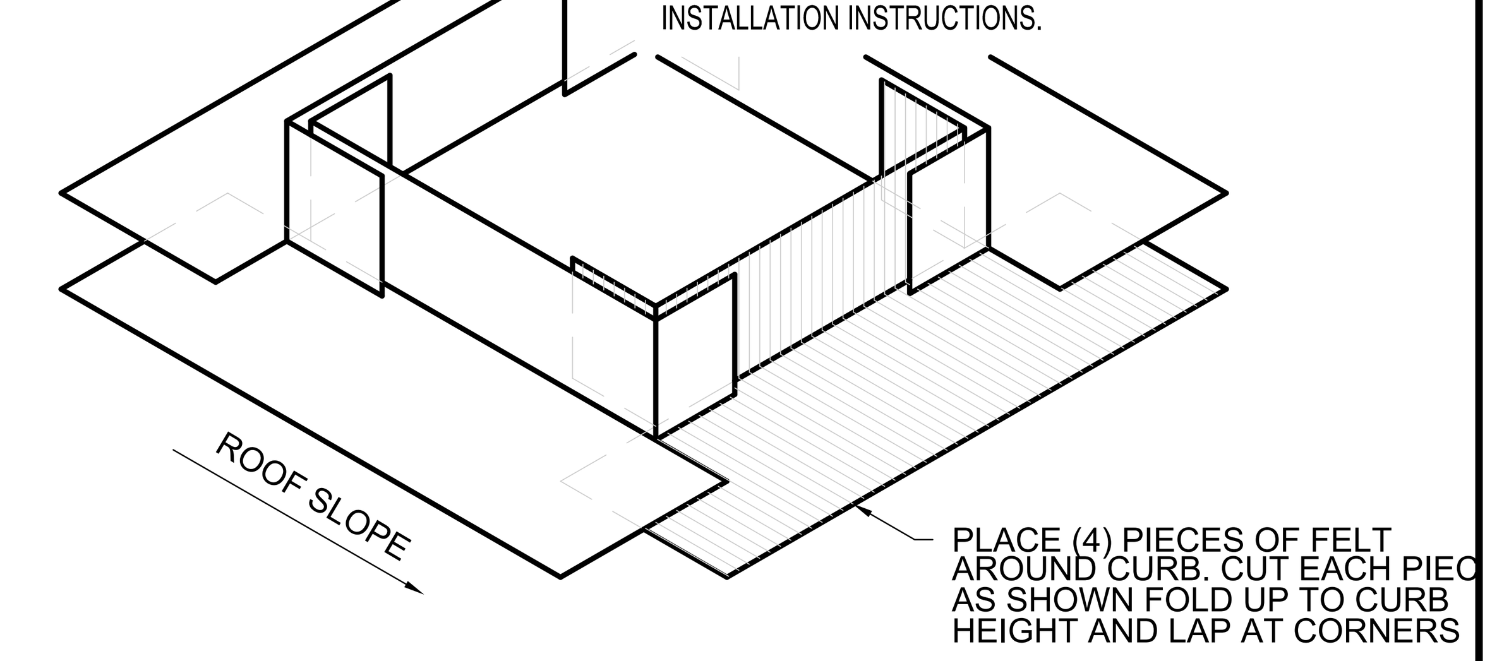
RIDGE

RIDGE UNDERLAYMENT

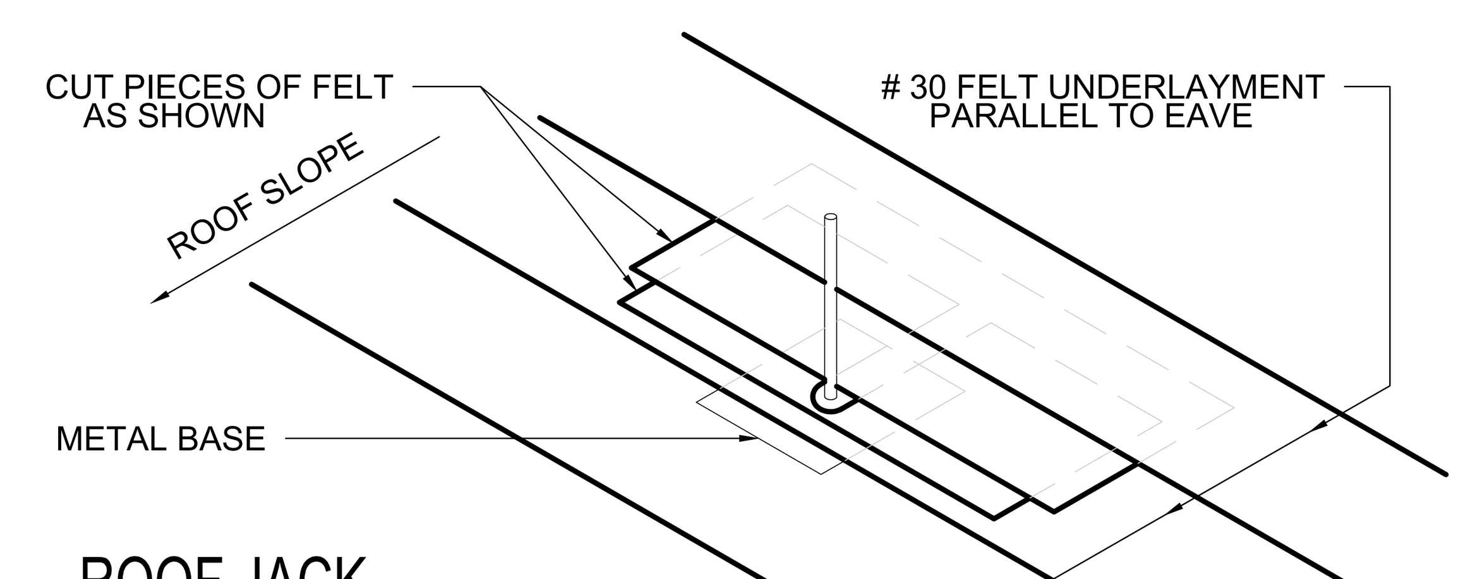
GRACE ICE AND WATERSHIELD OR EQUAL MAY BE USED IN PLACE OF # 30 FELT UNDERLAYMENT. NOTE ICE AND WATERSHIELD MAY BE REQUIRED REFERENCE INSTALLATION INSTRUCTIONS.



ROOF PENETRATION

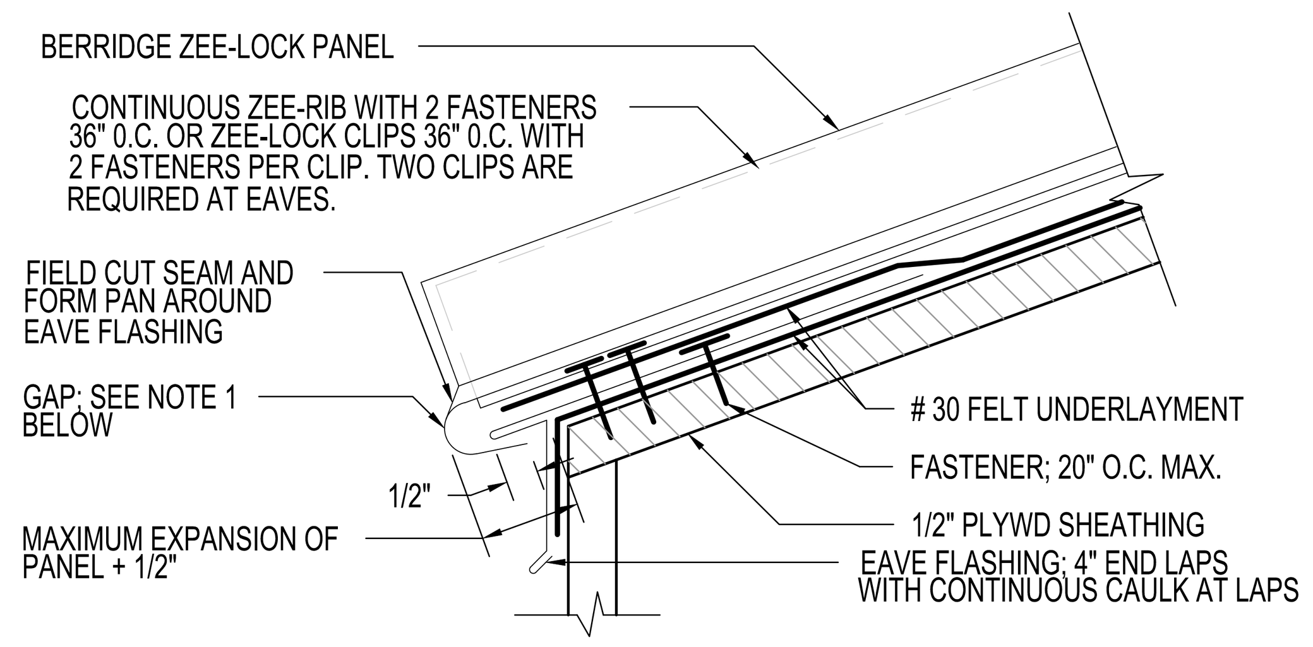
LAP FELT OVER TOP OF BASE. INSULATE BETWEEN DISSIMILAR METALS WITH ROOFING FELT

GRACE ICE AND WATERSHIELD OR EQUAL MAY BE USED IN PLACE OF # 30 FELT UNDERLAYMENT. NOTE ICE AND WATERSHIELD MAY BE REQUIRED REFERENCE INSTALLATION INSTRUCTIONS.



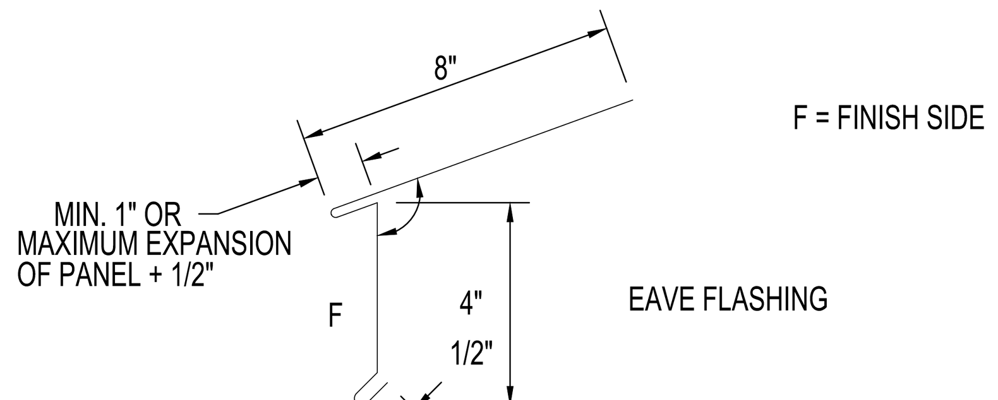
ROOF JACK

ROOF PENETRATION ROOF JACK UNDERLAYMENT

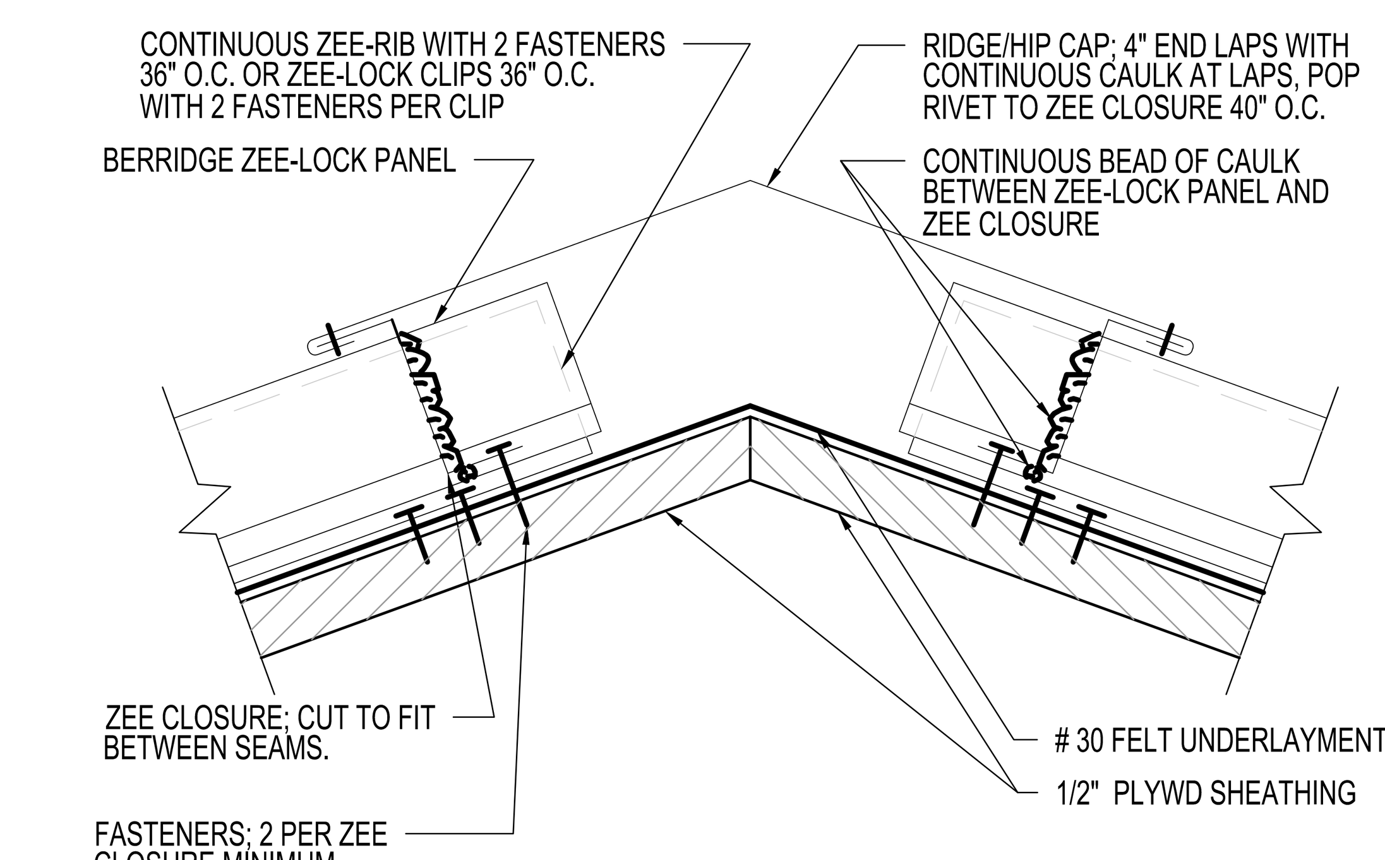


1. THE "GAP" BETWEEN EAVE FLASHING AND PANEL (SEE DETAIL ABOVE) CAN BE INCREASED TO ALLOW FOR LINEAR EXPANSION AND CONTRACTION OF PANELS. NOTE 1/2" OF PAN MUST BE ENGAGED WITH EAVE FLASHING WHEN PANEL HAS EXPANDED TO ITS MAXIMUM LENGTH.
2. GAP BETWEEN EAVE FLASHING AND PANEL MUST BE ADJUSTED TO SUIT TEMPERATURE DURING INSTALLATION.

F = FINISH SIDE

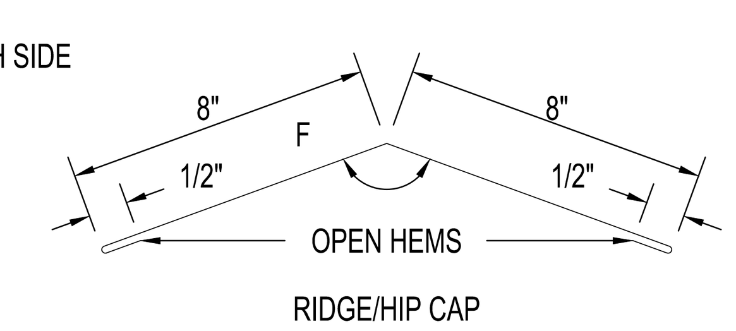


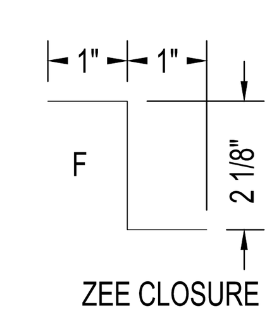
EAVE DETAIL



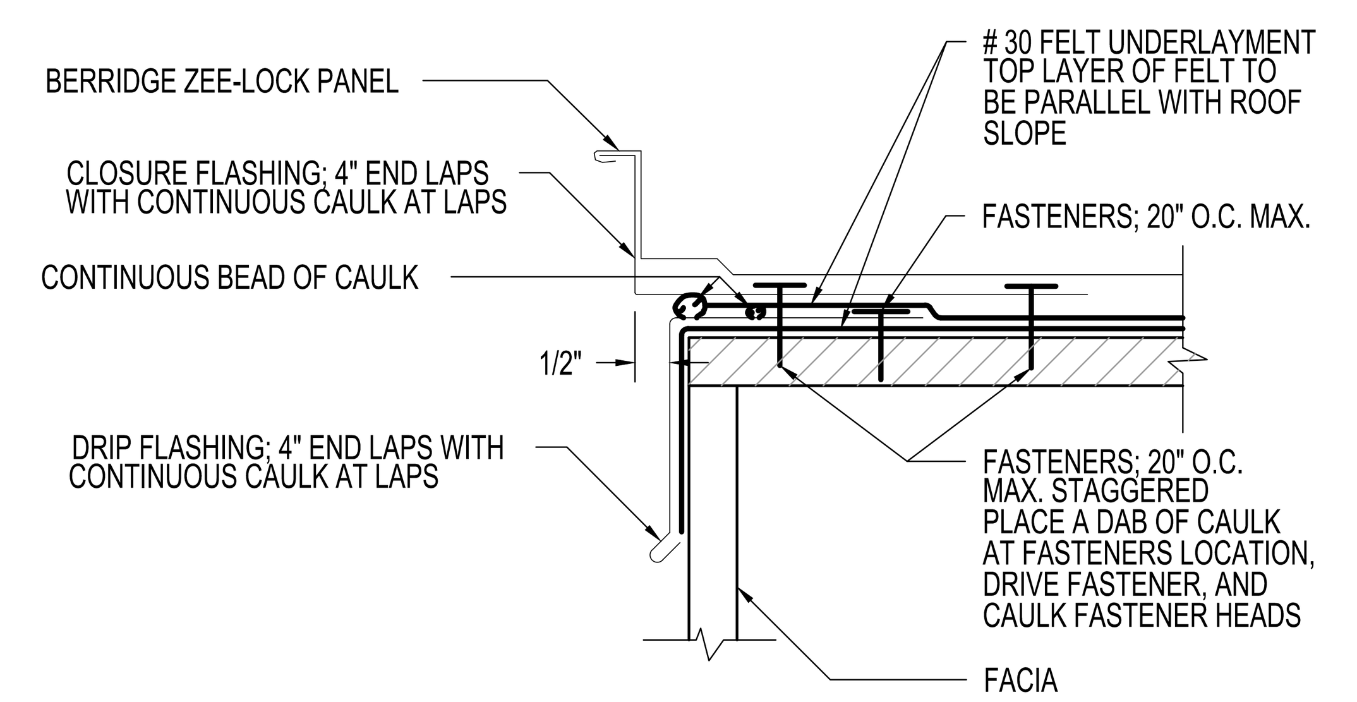
1. FIELD CUT ZEE CLOSURE TO FIT BETWEEN PANEL SEAMS FOR RIDGE.

F = FINISH SIDE

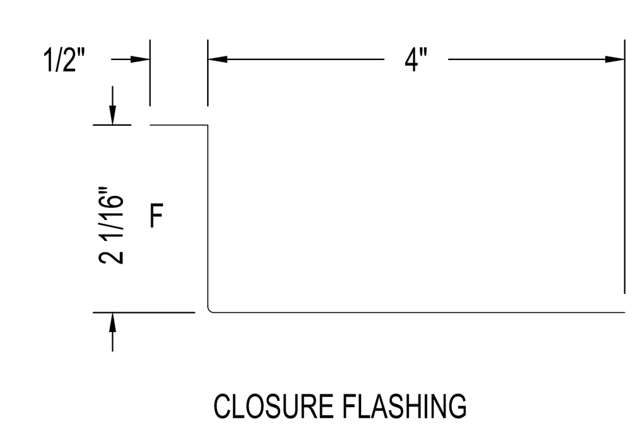


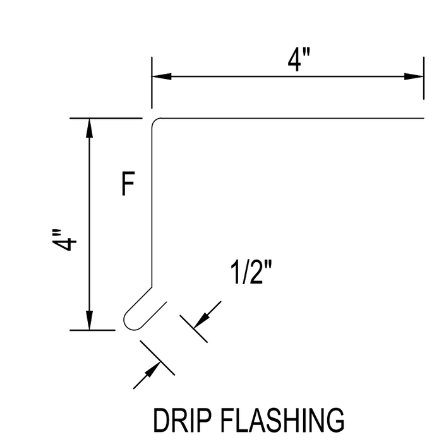


RIDGE DETAIL

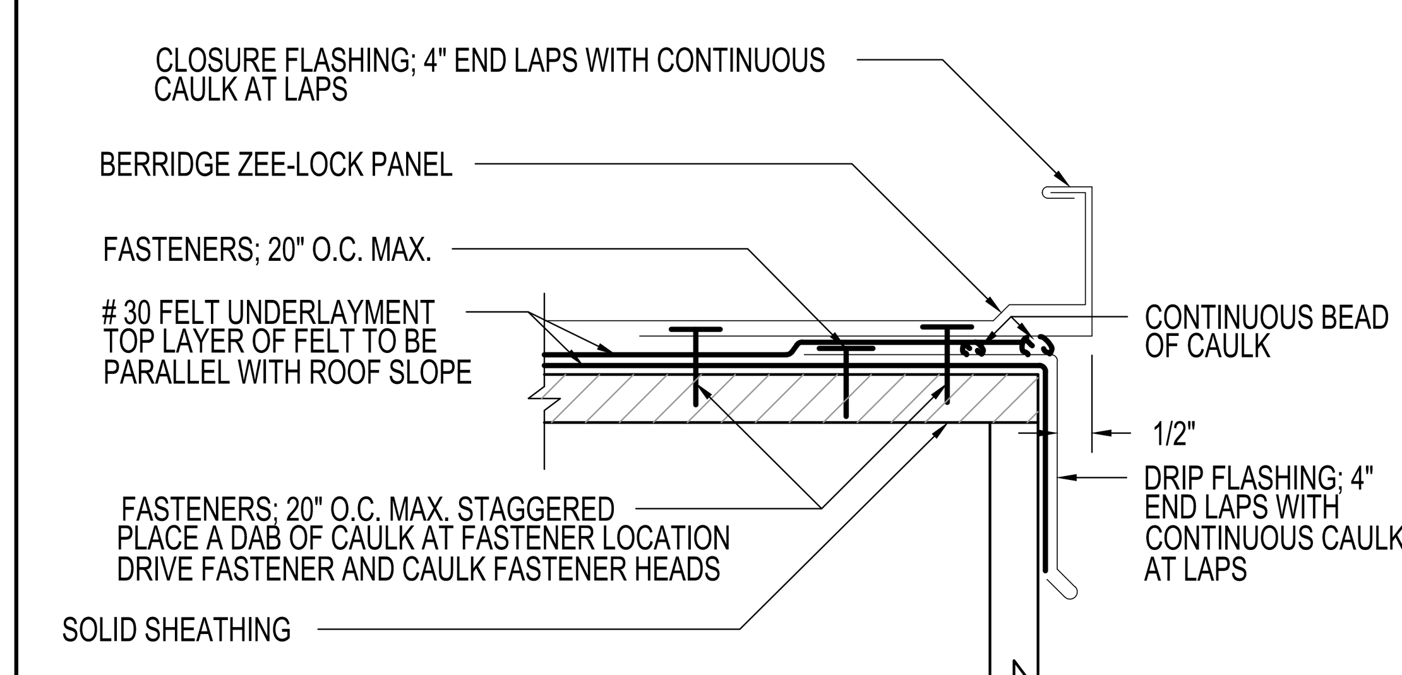


F = FINISH SIDE

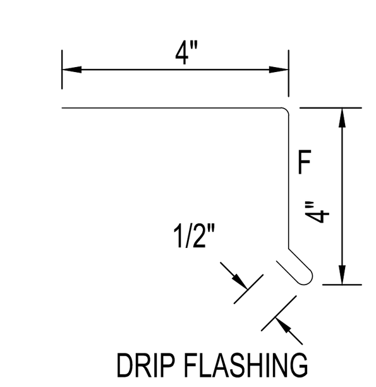


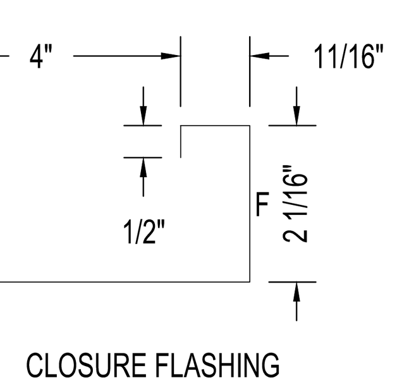


GABLE DETAIL LEFT SIDE; CLOSURE FLASHING;



F = FINISH SIDE





GABLE DETAIL RIGHT SIDE; CLOSURE FLASHING;

OCONEE ENGINEERING L.L.C.
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P.O. Box 116 Greensboro, GA 30642
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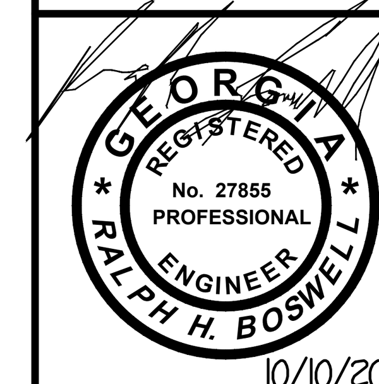
e-mail: admin@oconeeengineering.com



10/10/2019

FOLKSTON TREATMENT PLANT
FOR:
THE CITY OF FOLKSTON
FOLKSTON GEORGIA
CHARLTON COUNTY, GEORGIA

MARK	DATE	BY	DESCRIPTION
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	07-08-2019		95% SET FOR REVIEW
	6-14-2019		80% SET FOR REVIEW

OE PROJECT NO: OE18132
FILE NAME: OE18132-11S-CORE
ORIGINAL DRAWING SIZE: 36"x24"
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DESIGNED:
DRAWN:
CHECKED:
APPROVED:

OPERATIONS BUILDING

DETAILS

11S-7
SHEET 7 OF 07

LEGEND

SYMBOL	DESCRIPTION
A-1,3,5 / 1 / B / 3,5	A-1,3,5 ADJACENT TO ARROW INDICATES HOME-RUN OF CIRCUITS 1,3,5 TO PANEL A. 3,5 OR A-3,5 ADJACENT TO ARROW INDICATES CIRCUIT CONTINUATION. MARKS ACROSS RACEWAY RUNS INDICATE THE NUMBER OF NO. 12 CONDUCTORS. UNLESS NOTED, NO MARKS INDICATES TWO NO. 12 CONDUCTORS. EQUIPMENT GROUNDING CONDUCTORS ARE NOT SHOWN, SEE GENERAL NOTES. IF INDICATED ADJACENT TO OUTLET, NUMERAL AND LOWER CASE LETTER INDICATES CIRCUIT CONNECTION AND SWITCHLEG DESIGNATION RESPECTIVELY. TYPE B OR CAPITAL LETTER B INDICATES LIGHT FIXTURE TYPE. UNLESS NOTED, DIMENSIONS INDICATED IN LEGEND AND ON PLANS ARE TO BOTTOM OF OUTLET OR DEVICE. ALL SYMBOLS INDICATED HEREIN MAY NOT NECESSARILY BE USED ON THE PLANS.
	CEILING OUTLET AND LED FIXTURE
	WALL OUTLET AND LED FIXTURE
XA	OUTLET AND EXIT LIGHT - LETTERS INDICATE FIXTURE TYPE. PROVIDE ARROWS INDICATED
	POST TOP LUMINAIRE, POLE, AND CONCRETE BASE. REFER TO DETAIL 5/E1-B
	POLE TOP FLOOD LIGHTS, POLE, AND CONCRETE BASE. REFER TO DETAIL 3/E1-B
	WALL MOUNTED TWO HEAD EMERGENCY FIXTURE
PC	PHOTOCELL, TORK MODEL 2107, MOUNTED UNDER EAVE
J	WEATHERPROOF JUNCTION BOX MOUNTED TO CONCRETE STRUCTURE
J	POLYMER CONCRETE JUNCTION BOX MOUNTED FLUSH IN GRADE. REFER TO DETAIL 4/E-1A
6	DUPLEX RECEPTACLE- MT. 16" AFF, NUMBER DESIGNATES LOCAL BRANCH CIRCUIT SERVING OUTLET
	DUPLEX RECEPTACLE- MT. 48" AFF AND/OR ABOVE COUNTER TOP
WP	WEATHERPROOF DUPLEX RECEPTACLE, MT. 16" ABOVE FLOOR AND 36" ABOVE EARTH W/ IN-USE COVER, TYPE 'WR' RECEPTACLE
	SPECIAL PURPOSE RECEPTACLE, REFER TO ASSOCIATED NOTE(S)
GF	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE- MT. 48" AFF AND/OR ABOVE COUNTER TOP OR AS INDICATED
	DOUBLE DUPLEX RECEPTACLE- MT. 16" AFF
20A	DUPLEX RECEPTACLE, NEMA 5-20R- MT. 16" AFF
	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE WITH IN-USE COVER, NOTE G6.
	TELEPHONE OUTLET- MT. 16" AFF U.N.O. EXTEND 1"C TO ABOVE ACCESSIBLE CEILING - NOTE G15
S	SINGLE POLE TOGGLE SWITCH- MT. 48" UP
S^3	THREE-WAY TOGGLE SWITCH- MT. 48" UP
S^4	FOUR-WAY TOGGLE SWITCH- MT. 48" UP
S_S	MOTOR RATED SWITCH WITH OVERLOAD PROTECTION - MT. 48" UP.
S_M	MOTOR RATED DISCONNECT SWITCH, SINGLE PHASE - MT. 48" UP.
	PUSH-BUTTON START/STOP SWITCH
EPO	EMERGENCY POWER-OFF PUSHBUTTON STATION
	PANELBOARD, SURFACE MOUNTED
	TELEPHONE OR SIGNAL BACKBOARD, 3/4"X 4'X 8' UNLESS NOTED OTHERWISE, NOTE G14
T	DRY-TYPE TRANSFORMER - VOLTAGE, PHASE, AND KVA AS INDICATED
	EQUIPMENT AS NOTED
M	ELECTRIC METER
	MOTOR, HORSEPOWER AS INDICATED
	NON-FUSIBLE DISCONNECT SWITCH, RATING/POLES/ENCLOSURE AS INDICATED
	MAGNETIC STARTER
	COMBINATION MAGNETIC STARTER/NON-FUSIBLE DISCONNECT SWITCH
T	ELECTRIC THERMOSTAT- MT. 54" A.F.F.
	RACEWAY INSTALLED CONCEALED IN WALLS AND/OR ABOVE CEILING
	RACEWAY INSTALLED CONCEALED IN/OR BELOW FLOOR SLAB OR BELOW GRADE
	RACEWAY INSTALLED EXPOSED
	FLEXIBLE METALLIC RACEWAY
	CONDUIT STUB-UP AND HOMERUN
	CONDUIT UP/CONDUIT DOWN
	CONDUIT TERMINATION, STUB-OUT
	GROUND
	GROUND ROD LOCATION
FM	FLOW METER, ULTRASONIC TYPE, PROVIDED BY OTHERS - GROUND AS REQUIRED
SV	SOLENOID VALVE, PROVIDED WITH EQUIPMENT, FIELD INSTALLED AND WIRED.
PS	PRESSURE SWITCH, PROVIDED WITH EQUIPMENT, FIELD INSTALLED AND WIRED
F	FLOAT SWITCH
	SEAL-OFF FITTING
	SEALING HUB
	ULTRASONIC TRANSDUCER
DO	DISOLVED OXYGEN SENSOR, FURNISHED BY OTHERS, INSTALLED BY DIV. 16
PT	PRESSURE TRANSMITTER, FURNISHED BY OTHERS, INSTALLED BY DIV. 16
VT	VACUUM TRANSMITTER, FURNISHED BY OTHERS, INSTALLED BY DIV. 16

ABBREVIATIONS

A OR AMP	AMPERES	MCB OR MB	MAIN CIRCUIT BREAKER
AFF	ABOVE FINISHED FLOOR	MH OR MTG	MOUNTING HEIGHT
AIC	AMPERE INTERRUPTING CAPACITY	MLO	MAIN LUGS ONLY
AM	AMMETER	MT OR MTD	MOUNT OR MOUNTED
ASYM	ASYMMETRICAL	NEC	NATIONAL ELECTRICAL CODE
ATS	AUTOMATIC TRANSFER SWITCH	NFPA	NATIONAL FIRE PROTECTION ASSOC.
C	CONDUIT	NTS	NOT TO SCALE
CB	CIRCUIT BREAKER	P	POLE
CKT	CIRCUIT	PMT	PAD MOUNT TRANSFORMER
CLF	CURRENT LIMITING FUSE	PNL	PANELBOARD
CNTL	CONTROL	RC	REMOTE CONTROL SWITCH
CT	CURRENT TRANSFORMER	RECEPT	RECEPTACLE
D	DEPTH	RMS	ROOT MEAN SQUARE
DISC	DISCONNECT SWITCH	SP SPD	SURGE PROTECTION DEVICE
DISC SW	DISCONNECT SWITCH	SW	SWITCH
EXP	EXPLOSION PROOF	SWBD	SWITCHBOARD
F	FUSE	SYM	SYMMETRICAL
FA	FIRE ALARM	TBB	TELEPHONE BACKBOARD
FACP	FIRE ALARM CONTROL PANEL	TYP	TYPICAL
G OR GND	GROUND	UG	UNDERGROUND
H	HEIGHT	UL	UNDERWRITERS LABORATORIES
HP	HORSEPOWER	UNO	UNLESS NOTED OTHERWISE
JB OR J	JUNCTION BOX	V	VOLTS
KVA	KILOVOLT - AMPS	VM	VOLTMETER
KW	KILOWATTS	W	WIDTH
L	LENGTH	W/	WITH
LA	LIGHTNING ARRESTOR	WM	WATTMETER
		WP	WEATHER PROOF
		XFMR	TRANSFORMER

GENERAL NOTES: (FOR ALL DRAWINGS WHERE APPLICABLE)

G1. WHEN CONDUCTOR SIZE IS INDICATED FOR BRANCH CIRCUIT HOME RUN, THE CONDUCTOR SIZE INDICATED SHALL BE USED FOR THE COMPLETE CIRCUIT.

G2. ALL EQUIPMENT SUPPORTS AND HANGERS SHALL BE COORDINATED WITH STRUCTURAL DRAWINGS TO INSURE THAT LOCATION OF SUPPORTS AND HANGERS OCCUR WITHIN 4" OF PANEL POINT.

G3. PIPING HEAT TAPE CONNECTIONS SHALL BE DIRECT CONNECTIONS.

G4. GROUNDING CONDUCTORS SHALL BE PROVIDED FOR ALL BRANCH CIRCUITS. REFER TO SECONDARY GROUNDING SPECIFICATION SECTION.

G5. THE CONTRACTOR SHALL COORDINATE THE ELECTRICAL REQUIREMENTS OF THE EQUIPMENT PROVIDED WITH THE DRAWINGS. ANY DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER. ANY REQUIRED ADJUSTMENTS IN BREAKER RATINGS, MOTOR CONTROLLERS, FEEDERS, ETC. SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER, ALL REQUIRED ADJUSTMENTS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER BEFORE PROCEEDING.

G6. THE RECEPTACLE SHALL BE STANCHION MOUNTED ON THE TOP OF THE SBR TANK WALL, REFER TO DETAIL 3/E-1A. PROVIDE WEATHER RESISTANT TYPE 'WR' RECEPTACLE AND A GROUND FAULT CIRCUIT BREAKER IN THE BRANCH PANEL.

G7. THE AUTOMATIC TRANSFER SWITCH SHALL PROVIDE A PRE-TRANSFER AND POST-TRANSFER SIGNAL TO THE IN-PLANT SCADA SYSTEM AND TO THE AQUA-AEROBICS CONTROL PANEL. THE SCADA AND AQUA-AEROBICS PANELS SHALL PROVIDE THE LOAD STEP SEQUENCE REQUIRED IN SPECIFICATION SECTION 16210.

G8. ALL CONDUITS AND FITTINGS IN HEADWORKS/BAR SCREEN, ODOR CONTROL, GRIT REMOVAL INFLUENT PUMP STATION AND SBR TANK TO BE STAINLESS STEEL.

G9. THE GENERATOR AND AUTOMATIC TRANSFER SWITCH ALARMS, STATUS AND PRE-ALARM CONDITIONS SHALL BE ANNUNCIATED TO THE IN-PLANT SCADA SYSTEM AND DISPLAYED ON THE OPERATOR'S DISPLAY.

G10. REFER TO SPECIFICATION SECTION 16055 FOR REQUIRED SHORT CIRCUIT COORDINATION AND ARC FLASH STUDY.

G11. REFER TO SPECIFICATION SECTION 16481 FOR REQUIRED HARMONIC ANALYSIS STUDY FOR IEEE 519 COMPLIANCE.

G12. PROVIDE FOR HAZARDOUS INSTALLATIONS AS REQUIRED BY NFPA 820.

G13. FOR TERMINATION OF CONDUITS AT THE JUNCTION BOXES, PROVIDE CROUSE-HINDS ES SEALING HUBS.
- A. CONTROL PANEL TO JUNCTION BOX CONDUITS:
  1. PROVIDE TWO SEALING LOCKNUTS (INSIDE/OUTSIDE ENCLOSURE) TO MAINTAIN THE 4X RATING OF THE JUNCTION BOXES.
  2. PROVIDE A NYLON BUSHING ON THE HUB.
  3. SEAL THE CONDUIT HUBS WITH TSC EPOXY SEALING COMPOUND.
  4. PRESSURE TRANSDUCER CONDUIT SHALL BE SEALED PER NOTE G13.B.
- B. JUNCTION BOX TO WET WELL CONDUITS:
  1. PROVIDE TWO SEALING LOCKNUTS (INSIDE/OUTSIDE ENCLOSURE) TO MAINTAIN THE 4X RATING OF THE JUNCTION BOXES.
  2. PROVIDE A NYLON BUSHING ON THE HUB.
  3. PACK HUB WITH DUCT SEAL AROUND CABLES. LEAVE BETWEEN 1/4" TO 3/8" OF SPACE AT THE TOP OF THE HUB (NOT BUSHING).
  4. POUR 1/4" TO 3/8" OF EPOXY SEALING COMPOUND INTO TOP OF SEALING HUB.

G14. COMMUNICATIONS BACKBOARDS SHALL BE 3/4" X 48" X 96" FIRE RETARDANT PLYWOOD PAINTED ON BOTH SIDES AND ALL EDGES WITH TWO COATS OF GRAY FIRE RETARDANT PAINT.

G15. ALL TELEPHONE BOXES TO BE 4 11/16" SQ DEEP BOXES.

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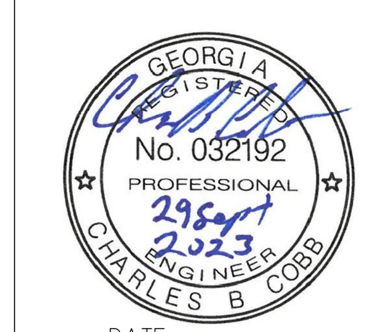

DATE:

M.E. SACK ENGINEERING 19 90

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WATER POLLUTION CONTROL PLANT

LEGEND, ABBREVIATIONS & GENERAL NOTES

SHEET: E-1

FILE NO: 2013-36

PLOT DATE: September 29, 2023

CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
SAVANNAH, GEORGIA 31405 (912)238-2400

CADD PLOT 29-SEP-2023 13:04 LCAULEY

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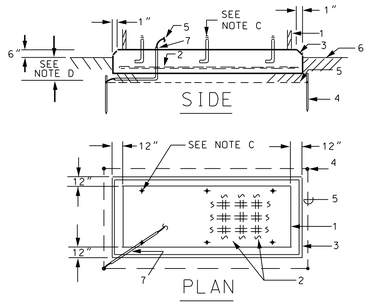


1 - GENERATOR SET ENCLOSURE OUTLINE
2 - REINFORCING STEEL. NOTE A
3 - 1" CHAMFER
4 - ¾" X 10' COPPERCLAD GROUND ROD AND
5 - #1/0 CU BARE GROUND CONDUCTOR
6 - FINISHED GRADE
7 - ¾" PVC. SEE NOTE B

NOTES: GENERATOR FOUNDATION DETAIL

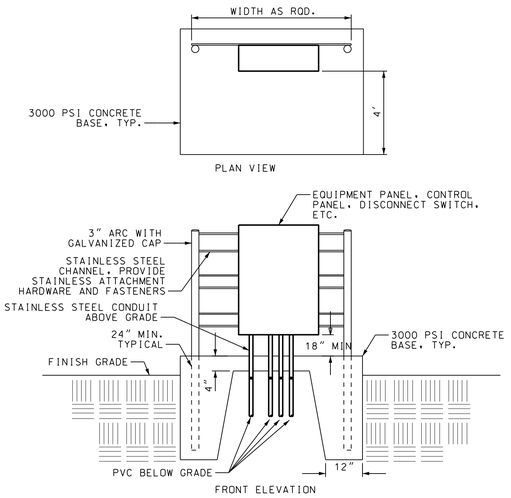
A. #8 GA. STEEL WIRE MESH. 6" O.C. OR #6 REBAR. 12" O.C.. HORIZ. & VERTICALLY.

B. CONNECT TO GENERATOR GROUND CONNECTION LUG. VERIFY STUB UP LOCATION WITH MANUFACTURERS SHOP DRAWINGS. WATERPROOF CONDUIT END WITH SEALING COMPOUND.

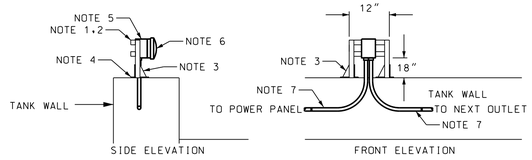
C. ANCHOR BOLTS FURNISHED WITH GENERATOR SET. PROVIDE SIX MINIMUM. TIE TO REINFORCING STEEL.

D. DIMENSION SHALL BE 6" (12" OVERALL DEPTH) UP TO & INCLUDING 600 KW. 12" (18" OVERALL DEPTH) LARGER THAN 600 KW.

1 GENERATOR FOUNDATION DETAIL
E-1A N. T. S.



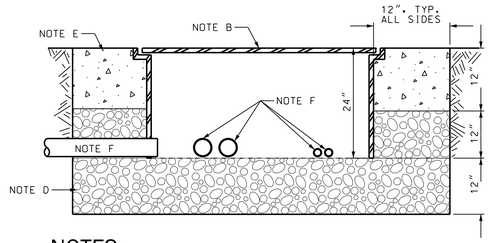
2 EQUIPMENT RACK
E-1A N. T. S.



NOTES: SBR TANK RECEPTACLE DETAIL

1. ALL CHANNEL, FASTENERS, ACCESSORIES, ETC. SHALL BE 304 STAINLESS STEEL, MINIMUM. PROVIDE PRODUCTS OF B-LINE, UNISTRUT OR POWERSTRUT.
2. 12GA, 304 STAINLESS STEEL CHANNEL, 1⅝" X 1⅝", B-LINE B22 SERIES OR EQUAL.
3. B-LINE B278 STAINLESS STEEL POST BASE FOR B22, TWO PER ASSEMBLY.
4. PROVIDE SIX RED HEAD TRUBOLT TYPE 316 ANCHORS TO SECURE FRAME TO STRUCTURE, PROVIDE SWW1236, ½"X3¾" ANCHOR.
5. RECEPTACLE OUTLET BOX SHALL BE A CROUSE-HINDS FDS2SS, STAINLESS STEEL DEVICE BOX WITH TWO ¾" CONDUIT HUBS.
6. RECEPTACLE OUTLET WEATHERPROOF COVER SHALL BE A CALBRITE STAINLESS STEEL 1-GANG DEEP LID WEATHERPROOF COVER, S600OOFVCD.
7. STAINLESS STEEL CONDUIT FROM WITHIN CONCRETE TO OUTLET BOX. PVC WITHIN CONCRETE. NO FITTINGS ALLOWED 18" OR LESS ABOVE TANK WALL.

3 SBR TANK RECEPTACLE DETAIL
E-1A N. T. S.



NOTES: JUNCTION BOX - FLUSH WITH FINISHED GRADE

A. JUNCTION BOXES SHALL BE QUAZITE POLYMER CONCRETE TYPE "PG" OPEN BOTTOM, OR EQUIVALENT BY OLD CASTLE OR PENCEL.

B. THE COVER SHALL BE TIER 22 RATED. LOGO - "ELECTRIC".

C. BOX DIMENSIONS SHALL BE AS NOTED ON THE DRAWINGS.

D. PROVIDE A BASE OF CRUSHED STONE, 12" DEEP AND EXTENDING 12" BEYOND THE BOX ON ALL SIDES.

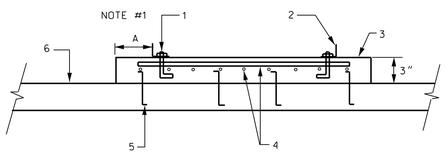
E. PROVIDE A CONCRETE SUPPORT AROUND THE BOX, 12" WIDE AND 12" DEEP, ALL SIDES.

F. CONDUIT ENTRY SHALL BE THROUGH THE SIDE WALL AT THE BOTTOM BELOW THE CONCRETE OR UP THROUGH THE BOTTOM.

G. FOR ALL CONDUCTORS: PROVIDE PERMANENT TAGS IDENTIFYING ALL CABLES.

H. NO SPLICES ALLOWED IN THESE JUNCTION BOXES.

4 JUNCTION BOX - FLUSH WITH FINISHED GRADE
E-1A N. T. S.

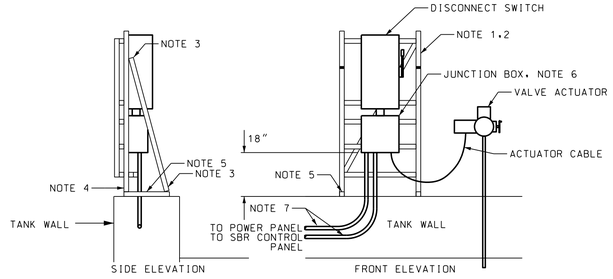


1. ½" GALV. ANCHOR BOLTS - 24" O.C. MIN.
2. ELECTRICAL EQUIPMENT MOUNTING FRAME
3. HOUSEKEEPING BASE
4. REINFORCING #4 BAR 12" O.C. BOTH DIRECTIONS
5. #4 Z BAR DOWELLS - 12" O.C. BOTH DIRECTIONS
6. FLOOR SLAB

NOTES: ELECTRICAL EQUIPMENT HOUSEKEEPING BASE

1. DIMENSION "A" SHALL EXCEED DIMENSIONS OF EQUIPMENT BASE BY NOT LESS THAN THREE INCHES IN ALL DIMENSIONS.
2. THIS DETAIL SHALL BE APPLICABLE TO MAIN SWITCHBOARD, FLOOR MOUNTED DRY TYPE TRANSFORMER, FLOOR MOUNTED AUTOMATIC TRANSFER SWITCHES, COMMUNICATION EQUIPMENT RACKS AND OTHER FLOOR MOUNTED ELECTRICAL EQUIPMENT EXCEEDING 200 LBS IN WEIGHT.

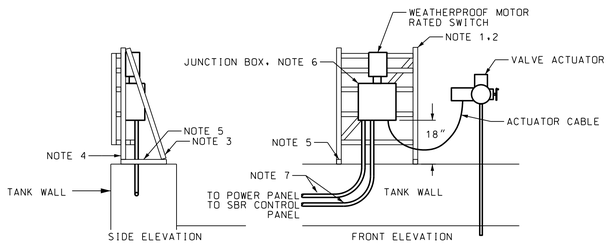
5 ELECTRICAL EQUIPMENT HOUSEKEEPING BASE
E-1A N. T. S.



NOTES: 480V VALVE ACTUATOR DISCONNECT DETAIL

1. ALL CHANNEL, FASTENERS, ACCESSORIES, ETC. SHALL BE 304 STAINLESS STEEL, MINIMUM. PROVIDE PRODUCTS OF B-LINE, UNISTRUT OR POWERSTRUT.
2. 12GA, 304 STAINLESS STEEL CHANNEL, 1⅝" X 1⅝", B-LINE B22 SERIES OR EQUAL.
3. B-LINE B335 FOUR-HOLE ADJUSTABLE HINGE, FOUR LOCATIONS.
4. B-LINE B104 FOUR-HOLE CORNER ANGLE.
5. PROVIDE FOUR RED HEAD TRUBOLT TYPE 316 ANCHORS TO SECURE FRAME TO STRUCTURE, PROVIDE SWW1236, ½"X3¾" ANCHOR.
6. JUNCTION BOX SHALL HAVE POWER TERMINAL BLOCK AND TERMINAL STRIP AS REQUIRED FOR TERMINATION OF ACTUATOR CABLE CONDUCTORS. A CORD GRIP AND KELLUM GRIP CABLE SUPPORT SHALL BE PROVIDED FOR THE MOTOR CABLE. FIELD COORDINATE REQUIRED TERMINAL WITH EQUIPMENT PROVIDED. PROVIDE SINGLE EYE, CLOSED MESH KELLUM, FIELD COORDINATE WITH CABLE FURNISHED BY OTHERS.
7. STAINLESS STEEL CONDUIT FROM WITHIN CONCRETE TO JUNCTION BOX. PVC WITHIN CONCRETE. NO FITTINGS ALLOWED 18" OR LESS ABOVE TANK WALL.

6 480V VALVE ACTUATOR DISCONNECT DETAIL
E-1A N. T. S.



NOTES: 120V VALVE ACTUATOR DISCONNECT DETAIL

1. ALL CHANNEL, FASTENERS, ACCESSORIES, ETC. SHALL BE 304 STAINLESS STEEL, MINIMUM. PROVIDE PRODUCTS OF B-LINE, UNISTRUT OR POWERSTRUT.
2. 12GA, 304 STAINLESS STEEL CHANNEL, 1⅝" X 1⅝", B-LINE B22 SERIES OR EQUAL.
3. B-LINE B335 FOUR-HOLE ADJUSTABLE HINGE, FOUR LOCATIONS.
4. B-LINE B104 FOUR-HOLE CORNER ANGLE.
5. PROVIDE FOUR RED HEAD TRUBOLT TYPE 316 ANCHORS TO SECURE FRAME TO STRUCTURE, PROVIDE SWW1236, ½"X3¾" ANCHOR.
6. JUNCTION BOX SHALL HAVE POWER TERMINAL BLOCK AND TERMINAL STRIP AS REQUIRED FOR TERMINATION OF ACTUATOR CABLE CONDUCTORS. A CORD GRIP AND KELLUM GRIP CABLE SUPPORT SHALL BE PROVIDED FOR THE MOTOR CABLE. FIELD COORDINATE REQUIRED TERMINAL WITH EQUIPMENT PROVIDED. PROVIDE SINGLE EYE, CLOSED MESH KELLUM, FIELD COORDINATE WITH CABLE FURNISHED BY OTHERS.
7. STAINLESS STEEL CONDUIT FROM WITHIN CONCRETE TO JUNCTION BOX. PVC WITHIN CONCRETE. NO FITTINGS ALLOWED 18" OR LESS ABOVE TANK WALL.

7 120V VALVE ACTUATOR DISCONNECT DETAIL
E-1A N. T. S.

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GEORGIA REGISTERED PROFESSIONAL ENGINEER
No. 032192
CHARLES B. POWER
29 Sept 2023

DATE:

M.E. SACK ENGINEERING 19 80

MUNICIPALITY:
CITY OF FOLKSTON

COUNTY:
CHARLTON COUNTY

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WATER POLLUTION CONTROL PLANT

ELECTRICAL DETAILS

SHEET: E-1A

FILE NO: 2013-36

PLOT DATE: September 29, 2023

CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
SAVANNAH, GEORGIA 31405 (912)238-2400

CADD PLOT
29-SEP-2023
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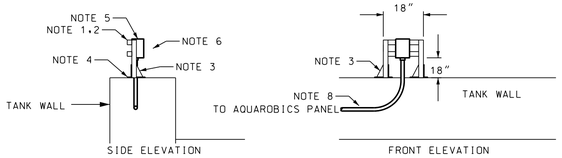
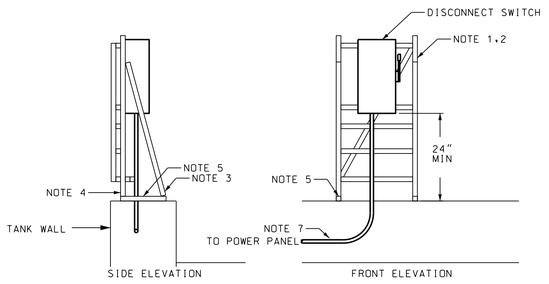


NOTES: SBR TANK JUNCTION BOX DETAIL

1. ALL CHANNEL, FASTENERS, ACCESSORIES, ETC. SHALL BE 304 STAINLESS STEEL, MINIMUM. PROVIDE PRODUCTS OF B-LINE, UNISTRUT OR POWERSTRUT.
2. 12GA, 304 STAINLESS STEEL CHANNEL, 1⅝" X 1⅝". B-LINE B22 SERIES OR EQUAL.
3. B-LINE B278 STAINLESS STEEL POST BASE FOR B22, TWO PER ASSEMBLY.
4. PROVIDE SIX RED HEAD TRUBOLT TYPE 316 ANCHORS TO SECURE FRAME TO STRUCTURE. PROVIDE SWW1236, ½"X3¾" ANCHOR.
5. RECEPTACLE OUTLET BOX SHALL BE A CROUSE-HINDS FDS2SS, STAINLESS STEEL DEVICE BOX WITH TWO ¾" CONDUIT HUBS.
6. RECEPTACLE OUTLET WEATHERPROOF COVER SHALL BE A ARROW/HART WIU-1D; EXTRA DEPTH, 1-GANG, SELF CLOSING POLYCARBONATE PROTECTIVE COVER.
7. 12" X 12" X 8" NEMA 4X STAINLESS STEEL JUNCTION BOX, HOFFMAN FUSION G7 SERIES, CATALOG No. G30O3OO225G.
8. STAINLESS STEEL CONDUIT FROM JUNCTION BOX TO WITHIN CONCRETE. SCH. 80 PVC CONDUIT THEREAFTER. NO FITTINGS ALLOWED 18" OR LESS ABOVE TANK WALL.

1 SBR TANK JUNCTION BOX DETAIL

E-1B N. T. S.



NOTES: DISCONNECT DETAIL

1. ALL CHANNEL, FASTENERS, ACCESSORIES, ETC. SHALL BE 304 STAINLESS STEEL, MINIMUM. PROVIDE PRODUCTS OF B-LINE, UNISTRUT OR POWERSTRUT.
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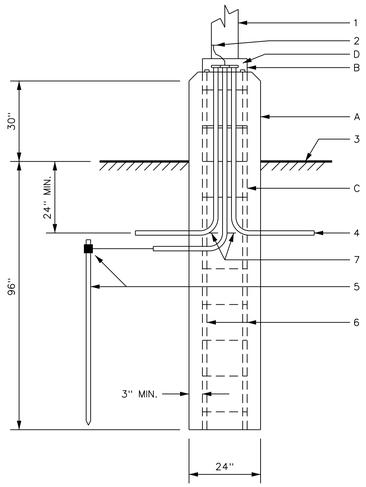
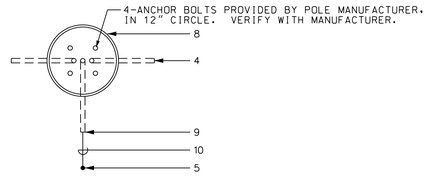
6. JUNCTION BOX SHALL HAVE POWER TERMINAL BLOCK AND TERMINAL STRIP AS REQUIRED FOR TERMINATION OF ACTUATOR CABLE CONDUCTORS. A CORD GRIP AND KELLUM GRIP CABLE SUPPORT SHALL BE PROVIDED FOR THE MOTOR CABLE. FIELD COORDINATE REQUIRED TERMINAL WITH EQUIPMENT PROVIDED. PROVIDE SINGLE EYE, CLOSED MESH KELLUM. FIELD COORDINATE WITH CABLE FURNISHED BY OTHERS.
7. STAINLESS STEEL CONDUIT FROM JUNCTION BOX TO WITHIN CONCRETE. SCH. 80 PVC CONDUIT THEREAFTER. NO FITTINGS ALLOWED 18" OR LESS ABOVE TANK WALL.

2 DISCONNECT DETAIL

E-1B N. T. S.



SECTION



PLAN

LEGEND

1 POLE
2 GROUND LUG BOND POLE TO GROUND ROD
3 FINISHED GRADE OF PAVING
4 RACEWAY AND CONDUCTORS
5 3/4" x 10' GROUND ROD WITH EXOTHERMIC CONNECTION
6 REINFORCING STEEL STRUCTURE 4•8 VERTICAL
7 •4@12 RE-BAR TIES TO ANCHOR BOLTS
8 SONO-TUBE CONSTRUCTION WITH 1" CHAMFER
9 WEATHERPROOF WITH SEALING COMPOUND
10 1•6 CU. GROUND IN 1/2" PVC.

NOTES: POLE BASE DETAIL

A. UNLESS NOTED, BASES SHALL BE INSTALLED ABOVE GRADE. FOR ABOVE GRADE BASE, INSTALL 30" ABOVE FINISHED GRADE OR PAVING. HAND RUB EXPOSED BASE TO SAND FINISH.

B. ANCHOR BOLT COVER SHALL BE SECURED BY STAINLESS STEEL SCREWS.

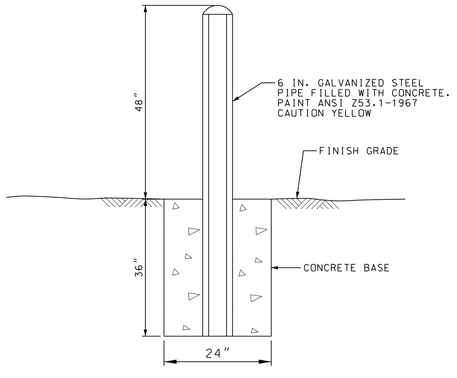
C. ANCHOR BOLTS SHALL BE PRE-FABRICATED AND FURNISHED BY THE POLE MANUFACTURER. ANCHOR BOLTS SHALL BE COORDINATED WITH AND TIED TO THE REINFORCING STEEL STRUCTURE.

D. PACK HIGH STRENGTH GROUT BETWEEN POLE BASE AND FOUNDATION TO INSURE FULL CONTACT WITH FOOTING.

E. WITH RESPECT TO THE 45' STEEL POLE AND LIGHT ASSEMBLIES, THIS DETAIL IS FOR BIDDING PURPOSES ONLY. THE CONTRACTOR SHALL FURNISH A STRUCTURAL DESIGN FOR THE 45' STEEL POLE FOUNDATIONS, STAMPED AND SIGNED BY A GEORGIA REGISTERED STRUCTURAL ENGINEER. COORDINATE WITH THE SOILS REPORT AND OTHER NECESSARY INFORMATION REQUIRED FOR THE BASE DESIGN.

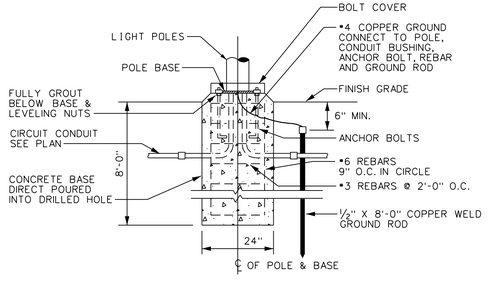
3 POLE BASE DETAIL (VERTICAL FOOTING) - FLOOD LIGHTS

E-1B N. T. S.



4 BOLLARD DETAIL

E-1B N. T. S.



5 POLE BASE DETAIL - AREA LIGHTS

E-1B N. T. S.

NOTES:

1. CONCRETE TO BE MINIMUM 3000 PSI AT 28 DAYS. (5 SACK) MAXIMUM AGGREGATE ¾". TOP OF FOUNDATION TO BE TROWELED TO A FLAT AND LEVEL SURFACE. AVOID EXCESSIVE TROWELING. CONCRETE TO SET A MINIMUM OF 72 HOURS BEFORE POLE INSTALLATION.

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NO. 032192
CHARLES B. POOR
29 SEP 2023

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WATER POLLUTION CONTROL PLANT

ELECTRICAL DETAILS

SHEET: E-1B

FILE NO: 2013-36

PLOT DATE: September 29, 2023

CHATHAM ENGINEERING

109 PARK OF COMMERCE DRIVE, SUITE 6
SAVANNAH, GEORGIA 31405 (912)238-2400

CADD PLOT
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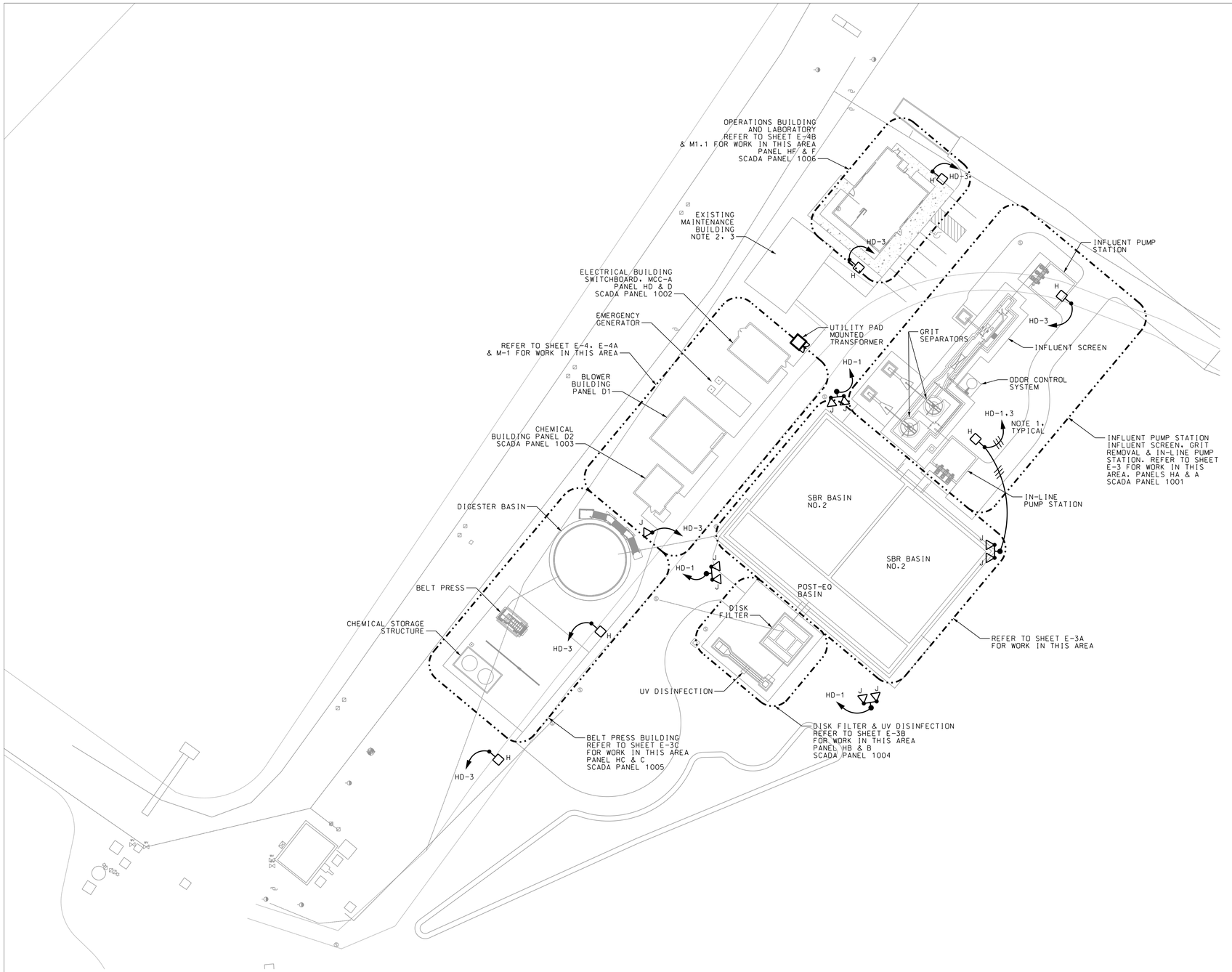

1 E-2 OVERALL ELECTRICAL SITE PLAN WITH SITE LIGHTING

SCALE: 1" = 30'

NOTES:

1. EXTEND AREA LIGHTING CIRCUITS THROUGH LIGHTING CONTACTOR IN THE ELECTRICAL BUILDING.

2. THE EXISTING CONTROL & MAINTENANCE BUILDING SHALL REMAIN FOR REUSE.
   - A. THE EXISTING LIGHTS SHALL BE REPLACED.
     - I. THREE TYPE A IN THE OFFICE.
     - II. FIVE TYPE A IN THE SHOP AREA.
     - III. TWO TYPE A TO REPLACE ONE 8' INDUSTRIAL.
     - IV. ONE TYPE G IN THE LAVATORY.
     - V. THREE TYPE B TO REPLACE EXISTING WALL PACKS.
     - VI. RECONNECT ALL EXISTING CIRCUITS AND SWITCHING.
     - VII. FIELD COORDINATE ALL WORK: VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING BIDS.

3. THE EXISTING CONTROL BUILDING SERVICE SHALL BE REPLACED WITH A FEEDER FROM THE NEW POWER DISTRIBUTION SYSTEM.
   - A. THE EXISTING TREATMENT PLANT ELECTRICAL SERVICE SHALL BE MAINTAINED UNTIL THE NEW PLANT IS OPERATIONAL AND CERTIFIED. COORDINATE WITH THE ELECTRICAL UTILITY.
   - B. DISCONNECT THE EXISTING SERVICE DROP FORM THE WEATHERHEAD.
     - I. REMOVE THE SERVICE MAST CONDUITS, ROOF PENETRATION AND SERVICE CONDUCTORS.
     - II. REPAIR THE ROOF TO SEAL THE PENETRATIONS USING IDENTICAL MATERIALS AND METHODS AS THE EXISTING ROOF INSTALLATION.
   - C. EXTEND NEW FEEDER FROM THE DISTRIBUTION SWITCHBOARD TO THE CONTROL BUILDING.
     - I. THE FEEDER CONDUITS SHALL RISE ALONG THE BUILDING EXTERIOR AND PENETRATE ABOVE THE EXISTING MCC.
     - II. PROVIDE MOGUL TYPE LB FITTINGS AT BUILDING EXTERIOR WALL PENETRATION.
     - III. PROVIDE PULL BOX ON TOP OF MCC AS REQUIRED.
   - D. REMOVE BONDING JUMPER FROM NEUTRAL BUS IN THE EXISTING MCC.
     - I. RECONNECT THE GROUNDING ELECTRODE CONDUCTOR TO THE GROUND BUS; FURNISH NEW MECHANICAL LUG AS REQUIRED.

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WATER POLLUTION CONTROL PLANT

Overall Electrical Site Plan with Site Lighting

SHEET: E-2

FILE NO: 2013-36

PLOT DATE: September 29, 2023

CHATHAM ENGINEERING
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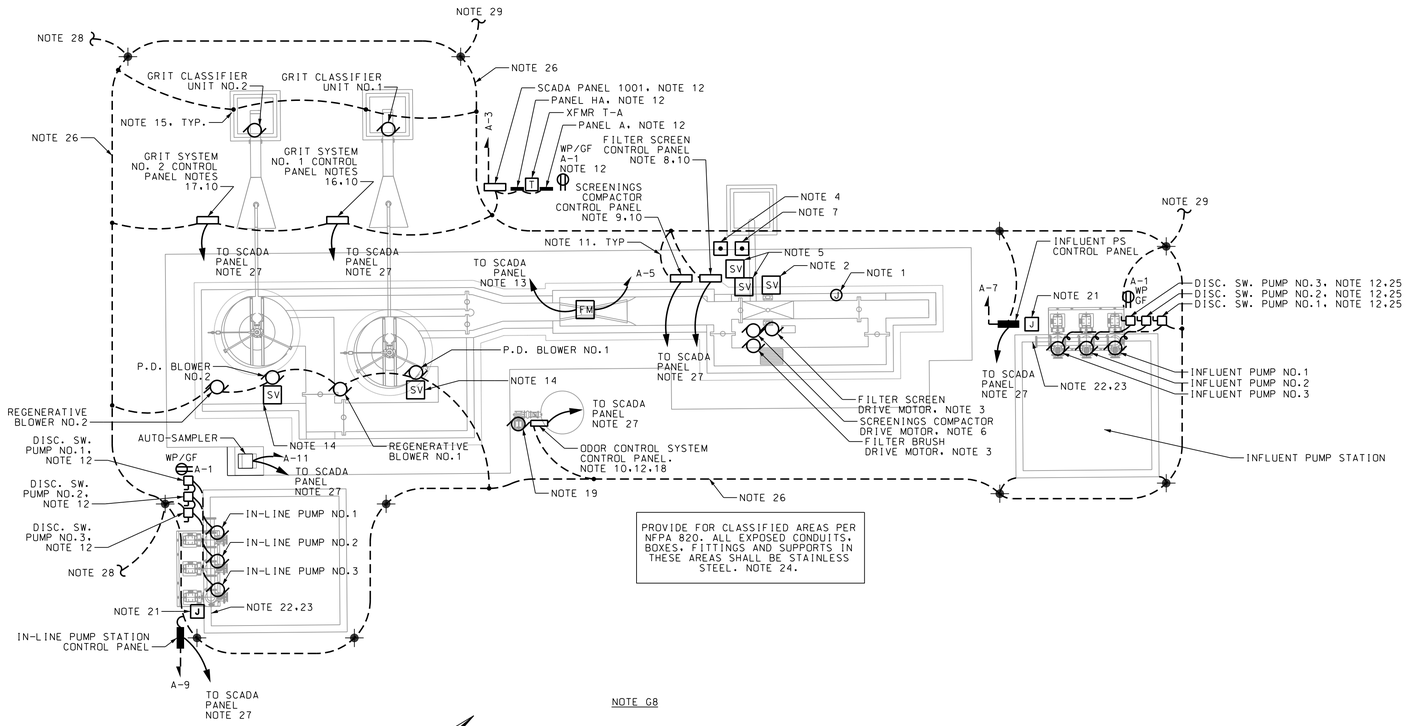
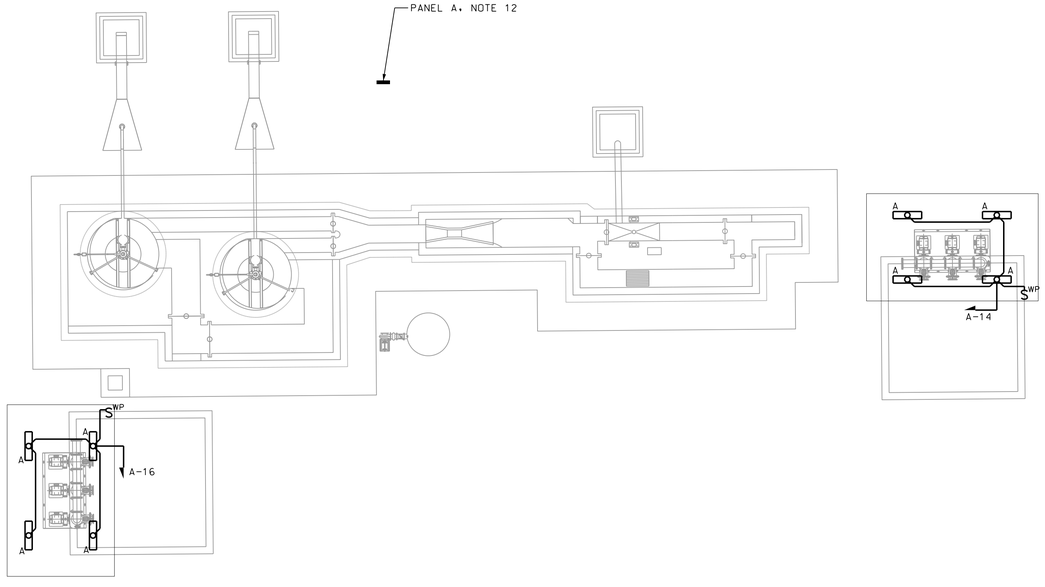


NOTE G8

1 POWER PLAN - HEAD WORKS
E-3

SCALE: 1" = 10' - 0"



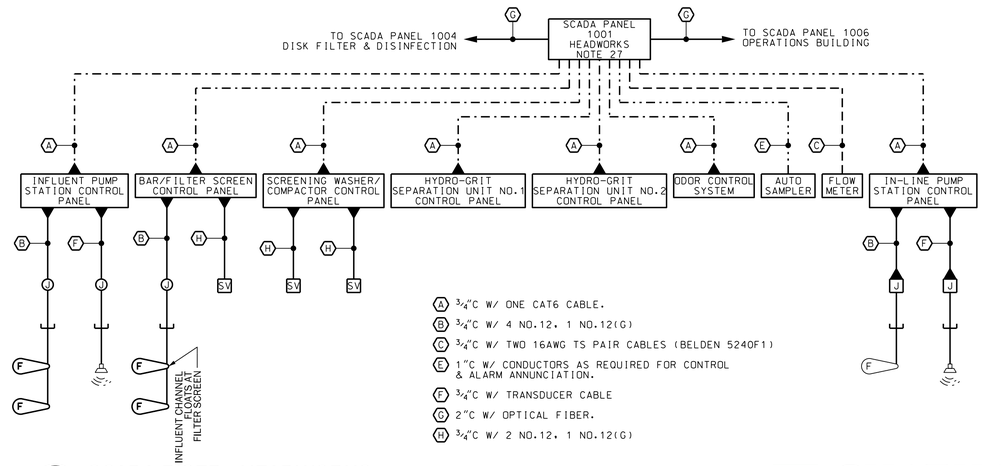
NOTE G8

2 LIGHTING PLAN - HEAD WORKS
E-3

SCALE: 1" = 10' - 0"

NOTES:

1. FILTER SCREEN FLOAT SWITCH JUNCTION BOX CONNECTION. FLOAT SWITCH PROVIDED WITH EQUIPMENT. FIELD COORDINATE LOCATION AND CONNECTION TO FLOAT. PROVIDE JUNCTION BOX AND NON-METALLIC CORD GRIP FOR TERMINATION OF FLOAT CABLE INTO JUNCTION BOX.
2. FILTER SCREEN ULTRA WASH SOLENOID VALVE, PROVIDED AND FIELD INSTALLED BY OTHERS. ELECTRICAL CONNECTION BY DIV.16. COORDINATE WITH EQUIPMENT PROVIDED.
3. FILTER SCREEN DRIVE MOTORS, FURNISHED WITH EQUIPMENT, FIELD INSTALLED BY OTHERS. FIELD COORDINATE CONNECTION TO BARSCREEN CONTROL PANEL.
4. FILTER SCREEN DRIVE EMERGENCY STOP, FURNISHED WITH EQUIPMENT, FIELD INSTALLED AND WIRED BY DIV.16. FIELD COORDINATE MOUNTING LOCATION.
5. SCREENINGS COMPACTOR SOLENOID VALVES, FURNISHED WITH EQUIPMENT, FIELD INSTALLED BY OTHERS, WIRED BY DIV.16, FIELD COORDINATE MOUNTING LOCATIONS.
6. SCREENINGS COMPACTOR DRIVE MOTOR, FURNISHED WITH EQUIPMENT, FIELD INSTALLED BY OTHERS, FIELD COORDINATE CONNECTION TO SCREENINGS COMPACTOR CONTROL PANEL.
7. SCREENINGS COMPACTOR DRIVE EMERGENCY STOP, FURNISHED WITH EQUIPMENT, FIELD INSTALLED AND WIRED BY DIV.16. FIELD COORDINATE MOUNTING LOCATION.
8. FILTER SCREEN CONTROL PANEL. FURNISHED WITH EQUIPMENT. FIELD COORDINATE LOCATION WITH EQUIPMENT AND OTHER TRADES. MOUNT ON 304 STAINLESS STEEL CHANNEL FRAME. REFER TO ONE-LINE DIAGRAM FOR ELECTRICAL CONNECTIONS. REFER TO SCADA RISER FOR COMMUNICATIONS CONNECTIONS. REFER TO 1/E-5A FOR FIELD CONNECTIONS.
9. SCREENINGS COMPACTOR CONTROL. FURNISHED WITH EQUIPMENT. FIELD COORDINATE LOCATION WITH EQUIPMENT AND OTHER TRADES. MOUNT ON 304 STAINLESS STEEL CHANNEL FRAME. REFER TO ONE-LINE DIAGRAM FOR ELECTRICAL CONNECTIONS. REFER TO SCADA RISER FOR COMMUNICATIONS CONNECTIONS.
10. SCADA PANEL 1001. MOUNT ON 304 STAINLESS STEEL CHANNEL EQUIPMENT FRAME. COMMUNICATIONS FROM FILTER SCREEN, SCREENINGS COMPACTOR, ODOR AND GRIT SEPARATION CONTROL PANELS, INFLUENT FLOW METER AND WET WELL LEVEL SENSORS SHALL BE EXTENDED TO THIS PANEL FOR SIGNAL COMMUNICATION TO CONTROLS. REFER TO SCADA RISER - HEADWORKS. 3/E-3.
11. GROUND CONNECTION FROM EQUIPMENT TO RING. ¾"SCH.80 PVC W/1NO.6 COPPER. TYPICAL. CONNECT TO EQUIPMENT WITH IRREVERSIBLE GROUNDING COMPRESSION TERMINAL (BURNDY YGA282N OR EQUAL FOR HYPRESS GROUNDING TOOL). CONNECT TO ⅝ GROUND RING WITH EXOTHERMIC WELD.
12. MOUNT EQUIPMENT ON 304 STAINLESS STEEL CHANNEL FRAME. FIELD COORDINATE LOCATION WITH CIVIL DRAWINGS AND OTHER TRADES. REFER TO DETAIL 2/E-1A.
13. ¾"C W/ONE BELDEN 5240F1 CABLE. EXTEND TO SCADA PANEL 1001, NOTE 10.
14. GRIT FLUIDIZING LINE SOLENOID VALVE, FIELD INSTALLED BY OTHERS, ELECTRICAL CONNECTION BY DIV.16. COORDINATE WITH EQUIPMENT PROVIDED.
15. MAKE GROUND CONNECTION TO SUPPORT LEG OF GRIT CLASSIFIER SCREW.
16. GRIT SEPARATION UNIT NO.1 CONTROL PANEL. MOUNT ON 304 STAINLESS STEEL CHANNEL FRAME. FIELD COORDINATE LOCATION WITH CIVIL DRAWINGS AND OTHER TRADES. SEE 1/E-5 & 3/E-5A.
17. GRIT SEPARATION UNIT NO.2 CONTROL PANEL. MOUNT ON 304 STAINLESS STEEL CHANNEL FRAME. FIELD COORDINATE LOCATION WITH CIVIL DRAWINGS AND OTHER TRADES. SEE 3/E-5A.
18. ODOR CONTROL SYSTEM CONTROL PANEL. REFER TO 2/E-5A. COORDINATE ALL REQUIRED FIELD CONNECTIONS WITH EQUIPMENT SUPPLIED: PROVIDE CONNECTIONS FOR WATER CONTROL PANEL, MOTORIZED VALVES AND BLOWER POWERED FROM CONTROL PANEL. FIELD COORDINATE LOCATIONS OF THESE ITEMS.
19. ODOR CONTROL SYSTEM SUPPLY FAN.
20. REFER TO SHEET E-5A FOR RISER DIAGRAMS OF EACH SYSTEM AND REQUIRED FIELD CONNECTIONS.
21. JUNCTION BOX CONNECTION FOR FLOAT SWITCH AND LEVEL TRANSDUCER. FIELD COORDINATE LOCATION.
22. PROVIDE STAINLESS STEEL CABLE SUPPORT IN WET WELL FOR FLOAT AND TRANSDUCER CABLES.
23. PROVIDE KELLUM GRIP/CABLE SUPPORT FOR FLOAT AND TRANSDUCER/PROBE CABLES. KELLUM GRIP/CABLE SUPPORT SHALL BE HEAVY DUTY, ARIMID FIBER, CLOSED MESH, SINGLE EYE.
24. LOCATE CONTROL PANELS AND BOXES TEN (10) FEET FROM INFLUENT CHANNELS. MOUNT ALL EQUIPMENT 18" ABOVE GRADE AND/OR STRUCTURE. NO FITTINGS SHALL BE PLACED WITHIN 18" OF GRADE OR STRUCTURE.
25. THE DISCONNECT BETWEEN THE VARIABLE FREQUENCY DRIVE AND THE MOTOR SHALL BE EQUIPPED WITH A NORMALLY OPEN AUXILIARY CONTACT. THE AUXILIARY CONTACT SHALL BE WIRED INTO THE CONTROL VOLTAGE STOP/START CIRCUIT ON THE DRIVE. THE AUXILIARY CONTACT SHALL BE EARLY BREAK, SO THAT THE START STOP CIRCUIT DROPS OUT BEFORE THE DISCONNECT POWER CIRCUIT OPENS, AND LATE MAKE SO THAT THE DISCONNECT POWER CIRCUIT CLOSES BEFORE THE START CIRCUIT ON THE DRIVE IS CLOSED.
26. NO. ⅝ CU GROUND, 30" BELOW GRADE. PROVIDE WARNING TAPE 12" BELOW GRADE.
27. REFER TO SCADA RISER, 3/E3, AND RISER DIAGRAMS, SHEET E-5A, PANEL SCHEDULES SHEET E-6A.
28. CONNECT TO GROUND RING AROUND SBR TANKS.
29. CONNECT TO GROUND RING AROUND CONTROL BUILDING.



3 SCADA RISER - HEADWORKS
E-3

SCALE: NONE

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WATER POLLUTION CONTROL PLANT

Electrical Plan Influent & In-Line Pump Stations, Headworks

SHEET: E-3

FILE NO: 2013-36

PLOT DATE: September 29, 2023

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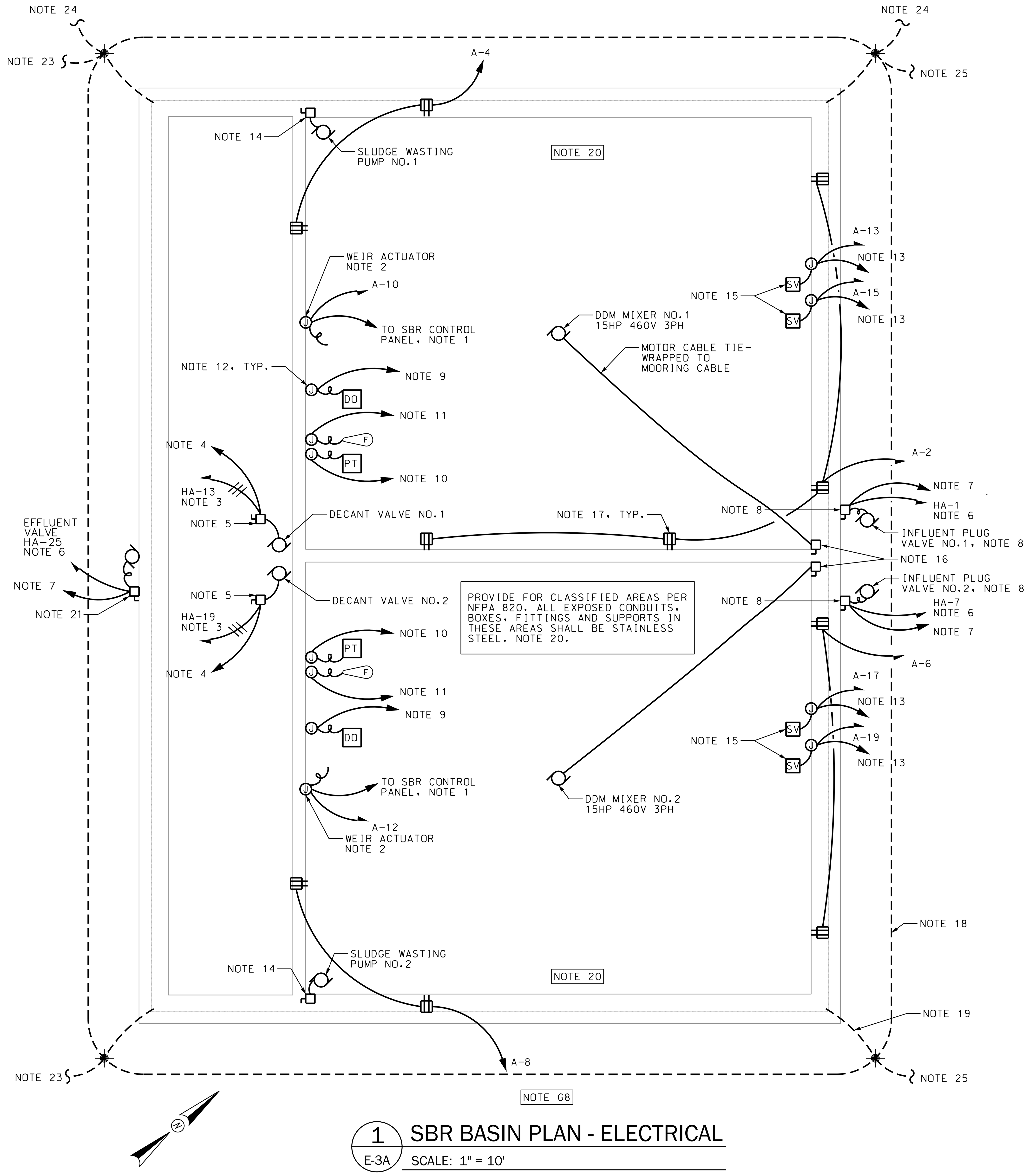

1 SBR BASIN PLAN - ELECTRICAL

E-3A

SCALE: 1" = 10'

NOTES:

1. DECANTER WEIR ACTUATOR CONTROL CIRCUIT. EXTEND 1"C W/3NO.12(OPEN/CLOSE), 4NO.14(LS OPEN/CLOSE), 2NO.14(SPARE), 1NO.12(G) TO SBR CONTROL PANEL. EXTEND 3/4"C W/2NO.12, 1NO.12(G) FROM THE SBR CONTROL PANEL TO THE BRANCH CIRCUIT PANEL AND CIRCUIT INDICATED.
2. DECANTER WEIR ACTUATOR JUNCTION BOX. REFER TO DETAIL 1/E-1B FOR MOUNTING. PROVIDE TERMINAL STRIP FOR TERMINATION OF MULTI-CONDUCTOR CABLE FROM ACTUATOR. PROVIDE CORD GRIP AND STAINLESS STEEL SUPPORT KELLUM FOR CABLE.
3. DECANT FLOW CONTROL VALVE POWER CIRCUIT: EXTEND POWER CIRCUIT FROM JUNCTION BOX THROUGH DISCONNECT SWITCH (30A/3P/4X SS/NF) AND TO BRANCH CIRCUIT PANEL AND CIRCUIT INDICATED; PROVIDE 3/4"C W/3NO.12,1NO.12(G) POWER CIRCUIT.
4. DECANT FLOW CONTROL VALVE CONTROL CIRCUIT: EXTEND CONTROL CONDUCTORS FROM JUNCTION BOX TO SBR CONTROL PANEL; PROVIDE 1 1/4"C W/22NO.14, 1NO.14(G).
5. DECANT FLOW CONTROL VALVE JUNCTION BOX AND DISCONNECT SWITCH: REFER TO DETAIL 6/E-1A FOR MOUNTING. PROVIDE TERMINAL STRIP FOR TERMINATION OF MULTI-CONDUCTOR CABLE FROM VALVE ACTUATOR. PROVIDE CORD GRIP AND STAINLESS STEEL SUPPORT KELLUM FOR CABLE.
6. SBR INFLUENT PLUG VALVE POWER CIRCUIT: EXTEND POWER CIRCUIT FROM JUNCTION BOX THROUGH DISCONNECT SWITCH (30A/3P/4X SS/NF) AND TO BRANCH CIRCUIT PANEL AND CIRCUIT INDICATED; PROVIDE 3/4"C W/3NO.10,1NO.10(G) POWER CIRCUIT.
7. SBR INFLUENT/EFFLUENT PLUG VALVE CONTROL CIRCUIT: EXTEND CONTROL CONDUCTORS FROM JUNCTION BOX TO SBR CONTROL PANEL; PROVIDE 1 1/4"C W/22NO.14, 1NO.14(G).
8. SBR INFLUENT/EFFLUENT PLUG VALVE JUNCTION BOX AND DISCONNECT SWITCH: REFER TO DETAIL 6/E-1A FOR MOUNTING. PROVIDE TERMINAL STRIP FOR TERMINATION OF MULTI-CONDUCTOR CABLE FROM VALVE ACTUATOR. PROVIDE CORD GRIP AND STAINLESS STEEL SUPPORT KELLUM FOR CABLE.
9. SHIELDED CABLE TO SBR CONTROL PANEL FOR D.O. SENSOR. EXTEND 3/4"C W/1 BELDEN 5240F1 (16AWG T.S. PR).
10. SHIELDED CABLE TO SBR CONTROL PANEL FOR PRESSURE TRANSDUCER. EXTEND 3/4"C W/1 BELDEN 5240F1 (16AWG T.S. PR).
11. TO SBR CONTROL PANEL FOR FLOAT SWITCH. EXTEND 3/4"C W/2NO.14, 1NO.14(G).
12. JUNCTION BOX MOUNTED TO TOP OF WALL. REFER TO DETAIL 1/E-1B FOR MOUNTING. PROVIDE TERMINAL STRIP FOR TERMINATION OF CONDUCTORS AND/OR CABLE AS REQUIRED. PROVIDE CORD GRIP AND STAINLESS STEEL SUPPORT KELLUM FOR CABLE. REFER TO DETAIL.
13. TO SBR CONTROL PANEL FOR CHEMICAL SOLENOID VALVES. EXTEND 3/4"C W/4NO.14, 1NO.14(G).
14. SBR SLUDGE PUMP DISCONNECT SWITCH: REFER TO DETAIL 2/E-1B FOR MOUNTING. PROVIDE CORD GRIP AND STAINLESS STEEL SUPPORT KELLUM FOR CABLE.
15. JUNCTION BOX AND CHEMICAL FEED SOLENOID VALVE FOR CAUSTIC OR BASE. COORDINATE WITH AQUA AEROBICS FOR LOCATION.
16. SBR DDM MIXER DISCONNECT SWITCH: REFER TO DETAIL 2/E-1B FOR MOUNTING. PROVIDE CORD GRIP AND STAINLESS STEEL SUPPORT KELLUM FOR CABLE. PROVIDE CABLE SLACK AS REQUIRED.
17. WALL MOUNTED RECEPTACLE, TYPICAL. REFER TO DETAIL 3/E-1A FOR MOUNTING. FIELD COORDINATE LOCATION WITH BUBBLER HOIST SOCKET.
18. No. 4/0 CU GROUND, 30" BELOW GRADE. PROVIDE WARNING TAPE 12" BELOW GRADE.
19. BONDING JUMPER. 3/4" PVC SCH 80 W/ No. 1 CU. PROVIDE HYDRAULIC COMPRESSION LUG ON EQUIPMENT OR PIPEWORK. PROVIDE EXOTHERMIC WELD TO 4/0 CU. GROUND.
20. MOUNT ALL EQUIPMENT 18" ABOVE STRUCTURE. NO FITTINGS SHALL BE PLACED WITHIN 18" OF STRUCTURE.
21. SBR EFFLUENT VALVE JUNCTION BOX AND DISCONNECT SWITCH: REFER TO DETAIL 6/E-1A FOR MOUNTING. PROVIDE TERMINAL STRIP FOR TERMINATION OF MULTI-CONDUCTOR CABLE FROM VALVE ACTUATOR. PROVIDE CORD GRIP AND STAINLESS STEEL SUPPORT KELLUM FOR CABLE.
22. CHEMICAL FEED CONTROL CIRCUIT. EXTEND 3/4"C W/ 2 NO.12, 1 NO.12(G) FORM THE JUNCTION BOX TO THE SBR (AQUA AEROBICS) COTNROL PANEL.
23. CONNECT TO GROUND RING AROUND THE DISK FILTERS AND UV SYSTEM.
24. CONNECT TO GROUND RING AROUND THE POWERHOUSE, GENERATOR, BLOWER BLDG AND CHEMICAL BUILDING.
25. CONNECT TO GROUND RING AROUND THE INFLUENT PS/IN-LINE PS/GRIT REMOVAL EQUIPMENT.

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WATER POLLUTION CONTROL PLANT

SBR BASIN ELECTRICAL PLAN

SHEET: E-3A

FILE NO: 2013-36

PLOT DATE: September 29, 2023

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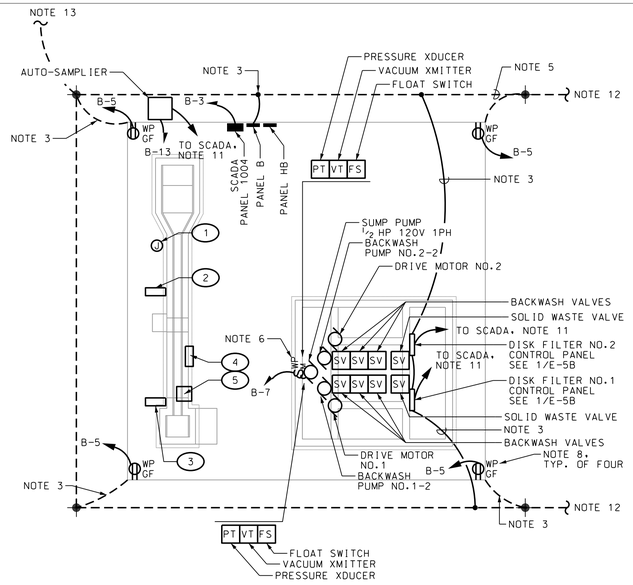
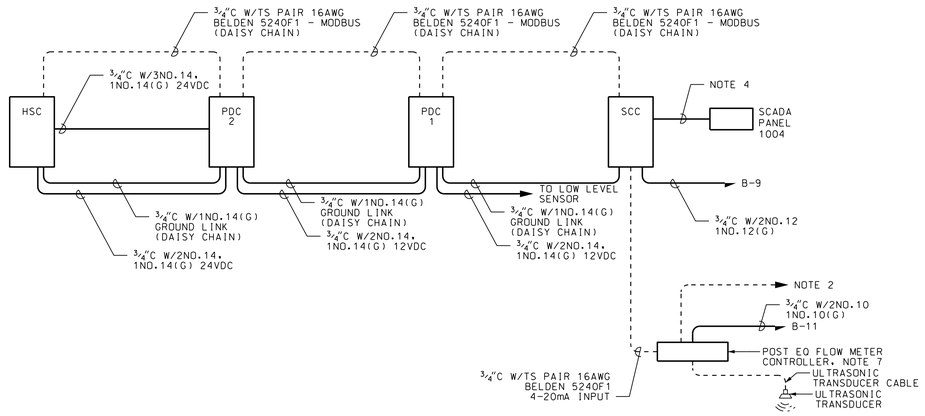


1 E-3B FILTRATION & DISINFECTION - POWER PLAN

SCALE: 1" = 10'

KEY NOTES:

1. LOW LEVEL SENSOR CONNECTION.
2. UV POWER DISTRIBUTION CENTER (PDC) NO.1.
3. UV POWER DISTRIBUTION CENTER (PDC) NO.2.
4. SYSTEM CONTROL CENTER (SCC).
5. HYDRAULIC SYSTEM CENTER (HSC).

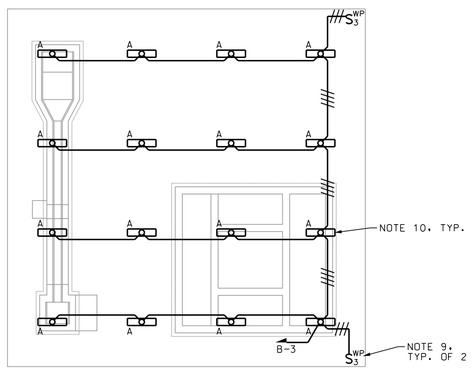


2 E-3B ONE-LINE DIAGRAM - U.V. CONTROL & COMMUNICATIONS

NOT TO SCALE

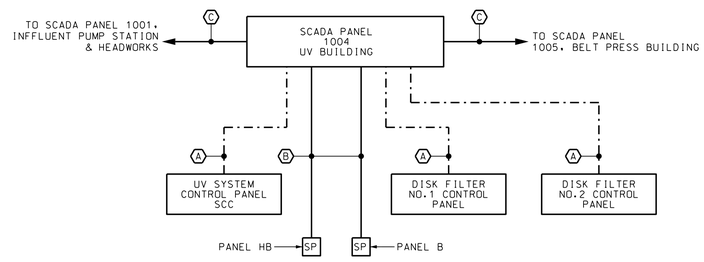
NOTES:

1. FIELD COORDINATE ALL REQUIRED ELECTRICAL CONNECTIONS WITH THE EQUIPMENT PROVIDED AND WITH THE OTHER TRADES.
2. EXTEND 1"C W/TWO BELDEN 524OF1 CABLES (18AWG T.S. PAIR) TO THE POST EQUALIZATION SCADA PANEL (SCADA PANEL NO.3) LOCATED AT THE UV SHELTER.
3. BONDING JUMPER. 3/4" PVC SCH 80 W/ No. 1 CU. PROVIDE HYDRAULIC COMPRESSION LUG ON EQUIPMENT OR PIPEWORK. PROVIDE EXOTHERMIC WELD TO 4/0 CU. GROUND.
4. 1"C W/1ONO.14. 1NO.14(G) TO SCADA PANEL 1004.
5. No. 4/0 CU GROUND, 30" BELOW GRADE. PROVIDE WARNING TAPE 12" BELOW GRADE.
6. WEATHERPROOF NEMA 4X STAINLESS STEEL ENCLOSED MOTOR RATED SWITCH. PROVIDE ARROW HART AH7810XC-OOS OR APPROVED EQUAL.
7. FIELD COORDINATE LOCATION OF POST EQ FLOWMETER.
8. MOUNT RECEPTACLES ON STRUCTURAL COLUMNS.
9. MOUNT LIGHT SWITCHES ON STRUCTURAL COLUMNS.
10. FIELD COORDINATE MOUNTING OF LIGHTS WITH STRUCTURE. SUSPEND FIXTURES FROM PURLINGS. FIXTURE ELEVATION SHALL BE ABOVE STRUCTURAL BEAMS (WITHIN WEB).
11. 3/4"C W/TWO CAT6 CABLES TO SCADA.
12. CONNECT TO GROUND RING AROUND THE SBR BASIN STRUCTURE.
13. CONNECT TO THE GROUND RING AROUND THE DIGESTER AND BELT PRESS STRUCTURES.



3 E-3B FILTRATION & DISINFECTION - LIGHTING PLAN

SCALE: 1" = 10'



A 3/4"C W/ TWO CAT6 CABLES.
B 3/4"C W/ 2 NO.14. 1 NO.14(G)
C 2"C W/ OPTICAL FIBER.
D 1"C W/ CONDUCTORS AS REQUIRED FOR CONTROL & ALARM ANNUNCIATION

4 E-3B SCADA RISER - UV BUILDING

SCALE: NONE

REVISIONS:

DESIGN PROFESSIONAL:
MARCUS E. SACK
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GEORGIA REGISTERED PROFESSIONAL ENGINEER NO. 032192 CHARLES B. POWELL
DATE: 29 of 2023

M.E. SACK ENGINEERING 119 80

MUNICIPALITY:
CITY OF FOLKSTON

COUNTY:
CHARLTON COUNTY

OWNER:
CITY OF FOLKSTON
541 FIRST STREET
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(912) 496-2563
penderlloyd@yahoo.com

24 HOUR CONTACT:
LEONARD LLOYD
541 FIRST STREET
FOLKSTON, GA 31537
(912) 496-2563
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WATER POLLUTION CONTROL PLANT

FILTRATION & DISINFECTION - ELECTRICAL PLAN

SHEET: E-3B

FILE NO: 2013-36

PLOT DATE: September 29, 2023

CADD PLOT
29-SEP-2023
13:12
LCAULEY

CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
SAVANNAH, GEORGIA 31405 (912)238-2400

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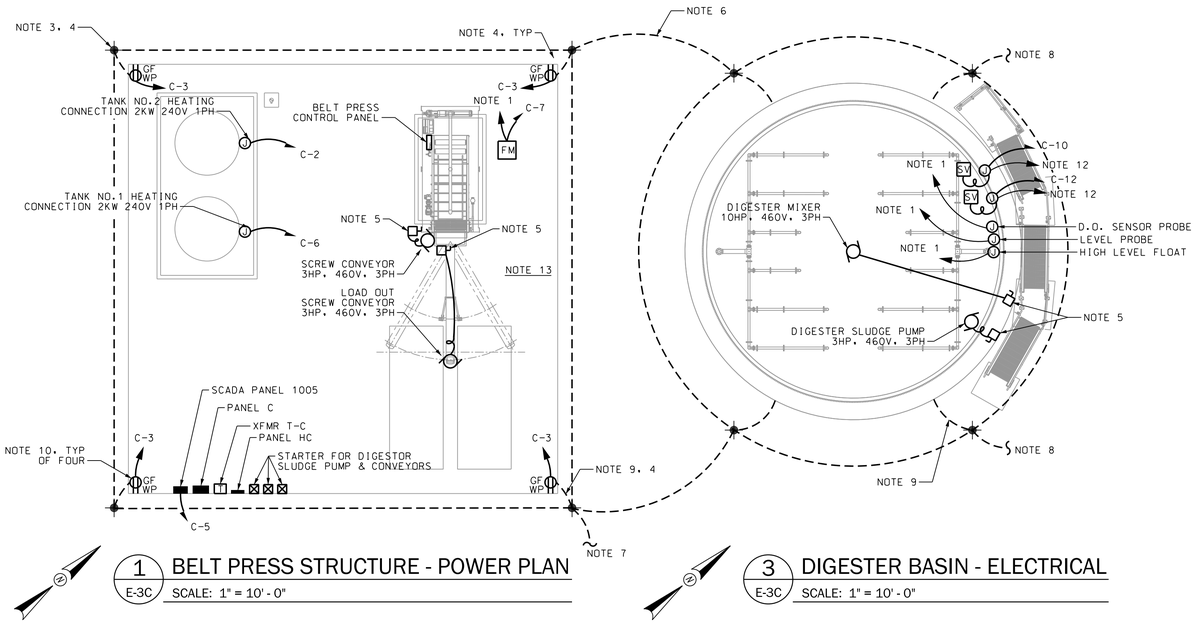
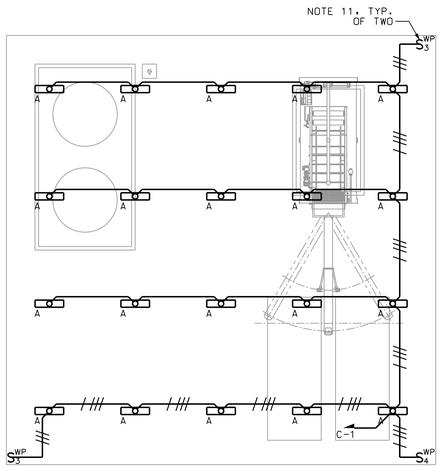
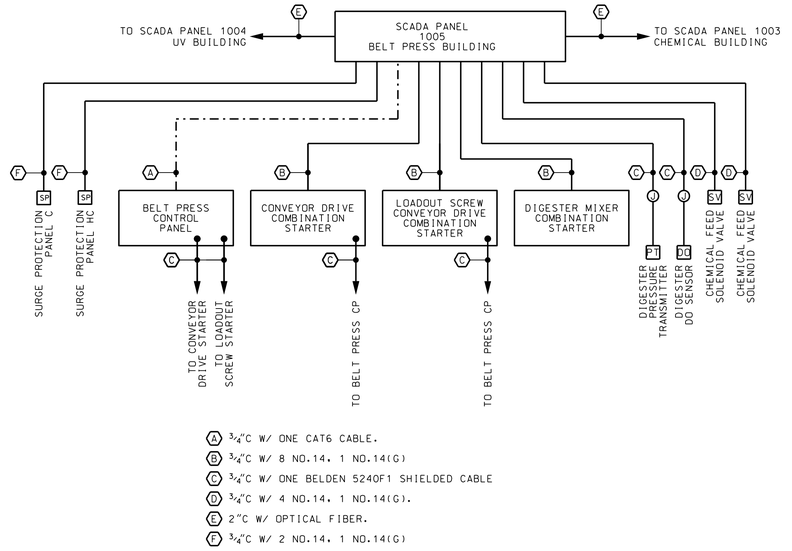


1 E-3C BELT PRESS STRUCTURE - POWER PLAN
SCALE: 1" = 10' - 0"

3 E-3C DIGESTER BASIN - ELECTRICAL
SCALE: 1" = 10' - 0"



2 E-3C BELT PRESS STRUCTURE - LIGHTING PLAN
SCALE: 1" = 10' - 0"



(A) 3/4"C W/ ONE CAT6 CABLE.
(B) 3/4"C W/ 8 NO.14, 1 NO.14(G)
(C) 3/4"C W/ ONE BELDEN 5240F1 SHIELDED CABLE
(D) 3/4"C W/ 4 NO.14, 1 NO.14(G).
(E) 2"C W/ OPTICAL FIBER.
(F) 3/4"C W/ 2 NO.14, 1 NO.14(G)

4 E-3C SCADA RISER - BELT PRESS STRUCTURE
SCALE: NONE

NOTES:

1. EXTEND 3/4" C W/ ONE BELDEN 5240F1 CABLE TO LOCAL IN-PLANT SCADA PANEL 1005.
2. START/STOP PUSH-BUTTON FOR ADJACENT MOTOR. EXTEND 3/4" C W/ 3 No 14, 1 No 14(G) TO STARTER SERVING MOTOR.
3. DRIVE GROUND ROD IN THIS AREA.
4. CONNECT GROUND RODS TO BUILDING STEEL COLUMNS AT CORNERS OF STRUCTURE.
5. MOUNT DISCONNECT SWITCH ON EQUIPMENT FRAME. REFER TO DETAIL 2/E-1A.
6. NO. 6 CU GROUND, 30" BELOW GRADE. PROVIDE WARNING TAPE 12" BELOW GRADE.
7. CONNECT TO THE GROUND RING AROUND THE FILTRATION & DISINFECTION STRUCTURE.
8. CONNECT TO THE GROUND RING AROUND THE CHEMICAL FEED BUILDING.
9. BONDING JUMPER, 3/4" PVC SCH 80 W/ 1 No. 1 CU. PROVIDE HYDRAULIC COMPRESSION LUG ON EQUIPMENT OR PIPEWORK. PROVIDE EXOTHERMIC WELD TO 6 CU. GROUND.
10. MOUNT RECEPTACLES ON STRUCTURAL COLUMNS.
11. MOUNT LIGHT SWITCHES ON STRUCTURAL COLUMNS.
12. TO SCADA PANEL 1005 FOR CHEMICAL FEED SOLENOID VALVES.
13. CONNECT ALL CONTROLS AND SAFETY INTERLOCKS ON CONVEYORS.

REVISIONS:

DESIGN PROFESSIONAL:
MARCUS E. SACK
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GEORGIA REGISTERED No. 032192 PROFESSIONAL ENGINEER CHARLES B. POOR
29 SEP 2023
DATE:

M.E. SACK ENGINEERING INC 19 80

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COUNTY:
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WATER POLLUTION CONTROL PLANT

Digester & Belt Press Building Electrical Plans

SHEET: E-3C

FILE NO: 2013-36

PLOT DATE: September 29, 2023

CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
SAVANNAH, GEORGIA 31405 (912)238-2400

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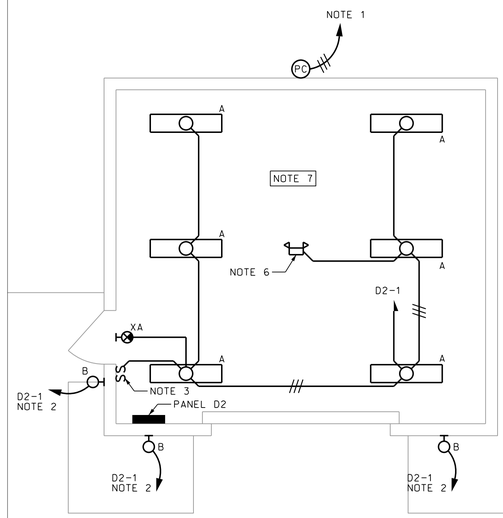

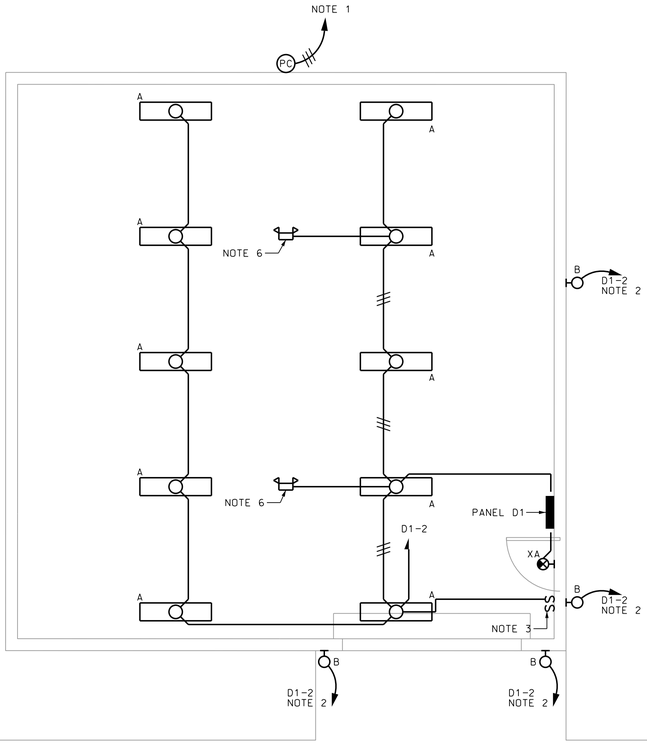

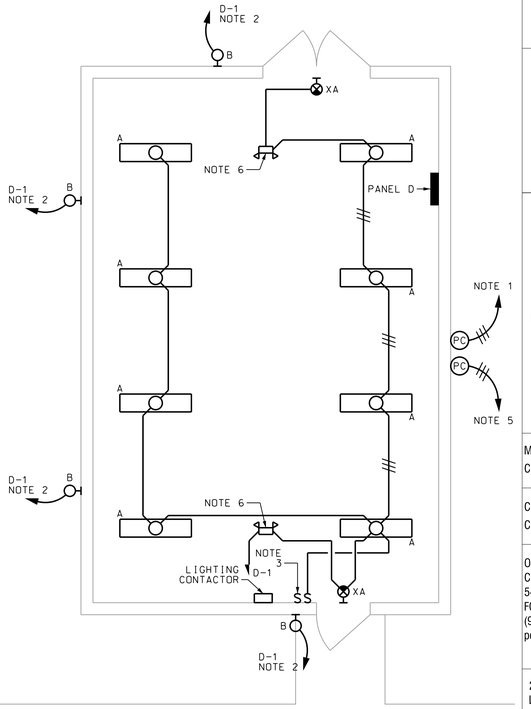

1 CHEMICAL FEED BLDG PLAN - LIGHTING

E-4

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

2 BLOWER BLDG PLAN - LIGHTING

E-4

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

3 POWER HOUSE BLDG PLAN - LIGHTING

E-4

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

NOTES:

1. EXTEND PHOTO CELL CONTROL THROUGH 'PHOTO' POSITION ON EXTERIOR LIGHTING CONTROL SWITCH.
2. EXTEND THROUGH 3-POSITION EXTERIOR LIGHTING CONTROL SWITCH.
3. EXTERIOR LIGHTING CONTROL SWITCH: THREE POSITION, MAINTAINED CONTACT, CENTER OFF. LABEL SWITCH POSITIONS: UP-PHOTO, CENTER-OFF, DOWN-MANUAL ON. PROVIDE COOPER 2225 OR EQUAL BY HUBBELL OR LEGRAND.
4. FOUR POLE LIGHTING CONTACTOR IN NEMA ONE ENCLOSURE WITH H-O-A SWITCH. PROVIDE SQUARE D LG40277. CONTROL IN AUTO POSITION SHALL BE THROUGH PHOTOCELL.
5. FOR SBR FLOOD LIGHTS AND SITE AREA LIGHTS, EXTEND PHOTOCELL CONTROL THROUGH LIGHTING CONTACTOR 'AUTO' POSITION.
6. CEILING MOUNT EMERGENCY LIGHTS.
7. ALL CONDUIT IN THE CHEMICAL FEED BUILDING SHALL BE SCH.80 PVC. SEAL ALL CONDUIT TERMINATIONS (INTO DEVICE OUTLET BOXES, LIGHT FIXTURES, ETC.) WITH DUCT SEAL.

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LCAULEY

REVISIONS:

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9-29-2023

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WATER POLLUTION CONTROL PLANT

Chemical Feed, Blower & Power House Lighting Plans

SHEET: E-4

FILE NO: 2013-36

PLOT DATE: September 29, 2023

CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
SAVANNAH, GEORGIA 31405 (912)238-2400

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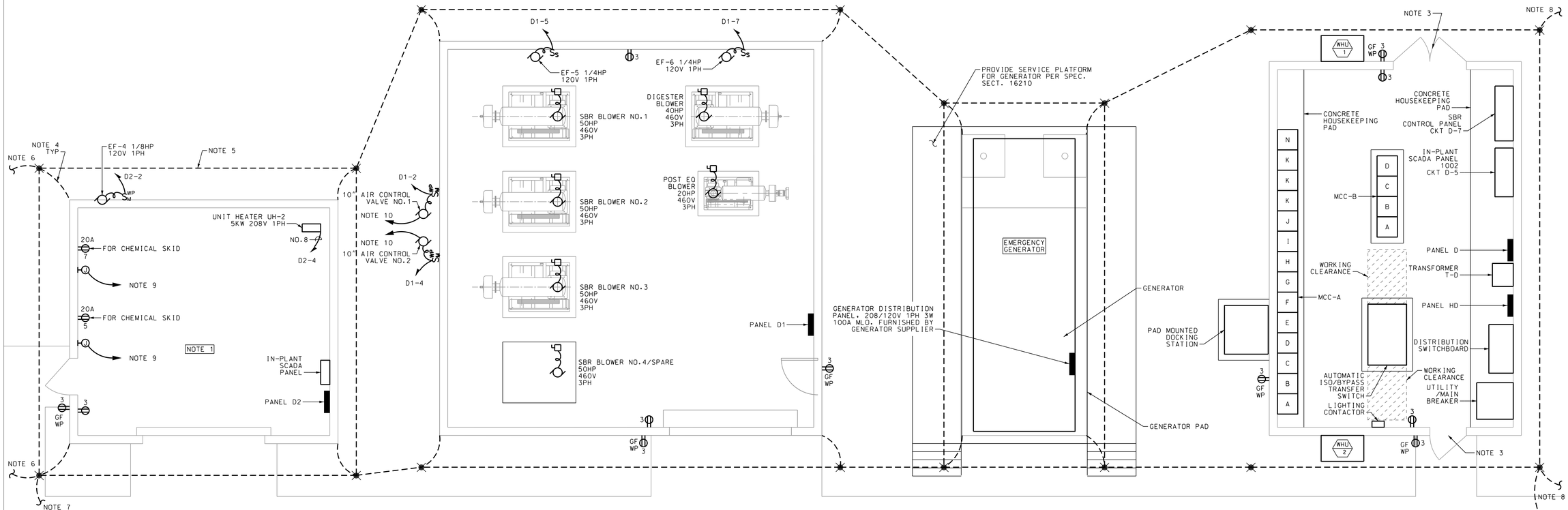
NOTES:

1. ALL CONDUIT IN THE CHEMICAL FEED BUILDING SHALL BE SCH.80 PVC. SEAL ALL CONDUIT TERMINATIONS (INTO DEVICE OUTLET BOXES, LIGHT FIXTURES, ETC.) WITH DUCT SEAL.
2. EXTEND ALARM, COMMUNICATIONS AND CONTROL WIRING THROUGH THE ATS. REMOTE ANNUNCIATION SHALL BE THROUGH IN-PLANT SCADA. THE ALARMS AND STATUS SHALL BE DISPLAYED ON THE OPERATOR'S WORKSTATION IN THE OPERATIONS BUILDING. EXTEND NOTIFICATION TO SCADA PANEL 1002.
3. COORDINATE WITH GENERAL CONTRACTOR TO PROVIDE PANIC HARDWARE ON ALL MAN-DOORS IN MAIN ELECTRICAL BUILDING AND BLOWER BUILDING.
4. BONDING JUMPER, $^{3}/_{4}$" PVC SCH 80 W/ No. 1 CU. PROVIDE HYDRAULIC COMPRESSION LUG ON EQUIPMENT OR PIPEWORK. PROVIDE EXOTHERMIC WELD TO $^{5}/_{8}$ CU. GROUND.
5. No. $^{5}/_{8}$ CU GROUND, 30" BELOW GRADE. PROVIDE WARNING TAPE 12" BELOW GRADE.
6. CONNECT TO GROUND RING AROUND THE DIGESTER STRUCTURE.
7. CONNECT TO THE GROUND RING AROUND THE SBR BASIN.
8. CONNECT TO THE GROUND RING AROUND THE CONTROL BUILDING.
9. TO IN-PLANT SCADA PANEL NO. 1002.
10. TO SBR CONTROL PANE.



1 E-4A CHEMICAL FEED BLDG PLAN - POWER
SCALE: 1 / 4 " = 1' - 0"

2 E-4A BLOWER BLDG PLAN - POWER
SCALE: 1 / 4 " = 1' - 0"

3 E-4A ELECTRICAL BLDG PLAN - POWER
SCALE: 1 / 4 " = 1' - 0"

REVISIONS:

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GEORGIA REGISTERED PROFESSIONAL ENGINEER CHARLES B. POOLE NO. 032192 PROFESSIONAL 29 Sept 2023

DATE:

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WATER POLLUTION CONTROL PLANT

Chemical Feed, Blower & Power House Power Plans

SHEET: E-4A

FILE NO: 2013-36

PLOT DATE: September 29, 2023

CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
SAVANNAH, GEORGIA 31405 (912)238-2400

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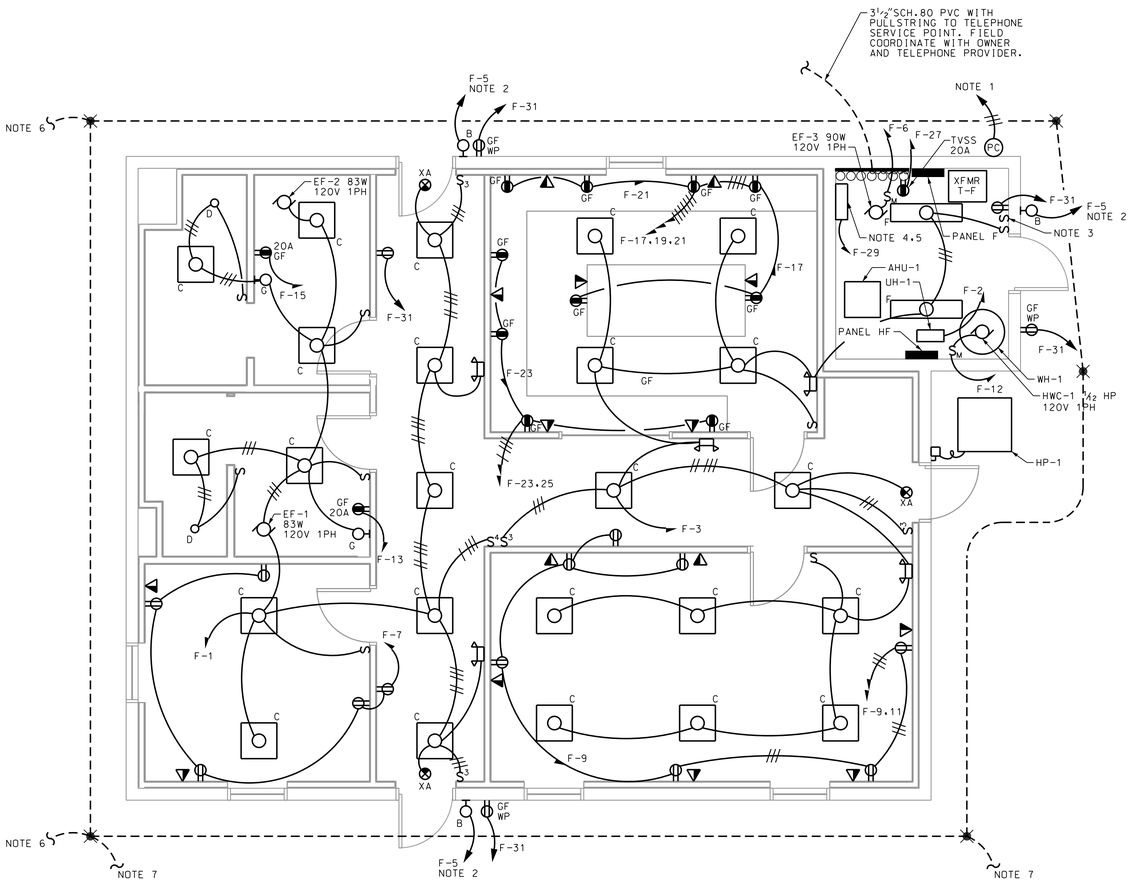


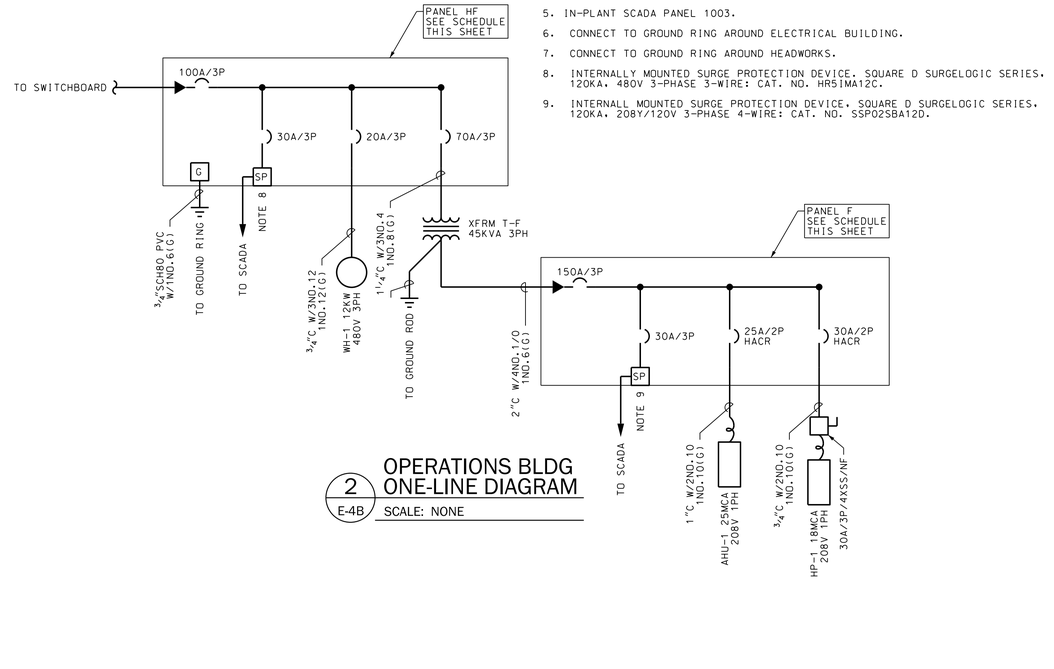
1 E-4B

OPERATIONS BLDG PLAN - LIGHTING & POWER

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

NOTES:

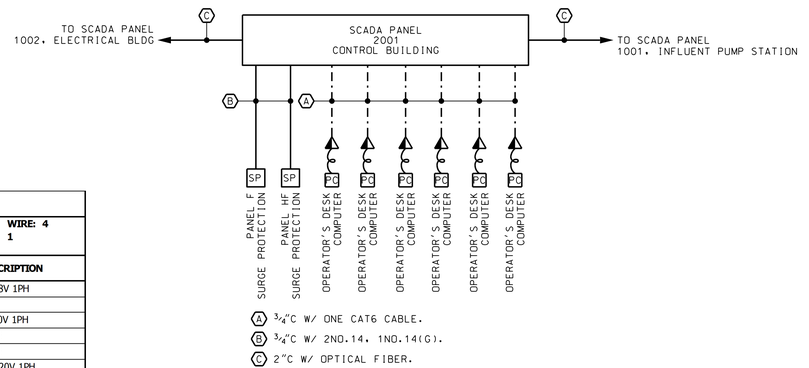
1. EXTEND PHOTO CELL CONTROL THROUGH 'PHOTO' POSITION ON EXTERIOR LIGHTING CONTROL SWITCH.
2. EXTEND THROUGH 3-POSITION EXTERIOR LIGHTING CONTROL SWITCH.
3. EXTERIOR LIGHTING CONTROL SWITCH: THREE POSITION, MAINTAINED CONTACT, CENTER OFF. LABEL SWITCH POSITIONS: UP-PHOTO, CENTER-OFF, DOWN-MANUAL ON. PROVIDE COOPER 2225 OR EQUAL BY HUBBELL OR LEGRAND.
4. EXTEND 2"C W/OPTICAL FIBER CABLE FROM IN-PLANT SCADA PANEL TO ELECTRICAL BUILDING IN-PLANT SCADA PANEL 1002.
5. IN-PLANT SCADA PANEL 1003.
6. CONNECT TO GROUND RING AROUND ELECTRICAL BUILDING.
7. CONNECT TO GROUND RING AROUND HEADWORKS.
8. INTERNALLY MOUNTED SURGE PROTECTION DEVICE, SQUARE D SURGELOGIC SERIES, 120KA, 480V 3-PHASE 3-WIRE: CAT. NO. HR5IMA12C.
9. INTERNALLY MOUNTED SURGE PROTECTION DEVICE, SQUARE D SURGELOGIC SERIES, 120KA, 208Y/120V 3-PHASE 4-WIRE: CAT. NO. SSP02SBA12D.



2 E-4B

OPERATIONS BLDG ONE-LINE DIAGRAM

SCALE: NONE



3 E-4B

SCADA RISER - OPERATIONS BUILDING

SCALE: NONE

SCHEDULE OF PANEL 'HF' OPERATIONS BLDG

VOLTAGE: 480 / 277 — PHASE: 3 — WIRE: 3
BUS AMPS: 125 A — DEVICE AMPS: 100 A — MCB — NEMA: 1
A.I.C RATING: 14,000 A — MOUNTING: SURFACE

LOCATION DESCRIPTION	LOAD (KVA)	LOAD TYPE	TRIP POLE	#	PH	#	TRIP POLE	LOAD TYPE	LOAD (KVA)	LOCATION DESCRIPTION
PREPARED SPACE				1	A	2	25A/3P	H	4.0	WH-1
-				3	B	4	-	H	4.0	12KW 480V 3PH
-				5	C	6	-	H	4.0	-
PREPARED SPACE				7	A	8	70A/3P	H	12.6	PANEL F
-				9	B	10	-	H	7.9	VIA XFMR T-F
-				11	C	12	-	H	6.4	45KVA
PREPARED SPACE				13	A	14				PREPARED SPACE
-				15	B	16				-
-				17	C	18				-
SURGE PROTECTION				19	A	20				PREPARED SPACE
SQUARE D 120KA				21	B	22				-
CAT.NO. HR4IMA12C				23	C	24				-
OR EQUAL BY GE/ABB OR EATON				25	A	26				PREPARED SPACE
-				27	B	28				-
-				29	C	30				-

PANEL LOAD ANALYSIS

Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference	Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference
A	Lighting	0.0	0.0	NEC Article 215.3	E	Heating	0.0	0.0	NEC Article 220.60
B	Receptacles	0.0	0.0	NEC Table 220.44	F	Largest Motor	0.0	0.0	NEC Article 440.7
C	Kitchen Equipment	0.0	0.0	NEC Table 220.56	G	Other Motors	0.0	0.0	NEC Article 440.7
D	Air-Conditioning	0.0	0.0	NEC Article 220.60	H	Other Loads	38.8	38.8	

Phase A Connected Load	16.6 KVA	Notes:	TOTAL CONNECTED LOAD	38.8 KVA	46.7 AMPS
Phase B Connected Load	11.9 KVA		TOTAL DEMAND LOAD	38.8 KVA	46.7 AMPS
Phase C Connected Load	10.4 KVA		MINIMUM SIZING AMPS	60.7 KVA	73.0 AMPS

SCHEDULE OF PANEL 'F' OPERATIONS BLDG

VOLTAGE: 208 / 120 — PHASE: 3 — WIRE: 4
BUS AMPS: 200 A — DEVICE AMPS: 150 A — MCB — 1
A.I.C RATING: 10,000 A — MOUNTING: SURFACE

LOCATION DESCRIPTION	LOAD (KVA)	LOAD TYPE	TRIP POLE	#	PH	#	TRIP POLE	LOAD TYPE	LOAD (KVA)	LOCATION DESCRIPTION
LIGHTS INTERIOR	0.6	A	20A/1P	1	A	2	20A/2P	E	1.5	UH-1 3KW 208V 1PH
LIGHTS INTERIOR	0.4	A	20A/1P	3	B	4	-	E	1.5	-
LIGHTS EXTERIOR	0.0	A	20A/1P	5	C	6	20A/1P	G	1.1	EF-3 90W 120V 1PH
RCPT OFFICE	1.0	B	20A/1P	7	A	8	20A/1P			SPARE
RCPT OPEN OFFICE	0.8	B	20A/1P	9	B	10	20A/1P			SPARE
RCPT OPEN OFFICE	0.6	B	20A/1P	11	C	12	20A/1P	G	0.5	HC-1 1/12HP 120V 1PH
RCPT WOMEN'S RR	1.5	B	20A/1P	13	A	14	25A/2P	D	2.1	AHU-1 25MCA
RCPT MEN'S RR	1.5	B	20A/1P	15	B	16	HACR	D	2.1	208V 1PH
RCPT LAB ISLAND	0.6	B	20A/1P	17	C	18	30A/2P	D	1.9	HP-1 18MCA
RCPT LAB COUNTER	1.5	B	20A/1P	19	A	20	HACR	D	1.9	208V 1PH
RCPT LAB COUNTER	1.5	B	20A/1P	21	B	22	20A/1P			SPARE
RCPT LAB PENINSULA	1.5	B	20A/1P	23	C	24	20A/1P			SPARE
RCPT LAB PENINSULA	1.5	B	20A/1P	25	A	26	20A/1P			SPARE
RCPT TBB	0.1	B	20A/1P	27	B	28	20A/1P			SPARE
SCADA PANEL	0.1	B	20A/1P	29	C	30	20A/1P			SPARE
RCPT EXTERIOR MISC	1.0	B	20A/1P	31	A	32	20A/1P			SPARE
SPARE			20A/1P	33	B	34	20A/1P			SPARE
SPARE			20A/1P	35	C	36	20A/1P			SPARE
SURGE PROTECTION			-	37	A	38	-			SURGE PROTECTION
100KA 10-MODES OF PROTECTION			-	39	B	40	-			SQUARE D SSP02SBA10D
-			-	41	C	42	-			OR EQUAL BY GE/ABB OR EATON

PANEL LOAD ANALYSIS

Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference	Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference
A	Lighting	1.0	1.3	NEC Article 215.3	E	Heating	3.0	0.0	NEC Article 220.60
B	Receptacles	13.2	11.6	NEC Table 220.44	F	Largest Motor	0.0	0.0	NEC Article 440.7
C	Kitchen Equipment	0.0	0.0	NEC Table 220.56	G	Other Motors	1.6	1.6	NEC Article 440.7
D	Air-Conditioning	7.9	7.9	NEC Article 220.60	H	Other Loads	0.0	0.0	

Phase A Connected Load	12.6 KVA	Notes:	TOTAL CONNECTED LOAD	26.8 KVA	74.5 AMPS
Phase B Connected Load	7.9 KVA		TOTAL DEMAND LOAD	22.5 KVA	62.4 AMPS
Phase C Connected Load	6.4 KVA		MINIMUM SIZING AMPS	35.1 KVA	97.5 AMPS

REVISIONS:

DESIGN PROFESSIONAL:
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GSWCC LEVEL II # 70248
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WATER POLLUTION CONTROL PLANT

Ops Bldg Power & Lighting Plan, One-Line Diagram, Panel Schedule

SHEET: E-4B

FILE NO: 2013-36

PLOT DATE: September 29, 2023

CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
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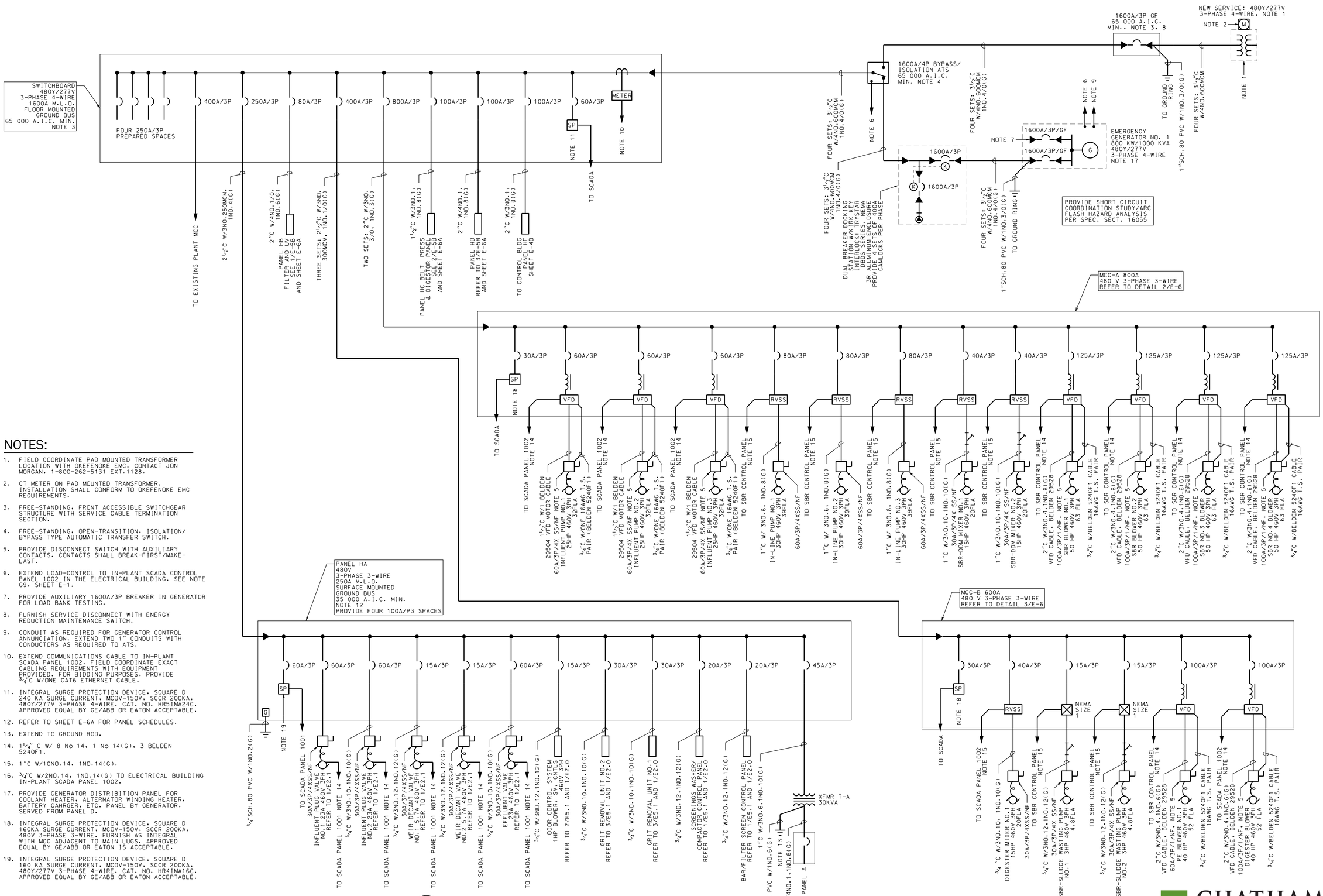

NOTES:

1. FIELD COORDINATE PAD MOUNTED TRANSFORMER LOCATION WITH OKEFENOKE EMC. CONTACT JON MORGAN, 1-800-262-5131 EXT.1128.
2. CT METER ON PAD MOUNTED TRANSFORMER. INSTALLATION SHALL CONFORM TO OKEFENOKE EMC REQUIREMENTS.
3. FREE-STANDING, FRONT ACCESSIBLE SWITCHGEAR STRUCTURE WITH SERVICE CABLE TERMINATION SECTION.
4. FREE-STANDING, OPEN-TRANSITION, ISOLATION/ BYPASS TYPE AUTOMATIC TRANSFER SWITCH.
5. PROVIDE DISCONNECT SWITCH WITH AUXILIARY CONTACTS. CONTACTS SHALL BREAK-FIRST/MAKE-LAST.
6. EXTEND LOAD-CONTROL TO IN-PLANT SCADA CONTROL PANEL 1002 IN THE ELECTRICAL BUILDING. SEE NOTE G9, SHEET E-1.
7. PROVIDE AUXILIARY 1600A/3P BREAKER IN GENERATOR FOR LOAD BANK TESTING.
8. FURNISH SERVICE DISCONNECT WITH ENERGY REDUCTION MAINTENANCE SWITCH.
9. CONDUIT AS REQUIRED FOR GENERATOR CONTROL ANNUNCIATION. EXTEND TWO 1" CONDUITS WITH CONDUCTORS AS REQUIRED TO ATS.
10. EXTEND COMMUNICATIONS CABLE TO IN-PLANT SCADA PANEL 1002. FIELD COORDINATE EXACT CABLING REQUIREMENTS WITH EQUIPMENT PROVIDED. FOR BIDDING PURPOSES, PROVIDE ¾"C W/ONE CAT6 ETHERNET CABLE.
11. INTEGRAL SURGE PROTECTION DEVICE, SQUARE D 240 KA SURGE CURRENT, MCOV-150V, SCCR 200KA, 480Y/277V 3-PHASE 4-WIRE, CAT. NO. HR51MA24C. APPROVED EQUAL BY GE/ABB OR EATON ACCEPTABLE.
12. REFER TO SHEET E-6A FOR PANEL SCHEDULES.
13. EXTEND TO GROUND ROD.
14. 1½" C W/ 8 No 14, 1 No 14(G), 3 BELDEN 5240F1.
15. 1"C W/1ONO.14, 1NO.14(G).
16. ¾"C W/2NO.14, 1NO.14(G) TO ELECTRICAL BUILDING IN-PLANT SCADA PANEL 1002.
17. PROVIDE GENERATOR DISTRIBITION PANEL FOR COOLANT HEATER, ALTERNATOR WINDING HEATER, BATTERY CAHRGER, ETC. PANEL BY GENERATOR. SERVED FROM PANEL D.
18. INTEGRAL SURGE PROTECTION DEVICE, SQUARE D 160KA SURGE CURRENT, MCOV-150V, SCCR 200KA, 480V 3-PHASE 3-WIRE. FURNISH AS INTEGRAL WITH MCC ADJACENT TO MAIN LUGS. APPROVED EQUAL BY GE/ABB OR EATON IS ACCEPTABLE.
19. INTEGRAL SURGE PROTECTION DEVICE, SQUARE D 160 KA SURGE CURRENT, MCOV-150V, SCCR 200KA, 480Y/277V 3-PHASE 4-WIRE, CAT. NO. HR41MA16C. APPROVED EQUAL BY GE/ABB OR EATON ACCEPTABLE.

1 / E-5 — ONE-LINE DIAGRAM - ELECTRICAL BUILDING
SCALE: SCHEMATIC

CADD PLOT
29-SEP-2023
13:19
LCAULEY

REVISIONS:

DESIGN PROFESSIONAL:
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GEORGIA REGISTERED PROFESSIONAL ENGINEER
No. 032192
CHARLES B. POOR
29 Sept 2023
DATE:

M.E. SACK ENGINEERING 19 80

MUNICIPALITY:
CITY OF FOLKSTON

COUNTY:
CHARLTON COUNTY

OWNER:
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WATER POLLUTION CONTROL PLANT

MAIN DISTRIBUTION ONE-LINE DIAGRAM

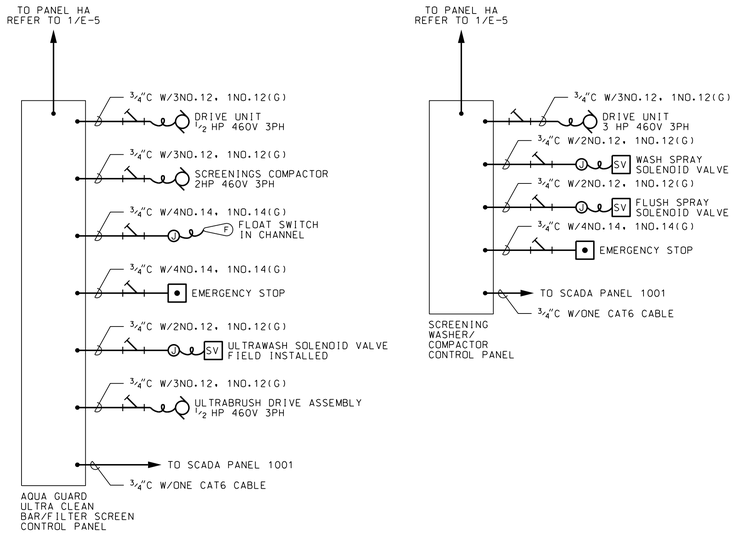
SHEET: E-5

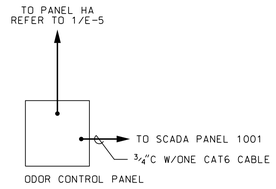
FILE NO: 2013-36

PLOT DATE: September 29, 2023

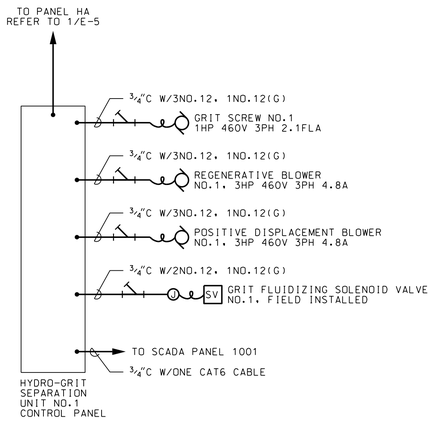
CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
SAVANNAH, GEORGIA 31405 (912)238-2400

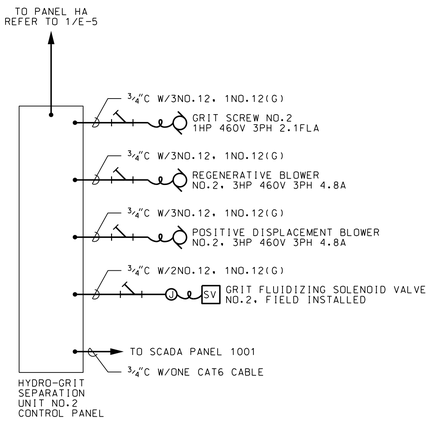
E:\Folkston Ga WWTP - 18097.00\CADD\E-5.dgn





1 E-5A SCREENING SYSTEMS - FIELD CONNECTIONS
SCHEMATIC



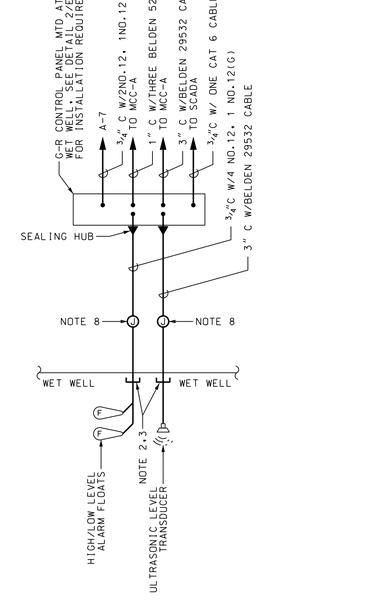


3 E-5A GRIT SEPARATION - FIELD CONNECTIONS
SCHEMATIC

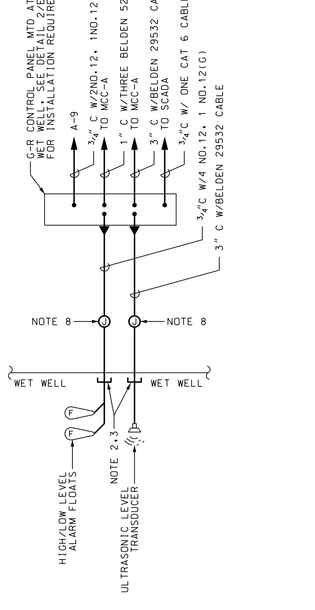
2 E-5A ODOR CONTROL SYSTEM - FIELD CONNECTIONS
SCHEMATIC

NOTES:

1. REFER TO SHEET E-3 FOR IN-FIELD LOCATIONS OF PANELS AND EQUIPMENT.
2. PROVIDE STAINLESS STEEL CABLE SUPPORT IN WET WELL FOR PUMP, FLOAT AND TRANSDUCER CABLES.
3. PROVIDE KELLUM GRIP/CABLE SUPPORT FOR FLOAT AND TRANSDUCER CABLES. KELLUM GRIP/CABLE SUPPORT SHALL BE HEAVY DUTY, STAINLESS STEEL, CLOSED MESH, SINGLE EYE.
4. EXTEND TO MCC-A VFD FOR POWER FEED TO PUMPS.
5. EXTEND TO MCC-A VFD FOR CONTROL OF PUMPS.
6. SCADA PANEL #1. MOUNT ON FRAME, REFER TO DETAIL 2/E-1A FOR MOUNTING DETAIL.
7. THE DISCONNECT BETWEEN THE VARIABLE FREQUENCY DRIVE AND THE MOTOR SHALL BE EQUIPPED WITH A NORMALLY OPEN AUXILIARY CONTACT. THE AUXILIARY CONTACT SHALL BE WIRED INTO THE CONTROL VOLTAGE STOP/START CIRCUIT ON THE DRIVE. THE AUXILIARY CONTACT SHALL BE EARLY BREAK, SO THAT THE START STOP CIRCUIT DROPS OUT BEFORE THE DISCONNECT POWER CIRCUIT OPENS, AND LATE MAKE SO THAT THE DISCONNECT POWER CIRCUIT CLOSES BEFORE THE START CIRCUIT ON THE DRIVE IS CLOSED.
8. JUNCTION BOXES FOR FLOAT SWITCHES AND LEVEL TRANSDUCER, PROVIDE PENTAIR 12" X 10" X 6" 316L STAINLESS STEEL NEMA 4X BOX WITH 1/4 TURN LATCH. CAT. NO. LHC302515SS6. FIELD COORDINATE LOCATION.



4 E-5A INFLUENT PUMP STATION - RISER DIAGRAM
SCHEMATIC



5 E-5A IN-LINE PUMP STATION - RISER DIAGRAM
SCHEMATIC

REVISIONS:

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GEORGIA REGISTERED No. 032192 PROFESSIONAL ENGINEER CHARLES B. POOR
9-29-2023

DATE:

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WATER POLLUTION CONTROL PLANT

INLUENT SUB-SYSTEMS RISER DIAGRAMS

SHEET: E-5A

FILE NO: 2013-36

PLOT DATE: September 29, 2023

CADD PLOT
29-SEP-2023
13:20
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CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
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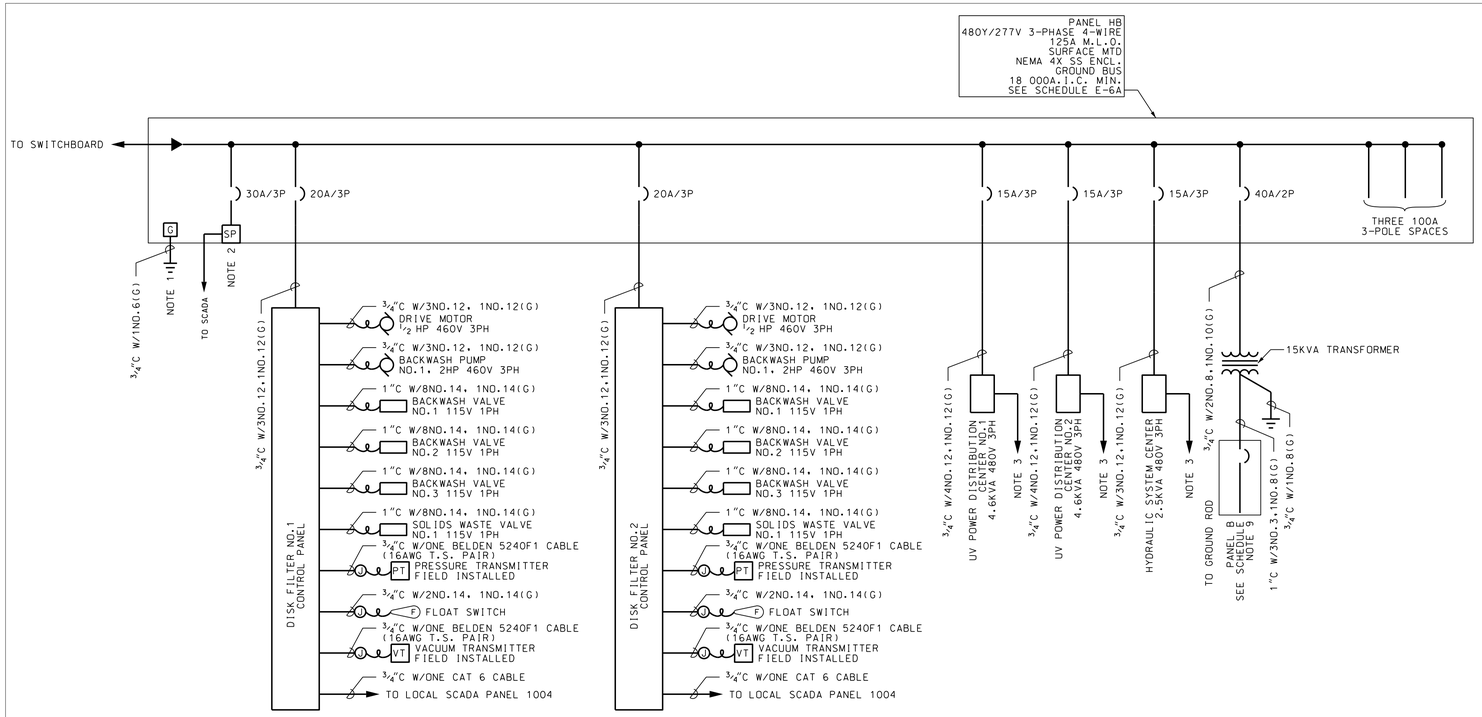
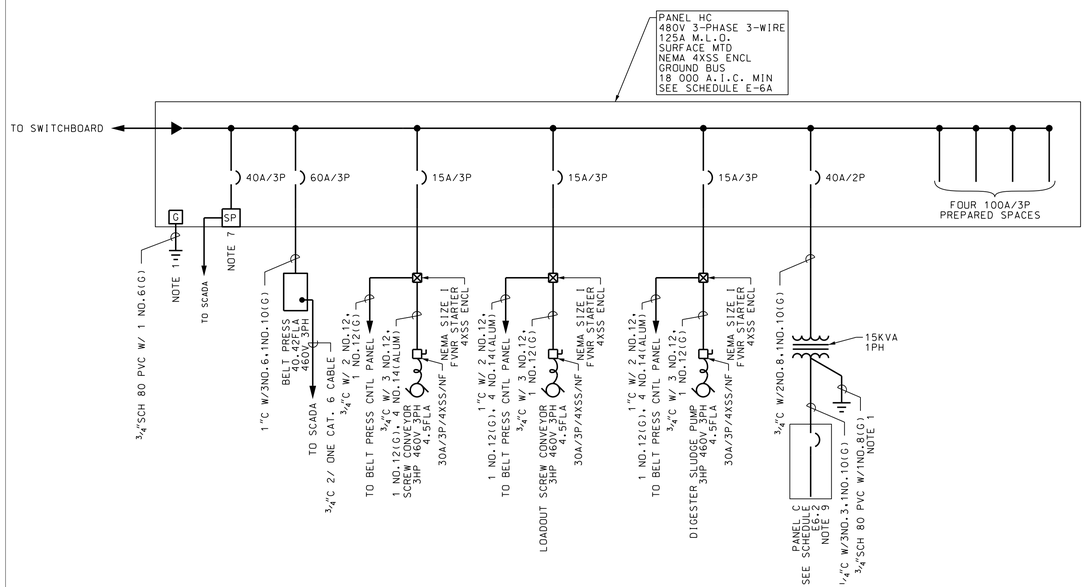


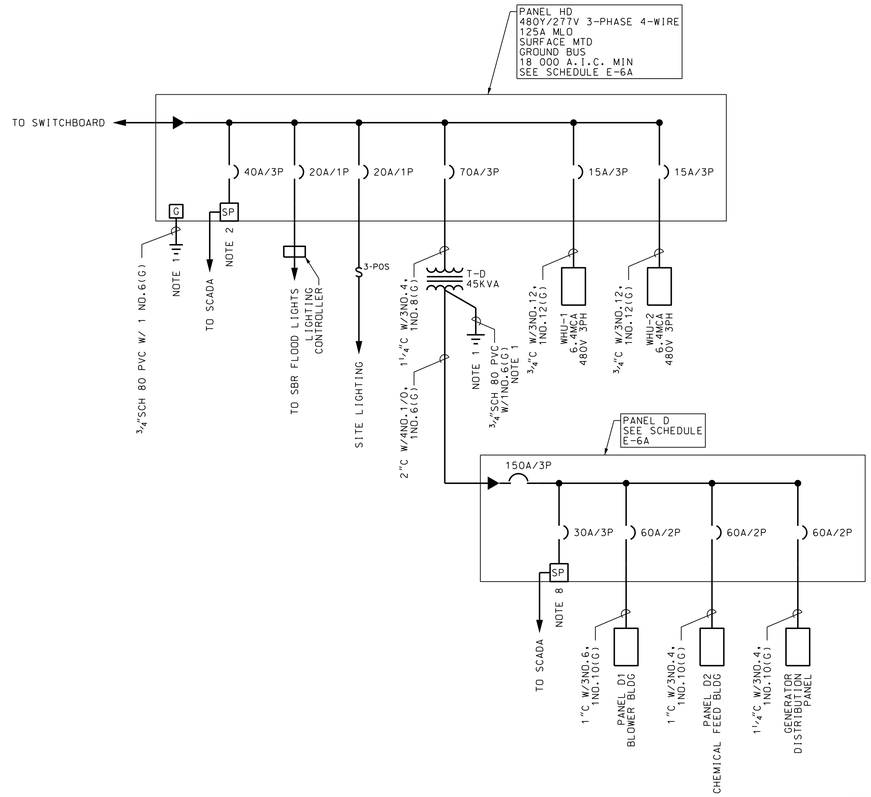
1 E-5B FILTRATION & DISINFECTION RISER DIAGRAM

SCALE: NONE



2 E-5B BELT PRESS & DIGESTER RISER DIAGRAM

SCALE: NONE



3 E-5B ELECTRICAL BUILDING PANEL D RISER DIAGRAM

SCALE: NONE

NOTES:

1. EXTEND TO GROUND RING.
2. INTERNAL SURGE PROTECTION DEVICE: SQUARE D IMA HL SERIES 120KA 480Y/277V 3-PHASE 4-WIRE TYPE 2 SPD. OR APPROVED EQUAL BY GE/ABB OR EATON.
3. EXTEND CONTROL CONDUCTORS TO UV SYSTEM CONTROL PANEL.
4. EXTEND 3/4" C W/ 2 No 14. 4 No 14(SPARE). 1 No 14(G) TO LOCAL SCADA PANEL FOR REUSE PUMP CONTROL.
5. EXTEND 3/4" C W/ 2 No 14. 1 No 14(G) TO PRESSURE SWITCH CONTROL.
6. REFER TO SCHEDULE. SHEET E-6A.
7. INTERNAL SURGE PROTECTION DEVICE: SQUARE D IMA HL SERIES 120KA 480V 3-PHASE 3-WIRE TYPE 2 SPD. OR APPROVED EQUAL BY GE/ABB OR EATON.
8. INTERNAL SURGE PROTECTION DEVICE: SQUARE D SURGELOGIC SERIES FOR NO PANELBOARDS. 120KA 208Y/120V 3-PHASE 4-WIRE. OR APPROVED EQUAL BY GE/ABB OR EATON.
9. INTERNAL SURGE PROTECTION DEVICE: SQUARE D SURGELOGIC SERIES FOR NO PANELBOARDS. 120KA 240/120V 1-PHASE 3-WIRE. OR APPROVED EQUAL BY GE/ABB OR EATON.

REVISIONS:

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WATER POLLUTION CONTROL PLANT

SUB-SYSTEMS RISER DIAGRAMS

SHEET: E-5B

FILE NO: 2013-36

PLOT DATE: September 29, 2023

CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
SAVANNAH, GEORGIA 31405 (912)238-2400

CADD PLOT
29-SEP-2023
13:21
LCAULEY

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NOTES: SCADA SYSTEM RISER DIAGRAM

1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL SCADA CONDUCTORS AND OPTICAL FIBER CABLES.
   A. TERMINATION OF COPPER CONDUCTORS SHALL BE BY THE SCADA SYSTEM INTEGRATOR.
   B. OPTICAL FIBER CABLE SHALL BE FURNISHED WITH FACTORY TERMINATIONS. FIELD TERMINATIONS ARE NOT PERMITTED.

2. THE OPTICAL FIBER CABLE SHALL BE CORNING FREEDM LST SERIES, OR APPROVED EQUAL.
   A. THE CABLE SHALL BE PROVIDED TERMINATED WITH SC CONNECTORS
   B. THE CABLE SHALL BE PROVIDED WITH A FAN OUT KIT.
   C. THE CABLE SHALL BE PROVIDED WITH PULLING EYES ON EACH END TO FACILITATE INSTALLATION IN CONDUIT AND PREVENT DAMAGE TO THE FACTORY TERMINATIONS.
   D. THE FIBER SHALL BE TESTED AFTER INSTALLATION FOR CONTINUITY AND INSERTION LOSS. THE INSERTION LOSS SHALL BE LESS THAN 3 DB.
   E. THE FIBER OPTIC CABLE SHALL BE SUPPLIED BY THE SCADA CSI.

3. OMITTED

4. PROVIDE CONTROL CONDUCTORS AS REQUIRED BY G-R FOR OPERATION OF THE INFLUENT AND IN-LINE PUMP STATIONS. FOR BIDDING PURPOSES, PROVIDE CONDUIT AND CONTROL CABLE AS SPECIFIED ON THE SCADA SYSTEM RISER. COORDINATE WITH G-R BEFORE INSTALLATION OF ANY EQUIPMENT OR MATERIALS.

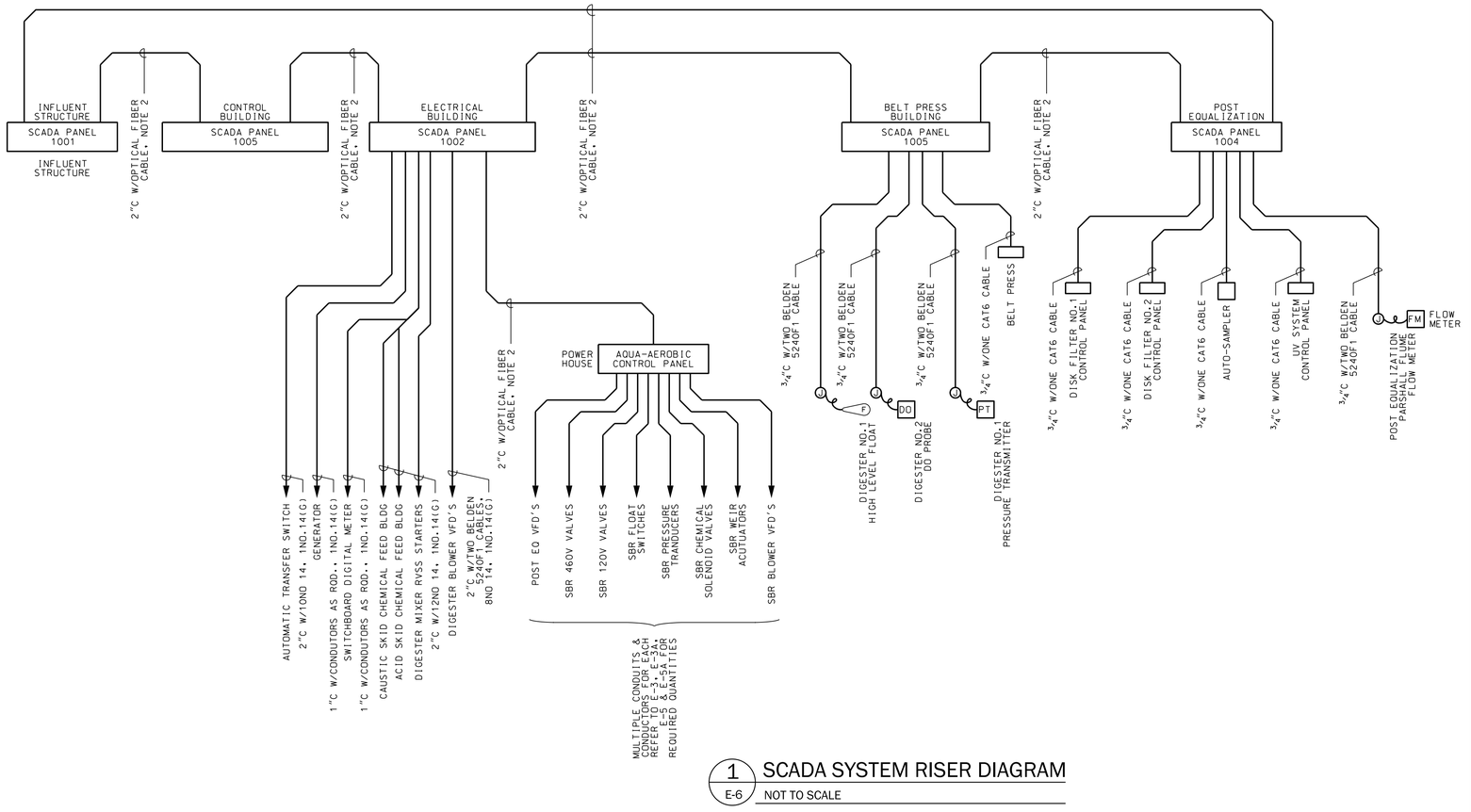
5. REFER TO PLAN SHEETS FOR IN-FIELD LOCATIONS OF PANELS AND EQUIPMENT.

6. PROVIDE STAINLESS STEEL CABLE SUPPORT IN WET WELL FOR FLOAT AND TRANSDUCER CABLES.

7. PROVIDE NON-METALLIC, ARIMID FIBER KELLUM GRIP/CABLE SUPPORT FOR FLOAT AND TRANSDUCER CABLE. KELLUM GRIP/CABLE SUPPORT SHALL BE HEAVY DUTY, CLOSED MESH, SINGLE EYE. PROVIDE PRODUCTS OF HUBBELL/KELLUMS OR SLINGCO.

8. MOUNT ALL EXTERIOR LOCATED CONTROL PANELS ON FRAME, REFER TO DETAIL 2/E-1A.

9. THE TREATMENT PLANT EQUIPMENT SHALL BE ENABLED/STARTED IN THE SEQUENCE SPECIFIED IN THE SCHEDULE. THE SCADA INTEGRATOR AND AQUA-AEROBIC SYSTEMS SHALL COORDINATE THEIR RESPECTIVE PROGRAMMING TO ACCOMPLISH THE SPECIFIED SEQUENCE.
   A. THE AUTOMATIC TRANSFER SWITCH WILL PROVIDE A PRE-TRANSFER SIGNAL TO THE IN-PLANT SCADA SYSTEM TO INITIATE A SHUT-DOWN OF ALL CONTROLLED EQUIPMENT PRIOR TO A TRANSFER FROM ONE SOURCE SUPPLYING LOAD TO ANOTHER (I.E. FOR EXERCISE FROM UTILITY TO GENERATOR, OR RE-TRANSFER FROM GENERATOR TO UTILITY).
   B. THE AUTOMATIC TRANSFER SWITCH WILL PROVIDE INPUT SIGNALS TO THE IN-PLANT SCADA SYSTEM TO INITIATE THE LOAD START-UP SEQUENCE. THE IN-PLANT SCADA SYSTEM AND THE AQUA-AEROBIC SYSTEM WILL ADJUST THE PERMITTED LOADS AND THE STARTING SEQUENCE.

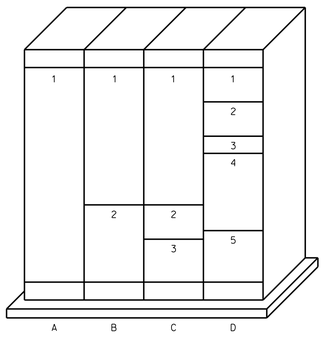


1 / E-6 SCADA SYSTEM RISER DIAGRAM
NOT TO SCALE

MOTOR CONTROL CENTER MCC-B

VOLTAGE: 480V	PHASE: 3	WIRE: 3	MAIN BUS: 600A	VERT BUS: 300
BUS BRACING: 65 000	MAX. OVERALL LENGTH: 80"			DEMAND LOAD: 118

UNIT NO.	EQUIPMENT SERVED	HP	STARTER SIZE	CIRCUIT BREAKER FRAME	CIRCUIT BREAKER TRIP	CIRCUIT BREAKER POLES	CONTROLS	REMARKS
A-1	HARMONIC MITIGATION	N/A	N/A	–	–	–	–	72"
B-1	SPARE/DIGESTER BLOWER	40	VFD	150	100	3	–	45"
B-2	SPACE	–	–	–	–	–	–	27"
C-1	POST EQ BLOWER	40	VFD	150	100	3	–	45"
C-2	DIGESTER MIXER	10	1	150	35	3	–	12"
C-3	SPACE	N/A	N/A	–	–	–	–	15"
D-1	SLUDGE WASTING PUMP NO.1	3	FVNR	150	15	3	–	12"
D-2	SLUDGE WASTING PUMP NO.2	3	FVNR	150	15	3	–	12"
D-3	SURGE PROTECTOR	N/A	N/A	–	–	–	–	6"
D-4	SPACE	N/A	N/A	–	–	–	–	24"
D-5	MAIN LUGS	N/A	N/A	–	–	–	–	18"

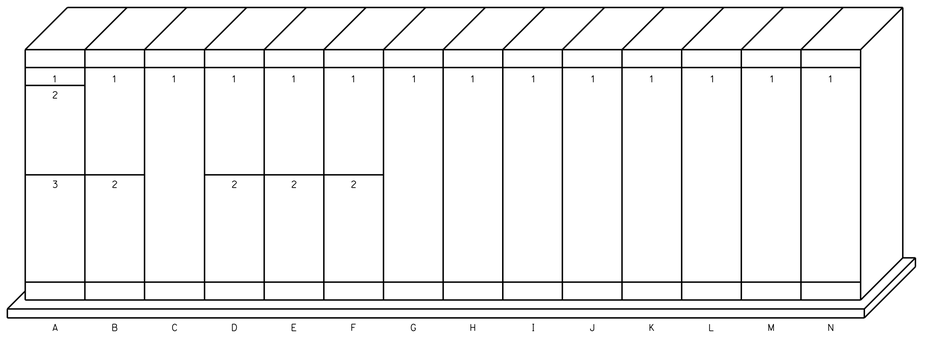


3 / E-6 MCC-B ELEVATION & SCHEDULE
NOT TO SCALE

MOTOR CONTROL CENTER MCC-A

VOLTAGE: 480V	PHASE: 3	WIRE: 3	MAIN BUS: 800A	VERT BUS: 300
BUS BRACING: 65 000	MAX. OVERALL LENGTH: 280"			DEMAND LOAD: 333KVA

UNIT NO.	EQUIPMENT SERVED	HP	STARTER SIZE	CIRCUIT BREAKER FRAME	CIRCUIT BREAKER TRIP	CIRCUIT BREAKER POLES	CONTROLS	REMARKS
A-1	SURGE PROTECTOR	N/A	N/A	–	–	–	–	6"
A-2	SPACE	N/A	N/A	–	–	–	–	30"
A-3	MAIN LUGS	N/A	N/A	–	–	–	–	36"
B-1	INFLUENT PUMP NO.1	25	VFD	150	60	3	–	36"
B-2	INFLUENT PUMP NO.2	25	VFD	150	60	3	–	36"
C-1	SPACE - LINE REACTORS	N/A	N/A	–	–	–	–	72"
D-1	INFLUENT PUMP NO.3	25	VFD	150	60	3	–	36"
D-2	IN-LINE PUMP NO.1	30	RVSS	150	80	3	–	36"
E-1	IN-LINE PUMP NO.2	30	RVSS	150	80	3	–	36"
E-2	IN-LINE PUMP NO.3	30	RVSS	150	80	3	–	36"
F-1	DDM MIXER NO.1	15	FVNR	150	40	3	–	36"
F-2	DDM MIXER NO.2	15	FVNR	150	40	3	–	36"
G-1	SBR BLOWER NO.1	50	VFD	150	125	3	–	45"
H-1	HARMONIC MITIGATION	N/A	N/A	–	–	–	–	72"
I-1	SBR BLOWER NO.2	50	VFD	150	125	3	–	45"
J-1	SBR BLOWER NO.3	50	VFD	150	125	3	–	45"
K-1	HARMONIC MITIGATION	N/A	N/A	–	–	–	–	72"
L-1	SBR BLOWER NO.4	50	VFD	150	125	3	–	45"
M-1	DIGESTER BLOWER	40	VFD	150	100	3	–	45"
N-1	HARMONIC MITIGATION	N/A	N/A	–	–	–	–	72"



2 / E-6 MCC-A ELEVATION & SCHEDULE
NOT TO SCALE

REVISIONS:

DESIGN PROFESSIONAL:
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GEORGIA REGISTERED PROFESSIONAL ENGINEER NO. 032192 CHARLES B. POOR
29 SEPT 2023
DATE:

M.E. SACK ENGINEERING 109

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COUNTY:
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WATER POLLUTION CONTROL PLANT

MOTOR CONTROL CENTER ELEVATIONS & SCHEDULES

SHEET: E-6

FILE NO: 2013-36

PLOT DATE: September 29, 2023

CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
SAVANNAH, GEORGIA 31405 (912)238-2400

CADD PLOT
29-SEP-2023
13:23
LCAULEY

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SCHEDULE OF PANEL 'HA'

VOLTAGE: 480 / 277 | PHASE: 3 | WIRE: 4
BUS AMPS: 250 A | DEVICE AMPS: 250 A MLO | NEMA: 4X
A.I.C RATING: 35,000 A | MOUNTING: SURFACE

LOCATION DESCRIPTION	LOAD (KVA)	LOAD TYPE	TRIP POLE	#	PH	#	TRIP POLE	LOAD TYPE	LOAD (KVA)	LOCATION DESCRIPTION
INFLUENT PLUG VALVE NO.1	6.8	F	60A/3P	1	A	2	20A/3P	H	2.5	BAR/FILTER SCREEN CNTL PNL
23A 460V 3PH	6.8	F	-	3	B	4	-	H	2.5	ONE 2HP, TWO 1/2HP, ONE SV, CNTLS
-	6.8	F	-	5	C	6	-	H	1.7	-
INFLUENT PLUG VALVE NO.2			605A/3P	7	A	8	20A/3P	H	2.9	SCREENINGS WASHER/COMPACTOR
23A 460V 3PH			-	9	B	10	-	H	2.9	ONE 3HP, TWO SV, CNTLS
-			-	11	C	12	-	H	1.4	-
WEIR DECANT VALVE NO.1	1.7	H	15A/3P	13	A	14	30A/3P	H	5.0	GRIT REMOVAL UNIT NO.1
5.7A 460V 3PH	1.7	H	-	15	B	16	-	H	5.0	TWO 3HP BLOWERS, ONE DRIVE, SV,CNTLS
-	1.7	H	-	17	C	18	-	H	3.5	-
WEIR DECANT VALVE NO.2			15A/3P	19	A	20	30A/3P	H	5.0	GRIT REMOVAL UNIT NO.2
5.7A 460V 3PH			-	21	B	22	-	H	5.0	TWO 3HP BLOWERS, ONE DRIVE, SV,CNTLS
-			-	23	C	24	-	H	3.5	-
EFFLUENT PLUG VALVE NO.1	6.8	G	60A/3P	25	A	26	15A/3P	H	2.1	ODOR CONTROL SYSTEM
23A 460V 3PH	6.8	G	-	27	B	28	-	H	2.1	1HP BLOWER, SV, CNTLS
	6.8	G		29	C	30	-	H	0.6	-
PREPARED 3P SPACE				31	A	32	45A/3P	H	5.0	PANEL A
-				33	B	34	-	H	5.3	VIA 30KVA 3PH XFMR T-A
-				35	C	36	-	H	4.2	-
PREPARED 3P SPACE				37	A	38				PREPARED 3P SPACE
-				39	B	40				-
-				41	C	42				-
SURGE PROTECTION				43	A	44				PREPARED 3P SPACE
SQUARE D 120KA				45	B	46				-
CAT.NO. HR4IMA12C				47	C	48				-
OR EQUAL BY GE/ABB OR EATON				49	A	50				PREPARED 3P SPACE
-				51	B	52				-
-				53	C	54				-

PANEL LOAD ANALYSIS

Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference	Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference
A	Lighting	0.0	0.0	NEC Article 215.3	E	Heating	0.0	0.0	NEC Article 220.60
B	Receptacles	0.0	0.0	NEC Table 220.44	F	Largest Motor	20.4	25.5	NEC Article 440.7
C	Kitchen Equipment	0.0	0.0	NEC Table 220.56	G	Other Motors	20.4	20.4	NEC Article 440.7
D	Air-Conditioning	0.0	0.0	NEC Article 220.60	H	Other Loads	65.0	65.0	

Phase A Connected Load	37.7 KVA	Notes:	TOTAL CONNECTED LOAD	105.8 KVA	127.2 AMPS
Phase B Connected Load	38.0 KVA		TOTAL DEMAND LOAD	110.9 KVA	133.3 AMPS
Phase C Connected Load	30.1 KVA		MINIMUM SIZING AMPS	173.2 KVA	208.3 AMPS

SCHEDULE OF PANEL 'HB' FILTER & UV

VOLTAGE: 480 / 277 | PHASE: 3 | WIRE: 4
BUS AMPS: 125 A | DEVICE AMPS: 125 A MLO | NEMA: 4X
A.I.C RATING: 14,000 A | MOUNTING: SURFACE

LOCATION DESCRIPTION	LOAD (KVA)	LOAD TYPE	TRIP POLE	#	PH	#	TRIP POLE	LOAD TYPE	LOAD (KVA)	LOCATION DESCRIPTION
DISK FILTER CONTROL PANEL NO.1	2.8	H	20A/3P	1	A	2	15A/3P	H	1.5	UV TRAIN NO.1 PDC
14.65FLA 460V 3PH	2.8	H	-	3	B	4	-	H	1.5	4.6KVA 480V 3PH
19.6A STARTING/18.31MCA	1.3	H	-	5	C	6	-	H	1.5	5.5FLA
DISK FILTER CONTROL PANEL NO.2	2.8	H	20A/3P	7	A	8	15A/3P	H	1.5	UV TRAIN NO.2 PDC
14.65FLA 460V 3PH	2.8	H	-	9	B	10	-	H	1.5	4.6KVA 480V 3PH
19.6A STARTING/18.31MCA	1.3	H	-	11	C	12	-	H	1.5	5.5FLA
PANEL B	4.1	H	40A/2P	13	A	14	15A/3P	H	0.8	HYDRAULIC SYSTEM CENTER
VIA 15KVA 1PH XFMR T-B	2.2	H	-	15	B	16	-	H	0.8	2.5KVA 480V 3PH
PREPARED 3P SPACE				17	C	18	-	H	0.8	3.0FLA
-				19	A	20				PREPARED 3P SPACE
-				21	B	22				-
PREPARED 3P SPACE				23	C	24				-
-				25	A	26				PREPARED 3P SPACE
-				27	B	28				-
PREPARED SPACE				29	C	30				-
SURGE PROTECTION				31	A	32				PREPARED 3P SPACE
SQUARE D 120KA				33	B	34				-
CAT.NO. HR4IMA12C				35	C	36				-
OR EQUAL BY GE/ABB OR EATON				37	A	38				PREPARED 3P SPACE
-				39	B	40				-
-				41	C	42				-

PANEL LOAD ANALYSIS

Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference	Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference
A	Lighting	0.0	0.0	NEC Article 215.3	E	Heating	0.0	0.0	NEC Article 220.60
B	Receptacles	0.0	0.0	NEC Table 220.44	F	Largest Motor	0.0	0.0	NEC Article 440.7
C	Kitchen Equipment	0.0	0.0	NEC Table 220.56	G	Other Motors	0.0	0.0	NEC Article 440.7
D	Air-Conditioning	0.0	0.0	NEC Article 220.60	H	Other Loads	31.8	31.8	

Phase A Connected Load	13.6 KVA	Notes:	TOTAL CONNECTED LOAD	31.8 KVA	38.3 AMPS
Phase B Connected Load	11.7 KVA		TOTAL DEMAND LOAD	31.8 KVA	38.3 AMPS
Phase C Connected Load	6.5 KVA		MINIMUM SIZING AMPS	49.8 KVA	59.8 AMPS

SCHEDULE OF PANEL 'HC' BELT PRESS & DIGESTER

VOLTAGE: 480 / 277 | PHASE: 3 | WIRE: 3
BUS AMPS: 125 A | DEVICE AMPS: 100 A MCB | NEMA: 4X
A.I.C RATING: 14,000 A | MOUNTING: SURFACE

LOCATION DESCRIPTION	LOAD (KVA)	LOAD TYPE	TRIP POLE	#	PH	#	TRIP POLE	LOAD TYPE	LOAD (KVA)	LOCATION DESCRIPTION
BELT PRESS	9.9	F	60A/3P	1	A	2	40A/2P	H	3.7	PANEL C
40.42FLA 460V 3PH	9.8	F	-	3	B	4	-	H	3.0	15KVA 1PH XMFR T-C
7.5HP,5HP,3HP,1HP	9.8	F	-	5	C	6	15A/3P	G	1.3	DIGESTER SLUDGE PUMP
SCREW CONVEYOR	1.3	G	15A/3P	7	A	8	-	G	1.3	4.5FLA 460V 3PH
4.5FLA 460V 3PH	1.3	G	-	9	B	10	-	G	1.3	3HP
3HP	1.3	G	-	11	C	12				PREPARED SPACE
LOADOUT SCREW CONVEYOR	1.3	G	15A/3P	13	A	14				PREPARED 3P SPACE
4.5FLA 460V 3PH	1.3	G	-	15	B	16				-
3HP	1.3	G	-	17	C	18				-
PREPARED 3P SPACE				19	A	20				PREPARED 3P SPACE
-				21	B	22				-
-				23	C	24				-
SURGE PROTECTION				25	A	26				PREPARED 3P SPACE
SQUARE D 120KA				27	B	28				-
CAT.NO. HR4IMA12C				29	C	30				-
OR EQUAL BY GE/ABB OR EATON				31	A	32				PREPARED 3P SPACE
-				33	B	34				-
-				35	C	36				-

PANEL LOAD ANALYSIS

Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference	Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference
A	Lighting	0.0	0.0	NEC Article 215.3	E	Heating	0.0	0.0	NEC Article 220.60
B	Receptacles	0.0	0.0	NEC Table 220.44	F	Largest Motor	29.5	36.8	NEC Article 440.7
C	Kitchen Equipment	0.0	0.0	NEC Table 220.56	G	Other Motors	12.0	12.0	NEC Article 440.7
D	Air-Conditioning	0.0	0.0	NEC Article 220.60	H	Other Loads	6.7	6.7	

Phase A Connected Load	17.5 KVA	Notes:	TOTAL CONNECTED LOAD	48.1 KVA	57.9 AMPS
Phase B Connected Load	16.8 KVA		TOTAL DEMAND LOAD	55.5 KVA	66.7 AMPS
Phase C Connected Load	13.8 KVA		MINIMUM SIZING AMPS	86.7 KVA	104.3 AMPS

SCHEDULE OF PANEL 'A'

VOLTAGE: 208 / 120 | PHASE: 3 | WIRE: 4
BUS AMPS: 150 A | DEVICE AMPS: 125 A MCB | NEMA: 4X
A.I.C RATING: 10,000 A | MOUNTING: SURFACE

LOCATION DESCRIPTION	LOAD (KVA)	LOAD TYPE	TRIP POLE	#	PH	#	TRIP POLE	LOAD TYPE	LOAD (KVA)	LOCATION DESCRIPTION
RCPT HEADWORKS	0.6	B	20A/1P	1	A	2	20A/1P	B	1.5	RCPT BUBBLER HOIST 12.6FLA
SCADA PANEL HEADWORKS	1.0	H	20A/1P	3	B	4	20A/1P	B	1.5	RCPT BUBBLER HOIST 12.6FLA
FLOW METER HEADWORKS	0.1	H	20A/1P	5	C	6	20A/1P	B	1.5	RCPT BUBBLER HOIST 12.6FLA
INFLUENT PUMP STATION CONTROL PANEL	1.0	H	20A/1P	7	A	8	20A/1P	B	1.5	RCPT BUBBLER HOIST 12.6FLA
IN-LINE PUMP STATION CONTROL PANEL	1.0	H	20A/1P	9	B	10	20A/1P	H	1.5	WEIR ACTUATOR
AUTO-SAMPLER	1.0	H	20A/1P	11	C	12	20A/1P	H	1.5	WEIR ACTUATOR
CHEMICAL FEED SOLENOID VALVE	0.1	H	20A/1P	13	A	14	20A/1P	A	0.2	LIGHTS, INFLUENT PS
CHEMICAL FEED SOLENOID VALVE	0.1	H	20A/1P	15	B	16	20A/1P	A	0.2	LIGHTS, IN-LINE PS
CHEMICAL FEED SOLENOID VALVE	0.1	H	20A/1P	17	C	18	20A/1P			SPARE
CHEMICAL FEED SOLENOID VALVE	0.1	H	20A/1P	19	A	20	20A/1P			SPARE
SPARE			20A/1P	21	B	22	20A/1P			SPARE
SPARE			20A/1P	23	C	24	20A/1P			SPARE
SPARE			20A/1P	25	A	26	20A/1P			SPARE
SPARE			20A/1P	27	B	28	20A/1P			SPARE
SPARE			20A/1P	29	C	30	20A/1P			SPARE
SPARE			20A/1P	31	A	32	20A/1P			SPARE
SPARE			20A/1P	33	B	34	20A/1P			SPARE
SPARE			20A/1P	35	C	36	20A/1P			SPARE
SURGE PROTECTION				37	A	38				SURGE PROTECTION
100KA 10-MODES OF PROTECTION				39	B	40				SQUARE D SSP02SBA10D
-				41	C	42				OR EQUAL BY GE/ABB OR EATON

PANEL LOAD ANALYSIS

Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference	Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference
A	Lighting	0.4	0.5	NEC Article 215.3	E	Heating	0.0	0.0	NEC Article 220.60
B	Receptacles	6.6	6.6	NEC Table 220.44	F	Largest Motor	0.0	0.0	NEC Article 440.7
C	Kitchen Equipment	0.0	0.0	NEC Table 220.56	G	Other Motors	0.0	0.0	NEC Article 440.7
D	Air-Conditioning	0.0	0.0	NEC Article 220.60	H	Other Loads	7.5	7.5	

Phase A Connected Load	5.0 KVA	Notes:	TOTAL CONNECTED LOAD	14.5 KVA	40.3 AMPS
Phase B Connected Load	5.3 KVA		TOTAL DEMAND LOAD	14.6 KVA	40.6 AMPS
Phase C Connected Load	4.2 KVA		MINIMUM SIZING AMPS	22.8 KVA	63.4 AMPS

SCHEDULE OF PANEL 'B' FILTER & UV

VOLTAGE: 240 / 120 | PHASE: 1 | WIRE: 3
BUS AMPS: 125 A | DEVICE AMPS: 80 A MCB | NEMA: 4X
A.I.C RATING: 10,000 A | MOUNTING: SURFACE

LOCATION DESCRIPTION	LOAD (KVA)	LOAD TYPE	TRIP POLE	#	PH	#	TRIP POLE	LOAD TYPE	LOAD (KVA)	LOCATION DESCRIPTION
LIGHTS	0.8	A	20A/1P	1	A	2	20A/1P			SPARE
SCADA PANEL	1.0	H	20A/1P	3	B	4	20A/1P			SPARE
RCPTS	0.8	B	20A/1P	5	A	6	20A/1P			SPARE
SUMP PUMP 1/2HP 120V 1PH	1.1	F	20A/1P	7	B	8	20A/1P			SPARE
UV SYSTEM CONTROL CENTER	1.5	H	20A/1P	9	A	10	20A/1P			SPARE
POST EQ FLOW METER	0.1	H	20A/1P	11	B	12	20A/1P			SPARE
AUTO-SAMPLER	1.0	H	20A/1P	13	A	14	20A/1P			SPARE
SPARE			20A/1P	15	B	16	20A/1P			SPARE
SPARE			20A/1P	17	A	18	20A/1P			SPARE
SPARE			20A/1P	19	B	20	20A/1P			SPARE
SPARE			20A/1P	21	A	22	20A/1P			SPARE
SPARE			20A/1P	23	B	24	20A/1P			SPARE
SPARE			20A/1P	25	A	26	20A/1P			SPARE
SURGE PROTECTION			-	27	B	28	-			SURGE PROTECTION
100KA 6-MODES OF PROTECTION			-	29	A	30	-			SQUARE D SSP01SBA10D

PANEL LOAD ANALYSIS

Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference	Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference
A	Lighting	0.8	1.0	NEC Article 215.3	E	Heating	0.0	0.0	NEC Article 220.60
B	Receptacles	0.8	0.8	NEC Table 220.44	F	Largest Motor	1.1	1.4	NEC Article 440.7
C	Kitchen Equipment	0.0	0.0	NEC Table 220.56	G	Other Motors	0.0	0.0	NEC Article 440.7
D	Air-Conditioning	0.0	0.0	NEC Article 220.60	H	Other Loads	3.6	3.6	

Phase A Connected Load	4.1 KVA	Notes: SURGE PROTECTION: OR EQUAL BY GE/ABB OR EATON	TOTAL CONNECTED LOAD	6.3 KVA	26.4 AMPS
Phase B Connected Load	2.2 KVA		TOTAL DEMAND LOAD	6.8 KVA	28.4 AMPS
			MINIMUM SIZING AMPS	10.6 KVA	44.4 AMPS

SCHEDULE OF PANEL 'C' BELT PRESS & DIGESTER

VOLTAGE: 240 / 120 | PHASE: 1 | WIRE: 3
BUS AMPS: 125 A | DEVICE AMPS: 80 A MCB | NEMA: 4X
A.I.C RATING: 10,000 A | MOUNTING: SURFACE

LOCATION DESCRIPTION	LOAD (KVA)	LOAD TYPE	TRIP POLE	#	PH	#	TRIP POLE	LOAD TYPE	LOAD (KVA)	LOCATION DESCRIPTION
LIGHTS	1.1	A	20A/1P	1	A	2	20A/2P	H	1.0	TANK NO.1 HEATER
RCPTS	0.8	B	20A/1P	3	B	4	-	H	1.0	2KW 240V 1PH
SCADA PANEL	0.5	H	20A/1P	5	A	6	20A/2P	H	1.0	TANK NO.2 HEATER
FLOW METER	0.1	H	20A/1P	7	B	8	-	H	1.0	2KW 240V 1PH
SPARE			20A/1P	9	A	10	20A/1P	H	0.1	CHEMICAL FEED SOLENOID VALVE
SPARE			20A/1P	11	B	12	20A/1P	H	0.1	CHEMICAL FEED SOLENOID VALVE
SPARE			20A/1P	13	A	14	20A/1P			SPARE
SPARE			20A/1P	15	B	16	20A/1P			SPARE
SPARE			20A/1P	17	A	18	20A/1P			SPARE
SPARE			20A/1P	19	B	20	20A/1P			SPARE
SPARE			20A/1P	21	A	22	20A/1P			SPARE
SPARE			20A/1P	23	B	24	20A/1P			SPARE
SPARE			20A/1P	25	A	26	20A/1P			SPARE
SURGE PROTECTION				27	B	28				SURGE PROTECTION
100KA 6-MODES OF PROTECTION				29	A	30				SQUARE D SSP01SBA10D

PANEL LOAD ANALYSIS

Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference	Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference
A	Lighting	1.1	1.4	NEC Article 215.3	E	Heating	0.0	0.0	NEC Article 220.60
B	Receptacles	0.8	0.8	NEC Table 220.44	F	Largest Motor	0.0	0.0	NEC Article 440.7
C	Kitchen Equipment	0.0	0.0	NEC Table 220.56	G	Other Motors	0.0	0.0	NEC Article 440.7
D	Air-Conditioning	0.0	0.0	NEC Article 220.60	H	Other Loads	4.8	4.8	

Phase A Connected Load	3.7 KVA	Notes:	TOTAL CONNECTED LOAD	6.7 KVA	27.9 AMPS
Phase B Connected Load	3.0 KVA		TOTAL DEMAND LOAD	7.0 KVA	29.1 AMPS
			MINIMUM SIZING AMPS	10.9 KVA	45.4 AMPS

LIGHT FIXTURE SCHEDULE - FOLKSTON WWTP

TYPE	DESCRIPTION		VOLTAGE	LAMP	MOUNTING	NOTES
A	**LED ENCLOSED & GASKETED INDUSTRIAL**		UNIVERSAL	LED INCLUDED	SUSPENDED	FIELD COORDINATE INSTALLATION WITH STRUCTURE
	LITHONIA	CSVT-L48-AL03-MVOLT-SWW3-80CRI			OR SURFACE	
		W/ CSVTSTSL LATCH				
B	**LED WALL PACK**		UNIVERSAL	LED INCLUDED	WALL 8'AFG	FIELD SETTINGS: AL04, 5000K, PE - OFF
	LITHONIA	WPX0-LED-AL0				
C	**LED FLAT PANEL**		UNIVERSAL	LED INCLUDED	SURFACE	FURNISH WITH SURFACE MOUNTING KIT -
	LITHONIA	CPX-2X2-AL07-SWW7-M4				FIELD SETTINGS: HIGH LUMEN (4564LM), 4000 DEG K
		W/ 2X2SMKSH				
D	**LED SHOWER LIGHT**		UNIVERSAL	LED INCLUDED	RECESSED	
	LITHONIA	4BEMW-LED-40K-90CRI-M6				
F	**4' LED LENSED STRIP LIGHT**		UNIVERSAL	LED INCLUDED	SURFACE	FIELD SETTING: 36W, 40K, 4000LM
	LITHONIA	CSS-L48-AL03-MVOLT-SWW3-80CRI				
G	**LED VANITY LIGHT**		UNIVERSAL	LED INCLUDED	WALL 7'AFF	FIELD SETTING: 4000K
	LITHONIA	FMVCSLS-24IN-MVOLT-30K40490CRI-BN-M6				
H	**LED AREA LIGHT**		UNIVERSAL	LED INCLUDED	POLE - 20'AFG	FURNISH WITH TAPERED STEEL POLE
	LITHONIA	DSX2 LED-P5-50K-80CRI-TFTM-MVOLT-TBD-SPD20KV-				EPA = 1.21 @ 0 DEG. TILT ANGLE, WEIGHT = 34LBS
	POLE	DDBXD				
	LITHONIA	RTS-6-A-20-S-G-2-X-X-G				ANCHOR BASE TYPE POLE. CONTRACTOR SHALL
						PROVIDE STRUCTURAL DESIGN OF BASE. SEE 5/E0.3
J	**LED FLOOD LIGHT**		UNIVERSAL	LED INCLUDED	POLE - 45' AFG	FURNISH WITH TAPERED STEEL POLE
	MCGRAW-EDISON	GLEON-AF-06-LED-E1-T4FT-AP-ADJS-TH				EPA = 2.77 @ 45 DEG. TILT ANGLE, WEIGHT = 45LBS
	STEEL POLE TOP BRACKET - TWO POSITION					
	EATON	101-A23				EPA = 0.60, WEIGHT = 20LBS, MAX. FIXTURE EPA PER
	POLE					STUB = 4.5
	EATON	RTS-0-D-45-S-G-2-X-X-G				ANCHOR BASE TYPE POLE. CONTRACTOR SHALL
						PROVIDE STRUCTURAL DESIGN OF BASE. SEE 3/E0.3
XA	**EXIT SIGN, LED TYPE**		UNIVERSAL	LED INCLUDED	SURFACE	PROVIDE ARROWS, MOUNTING & SINGLE FACE OR
	LITHONIA	LHQM-LED-R-H0R0-SD				DOUBLE FACE AS INDICATED ON THE DRAWINGS
						FURNISH WITH TWO LED EMERGENCY LIGHTS
						FURNISH WITH SELF-DIAGNOSTICS
ELU1	**EMERGENCY BATTERY LIGHTING UNIT**		UNIVERSAL	LED INCLUDED	WALL, 7' AFF	
	LITHONIA	ELM4L-UVOLT-LTP-SDRT				

LIGHTING FIXTURE SCHEDULE NOTES:

LF-1. FIXTURES SHOWN INDICATE TYPE AND LEVEL OF QUALITY OF LIGHTING FIXTURES. SIMILAR FIXTURES BY LITHONIA OR HUBBELL ARE ACCEPTABLE.

REVISIONS:

DESIGN PROFESSIONAL:
MARCUS E. SACK
GSWCC LEVEL II # 70248
EXPIRES: 06/14/2023
MARCUS@MESACK.COM
515 NORTH MAIN STREET
P.O. BOX 649
HINESVILLE, GA 31313
TEL: (912) 368-5212

GEORGIA REGISTERED No. 032192 PROFESSIONAL ENGINEER CHARLES B COBB
29 Sept 2023
DATE:

M.E. SACK ENGINEERING 19 80

MUNICIPALITY:
CITY OF FOLKSTON

COUNTY:
CHARLTON COUNTY

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WATER POLLUTION CONTROL PLANT

FIXTURE & PANEL SCHEDULES

CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
SAVANNAH, GEORGIA 31405 (912)238-2400

SHEET: E-6A
FILE NO: 2013-36
PLOT DATE: September 29, 2023

CADD PLOT 29-SEP-2023 13:24 LCAULEY

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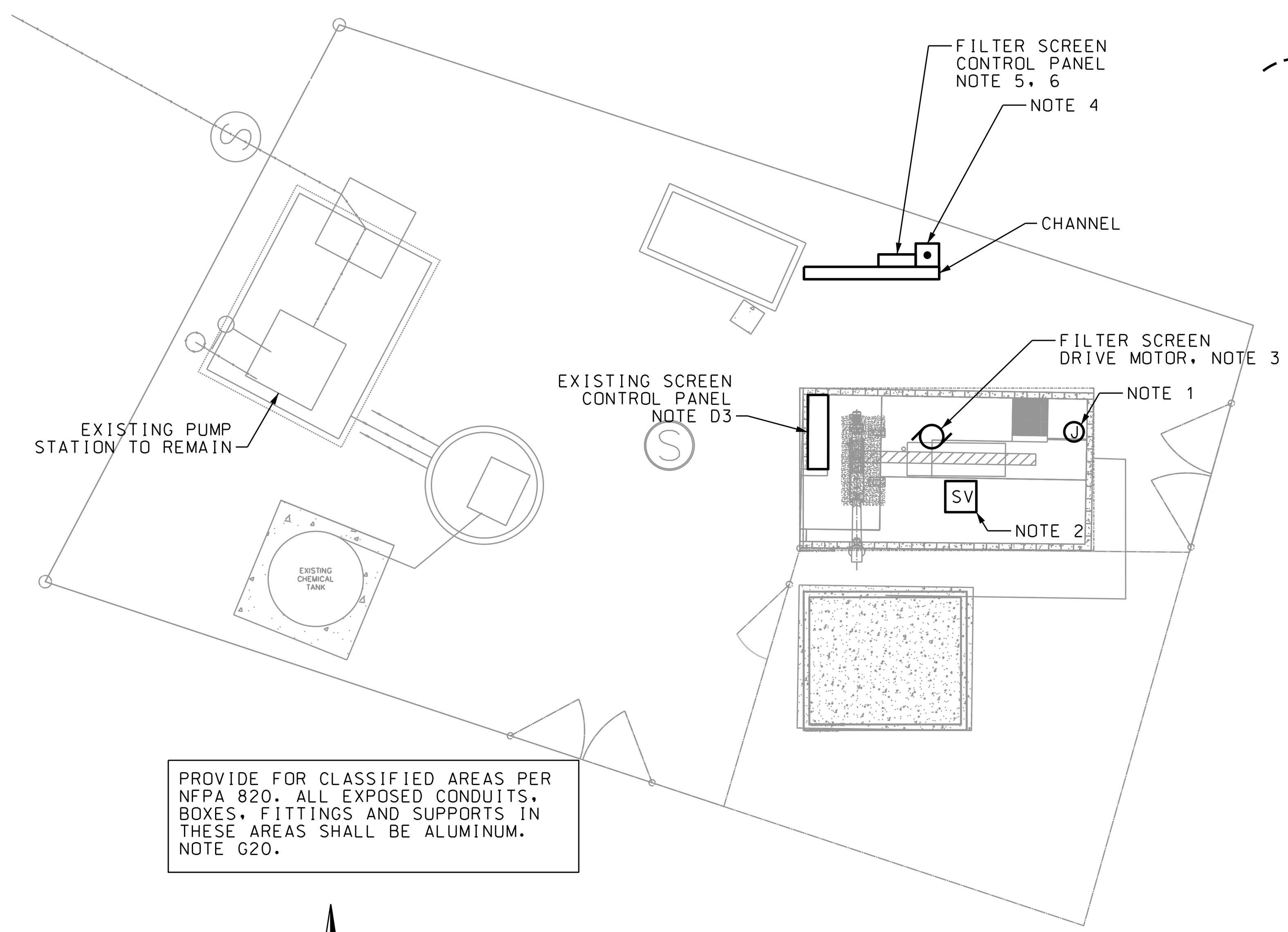


1 E-7A SITE PLAN - ELECTRICAL
SCALE: 1" = 10' - 0"

LEGEND:

- EQUIPMENT AS NOTED
- CIRCUIT BREAKER
- CONDUIT SYSTEM CONCEALED BELOW GRADE
- PUMP MOTOR, HORSEPOWER INDICATED
- GROUND ROD LOCATION
- EYS SEAL-OFF FITTING

NOTES: FILTER SCREEN AND COMPACTOR

1. FILTER SCREEN FLOAT SWITCH JUNCTION BOX CONNECTION, FLOAT SWITCH PROVIDED WITH EQUIPMENT. FIELD COORDINATE LOCATION AND CONNECTION TO FLOAT. PROVIDE JUNCTION BOX AND NON-METALLIC CORD GRIP FOR TERMINATION OF FLOAT CABLE INTO JUNCTION BOX.
2. FILTER SCREEN ULTRASWASH SOLENOID VALVE, PROVIDED AND FIELD INSTALLED BY OTHERS, ELECTRICAL CONNECTION BY DIV.16. COORDINATE WITH EQUIPMENT PROVIDED.
3. FILTER SCREEN DRIVE MOTOR, FURNISHED WITH EQUIPMENT, FIELD INSTALLED BY OTHERS, FIELD COORDINATE CONNECTION TO BARSCREEN CONTROL PANEL.
4. FILTER SCREEN DRIVE EMERGENCY STOP, FURNISHED WITH EQUIPMENT, FIELD INSTALLED AND WIRED BY DIV.16. FIELD COORDINATE MOUNTING LOCATION.
5. FILTER SCREEN CONTROL PANEL. FURNISHED WITH EQUIPMENT. FIELD COORDINATE LOCATION WITH EQUIPMENT AND OTHER TRADES. MOUNT ON 304 STAINLESS STEEL CHANNEL FRAME. REFER TO ONE-LINE DIAGRAM FOR ELECTRICAL CONNECTIONS. REFER TO SCADA RISER FOR COMMUNICATIONS CONNECTIONS.
6. MOUNT EQUIPMENT ON 304 STAINLESS STEEL CHANNEL FRAME. FIELD COORDINATE LOCATION WITH CIVIL DRAWINGS AND OTHER TRADES.

DEMOLITION NOTES:

D1. THE EXISTING ELECTRICAL SYSTEM IS SERVED FROM THE ADJACENT FEDERAL PRISON. COORDINATE WITH THE PRISON WARDEN AND STAFF; CONTACT D. RAY JAMES CORRECTIONAL FACILITY AT 912-496-6242.

D2. THE EXISITNG PUMP STATION SHALL REMAIN IN SERVICE WITHOUT INTERRUPTION.

D3. THE EXISTING SCREEN CONTROL PANEL SHALL BE DEMOLISHED. THE FEEDER SHALL REMAIN FOR REUSE. COORDIANTE SCHEDULE WITH OWNER AND GENERAL CONTRACTOR.

GENERAL NOTES:

G1. THE EXISTING EQUIPMENT IS SERVED FROM THE 480Y/277V 3-PHASE 4-WIRE PANEL LCOATED OUTSIDE OF THE WELL BUILDING.

G2. ALL CONDUITS INSTALLED EXPOSED TO ATMOSPHERE SHALL BE ALUMINUM RIGID CONDUIT (ARC), ALL CONDUITS INSTALLED BELOW GRADE SHALL BE SCHEDULE 80 PVC. ALL ELBOWS BELOW GRADE TO BE ARC.

G3. TERMINATE CONDUITS WITH THREADED HUBS, ALL LOCATIONS.

G4. THE EXISTING 30A/3P, 3/4"C W/ 3 NO.10, 1 NO.10(G) CIRCUIT FOR THE EXISTING SCREEN SHALL BE REUSED WITH THE NEW SCREEN EQUIPMENT.

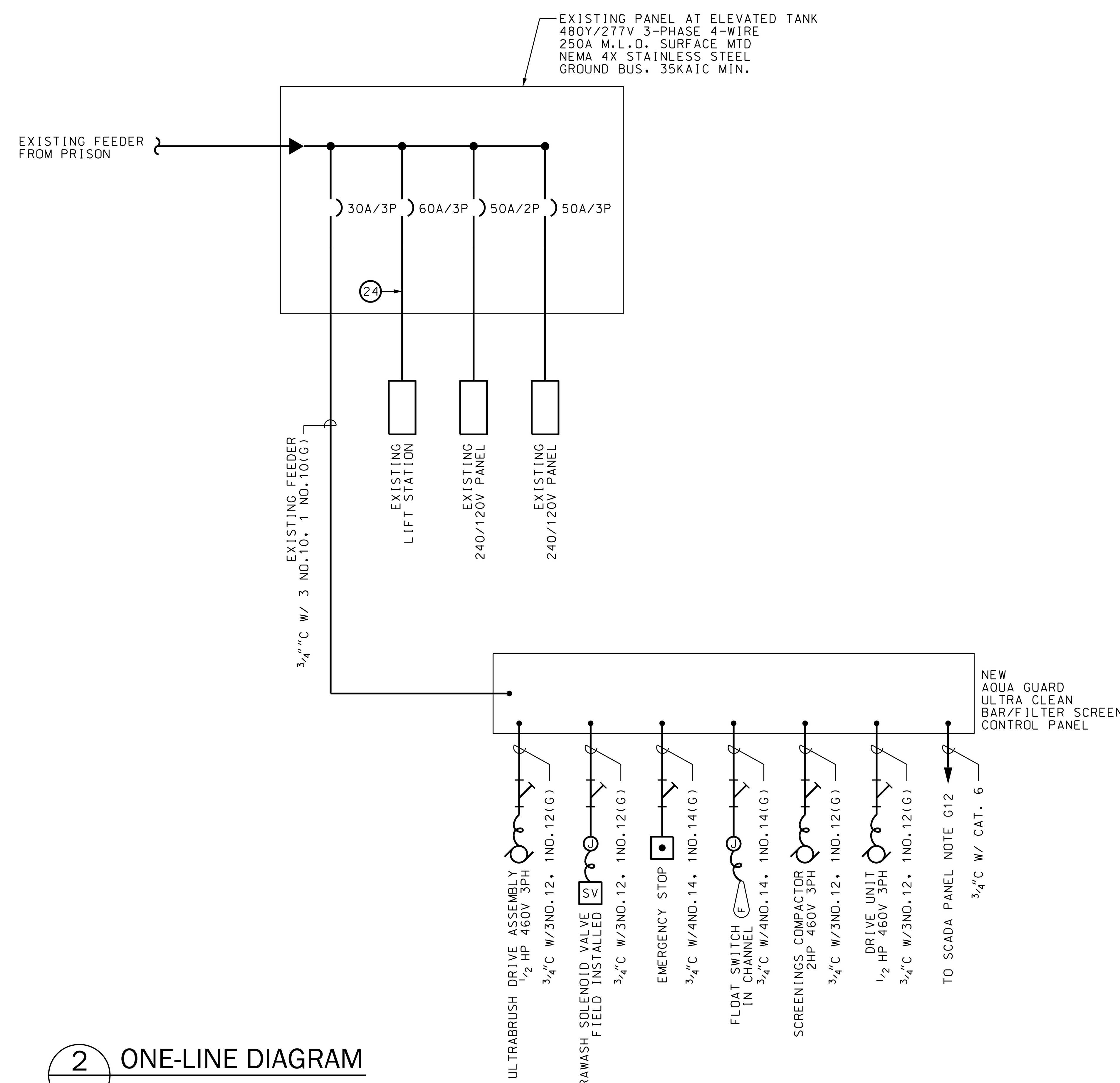
G5. CIRCUIT BREAKER AND SWITCH OPERATING HANDLES SHALL BE A MAXIMUM OF 66" ABOVE FINISHED GRADE. LOCATE EQUIPMENT WHERE INDICATED.

G6. ALL ATTACHMENT HARDWARE SHALL BE 304 STAINLESS STEEL.

G7. FIELD COORDINATE THE ARRANGEMENT OF THE ELECTRICAL EQUIPMENT WITH THE CIVIL DRAWINGS AND WITH OTHER TRADES ON THE PROJECT.

G8. FOR ALL METALLIC CONDUITS AND ALL EQUIPMENT FRAME STRUCTURAL SUPPORTS, EITHER IN CONTACT WITH EARTH OR INCASED IN CONCRETE, SHALL BE PROTECTED AGAINST CORROSION. APPLY TWO COATS OF SCOTCHRAP PIPE PRIMER AND TWO OVERLAPPING LAYERS OF SCOTCHRAP 51 (20MIL) CORROSION PROTECTIVE TAPE. ALLOW PIPE PRIMER TO CURE BETWEEN APPLICATIONS. APPLY FROM END OF METAL TO 6" ABOVE GRADE OR CONCRETE.

G9. LOCATE CONTROL PANELS AND BOXES TEN (10) FEET FROM INFLUENT CHANNELS. MOUNT ALL EQUIPMENT 18" ABOVE GRADE AND/OR STRUCTURE. NO FITTINGS SHALL BE PLACED WITHIN 18" OF GRADE OR STRUCTURE.



2 E-7A ONE-LINE DIAGRAM
SCALE: NONE

REVISIONS:

DESIGN PROFESSIONAL:
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GEORGIA REGISTERED No. 032192 PROFESSIONAL ENGINEER CHARLES B. COBB
29 Sept 2023
DATE:

M.E. SACK ENGINEERING 18 90

MUNICIPALITY:
CITY OF FOLKSTON

COUNTY:
CHARLTON COUNTY

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WATER POLLUTION CONTROL PLANT

PRISON - ELECTRICAL SITE PLAN, DETAILS, & NOTES

CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
SAVANNAH, GEORGIA 31405 (912)238-2400

SHEET:E-7
FILE NO: 2013-36
PLOT DATE: September 29, 2023

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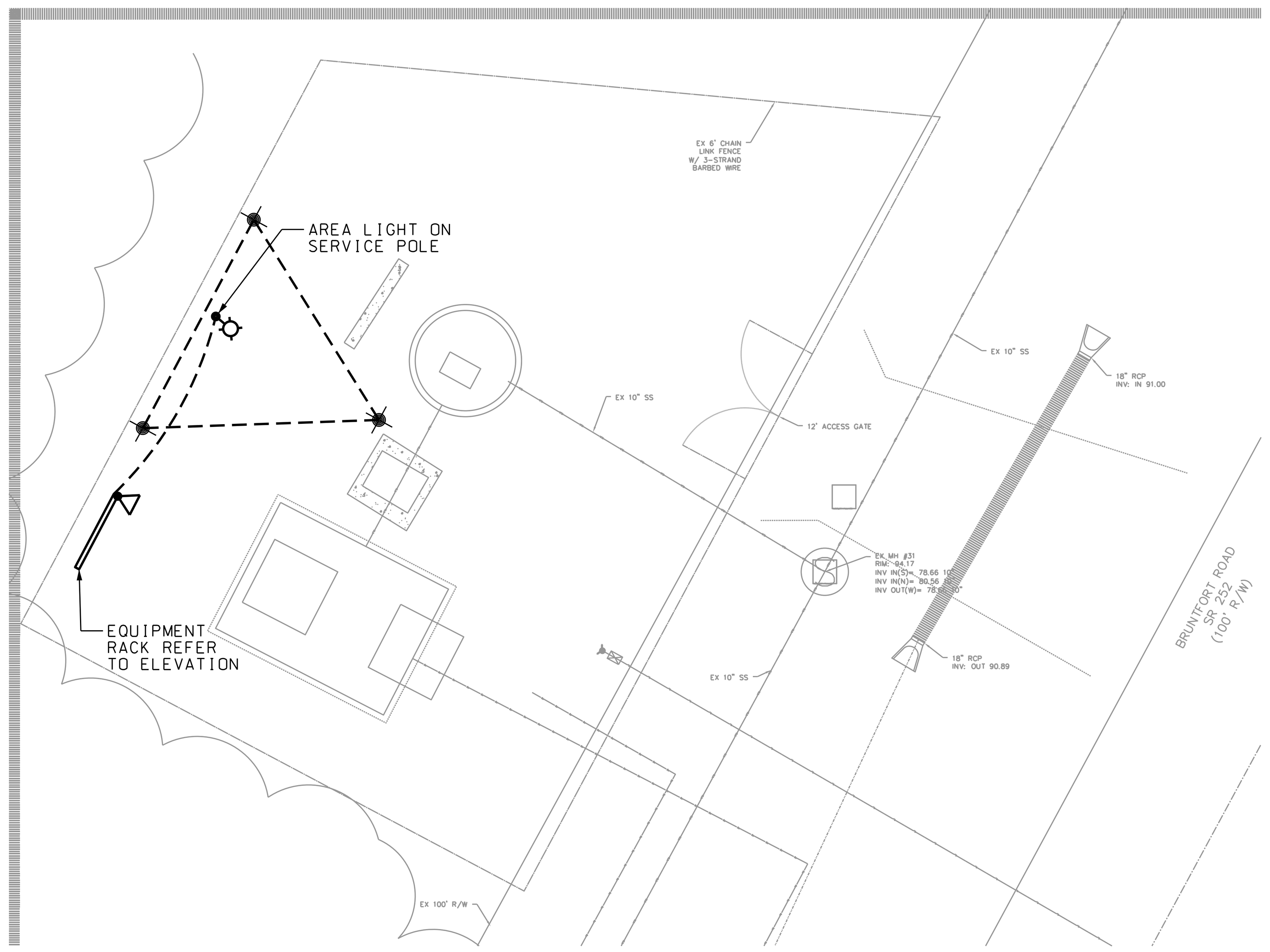


1 SITE PLAN - ELECTRICAL
E-7A
SCALE: 1" = 10' - 0"

LEGEND:

- EQUIPMENT AS NOTED
- CIRCUIT BREAKER
- 20A DUPLEX RECEPTACLE, NEMA 5-20R
- WP WEATHERPROOF IN-USE COVER (FOR RECEPTACLE)
- GROUND TO GROUND ROD SYSTEM
- GF GROUND FAULT CIRCUIT INTERRUPTER PROTECTION
- AIC INTERRUPTING CAPACITY IN AMPS
- CONDUIT SYSTEM CONCEALED BELOW GRADE
- PUMP MOTOR, HORSEPOWER INDICATED
- AREA LIGHT AND SERVICE POLE, NOTE G7
- SP SURGE PROTECTION DEVICE - LSS/ASCO LTS SERIES CAT NO. LTS-480D-20CAJ2
- REDUCED VOLTAGE SOLID STATE STARER WITH INTEGRAL SHORTING CONTACTOR
- S 20A 120/277V INDUSTRIAL DUTY TOGGLE SWITCH
- GROUND ROD LOCATION
- FLOODLIGHT
- C-H TYPE EYS SEALING FITTING

GENERAL NOTES:

G1. 480Y/277V DELTA 3-PHASE 4-WIRE SERVICE BY GEORGIA POWER. COORDINATE SERVICE WITH BRIAN PAGE, DISTRIBUTION ENGINEER, 229-560-0820.

G2. ALL CONDUITS INSTALLED EXPOSED TO ATMOSPHERE SHALL BE ALUMINUM RIGID CONDUIT (ARC), ALL CONDUITS INSTALLED BELOW GRADE SHALL BE SCHEDULE 80 PVC. ALL ELBOWS BELOW GRADE TO BE ARC.

G3. TERMINATE CONDUITS WITH THREADED HUBS, ALL LOCATIONS.

G4. FIELD COORDINATE THE LOCATION OF THE METER AND SERVICE POLE WITH THE LOCAL POWER UTILITY AND OTHER WORK ON THE PROJECT SITE.

G5. CIRCUIT BREAKER AND SWITCH OPERATING HANDLES SHALL BE A MAXIMUM OF 66" ABOVE FINISHED GRADE. LOCATE EQUIPMENT WHERE INDICATED.

G6. LOCATE ALARM LIGHT SO THAT IT CAN BE SEEN FROM THE NEAREST ROAD. EXACT ORIENTATION SHALL BE DETERMINED IN FIELD FOR BEST VIEW OF ALARM LIGHT. MOUNT ON CONDUIT MAST ATTACHED TO THE EQUIPMENT FRAME, 8' ABOVE FINISH GRADE.

G7. AREA LIGHT AND WOOD SERVICE POLE. EXTEND SERVICE CONDUCTORS FROM THE WEATHERHEAD, TO THE MAIN BREAKER. EXTEND A BRANCH CIRCUIT TO THE YARD LIGHT FROM PANEL R.

G8. ALL ATTACHMENT HARDWARE SHALL BE 304 STAINLESS STEEL.

G9. FIELD COORDINATE THE ARRANGEMENT OF THE ELECTRICAL EQUIPMENT WITH THE ELECTRICAL UTILITY, THE CIVIL DRAWINGS AND WITH OTHER TRADES ON THE PROJECT.

G10. THE MANUAL TRANSFER SWITCH AND GENERATOR QUICK CONNECTION PANEL SHALL BE A CROUSE-HINDS QCDT QUICK-CONNECT DOUBLE-THROW MANUAL TRANSFER SWITCH WITH POSI-LOCK CABLE CONNECITONS. FURNISH CAT. NO. DT-3-6-5-U-U-3X(STAINLESS STEEL)-K-N-LPR.

G11. OMITTED.

G12. OMITTED.

G13. LOCATE WITHIN CONTROL PANEL.

G14. FOR PUMP CONTROL PANEL INTEGRAL CONTROLS.

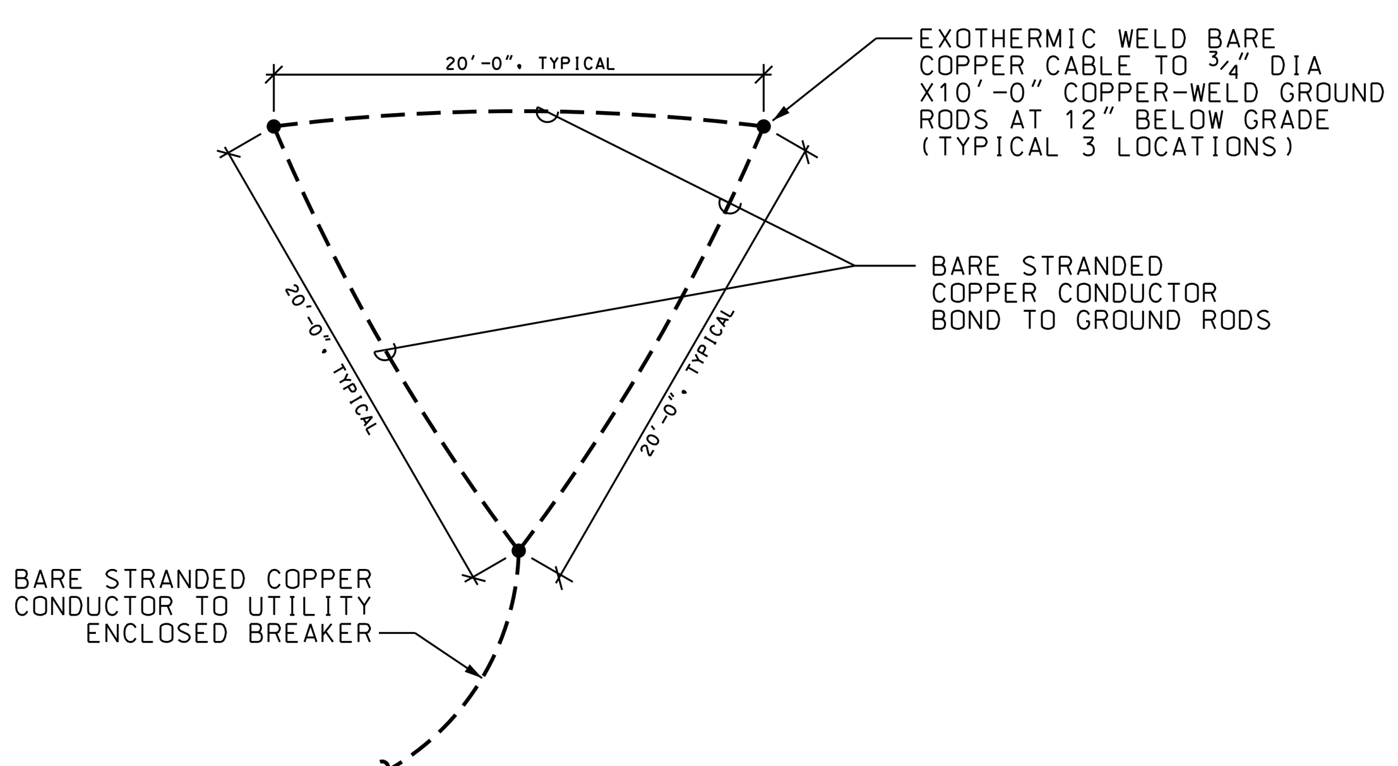
G15. SCADA PANEL BY C2I.

G16. PROVIDE $1\frac{1}{2}$"C W/ CONDUCTORS AS REQUIRED FOR ALARMS.

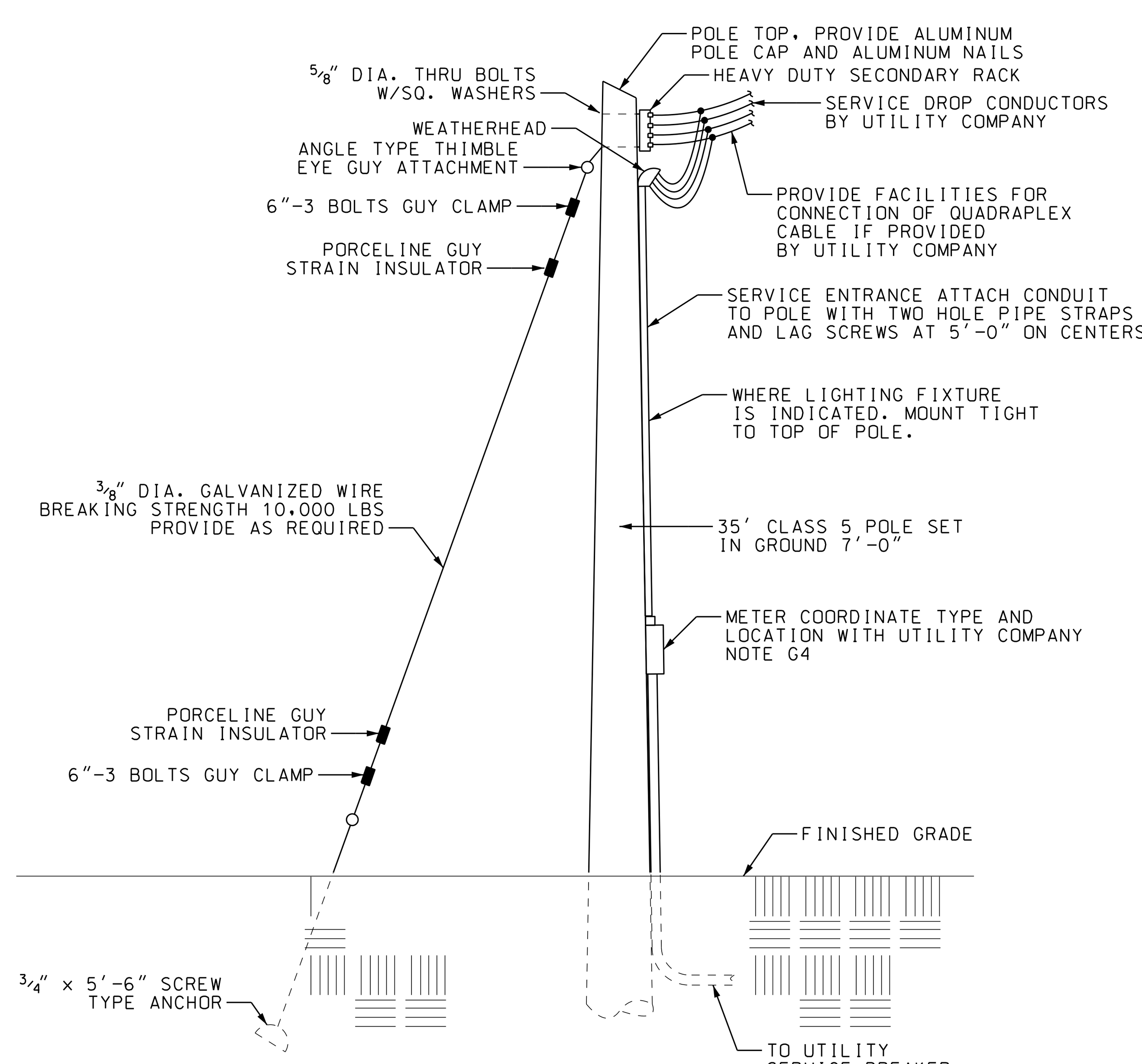
G17. PROVIDE NON-METALLIC, ARAMID FIBER, DOUBLE WEAVE, HEAVY DUTY, SINGLE EYE CABLE PULLING GRIPS FOR THE FLOATS IN THE WET WELL. PROVIDE A STAINLESS STEEL SUPPORT BRACKET INSIDE THE WET WELL.

G18. FLOOD LIGHT SHALL BE MOUNTED ON MAST 10FT MINIMUM SUCH THAT THE FLOOD LIGHT IS NOT OBSTRUCTED.

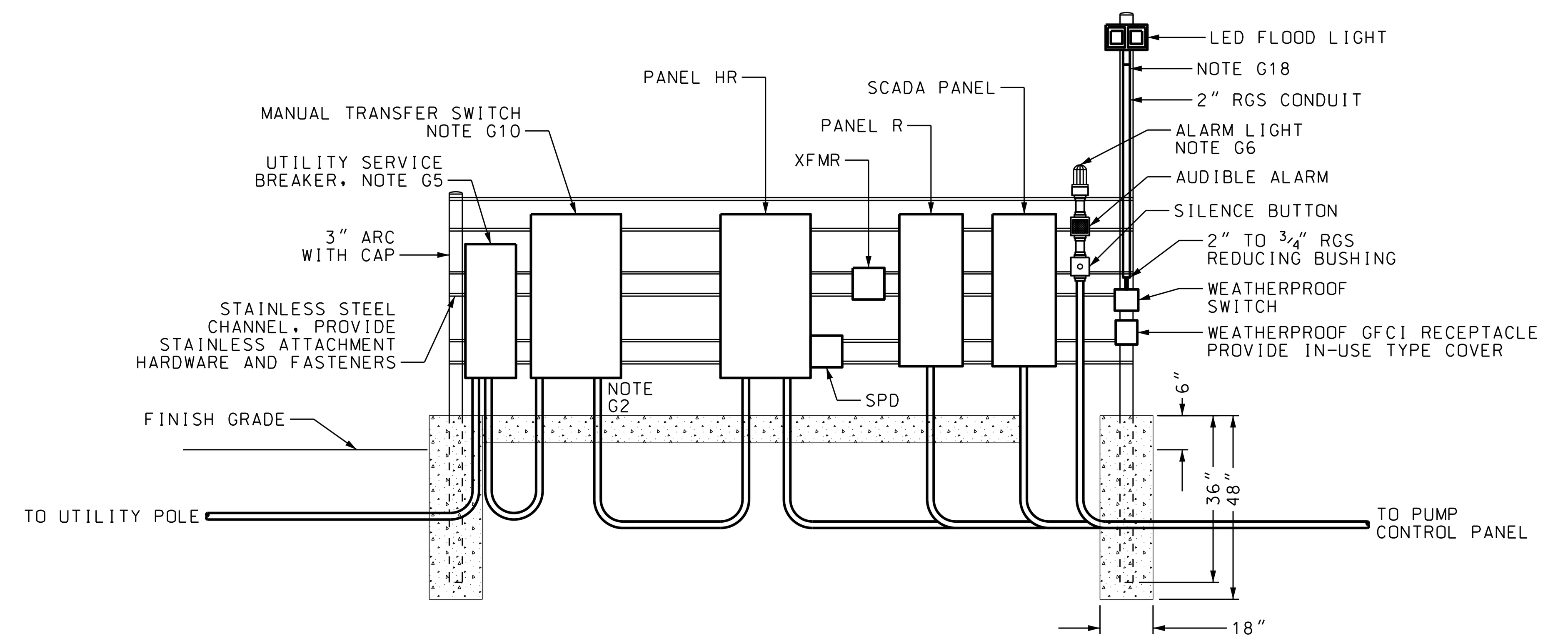
G19. FOR ALL METALLIC CONDUITS AND ALL EQUIPMENT FRAME STRUCTURAL SUPPORTS, EITHER IN CONTACT WITH EARTH OR INCASED IN CONCRETE, SHALL BE PROTECTED AGAINST CORROSION. APPLY TWO COATS OF SCOTCHRAP PIPE PRIMER AND TWO OVERLAPPING LAYERS OF SCOTCHRAP 51 (20MIL) CORROSION PROTECTIVE TAPE. ALLOW PIPE PRIMER TO CURE BETWEEN APPLICATIONS. APPLY FROM END OF METAL TO 6" ABOVE GRADE OR CONCRETE.



2 SECONDARY ELECTRICAL GROUNDING
E-7A
SCALE: NONE



3 SERVICE POLE DETAIL
E-7A
SCALE: NONE



4 EQUIPMENT RACK - ELEVATION
E-7A
SCALE: NONE

REVISIONS:

DESIGN PROFESSIONAL:
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GEORGIA REGISTERED No. 032192 PROFESSIONAL ENGINEER CHARLES B COBB
29 Sept 2023

DATE:

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WATER POLLUTION CONTROL PLANT

SR 252 - ELECTRICAL SITE PLAN, DETAILS, & NOTES

SHEET: E-7A
FILE NO: 2013-36
PLOT DATE: September 29, 2023

CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
SAVANNAH, GEORGIA 31405 (912)238-2400

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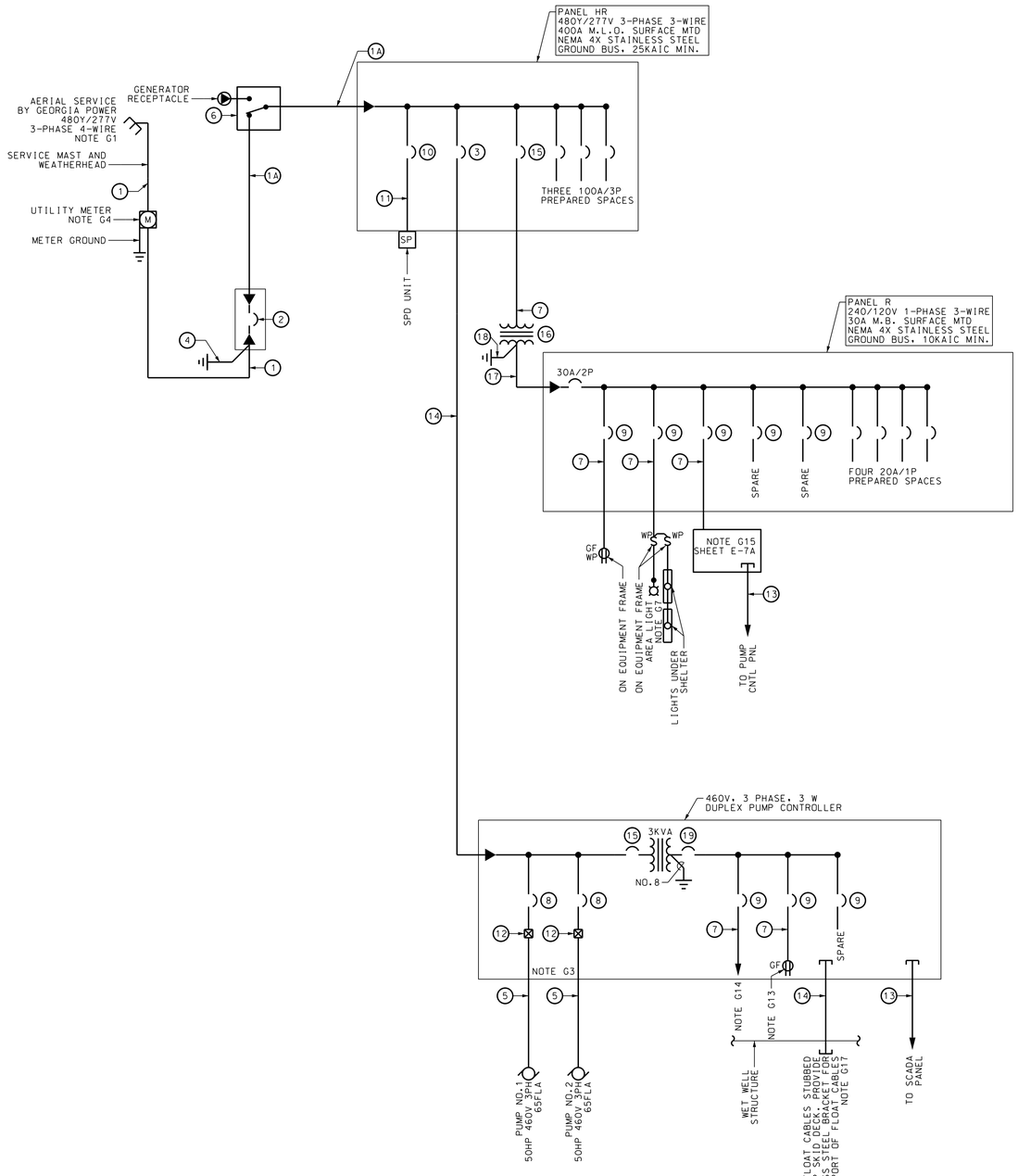
DUPLEX PUMP STATION ONE LINE SCHEDULE - SUCTION LIFT

ITEM#	50 HP, 460V, 3 PH, 63 FLA
1	3"C. W/ 4 NO.250MCM
1A	3"C. W/ 4 NO.250MCM, 1 NO.4(G)
2	250/3P NEMA 4X SS ENCLOSED BREAKER W/ SERVICE LABEL, INS. NEUTRAL, BONDING JUMPER AND GROUND LUG. 25 000 A.I.C. MIN. @480V
3	225A/3P CONTROL PANEL BREAKER 25 000 MIN. A.I.C. @ 480V.
4	3/4"C.W/ 1 NO.2(G)
5	1 1/2"C W/3 NO.3, 1 NO.6(G),
6	400A/4P MANUAL TRANSFER SWITCH NEMA 4XSS ENCLOSURE, NOTE G10
7	3/4"C. W/ 2 NO.12, 1 NO.12(G)
8	125A/3P MOTOR CIRCUIT BREAKER 35 000 MIN. A.I.C. @ 480V.
9	20A/1P CIRCUIT BREAKER, 10 000 MIN. A.I.C. @ 120V
10	40A/3P CIRCUIT BREAKER, 25 000 MIN. A.I.C @ 480V
11	1 1/4"C W/ 3 NO.8, 1 NO.8(G), CONDUCTORS SHALL NOT EXCEED 18" IN LENGTH
12	REDUCED VOLTAGE SOLID STATE STARTER FOR 50 HP, 460V, 3-PHASE MOTOR. SELECT FOR HIGH-TORQUE CONDITION
13	3/4"C W/6NO.14, 1NO.14(G) FOR PUMP STATION ALARM ANNUNCIATION
14	2"C W/ FLOAT CABLES STUBBED THROUGH PUMP SKID DECK INTO WETWELL. NOTE G17
15	15A/2P CIRCUIT BREAKER, 25 000 MIN. A.I.C @ 480V
16	5KVA 1PH TRANSFORMER 480V PRI. 240/120V SEC. STAINLESS STEEL NEMA 3R ENCLOSURE
17	3/4"C W/ 3 NO.10, 1 NO.10(G)
18	3/4"SCH.80 PVC W/ 1 NO.8(G)
19	20A/2P CIRCUIT BREAKER, 10 000 MIN. A.I.C @ 240V



1 E-7B ONE-LINE DIAGRAM
SCALE: NONE

CADD PLOT
29-SEP-2023
13:27
LCAULEY

REVISIONS:

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GEORGIA REGISTERED PROFESSIONAL ENGINEER NO. 032192 CHARLES B. POOR
29 SEPT 2023

DATE:_____

M.E. SACK ENGINEERING 19 90

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WATER POLLUTION CONTROL PLANT

SR 252 ONE-LINE DIAGRAM

SHEET: E-7B

FILE NO: 2013-36

PLOT DATE: September 29, 2023

CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
SAVANNAH, GEORGIA 31405 (912)238-2400

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LEGEND & ABBREVIATIONS

ABBREVIATION	SYMBOL	DESCRIPTION
	(S)	SWITCH
GV		GATE VALVE
CV		CHECK VALVE
		UNION
		DUCT TRANSITION
		ROUND
		DIRECTION OF FLOW
T'STAT	(T)	THERMOSTAT
		SINGLE LINE DUCT
		FLEXIBLE DUCT

ABBREVIATION	DESCRIPTION
AB	ABOVE
A/C	ABOVE CEILING
AFF	ABOVE FINISHED FLOOR
B/F	BELOW FLOOR
DN	DOWN
DWGS	DRAWINGS
ELEC	ELECTRICAL
L	LOUVER
TYP	TYPICAL
U/G	UNDERGROUND
ETR	EXISTING TO REMAIN
HP	HEAT PUMP
BTUH	BRITISH THERMAL UNITS PER HOUR
CFM	CUBIC FEET PER MINUTE
EF	EXHAUST FAN
HVAC	HEATING VENTILATING & AIR CONDITIONING
EXH	EXHAUST
AHU	AIR HANDLER UNIT
UH	UNIT HEATER
WHU	WALL HUNG UNIT

GENERAL NOTES:

A. COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION.
B. UNLESS OTHERWISE INDICATED, INSTALL ALL SPACE THERMOSTATS AND CONTROLLERS 48 INCHES ABOVE FINISHED FLOOR.
C. DUCT SIZES SHOWN ARE ACTUAL INSIDE DIMENSIONS.
D. FLEXIBLE OR ROUND DUCT SHALL BE CONNECTED TO RECTANGULAR OR SQUARE DUCT WITH A SPIN-IN COLLAR WITH SCOOP AND DAMPER.
E. INSTALL TURNING VANES IN ALL 45 AND 90 DEGREE MITERED ELBOWS.

GENERAL HVAC:

A. THE MECHANICAL EQUIPMENT AND INSTALLATION SHALL CONFORM TO THE FOLLOWING CODES:
   1. THE INTERNATIONAL BUILDING CODE 2018 EDITION WITH GEORGIA AMENDMENTS.
   2. THE INTERNATIONAL MECHANICAL CODE 2018 EDITION WITH GEORGIA AMENDMENTS.
   3. THE INTERNATIONAL ENERGY CONSERVATION CODE 2015 EDITION WITH GEORGIA AMENDMENTS.
B. THE MECHANICAL EQUIPMENT AND INSTALLATION SHALL CONFORM TO THE FOLLOWING STANDARDS:
   1. NFPA STANDARD 70, NATIONAL ELECTRIC CODE
   2. NFPA STANDARD 90A, INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS.
   3. NFPA STANDARD 101, CODE FOR SAFETY OF LIFE FROM FIRE IN BUILDINGS AND STRUCTURES.

TEST AND BALANCE:

THE CONTRACTOR SHALL PERFORM TEST AND BALANCE ON THE AIR AND WATER DISTRIBUTION SYSTEMS.
A. INSTRUMENTS USED FOR BALANCING SHALL HAVE BEEN CALIBRATED WITHIN 6 MONTHS PRIOR TO THE BALANCING OF THE SYSTEMS.
B. ALL INSTRUMENTS REQUIRED TO BALANCE THE SYSTEM SHALL BE PROVIDED AT THE CONTRACTOR'S EXPENSE.
C. FINAL READINGS SHALL BE SET WITH -5% TO +10% OF DESIGN CONDITIONS.
D. ANY DEVIATIONS FROM DESIGN DATA SHALL BE EXPLAINED IN THE REPORT - POSSIBLE REASONS FOR AND SOLUTIONS TO.
E. REPORT SHALL BE SIGNED AND DATED BY BALANCE ENGINEER.
F. TEST AND BALANCE SHALL NOT BE PERFORMED UNTIL SYSTEM INSTALLATION IS COMPLETE.

HVAC PIPES

A. CONDENSATE DRAIN PIPING AND FITTINGS SHALL BE SCHEDULE 30 GALVANIZED STEEL PIPE, ASTMA A53, WITH THREADED 150 POUND MALLEABLE IRON FITTINGS, ANSI B16.3.

B. REFRIGERANT PIPING SHALL BE HARD DRAWN TYPE ACR SEAMLESS COPPER TUBING, ASTM B280. FITTINGS SHALL BE WROUGHT COPPER, ANSI B16.22, WITH WORKING PRESSURE OF NOT LESS THAN 300 PSIG.

INSULATION FOR HVAC SYSTEMS:

A. FIBERGLASS BLANKET INSULATION ON SUPPLY, RETURN, AND OUTSIDE AIR DUCTS SHALL BE FIBROUS GLASS BLANKET TYPE DESIGNED FOR USE ON SURFACES UP TO 250°F WITH A FACTORY APPLIED ALUMINUM FOIL AND KRAFT VAPOR BARRIER JACKET. INSULATION SHALL HAVE A MINIMUM DENSITY OF 1.0 LB/CU. FT. AND A MAXIMUM CONDUCTIVITY OF 0.26 BTU/IN. PER SQ.FT. PER DEGREE F PER HOUR AT 75°F MEAN TEMPERATURE. INSULATION SHALL BE KNAUF DUCTWRAP OR APPROVED EQUAL. INSULATION THICKNESS SHALL BE 2".

B. INSULATION FOR REFRIGERANT LINES AND CONDENSATE DRAINS SHALL BE SELF SEALING, FLEXIBLE CELLULAR, ELASTOMERIC TYPE CONFORMING TO ASTM C534, DESIGNED FOR USE ON PIPES FROM -40°F TO 220°F (-40°C TO 105°C). INSULATION SHALL HAVE A MINIMUM DENSITY OF 6 LB/CU FT AND A MAXIMUM CONDUCTIVITY OF 0.28 BTU/IN/SQ FT/°F/HR AT 75°F MEAN TEMPERATURE, AND A MAXIMUM PERMANENCE OF 0.17 LB/SQ FT. ADHESIVES USED FOR CONNECTIONS SHALL BE MANUFACTURER'S STANDARD UV-PROTECTION. INSULATION SHALL BE ARMACELL AP/SS ARMAFLEX.

AIR DEVICES:

A. TYPE 'C' SHALL BE TITUS 350F OR APPROVED EQUAL. PROVIDE WITH OPPOSED BLADE DAMPER.
B. TYPE 'D' SHALL BE TITUS 300F OR APPROVED EQUAL. PROVIDE WITH OPPOSED BLADE DAMPER.

AIR DISTRIBUTION:

A. GENERAL
   1. DUCTWORK SHALL BE CONSTRUCTED OF LOCK FORMING QUALITY GALVANIZED STEEL SHEETS. GALVANIZED COATING SHALL BE NOT LESS THAN 0.90 OUNCES (TOTAL FOR BOTH SIDES) PER SQUARE FOOT OF SHEET.
   2. DUCTWORK SHALL BE SQUARE, RECTANGULAR, ROUND, OR FLAT OVAL, AS INDICATED ON THE DRAWINGS.
   3. TURNING VANES SHALL BE INSTALLED IN ALL 90 DEGREE SQUARE AND RECTANGULAR ELBOWS AND AT OTHER LOCATIONS SHOWN ON THE DRAWINGS. IN ANY SUPPLY, RETURN OR EXHAUST AIR DUCTWORK WITH VELOCITIES OF 1800 FPM OR HIGHER, THE TURNING VANES SHALL BE THE DOUBLE THICKNESS TYPE, WITH VANES WELDED TO THE RUNNERS AND RUNNERS WELDED TO THE DUCT.
   4. DUCTWORK SHALL BE CLASSIFIED AND CONSTRUCTED IN THE FOLLOWING SMACNA PRESSURE CLASSES, OR 150% OF THE SCHEDULED FAN S.P., WHICHEVER IS GREATER:

SYSTEM OR ZONE	PRESSURE CLASS
SUPPLY AIR DUCTWORK (GENERAL BUILDING)	+ 2
RETURN DUCTWORK (GENERAL BUILDING)	- 2
EXHAUST DUCTWORK (GENERAL BUILDING)	- 2

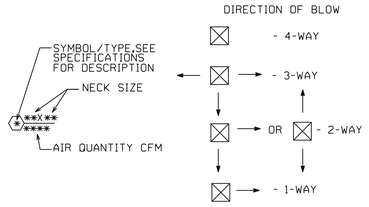
B. GALVANIZED STEEL DUCTWORK
   1. EXCEPT WHERE INDICATED OTHERWISE DUCT CONSTRUCTION SHALL CONFORM TO THE RECOMMENDATIONS OF THE SMACNA HVAC DUCT CONSTRUCTION MANUAL FOR PRESSURE CLASSES SPECIFIED HEREIN BEFORE.
C. FLEXIBLE DUCTWORK
   1. WHERE INDICATED, INSULATED FLEXIBLE DUCT SHALL BE CLASS 1 AIR DUCT IN ACCORDANCE WITH UL 181 AND SHALL COMPLY WITH NFPA 90A AND 90B. INSULATED FLEXIBLE DUCT SHALL CONSIST OF AN INNER FILM LAYER FOR MINIMUM WORKING PRESSURE OF 6" WG. BONDED TO A STEEL OR ALUMINUM SPRING WIRE HELIX, FIBERGLASS INSULATION, AND A VAPOR BARRIER JACKET. INSULATION SHALL HAVE A MAXIMUM C-VALUE OF 0.23 BTU/HR/SQ. FT./DEGREE F. AT 75 DEGREES F. MEAN TEMPERATURE. VAPOR BARRIER JACKET SHALL HAVE A MAXIMUM VAPOR TRANSMISSION RATE OF 0.1 GRAINS/SQ. FT./HR/INCH HG (PERM). THE ASSEMBLY SHALL HAVE A MAXIMUM FLAME AND SMOKE RATING OF 25/50 PER ASTM E84 AND NFPA 255. MINIMUM WORKING PRESSURE FOR DUCT PRESSURE CLASS 4" AND BELOW SHALL BE 6" WG. INSULATED FLEXIBLE DUCT SHALL BE THERMOFLEX OR APPROVED EQUAL.

DESIGN CONDITIONS

UNIT	AREA SERVED	INSIDE			OUTSIDE		
		HEATING	COOLING		HEATING	COOLING	
		DB °F	DB °F	WB °F	DB °F	DB °F	WB °F
AHU/HP-1 WHU-1,2	LAB AND MAIN ELECTRICAL	70.0	73.0	61.0	27.1	95.5	77.3
UH-1,2	LAB ELECTRICAL, CHEMICAL FEED	50.0	---	---	27.1	---	---

AIR DISTRIBUTION DEVICES

SYMBOL	LOCATION	FUNCTION	TYPE	SURFACE TYPE
(C)	CEILING/ WALL	RETURN/ EXHAUST	LOUVERED FACE	SURFACE MOUNT
(D)	CEILING	SUPPLY	LOUVERED FACE	SURFACE MOUNT



UNIT HEATER

SYMBOL	UH-1	UH-2
TYPE	HORIZONTAL	HORIZONTAL
CAPACITY, KW	3.0	5.0
MOUNTING HEIGHT TO BOTTOM, FT.	7'-0"	7'-0"
LOCATION	LAB ELEC ROOM	CHEMICAL FEED
ELECTRICAL CHARACTERISTICS	SEE ELEC DRAWINGS	SEE ELEC DRAWINGS
REMARKS	(1)	(1)

(1) UNIT HEATER SHALL BE O-MARK MODEL: MUH OR APPROVED EQUAL HORIZONTAL DISCHARGE ELECTRIC HEATER. PROVIDE UNIT HEATER WITH INTERNAL THERMOSTAT AND WALL MOUNT BRACKET.

LOUVER

SYMBOL	L-1	L-2	L-3
TYPE	INTAKE	INTAKE	INTAKE
AIRFLOW, CFM	400	1,000	1,000
FREE AREA, SQ.FT	0.56	1.33	1.33
APPROXIMATE SIZE, WIDTH X HEIGHT, INCH	12 X 18	18 X 24	18 X 24
PRESSURE DROP, IN. H2O	0.100	0.100	0.100
MOUNTING HEIGHT AFF TO BOTTOM OF LOUVER	2'-6"	2'-6"	8'-0"
LOCATION	CHEMICAL FEED	BLOWER BUILDING	BLOWER BUILDING
REMARKS	(1)	(1)	(1)

(1) LOUVER SHALL BE GREENHECK MODEL: ESJ-602 OR APPROVED EQUAL 6" DEEP J BLADE STATIONARY ALUMINUM LOUVER. PROVIDE LOUVER WITH INSECT SCREEN. RUSKIN IS AN APPROVED EQUAL.

SPLIT SYSTEM UNITS

SYMBOL		AHU-1/HP-1
TYPE		VERTICAL
TOTAL CFM		1,110
MINIMUM OUTSIDE AIR, CFM		110
EXTERNAL STATIC PRESSURE, IN. H2O		0.500
COOLING	TOTAL CAPACITY BTU/HR	30,300
	SENSIBLE CAPACITY BTU/HR	24,100
	ENT. AIR DB. °F	75.0
	ENT. AIR WB. °F	63.0
	COND. AMBIENT TEMP., °F	94.0
	MINIMUM (SEASONAL) EER	14.0
HEATING	TOTAL CAPACITY BTU/HR	23,200
	ENT. AIR DB. °F	65.6
	LVG. AIR DB. °F	85.0
	AMBIENT AIR TEMP., °F	26.0
	MINIMUM COP	2.3 @ 17°F
AUX. HEAT	CAPACITY kW	3.6
	NO. OF STAGES	1
LOCATION		ELECTRICAL ROOM
ELECTRICAL CHARACTERISTICS		SEE ELEC DRAWINGS
REMARKS		(1)(2)

(1) SPLIT SYSTEM SHALL BE TRANE MODEL: 4TWR4/TEM4 OR APPROVED EQUAL SPLIT SYSTEM HEAT PUMP. PROVIDE UNIT WITH WIRED 7-DAY PROGRAMMABLE AUTO-CHANGEOVER THERMOSTAT. CARRIER AND DAIKIN ARE APPROVED EQUALS.

(2) FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS. UNIT SHALL CYCLE COMPRESSOR. REVERSING VALVE, AND STRIP HEAT AS REQUIRED TO MAINTAIN SET POINT.

EXHAUST FANS

SYMBOL	EF-1	EF-2	EF-3	EF-4	EF-5	EF-6
TYPE	CEILING CENTRIFUGAL	CEILING CENTRIFUGAL	CEILING CENTRIFUGAL	FIBERGLASS WALL MOUNT	SIDEWALL	SIDEWALL
CFM	100	100	200	400	1,000	1,000
EXTERNAL STATIC PRESSURE, IN. H2O	0.375	0.375	0.375	0.250	0.250	0.250
MAXIMUM SONES	1.5	1.5	2.5	---	9.4	9.4
MAXIMUM FAN SPEED, RPM	800	800	975	1,140	1,750	1,750
MAXIMUM OUTLET VELOCITY, FPM	---	---	---	---	---	---
MAXIMUM MOTOR POWER	130 W	130 W	90 W	1/8 HP	1/4 HP	1/4 HP
DRIVE	DIRCT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
LOCATION	WOMEN'S RESTROOM	MEN'S RESTROOM	ELECTRICAL CLOSET	CHEMICAL FEED	BLOWER BUILDING	BLOWER BUILDING
ELECTRICAL CHARACTERISTICS	SEE ELEC DRAWINGS	SEE ELEC DRAWINGS	SEE ELEC DRAWINGS	SEE ELEC DRAWINGS	SEE ELEC DRAWINGS	SEE ELEC DRAWINGS
REMARKS	(1)	(1)	(2)	(3)	(4)	(4)

(1) FAN SHALL BE GREENHECK MODEL: SP OR APPROVED EQUAL CEILING CENTRIFUGAL EXHAUST FAN. PROVIDE FAN WITH DISCONNECT AND DISCHARGE ROOF CAP. INTERLOCK FAN WITH LIGHTS. COOK IS AN APPROVED EQUAL.

(2) FAN SHALL BE GREENHECK MODEL: SP OR APPROVED EQUAL CEILING CENTRIFUGAL EXHAUST FAN. PROVIDE FAN WITH DISCONNECT. DISCHARGE ROOF CAP. AND WALL MOUNT THERMOSTAT. FAN SHALL ENERGIZE DURING A RISE IN TEMPERATURE ABOVE THERMOSTAT SET POINT. COOK IS AN APPROVED EQUAL.

(3) FAN SHALL BE FIBER-AIRE MODEL: 12SA2 OR APPROVED EQUAL WALL MOUNT FIBERGLASS EXHAUST FAN RATED FOR REMOVAL OF CORROSIVE GASES. PROVIDE FAN WITH PVC COATED BIRD SCREEN AND WALL SWITCH. FAN SHALL BE CONTROLLED BY WALL SWITCH.

(4) FAN SHALL BE GREENHECK MODEL: SE1 OR APPROVED EQUAL SIDE WALL PROP EXHAUST FAN. PROVIDE FAN WITH OSHA GUARD. GRAVITY BACKDRAFT DAMPER. AND WALL MOUNT THERMOSTAT. FAN SHALL ENERGIZE DURING A RISE IN TEMPERATURE ABOVE THERMOSTAT SET POINT. COOK IS AN APPROVED EQUAL.

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WATER POLLUTION CONTROL PLANT

HVAC - LEGEND, SCHEDULES, AND SPECIFICATIONS

SHEET: M-1

FILE NO: 2013-36

PLOT DATE: September 29, 2023

CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
SAVANNAH, GEORGIA 31405 (912)238-2400

CADD PLOT 29-SEP-2023 14:40 LCAULEY

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LEGEND & ABBREVIATIONS

ABBREVIATION	SYMBOL	DESCRIPTION
W, S, D	S	SANITARY WASTE, SOIL & DRAIN
V		VENT - SANITARY
CW		DOMESTIC COLD WATER
HW		DOMESTIC HOT WATER (110°F)
HWR		DOMESTIC HOT WATER RETURN
G	G	NATURAL GAS - LOW PRESSURE
GV		GATE VALVE
BV		BALL VALVE
CV		CHECK VALVE
PV		PLUG VALVE
WHA		WATER HAMMER ARRESTOR 'SIZE'
RV		PRESSURE OR TEMPERATURE RELIEF VALVE
CO		CLEANOUT
FCO		FLOOR CLEANOUT
GCO		GRADE CLEANOUT
WCO		WALL CLEANOUT
FD		FLOOR DRAIN 'TYPE'
	S/Ø	SOIL OR WASTE STACK DESIGNATION
		STACK NUMBER

ABBREVIATION	DESCRIPTION
AB	ABOVE
A/C	ABOVE CEILING
AFF	ABOVE FINISHED FLOOR
A/S	AT STRUCTURE
B/F	BELOW FLOOR
CONN	CONNECT(ION)
CONT	CONTINUATION
DN	DOWN
DWGS	DRAWINGS
ELEC	ELECTRICAL
EL	ELEVATION
EXIST	EXISTING
HVAC	HEATING, VENTILATION & AIR CONDITIONING
HB	HOSE BIBB
ID	INDIRECT DRAIN
IE	INVERT ELEVATION
SAN	SANITARY
TYP	TYPICAL
U/G	UNDERGROUND
VTR	VENT THRU ROOF
NFWH	NON FREEZE WALL HYDRANT
W	WASTE
WHA	WATER HAMMER ARRESTOR

GENERAL NOTES:

1. ALL UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. VERIFY EXACT LOCATION AND INVERT ELEVATION IN FIELD BEFORE BEGINNING WORK.
2. WALL HYDRANTS SHALL BE MOUNTED 1'-6" ABOVE GRADE, UNLESS NOTED OTHERWISE.
3. HOSE BIBBS SHALL BE MOUNTED 1'-6" ABOVE FINISHED FLOOR, UNLESS NOTED OTHERWISE.
4. COORDINATE ALL WORK WITH OTHER TRADES.

WATER HEATERS - ELECTRIC	
HEATER NUMBER	WH-1
SPEC. TYPE	---
LOCATION	SEE DWGS
STORAGE, GALLONS	119
RECOVERY, GPH (1)	49
ENTERING WATER TEMPERATURE, °F.	50
LEAVING WATER TEMPERATURE, °F.	120
INPUT, KW	12
ELECTRICAL CHARACTERISTICS	SEE ELEC DWGS.
REMARKS	(2)

(1) BASED ON 100 DEGREE RISE.

(2) WATER HEATER SHALL BE A.O.SMITH OR RHEEM ELECTRIC TANK TYPE HEATER.

PUMPS	
PUMP NUMBER	HWC--1
SPEC. TYPE	---
SERVICE	DOMESTIC WATER
LOCATION	SEE DWGS
CAPACITY, GPM	1
DISCHARGE HEAD, FT.	10
SUCTION PRESS., FT.	---
FLUID TEMP., °F.	120
RPM	3250
HP	1/12
CONTROLLER	AQUASTAT
ELECTRICAL CHARACTERISTICS	SEE ELEC. DWGS.
REMARKS	(1)

(1) AQUASTAT TO START PUMP AT 90°F AND STOP PUMP AT 105°F PUMP SHALL BE TACO '00' SERIES PUMP OR EQUAL.

PLUMBING FIXTURES

SPEC. TYPE	FIXTURE	MINIMUM INDIVIDUAL CONNECTION COLD	HOT	VENT	WASTE	REMARKS
P-1	WATER CLOSET	1/2"	---	---	4"	18" TO RIM (1)
P-3	LAVATORY	1/2"	1/2"	---	1 1/2"	34" TO RIM (1)
P-6	SINK	1/2"	1/2"	---	1 1/2"	COUNTERTOP
P-7	SHOWER	1/2"	1/2"	---	2"	(1)
P-8	EMERGENCY SHOWER AND EYE WASH	1 1/4"	---	---	1 1/4" (2)	---
P-9	EMERGENCY SHOWER AND EYE WASH	1 1/2"	1"	---	1 1/4" (2)	---

(1) FIXTURE, TRIM AND INSTALLATION SHALL COMPLY TO ADA REQUIREMENTS.

(2) EYE WASH DRAIN.

PLUMBING SPECIFICATIONS

CODES

A. THE PLUMBING INSTALLATION AND EQUIPMENT SHALL CONFORM TO THE FOLLOWING:
   1. INTERNATIONAL PLUMBING CODE, 2018 EDITION WITH GEORGIA AMENDMENTS.

TESTING PIPE SYSTEMS

A. GENERAL. CONCEALED PIPING AND INSULATED PIPING SHALL BE TESTED IN PLACE BEFORE CONCEALING OR COVERING. TEST SHALL BE CONDUCTED IN THE PRESENCE OF THE ARCHITECT OR HIS DESIGNATED REPRESENTATIVE. PIPING LOCATED UNDERGROUND SHALL BE TESTED BEFORE BACKFILLING. EQUIPMENT, MATERIALS AND INSTRUMENTS FOR TESTING SHALL BE FURNISHED BY THE CONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNER.

B. PLUMBING SYSTEMS
   1. SANITARY WASTE AND VENT PIPING. THE PIPING SHALL BE TESTED WITH WATER BEFORE INSTALLING FIXTURES. WATER TESTS SHALL BE APPLIED TO THE SYSTEM EITHER IN ITS ENTIRETY OR IN SECTIONS. IF THE TEST IS APPLIED TO THE ENTIRE SYSTEM, ALL OPENINGS IN THE PIPING SHALL BE CLOSED EXCEPT THE HIGHEST OPENING, AND THE SYSTEM SHALL BE FILLED WITH WATER AND TESTED WITH AT LEAST A 10 FT. HEAD OF WATER. IN TESTING SUCCESSIVE SECTIONS, AT LEAST THE UPPER 10 FT. OF THE NEXT PRECEDING SECTION SHALL BE TESTED SO THAT EACH JOINT OR PIPE IN THE BUILDING EXCEPT THE UPPERMOST 10 FT. OF THE SYSTEM HAS BEEN SUBMITTED TO A TEST OF AT LEAST 10 FT. HEAD OF WATER. THE WATER SHALL BE KEPT IN THE SYSTEM, OR IN THE PORTION UNDER TEST FOR AT LEAST 2 HOURS BEFORE THE INSPECTION STARTS. THE SYSTEM SHALL BE TIGHT AT ALL JOINTS.
   2. WATER PIPING. UPON COMPLETION OF THE ROUGH-IN AND BEFORE SETTING FIXTURES, THE ENTIRE DOMESTIC COLD WATER, HOT WATER, AND HOT WATER CIRCULATION PIPING SYSTEMS SHALL BE TESTED AT HYDROSTATIC PRESSURE OF 100 PSIG AND PROVED TIGHT AT THIS PRESSURE FOR A PERIOD OF NOT LESS THAN 2 HOURS IN ORDER TO PERMIT INSPECTION OF ALL JOINTS. WHERE A PORTION OF THE WATER PIPING SYSTEM IS TO BE CONCEALED BEFORE COMPLETION, THIS PORTION SHALL BE TESTED SEPARATELY IN A MANNER DESCRIBED FOR THE ENTIRE SYSTEM.

DOMESTIC WATER SYSTEM

A. PROVIDE COMPLETE SYSTEMS OF COLD AND HOT WATER PIPING AND ACCESSORIES SO THAT EVERY FIXTURE AND PIECE OF WATER USING EQUIPMENT IN THIS AREA OF THE BUILDING WILL BE FURNISHED WITH A WATER SUPPLY.

B. EXTEND THE DOMESTIC COLD AND HOT WATER PIPING AND CONNECT TO THE EXISTING PIPING, AS SHOWN ON THE DRAWINGS.

C. PIPING FITTINGS AND JOINTS
   1. PIPE AND FITTINGS SHALL BE AS LISTED HEREIN AND SHALL BE USED ON THE SERVICES INDICATED.
   2. TYPE "L" HARD COPPER TUBING, FED. SPEC. NO. WW-T-799, WITH SOLDERED JOINTS AND WROUGHT COPPER SOCKET FITTINGS FOR ALL WATER PIPING.
   3. SOLDER JOINTS (FOR TYPE 'L' COPPER TUBING) SHALL BE MADE USING A 95-5 TIN-ANTIMONY SOLDER WITH A COMPATIBLE FLUX.
   4. PROPRESS SYSTEM IS APPROVED FOR USE.

D. DISINFECTION
   1. ALL DOMESTIC WATER SERVICE AND SUPPLY PIPING INSTALLED UNDER THIS DIVISION SHALL BE DISINFECTED WITH CHLORINE BEFORE IT IS PLACED INTO OPERATION. THE CHLORINATING MATERIAL SHALL BE LIQUID CHLORINE CONFORMING TO FEDERAL SPECIFICATION BB-C-120 AND SHALL BE INTRODUCED TO THE SYSTEM BY EXPERIENCED OPERATORS ONLY. THE CHLORINE SOLUTION APPLIED TO THE PIPING SECTIONS OR SYSTEM SHALL CONTAIN AT LEAST FIFTY PARTS PER MILLION OF AVAILABLE CHLORINE AND SHALL REMAIN IN THE SECTIONS OR SYSTEM FOR A PERIOD OF NOT LESS THAN SIXTEEN (16) HOURS. DURING THE DISINFECTION PERIOD ALL VALVES SHALL BE OPENED AND CLOSED AT LEAST FOUR TIMES. AFTER THE DISINFECTION PERIOD THE CHLORINATED WATER SHALL BE FLUSHED FROM THE SYSTEM WITH CLEAR WATER UNTIL THE RESIDUAL CHLORINE CONTENT IS NOT GREATER THAN TWO-TENTHS - (0.2) - PARTS PER MILLION. THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT CERTIFICATION THAT THE SYSTEM WAS DISINFECTED.

SANITARY, WASTE, AND VENT SYSTEM

A. PROVIDE A COMPLETE SYSTEM OF SANITARY, WASTE, AND VENT PIPING AS SHOWN ON THE DRAWINGS.

B. PIPE FITTINGS AND JOINTS
   1. PIPE FITTINGS SHALL BE AS LISTED HEREIN AND SHALL BE USED FOR THE SERVICES INDICATED.
   2. SCHEDULE 40 PRESSURE RATED PVC PIPE AND DWV FITTINGS WITH SOLVENT GLUED JOINTS FOR ALL SANITARY, WASTE AND VENT PIPING.
   3. SOLVENT GLUED JOINTS SHALL BE MADE WITH PRIMER AND GLUE ACCORDING TO THE MANUFACTURER'S REQUIREMENTS.

C. INSTALLATION
   1. HORIZONTAL SOIL AND WASTE PIPING 2-1/2 INCHES IN SIZE AND SMALLER SHALL BE SLOPED AT A MINIMUM OF 1/4 INCH PER FOOT. HORIZONTAL SOIL AND WASTE PIPING 3 INCHES IN SIZE AND LARGER SHALL BE SLOPED AT A MINIMUM OF 1/8 INCH PER FOOT.
   2. HORIZONTAL VENT BRANCHES SHALL BE KEPT ABOVE THE HIGHEST FIXTURE SERVED BY THE VENT BRANCH IN ORDER TO PRECLUDE THE POSSIBILITY OF VENTS BEING USED AS WASTE PIPES. HORIZONTAL VENT BRANCHES SHALL BE SLOPED TO PREVENT THE ACCUMULATION OF WATER OR SCALE THEREIN.
   3. ON SOIL, WASTE AND VENT PIPING CHANGES IN PIPE SIZE SHALL BE MADE WITH REDUCING FITTINGS AND CHANGES IN PIPE DIRECTION SHALL BE MADE WITH FITTINGS. NO BUSHINGS WILL BE ALLOWED.
   4. DURING CONSTRUCTION ALL PIPE OPENINGS, NOT BEING WORKED ON, SHALL BE PLUGGED OR CAPPED TO PREVENT FOREIGN OBJECTS FROM ENTERING SYSTEM.

INSULATION

A. ALL WATER PIPING SHALL BE INSULATED WITH FIBERGLASS JACKETED PIPE INSULATION.

PLUMBING FIXTURES

A. WATER CLOSET P-1
   FIXTURE KOHLER K-3999-0
   SEAT BEMIS B1655SSC000
   SEE ARCHITECTURAL DRAWINGS FOR HANDLE LOCATION.

B. LAVATORY P-3
   FIXTURE KOHLER K-2007
   FAUCET SYMMONS S20
   DRAIN PROFLO PFHGD
   P-TRAP PROFLO PF8872
   SUPPLY VALVES AND RISERS BRASSCRAFT
   P-TRAP INSULATION KIT PROFLO PF203WH
   CHAIR CARRIER J.R.SMITH

C. SINK P-6
   FIXTURE ELKAY DLR332210
   FAUCET T&S BRASS B-2872
   DRAIN ELKAY LK99
   P-TRAP MCGUIRE 8912
   SUPPLIES BRASSCRAFT

D. SHOWER P-7
   STALL AQUATIC 1363BFSMA
   WITH SHOWER VALVE AND TRIM

E. NFWH
   WOODFORD MB65-K

F. ALL FIXTURES AND TRIM SHALL BE APPROVED BY THE OWNER.

G. EMERGENCY SHOWER AND EYE WASH P-8
   SHOWER BRADLEY S19314SC
   SHOWER SHALL BE COMBINATION SHOWER AND EYE WASH MADE OF 304 STAINLESS STEEL FOR COROSION RESISTANCE. EYE WASH STATION SHALL HAVE STAINLESS STEEL BOWL AND BOWL COVER.

H. EMERGENCY SHOWER AND EYE WASH P-9
   COMBINATION EMERGENCY SHOWER AND EYE WASH SHALL BE GUARDIAN MODEL GBF1994 WITH MODEL G3800LF THERMOSTATIC MIXING VALVE OR APPROVED EQUAL.

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WATER POLLUTION CONTROL PLANT

PLUMBING - LEGEND, SCHEDULES, AND SPECIFICATIONS

SHEET: M-1A

FILE NO: 2013-36

PLOT DATE: September 29, 2023

CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
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CADD PLOT
29-SEP-2023
14:41
LCAULEY

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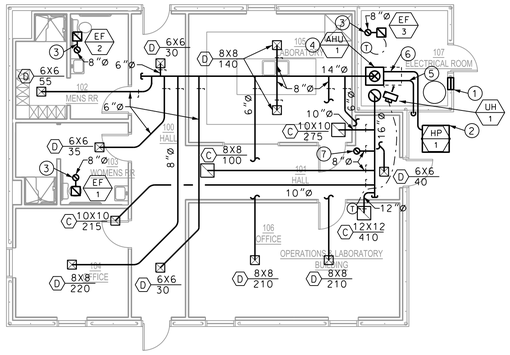


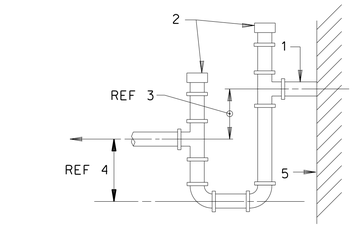
1 FLOOR PLAN - HVAC

M-2

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

HVAC NOTES:

1. PROVIDE AND INSTALL A 15-5/8" X 7-3/4" BRICK VENT. BRICK VENT SHALL BE GREENHECK MODEL: BVE OR APPROVED EQUAL. PROVIDE BRICK VENT WITH INSECT SCREEN AND WATER STOP. MOUNT BRICK VENT APPROXIMATELY 2'-0" ABOVE FINISHED FLOOR; COORDINATE EXACT MOUNTING HEIGHT WITH BLOCK WALL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND SEAL AROUND OPENING.
2. MOUNT AND SECURE HEAT PUMP ON EQUIPMENT PAD.
3. EXHAUST DUCT UP TO ROOF CAP PROVIDED WITH EXHAUST FAN. INSTALL ROOF CAP PER MANUFACTURER'S RECOMMENDATIONS.
4. MOUNT AHU ON EQUIPMENT STAND WITH VIBRATION ISOLATION PADS. PROVIDE AND INSTALL INSULATED RETURN AIR PLENUM BOX ON UNDERSIDE OF UNIT AND TAP AS REQUIRED FOR DUCT CONNECTIONS. PROVIDE AND INSTALL EQUIPMENT STAND.
5. PROVIDE AND INSTALL P-TRAP FULL SIZE OF UNIT CONDENSATE CONNECTION. EXTEND CONDENSATE DRAIN LINE TO EXTERIOR AND TURN DOWN AS SHOWN. SEAL WALL PENETRATION. SEE 4/M1.1 FOR P-TRAP DETAIL. COORDINATE EXACT ROUTING WITH WATER HEATER SERVICE CLEARANCES.
6. PROVIDE, SIZE, AND INSTALL REFRIGERANT LINE SET PER MANUFACTURER'S RECOMMENDATIONS. SEAL WALL PENETRATION. COORDINATE EXACT ROUTING WITH WATER HEATER SERVICE CLEARANCES.
7. OUTSIDE AIR DUCT UP TO ROOF CAP. INSTALL ROOF CAP PER MANUFACTURER'S RECOMMENDATIONS. ROOF CAP SHALL BE GREENHECK MODEL: RJ-6X9 WITH INTEGRAL BIRD SCREEN. REMOVE BACKDRAFT DAMPER IN FIELD TO ALLOW FOR INTAKE AIR OPERATION.

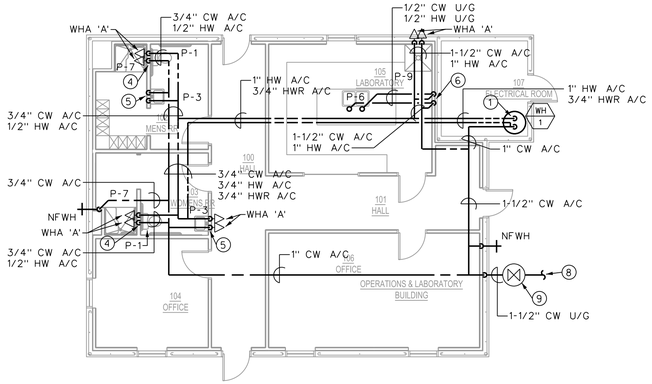


1. PIPE FULL SIZE OF AIR UNIT DRAIN CONNECTION.
2. CAPS
3. MINIMUM HEIGHT SHALL BE EQUAL TO FAN PLENUM NEGATIVE PRESSURE PLUS 1.0 INCH.
4. MINIMUM HEIGHT SHALL BE EQUAL TO HEIGHT OF REF 3 TIMES 0.5 PLUS 1 INCH.
5. AIR UNIT CASING

4 P-TRAP DETAIL DRAW THROUGH

M-2

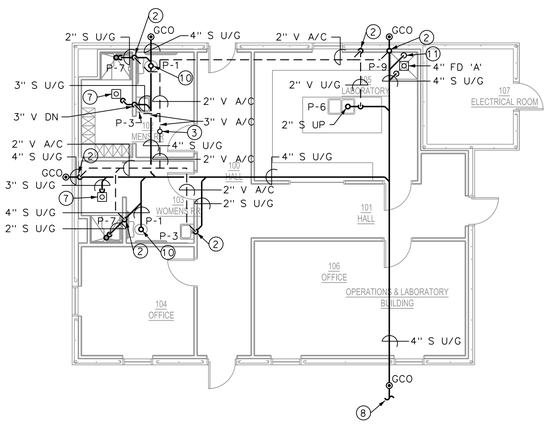
SCALE: NOT TO SCALE



2 FLOOR PLAN - DOMESTIC WATER - PLUMBING

M-2

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



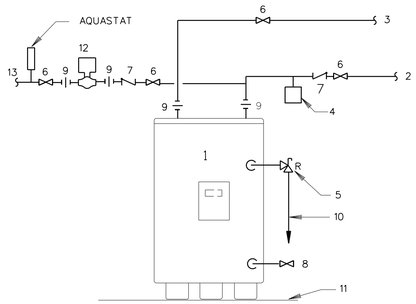
3 FLOOR PLAN - SANITARY - PLUMBING

M-2

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

PLUMBING NOTES:

1. 1" HW, 1" CW, AND 3/4" HWC DROPS TO WATER HEATER. SEE 5/M1.1 FOR CONNECTION DETAIL AND RECIRCULATION PUMP LOCATION.
2. 2" VENT DOWN.
3. 3" VENT TO ROOF.
4. 3/4" CW AND 1/2" HW DOWN. EXTEND 1/2" CW TO WATER CLOSET AND SHOWER AND EXTEND 1/2" HW TO SHOWER.
5. 1/2" CW AND 1/2" HW DOWN TO LAVATORY.
6. 1/2" CW AND 1/2" HW DOWN TO UNDER SLAB. EXTEND OVER AND TURN UP FOR SINK CONNECTION.
7. 3" FD'A' WITH SURE SEAL TRAP GUARD.
8. SEE CIVIL DRAWINGS FOR CONTINUATION.
9. COORDINATE EXACT LOCATION WITH SITE PLAN.
10. 4" SANITARY DOWN.
11. PROVIDE P-TRAP FULL SIZE OF SHOWER CONNECTION OUTLET.
12. WATER HEATER DRAIN PIPES AND PRESSURE RELIEF LINES. EXTEND FULL SIZE OF WATER HEATER CONNECTION TO EXTERIOR AND TURN DOWN.



1. WATER HEATER
2. COLD WATER SUPPLY
3. HOT WATER TO SYSTEM
4. THERMAL EXPANSION TANK
5. PRESSURE & TEMPERATURE RELIEF VALVE
6. SHUT-OFF VALVE
7. CHECK VALVE
8. 3/4" DRAIN VALVE. EXTEND FULL SIZE TO EXTERIOR OF BUILDING.
9. UNION
10. PIPE RELIEF VALVE DISCHARGE FULL SIZE TO EXTERIOR OF BUILDING
11. FINISHED FLOOR
12. HOT WATER RETURN PUMP
13. HOT WATER RETURN

5 WATER HEATER PIPING

M-2

SCALE: NOT TO SCALE

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WATER POLLUTION CONTROL PLANT

HVAC AND PLUMBING FLOOR PLANS

SHEET: M-2

FILE NO: 2013-36

PLOT DATE: September 29, 2023

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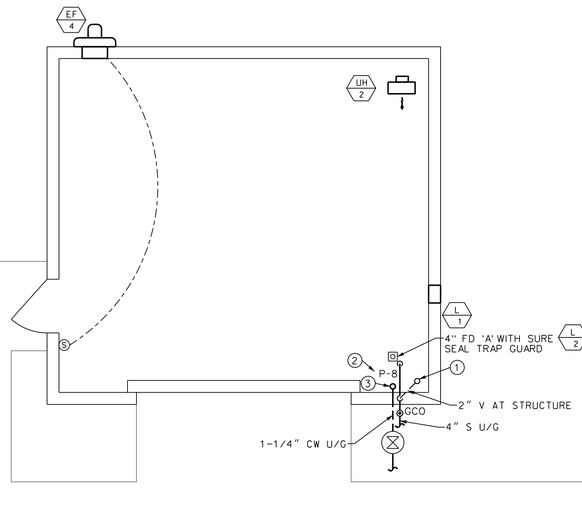

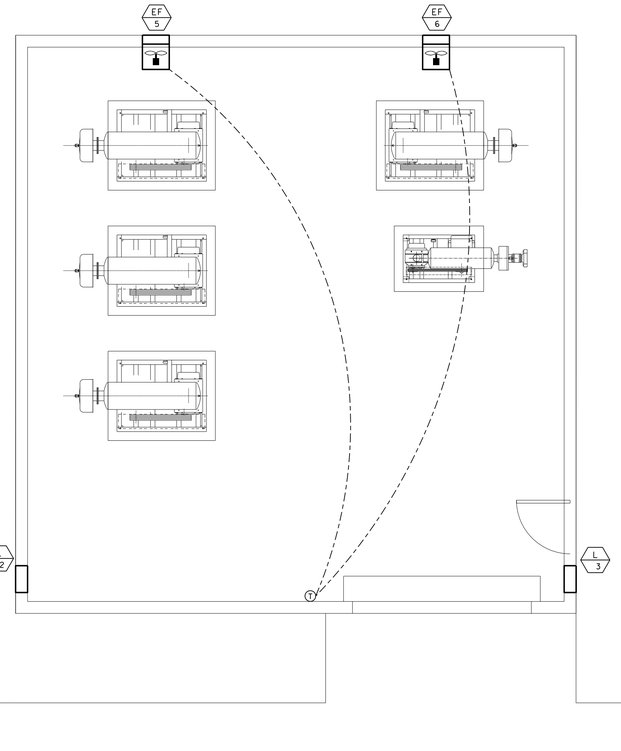

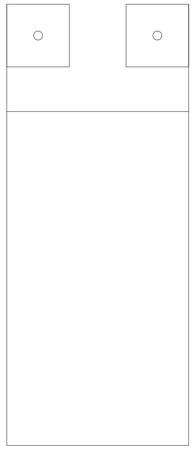

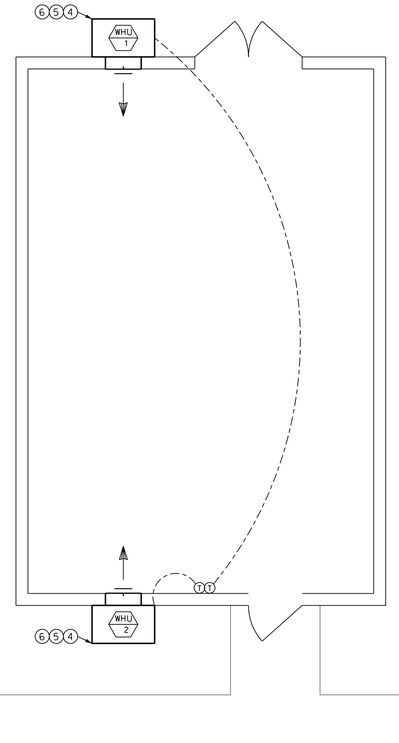

1 M-2A HVAC AND PLUMBING - CHEMICAL FEED BLDG PLAN

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

2 M-2A HVAC - BLOWER BLDG PLAN

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

3 M-2A HVAC - POWER HOUSE BLDG PLAN

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

NOTES (1/M1.2, 2/M1.2, 3/M1.2):

1. 2" VENT TO ROOF.
2. PROVIDE P-TRAP FULL SIZE OF SHOWER CONNECTION OUTLET AND EXTEND DRAIN TO VENT PIPE.
3. 1-1/4" CW UP TO SHOWER INLET.
4. INSTALL P-TRAP ON CONDENSATE DRAIN LINE. SUPPLY AND INSTALL SPLASH BLOCK ON GROUND. TURN CONDENSATE DRAIN LINE DOWN TO DRIP ON SPLASH BLOCK ON GROUND.
5. WALL HUNG UNIT MOUNTED ON WALL. UNIT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES. UNIT SHALL BE PROVIDED WITH FACTORY STANDARD WALL GRILLES, LEAD/LAG CONTROLLER AND 7-DAY PROGRAMMABLE THERMOSTAT. UNIT SHALL BE BARD W48HC-COZ. PROVIDE INTEGRAL MAIN DISCONNECT.
6. WALL HUNG UNITS SHALL HAVE THE FOLLOWING SEQUENCE OF OPERATION:
   1. UNITS SHALL BE CONTROLLED BY THERMOSTAT MOUNTED IN THE SPACE. THERMOSTAT SHALL BE SET TO MAINTAIN 80°F (ADJ.).
   2. UNITS FAN AND COMPRESSOR SHALL CYCLE AS REQUIRED TO MAINTAIN SET POINT IN SPACE.
   3. UNITS SHALL OPERATE LEAD-LAG, SWITCHING ROLES EVERY 30 DAYS.

CADD PLOT
29-SEP-2023
14:45
LCAULEY

REVISIONS:

DESIGN PROFESSIONAL:
MARCUS E. SACK
GSWCC LEVEL II # 70248
EXPIRES: 06/14/2023
MARCUS@MESACK.COM

515 NORTH MAIN STREET
P.O. BOX 649
HINESVILLE, GA 31313
TEL: (912) 368-5212

GEORGIA REGISTERED No. 42090 PROFESSIONAL JEFFERY SHANE MITCHELL ENGINEER

DATE: 9/27/23

M.E. SACK ENGINEERING 18 80

MUNICIPALITY:
CITY OF FOLKSTON

COUNTY:
CHARLTON COUNTY

OWNER:
CITY OF FOLKSTON
541 FIRST STREET
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24 HOUR CONTACT:
LEONARD LLOYD
541 FIRST STREET
FOLKSTON, GA 31537
(912) 496-2563
penderlloyd@yahoo.com

WATER POLLUTION CONTROL PLANT

HVAC AND PLUMBING F LOOR PLANS

SHEET: M-2A

FILE NO: 2013-36

PLOT DATE: September 29, 2023

CHATHAM ENGINEERING
109 PARK OF COMMERCE DRIVE, SUITE 6
SAVANNAH, GEORGIA 31405 (912)238-2400

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