



LOCATION MAP
1" = 1000'

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CITY OF WESTON EAST FORK WWTP FOR REVIEW



MAYOR
JIM MARISCHEN

ALDERMAN
MARIA WHITWORTH
KEVIN DEAL
CAROL DECKER
HEATHER RICHARDSON
MIKE HILL

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06.04.2021

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12160 N. ABRAMS RD, SUITE 508 DALLAS, TX 75243 PH: 214.503.0555
WWW.FMI-DALLAS.COM TEXAS ENGINEERING FIRM REGISTRATION F-2827

FMI PROJECT No. 19032
June 2021

GENERAL NOTES:

- CONTRACTOR AND SUB-CONTRACTORS TO VERIFY ALL EXISTING CONDITIONS. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IN WRITING IF FIELD CONDITIONS ARE DIFFERENT THAN DRAWINGS AND SHALL NOT PROCEED WITH THE WORK UNTIL THE DISCREPANCIES ARE RESOLVED.
- ALL ITEMS SPECIFIED SHALL BE PROVIDED AS PART OF THE WORK UNLESS OTHER ITEMS OF EQUAL QUALITY ARE SUBMITTED IN WRITING AND APPROVED BY ENGINEER.
- ALL WORK SHALL BE OF THE HIGHEST QUALITY AND SHALL BE SUBJECT TO APPROVAL OF OWNER.
- CONTRACTOR WILL COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES AND ORDINANCES FOR NEW CONSTRUCTION AND DEMOLITION AS INTERPRETED BY THE GOVERNING AUTHORITIES HAVING JURISDICTION IF THE STANDARDS AND CODES CONFLICT WITH ONE ANOTHER, THE MOST STRINGENT SHALL APPLY.
- ONCE CONSTRUCTION ACTIVITY BEGINS AT ANY AREA, THE CONSTRUCTION SHALL PROCEED IN AN EXPEDIENT AND TIMELY MANNER UNTIL THE CONSTRUCTION IS COMPLETE.
- THE OWNER SHALL BE INFORMED OF ALL TIMES THAT THE WORK IS BEING PERFORMED. OWNER SHALL BE NOTIFIED (1) WHEN WORK IS BEGUN EACH DAY, AND (2) WHEN WORK HAS ENDED.
- ACCESS TO THE CONSTRUCTION AREA SHALL BE COORDINATED WITH OWNER.
- TEMPORARY LIGHTING SHALL BE APPROVED IN ADVANCE BY OWNER.
- IF A CONFLICT EXISTS IN THE CONSTRUCTION DOCUMENTS, THE CONTRACTOR SHALL PROVIDE THE LARGER QUANTITY OR BETTER QUALITY OF THE TWO CONDITIONS IN THE ORIGINAL BID PRICE.
- CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE PROJECT SITE AT THE CONTRACTOR'S EXPENSE. DO NOT USE OWNER'S OR OTHER CONTRACTOR'S DUMPSTER'S FOR TRASH.
- CONTRACTOR SHALL SELECT AND USE ONLY THOSE MATERIALS DETERMINED BY TEST DATA TO BE SAFE AND RELIABLE. CONTRACTOR SHALL BE RESPONSIBLE FOR PROBLEMS AND COMPLAINTS RESULTING FROM CONSTRUCTION MATERIALS.
- CONTRACTOR SHALL APPLY FOR AND PAY FOR PERMITS REQUIRED FOR WORK.
- CONTRACTOR SHALL KEEP ACCURATE RECORDS OF CONSTRUCTION CONDITIONS AND SHALL PROVIDE THE OWNER AND ENGINEER WITH AS-BUILT DOCUMENTS AS A CONDITION FOR FINAL PAYMENT.
- IF SEVERAL CONTRACTORS ARE WORKING CONCURRENTLY IN THE SAME AREA. CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES AND VENDORS AS NECESSARY TO PHASE WORK TO AVOID CONFLICTS OF MATERIAL PLACEMENT, ROUTING, ET AL.
- IF CONFLICTS EXIST, CONSTRUCTION DOCUMENT DETAIL DRAWINGS TAKE PRECEDENCE OVER THOSE OF LESSER DETAIL / SMALLER SCALE.
- ALL EXCESS OR SALVAGEABLE MATERIALS REMOVED SHALL BE RETURNED TO OWNER. NEW MATERIALS SHALL BE USED THROUGHOUT UNLESS SPECIFICALLY NOTED OTHERWISE IN THESE DOCUMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPMENT AND MANAGEMENT OF THE CONSTRUCTION SCHEDULE, PREPARING AND VERIFYING MATERIAL QUANTITIES, ALL PRODUCT ORDERS, FULL COORDINATION OF TRADES, MAINTAINING CONSISTENT TECHNIQUES OF ASSEMBLY, MAINTAINING THE OWNER'S REQUIREMENTS, MAINTAINING SAFETY AND SECURITY MEASURES, OBTAINING ALL PERMITS, PAYMENTS OF FEES AND FULL COMPLIANCE WITH ALL APPLICABLE GOVERNING AUTHORITIES, CODES AND SAFETY REGULATIONS AT LOCAL, STATE AND FEDERAL LEVELS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO PROJECT SCHEDULE AND GUIDELINES AND SHALL UPDATE SCHEDULE AS REQUIRED BY OWNER.
- BEFORE BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL PREPARE A CONSTRUCTION SEQUENCE SCHEDULE. THE CONSTRUCTION SCHEDULE SHALL BE SUCH THAT THERE IS A MINIMUM OF INTERFERENCE WITH TRAFFIC ALONG OR ADJACENT TO THE PROJECT.
- CONSTRUCTION MAY NOT BE BEGUN EARLIER THAT 7:00 A.M. ON WEEKDAYS NOR CONTINUED AFTER DARK WITHOUT PERMISSION FROM THE CITY OF WESTON. CONSTRUCTION ON SATURDAY MAY NOT BE BEGUN BEFORE 8:00 A.M. AND WORK ON SUNDAY IS PROHIBITED WITHOUT SPECIAL PERMISSION.
- WORK MAY NOT BE BACKFILLED OR COVERED UNTIL IT HAS BEEN INSPECTED BY THE CITY.
- MATERIAL TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY APPROVED BY THE OWNER AND PAID FOR THE CONTRACTOR.
- ALL EXCAVATION ON THE PROJECT IS UNCLASSIFIED.
- TEMPORARY EROSION CONTROL SHALL BE USED TO MINIMIZE THE SPREAD OF SILT AND MUD FROM THE PROJECT ON TO EXISTING STREETS, ALLEYS, DRAINAGE WAYS AND PUBLIC AND PRIVATE PROPERTY. TEMPORARY EROSION CONTROLS MAY INCLUDE BERMS, DIKES, SWALES, STRIPS OF UNDISTURBED VEGETATION, CHECK DAMS AND OTHER METHODS AS REQUIRED BY THE CITY ENGINEER.
- ALL TRENCHING AND EXCAVATION SHALL BE PERFORMED IN ACCORDANCE WITH THE OSHA STANDARDS.
- ALL BACKFILL WILL BE COMPACTED AT A MOISTURE CONTENT OF +2% OR HIGHER OF OPTIMUM MOISTURE AS DETERMINED BY ASTM D-698 WHERE ASTM D-698 IS THE APPLICABLE TEST METHOD. TEX 113-E MAY BE USED FOR GRANULAR SOILS.


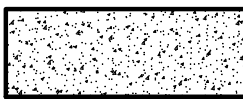









EROSION CONTROL

- TOP SOIL SHALL NOT BE REMOVED FROM SITE, BUT IT SHALL BE STRIPPED AND REPLACED TO PROVIDE AT LEAST SIX (6) INCHES OF COVER ON THE SITE. PERMANENT EROSION CONTROL MEASURES SHALL BE PROVIDED THROUGHOUT THE PROJECT AND PRIOR TO FINAL ACCEPTANCE.
- THE CONTRACTOR SHALL INSTALL EROSION PROTECTION AS NECESSARY.

PROJECT ABBREVIATIONS

BNG	BURIED NATURAL GAS
CL	CENTERLINE
CB	CHORD BEARING
CO	CLEANOUT
CONST.	CONSTRUCTION
CNTL. PNT.	CONTROL POINT
CMP	CORRUGATED METAL PIPE
D	DELTA
DG	DIGESTER GAS
ESMT	EASEMENT
E	EASTING
ELEV.	ELEVATION
EX./EXIST.	EXISTING
FH	FIRE HYDRANT
FL	FLOW LINE
HM	HIGHWAY MONUMENT
IRF	IRON ROD FOUND
LT.	LEFT
L	LENGTH
LF	LINEAR FEET
MH	MANHOLE
N	NORTHING
NPWL	NON-POTABLE WATER LINE
OFF.	OFFSET
PERM.	PERMANENT
PI	POINT OF INTERSECTION
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
PRC	POINT OF REVERSE CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PP	POWER POLE
PROP.	PROPOSED
R	RADIUS
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RT.	RIGHT
SS	SANITARY SEWER LINE
SWD	SIDE WATER DEPTH
SL	SLUDGE LINE
SY	SQUARE YARD
STN. STL.	STAINLESS STEEL
STA	STATION
SRL	SUPERNATANT RETURN LINE
T	TANGENT
TEL	TELEPHONE
TP	TELEPHONE PEDESTAL
TEMP.	TEMPORARY
WL	WATER LINE
WV	WATER VALVE

PROJECT LEGEND

	PROPOSED STRUCTURE
	PROPOSED CONCRETE
	PROPOSED PIPING
	FUTURE STRUCTURE
	FUTURE SIDEWALK
	FUTURE PIPING
	MINOR CONTOURS
	MAJOR CONTOURS
	UNDERGROUND ELECTRICAL
	EXISTING BARBWIRE FENCE
	EXISTING TREE LINE

No.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP

GENERAL NOTES

FOR REVIEW

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PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
06.04.2021

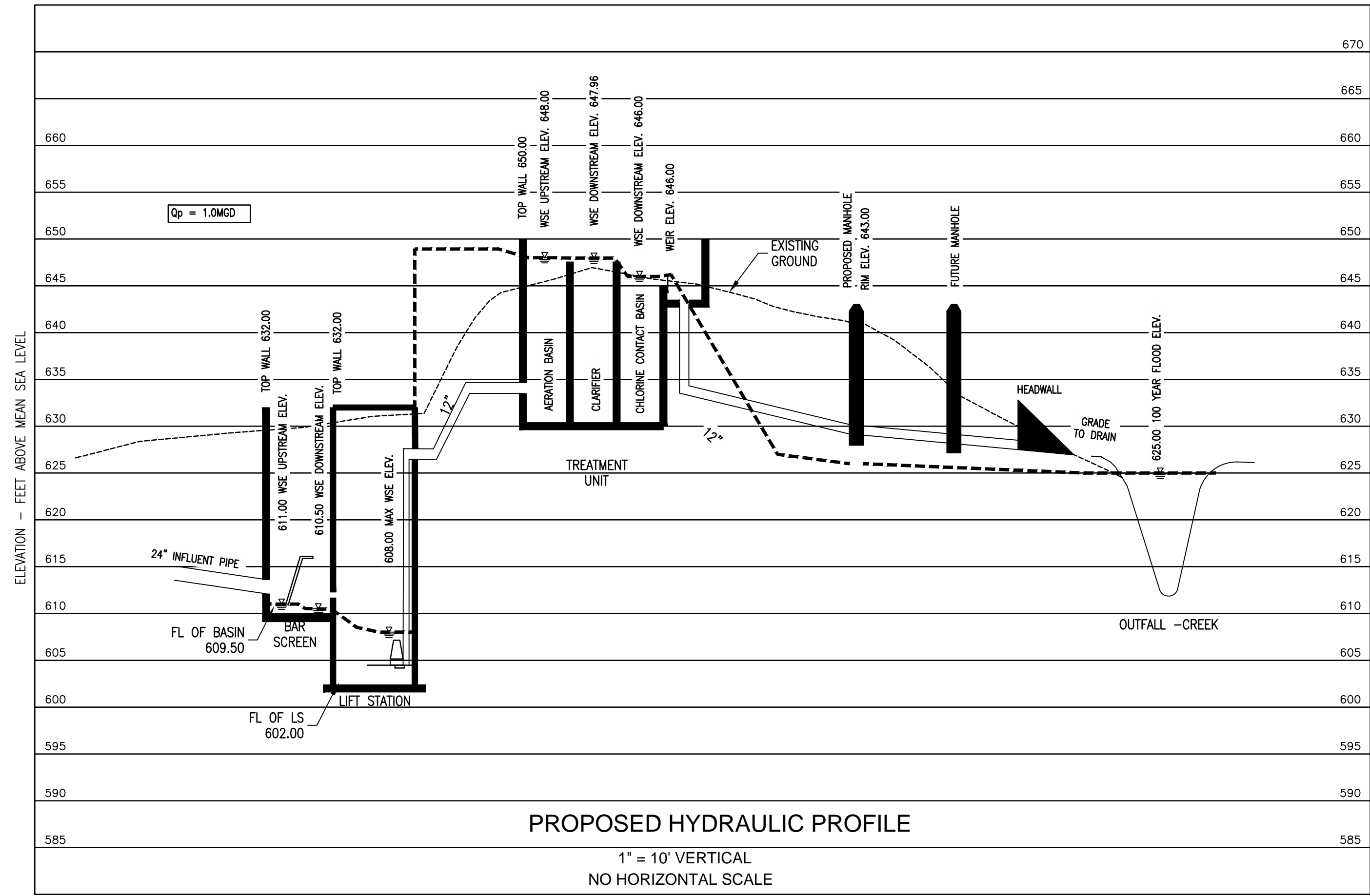
IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2" OF NOTED SCALE.

PROJECT No. 19032
DESIGNED: LjF
DRAWN: STG
CHECKED: MDH

SHEET
G.2.0

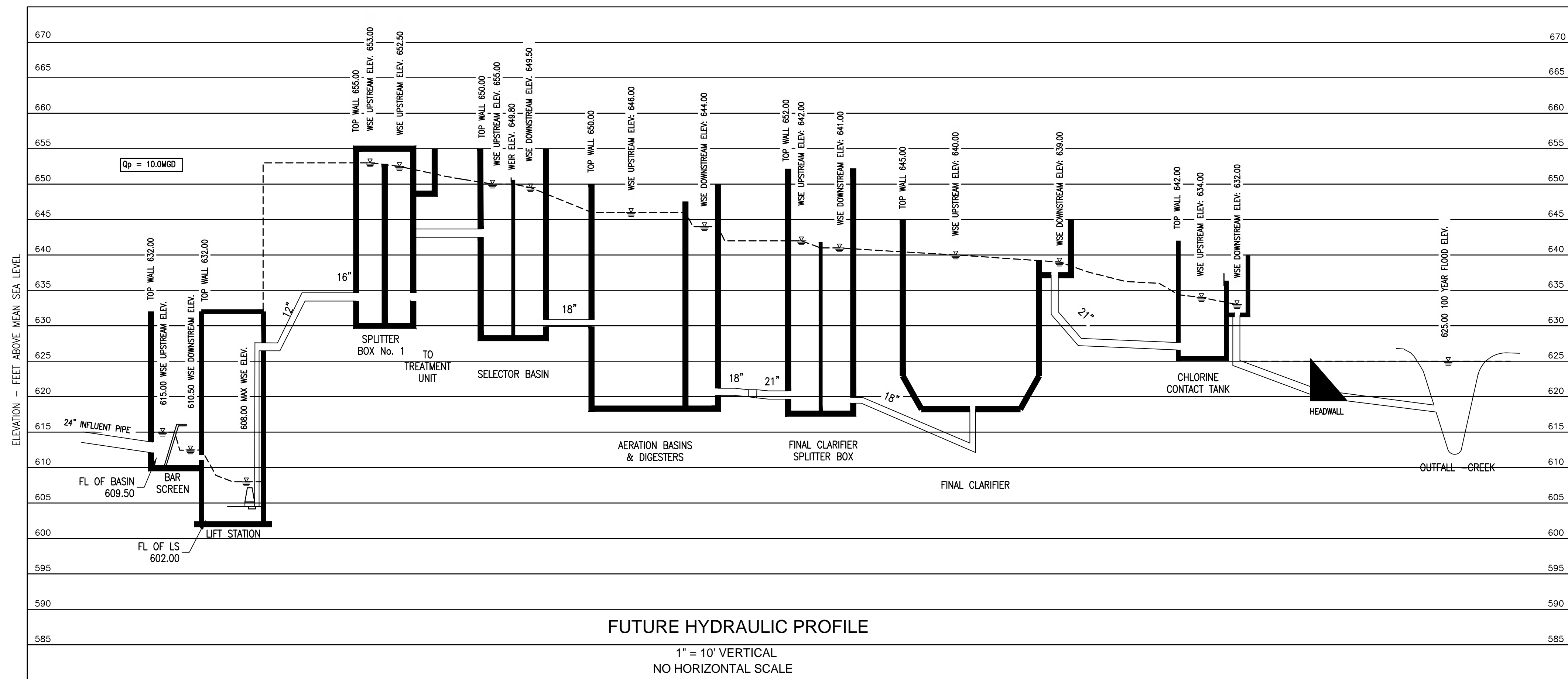
SHEET 2 OF ###

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PROPOSED HYDRAULIC PROFILE

1" = 10' VERTICAL
NO HORIZONTAL SCALE



FUTURE HYDRAULIC PROFILE

1" = 10' VERTICAL
NO HORIZONTAL SCALE

NO.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP

HYDRAULIC PROFILE

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PROJECT No. 19032
DESIGNED: LFG
DRAWN: FMI
CHECKED: MDH

SHEET
G.3.0
SHEET 3 OF ###



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CITY OF WESTON
 EAST FORK WWTP
 PROCESS FLOW DIAGRAM

DESIGN CRITERIA

AVERAGE FLOW = 0.25 MGD
 PEAK FLOW = 1.0 MGD (694 GPM)
 INFLUENT BOD₅ = 250 MG/L
 INFLUENT TSS (TOTAL SUSPENDED SOLIDS) = 200 MG/L
 INFLUENT NH₃-N (AMMONIA NITROGEN) = 35 MG/L = LB/DAY
 EFFLUENT BOD₅ = 10 MG/L
 EFFLUENT TSS = 15 MG/L
 EFFLUENT NH₃-N = 3 MG/L

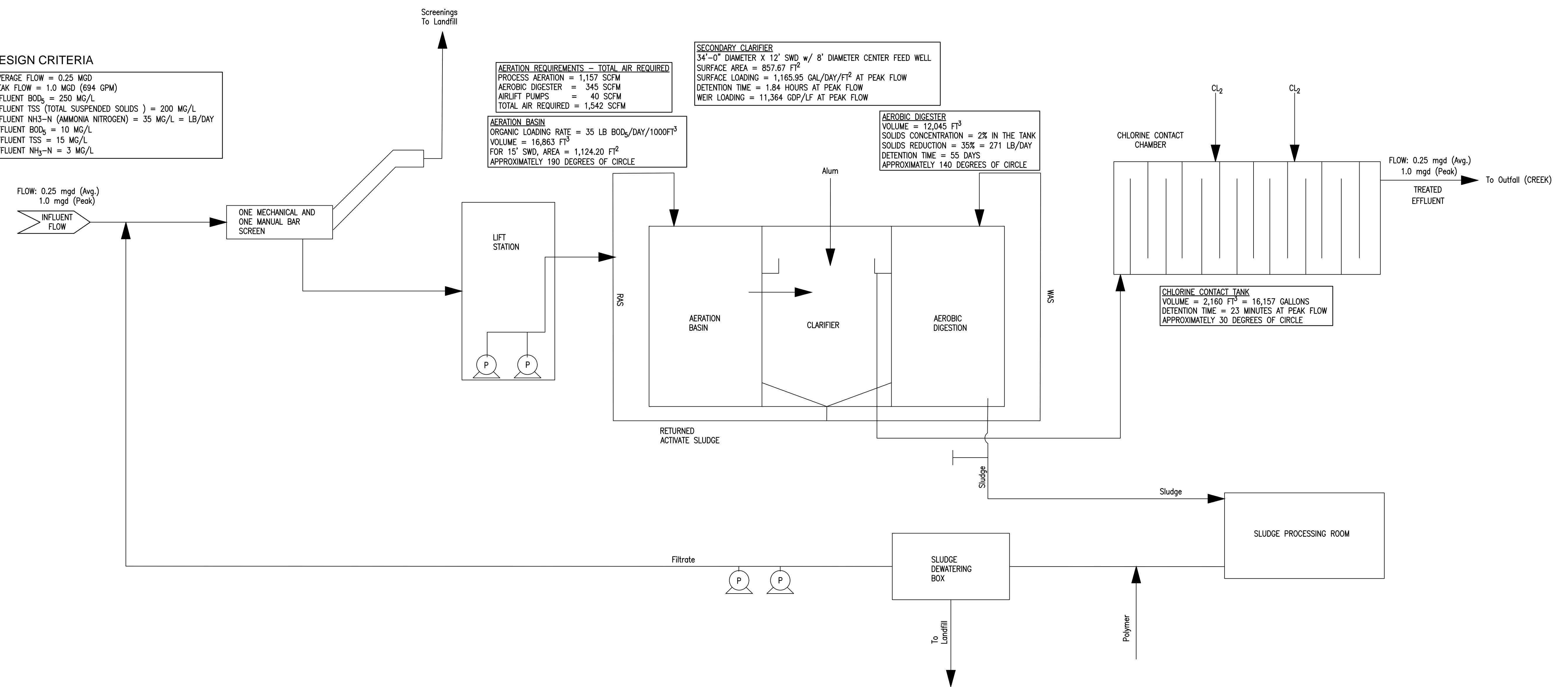
AERATION REQUIREMENTS - TOTAL AIR REQUIRED
 PROCESS AERATION = 1,157 SCFM
 AEROBIC DIGESTER = 345 SCFM
 AIRLIFT PUMPS = 40 SCFM
 TOTAL AIR REQUIRED = 1,542 SCFM

SECONDARY CLARIFIER
 34'-0" DIAMETER X 12' SWD, w/ 8' DIAMETER CENTER FEED WELL
 SURFACE AREA = 857.67 FT²
 SURFACE LOADING = 1,165.95 GAL/DAY/FT² AT PEAK FLOW
 DETENTION TIME = 1.84 HOURS AT PEAK FLOW
 WEIR LOADING = 11,364 GDP/LF AT PEAK FLOW

AERATION BASIN
 ORGANIC LOADING RATE = 35 LB BOD₅/DAY/1000FT³
 VOLUME = 16,863 FT³
 FOR 15' SWD, AREA = 1,124.20 FT²
 APPROXIMATELY 190 DEGREES OF CIRCLE

AEROBIC DIGESTER
 VOLUME = 12,045 FT³
 SOLIDS CONCENTRATION = 2% IN THE TANK
 SOLIDS REDUCTION = 35% = 271 LB/DAY
 DETENTION TIME = 55 DAYS
 APPROXIMATELY 140 DEGREES OF CIRCLE

CHLORINE CONTACT TANK
 VOLUME = 2,160 FT³ = 16,157 GALLONS
 DETENTION TIME = 23 MINUTES AT PEAK FLOW
 APPROXIMATELY 30 DEGREES OF CIRCLE



FLOW SCHEMATIC
 NOT TO SCALE

FOR REVIEW

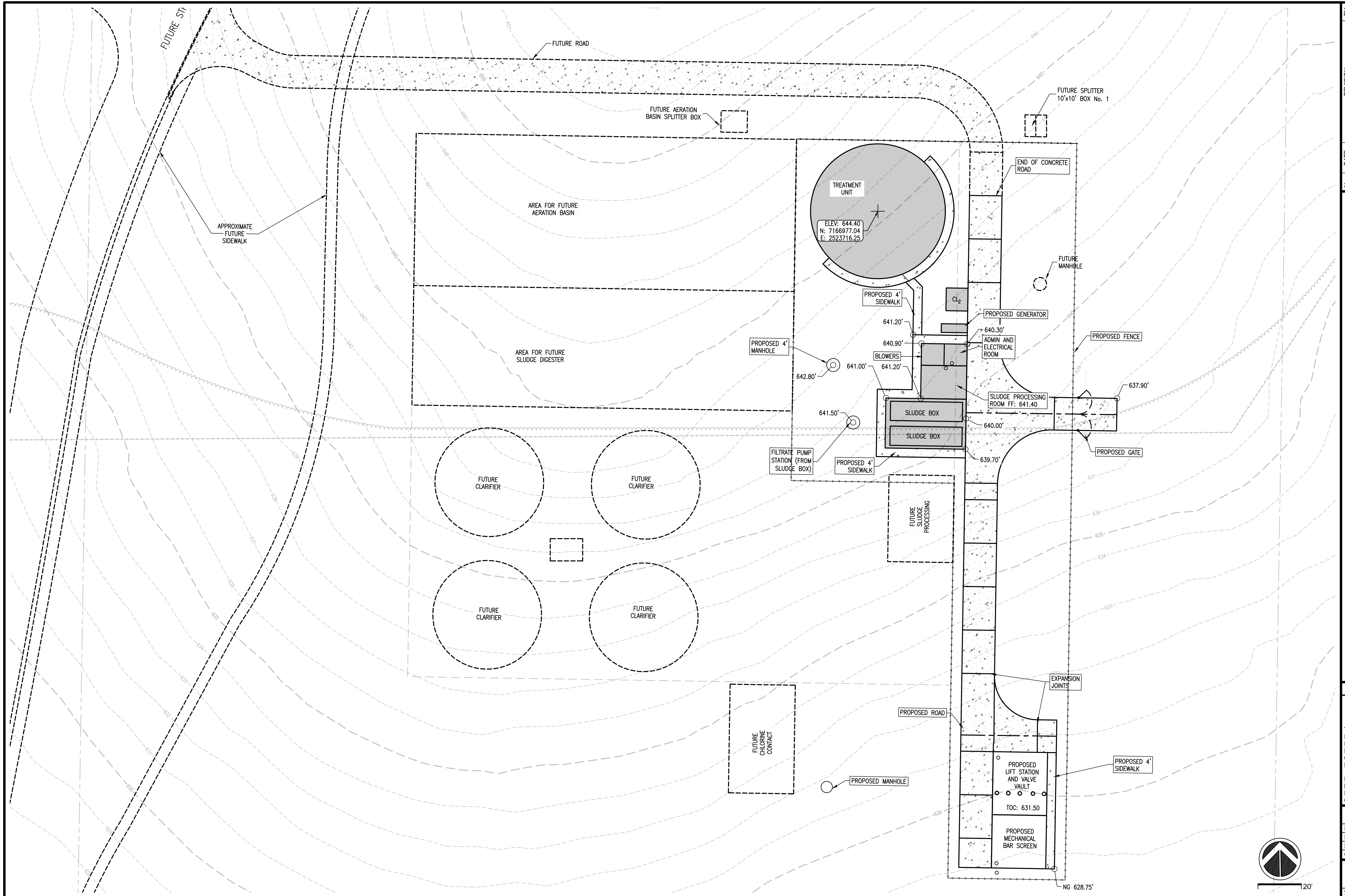
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 No. 29907 ON
 06.04.2021

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 DRAWN: FMI
 CHECKED: FMI

SHEET
G.4.0
 SHEET 4 OF ###



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PROPOSED SITE PLAN

FOR REVIEW

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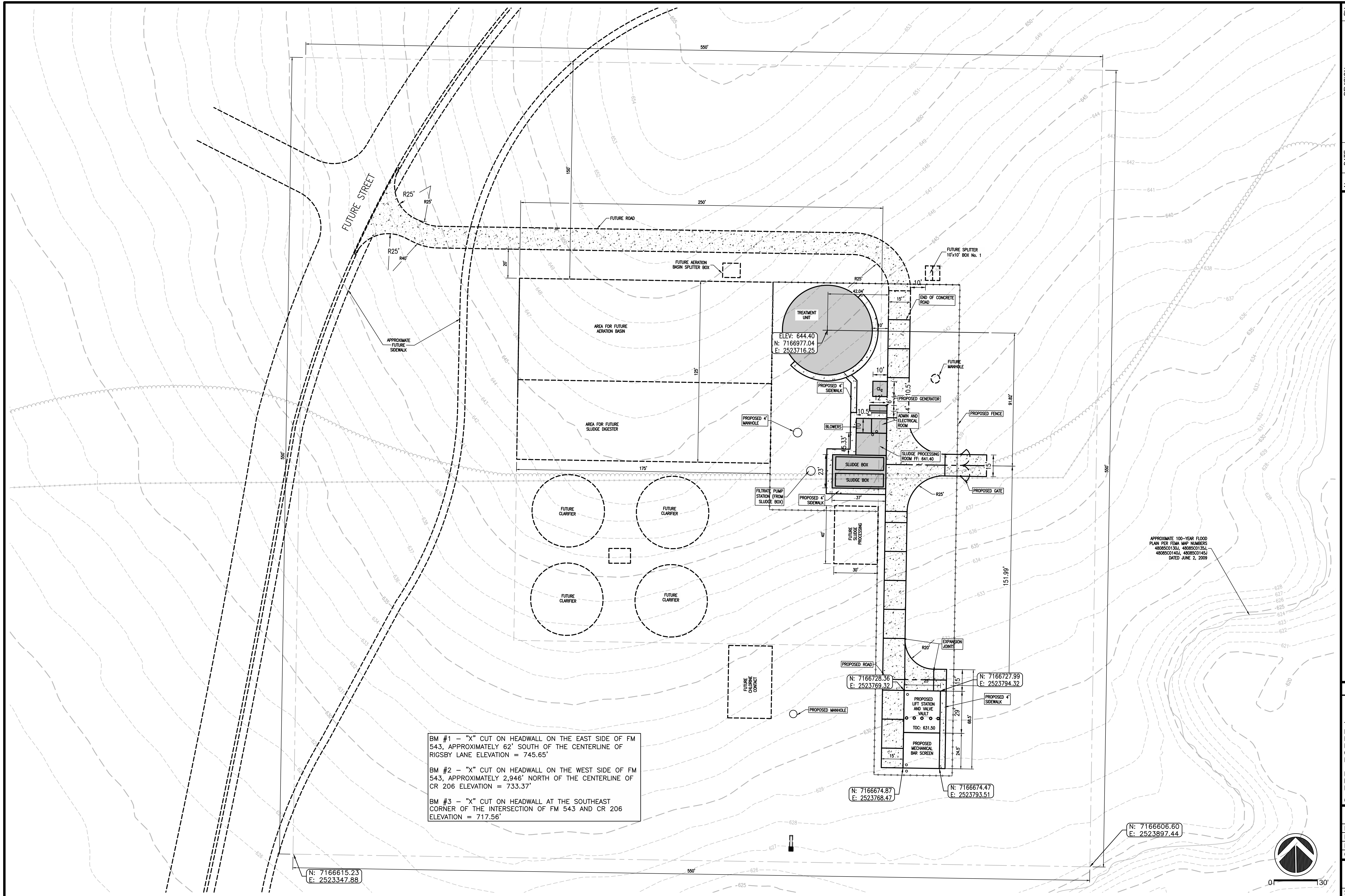
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06.04.2021

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CHECKED: FMI

SHEET
C.1.0
SHEET 5 OF ###





BM #1 - "X" CUT ON HEADWALL ON THE EAST SIDE OF FM 543, APPROXIMATELY 62' SOUTH OF THE CENTERLINE OF RIGSBY LANE ELEVATION = 745.65'

BM #2 - "X" CUT ON HEADWALL ON THE WEST SIDE OF FM 543, APPROXIMATELY 2,946' NORTH OF THE CENTERLINE OF CR 206 ELEVATION = 733.37'

BM #3 - "X" CUT ON HEADWALL AT THE SOUTHEAST CORNER OF THE INTERSECTION OF FM 543 AND CR 206 ELEVATION = 717.56'

N: 7166615.23
E: 2523347.88

N: 7166728.36
E: 2523769.32

N: 7166727.99
E: 2523794.32

N: 7166674.87
E: 2523768.47

N: 7166674.47
E: 2523793.51

N: 7166606.60
E: 2523897.44



0' 130'

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CITY OF WESTON
EAST FORK WWTP
DIMENSION CONTROL PLAN

FOR REVIEW

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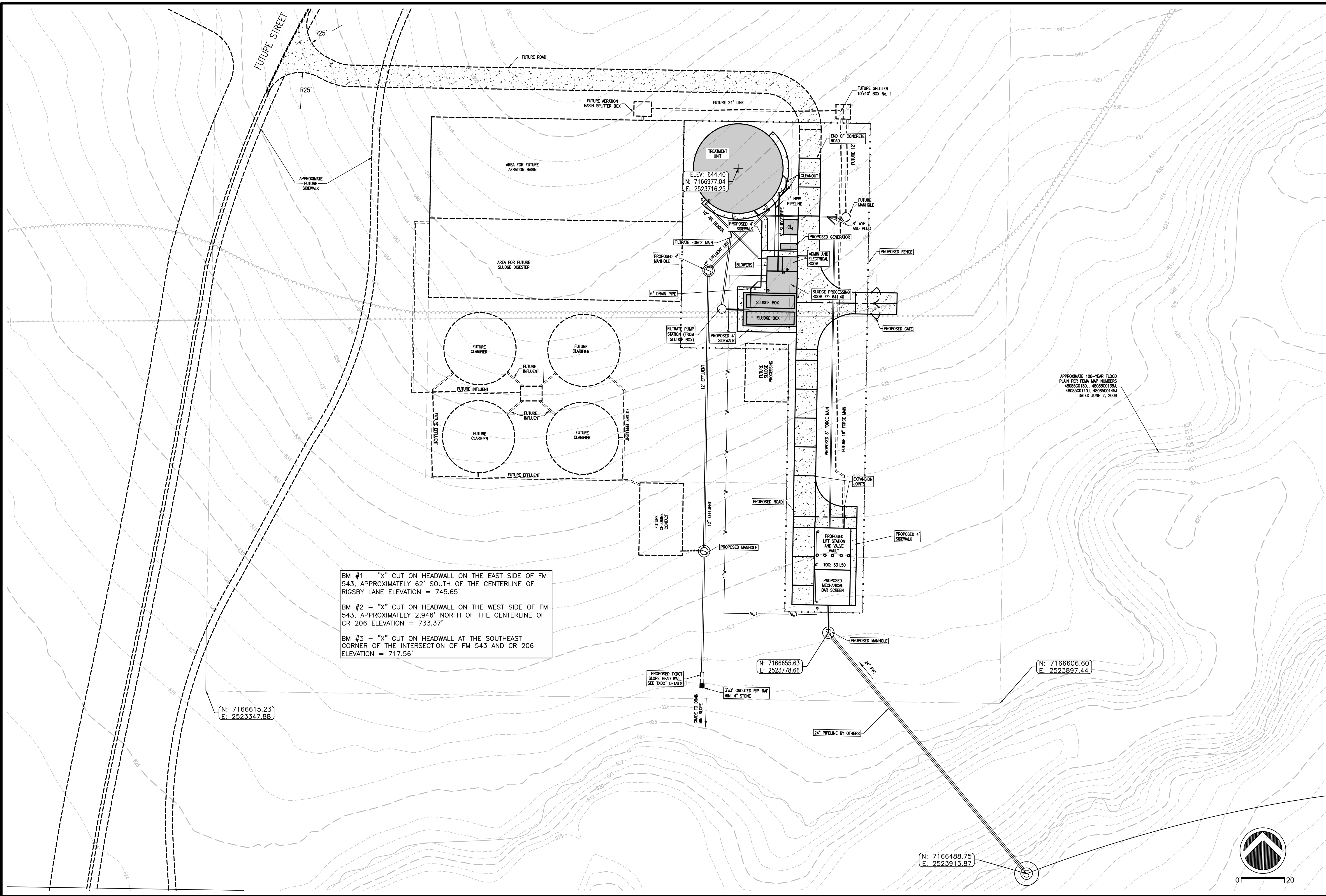
DRAWN: FMI

CHECKED: FMI

SHEET

C.2.0

SHEET 6 OF ###



BM #1 - "X" CUT ON HEADWALL ON THE EAST SIDE OF FM 543, APPROXIMATELY 62' SOUTH OF THE CENTERLINE OF RIGSBY LANE ELEVATION = 745.65'

BM #2 - "X" CUT ON HEADWALL ON THE WEST SIDE OF FM 543, APPROXIMATELY 2,946' NORTH OF THE CENTERLINE OF CR 206 ELEVATION = 733.37'

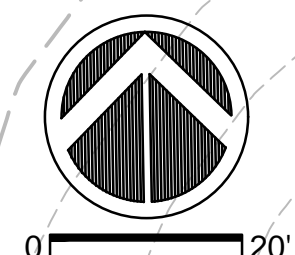
BM #3 - "X" CUT ON HEADWALL AT THE SOUTHEAST CORNER OF THE INTERSECTION OF FM 543 AND CR 206 ELEVATION = 717.56'

N: 7166615.23
E: 2523347.88

N: 7166655.63
E: 2523778.66

N: 7166606.60
E: 2523897.44

N: 7166488.75
E: 2523915.67



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CITY OF WESTON
EAST FORK WWTP
YARD PIPING

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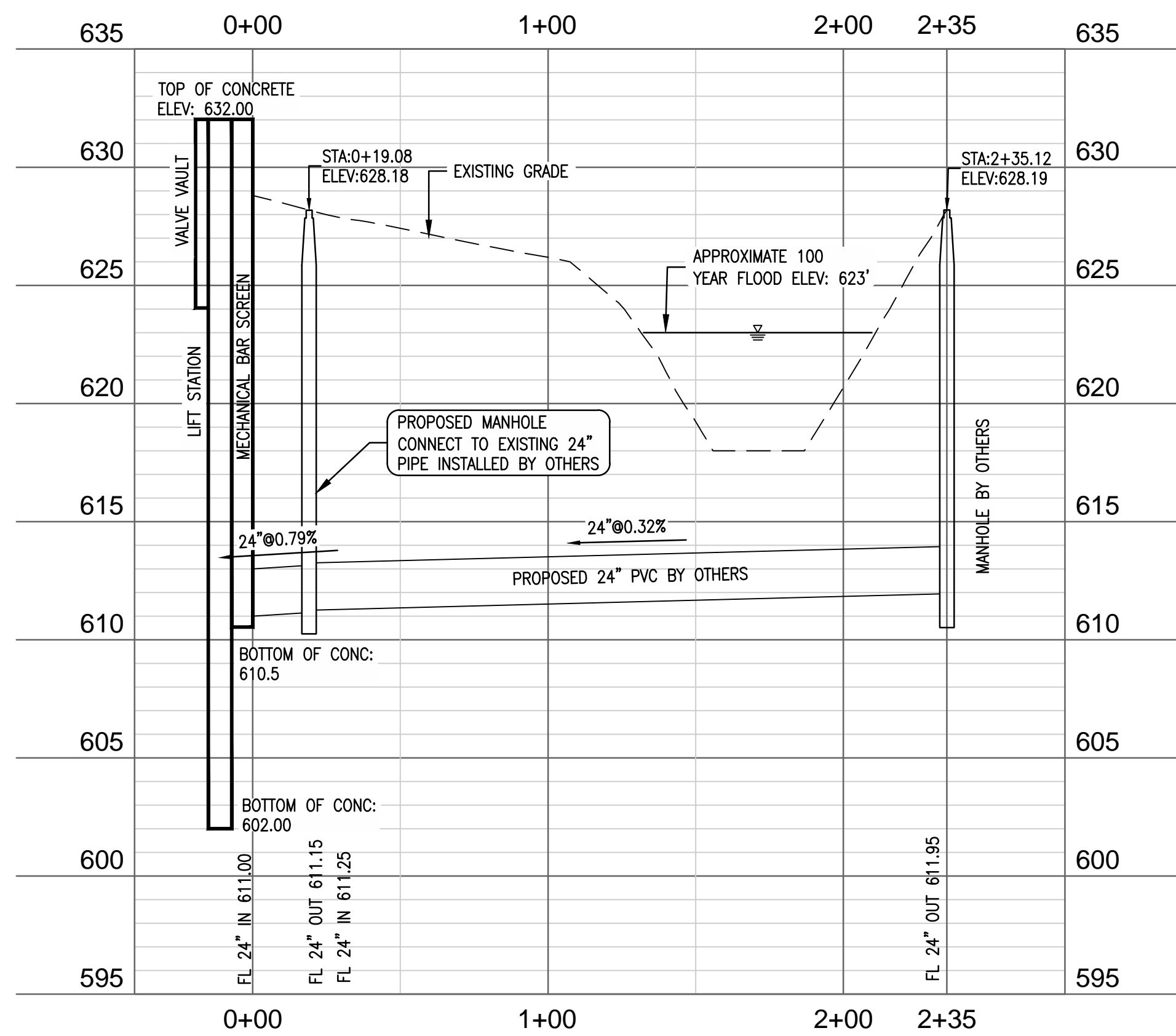
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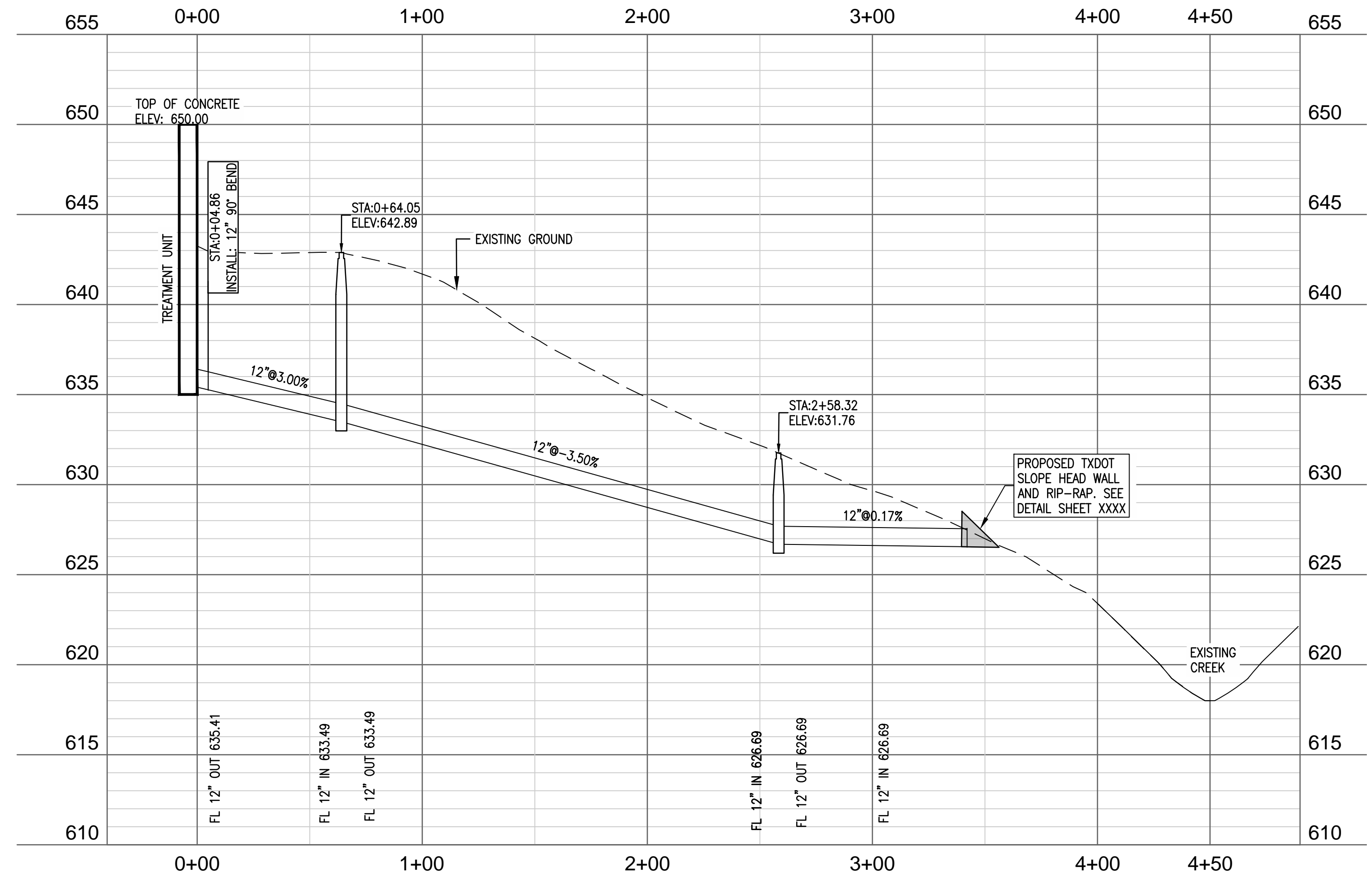
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CHECKED: FMI

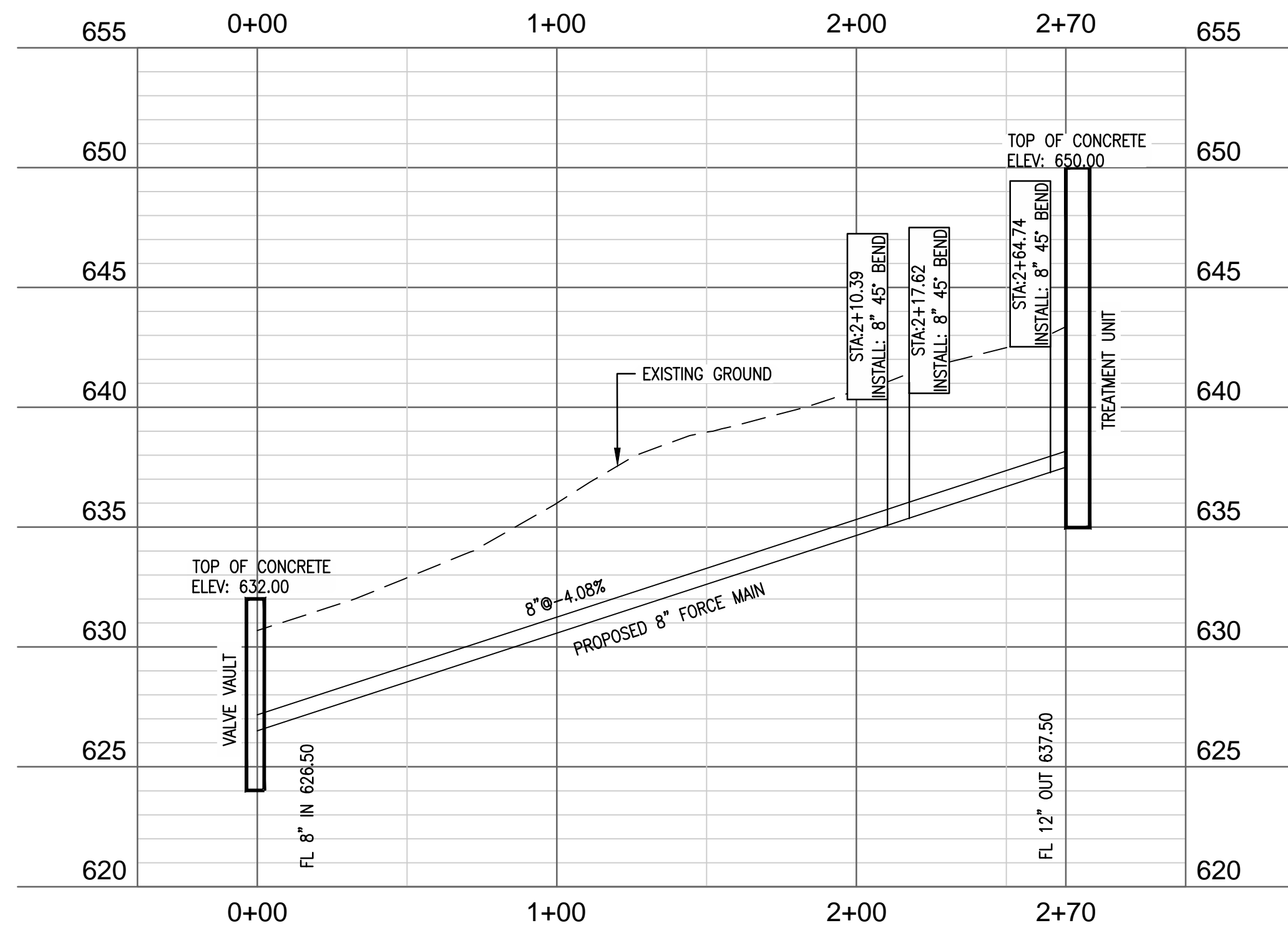
SHEET
C.3.0
SHEET 7 OF ###



① 24INCH PVC TO MECHANICAL BAR SCREEN
H:1"=40' V:1"=5'



② 12INCH PVC EFFLUENT FROM TREATMENT UNIT
H:1"=40' V:1"=5'



③ 8INCH PVC FROM LIFT STATION VALVE VAULT TO TREATMENT UNIT
H:1"=40' V:1"=5'

NO.	DATE	REVISION

CITY OF WESTON
EAST FORK WWTP
PIPE PROFILES

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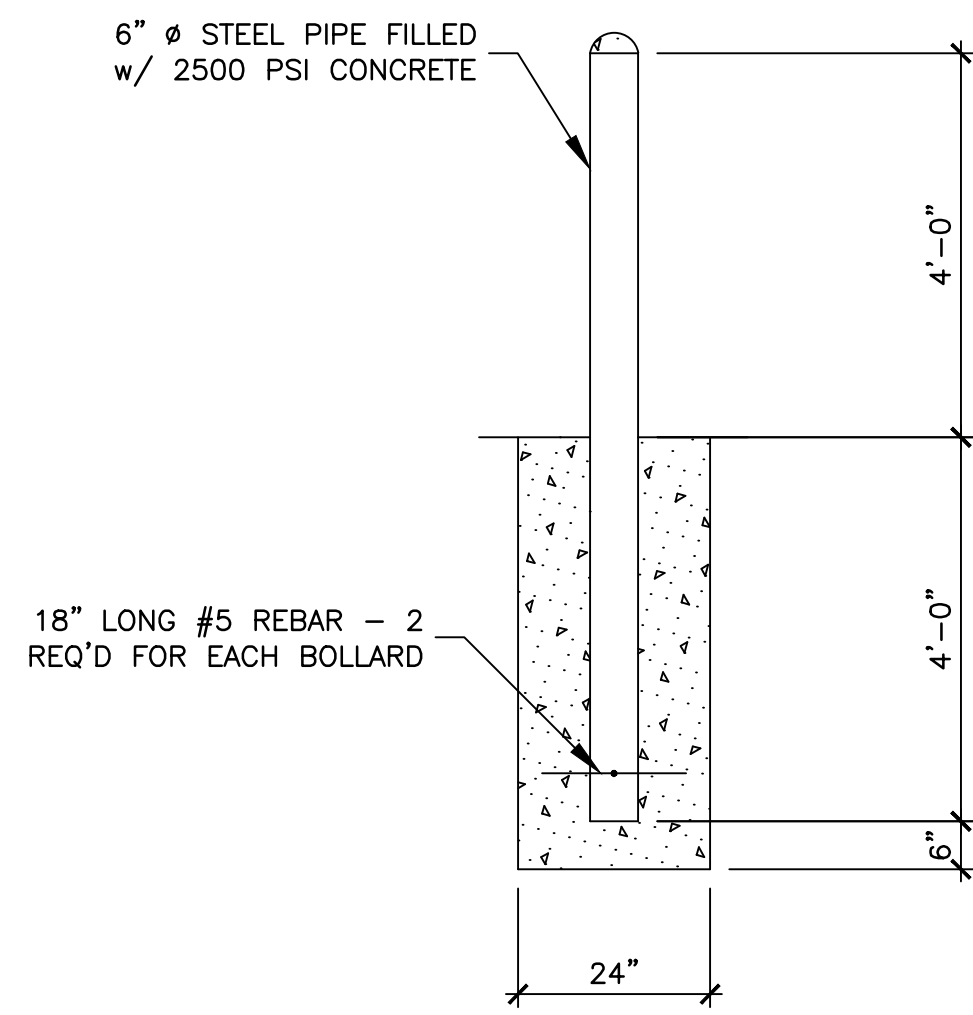
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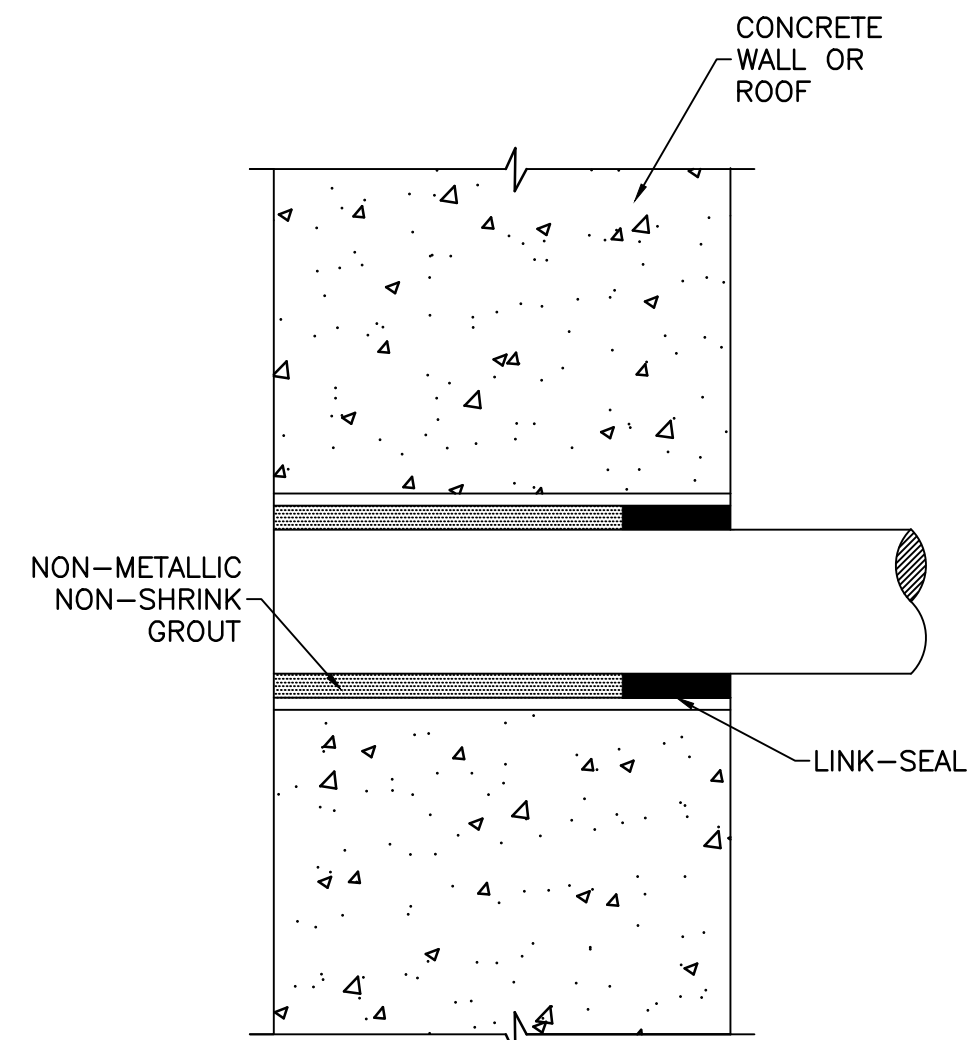
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SHEET
C3.1
SHEET ### OF ###

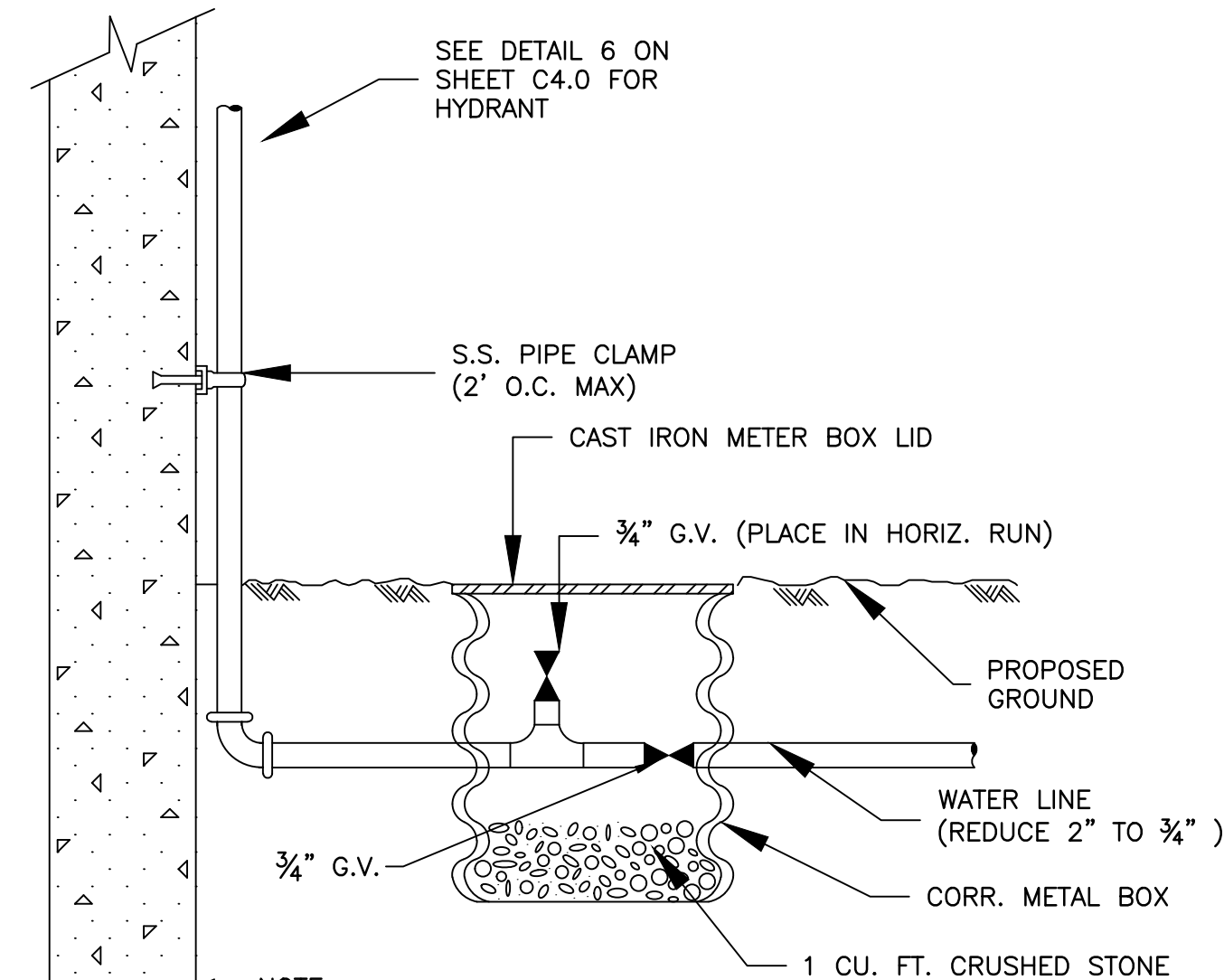




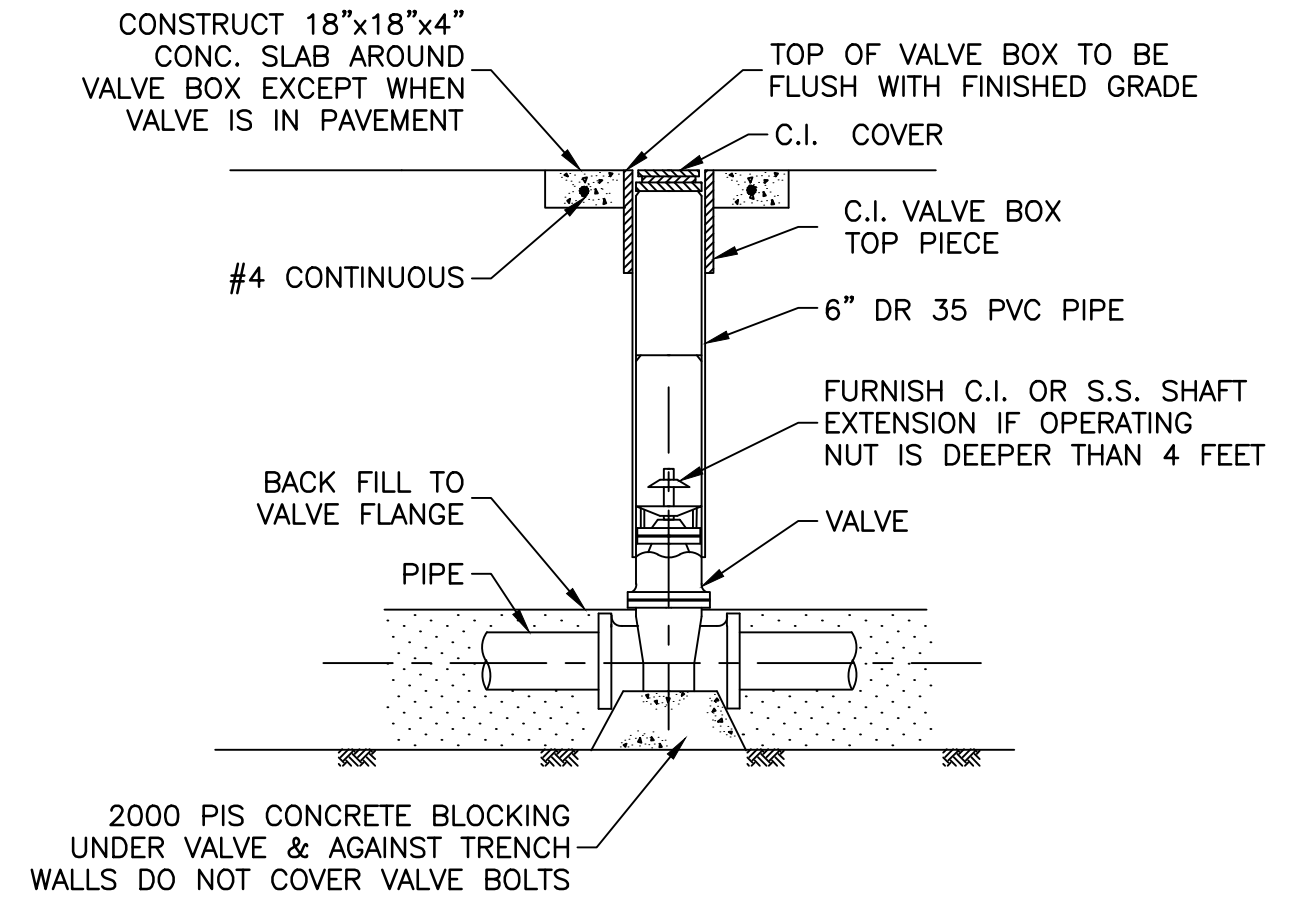
1 BOLLARD DETAIL
NO SCALE



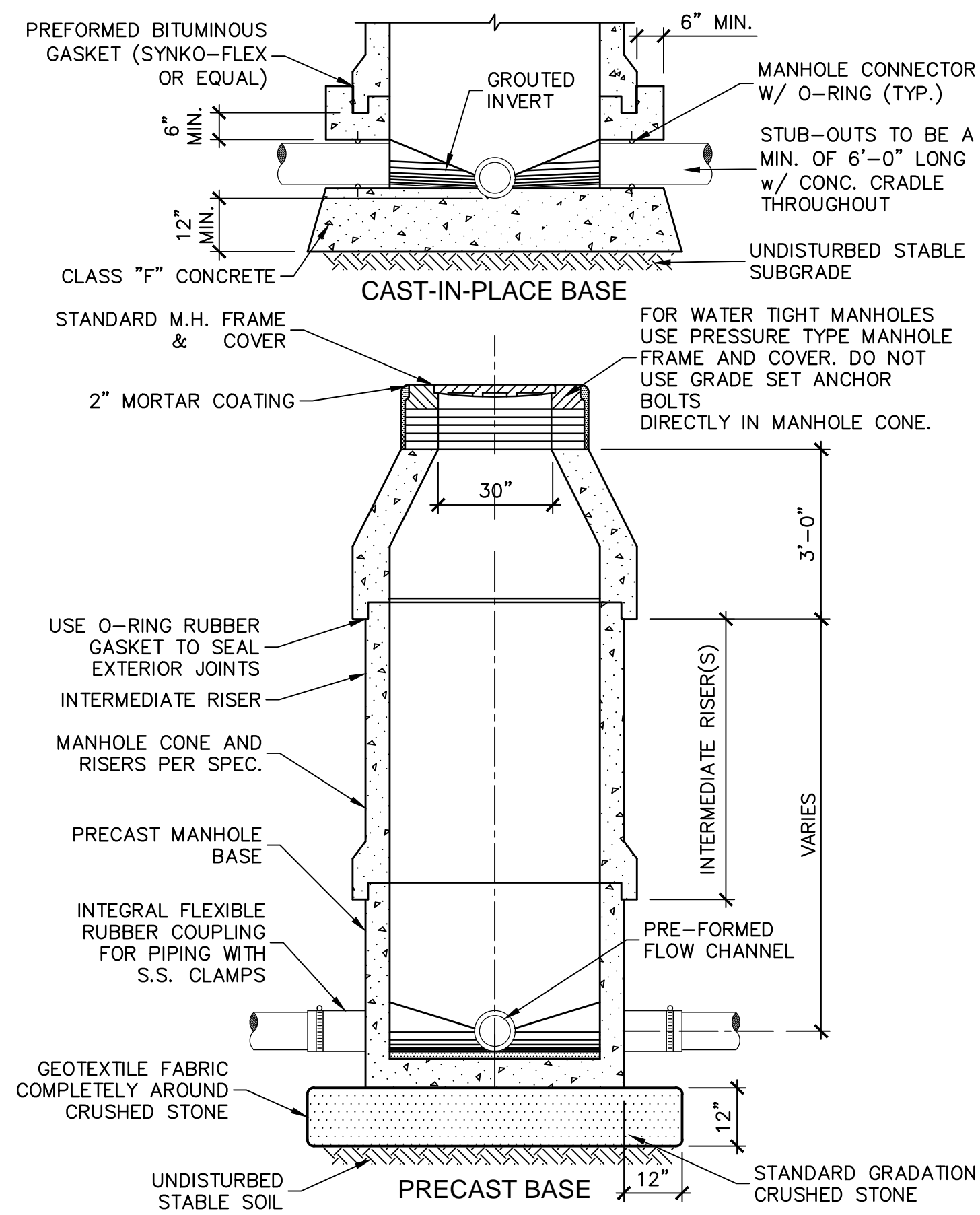
2 SMALL PIPE PENETRATION DETAIL
1" = 1'-0"



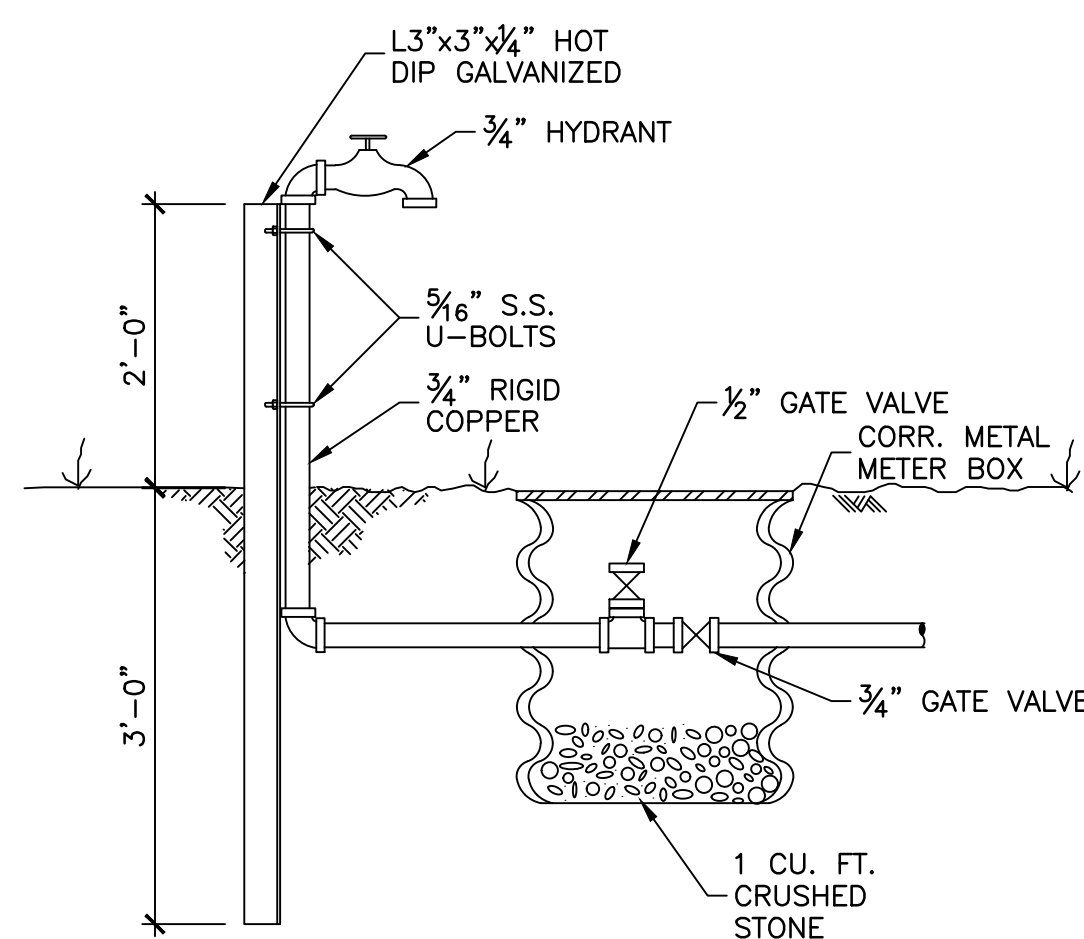
3 HOSE BIBB DRAIN AT STRUCTURE
1" = 1'-0"



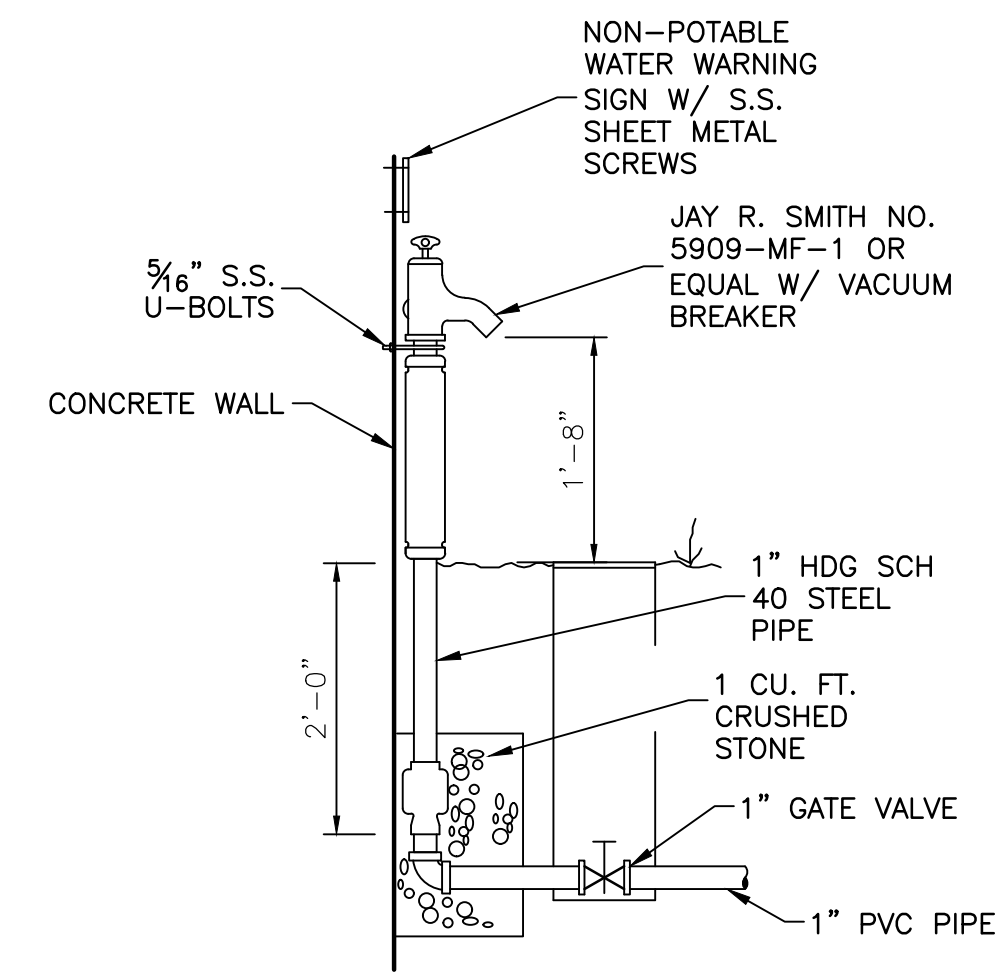
4 VALVE INSTALLATION
NO SCALE



5 STANDARD PRECAST MANHOLE
NO SCALE



6 HOSE BIBB DETAIL
N.T.S.



7 NON FREEZE HOSE BIBB DETAIL
N.T.S.

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CITY OF WESTON
EAST FORK WWTP
CIVIL DETAILS

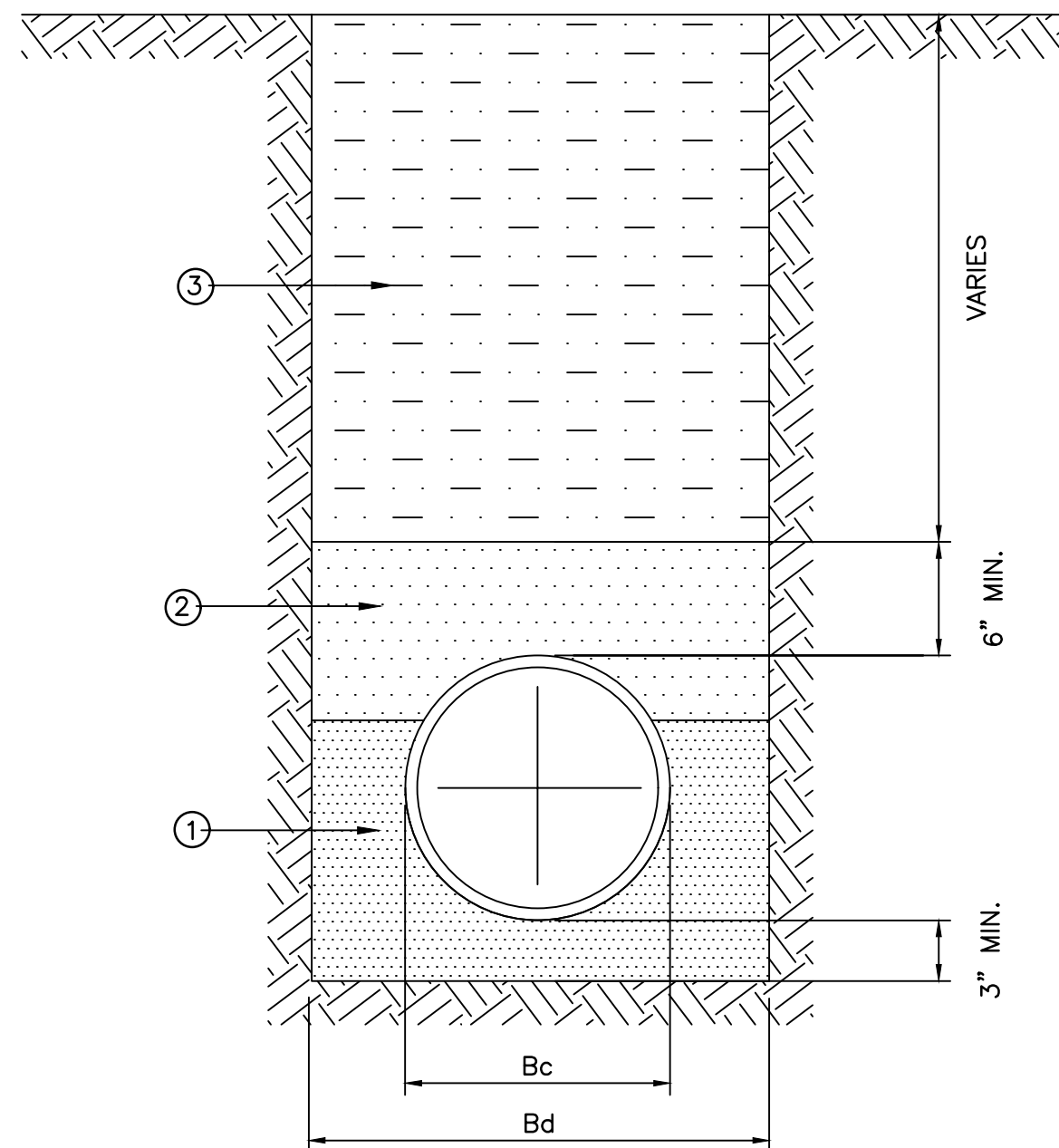
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No. 29907 ON
06.04.2021

IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2 OF NOTED SCALE.
PROJECT No. 19032
DESIGNED: FMI
DRAWN: FMI
CHECKED: FMI

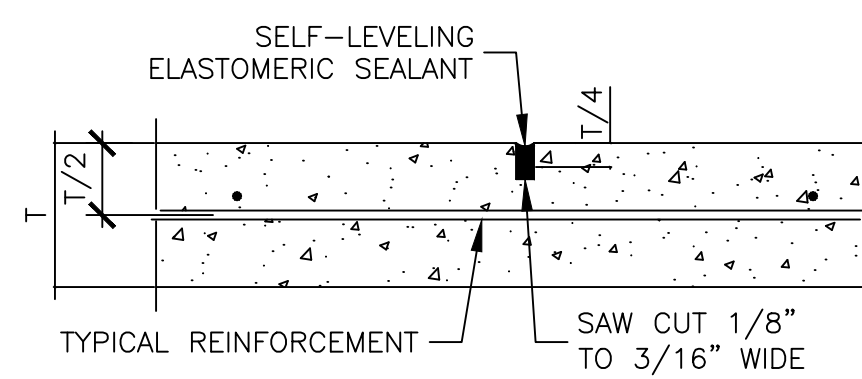
SHEET
C.4.0
SHEET 9 OF ###



NOMINAL PIPE DIAMETER (INCHES)	Bc OUTSIDE DIAMETER (INCHES)	Bd TRENCH WIDTH (INCHES)	Bd TRENCH WIDTH (FEET)
4	4.80	15	1.25
6	6.90	24	2.00
8	9.05	24	2.00
24	25.80	36	3.00

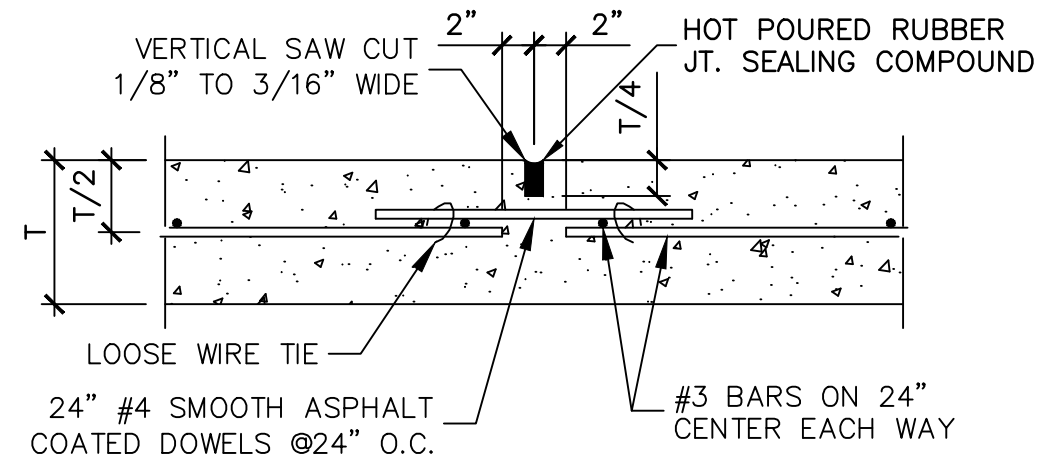
- ① FINE GRADATION COMPACTED CRUSHED STONE— FINE GRADATION GRADE TO PROVIDE UNIFORM SUPPORT OF PIPE BARREL. EXCAVATE BELL HOLES.
- ② GRANULAR MATERIAL COMPACTED TO 95% STANDARD PROCTOR DENSITY.
- ③ SELECT MATERIAL FREE OF ROCKS, CLUMPS OR DEBRIS LARGER THAN 2" IN GREATEST DIMENSION. COMPACT TO 90% STANDARD PROCTOR DENSITY. UNDER STRUCTURES, ROADWAYS AND PAVEMENT, COMPACT TO 95% STANDARD PROCTOR DENSITY.

① CLASS "B-1" EMBEDMENT FOR PVC SDR 26
1' = 1'-0"

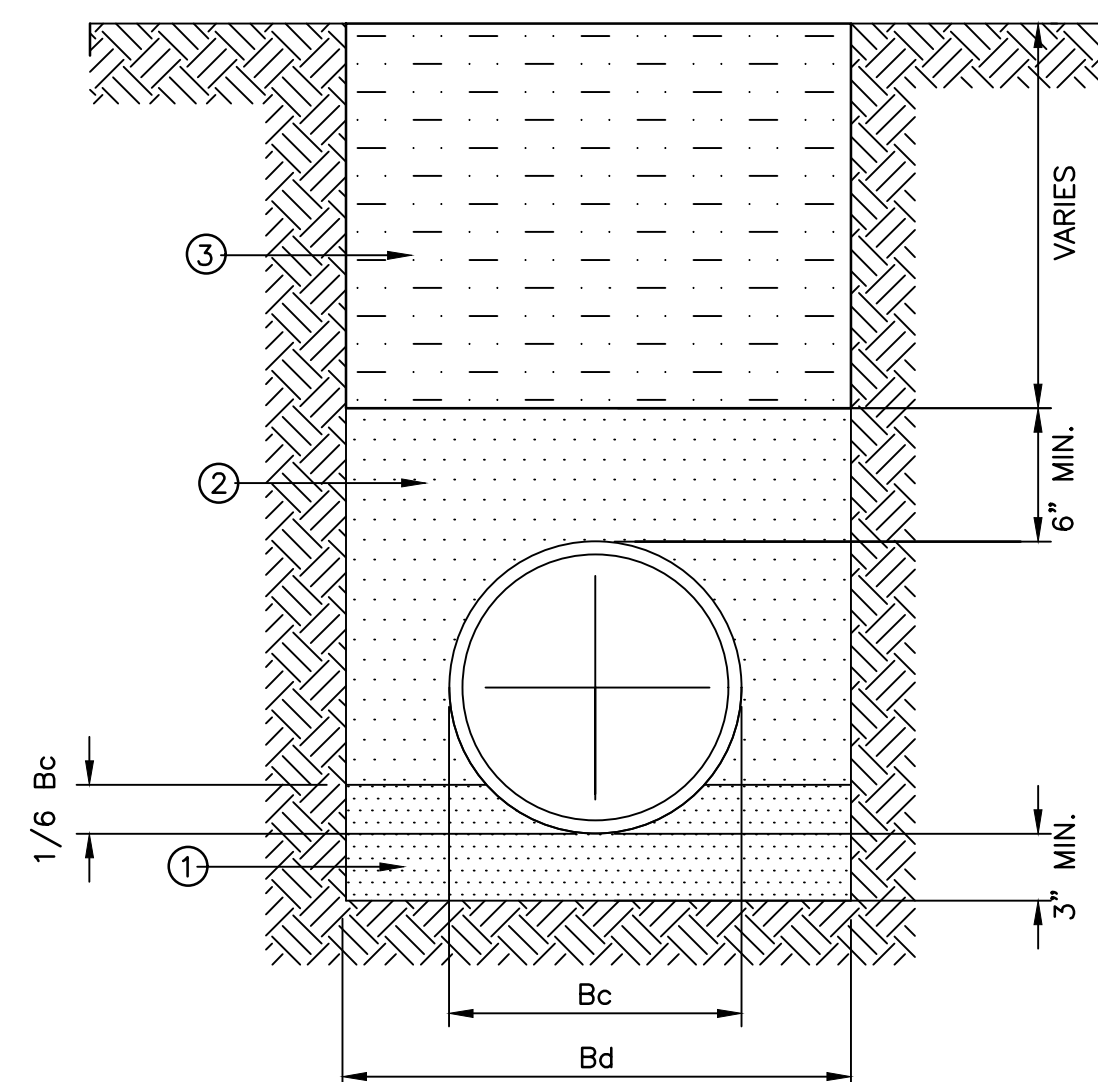


NOTE: SAW CUT ACCESS ROAD, DRIVEWAY, AND PARKING LOT CONTRACTION JOINTS TO INDICATED DEPTH. USE 1/2" GROOVER AT SIDEWALKS AND PUMP SLABS.

④ CONTRACTION JOINT (CJ)
NO SCALE



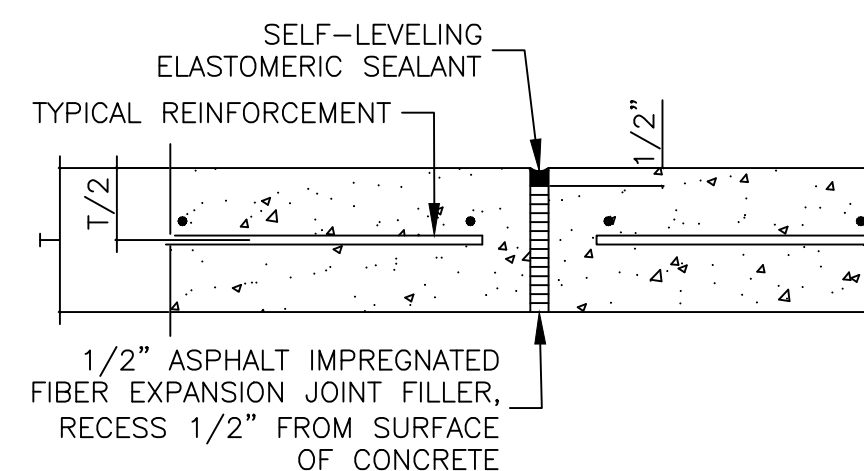
⑧ SAWED DUMMY JOINT
NO SCALE



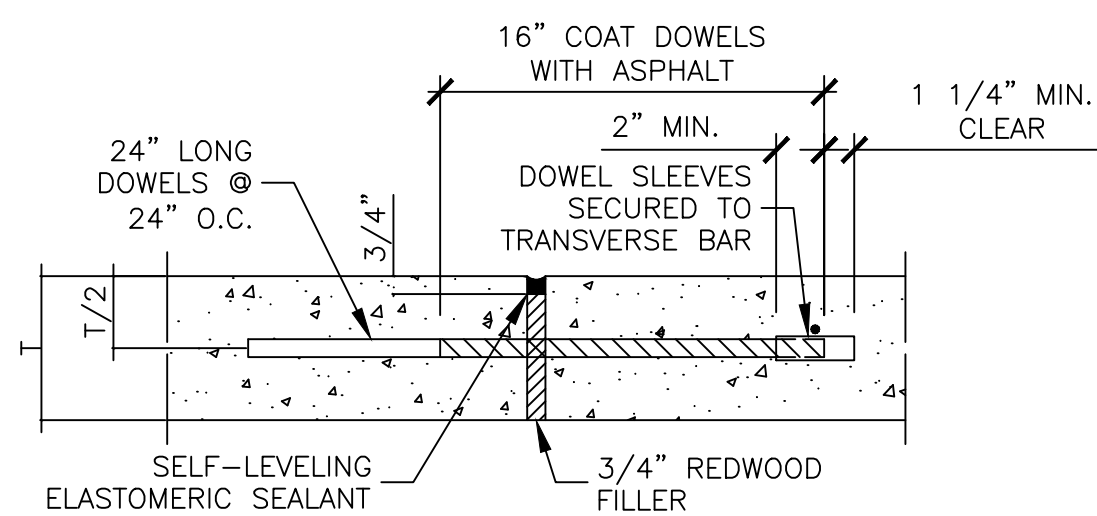
TRENCH WIDTH FOR DUCTILE IRON PIPE PRESSURE CLASS 350			
NOMINAL PIPE DIAMETER (INCHES)	Bc OUTSIDE DIAMETER (INCHES)	Bd TRENCH WIDTH (INCHES)	Bd TRENCH WIDTH (FEET)
4", 6" AND 8"	17.40	40	3.00
24	25.80	48	4.00
30	32.00	54	4.50
36	38.30	60	5.00

- ① STANDARD GRADATION CRUSHED STONE — PLACE TOP LAYER AT SLOPE OF PIPE TO PROVIDE UNIFORM SUPPORT OF PIPE BARREL. EXCAVATE BELL HOLES.
- ② GRANULAR MATERIAL COMPACTED TO 95% STANDARD PROCTOR DENSITY.
- ③ SELECT MATERIAL FREE OF ROCKS, CLUMPS OR DEBRIS LARGER THAN 6" IN GREATEST DIMENSION. COMPACT TO 95% STANDARD PROCTOR DENSITY UNDER STRUCTURES, ROADWAYS, AND PAVEMENT. COMPACT TO 90% STANDARD PROCTOR DENSITY AT ALL OTHER LOCATIONS. MOISTURE CONTENT SHALL BE 0-4% ABOVE OPTIMUM IN EACH CASE.

② DUCTILE IRON PIPE EMBEDMENT - CLASS "C"
1" = 1'-0"

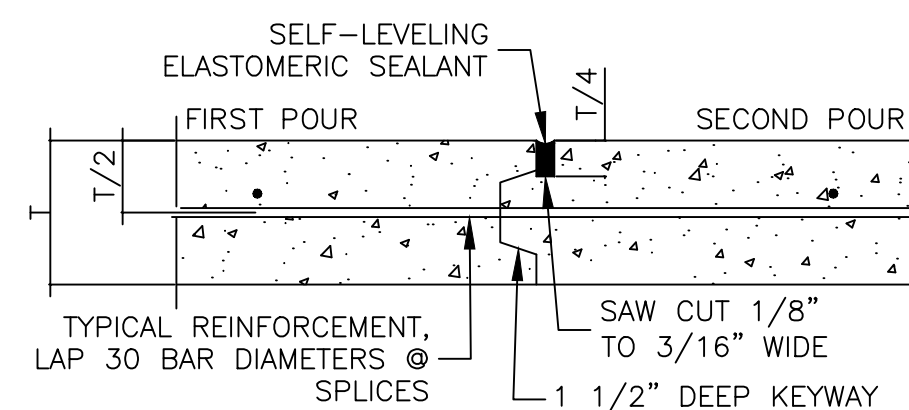


⑤ ISOLATION JOINT (IJ)
NO SCALE

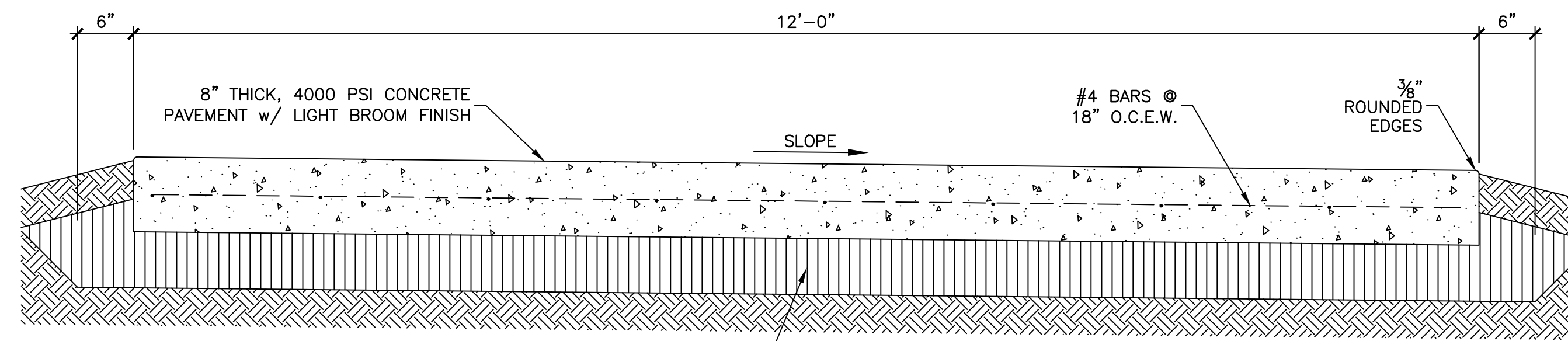


NOTE: USE #6 SMOOTH DOWELS AT ACCESS ROAD, DRIVEWAY, AND PARKING LOT. USE #4 DOWELS AT SIDEWALK AND PUMP SLAB.

⑨ EXPANSION JOINT (EJ)
NO SCALE



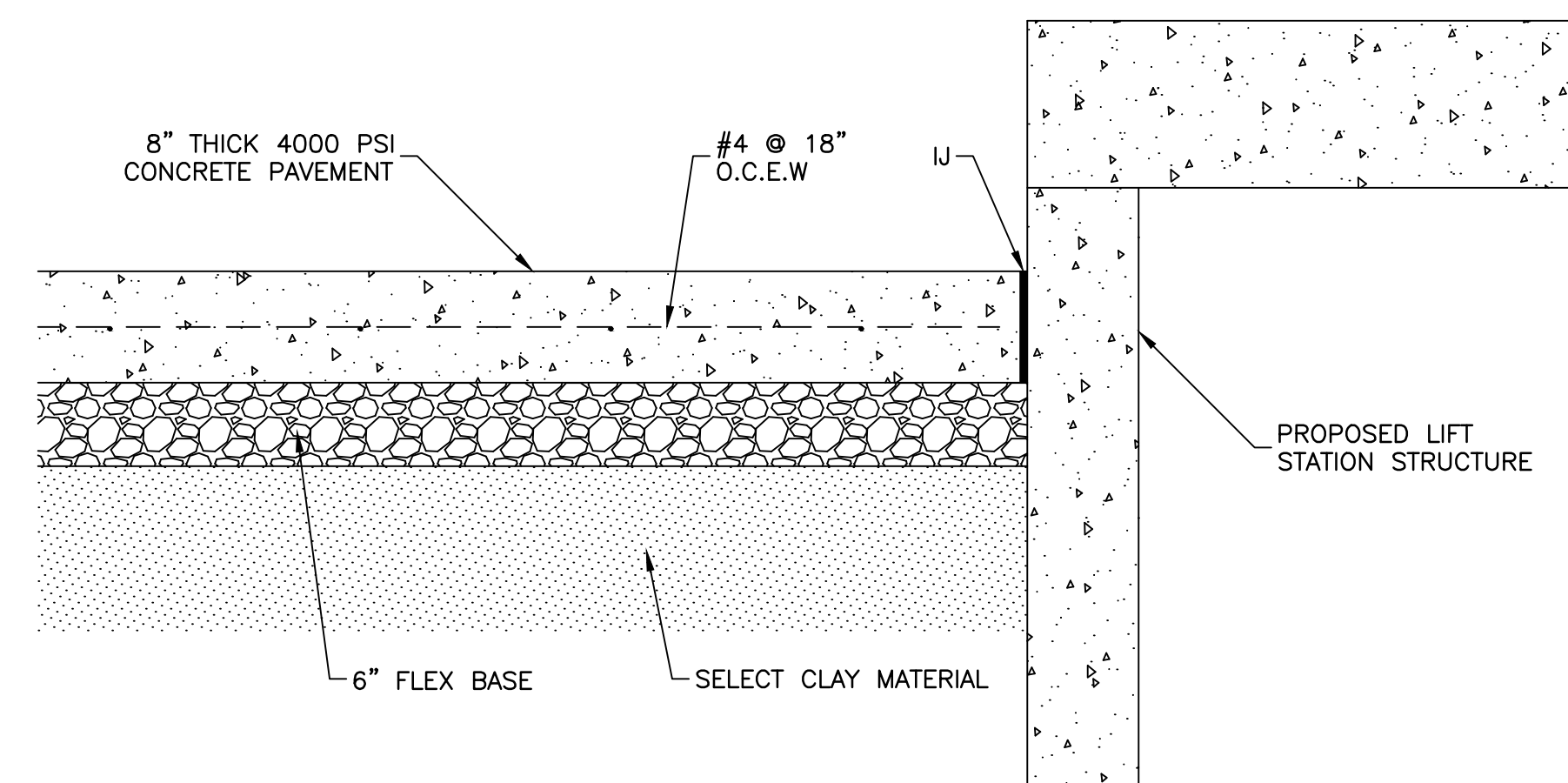
⑥ KEYED CONSTRUCTION JOINT (KJ)
NO SCALE



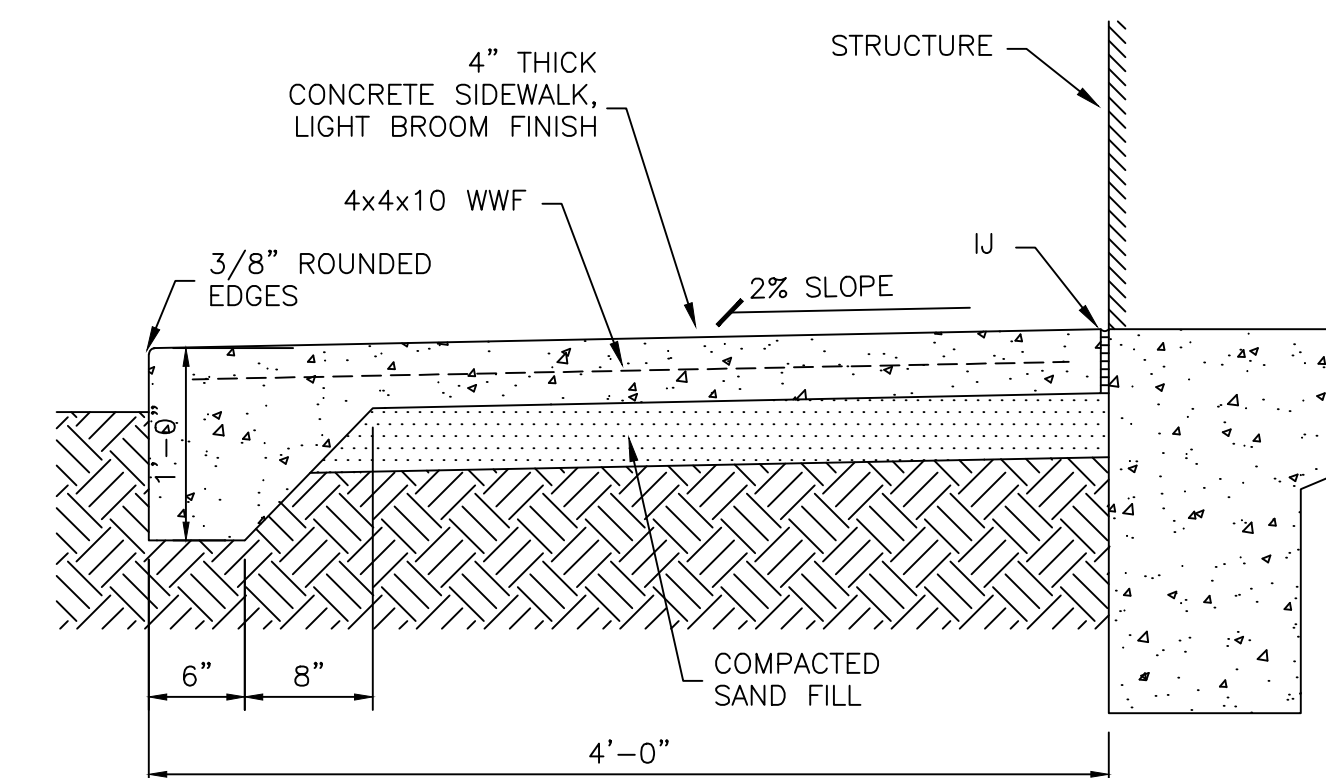
NOTE: ALL PAVEMENT SHALL HAVE IDENTICAL THICKNESS, STRENGTH, REINFORCEMENT, AND SUBGRADE PREPARATION. SEE SITE PLAN FOR DIMENSIONS, AND GRADING PLAN FOR ELEVATIONS.

SCARIFY SUBGRADE TO A DEPTH OF 6"*. RECOMPACT TO 95% STANDARD PROCTOR DENSITY @ 2-4% ABOVE OPTIMUM MOISTURE

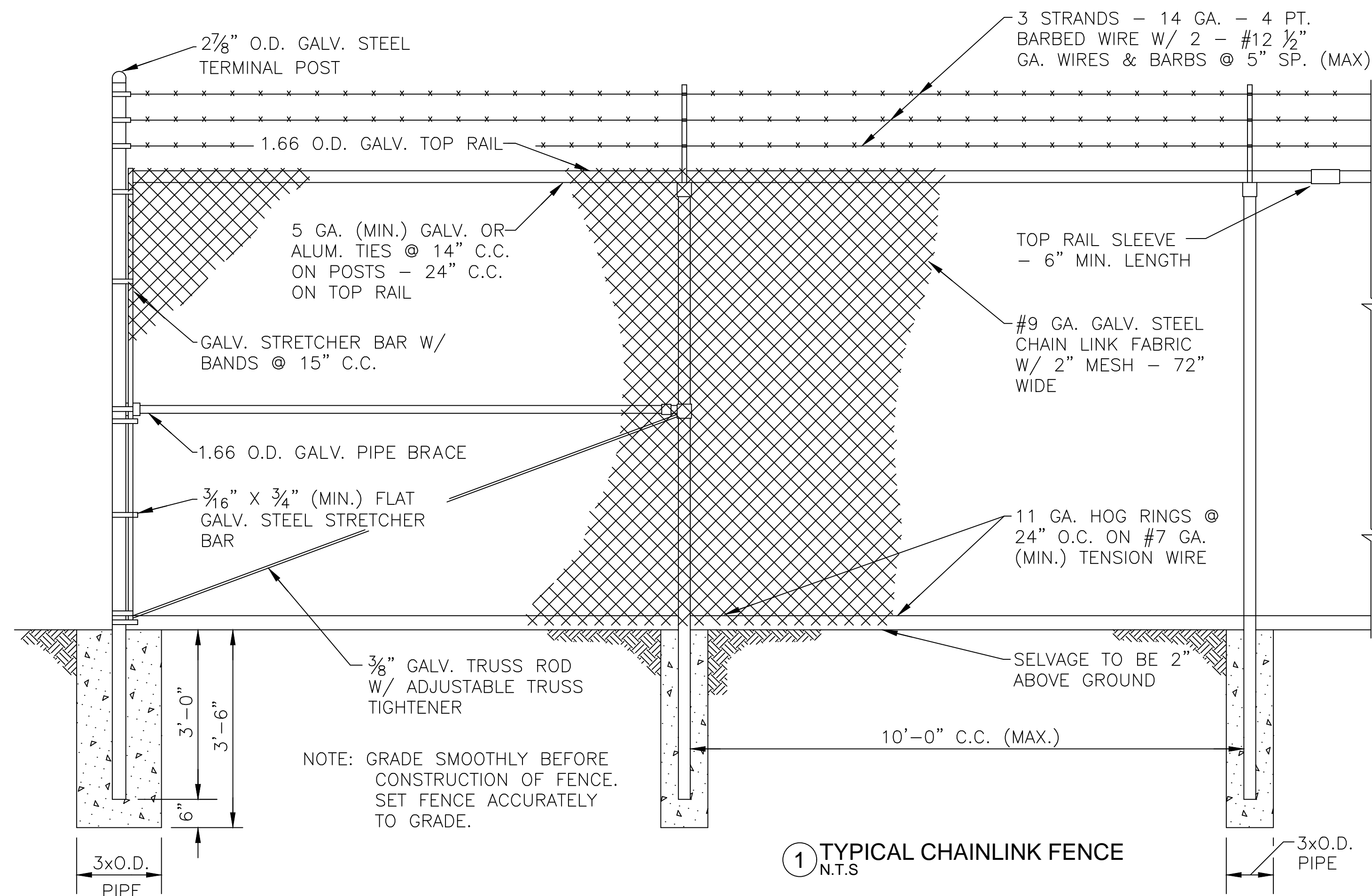
③ TYPICAL PAVING SECTION OVER NON-FILL AREAS
NO SCALE



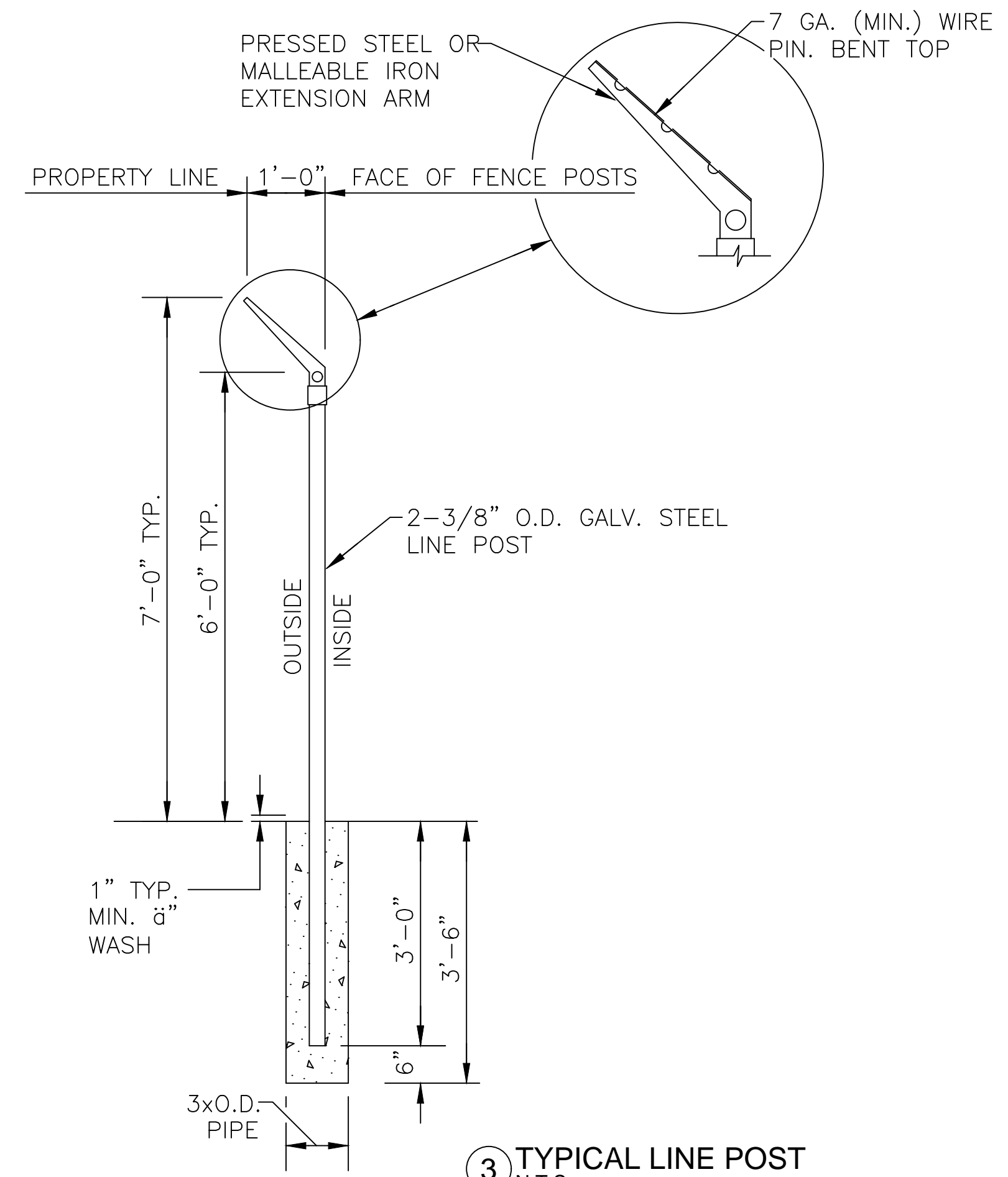
⑦ TYPICAL PAVING SECTION OVER BACKFILL AREAS
NO SCALE



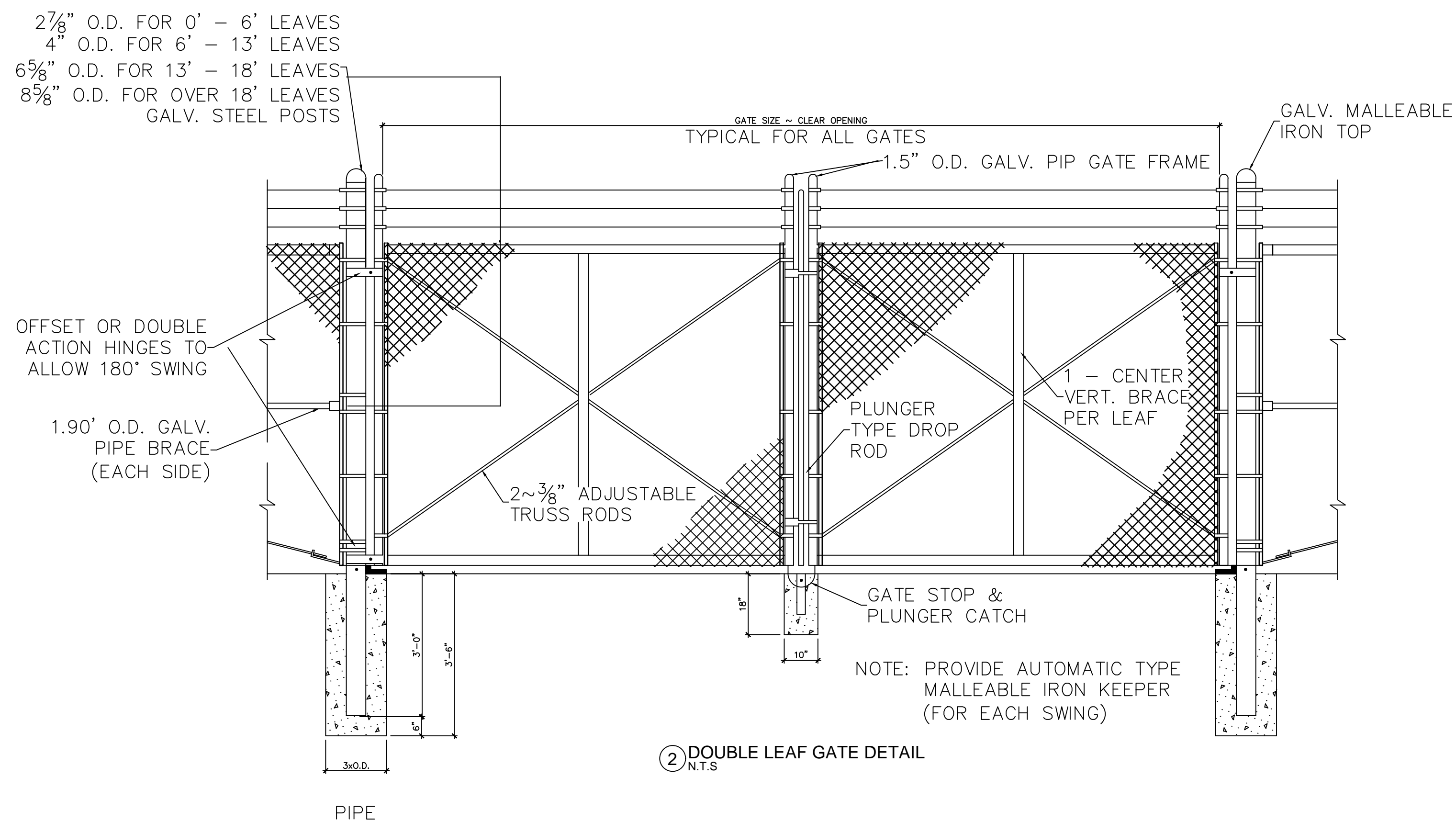
⑧ SIDEWALK SECTION
N.T.S



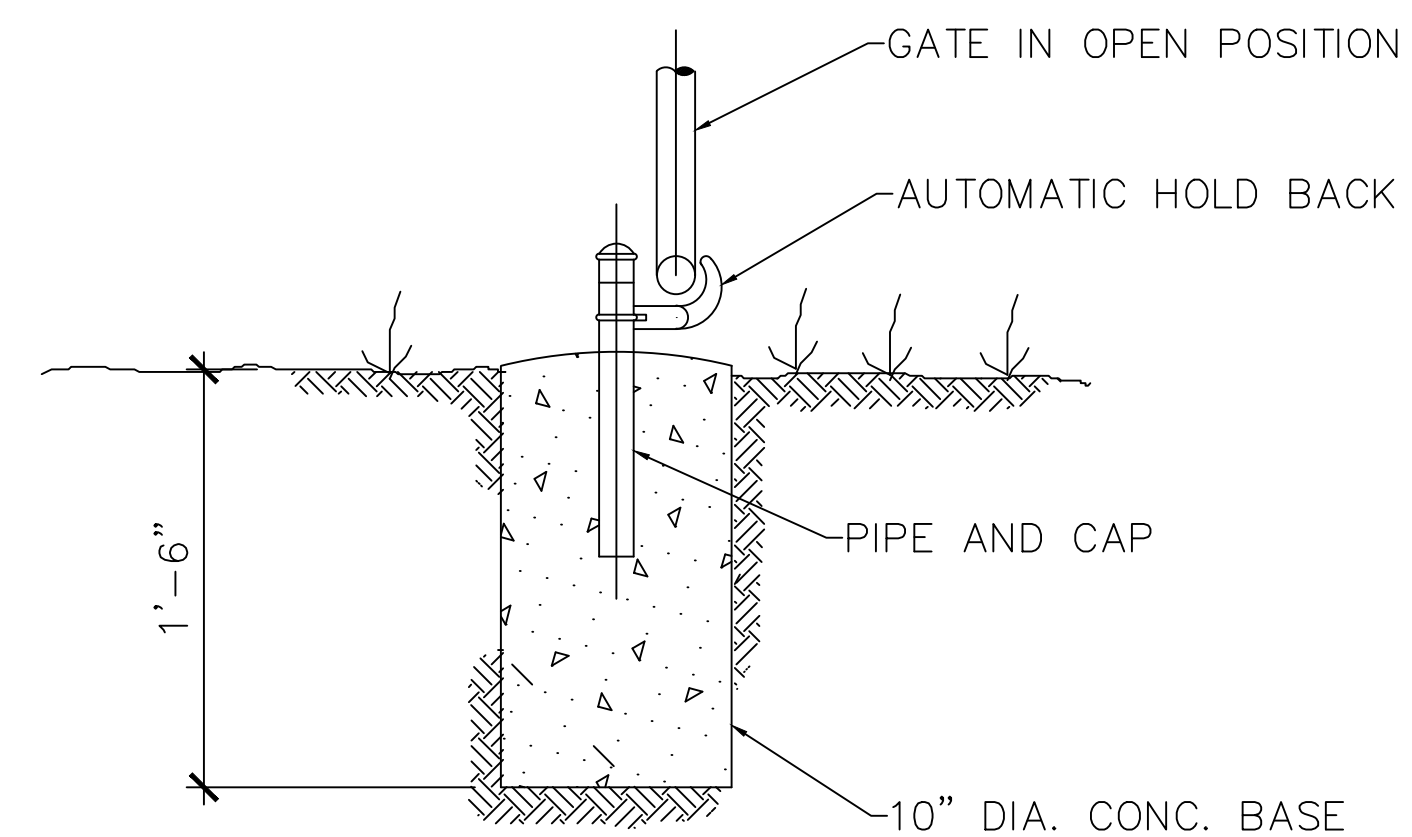
① TYPICAL CHAINLINK FENCE
N.T.S



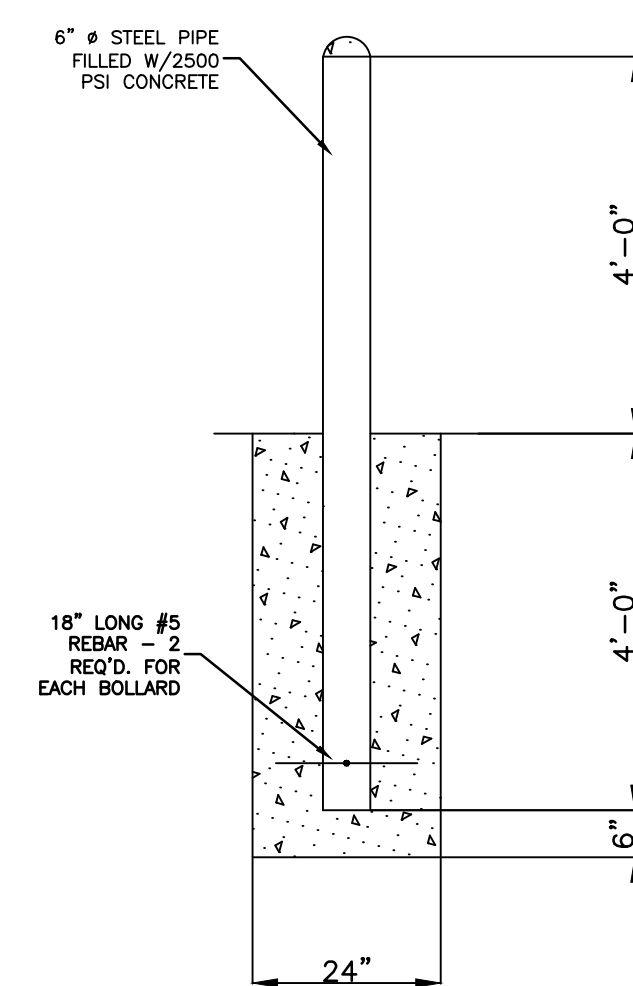
③ TYPICAL LINE POST
N.T.S



② DOUBLE LEAF GATE DETAIL
N.T.S



④ TYPICAL BACKHOLD
N.T.S

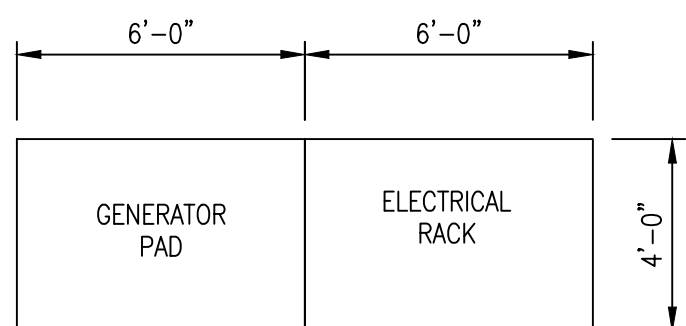
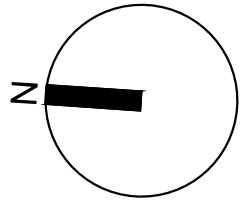


⑤ BOLLARD
N.T.S

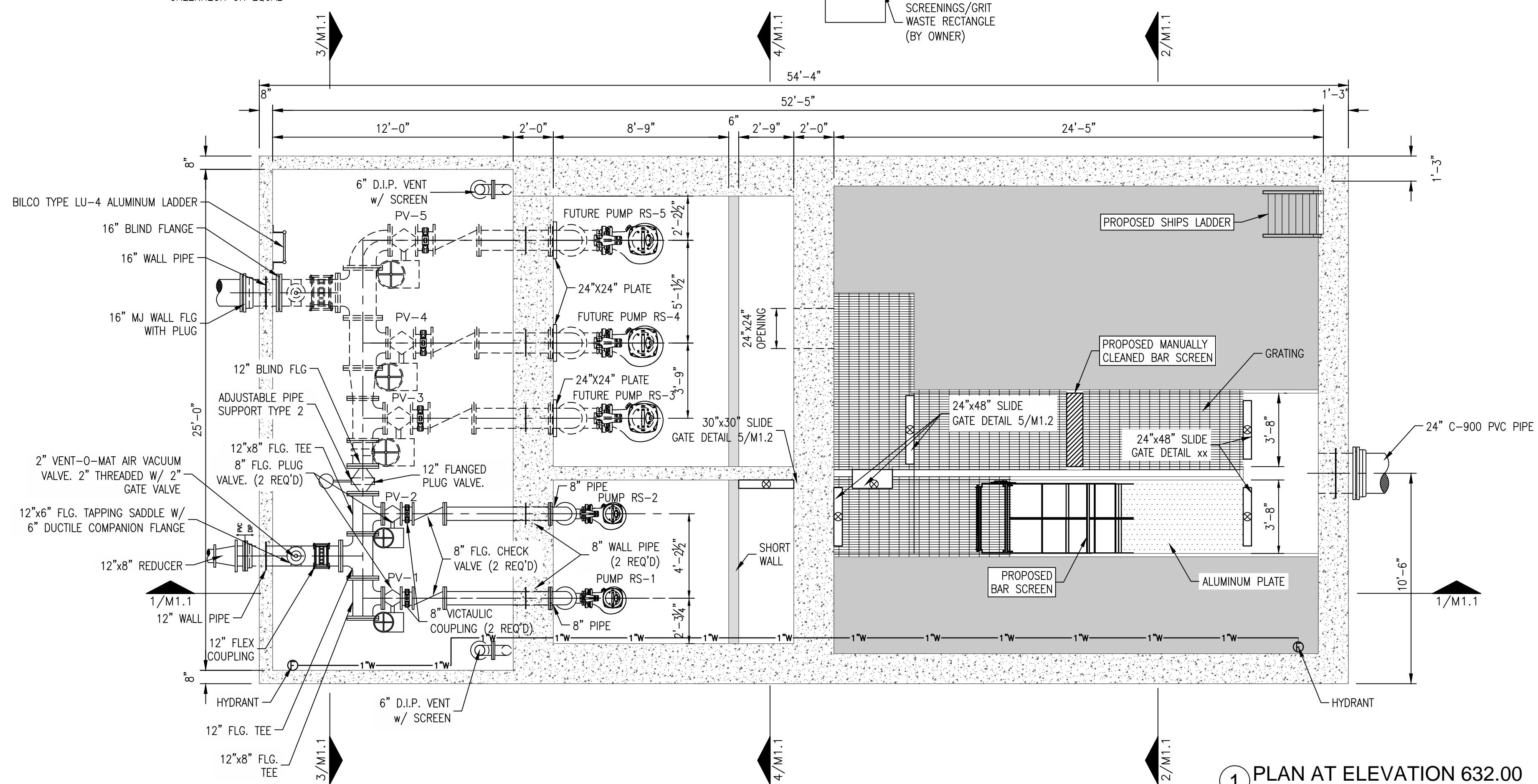
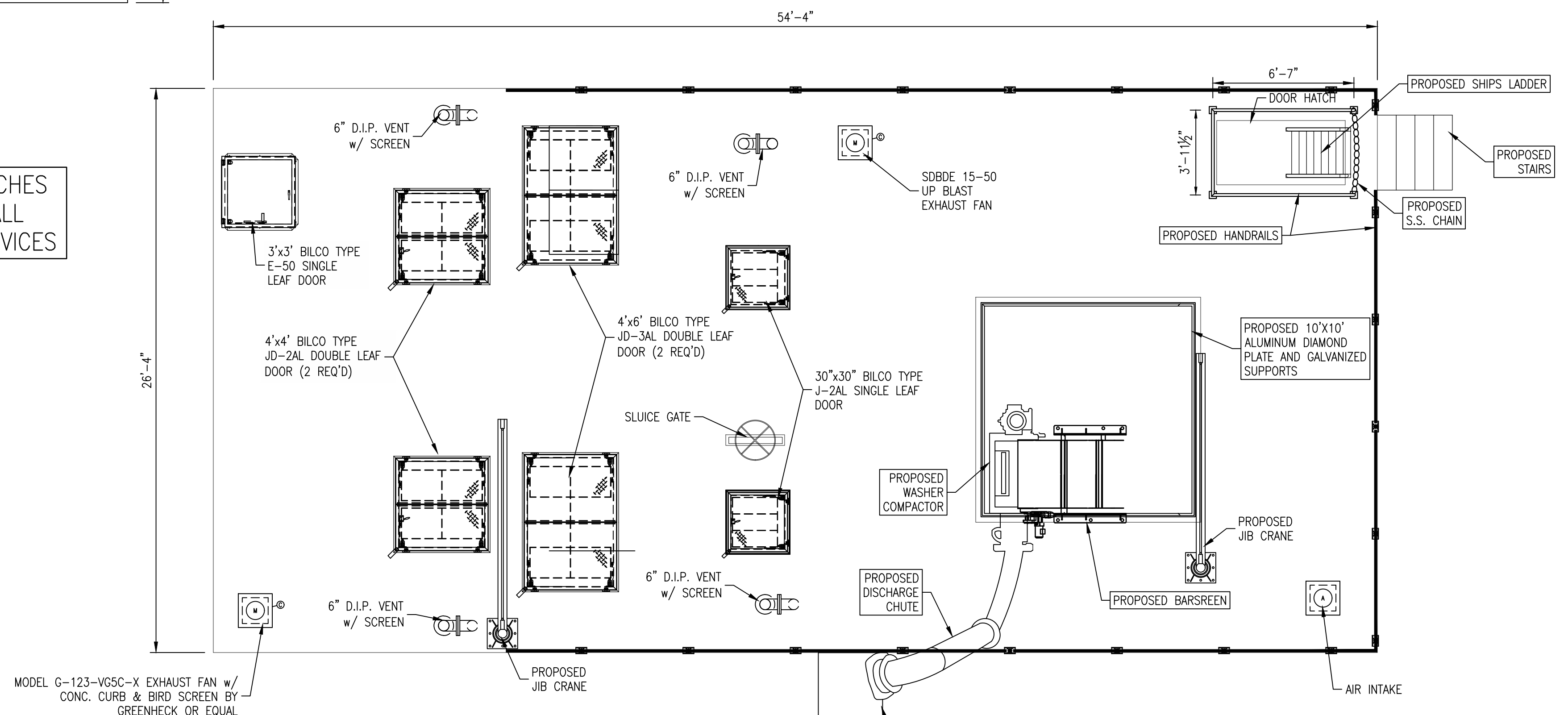
GENERAL NOTES

1. ALL MATERIALS USED IN CONSTRUCTION OF THIS CHAIN LINK FENCE SHALL BE GALVANIZED AFTER FABRICATION.
2. TOPS OF CONCRETE POST BASE ARE TO BE CROWNED & TOOLED SMOOTH.
3. PRESERVE ALL PROPERTY CORNERS AND MONUMENTS. CORNERS AND MONUMENTS DISTURBED BY THE CONTRACTOR WILL BE REPLACED BY THE OWNER AT THE EXPENSE OF THE CONTRACTOR.

BY				
REVISION				
DATE				
No.				
 FREEMAN-MILICAN, INC. ENGINEERS - ARCHITECTS - PLANNERS <small>9300 LBJ FREEWAY, STE. 1225 DALLAS, TX 75243 PH: 214.350.0555 TX REG. ENG. FIRM # 2627</small>				
CITY OF WESTON EAST FORK WWTP CIVIL DETAILS				
FOR REVIEW				
THIS PLAN SHEET IS ISSUED FOR INTERIM REVIEW ONLY AND IS NOT FOR BIDDING, CONSTRUCTION OR PERMIT PURPOSES.				
PREPARED BY: LARRY J. FREEMAN, P.E. No. 29907 ON 06.04.2021				
<small>IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2 OF NOTED SCALE.</small>				
PROJECT No. 19032 DESIGNED: FMI DRAWN: FMI CHECKED: FMI				
SHEET C.4.2				
SHEET 11 OF ###				



ALL DOOR HATCHES SHALL HAVE FALL PROTECTION DEVICES



1 PLAN AT ELEVATION 632.00
1/4"=1'-0"

BT		REVISION	
No.	DATE		



CITY OF WESTON
EAST FORK WWTP
BAR SCREEN & LIFT STATION PLAN

FOR REVIEW

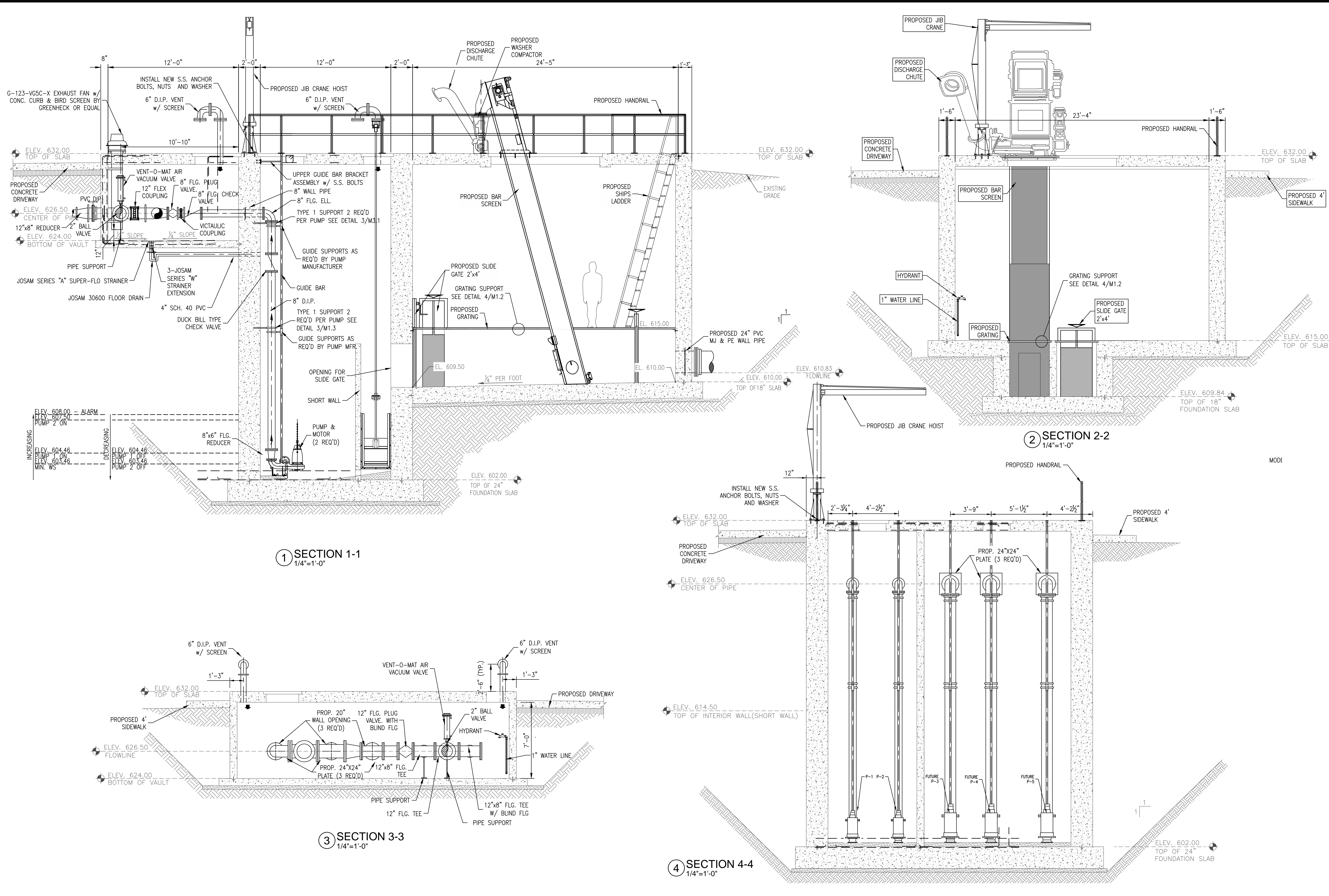
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PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
06.04.2021

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PROJECT No. 19032
DESIGNED: FMI
DRAWN: FMI
CHECKED: FMI

SHEET
M.1.0
SHEET 12 OF ##



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

2 SECTION 2-2
1/4"=1'-0"

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

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

NO.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP

BAR SCREEN & LIFT STATION SECTION VIEW

FOR REVIEW

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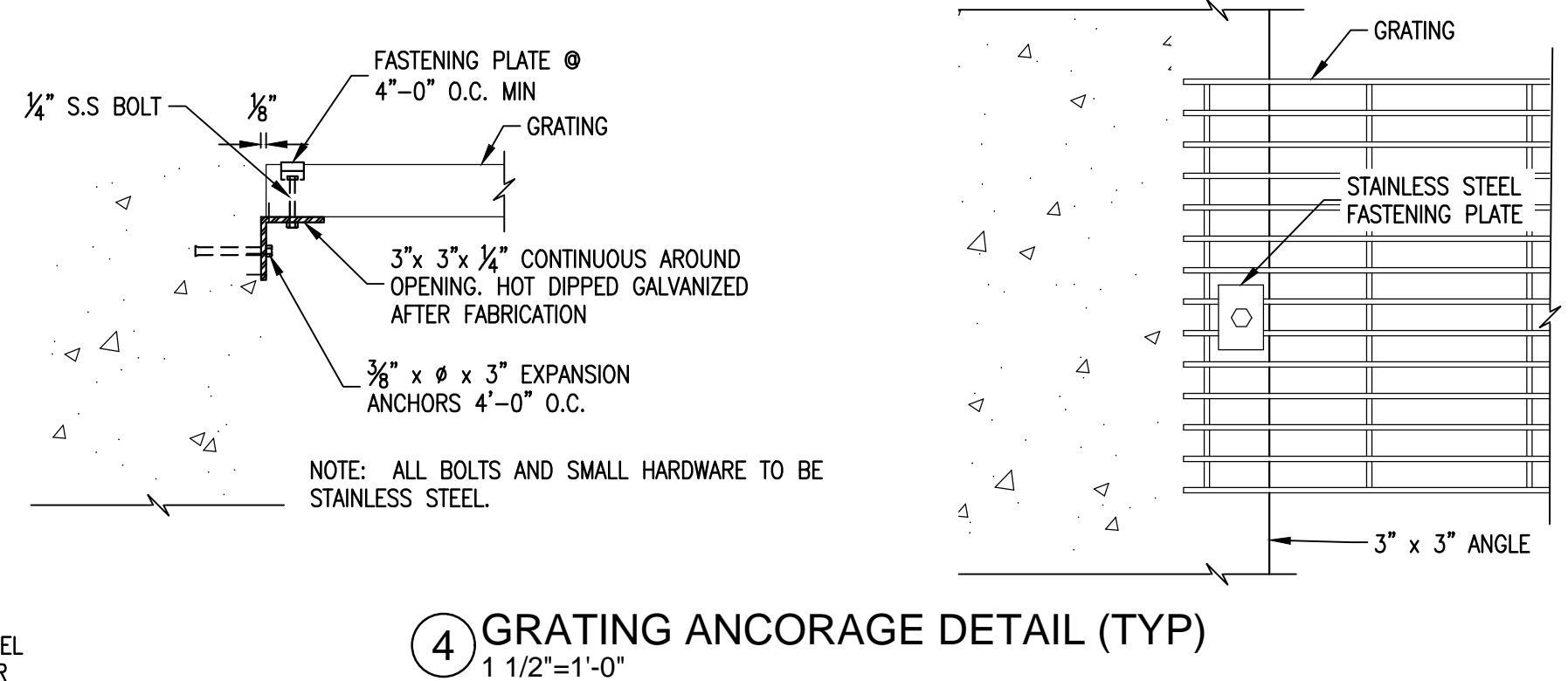
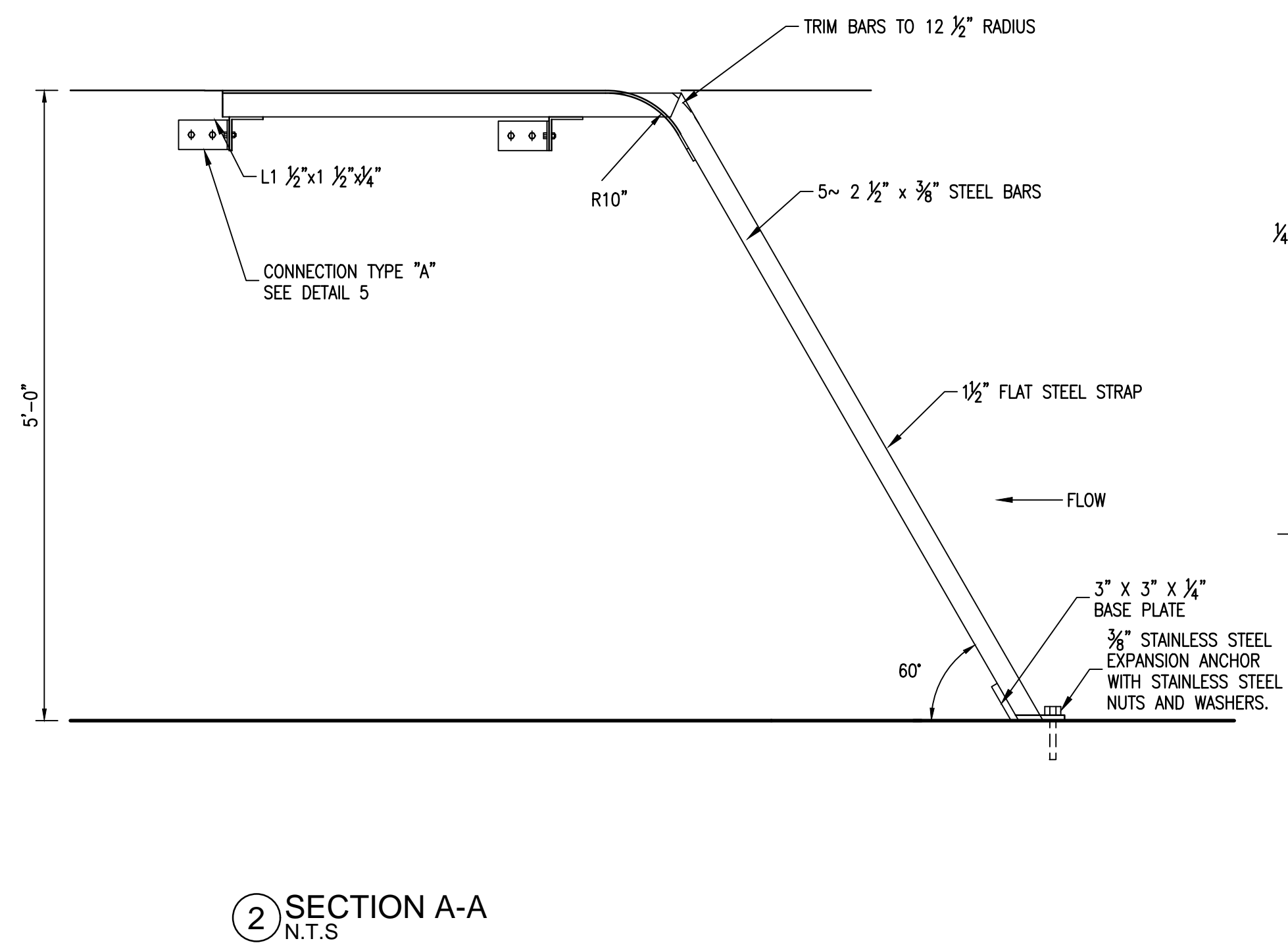
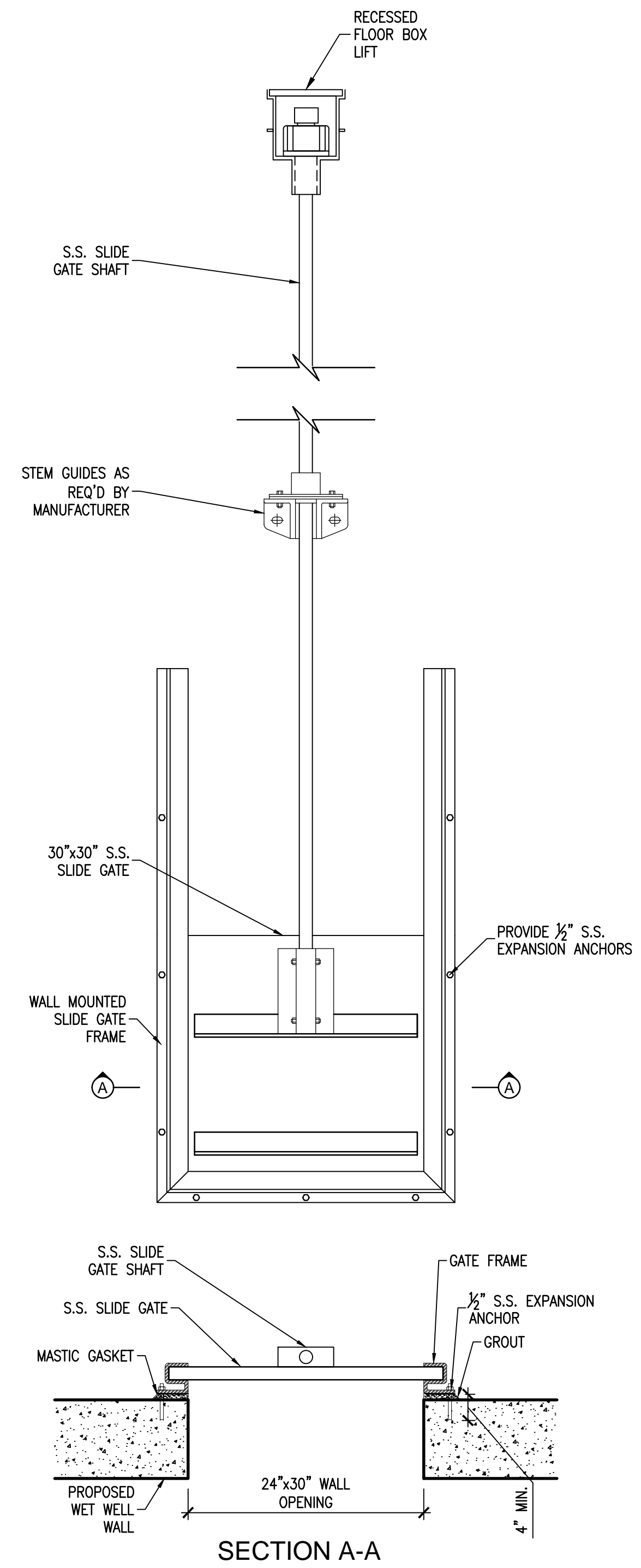
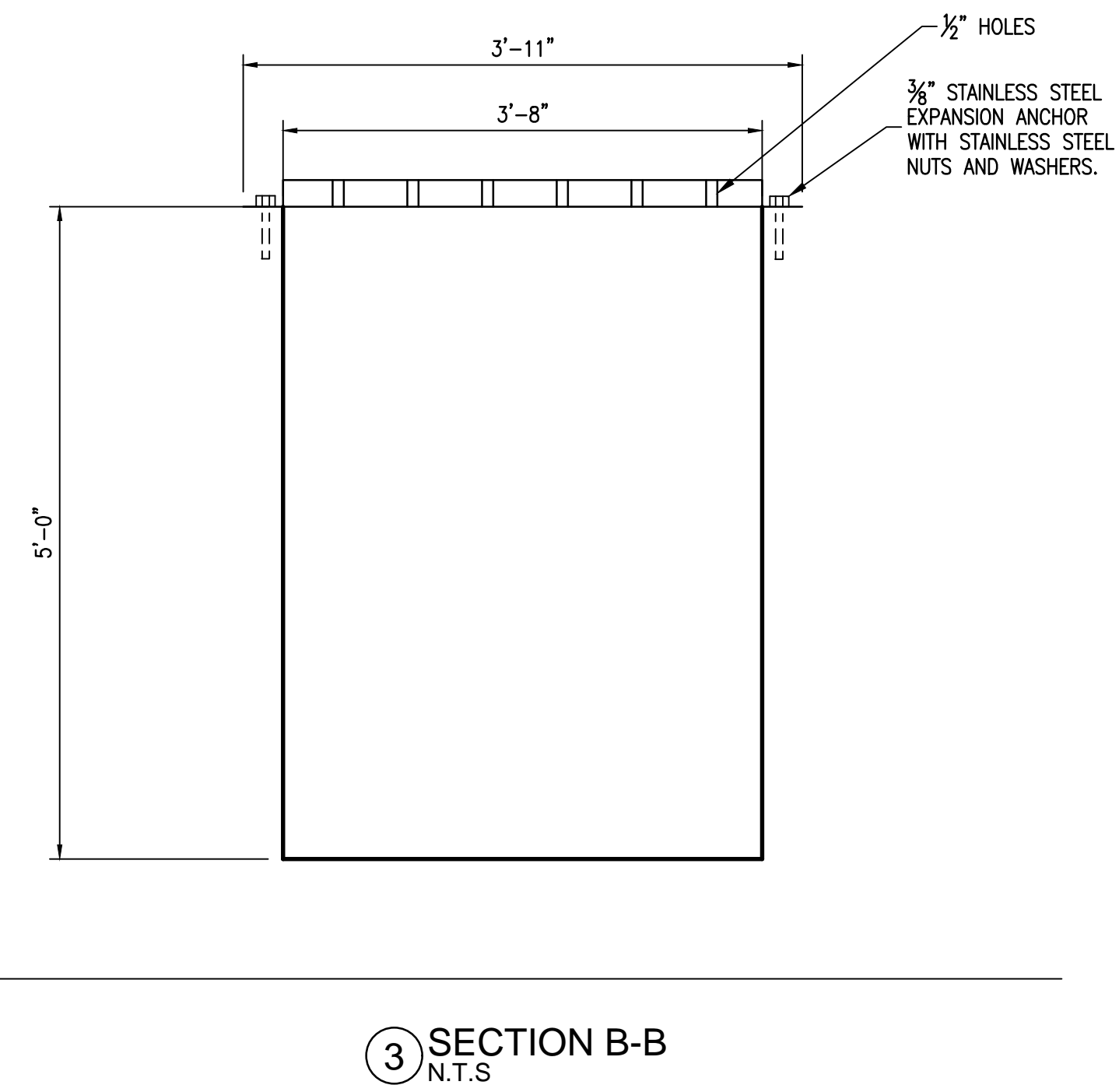
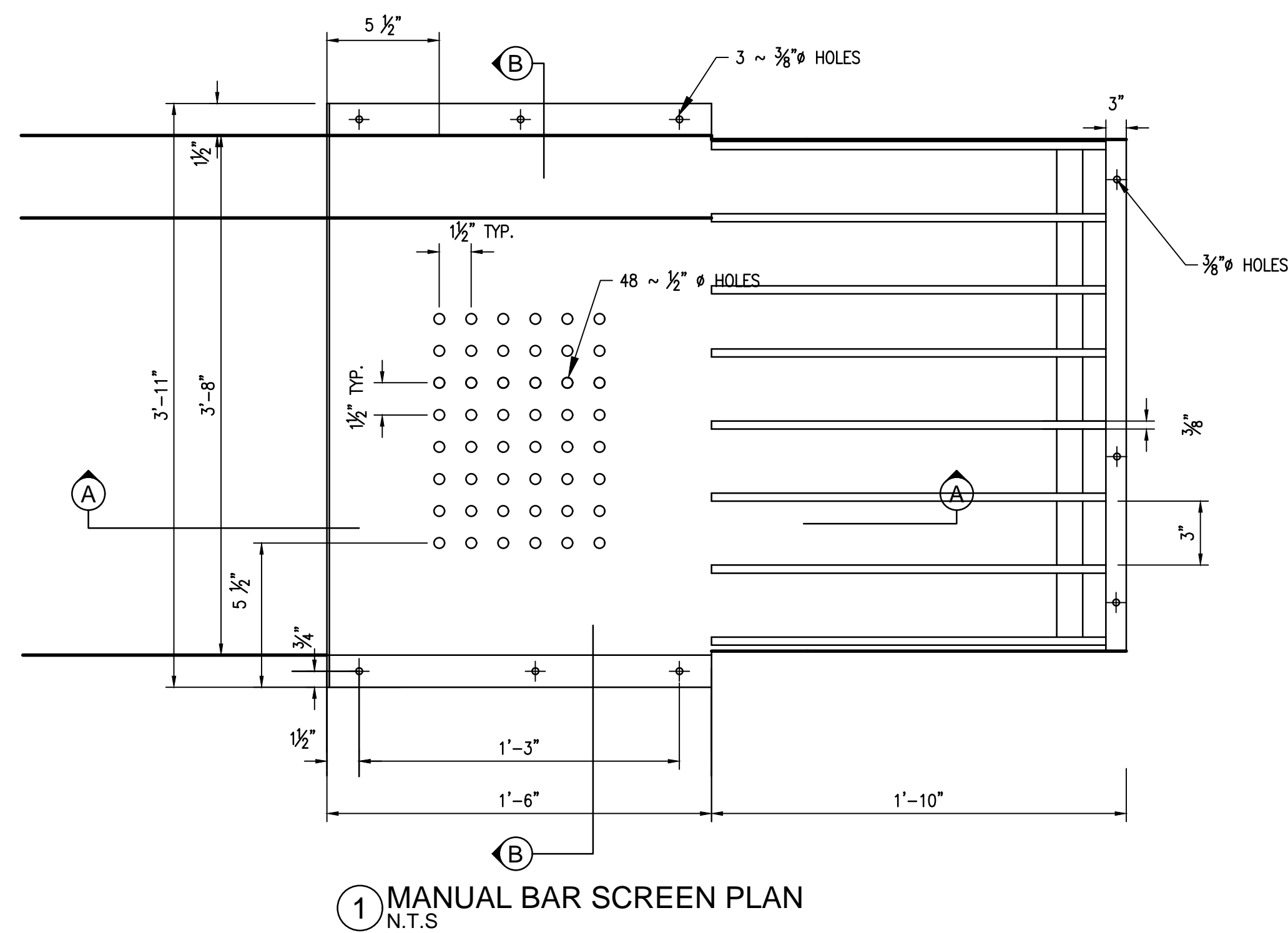
PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
06.04.2021

IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2 OF NOTED SCALE.

PROJECT No. 19032
DESIGNED: FMI
DRAWN: FMI
CHECKED: FMI

SHEET
M.1.1
SHEET 13 OF ###

Freeman-Millican, Inc.
ENGINEERS - ARCHITECTS - PLANNERS
8000 LBJ FREEWAY, STE. 225, DALLAS, TX 75243 PH: 214.500.0585 TX REG. ENG. PROJ. F2827



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CITY OF WESTON
EAST FORK WWTP

DETAILS

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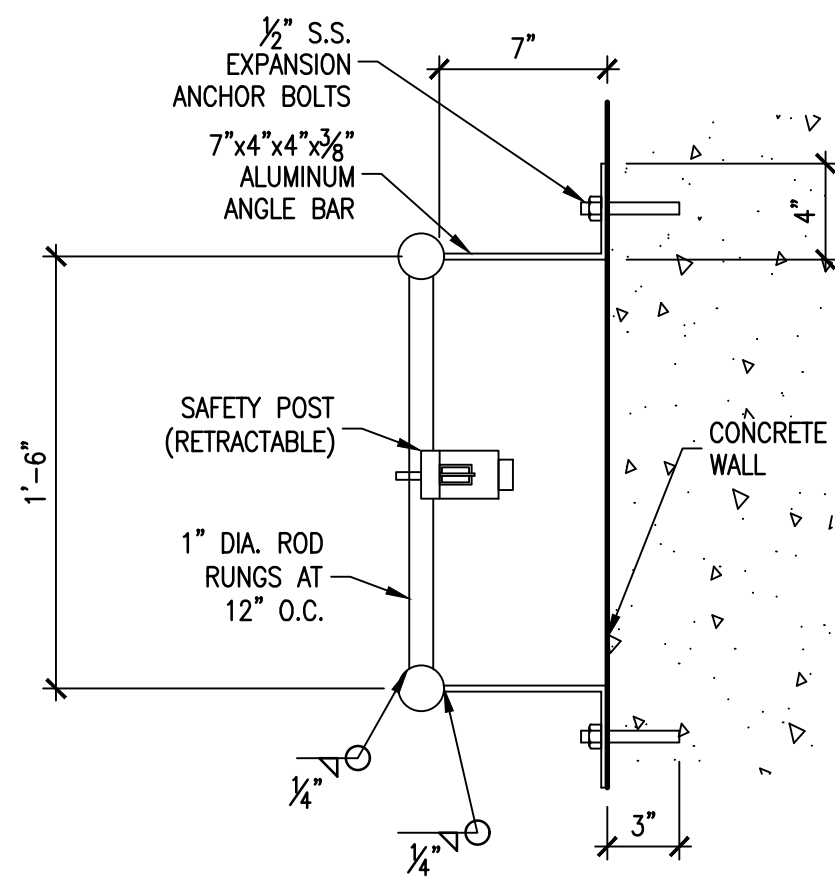
PREPARED BY:
LARRY J. FREEMAN, P.E.
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06.04.2021

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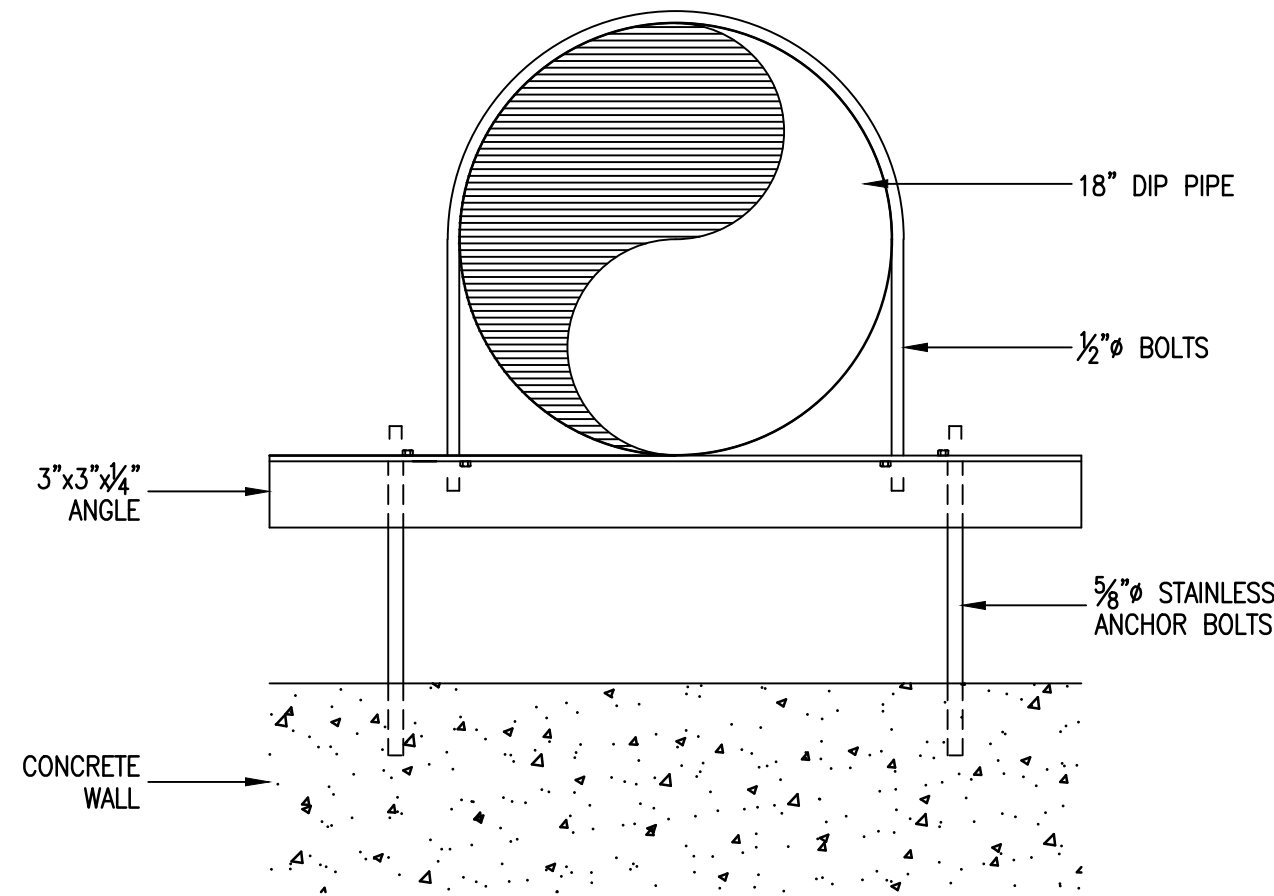
PROJECT No. 19032
DESIGNED: FMI
DRAWN: FMI
CHECKED: FMI

SHEET
M.1.2
SHEET 14 OF ###

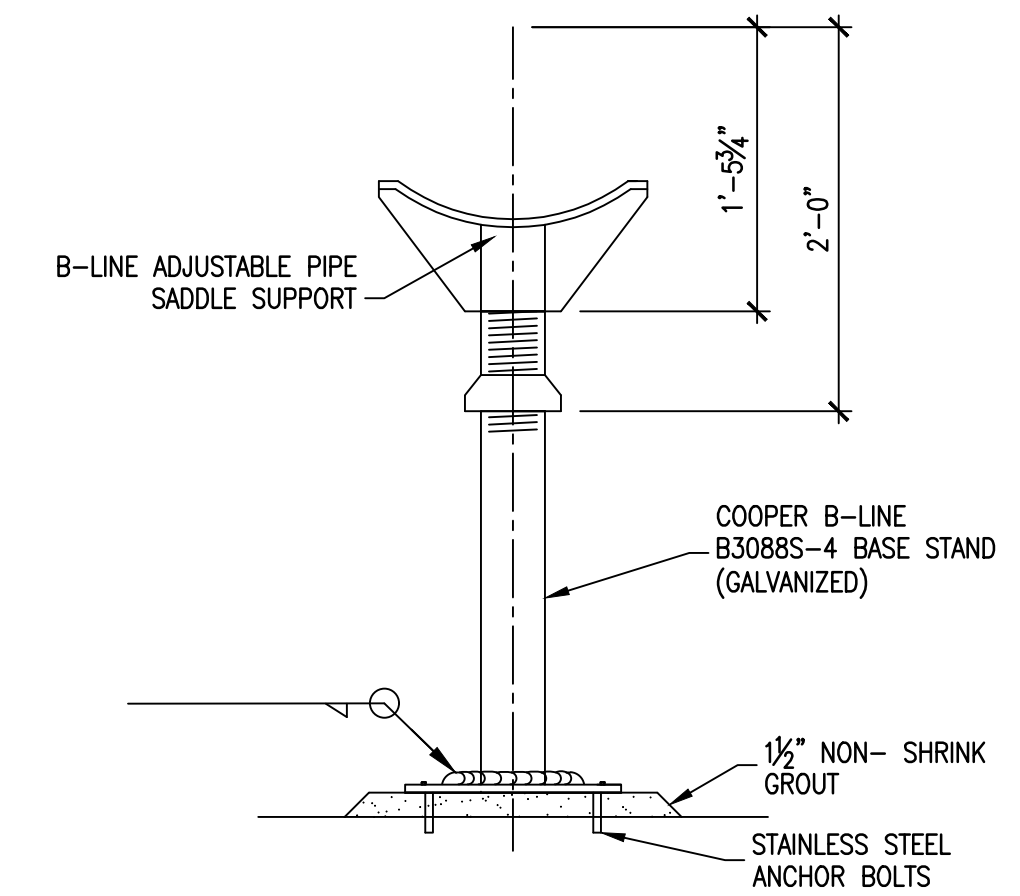




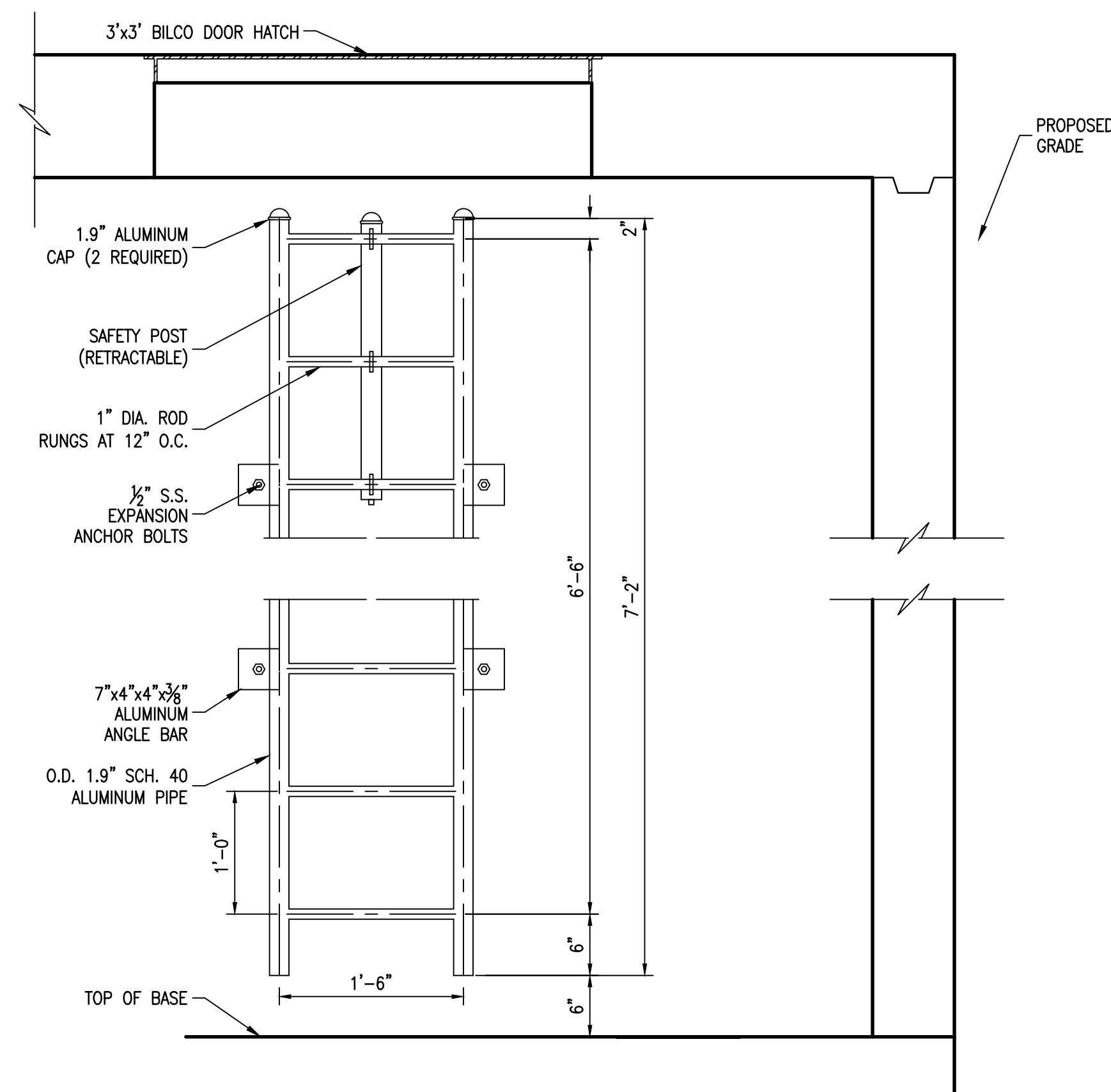
① PLAN
1-1/2" = 1'-0"



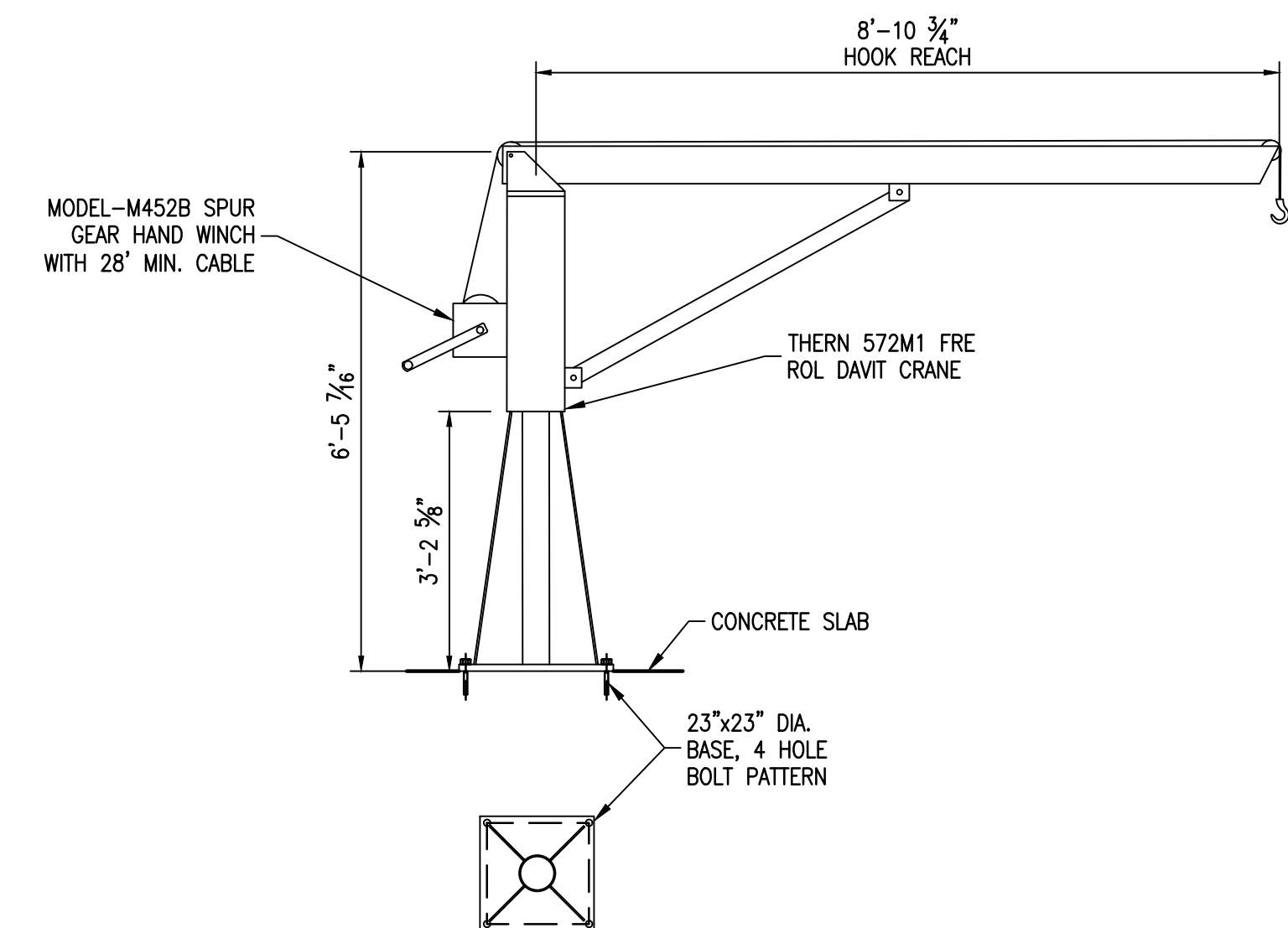
③ ADJUSTABLE PIPE SUPPORT TYPE 1
1-1/2" = 1'-0"



④ ADJUSTABLE PIPE SUPPORT TYPE 2
1" = 1'-0"



② LADDER SECTION
NO SCALE



⑤ JIB CRANE DETAIL
N.T.S.

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Freeman-Millican, Inc.
ENGINEERS - ARCHITECTS - PLANNERS
8300 LBJ FREEWAY, STE. 225 DALLAS, TX 75243 PH: 214.500.0585 TX REG. ENG. PROJ. F-287

CITY OF WESTON
EAST FORK WWTP

DETAILS

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PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
06.04.2021

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PROJECT No. 19032

DESIGNED: FMI

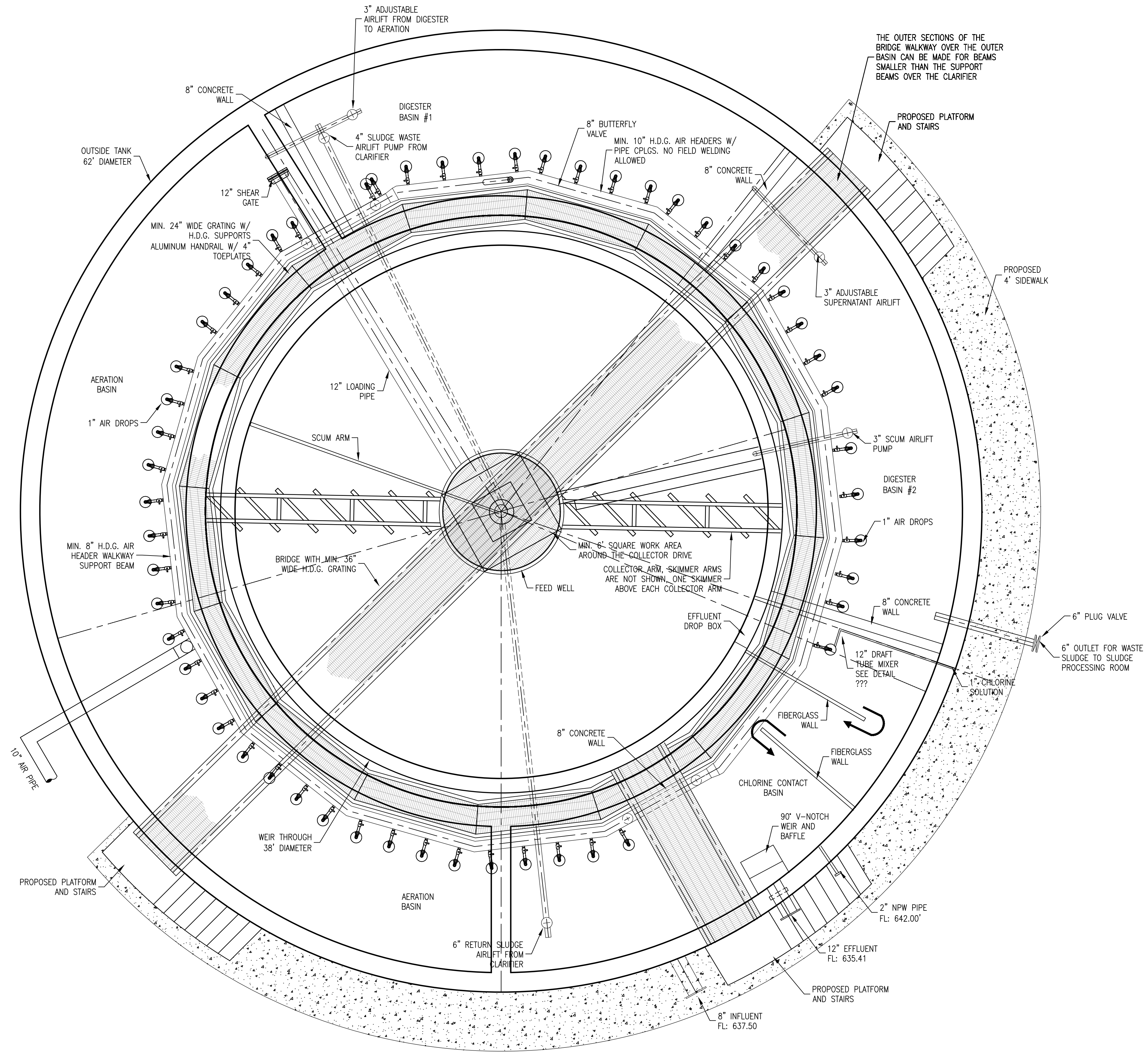
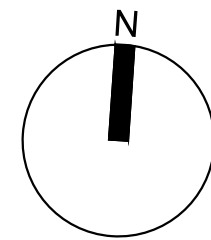
DRAWN: FMI

CHECKED: FMI

SHEET

M.1.3

SHEET 15 OF ###



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

No.	DATE	REVISION	BY

Freeman-Millican, Inc.
ENGINEERS - ARCHITECTS - PLANNERS
8300 LBJ FREEWAY, STE. 1225 DALLAS, TX 75243 PH: 214.500.0555 TX REG. ENG. FIRM #287

CITY OF WESTON
EAST FORK WWTP
TREATMENT UNIT PLAN

FOR REVIEW

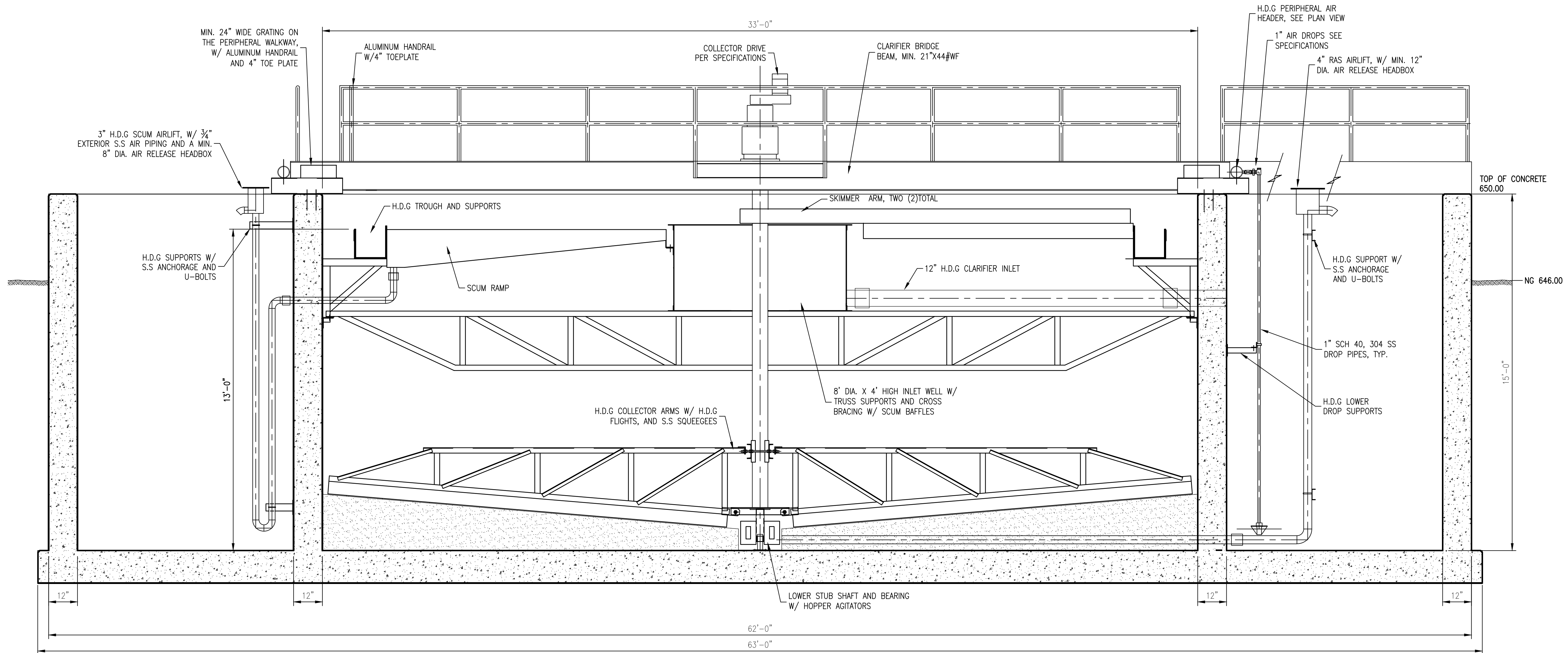
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PREPARED BY:
LARRY J. FREEMAN, P.E.
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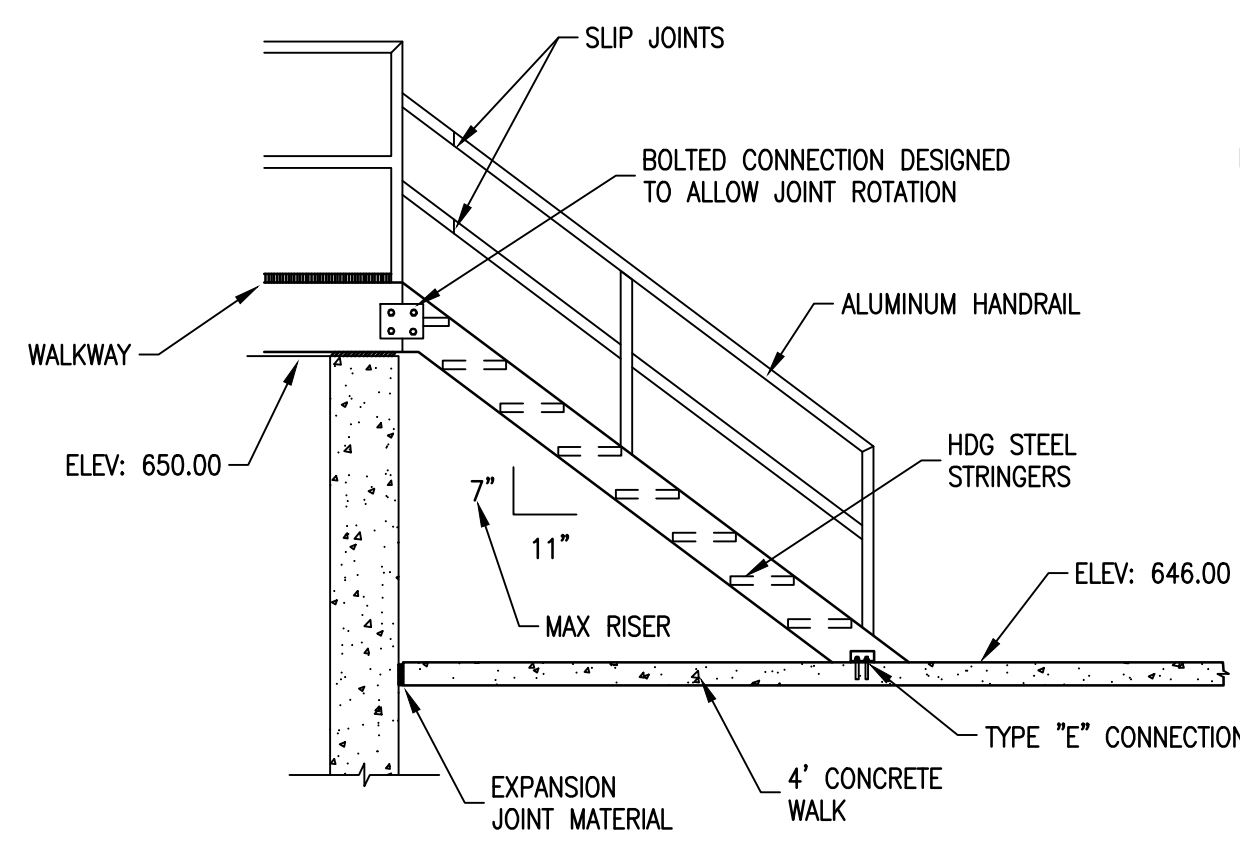
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PROJECT No. 19032
DESIGNED: FMI
DRAWN: FMI
CHECKED: FMI

SHEET
M.2.0
SHEET 16 OF ###



① TREATMENT UNIT SECTION
3/8" = 1'-0"



NOTE:
STAIRS ARE SHOWN HERE AS STRAIGHT TO SHOW DETAIL AND TREAD RUN AND RISE. ACTUAL STAIRS ARE CURVED TO MATCH THE CURVATURE OF THE TANK AS SHOWN ON THE PLAN VIEW

- NOTES:
1. STAIRWAY TO BE FURNISHED BY CLARIFIER MECHANISM MANUFACTURER.
 2. STAIR TREADS SHALL BE 11"x36"
 3. ALL CARBON STEEL PARTS TO BE HOT DIPPED GALVANIZED AFTER FABRICATION

② STAIRWAY DETAIL
1/2" = 1'-0"

NO.	DATE	REVISION	BY

Freeman-Millican, Inc.
ENGINEERS - ARCHITECTS - PLANNERS
8303 LBJ FREEWAY, STE. 1225 DALLAS, TX 75243 PH: 214.500.0555 TX REG. ENG. FIRM #2827

CITY OF WESTON
EAST FORK WWTP
TREATMENT UNIT SECTION

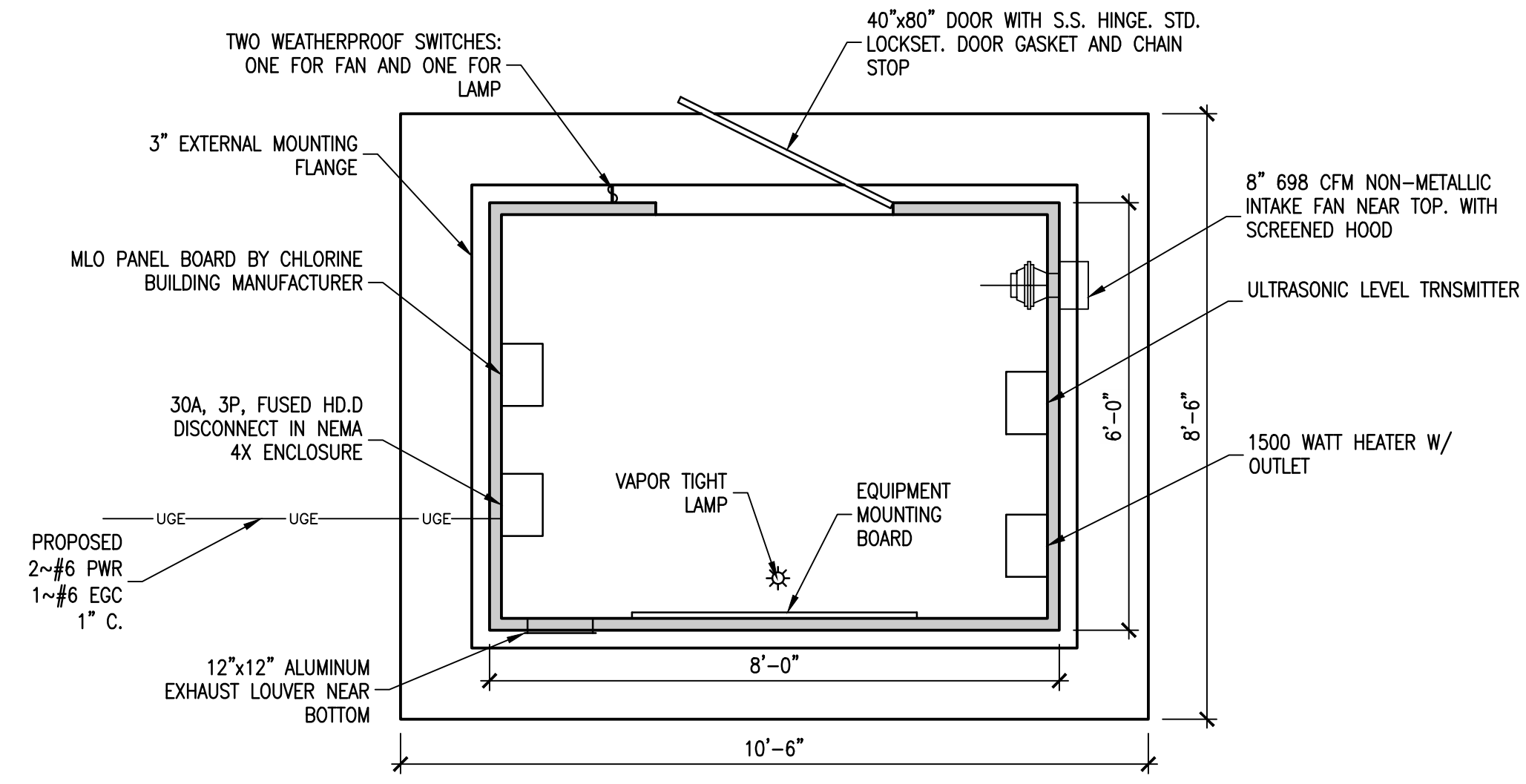
FOR REVIEW

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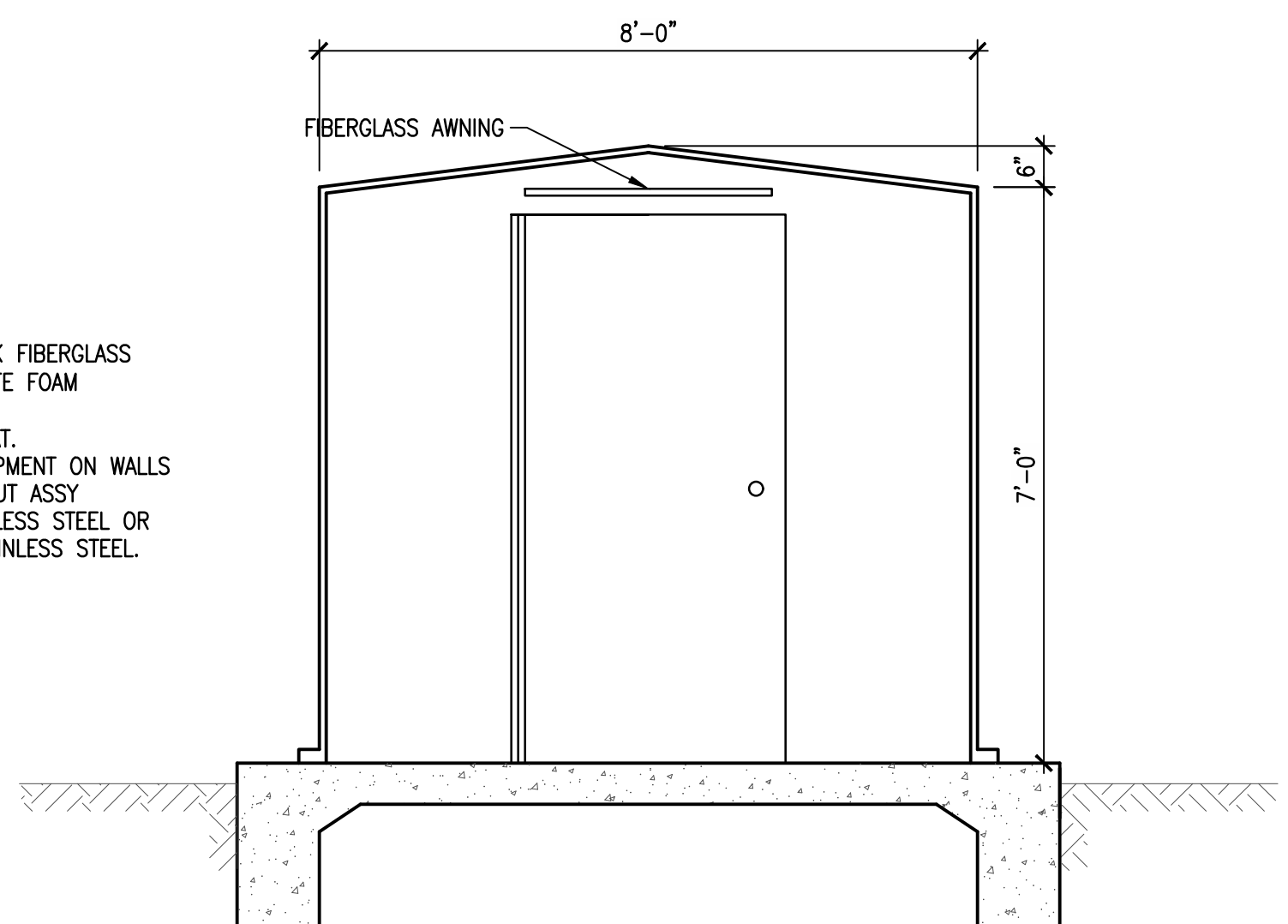
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CHECKED: FMI

SHEET
M.2.1
SHEET 17 OF ###

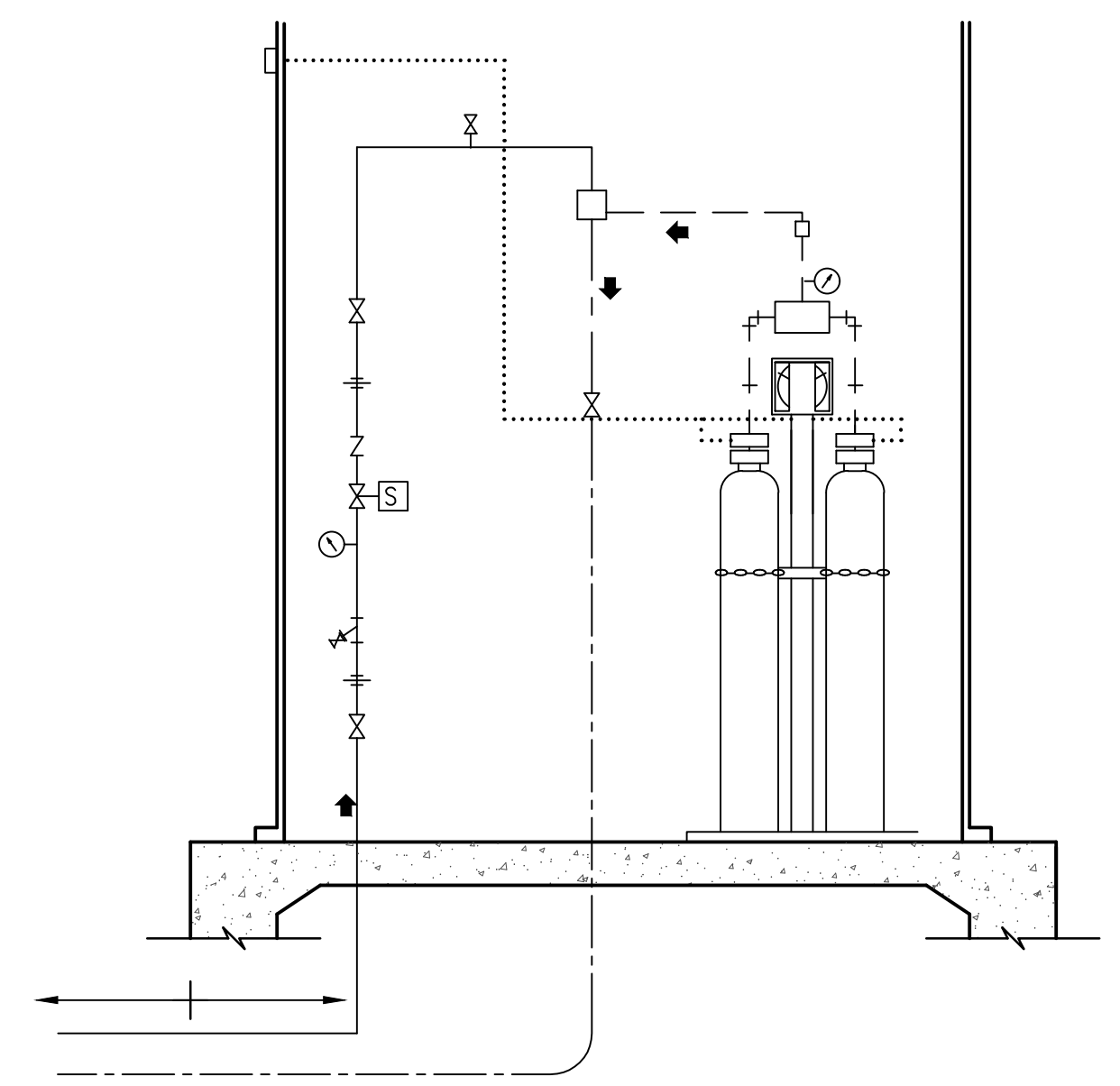


1 CHLORINE BUILDING PLAN
1/2"=1'-0"



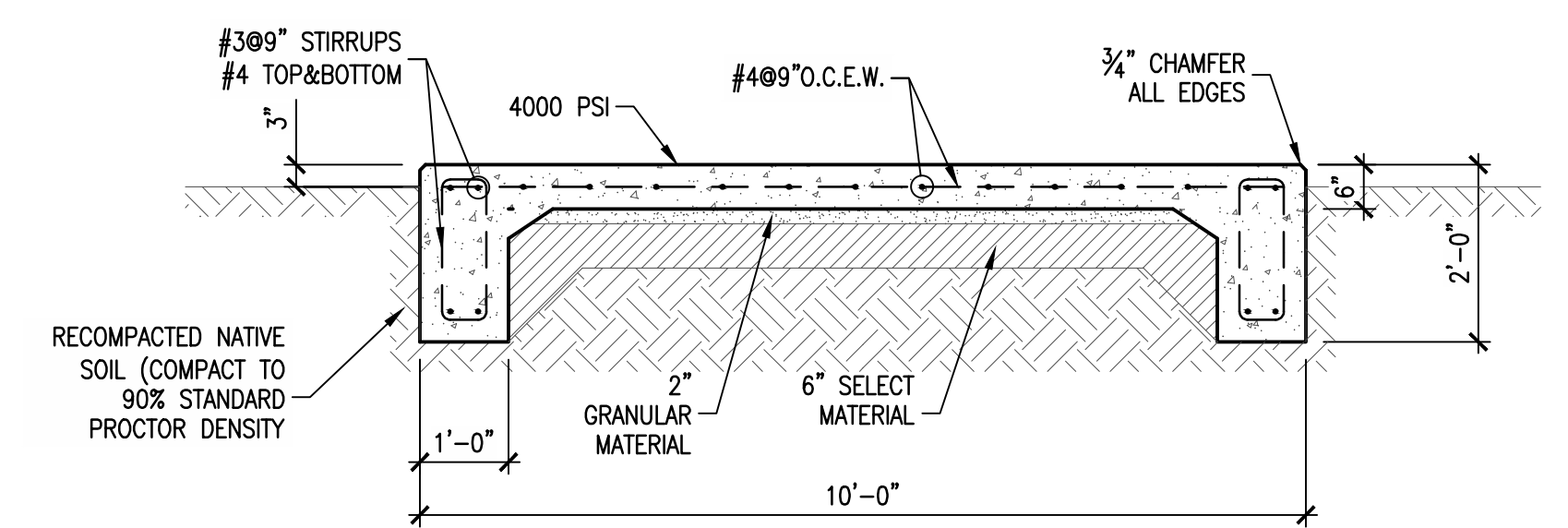
2 CHLORINE BUILDING ELEVATION
1/2"=1'-0"

- NOTES:
1. MATERIALS OF CONSTRUCTION: 1/8" THK FIBERGLASS SKINS WITH 1" THK POLYISOCYANURATE FOAM INSULATION CORE.
 2. EXTERIOR & INTERIOR WHITE GEL COAT.
 3. CONTRACTOR SHALL MOUNT ALL EQUIPMENT ON WALLS AND MOUNTING BOARD USING UNISTRUT ASSY MEMBERS. UNISTRUT SHALL BE STAINLESS STEEL OR ALUMINUM. FASTENERS SHALL BE STAINLESS STEEL.

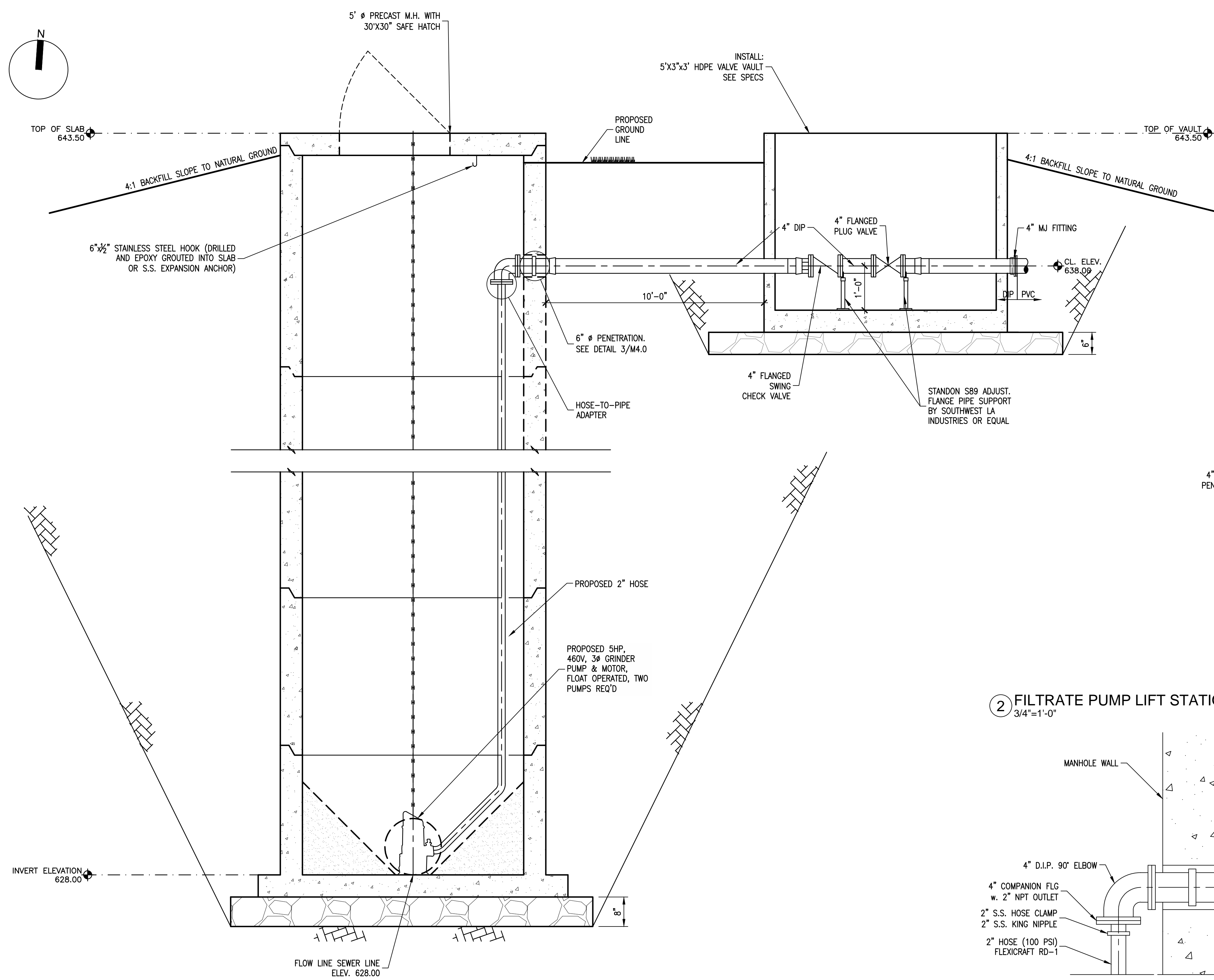
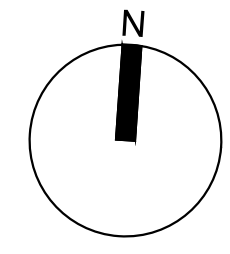


MARK	DESCRIPTION	NOTES
1	150 LB. CHLORINE CYLINDER	FURNISHED BY CHLORINATOR MANUFACTURER
2	3/4" GALV. STL. CYLINDER CHAIN	FURNISHED BY CHLORINATOR MANUFACTURER
3	EMERGENCY SHUTOFF VALVE	FURNISHED BY CHLORINATOR MANUFACTURER
4	VACUUM REGULATOR	FURNISHED BY CHLORINATOR MANUFACTURER
5	CHLORINE SCALE	FURNISHED BY CHLORINATOR MANUFACTURER
6	AUTO SWITCH-OVER VALVE	FURNISHED BY CHLORINATOR MANUFACTURER
7	AUTOMATIC FEED CTRL. PANEL	FURNISHED BY CHLORINATOR MANUFACTURER
8	VACUUM GAUGE	WITH S.S. CHEMICAL PROTECTOR 4.5"
9	1" SCH 40 PVC CL. SOLUTION	USE SPECIFIED PIPE CLAMPS @ 5 FT. CENTERS
10	1/2" SCH 40 PVC VENT LINE	
11	CHLORINE INJECTOR	FURNISHED BY CHLORINATOR MANUFACTURER
12	3/4" COPPER WATER LINE	RIGID COPPER ABOVE GRADE, SOFT COPPER ELSEWHERE INSULATE WATER LINE WITH 1" RIGID INSULATION W/ ALUM JACKET
13	PRESSURE GAUGE	OIL FILLED, 4.5" DIA. W/ GAGE COCK
14	INSECT SCREEN	

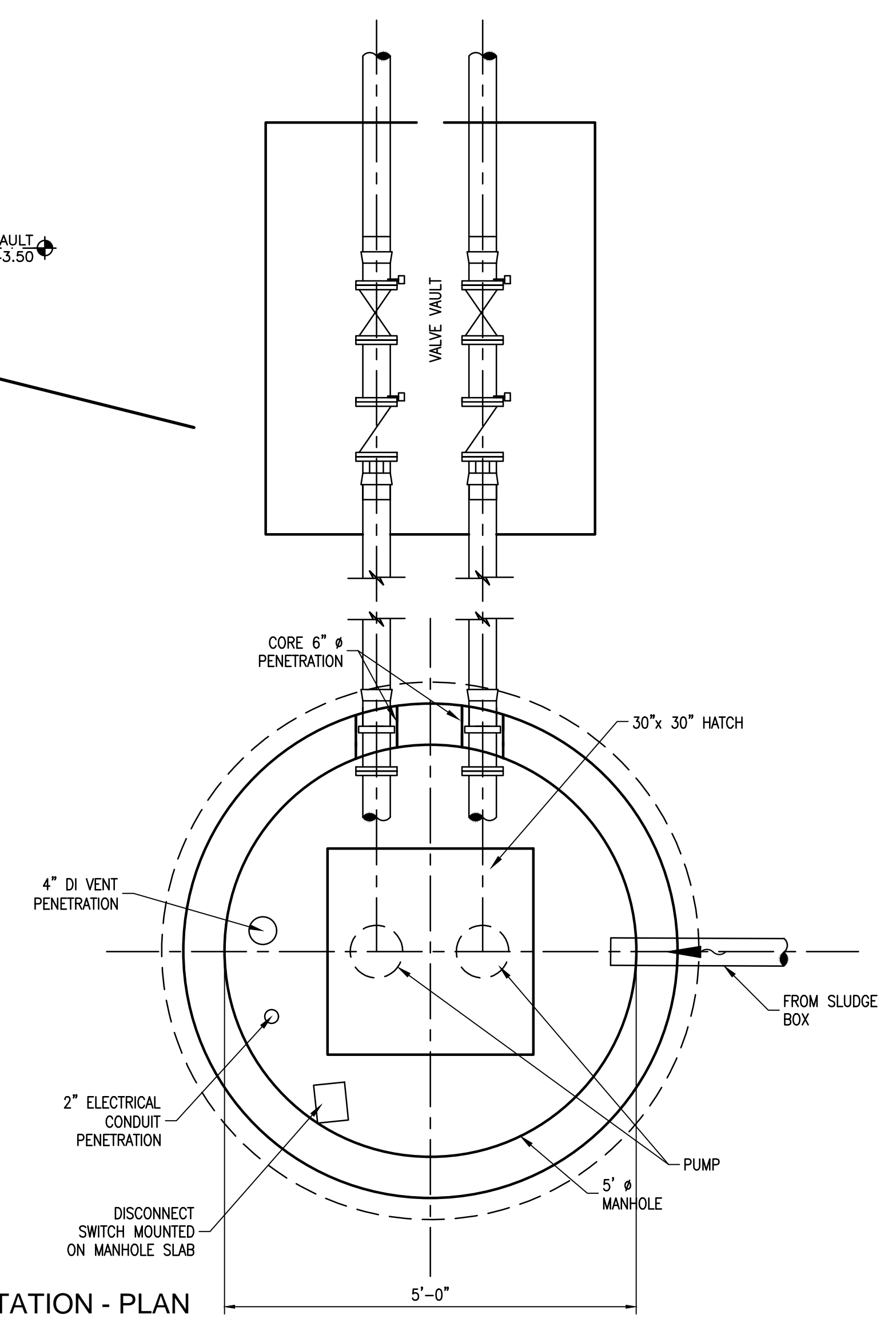
4 CHLORINE EQUIPMENT INSTALLATION DETAIL
NO SCALE



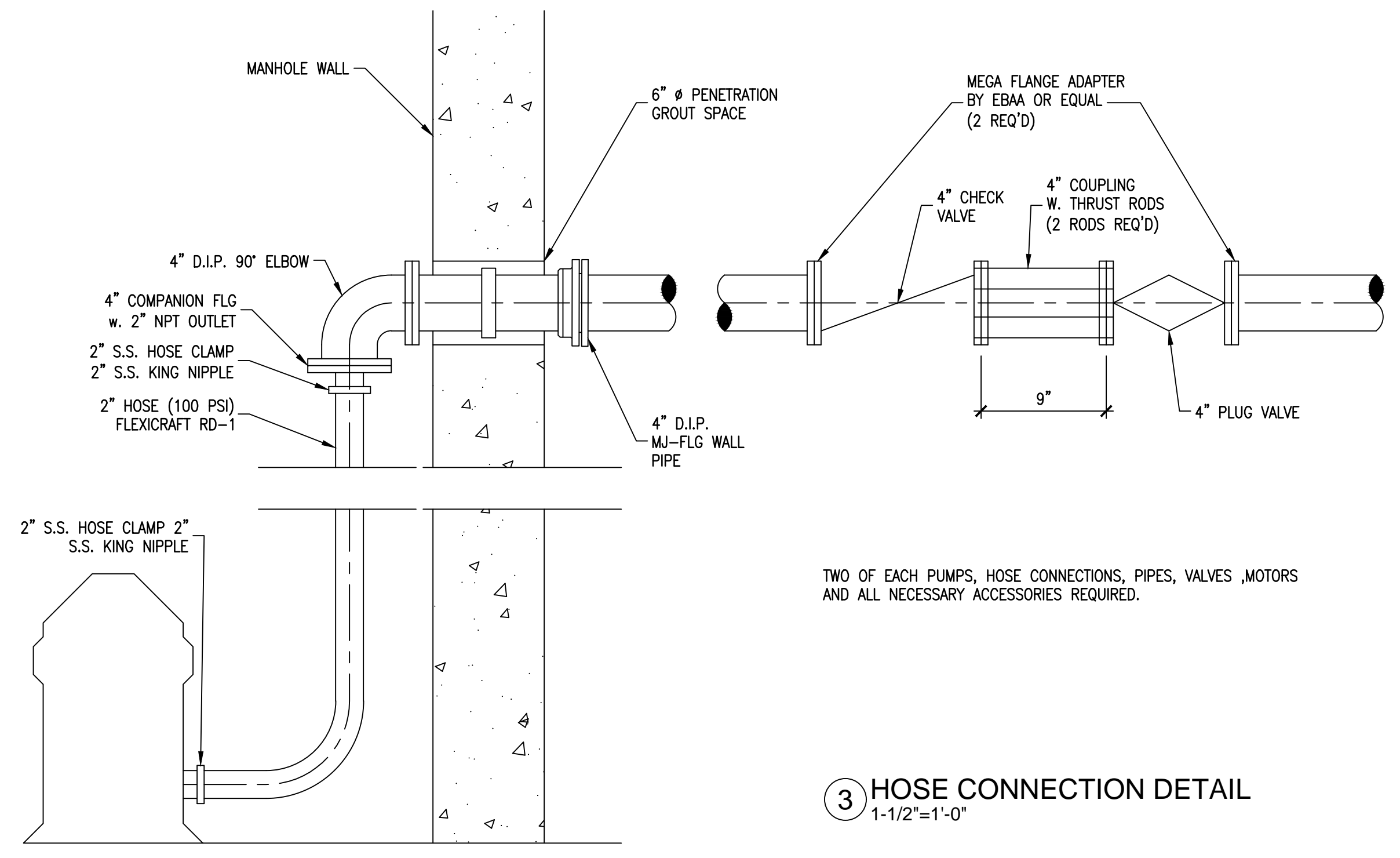
3 CHLORINE BUILDING SLAB SECTION
1/2"=1'-0"



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



② FILTRATE PUMP LIFT STATION - PLAN
3/4"=1'-0"



③ HOSE CONNECTION DETAIL
1-1/2"=1'-0"

TWO OF EACH PUMPS, HOSE CONNECTIONS, PIPES, VALVES, MOTORS AND ALL NECESSARY ACCESSORIES REQUIRED.

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CITY OF WESTON
EAST FORK WWTP

FILTRATE PUMP LIFT STATION

FOR REVIEW

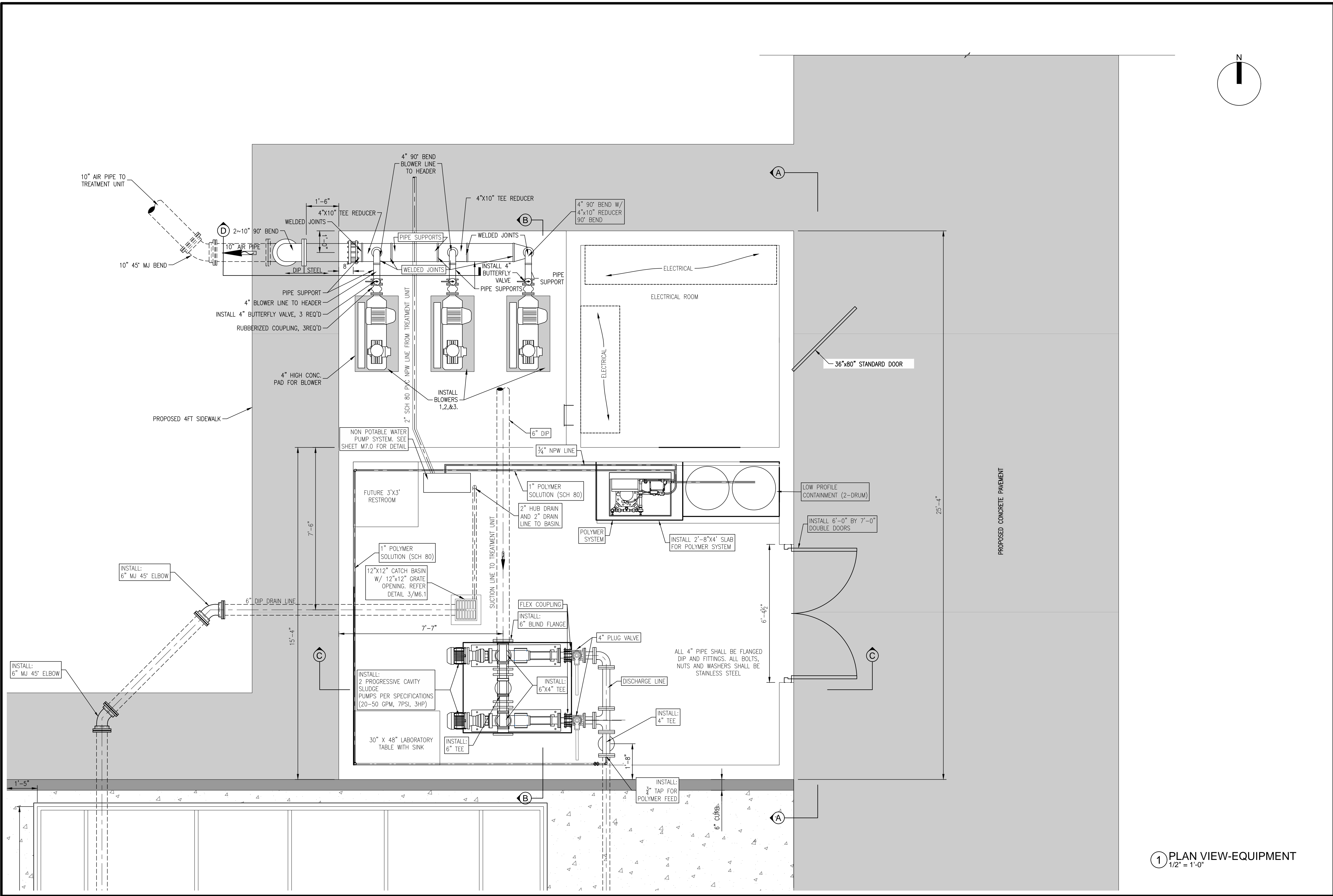
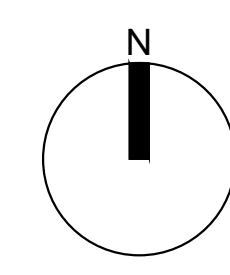
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PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
06.04.2021

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PROJECT No. 19032
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DRAWN: FMI
CHECKED: FMI

SHEET
M.4.0
SHEET 19 OF ###

Freeman-Millican, Inc.
ENGINEERS - ARCHITECTS - PLANNERS
8300 LBJ FREEWAY, STE. 1023 DALLAS, TX 75243 PH. 214.500.0555 TX REG. ENG. FIRM #2827



① PLAN VIEW-EQUIPMENT
1/2" = 1'-0"

NO.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP

SLUDGE ROOM, BLOWERS AND ELECTRICAL ROOM PLAN

FOR REVIEW

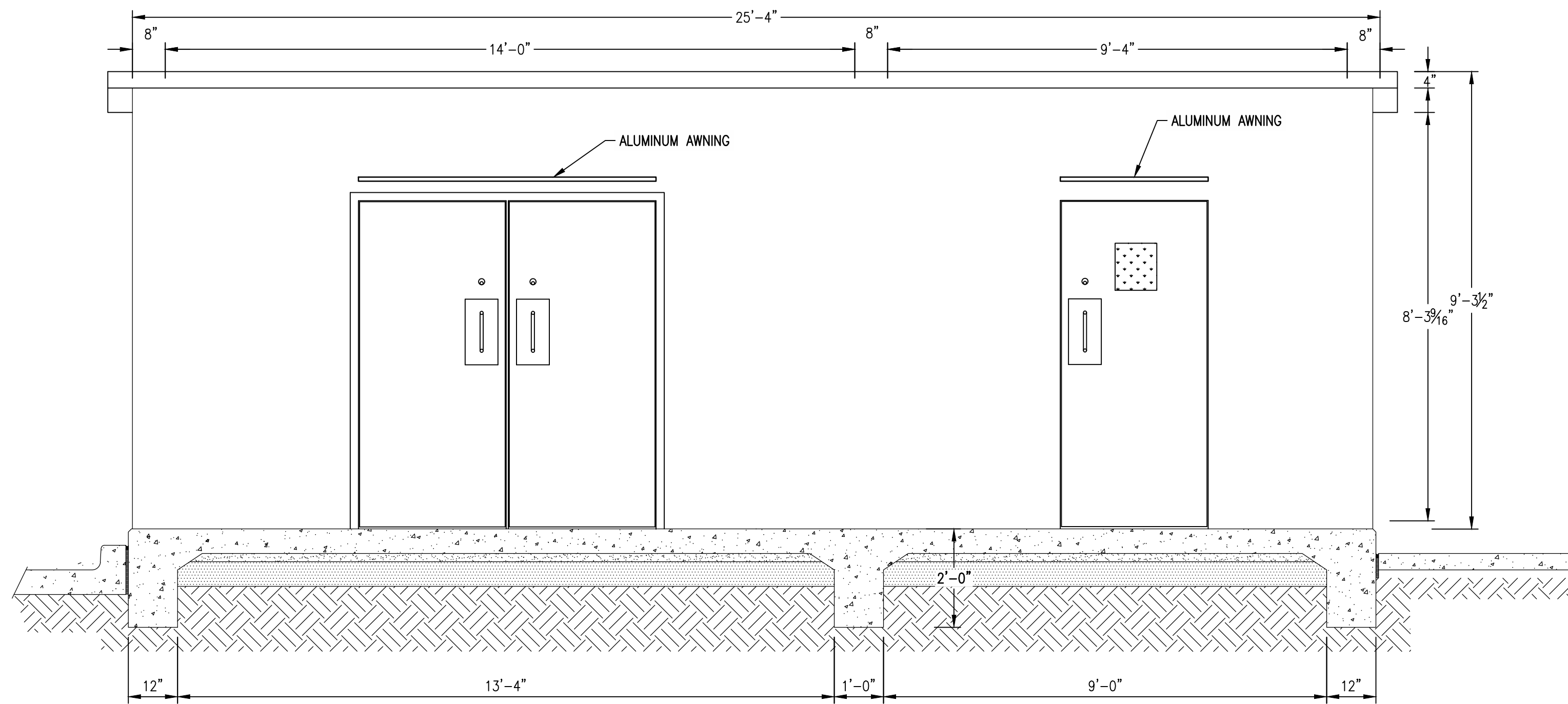
THIS PLAN SHEET IS ISSUED FOR INTERIM REVIEW ONLY AND IS NOT FOR BIDDING, CONSTRUCTION OR PERMIT PURPOSES.

PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
06.04.2021

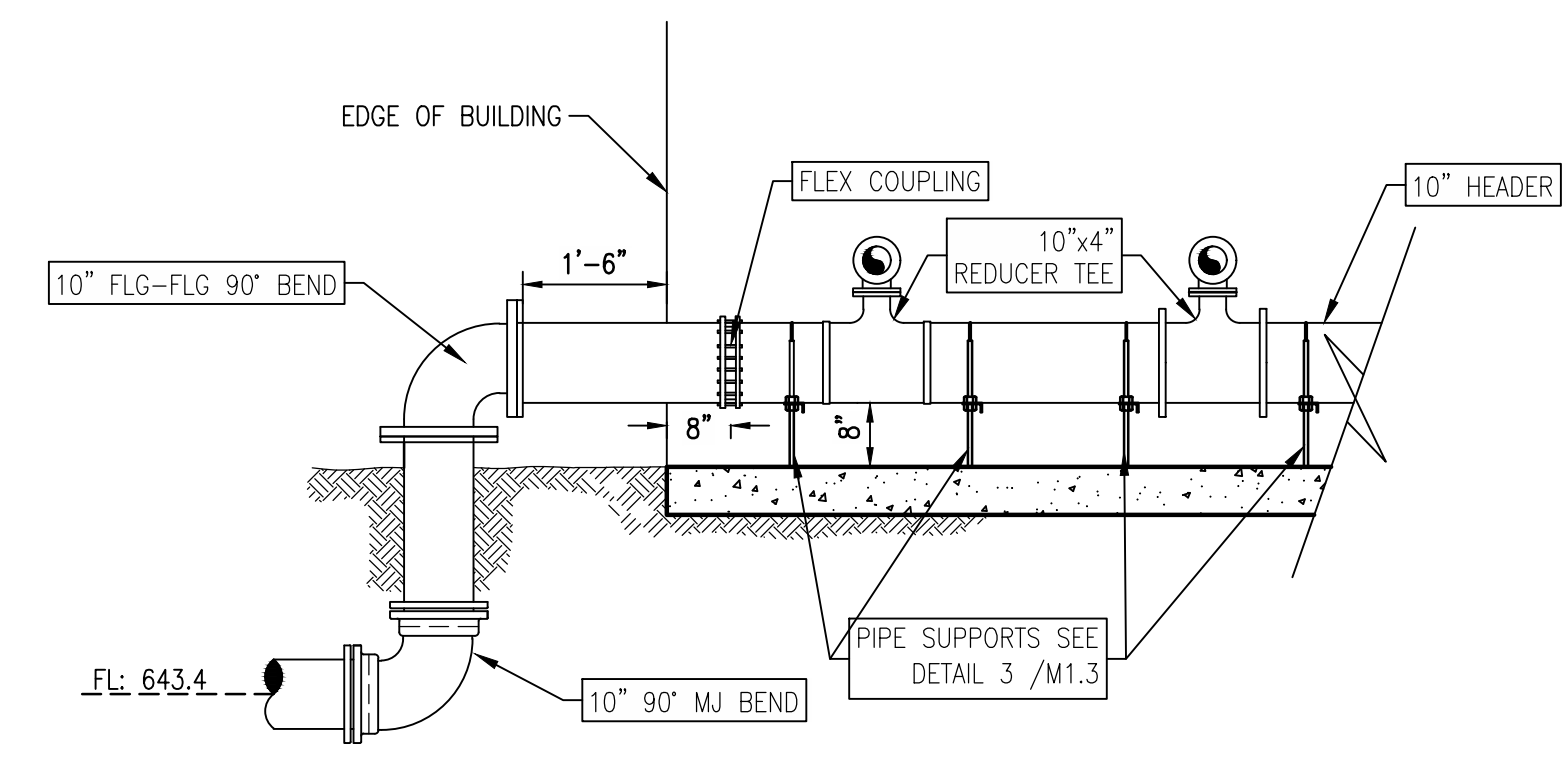
IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2" OF NOTED SCALE.
PROJECT No. 19032
DESIGNED: FMI
DRAWN: FMI
CHECKED: FMI

SHEET
M.6.0
SHEET 20 OF ###

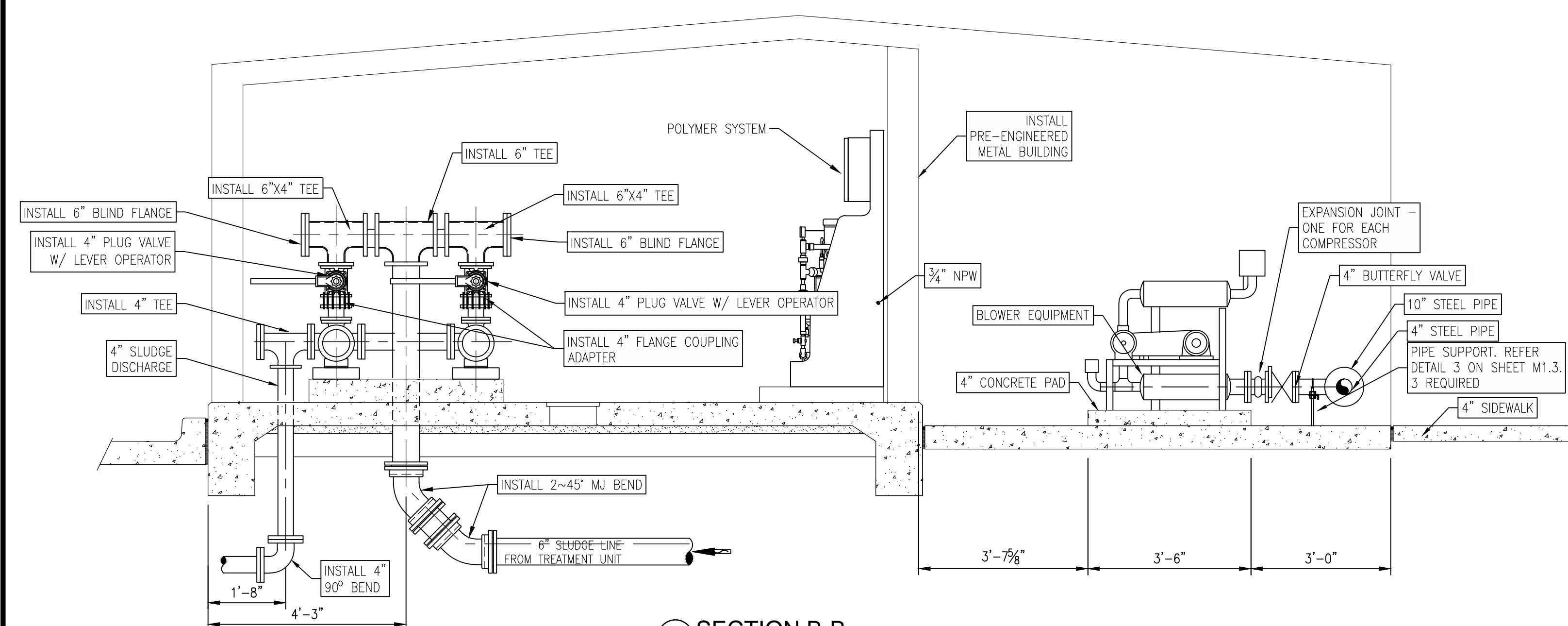
Freeman-Millican, Inc.
ENGINEERS - ARCHITECTS - PLANNERS
8300 LBJ FREEWAY, STE. 225 DALLAS, TX 75243 PH: 214.500.9585 TX REG. ENG. PR. #2827



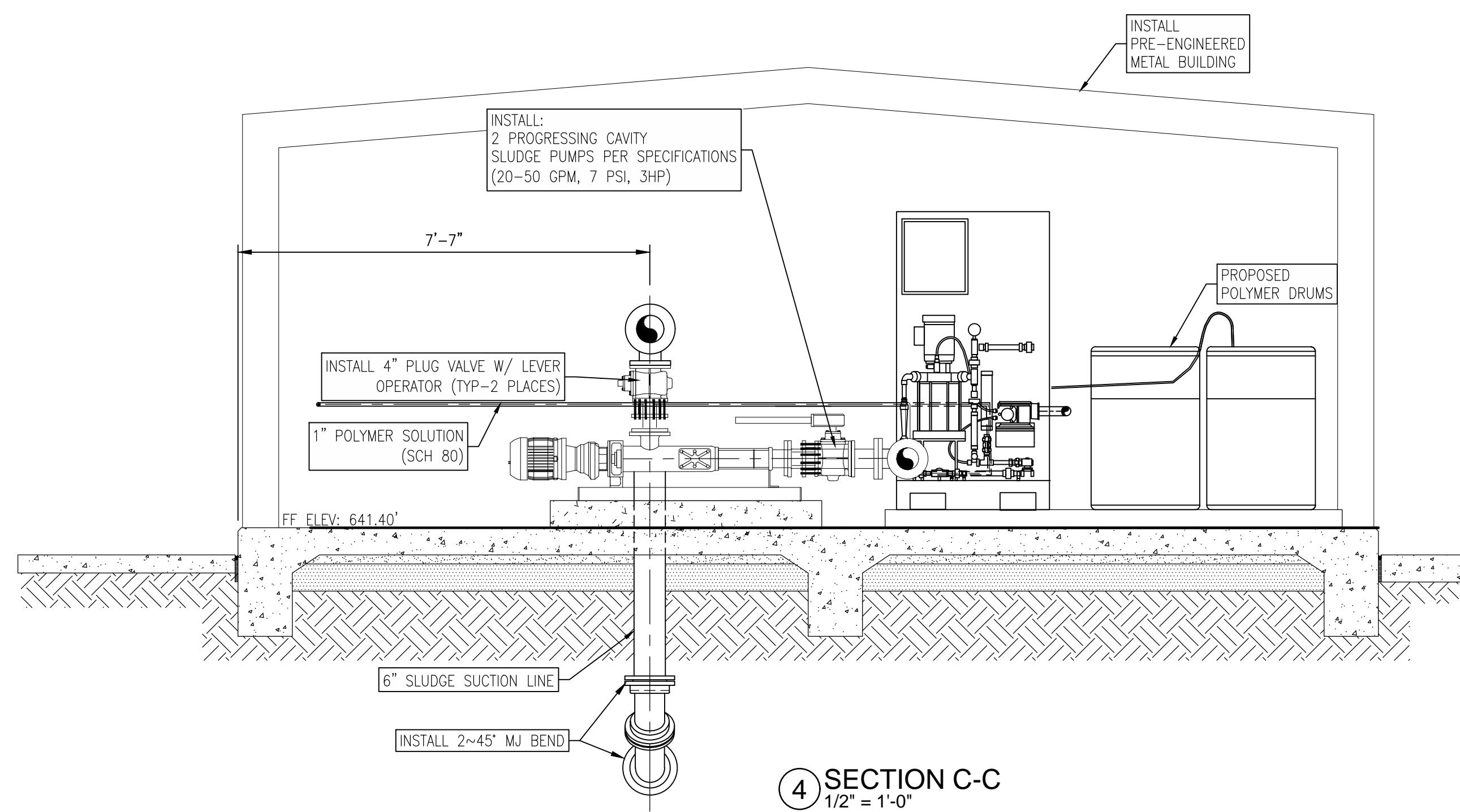
1 SECTION A-A
1/2" = 1'-0"



3 SECTION D
1/2" = 1'-0"



2 SECTION B-B
1/2" = 1'-0"



4 SECTION C-C
1/2" = 1'-0"

No.	DATE	REVISION	BY

CITY OF WESTON
 EAST FORK WWTP
 SLUDGE ROOM, BLOWERS AND ELECTRICAL ROOM SECTIONS

FOR REVIEW

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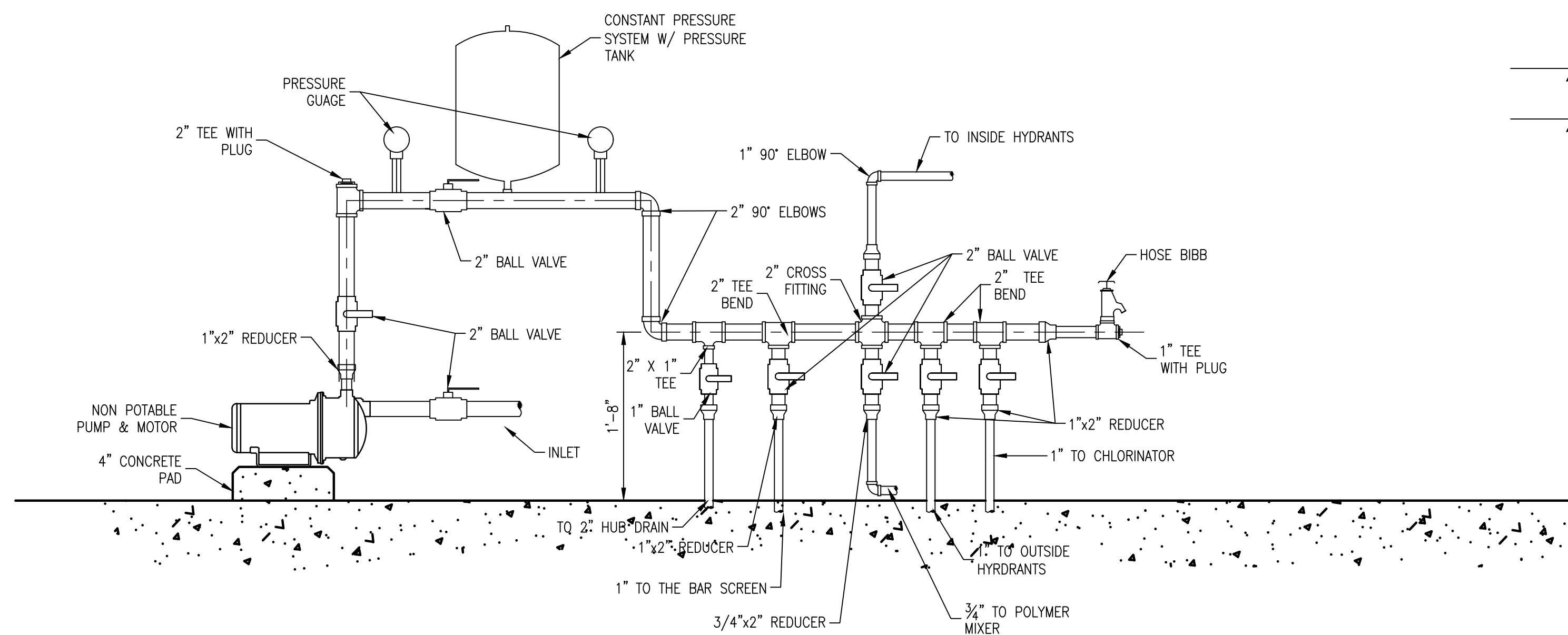
PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
06.04.2021

IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2" OF NOTED SCALE.

PROJECT No. 19032
DESIGNED: FMI
DRAWN: FMI
CHECKED: FMI

SHEET
M.6.1
SHEET 21 OF ###

Freeman-Millican, Inc.
 ENGINEERS - ARCHITECTS - PLANNERS
 8300 LBJ FREEWAY, STE. 225, DALLAS, TX 75243 PH: 214.500.0585 TX REG. ENG. PROJ. F2827



- NOTES:
1. ATTACH PIPE TO WALL (PLYWOOD) USING STAINLESS STEEL CLAMPS.
 2. ALL VALVES SHALL BE STAINLESS STEEL BALL VALVES
 3. PIPING AND FITTINGS SHALL BE SCH. 80

① NON POTABLE WATER PUMP & CONSTANT PRESSURE SYSTEM
N.T.S.

No.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP

NON-POTABLE WATER SYSTEM

FOR REVIEW

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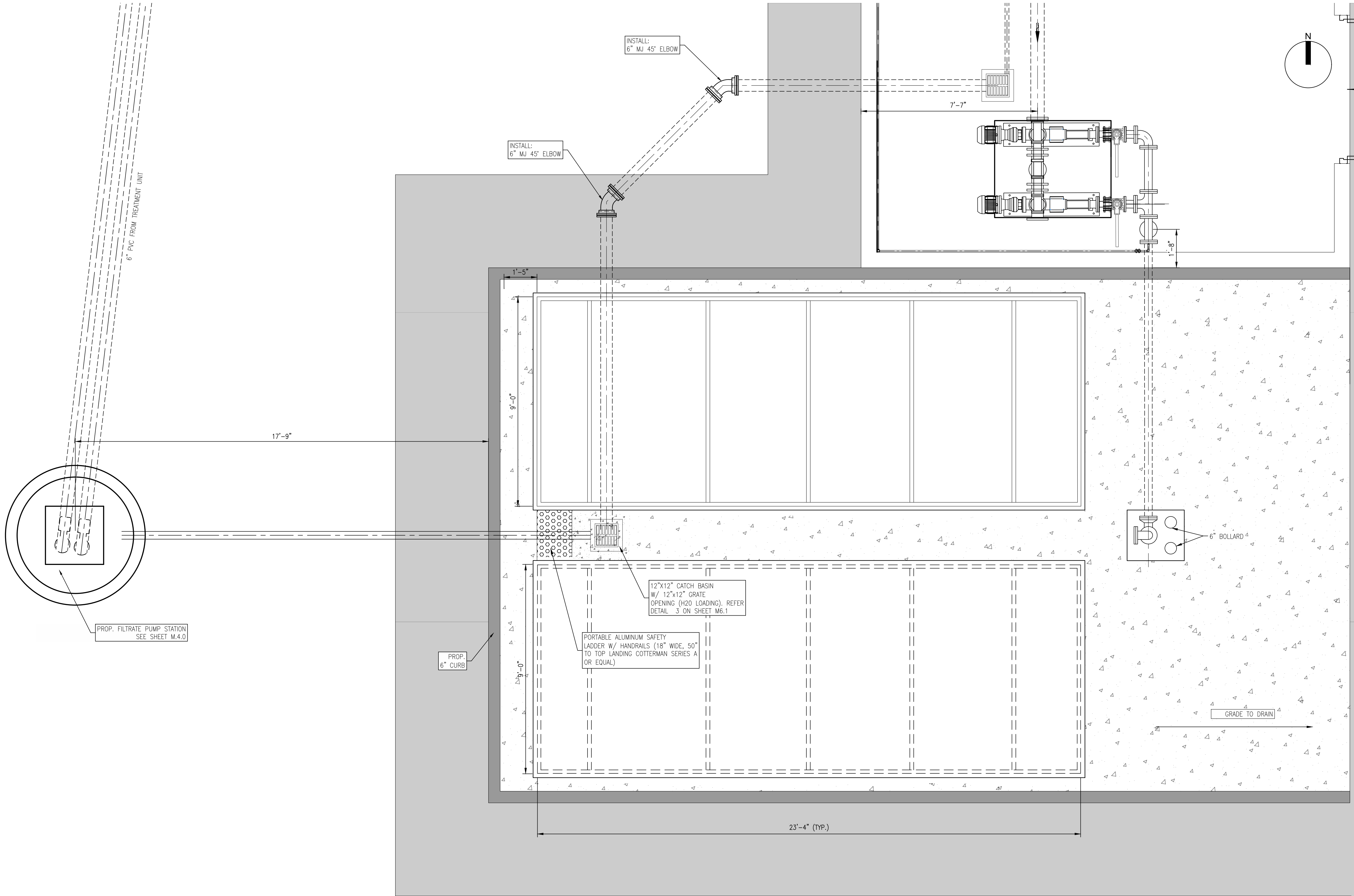
PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
06.04.2021

IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2" OF NOTED SCALE.

PROJECT No. 19032
DESIGNED: FMI
DRAWN: STG
CHECKED: FMI

SHEET
M.7.0
SHEET 21 OF ###





No.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP

SLUDGE DEWATERING UNIT PLAN

FOR REVIEW

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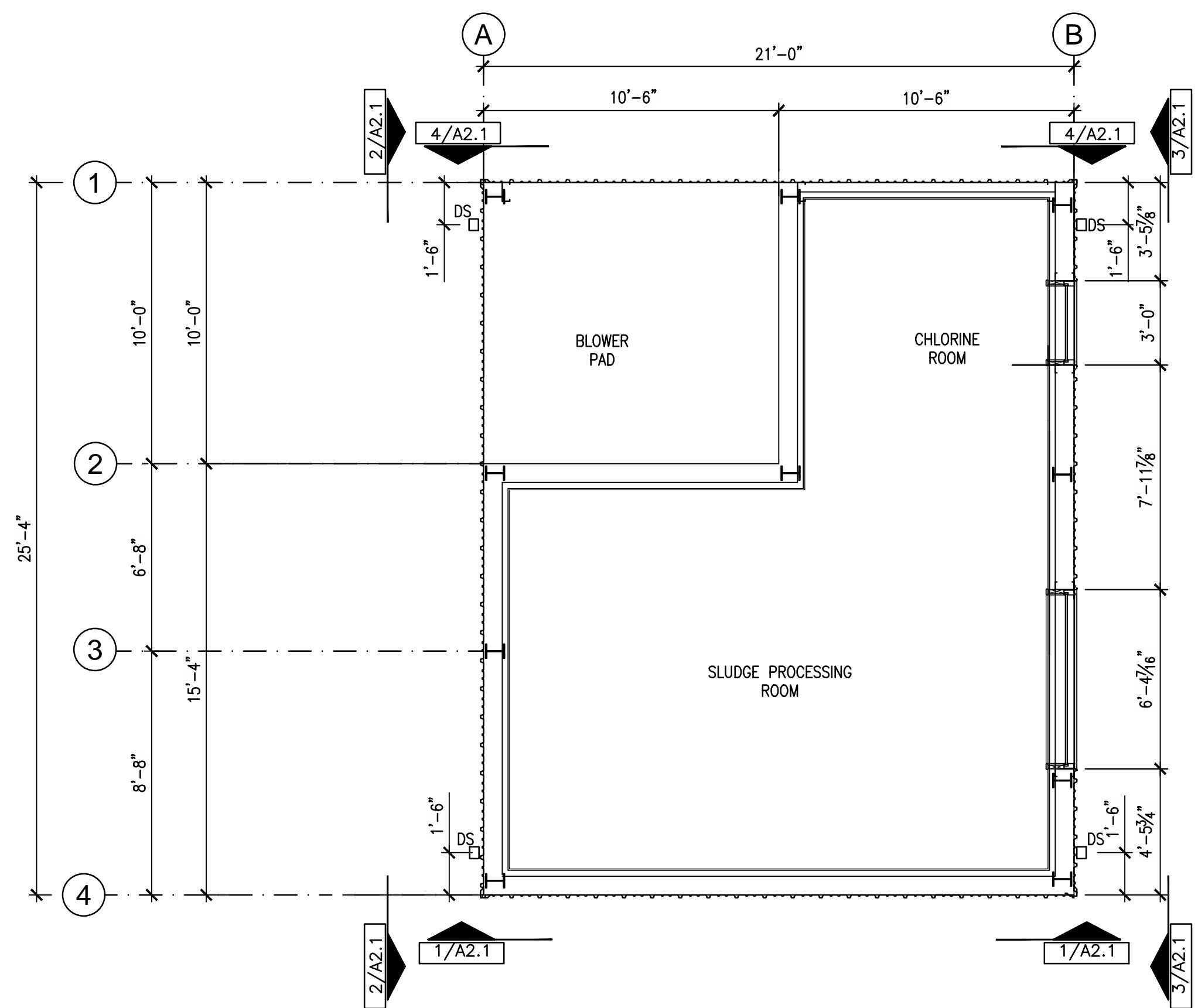
PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
06.04.2021

IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2" OF NOTED SCALE.

PROJECT No. 19032
DESIGNED: LUF
DRAWN: FMI
CHECKED: MDH

SHEET
M.8.0
SHEET 24 OF ###

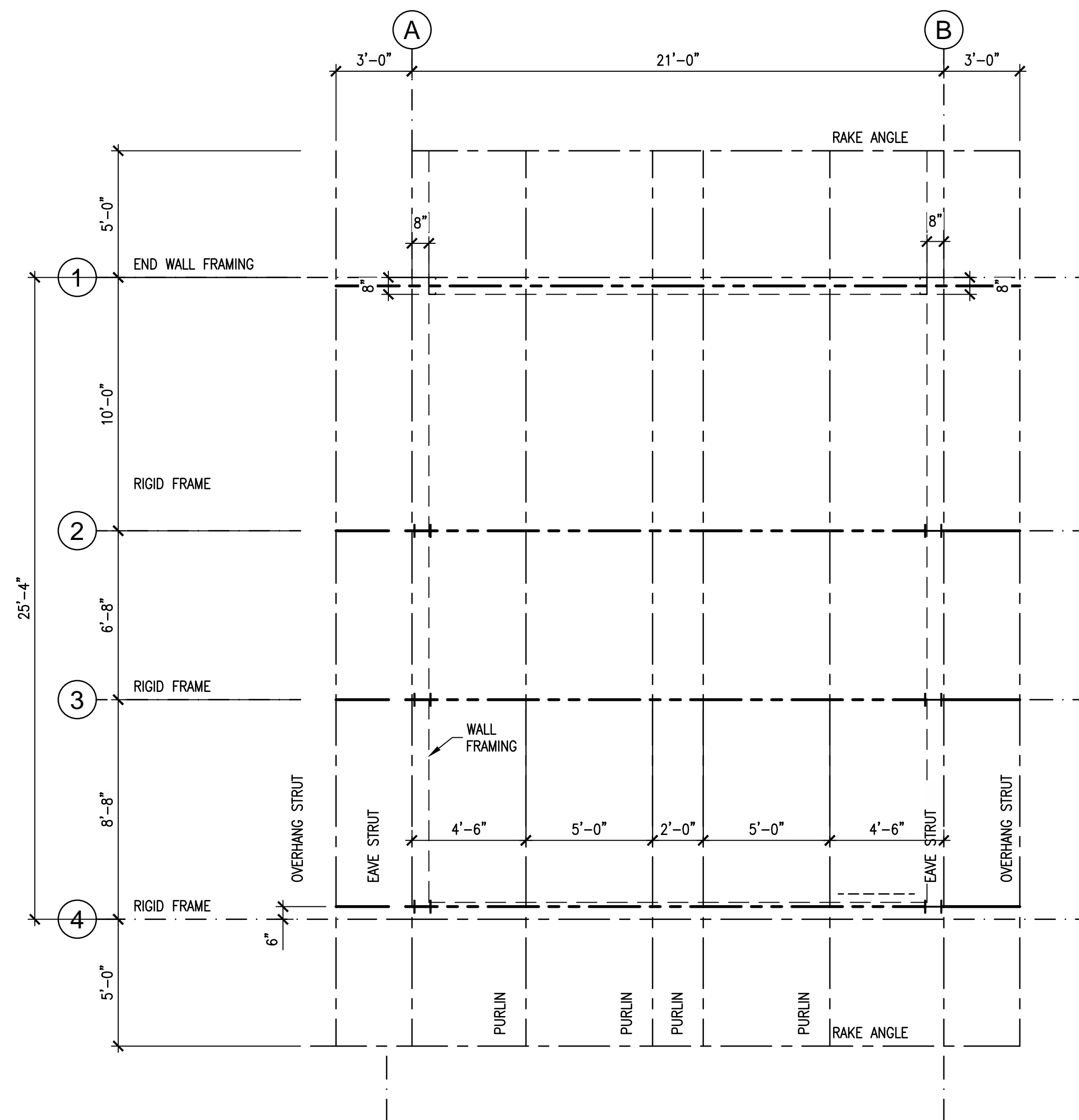
Freeman-Millican, Inc.
ENGINEERS - ARCHITECTS - PLANNERS
8300 LBJ FREEWAY, STE. 225 DALLAS, TX 75243 PH: 214.500.0585 TX REG. ENG. PROJ. F-2027



ABBREVIATIONS

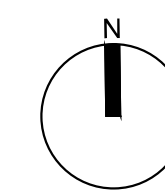
- 'A' ELECTRICAL PANEL 'A'
- A-C AIR-CONDITIONING EQUIPMENT
- ATS AUTOMATIC TRANSFER SWITCH
- DS DOWNSPOUT
- I&C INSTRUMENTATION & CONTROL
- LCP LIGHTING CONTROL PANEL
- MCC MOTOR CONTROL CENTER
- PPU POSITIVE PRESSURIZATION UNIT
- VFD VARIABLE FREQUENCY DRIVE
- XFMR TRANSFORMER
- ③ STRUCTURAL GRID NUMBER

① FLOOR PLAN
1/4"=1'-0"



② ROOF FRAMING PLAN
1/4"=1'-0"

NOTE: THE BUILDING SUPERSTRUCTURE WILL BE DESIGNED BY THE BUILDING MANUFACTURER'S ENGINEER BASED ON THE LOADING CONDITIONS STATED IN THE SPECIFICATIONS. THIS ROOF FRAMING PLAN IS PROVIDED FOR THE PURPOSE OF LOCATING POINT LOADS TO BE SUPPORTED BY THE ROOF STRUCTURE IN ADDITION TO THE LOADS STATED IN THE SPECIFICATIONS.



NO.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP

FLOOR PLAN AND ROOF FRAMING

FOR REVIEW

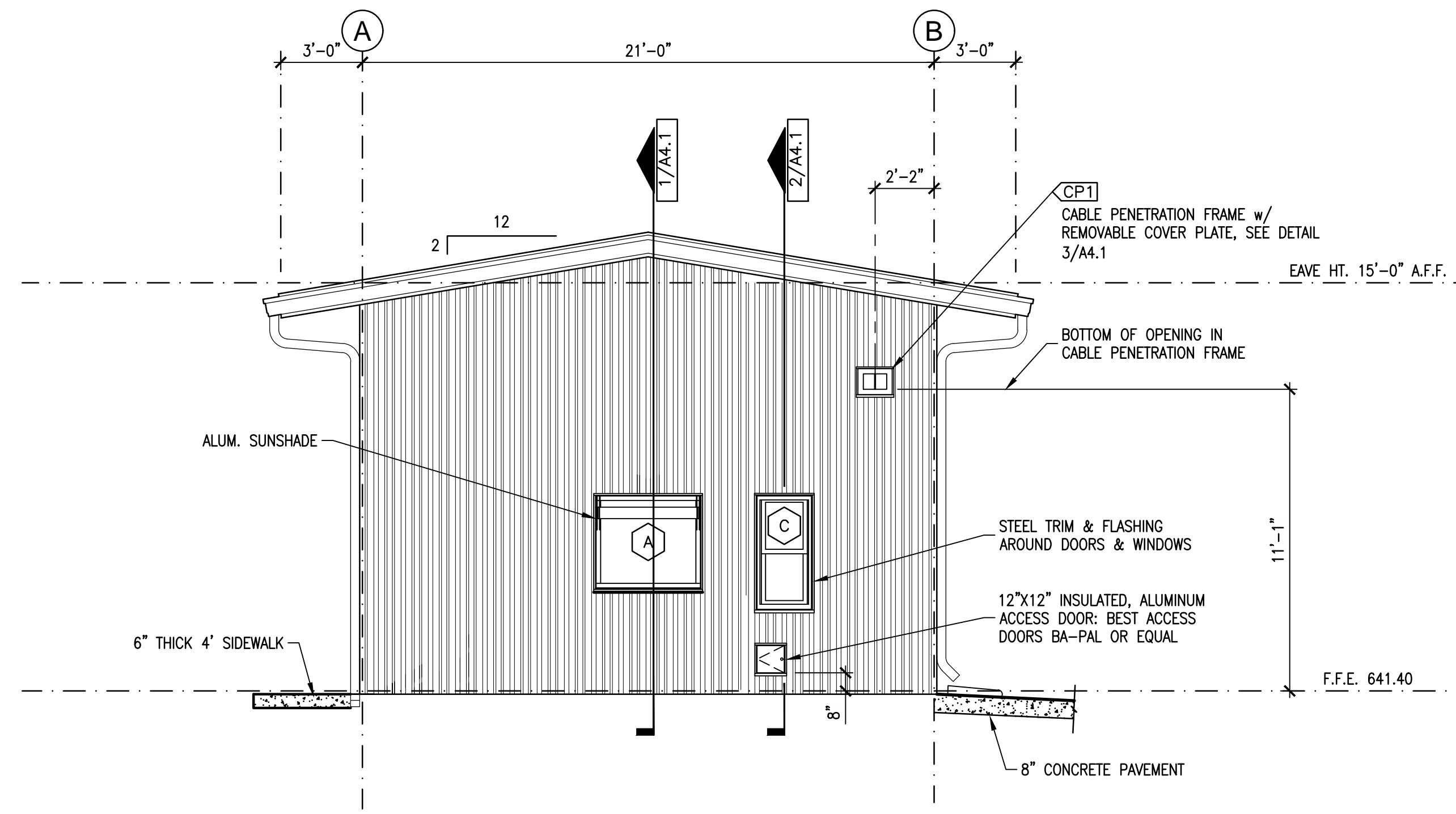
THIS PLAN SHEET IS ISSUED FOR INTERIM REVIEW ONLY AND IS NOT FOR BIDDING, CONSTRUCTION OR PERMIT PURPOSES.

PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
06.04.2021

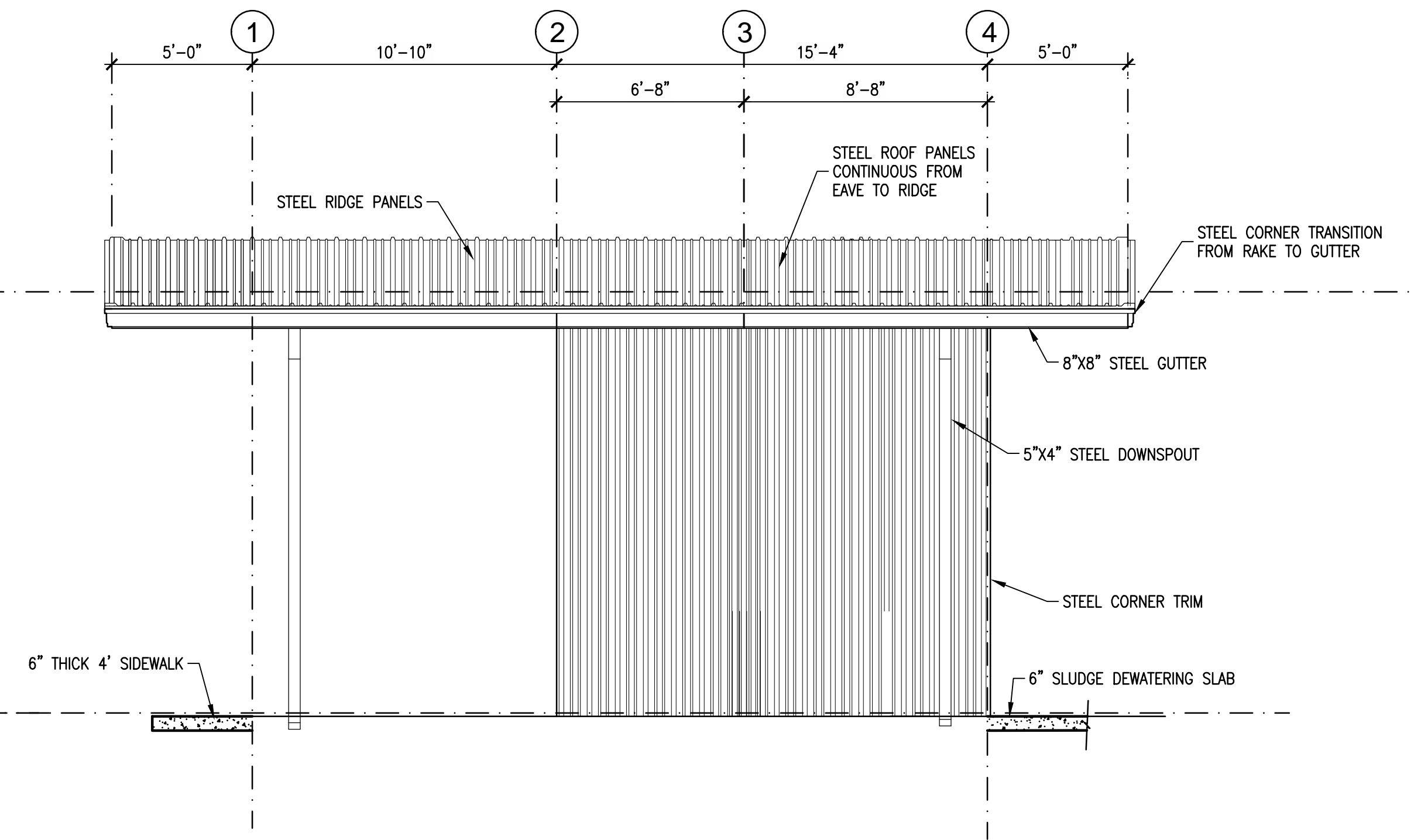
IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2" OF NOTED SCALE.

PROJECT No. 19032
DESIGNED: ###
DRAWN: FMI
CHECKED: ###

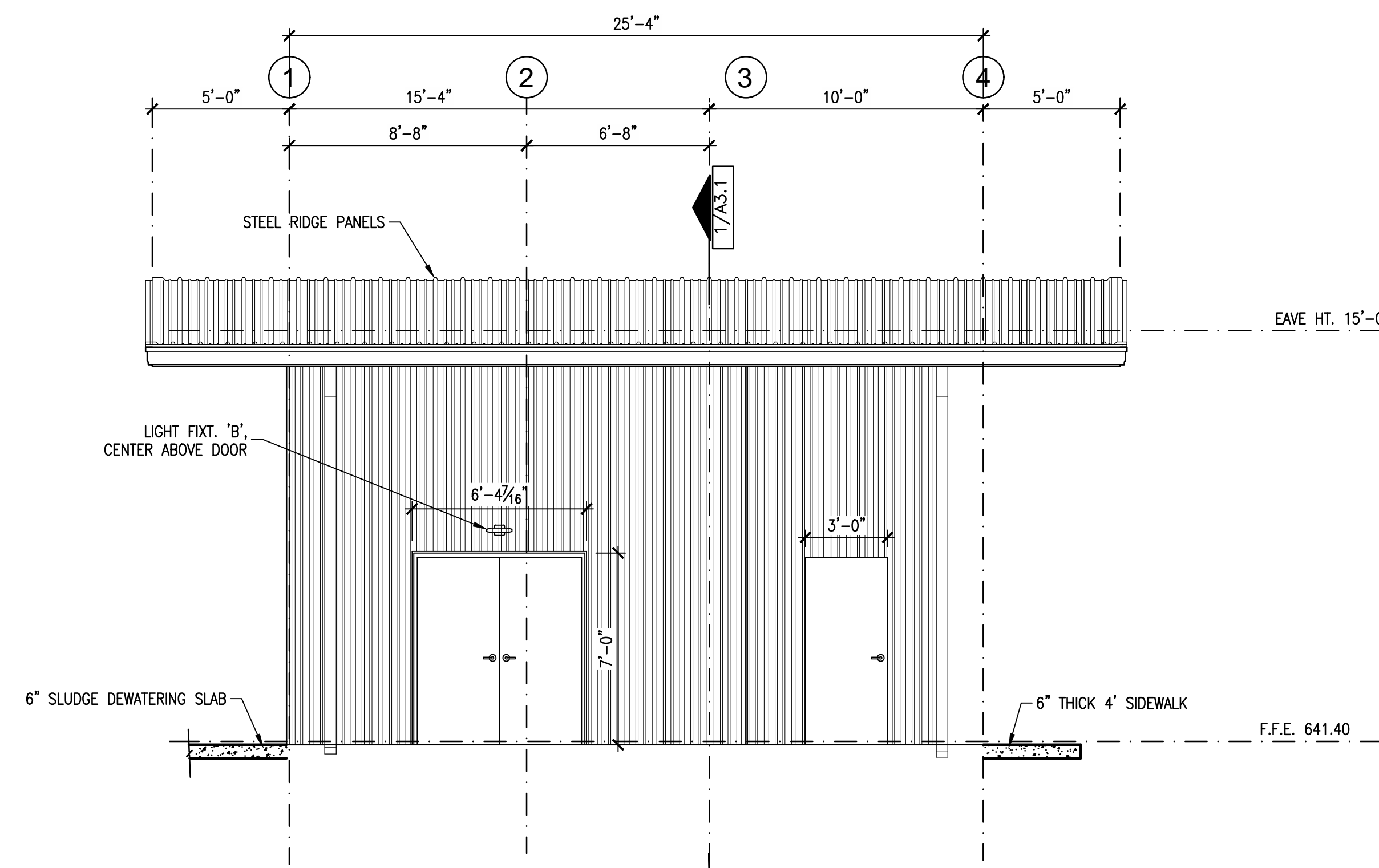
SHEET
A.1.1
SHEET ### OF ###



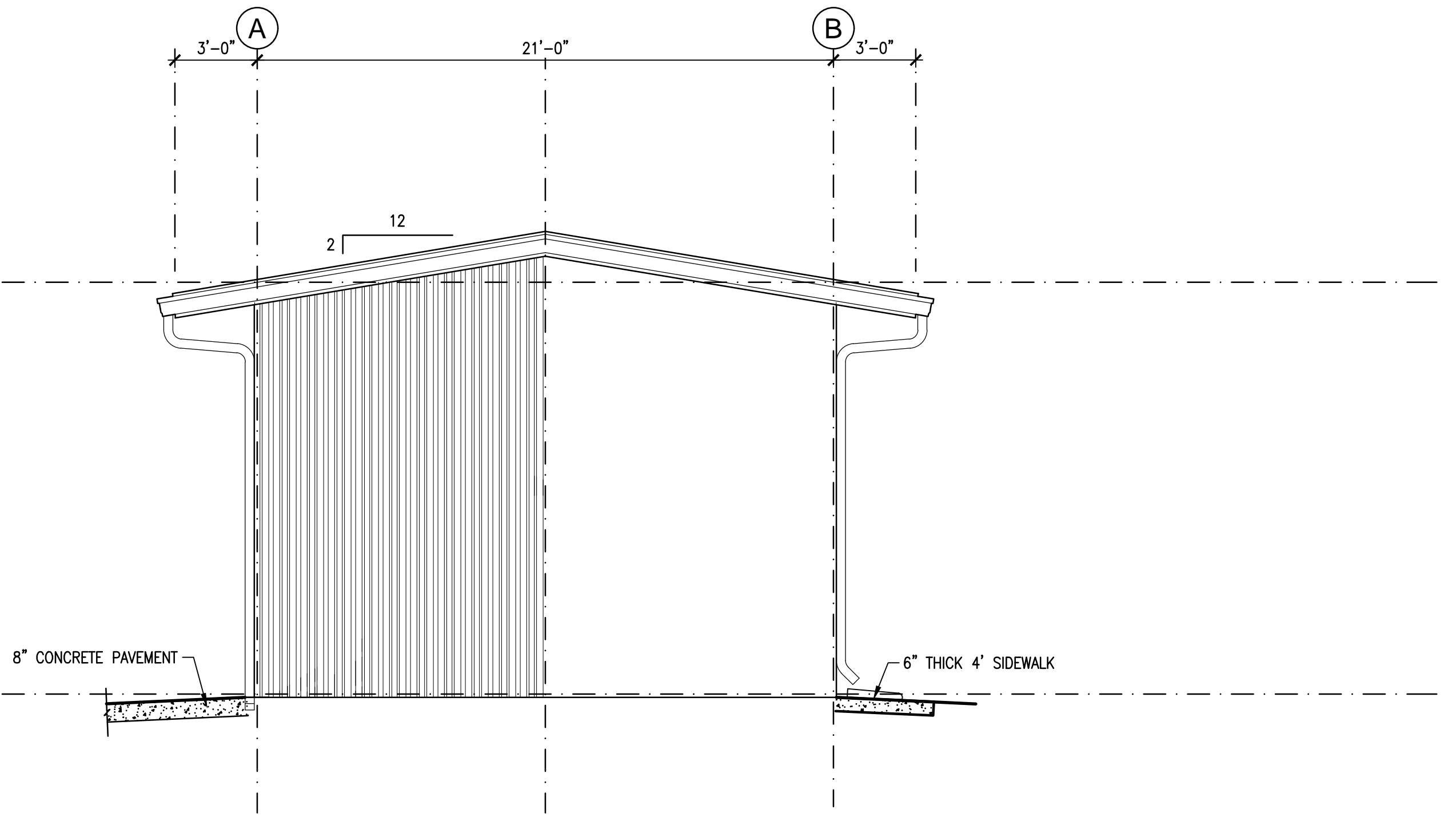
① SOUTH ELEVATION
1/4"=1'-0"



② WEST ELEVATION
1/4"=1'-0"



③ EAST ELEVATION
1/4"=1'-0"



④ NORTH ELEVATION
1/4"=1'-0"

NO.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP
ELEVATIONS

FOR REVIEW

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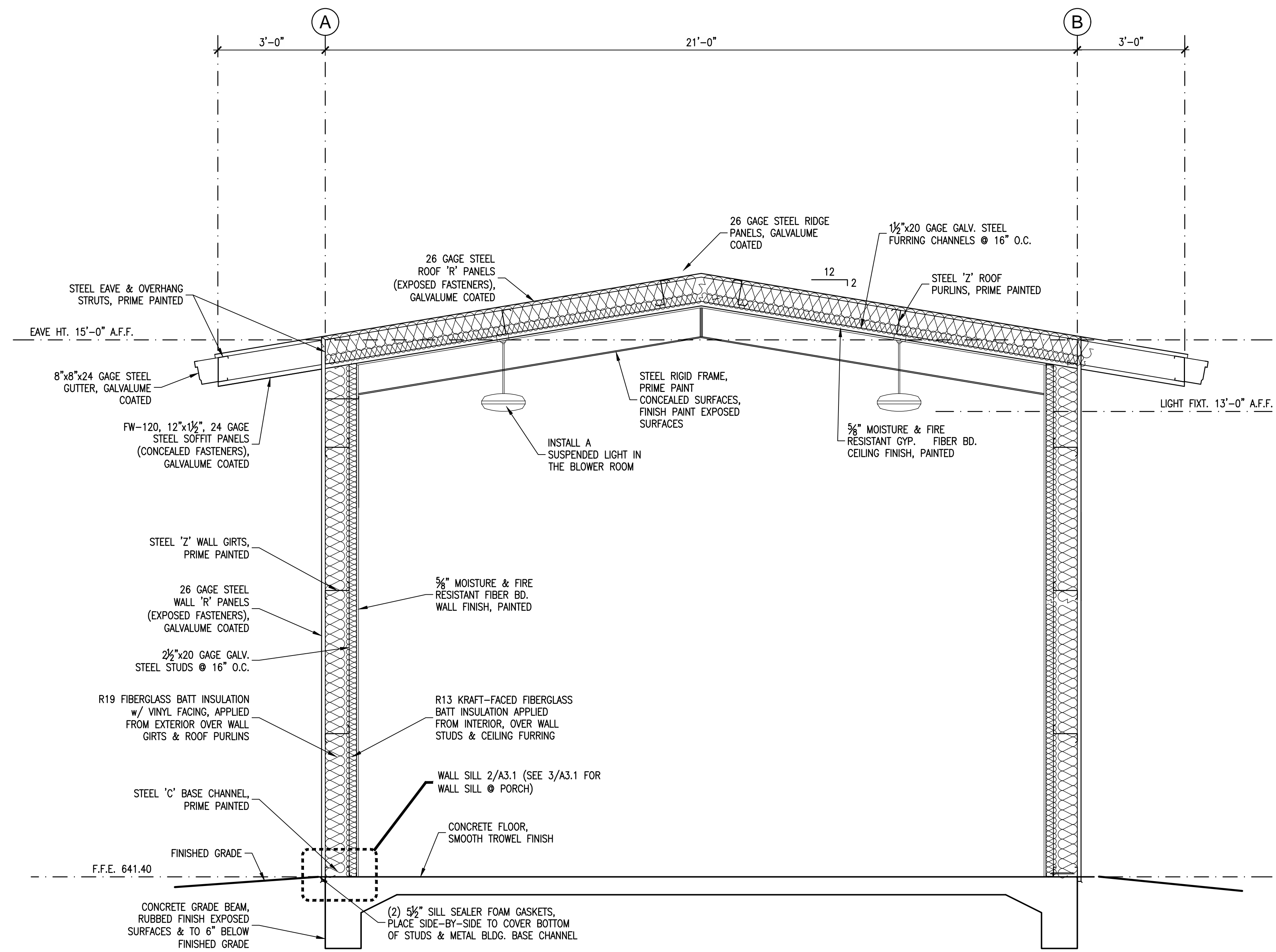
PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
06.04.2021

IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2" OF NOTED SCALE.

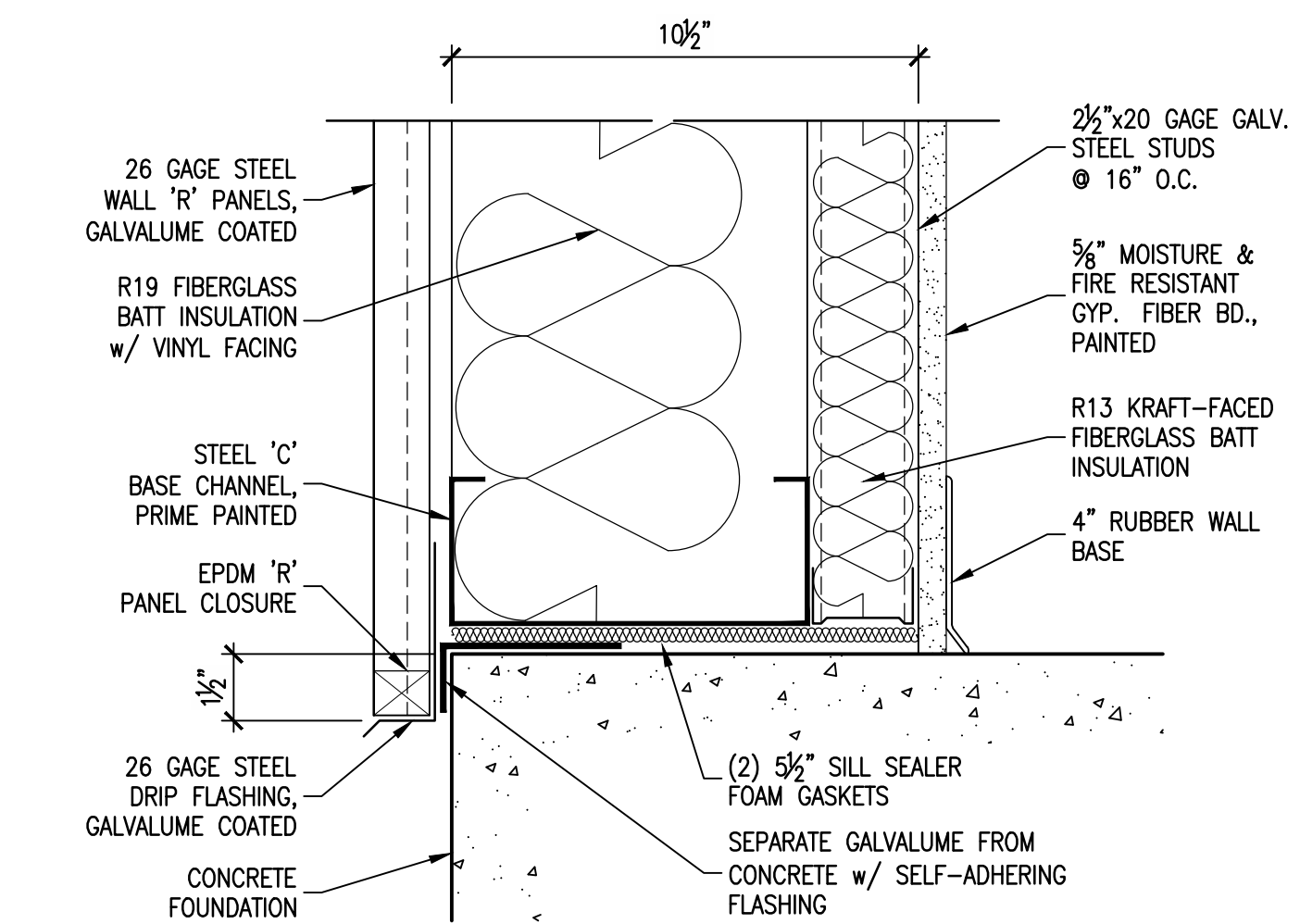
PROJECT No. 19032
DESIGNED: ###
DRAWN: FMI
CHECKED: ###

SHEET
A.2.1
SHEET ### OF ###

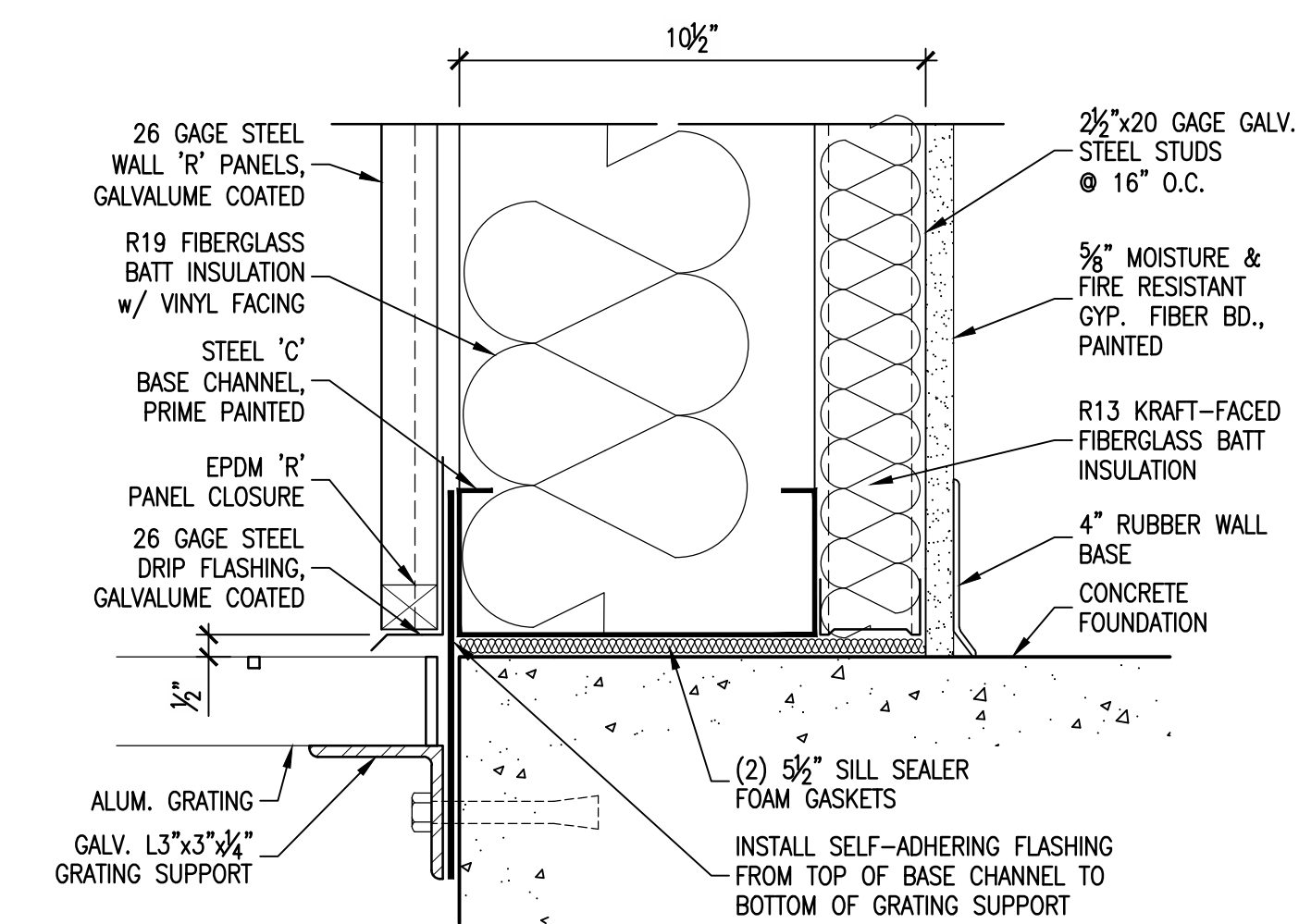




① BUILDING SECTION
1/2"=1'-0"



② STANDARD WALL SILL
3"=1'-0"



③ WALL SILL AT PAVEMENT
3"=1'-0"

No.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP
BUILDING SECTIONS

FOR REVIEW

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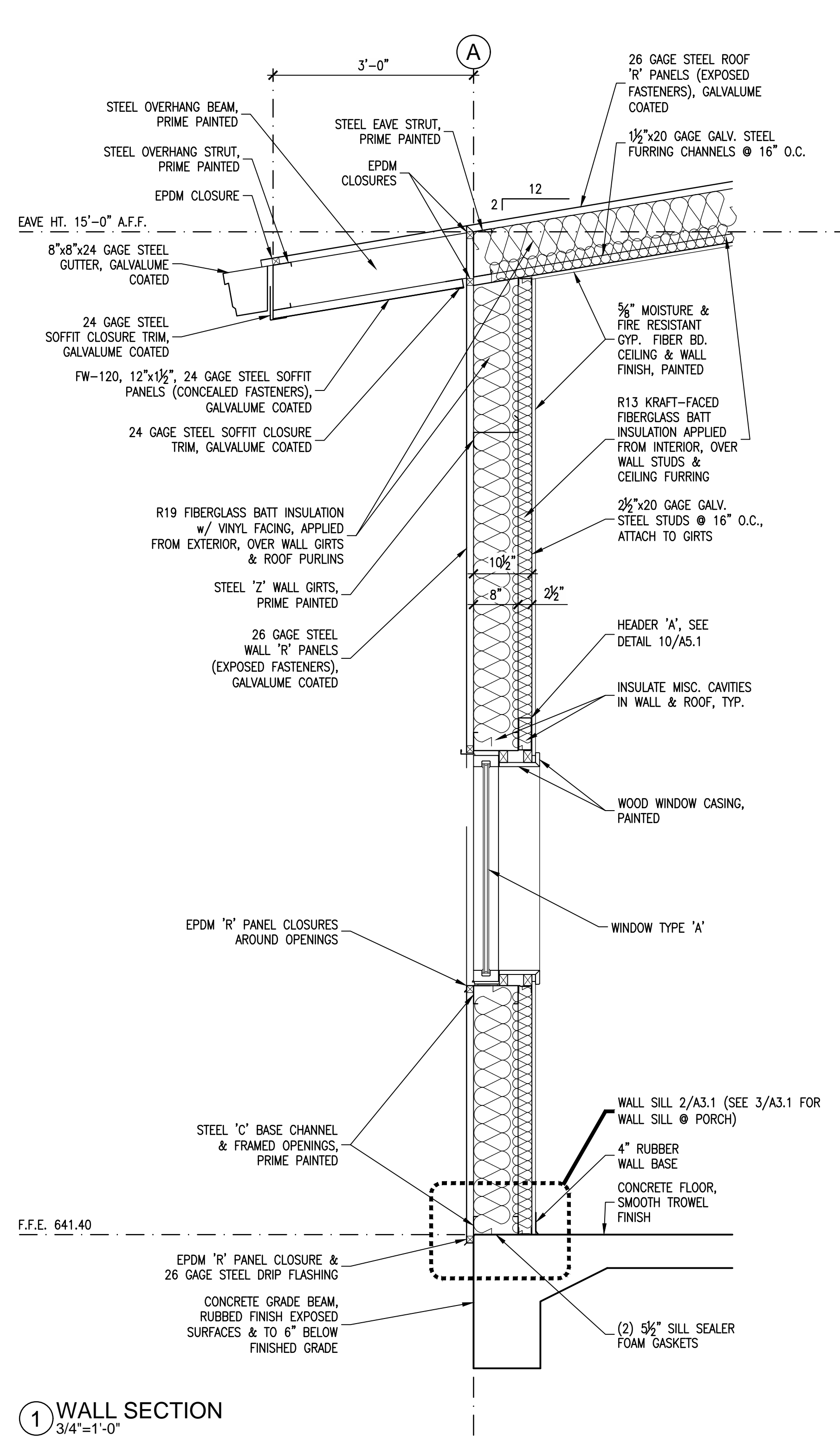
PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
06.04.2021

IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2" OF NOTED SCALE.

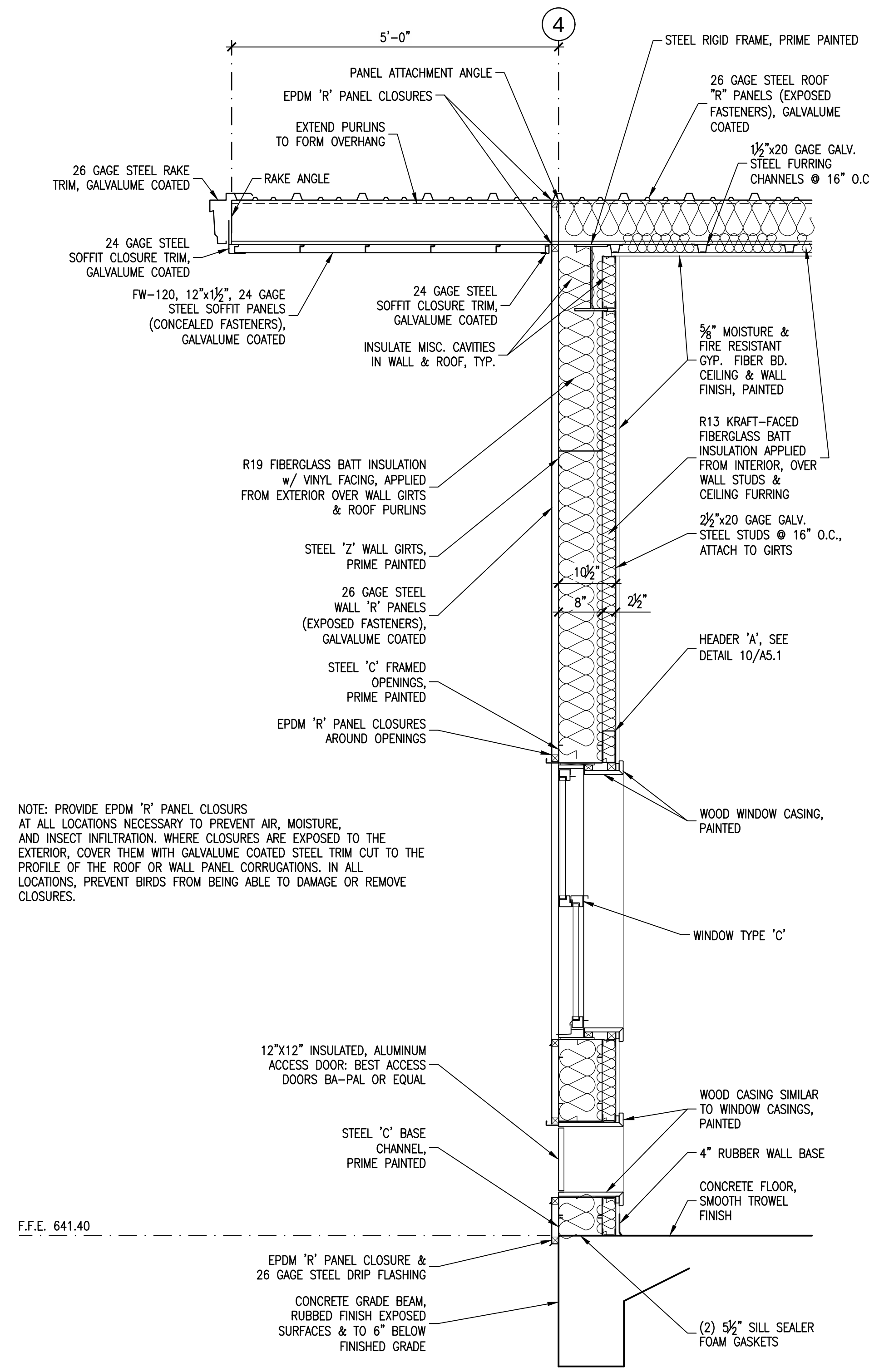
PROJECT No. 19032
DESIGNED: ###
DRAWN: FMI
CHECKED: ###

SHEET
A.3.1
SHEET ### OF ###





① WALL SECTION
3/4"=1'-0"



② WALL SECTION
3/4"=1'-0"

NOTE: PROVIDE EPDM 'R' PANEL CLOSURES AT ALL LOCATIONS NECESSARY TO PREVENT AIR, MOISTURE, AND INSECT INFILTRATION. WHERE CLOSURES ARE EXPOSED TO THE EXTERIOR, COVER THEM WITH GALVALUME COATED STEEL TRIM CUT TO THE PROFILE OF THE ROOF OR WALL PANEL CORRUGATIONS. IN ALL LOCATIONS, PREVENT BIRDS FROM BEING ABLE TO DAMAGE OR REMOVE CLOSURES.

NO.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP

WALL SECTIONS

FOR REVIEW

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PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
06.04.2021

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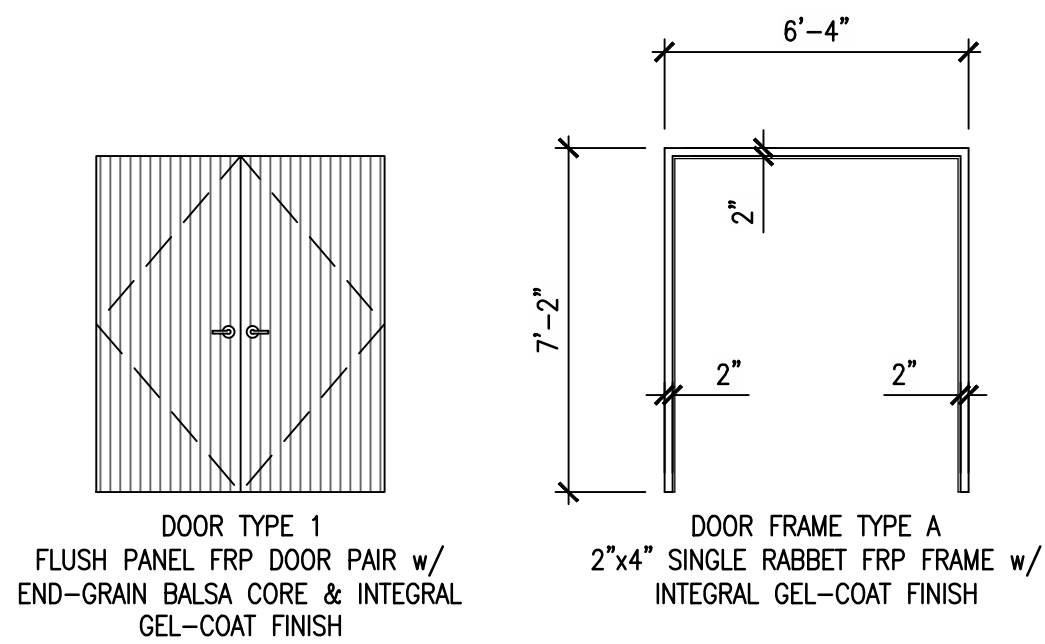
PROJECT No. 19032
DESIGNED: ###
DRAWN: FMI
CHECKED: ###

SHEET
A.4.1
SHEET ### OF ###

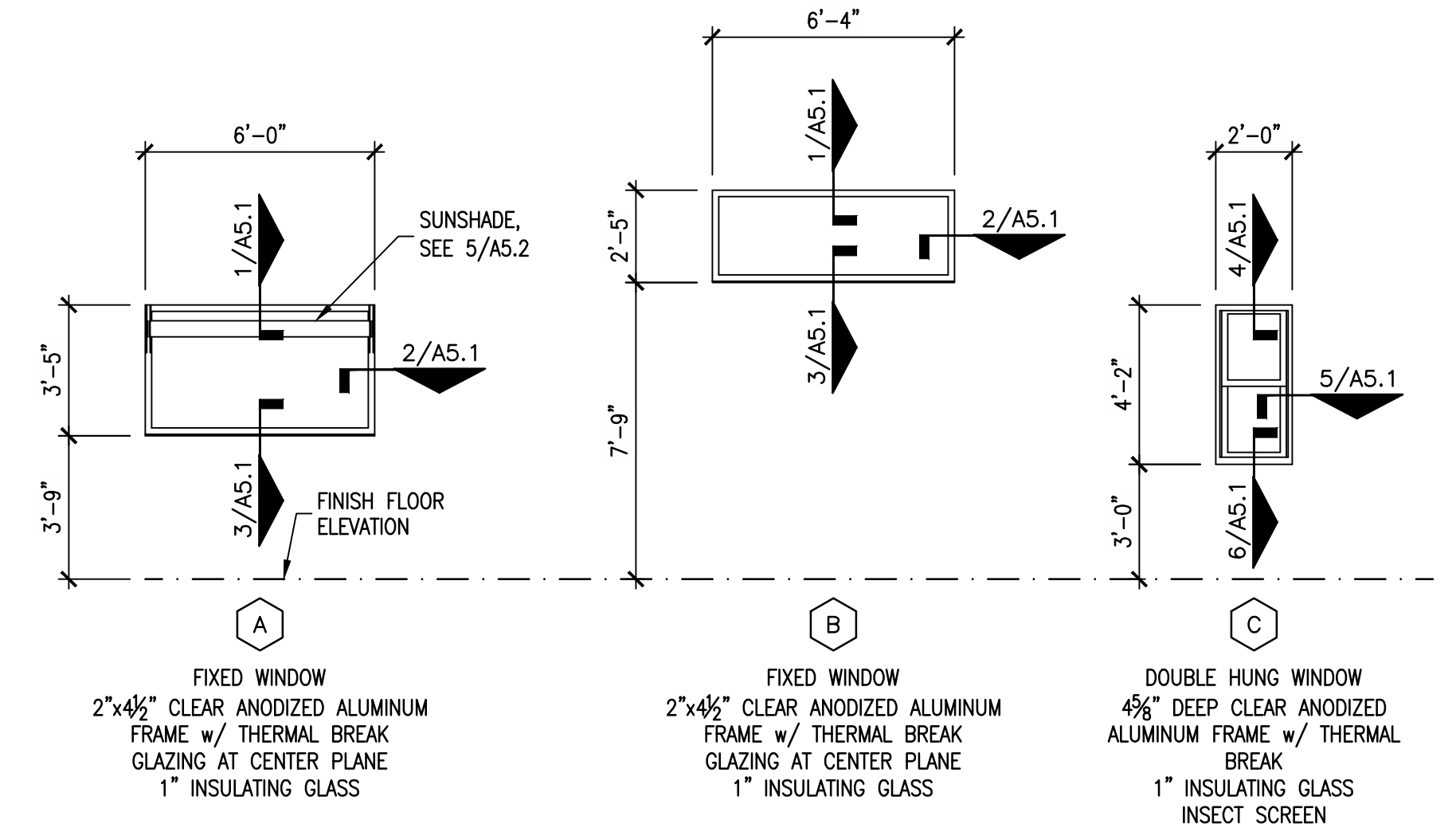
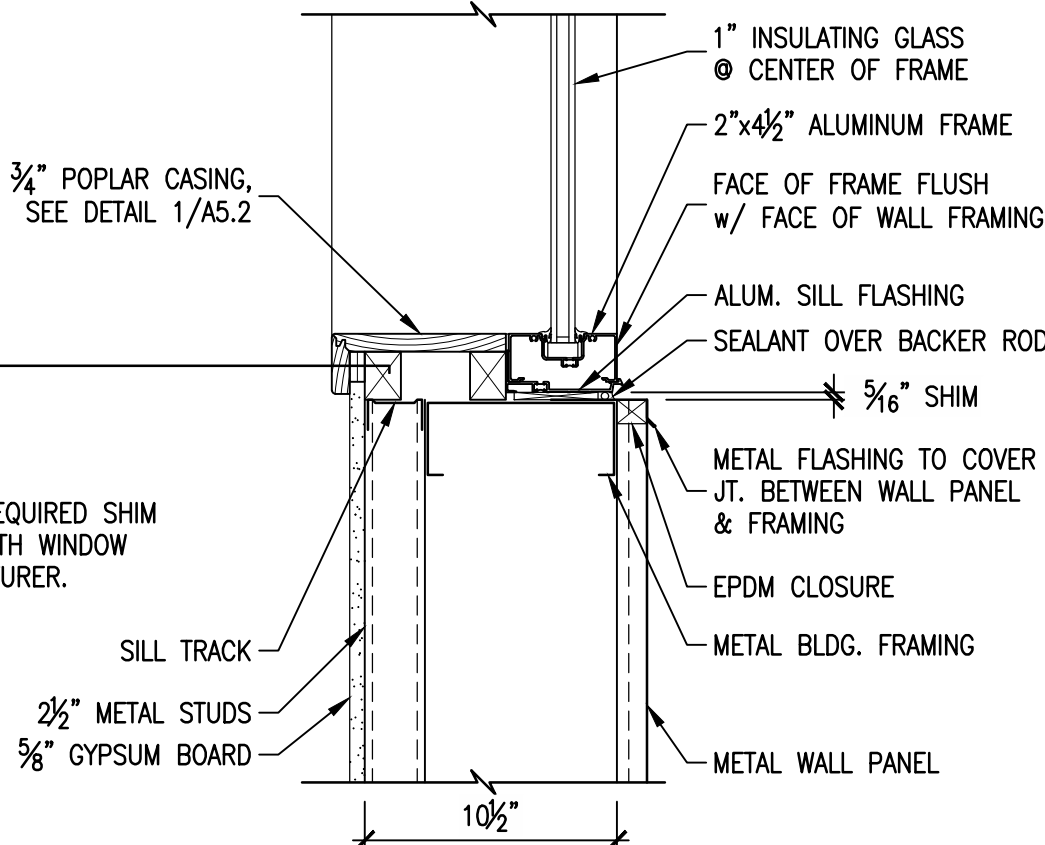
Freeman-Millican, Inc.
ENGINEERS - ARCHITECTS - PLANNERS
8300 LBJ FREEWAY, STE. 225, DALLAS, TX 75243 PH: 214.500.0585 TX REG. ENG. PROJ. F-2827

DOOR SCHEDULE													
DOOR NO.	ROOM NO.	ROOM NAME	DOOR TYPE	WIDTH	HEIGHT	THICK.	RATING	FRAME TYPE	DETAILS			HARDWARE SET	NOTES
									HEAD	JAMB	SILL		
101	101	ELECTRICAL ROOM	1	2x3'-0"	7'-0"	1 3/4"		A	7/A5.1	8/A5.1	9/A5.1	1	
102	101	ELECTRICAL ROOM	1	2x3'-0"	7'-0"	1 3/4"		A	7/A5.1	8/A5.1	9/A5.1	1	

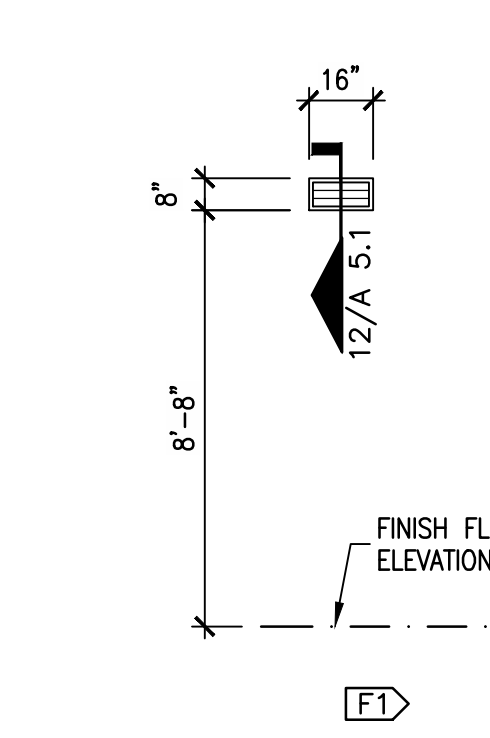
DOOR HARDWARE SETS
 1. 3 PAIR BUTTS, ENTRANCE LOCKSET (ACTIVE LEAF), 2 DUMMY LEVERS (INACTIVE LEAF), TOP & BOTTOM SURFACE BOLTS (INACTIVE LEAF), 2 CLOSERS, 2 SWEEPS, THRESHOLD, WEATHERSTRIPPING. SEE FLOOR PLAN 1/A1.1 FOR LOCATIONS OF ACTIVE DOOR LEAVES.



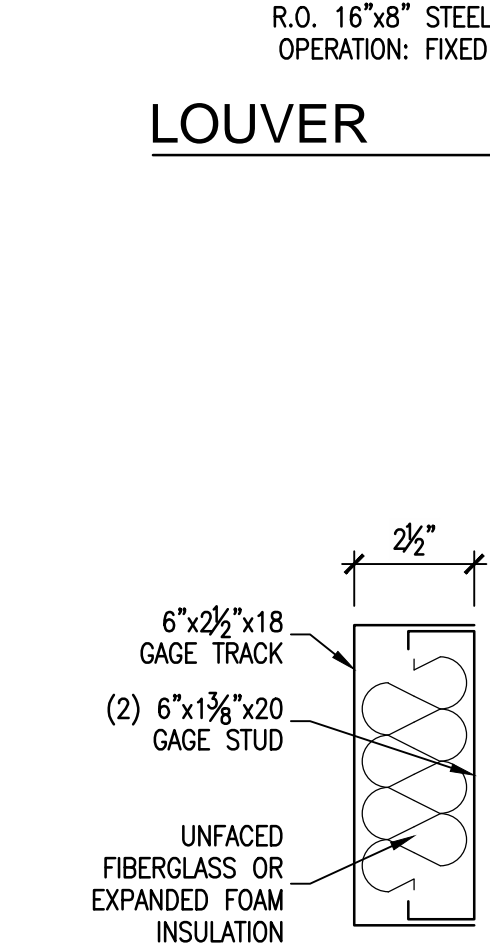
DOOR TYPES



WINDOW TYPES



LOUVER

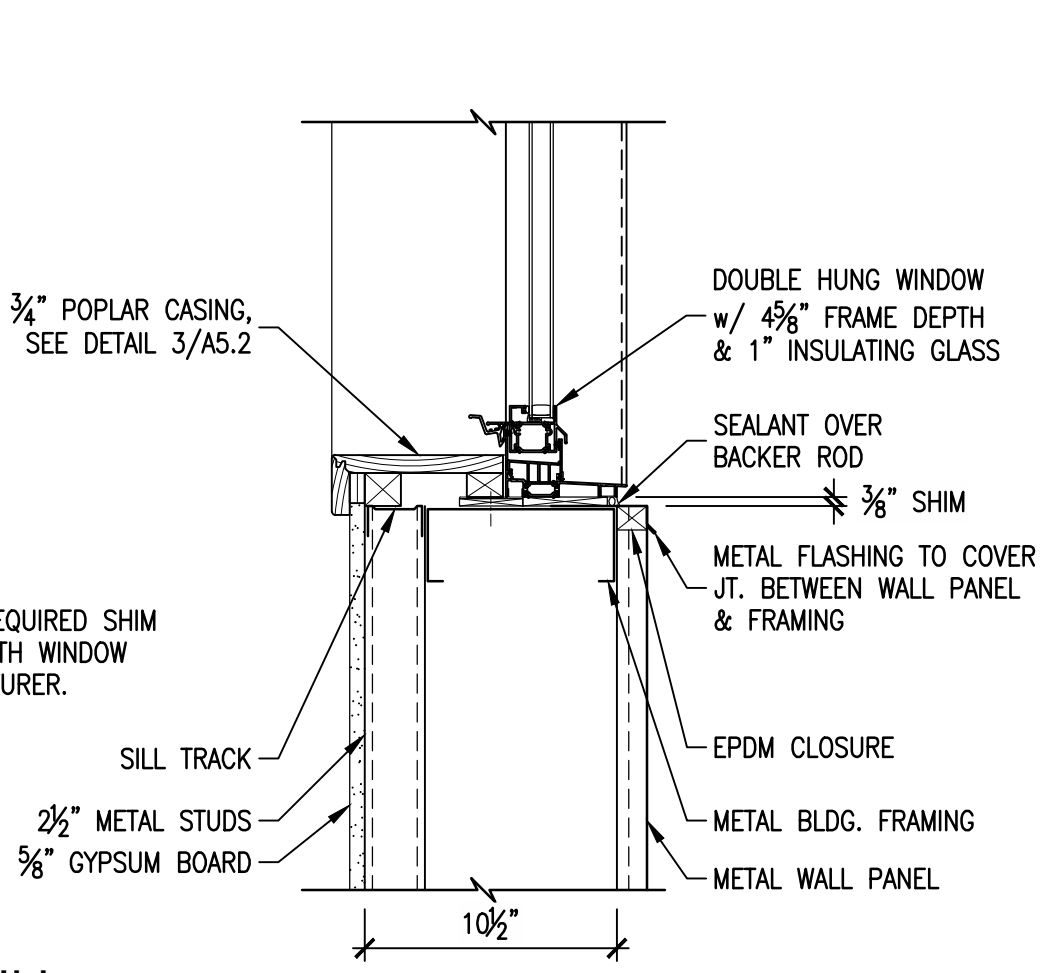


10 HEADER 'A'
3'-1'-0"

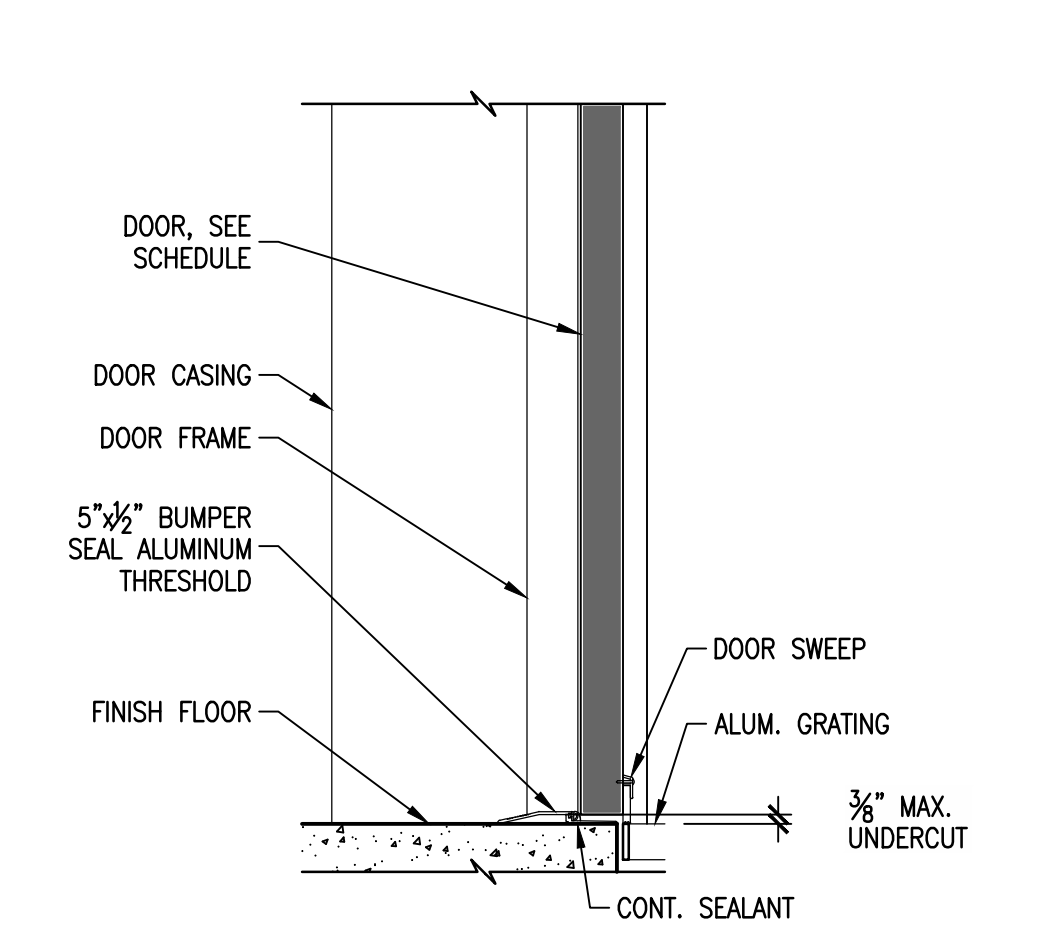
11 HEADER 'B'
3'-1'-0"

12 WALL OPENING FOR BRICK VENT
1 1/2'-1'-0"

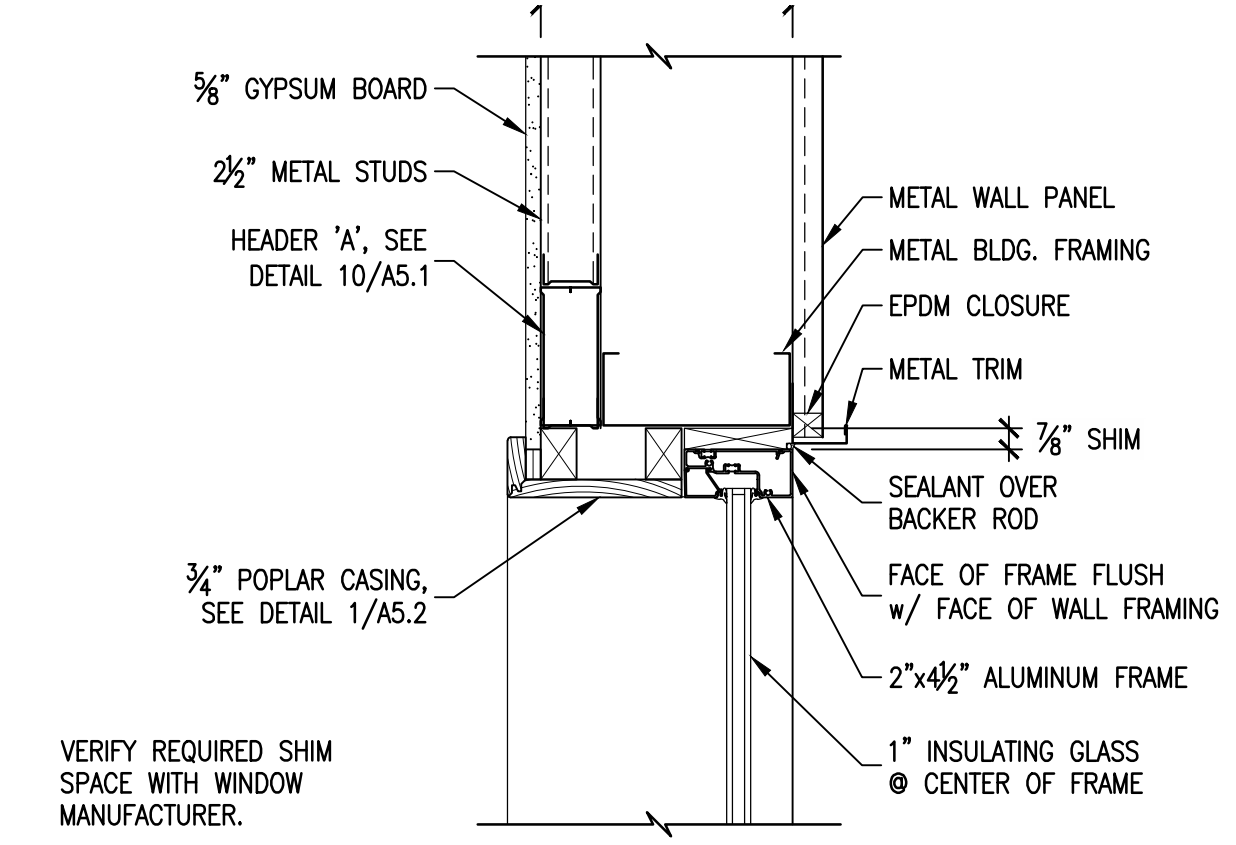
3 SILL
1 1/2'-1'-0"



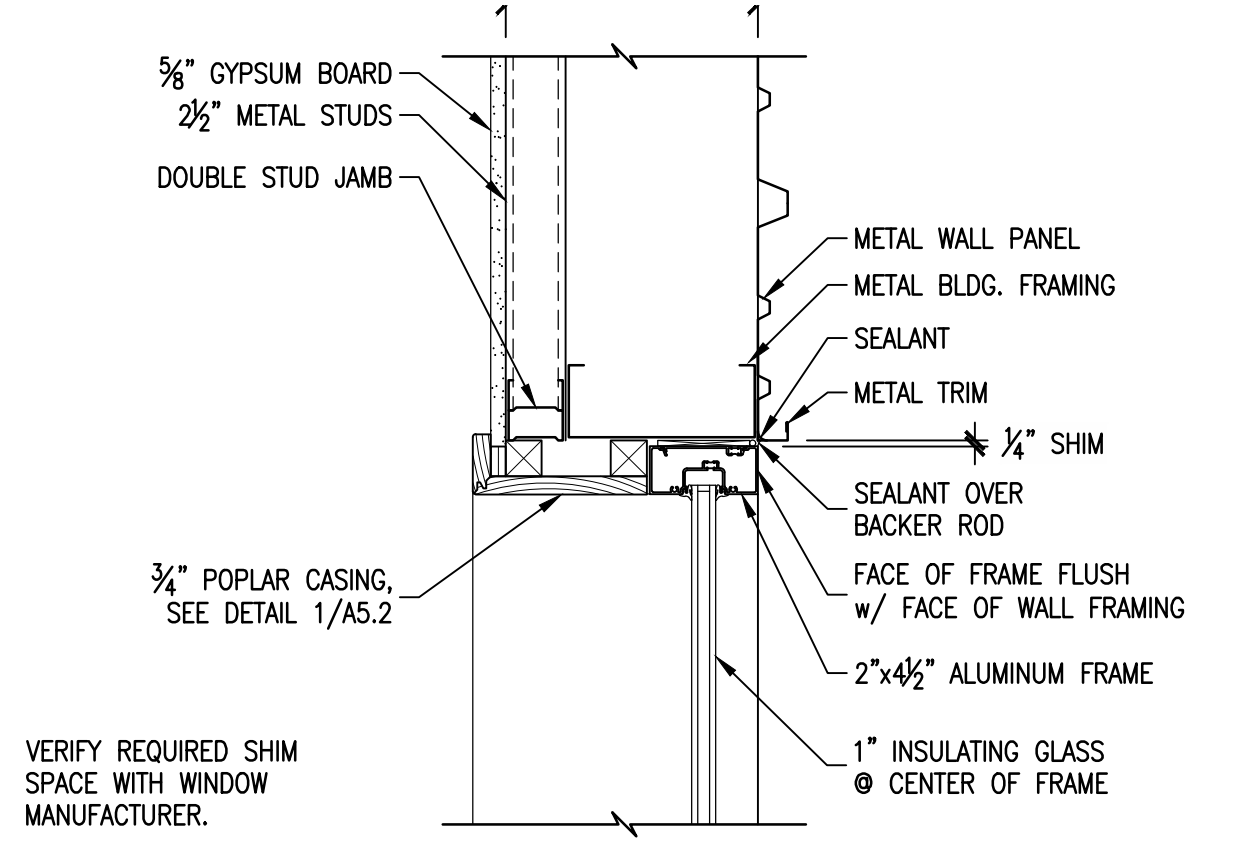
6 SILL
1 1/2'-1'-0"



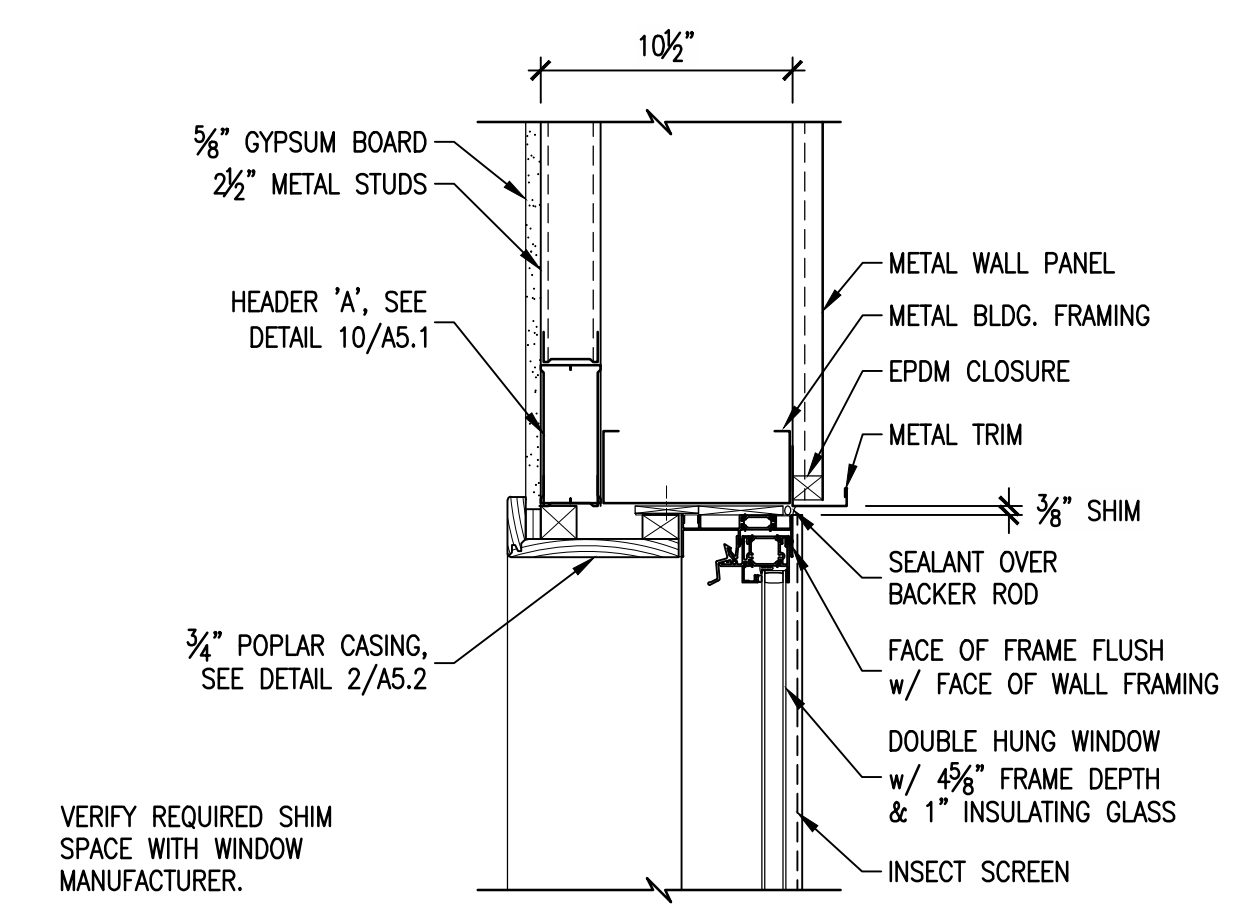
9 SILL
1 1/2'-1'-0"



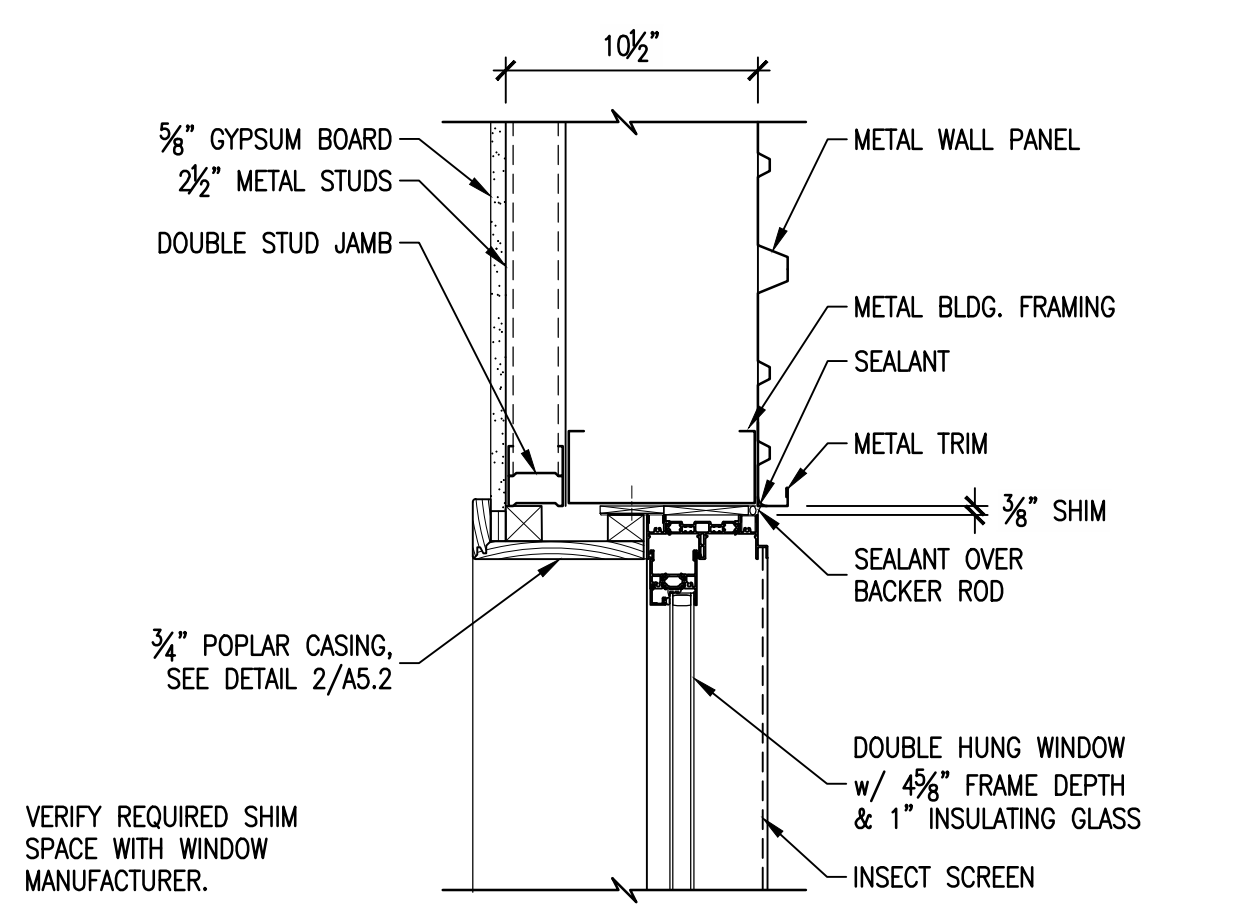
1 HEAD
1 1/2'-1'-0"



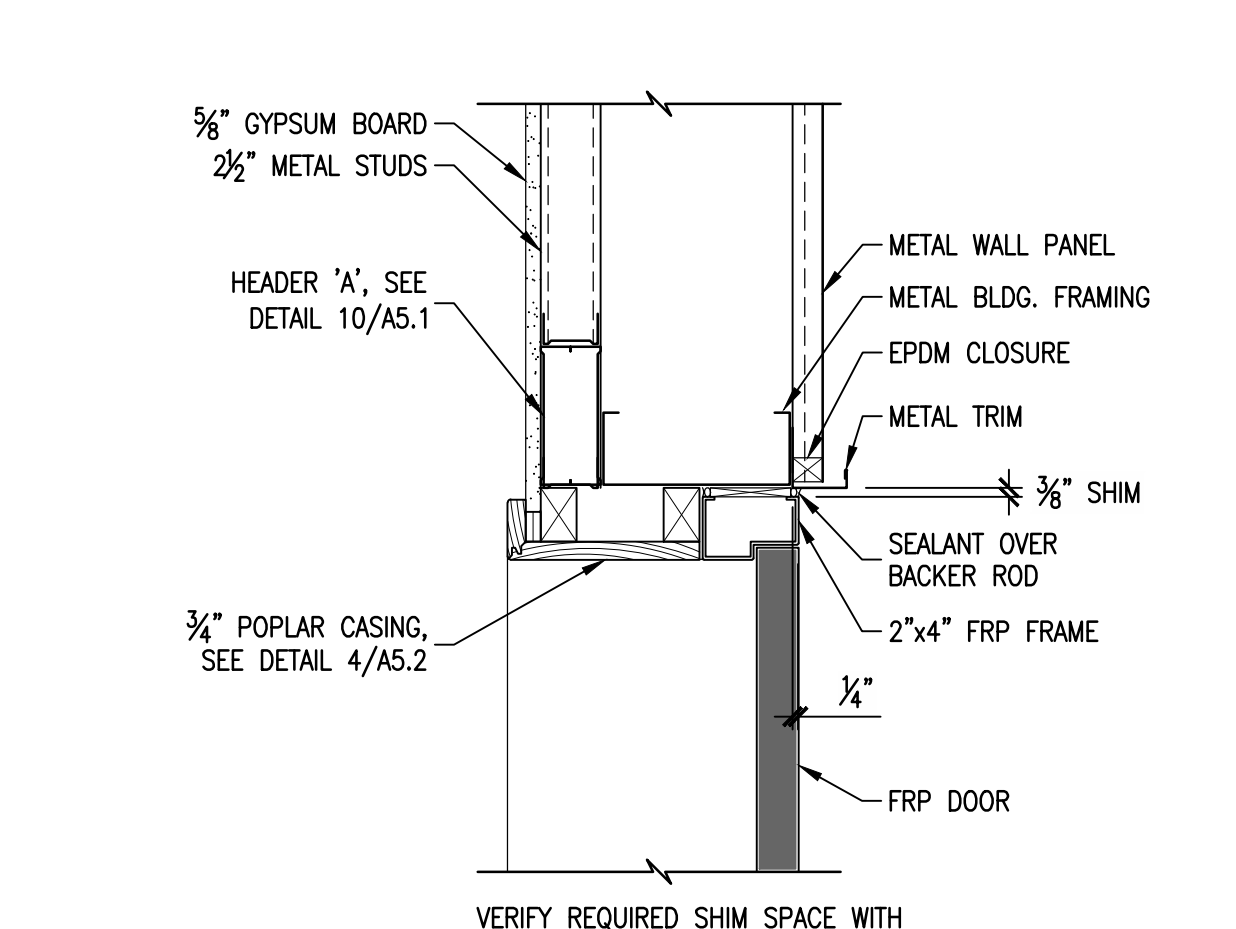
2 JAMB
1 1/2'-1'-0"



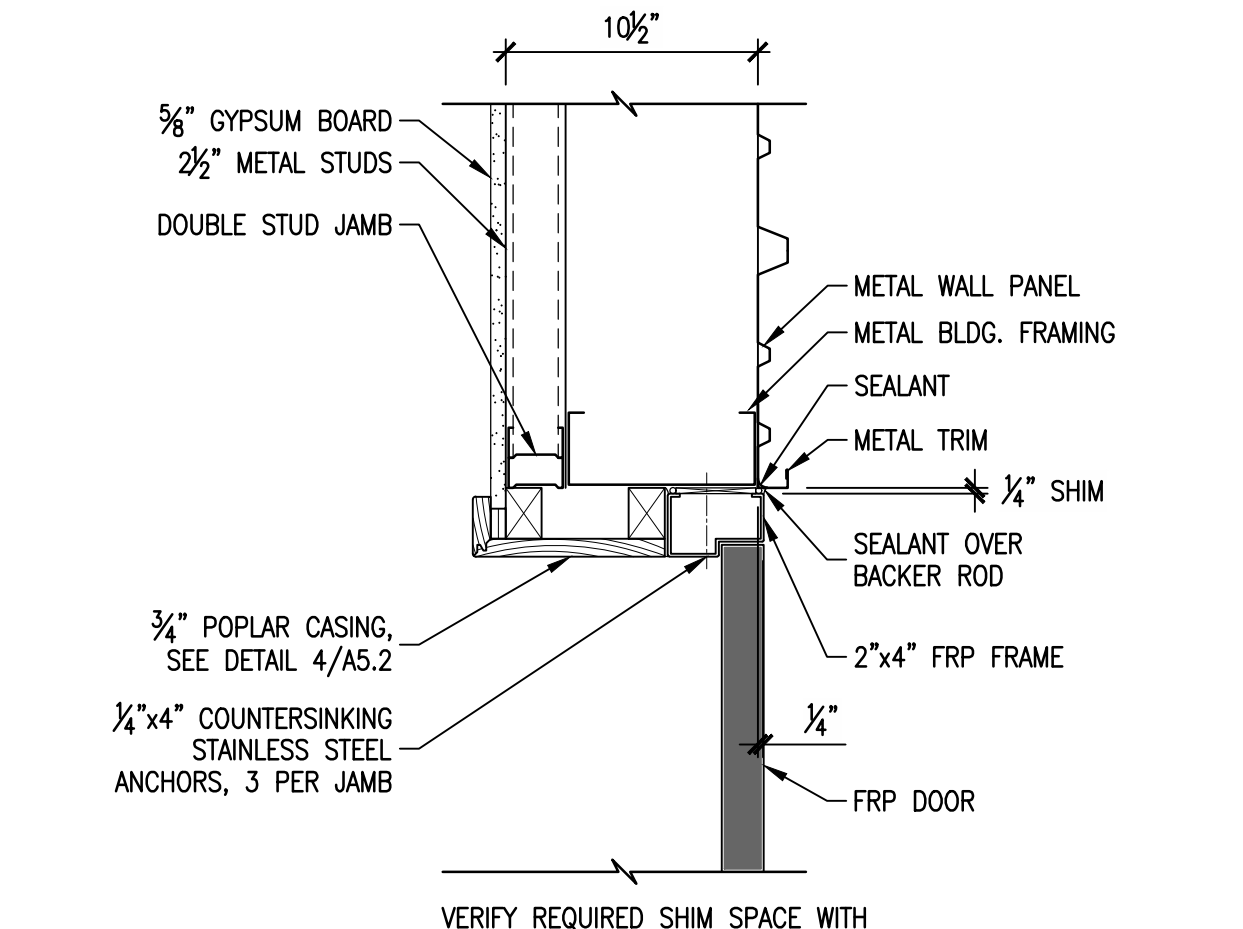
4 HEAD
1 1/2'-1'-0"



5 JAMB
1 1/2'-1'-0"



7 HEAD
1 1/2'-1'-0"



8 JAMB
1 1/2'-1'-0"

No.	DATE	REVISION

CITY OF WESTON
 EAST FORK WWTP
 DETAILS

FOR REVIEW

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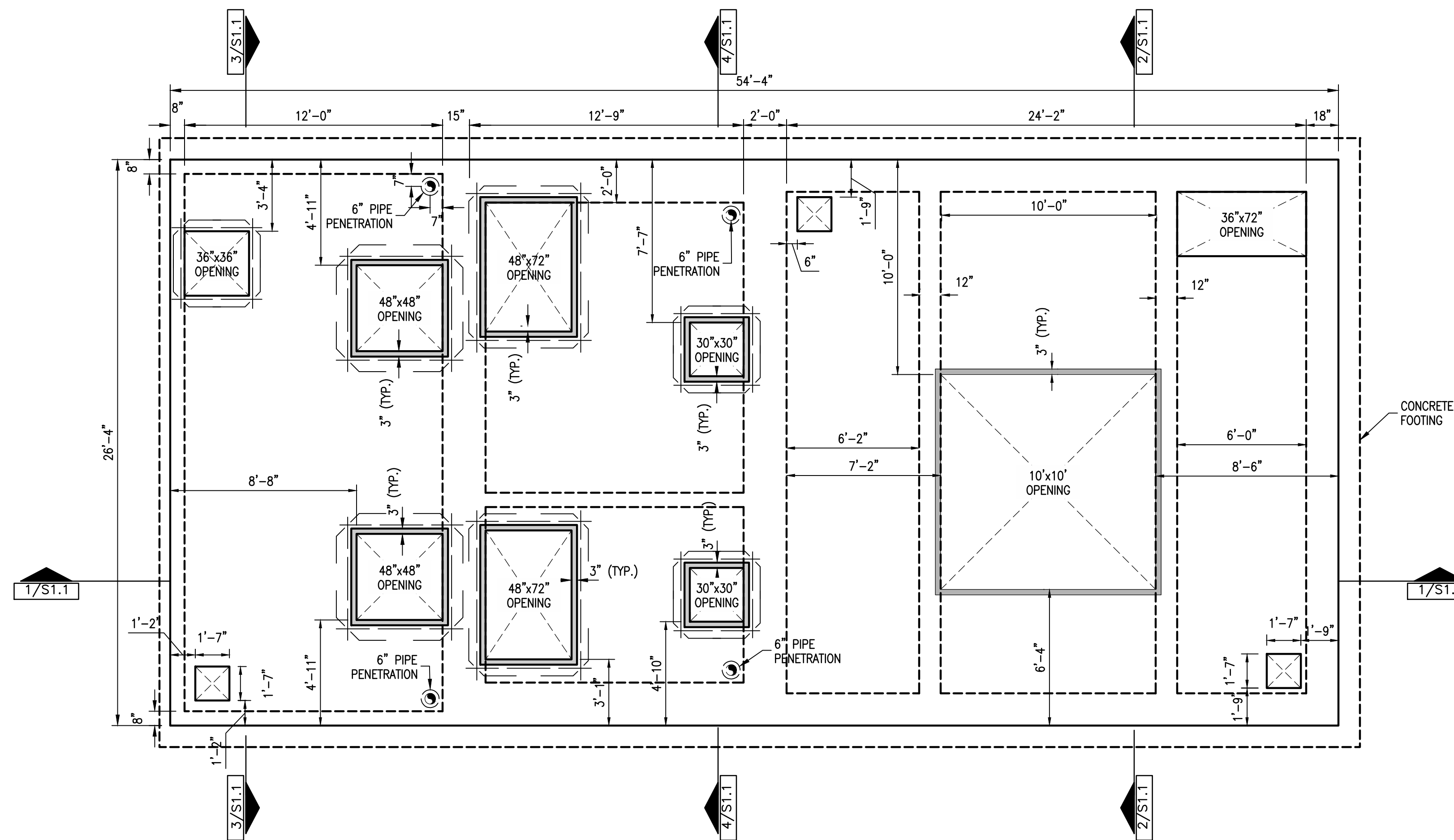
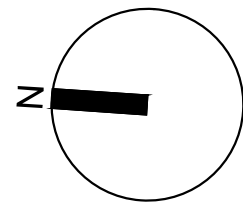
PREPARED BY: LARRY J. FREEMAN, P.E.
 No. 29907 ON 06.04.2021

IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2" OF NOTED SCALE.

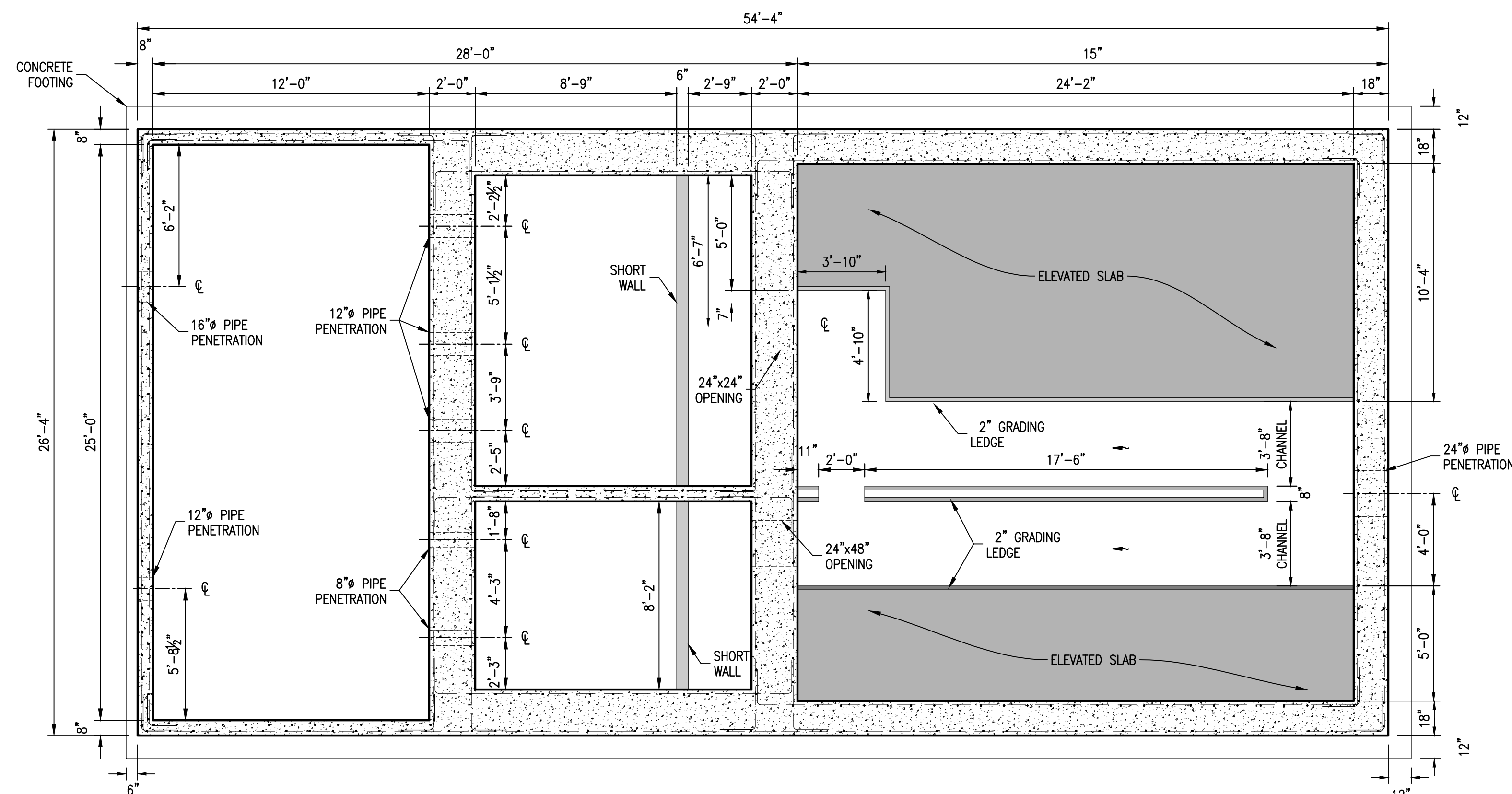
PROJECT No. 19032
 DESIGNED: ###
 DRAWN: FMI
 CHECKED: ###

SHEET
A.5.1
 SHEET ### OF ###





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



2 PLAN AT ELEVATION 630.50
1/4"=1'-0"

No.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP

FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS
1100 N. ABRAMS RD., STE. 308 DALLAS, TX 75243 PH: 214.503.0535 TX REG. ENG. FROM F-2827

BAR SCREEN & LIFT STATION PLAN

FOR REVIEW

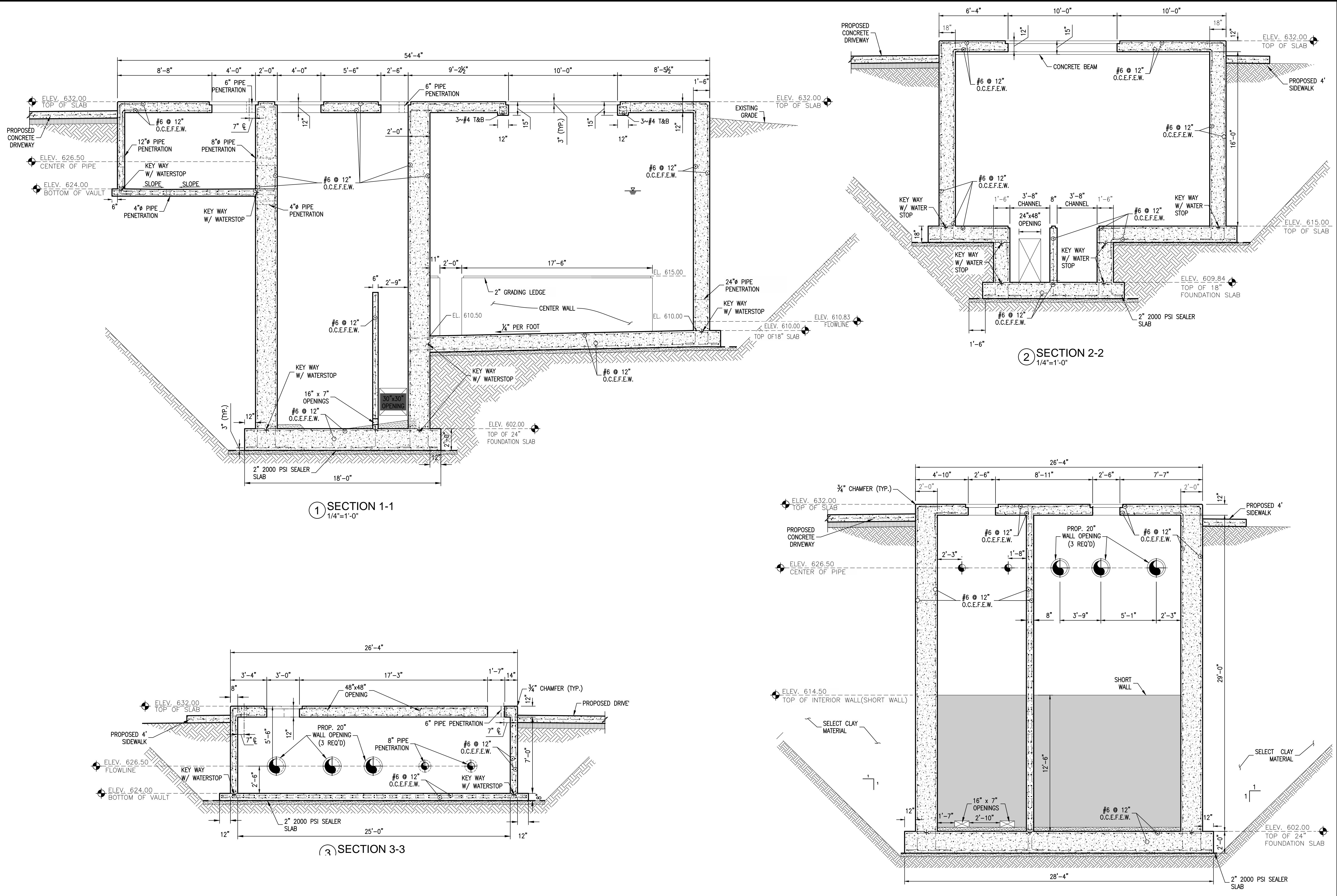
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PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
04.16.2021

IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2" OF NOTED SCALE.

PROJECT No. 19032
DESIGNED: VLA
DRAWN: STG
CHECKED: VLA

SHEET
S2.0
SHEET ### OF ###



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

SECTION 2-2
1/4"=1'-0"

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

NO.	DATE	REVISION	BY

CITY OF WESTON
 EAST FORK WWTP
 BAR SCREEN & LIFT STATION SECTION VIEW

FOR REVIEW

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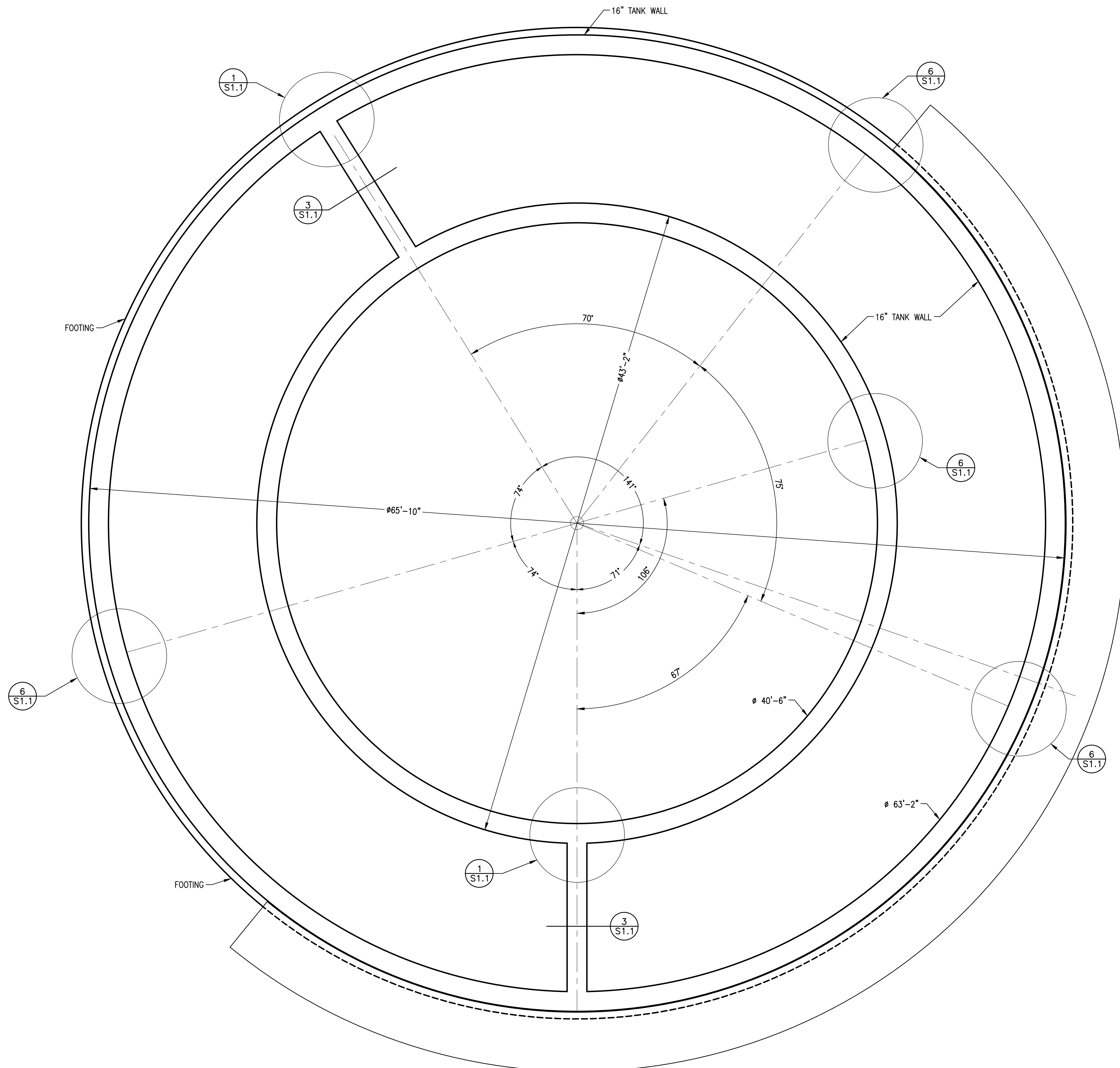
PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
04.16.2021

IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2 OF NOTED SCALE.

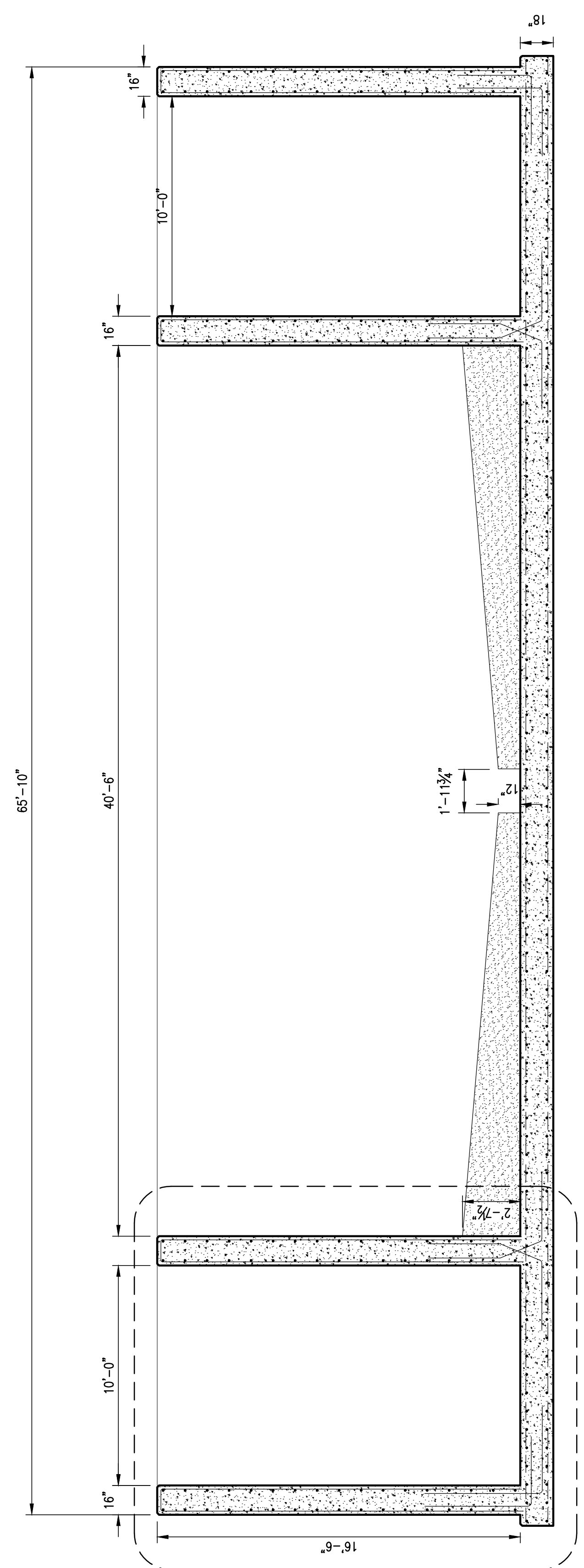
PROJECT No. 19032
DESIGNED: VLA
DRAWN: STG
CHECKED: VLA

SHEET
S2.1
SHEET ### OF ###

FREEMAN-MILLICAN, INC.
 ENGINEERS - ARCHITECTS - PLANNERS
 12100 N. ABRAMS RD., STE. 308
 DALLAS, TX 75243 PH: 214.500.0555 TX REG. ENG. FROM F2027



① TREATMENT UNIT (PLAN)
3/16"=1'-0"



No.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP
TREATMENT UNIT PLAN & SECTION

FOR REVIEW

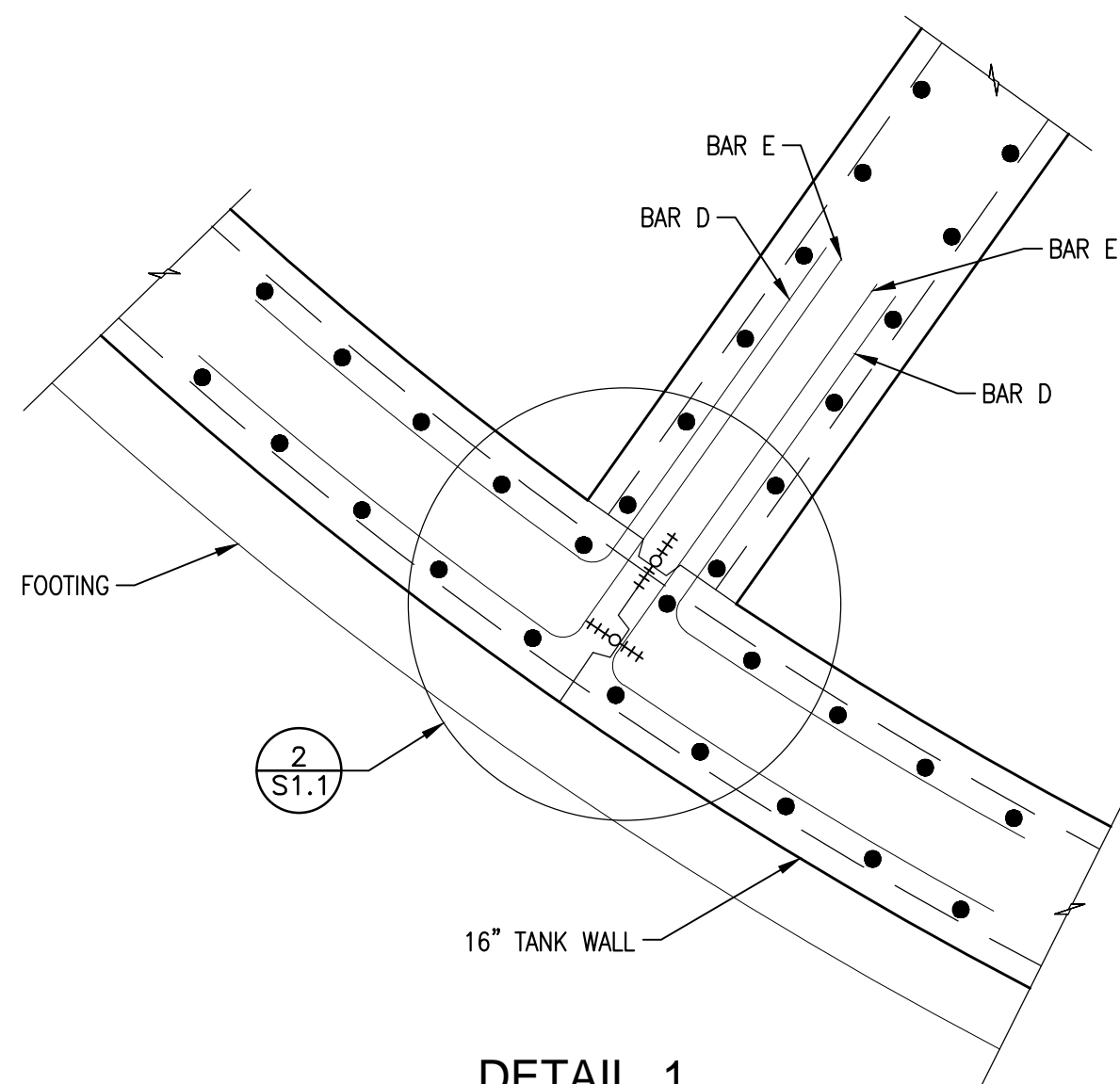
THIS PLAN SHEET IS ISSUED FOR INTERIM REVIEW ONLY AND IS NOT FOR BIDDING, CONSTRUCTION OR PERMIT PURPOSES.

PREPARED BY:
VICTOR ACUY, P.E.
No. 114152 ON
04.16.2021

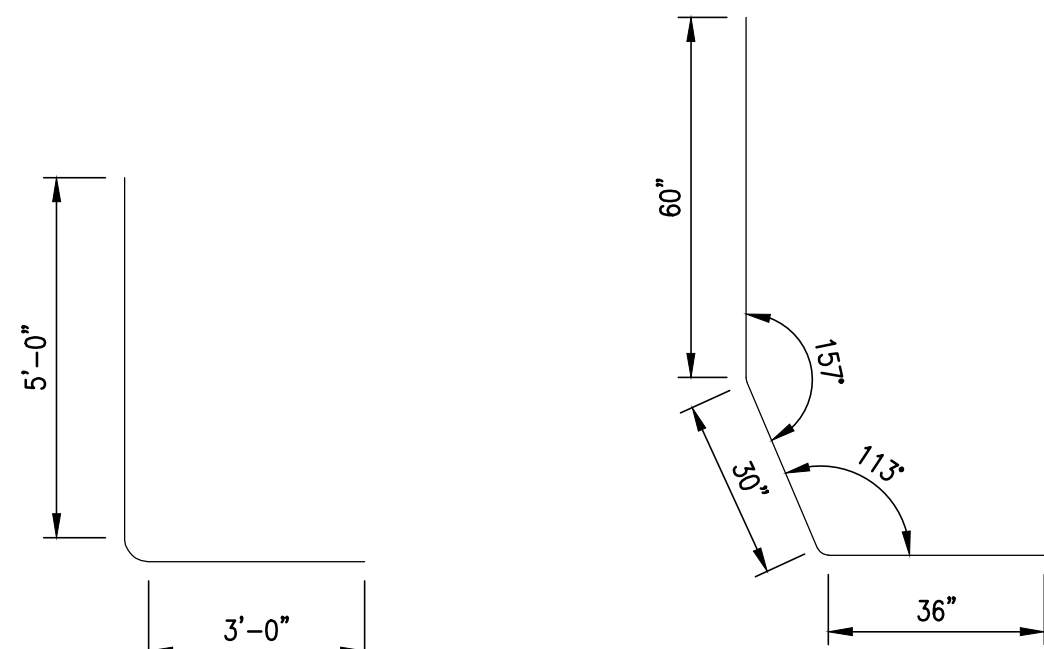
IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2" OF NOTED SCALE.

PROJECT No. 19032
DESIGNED: ###
DRAWN: ###
CHECKED: ###

SHEET
S.2.0
SHEET 24 OF ###



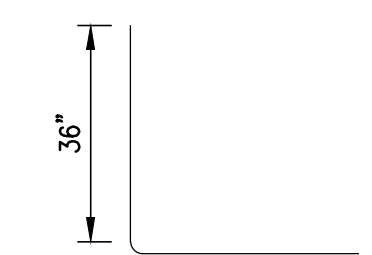
DETAIL 1
N.T.S.



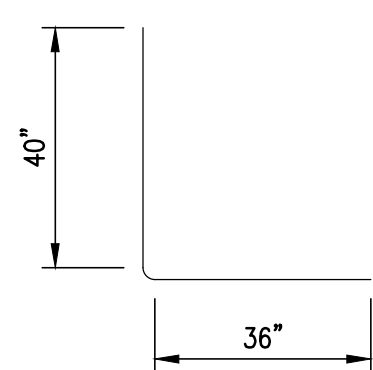
DETAIL 2 - CONSTRUCTION JOINT
N.T.S.

BAR A & B
#6 @ 9" O.C.
EPOXY COATED

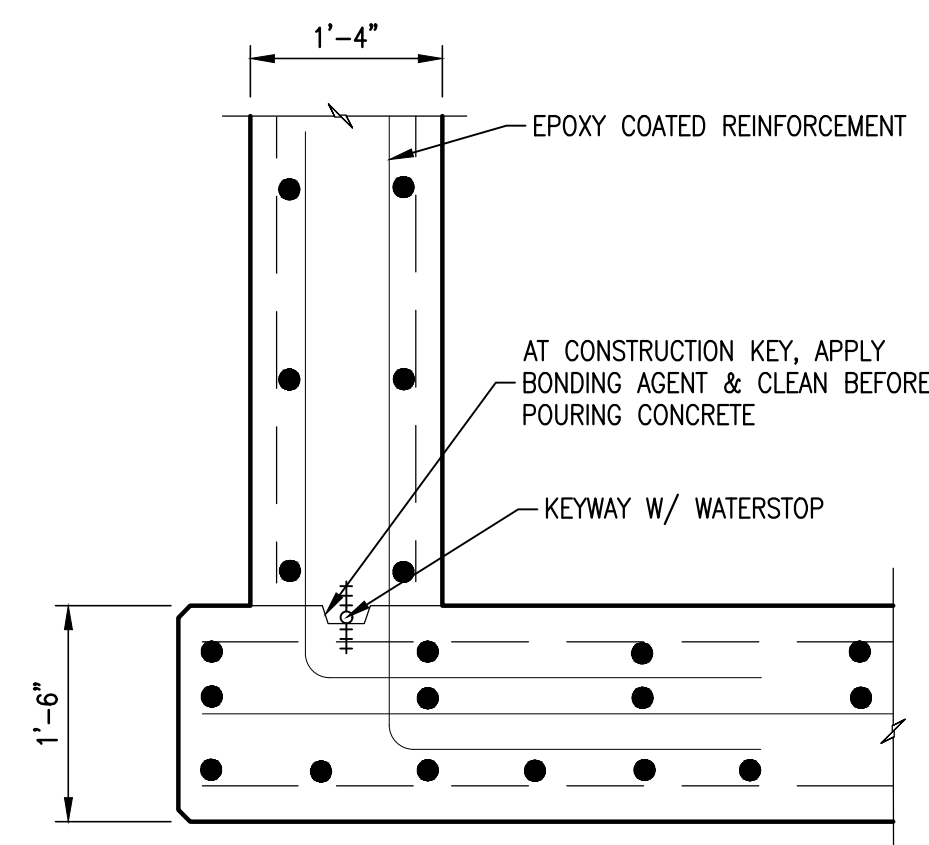
BAR C
#6 @ 9" O.C.
EPOXY COATED



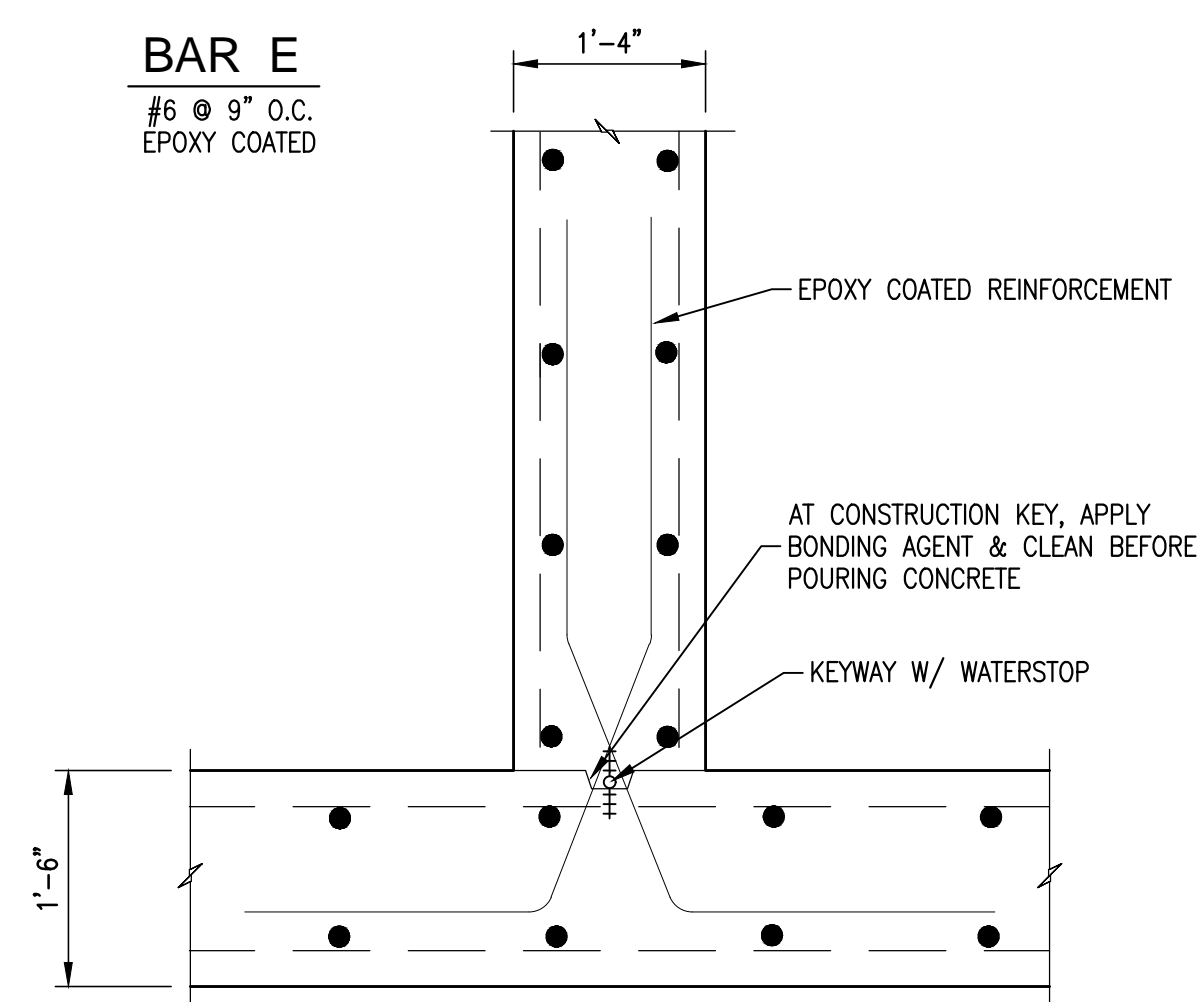
BAR D
#6 @ 9" O.C.
EPOXY COATED



BAR E
#6 @ 9" O.C.
EPOXY COATED

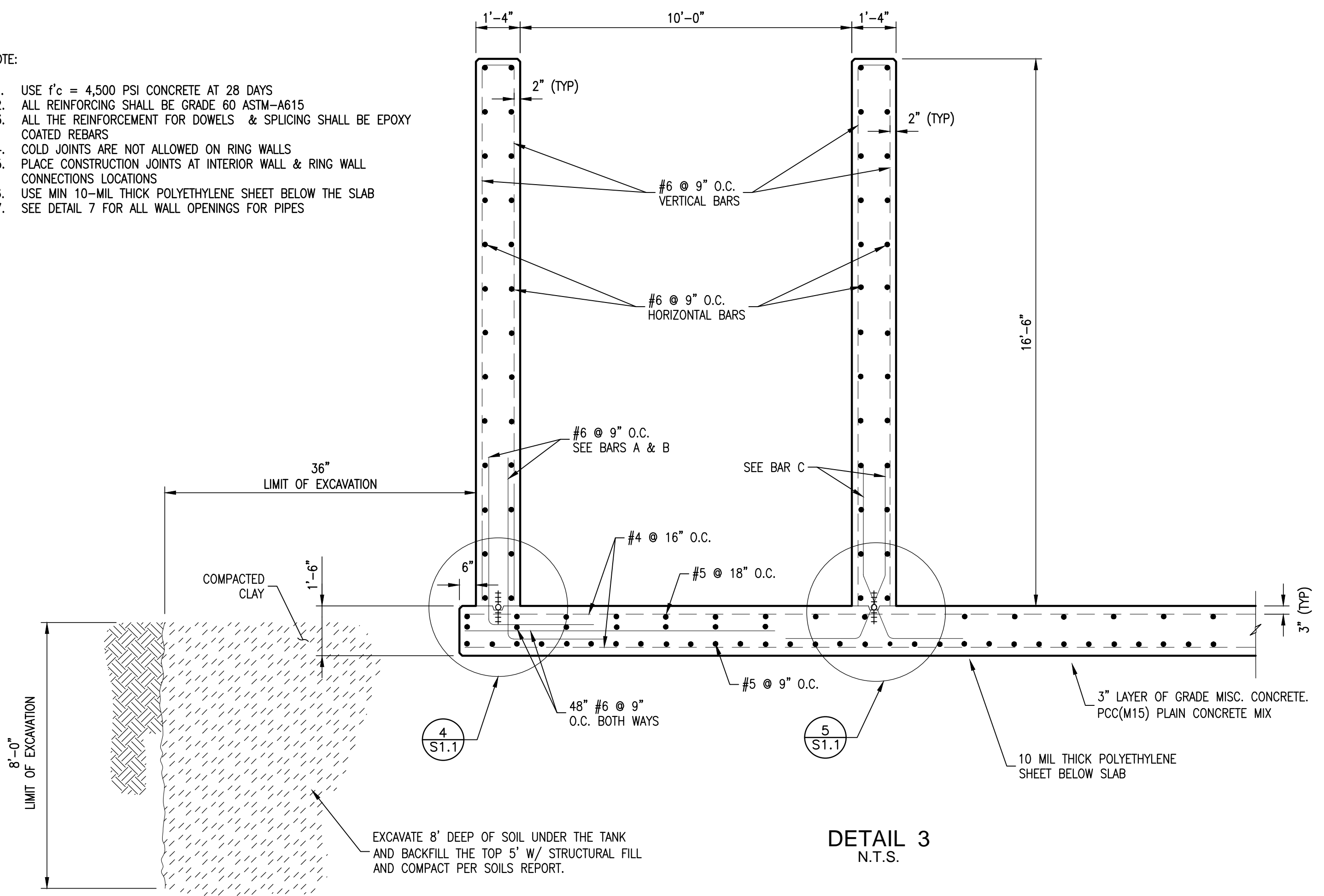


DETAIL 4
N.T.S.

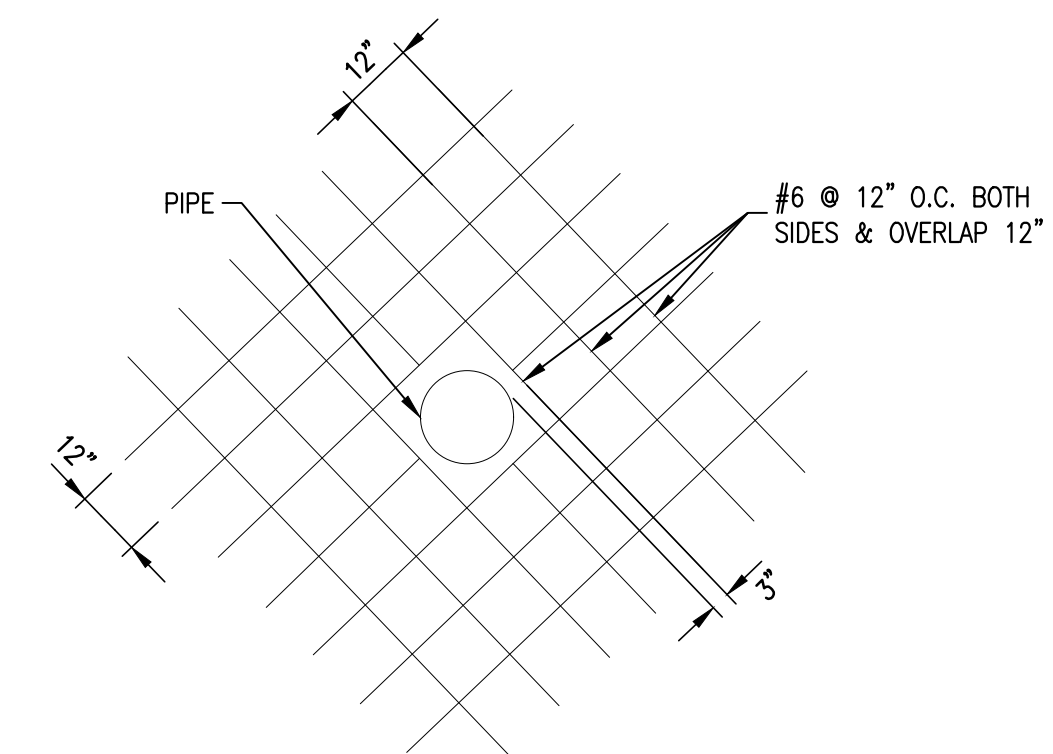


DETAIL 5
N.T.S.

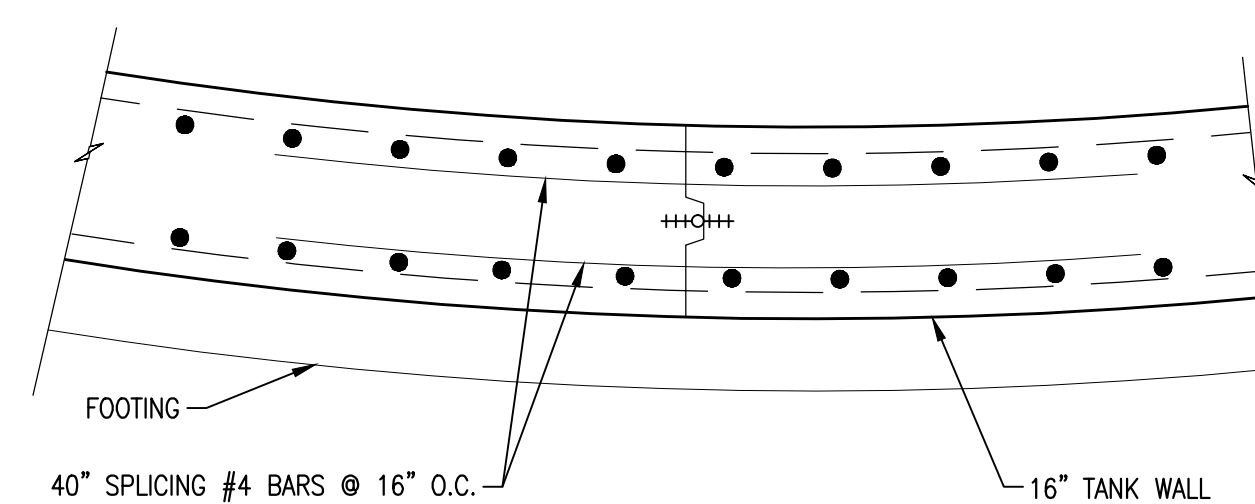
- NOTE:
1. USE $f'_c = 4,500$ PSI CONCRETE AT 28 DAYS
 2. ALL REINFORCING SHALL BE GRADE 60 ASTM-A615
 3. ALL THE REINFORCEMENT FOR DOWELS & SPLICING SHALL BE EPOXY COATED REBARS
 4. COLD JOINTS ARE NOT ALLOWED ON RING WALLS
 5. PLACE CONSTRUCTION JOINTS AT INTERIOR WALL & RING WALL CONNECTIONS LOCATIONS
 6. USE MIN 10-MIL THICK POLYETHYLENE SHEET BELOW THE SLAB
 7. SEE DETAIL 7 FOR ALL WALL OPENINGS FOR PIPES



DETAIL 3
N.T.S.



DETAIL 7 WALL OPENING
N.T.S.



DETAIL 6
N.T.S.

NO.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP
TREATMENT UNIT DETAILS

FOR REVIEW

THIS PLAN SHEET IS ISSUED FOR INTERIM REVIEW ONLY AND IS NOT FOR BIDDING, CONSTRUCTION OR PERMIT PURPOSES.

PREPARED BY:
VICTOR ACUY, P.E.
No. 114152 ON
04.16.2021

IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2" OF NOTED SCALE.

PROJECT No. 19032

DESIGNED: ###

DRAWN: ###

CHECKED: ###

SHEET

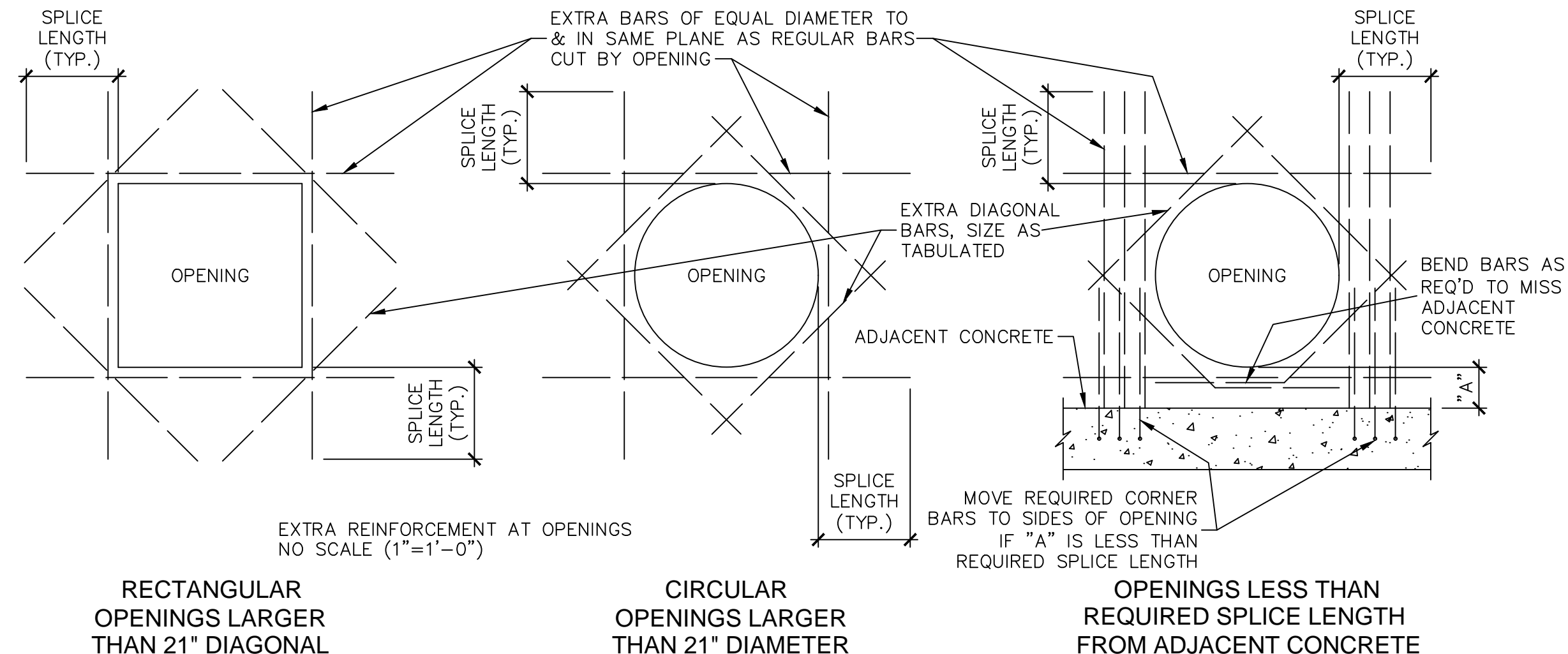
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SHEET ### OF ###

FREEMAN-MILLICAN, INC.
ENGINEERS - ARCHITECTS - PLANNERS
12100 N. ABRAMS RD., STE. 308 DALLAS, TX 75243 PH: 214.500.0595 TX REG. ENG. FROM F-2827

NOTES:

1. EXTRA BARS DESIGNATED BY THESE DETAILS ARE REQUIRED AT OPENINGS WHEN MAIN REINFORCING STEEL MUST BE CUT AROUND OPENINGS OR IF DIAMETER OF OPENING IS 10" OR GREATER.
2. IF RECTANGULAR OPENINGS LARGER THAN 21" DIAGONAL, OR CIRCULAR OPENINGS LARGER THAN 21" DIAMETER, ARE LESS THAN A REQUIRED SPLICE LENGTH FROM AN ADJACENT FLOOR, WALL, OR ROOF SURFACE, THE FOLLOWING REVISIONS MUST BE MADE TO THE STANDARD OPENING DETAILS:
 - A. OMIT DOWELS DIRECTLY BELOW THE OPENING. INSTEAD, PLACE REQUIRED DOWELS ON EITHER SIDE OF OPENING AT 3" O.C.
 - B. SPLICE EXTRA VERTICAL REINFORCING TO THE RELOCATED VERTICALS.
 - C. PLACE EXTRA HORIZONTAL REINFORCING AS SHOWN. IF SPACE BELOW OPENING IS INSUFFICIENT TO PLACE EXTRA HORIZONTAL BARS, PLACE ALL REQUIRED BARS ABOVE OPENING AT 3" O.C.
 - D. BEND EXTRA DIAGONAL BARS AS REQUIRED.
3. REINFORCING STEEL IS TO BE CARRIED ACROSS ALL CONSTRUCTION JOINTS.

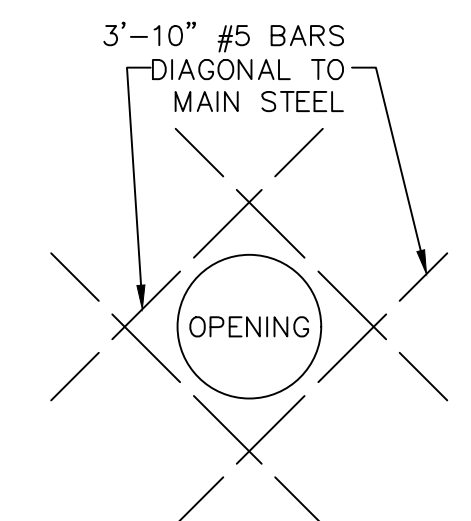


EXTRA REINFORCEMENT AT OPENINGS
NO SCALE (1"=1'-0")

① EXTRA REINFORCEMENT AT OPENINGS
NO SCALE

DIAGONAL BAR SCHEDULE

CONCRETE THICKNESS	BAR SIZE	BAR LENGTH
<12"	#4	4'-0"
12" TO 18"	#5	5'-0"
>18"	#6	6'-0"

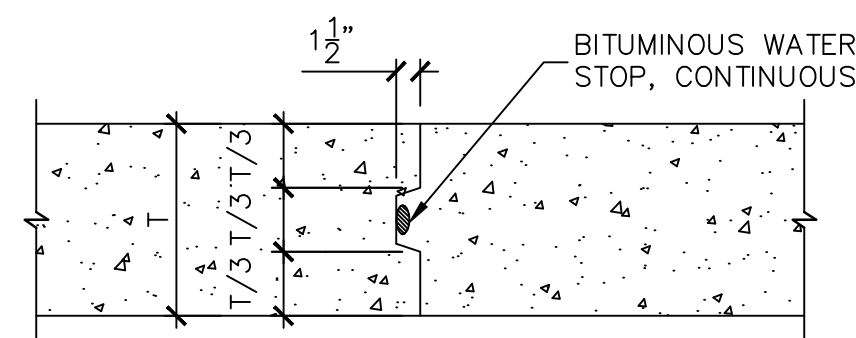


OPENINGS 21" AND SMALLER IN DIAMETER OR DIAGONAL

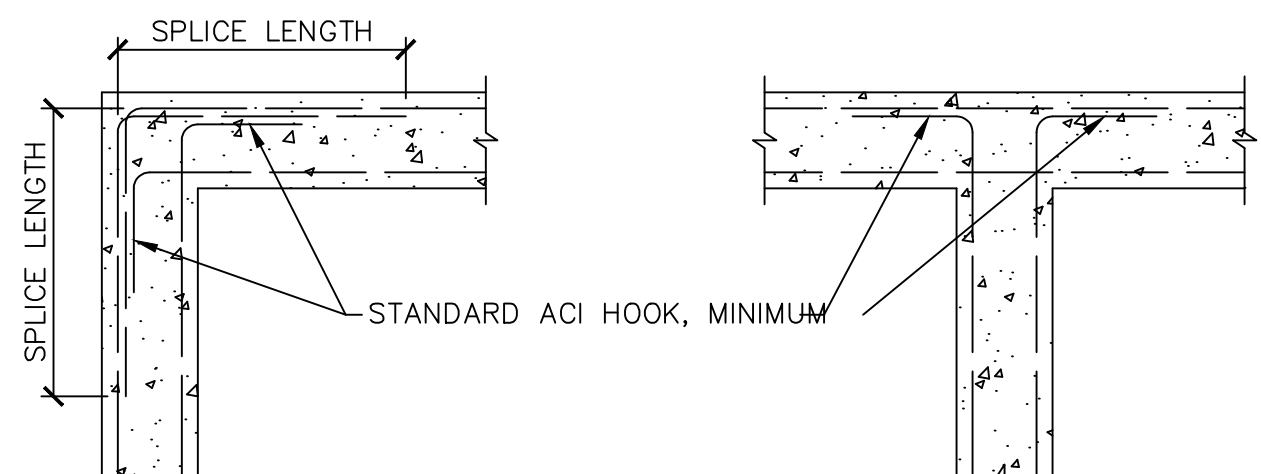
SPLICE & EMBEDMENT LENGTHS FOR REINFORCING STEEL

BAR SIZE	LAPPED SPLICE LENGTH (INCHES)		END ANCHORAGE EMBEDMENT LENGTH (INCHES)			
	TOP BARS	OTHER	TOP BARS		OTHER	
			STRAIGHT	HOOKED	STRAIGHT	HOOKED
3	21	15	13	7	12	7
4	29	20	17	12	12	7
5	36	26	21	15	15	9
6	43	31	25	20	18	11
7	54	39	32	27	23	13
8	71	51	42	35	30	17
9	90	65	53	44	38	22
10	115	82	67	56	48	30
11	141	101	83	67	59	40
14	NOT PERMITTED		113	95	81	63
18	NOT PERMITTED		146	135	104	94

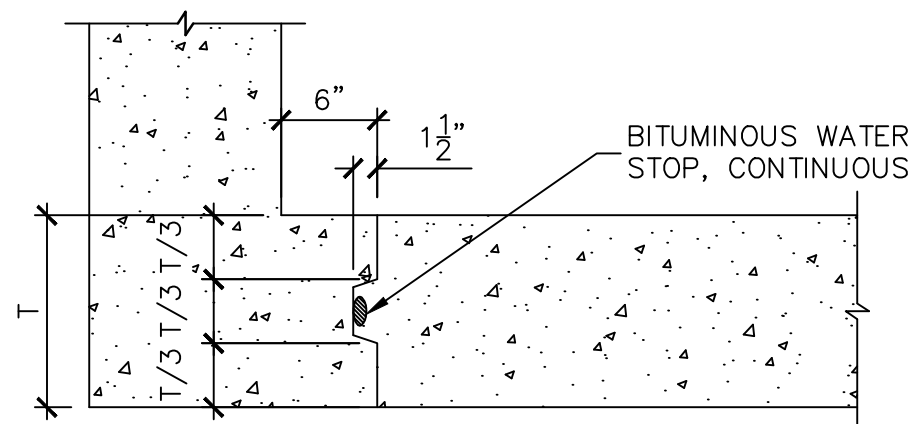
NOTES:
TOP BARS ARE HORIZONTAL MEMBERS PLACED MORE THAN 12" ABOVE THE BOTTOM OF THE CONCRETE MEMBER. HORIZONTAL BARS IN WALLS ARE CONSIDERED TOP BARS.
EXCEPT AS OTHERWISE INDICATED ON THE PLANS, EMBEDMENT LENGTHS FOR END ANCHORAGE AND LAPPED SPLICES SHALL BE NOT LESS THAN (NO MINUS TOLERANCE) SHOWN ABOVE. LAPPED SPLICES SHALL NOT BE MADE AT POINTS OF MAXIMUM STRESS AS DETERMINED BY THE ENGINEER AND SHALL NOT BE SPACED CLOSER THAN 6 INCHES ON CENTERS. IF SPLICES ARE STAGGERED SO THAT NO MORE THAN HALF ARE SPLICED IN A LAP LENGTH, THE SPLICE LENGTH CAN BE REDUCED TO 75% OF THE LENGTHS TABULATED ABOVE.



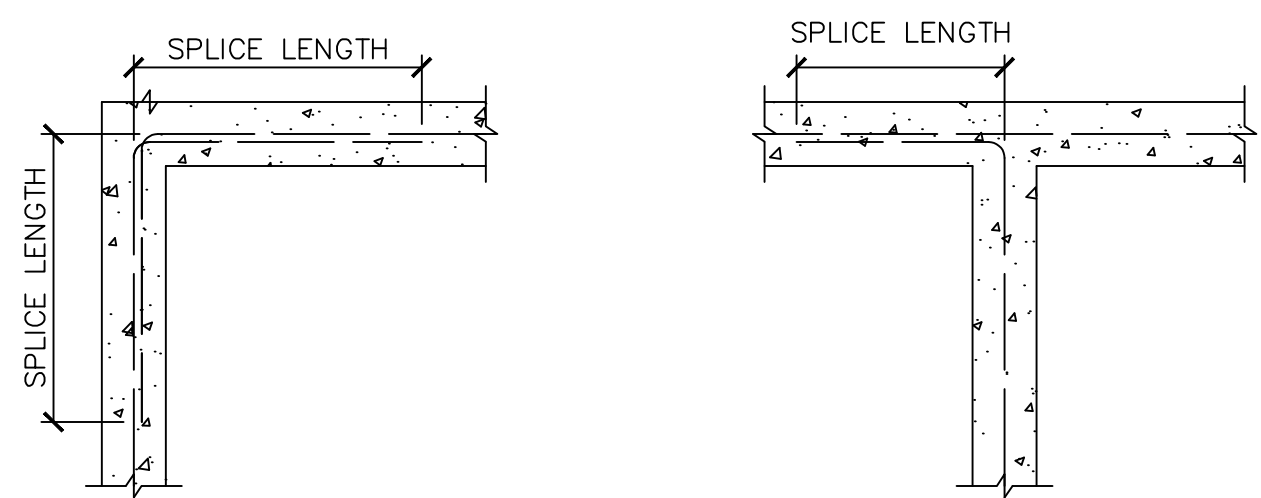
SLABS & WALLS



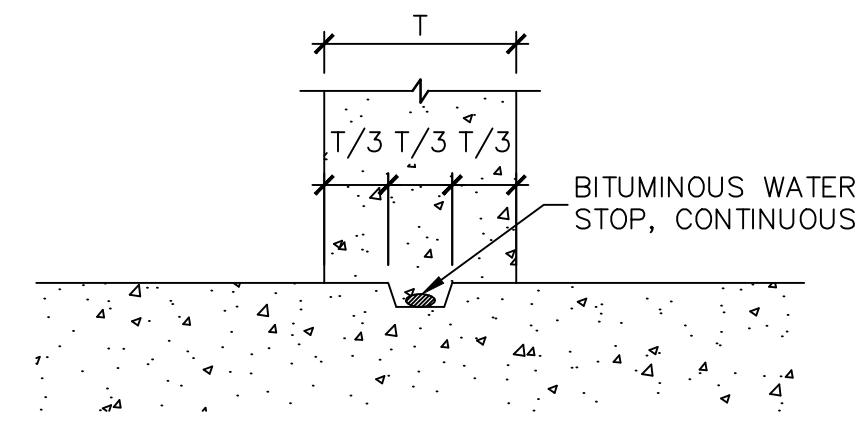
TYPICAL CORNER REINFORCING - DOUBLE MAT



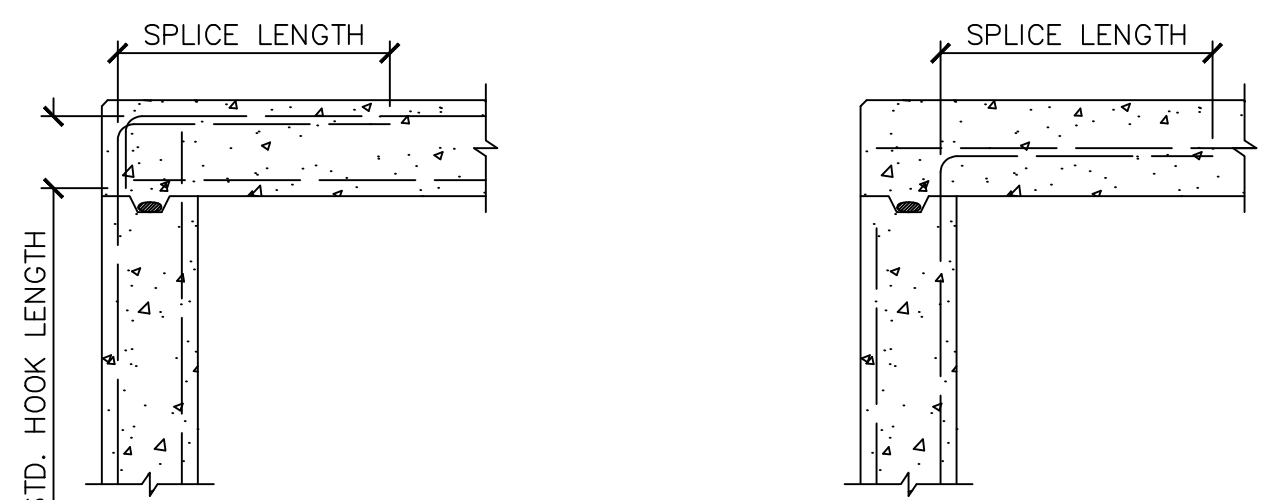
CORNERS



TYPICAL CORNER REINFORCING - SINGLE MAT



BASE OF WALLS



TYPICAL WALL-SLAB CORNER

HINGED WALL-SLAB CORNER

NOTES:

- SPLIT KEY WAYS AROUND REINFORCING STEEL WHERE STEEL IS CENTERED IN WALL OR SLAB.
BITUMINOUS WATER STOPS REQUIRED FOR ALL JOINTS BELOW FINISH GRADE.

② KEYED CONSTRUCTION JOINTS
NO SCALE

③ TYPICAL REINFORCING DETAILS
NO SCALE

FOR REVIEW

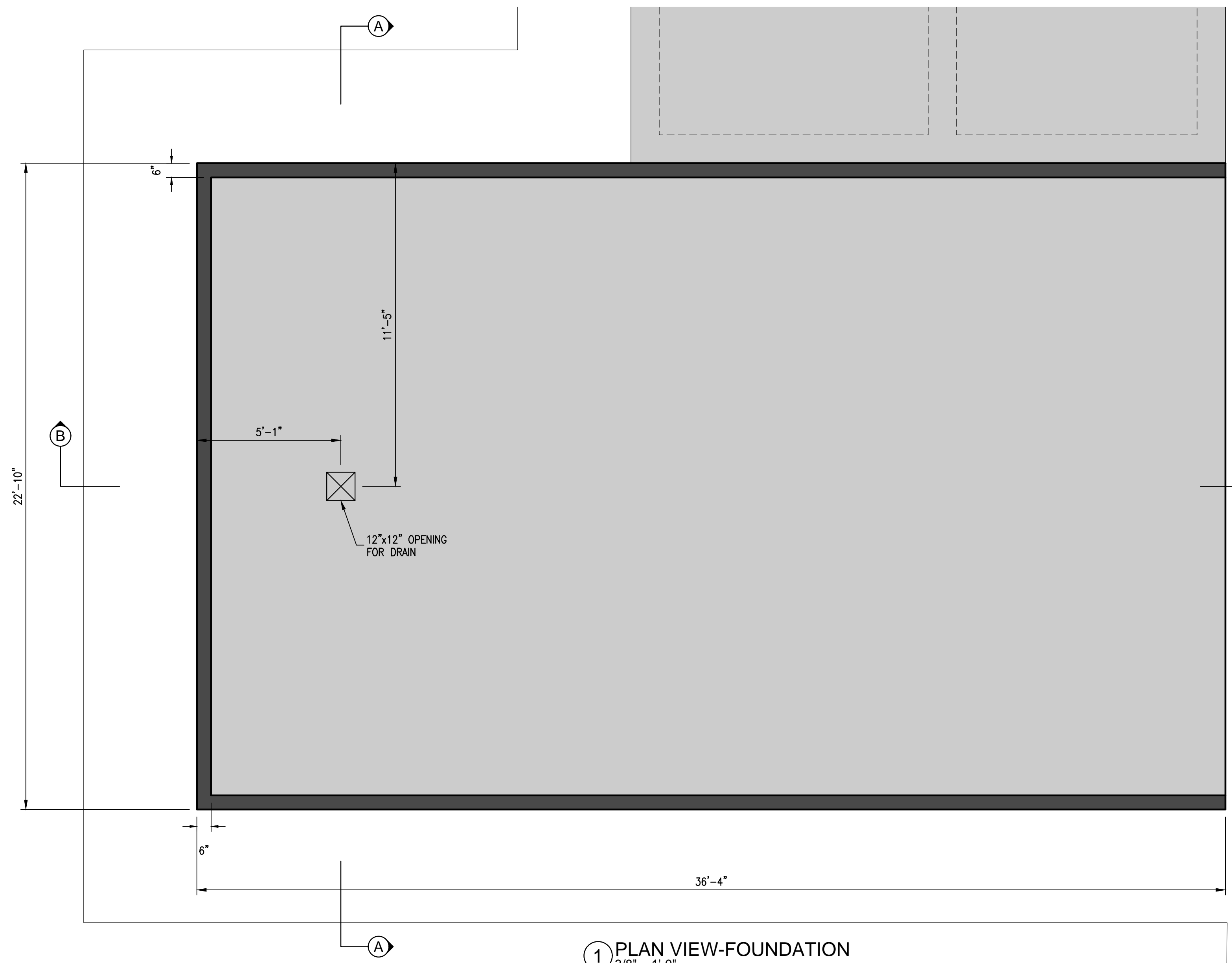
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PREPARED BY:
VICTOR ACUY, P.E.
No. 114152 ON
04.16.2021

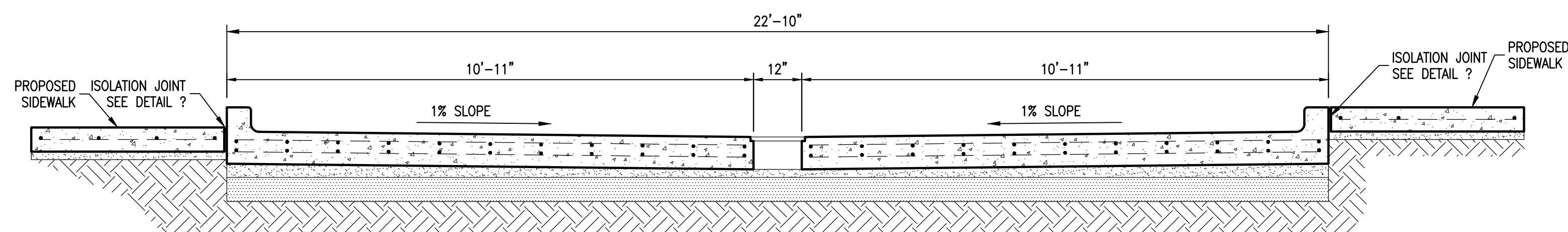
IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2 OF NOTED SCALE.

PROJECT No. 19032
DESIGNED: VLA
DRAWN: FMI
CHECKED: VLA

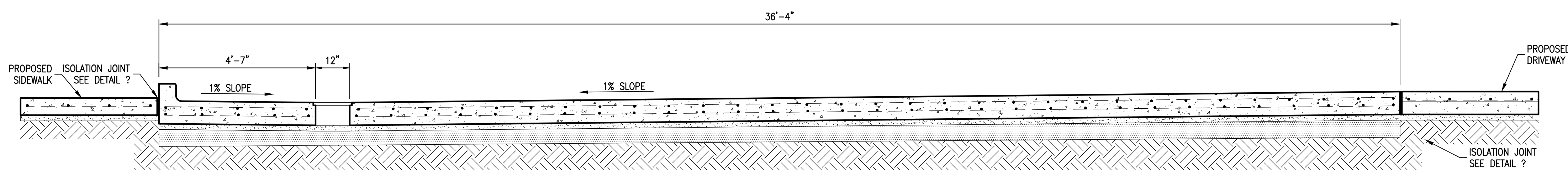
SHEET
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SHEET ### OF ###



① PLAN VIEW-FOUNDATION
3/8" = 1'-0"



② SECTION A-A
1/2" = 1'-0"



③ SECTION B-B
1/2" = 1'-0"

No.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP

SLUDGE DEWATERING UNIT PLAN & SECTIONS

FOR REVIEW

THIS PLAN SHEET IS ISSUED FOR INTERIM REVIEW ONLY AND IS NOT FOR BIDDING, CONSTRUCTION OR PERMIT PURPOSES.

PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
04.16.2021

IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2" OF NOTED SCALE.

PROJECT No. 19032

DESIGNED: ###

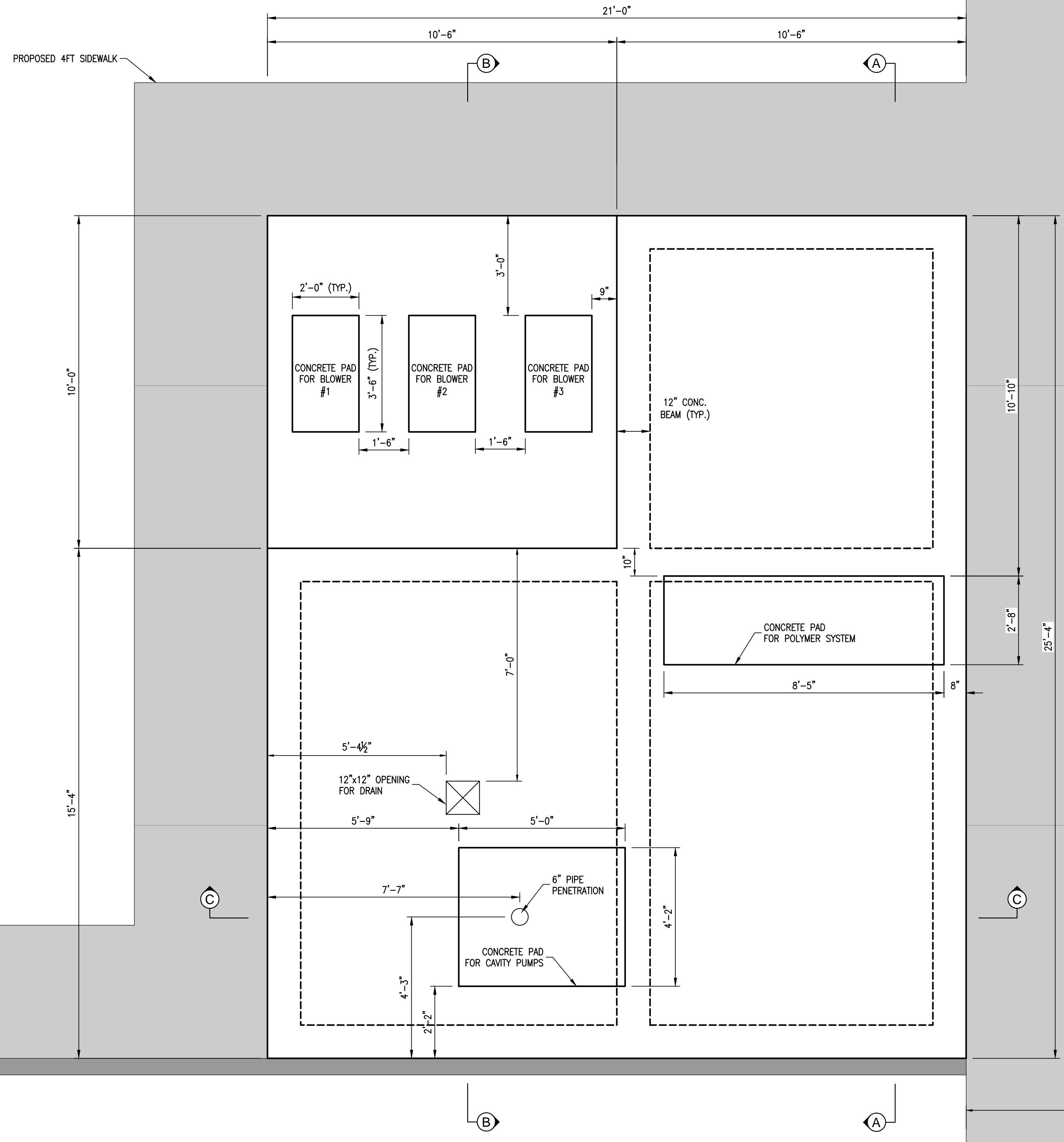
DRAWN: FMI

CHECKED: ###

SHEET
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SHEET ### OF ###



PROPOSED 4FT SIDEWALK



CONCRETE PAD FOR BLOWER #1

CONCRETE PAD FOR BLOWER #2

CONCRETE PAD FOR BLOWER #3

CONCRETE PAD FOR CAVITY PUMPS

CONCRETE PAD FOR POLYMER SYSTEM

SLUDGE DEWATERING

No.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP

SLUDGE ROOM, BLOWERS & ELECTRICAL ROOM PLAN

FOR REVIEW

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No. 29907 ON
04.16.2021

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PROJECT No. 19032

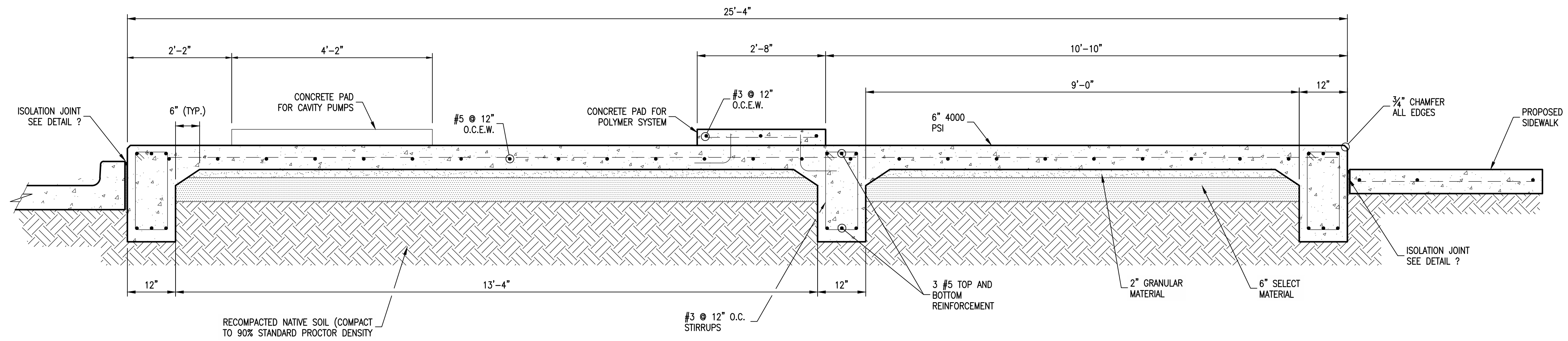
DESIGNED: ###

DRAWN: FMI

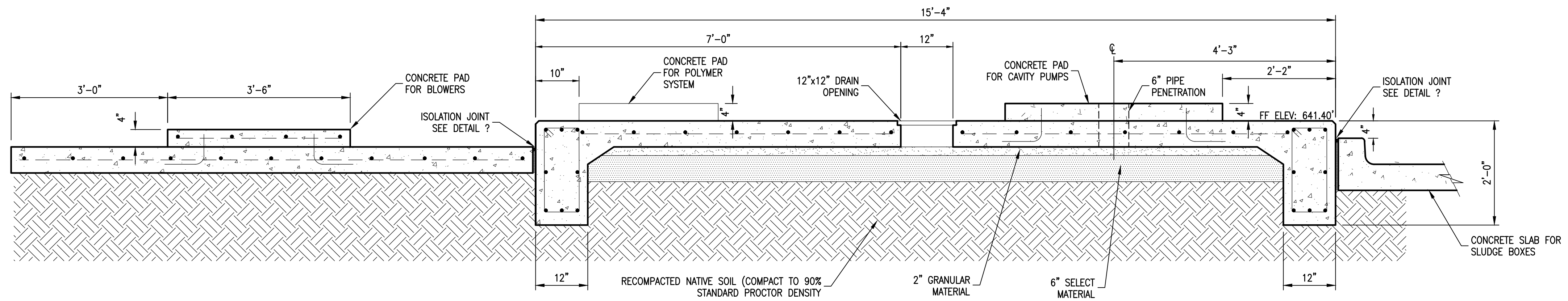
CHECKED: ###

SHEET
S.6.0
SHEET ### OF ###

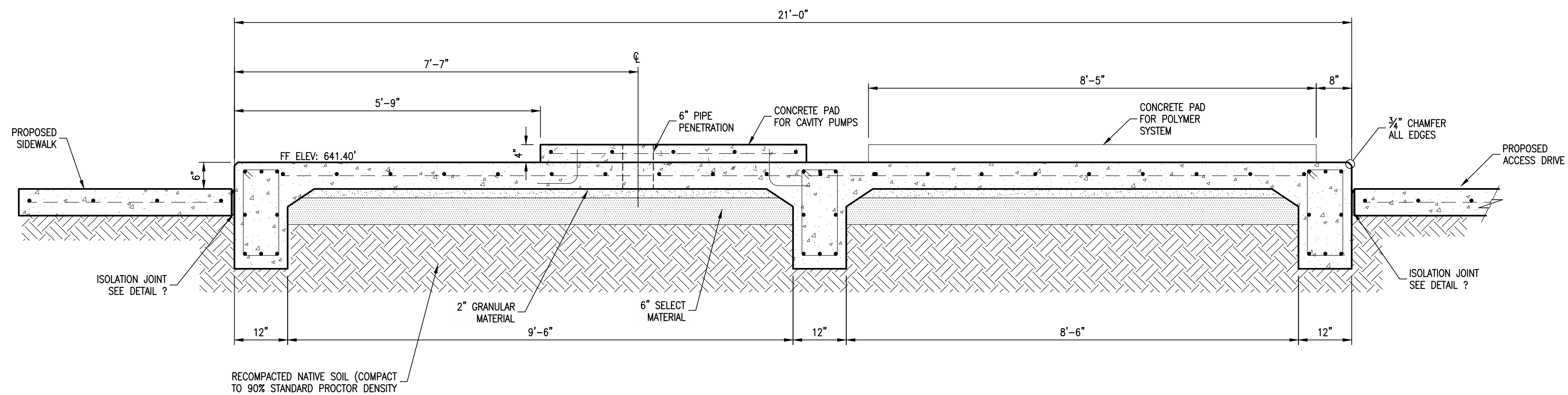




1 SECTION A-A
3/4" = 1'-0"



2 SECTION B-B
3/4" = 1'-0"



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

No.	DATE	REVISION	BY

Freeman-Millican, Inc.
ENGINEERS - ARCHITECTS - PLANNERS
8300 LBJ FREEWAY, STE. 225, DALLAS, TX 75243 PH: 214.500.9585 TX REG. ENG. PROJ. F-287

CITY OF WESTON
EAST FORK WWTP

SLUDGE ROOM, BLOWERS & ELECTRICAL ROOM SECTIONS

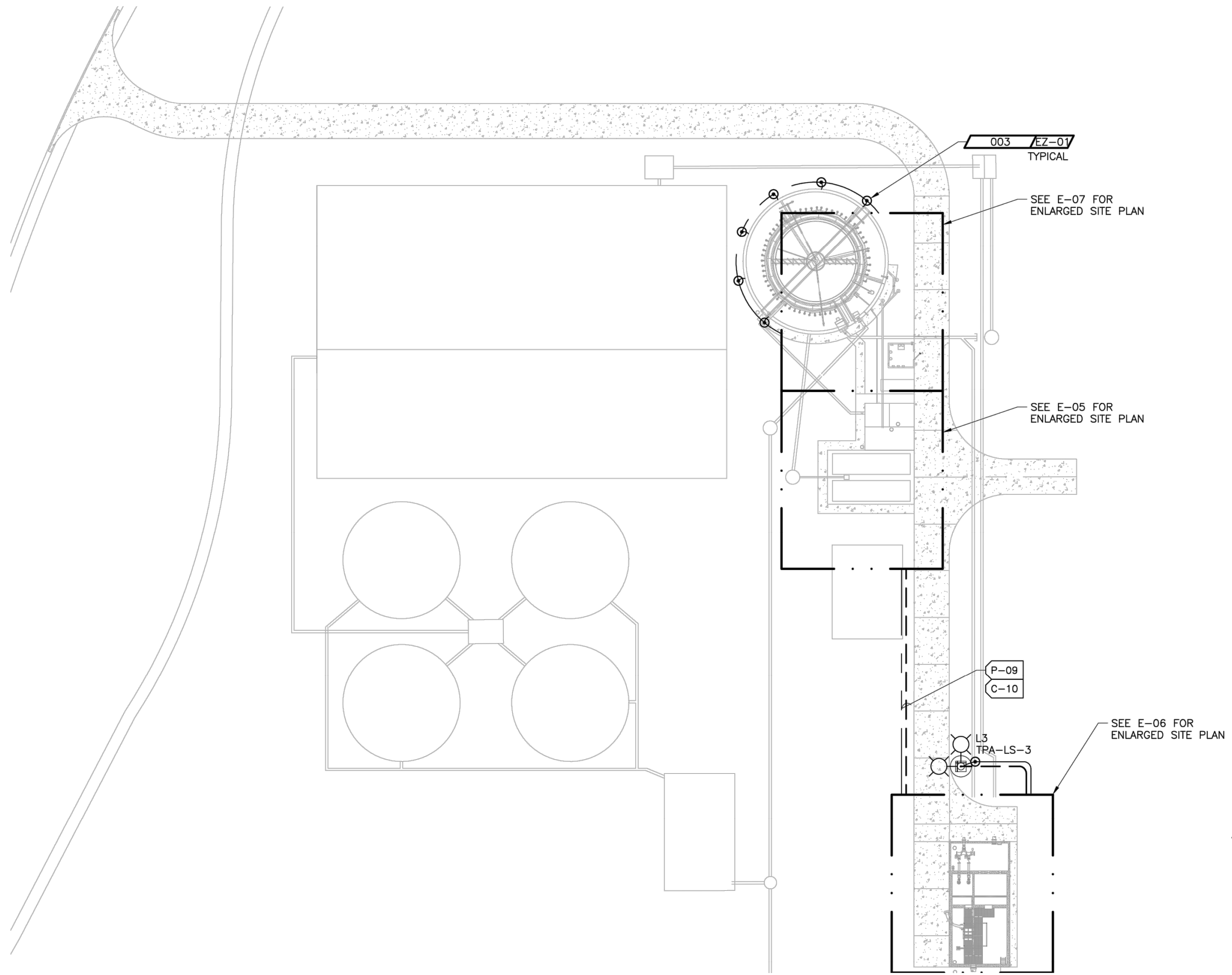
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PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
04.16.2021

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DRAWN: FMI
CHECKED: ###

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SHEET ### OF ###



GENERAL NOTES:

1. REFER TO SHEET E-01 FOR ELECTRICAL SYMBOLS ABBREVIATIONS AND GENERAL NOTES.

① ELECTRICAL SITE PLAN
1"=10'-0"

No.	DATE	REVISION	BY



CITY OF WESTON
EAST FORK WWTP

OVERALL SITE PLAN

FOR REVIEW

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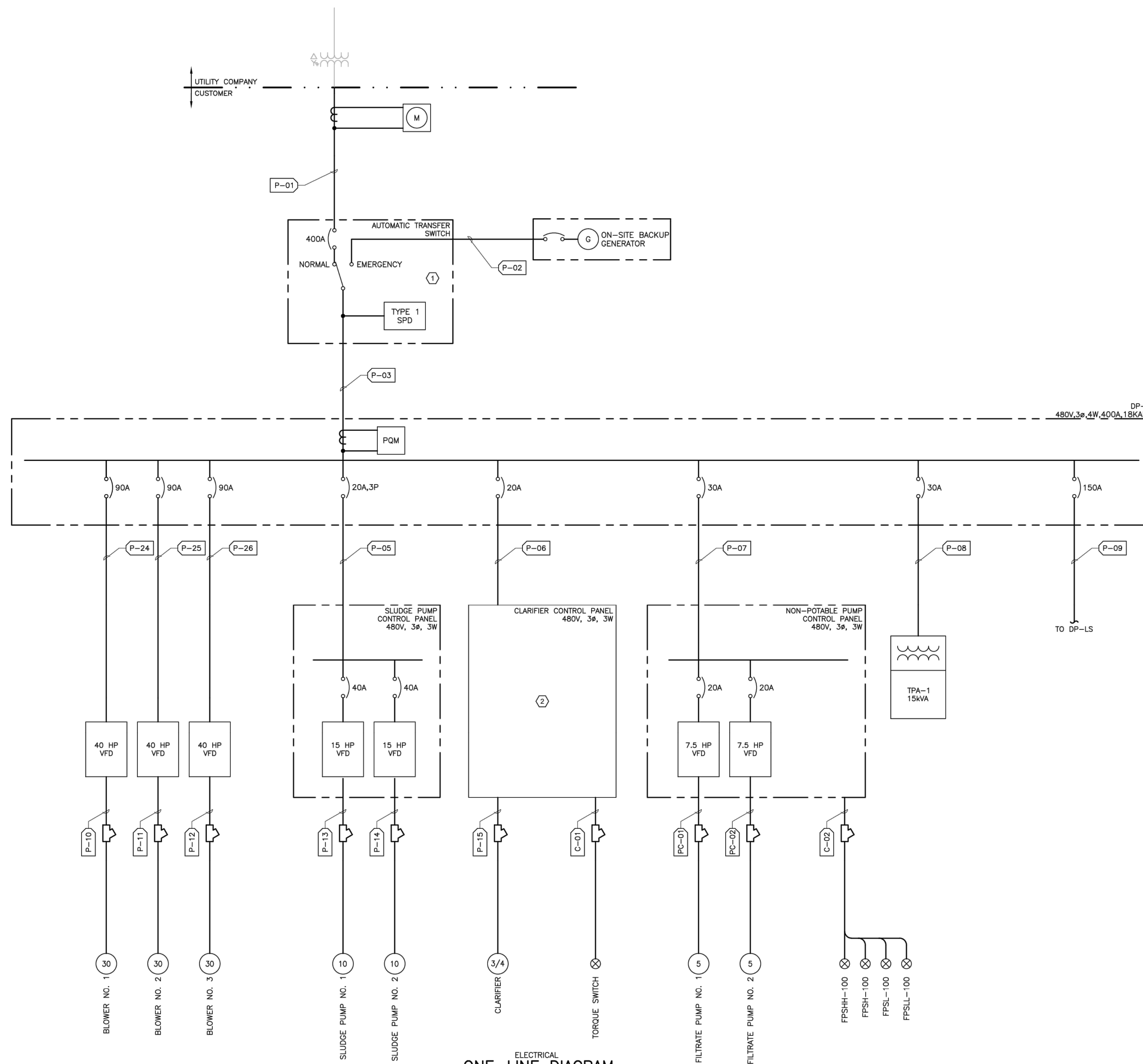
PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
04.16.2021

3GEN PROJECT # 041004
TX REG. #10822

3rd GENERATION ENGINEERING
7920 BELT LINE ROAD, SUITE 591
DALLAS, TX 75254, (972) 387-8784

IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2" OF NOTED SCALE.
PROJECT No. 19032
DESIGNED: ###
DRAWN: FMI
CHECKED: ###

SHEET
E.2.0
SHEET ### OF ###



GENERAL NOTES:

1. REFER TO SHEET E-01 FOR ELECTRICAL SYMBOLS ABBREVIATIONS AND GENERAL NOTES.

KEYED NOTES:

- ① SERVICE ENTRANCE RATED AUTOMATIC TRANSFER SWITCH.
- ② CONTROL PANEL BY OTHERS.

ELECTRICAL
ONE-LINE DIAGRAM
NOT TO SCALE

3rd GENERATION ENGINEERING
7920 BELT LINE ROAD, SUITE 591
DALLAS, TX 75254, (972) 387-8784

3GEN PROJECT # 041004
TX REG. #10822

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CITY OF WESTON
EAST FORK WWTP
ONE LINE DIAGRAM

FOR REVIEW

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No. 29907 ON
04.16.2021

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PROJECT No. 19032
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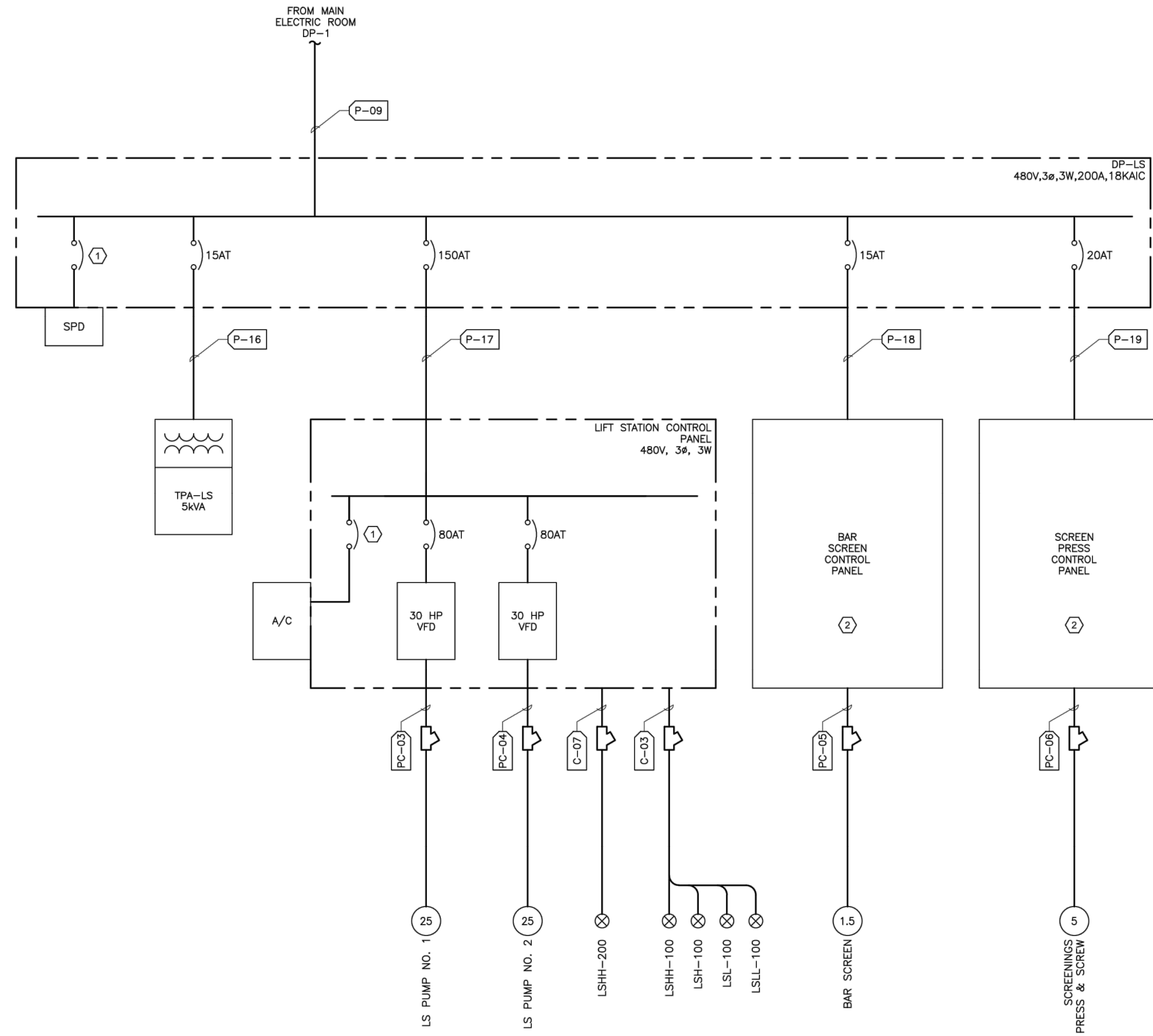
Freeman-Millican, Inc.
ENGINEERS - ARCHITECTS - PLANNERS
8330 Lyndon B. Johnson Fwy, Suite 1225 DALLAS, TX 75243 PH: 214.503.0555 TX REG ENG PRM# 2927

GENERAL NOTES:

- REFER TO SHEET E-01 FOR ELECTRICAL SYMBOLS ABBREVIATIONS AND GENERAL NOTES.

KEYED NOTES:

- BREAKER TO BE SIZED PER MANUFACTURER'S RECOMMENDATIONS.
- CONTROL PANEL BY OTHERS.



ELECTRICAL
ONE-LINE DIAGRAM
NOT TO SCALE

3GEN PROJECT # 041004
TX REG. #10822

3rd GENERATION ENGINEERING
7920 BELT LINE ROAD, SUITE 591
DALLAS, TX 75254, (972) 387-8784

No.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP
ONE LINE DIAGRAM

FOR REVIEW

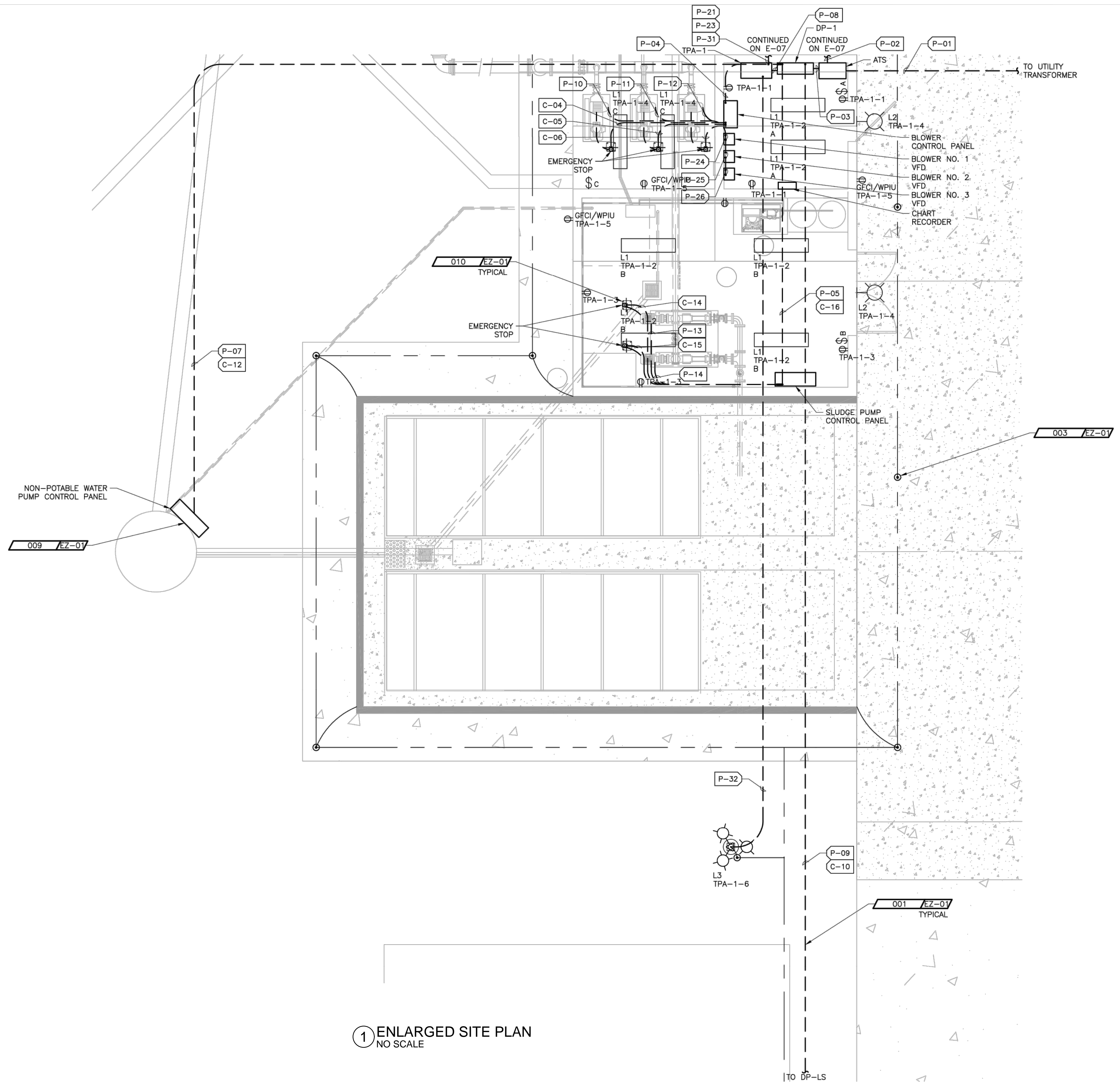
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No. 29907 ON
04.16.2021

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PROJECT No. 19032
DESIGNED: ###
DRAWN: FMI
CHECKED: ###

SHEET
E.4.0
SHEET ### OF ###





GENERAL NOTES:
 1. REFER TO SHEET E-01 FOR ELECTRICAL SYMBOLS ABBREVIATIONS AND GENERAL NOTES.

1 ENLARGED SITE PLAN
 NO SCALE



BT	REVISION		
	DATE		
	NO.		

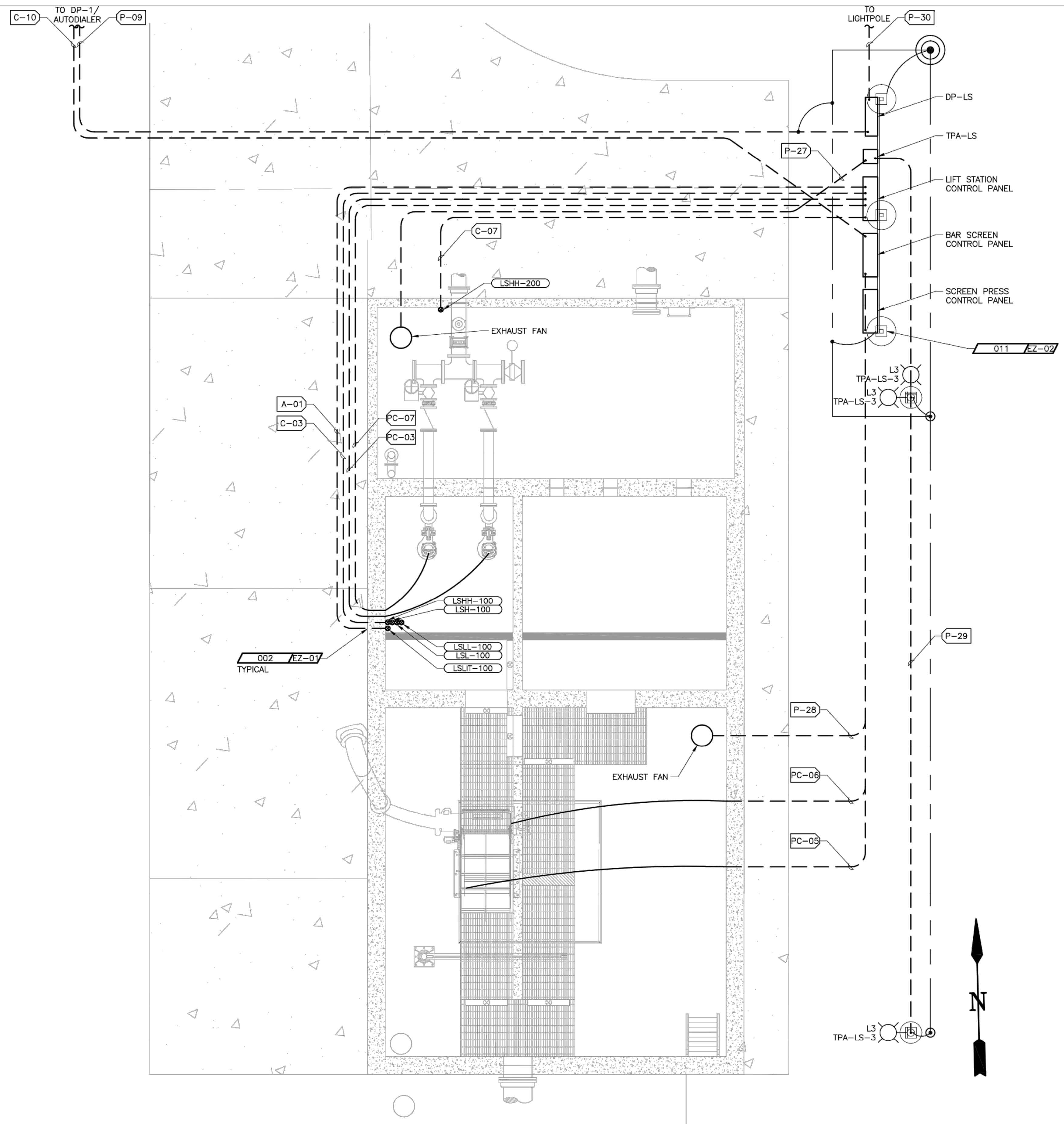
CITY OF WESTON
 EAST FORK WWTP
 ENLARGED SITE PLAN

FOR REVIEW	
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DESIGNED:	###
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3GEN PROJECT # 041004
 TX REG. #10822

3rd GENERATION ENGINEERING
 7920 BELT LINE ROAD, SUITE 591
 DALLAS, TX 75254, (972) 387-8784





GENERAL NOTES:

- 1. REFER TO SHEET E-01 FOR ELECTRICAL SYMBOLS ABBREVIATIONS AND GENERAL NOTES.

KEYED NOTES:

- ① BOND DUCT BANK GROUND CONDUCTOR TO GROUND LOOP.

No.	DATE	REVISION	BY

Freeman-Millican, Inc.
 ENGINEERS - ARCHITECTS - PLANNERS
8330 Lyndon B. Johnson Fwy, Suite 1225, Dallas, TX 75243, PH: 214.503.0555, TX REG. ENG. #1017-2927

CITY OF WESTON
 EAST FORK WWTP
ENLARGED SITE PLAN

FOR REVIEW

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 No. 29907 ON
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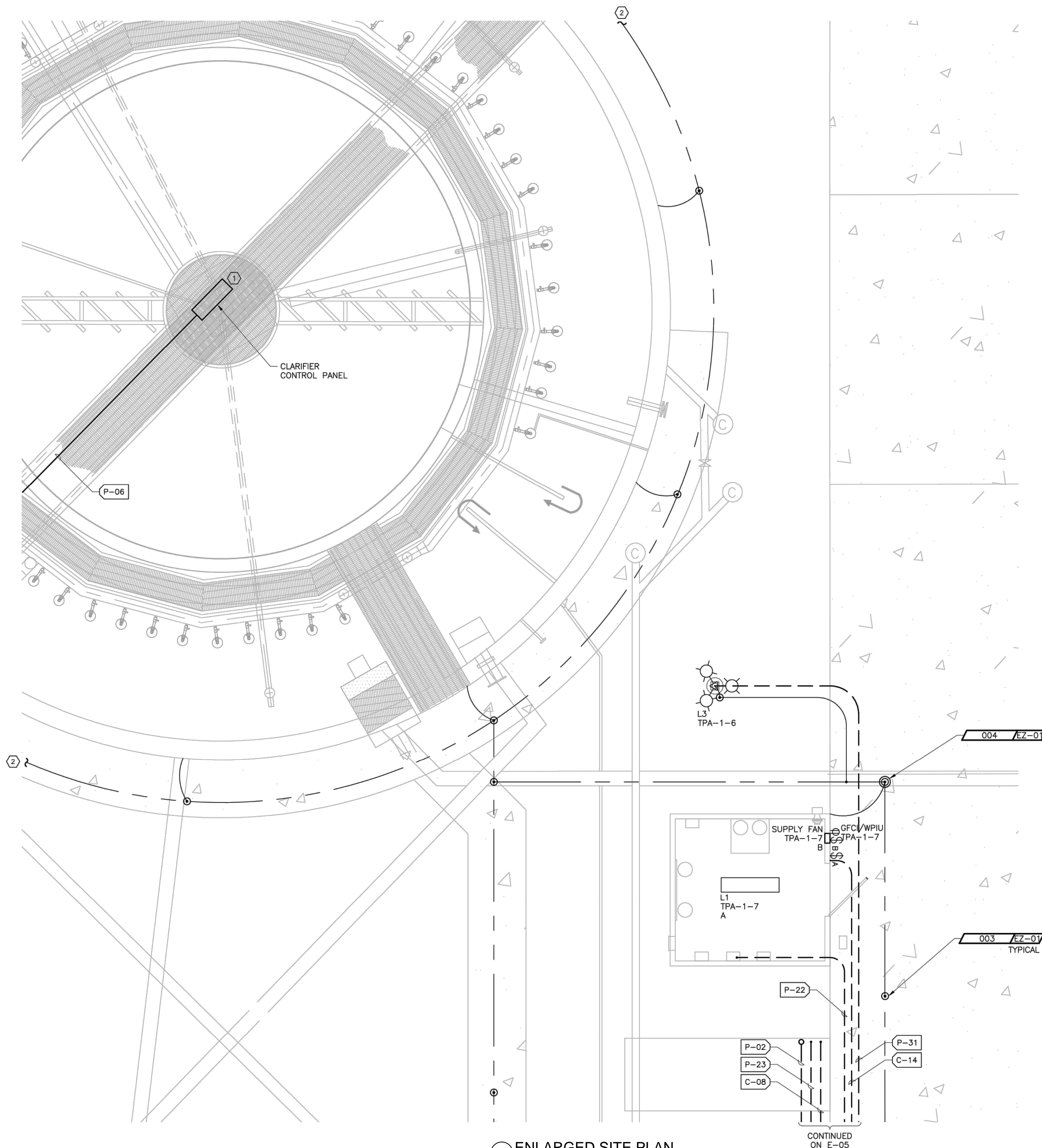
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E.6.0
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3GEN PROJECT # 041004
 TX REG. #10822

3rd GENERATION ENGINEERING
 7920 BELT LINE ROAD, SUITE 591
 DALLAS, TX 75254, (972) 387-8784

① ENLARGED SITE PLAN
 NO SCALE



GENERAL NOTES:

1. REFER TO SHEET E-01 FOR ELECTRICAL SYMBOLS ABBREVIATIONS AND GENERAL NOTES.

KEYED NOTES:

- ① CLARIFIER CONTROL PANEL SHALL BE MOUNTED ON CATWALK ON TOP OF TREATMENT UNIT NEAR CENTER OF TANK.
- ② CONTINUE GROUND COUNTERPOISE AROUND CLARIFIER. SPACING OF GROUND NODES AND BONDING JUMPERS SHALL MATCH WHAT IS SHOWN.

No.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP

ENLARGED SITE PLAN

FOR REVIEW

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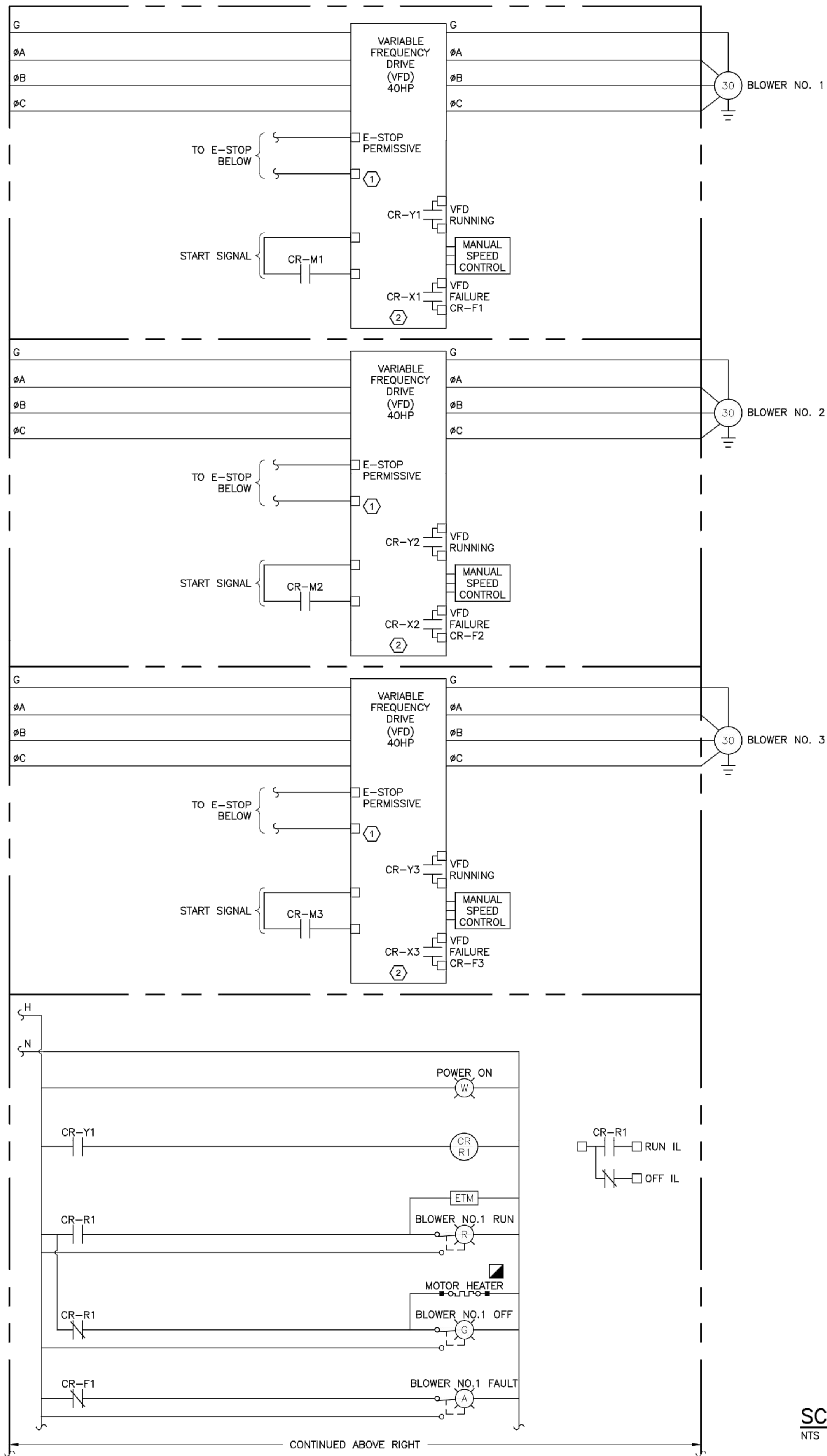
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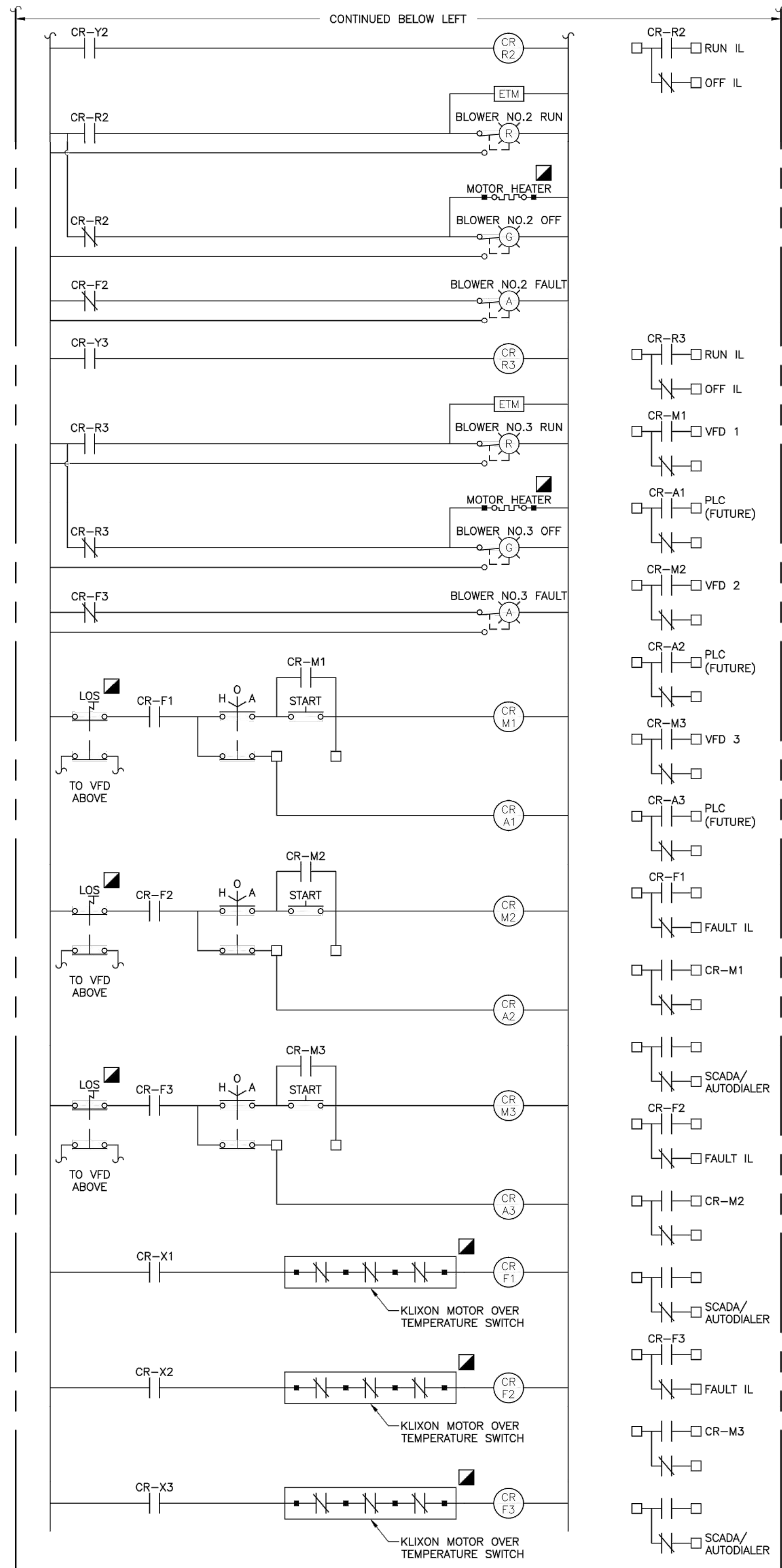
3rd GENERATION ENGINEERING
7920 BELT LINE ROAD, SUITE 591
DALLAS, TX 75254, (972) 387-8784

① ENLARGED SITE PLAN
NO SCALE





BLOWER CONTROL PANEL
SCHEMATIC 01
NTS



GENERAL NOTES:

- REFER TO SHEET E-01 FOR ELECTRICAL SYMBOLS ABBREVIATIONS AND GENERAL NOTES.
- CONTROL PUSHBUTTONS, INDICATION LIGHTS AND SELECTOR SWITCHES SHALL BE MOUNTED ON INTERIOR DOOR PANEL. STARTERS, CIRCUIT BREAKERS, CONTROL RELAYS, FUSE BLOCKS, TERMINAL BLOCKS, ETC... SHALL BE MOUNTED ON THE CONTROL PANEL'S BACK PANEL.

KEYED NOTES:

- INDIVIDUAL TRANSMITTERS, CONTROLLERS AND MISCELLANEOUS DEVICES SHALL BE PROVIDED AND INSTALLED WITH SEPARATE DIN RAIL MOUNTED CIRCUIT BREAKERS. AMPERAGE PER MANUFACTURERS RECOMMENDATION OR REQUIREMENTS.
- VFD FAULT SIGNAL IS ELECTRICALLY ENERGIZED DURING NORMAL OPERATION WHEN NO FAULT CONDITION EXISTS.

3GEN PROJECT # 041004
TX REG. #10822

3rd GENERATION ENGINEERING
7920 BELT LINE ROAD, SUITE 591
DALLAS, TX 75254, (972) 387-8784

NO.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP

ELECTRICAL SCHEMATICS

FOR REVIEW

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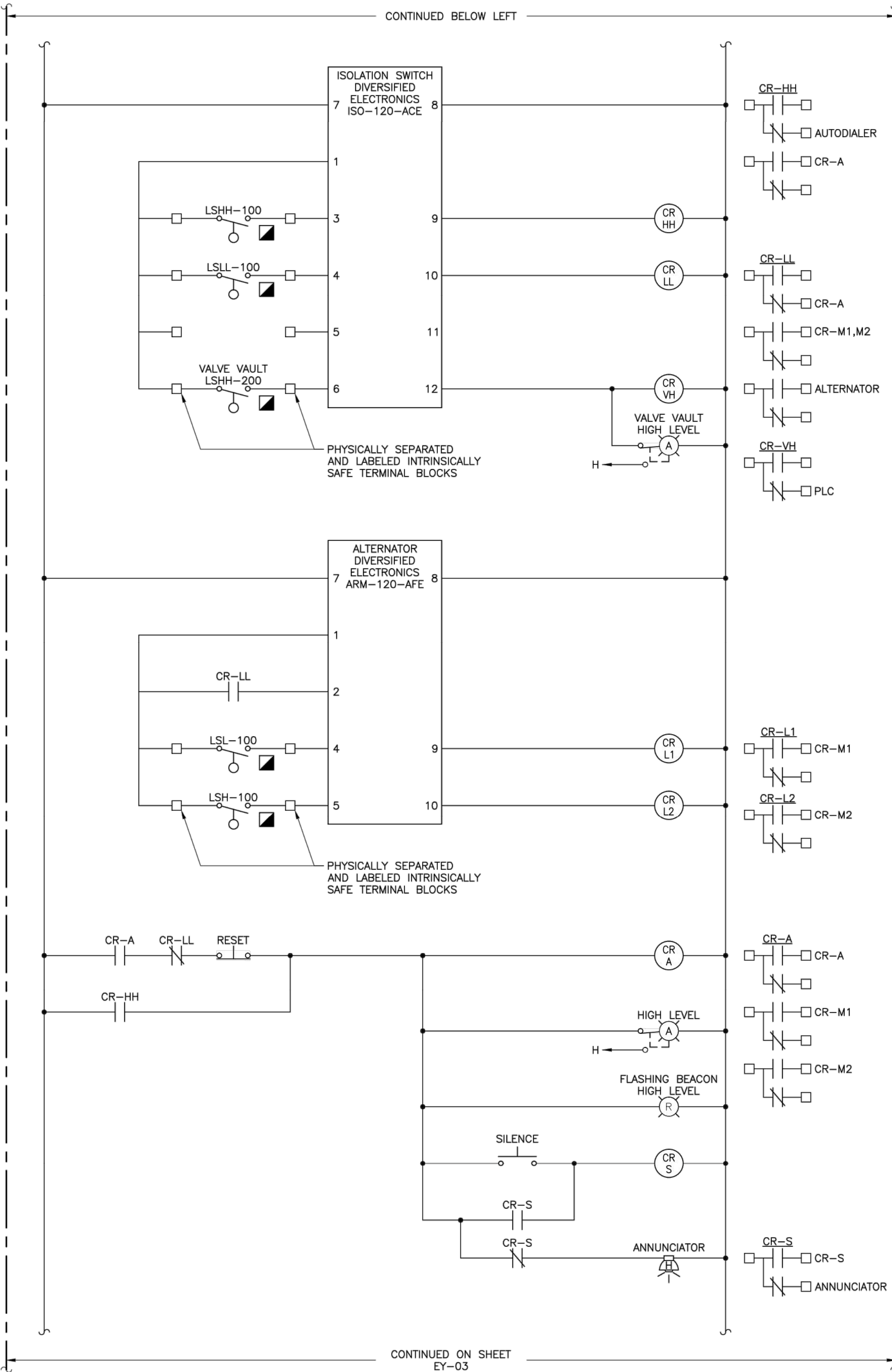
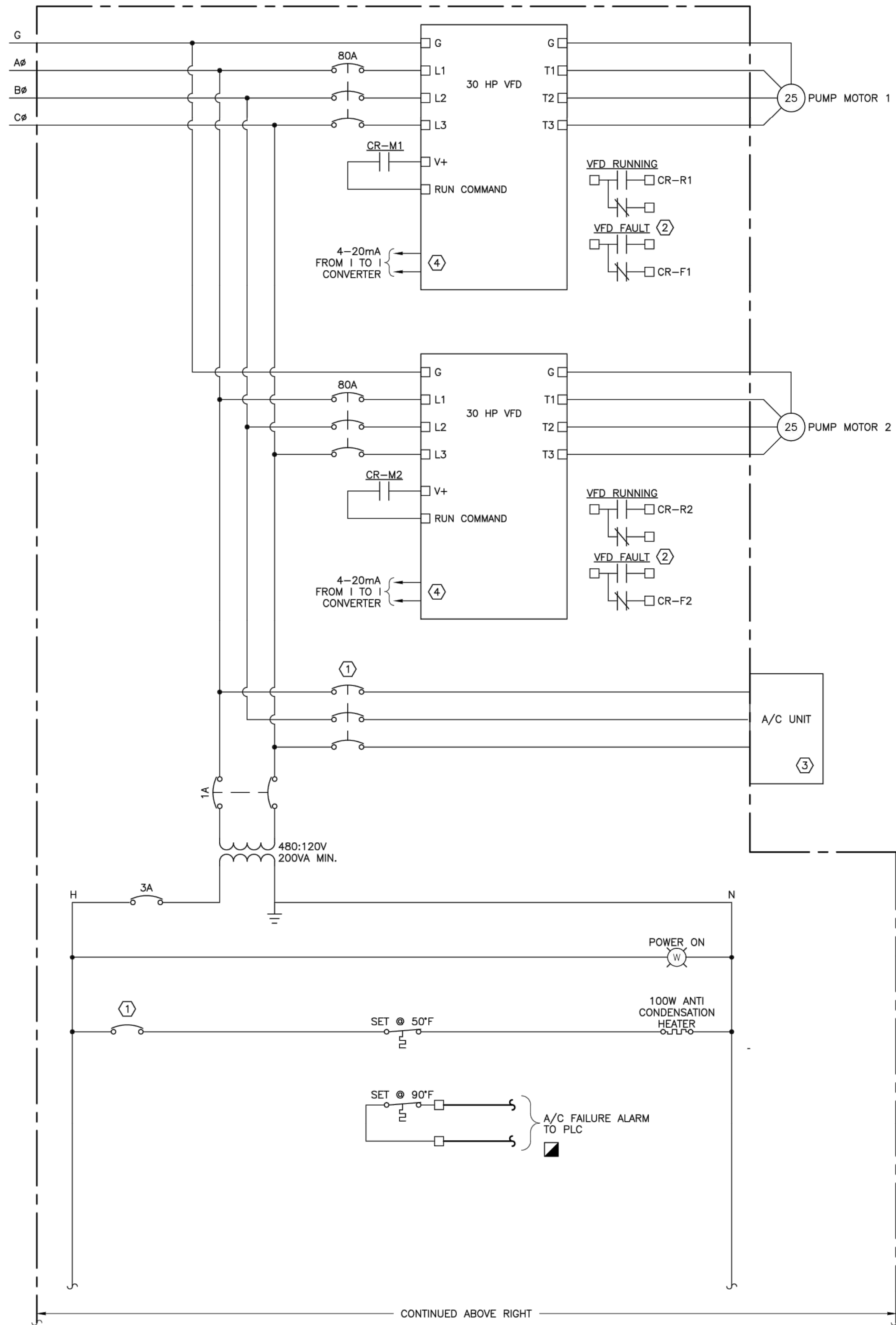
PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
04.16.2021

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PROJECT No. 19032
DESIGNED: ###
DRAWN: FMI
CHECKED: ###

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Freeman-Millican, Inc.
ENGINEERS - ARCHITECTS - PLANNERS
8330 Lyndon B. Johnson Fwy, Suite 1225 DALLAS, TX 75243 PH: 214.503.0555 TX REG. ENG. #104297



- GENERAL NOTES:**
- REFER TO SHEET E-01 FOR ELECTRICAL SYMBOLS ABBREVIATIONS AND GENERAL NOTES.
 - CONTROL PUSHBUTTONS, INDICATION LIGHTS AND SELECTOR SWITCHES SHALL BE MOUNTED ON INTERIOR DOOR PANEL. STARTERS, CIRCUIT BREAKERS, CONTROL RELAYS, FUSE BLOCKS, TERMINAL BLOCKS, ETC... SHALL BE MOUNTED ON THE CONTROL PANEL'S BACK PANEL.
- KEYED NOTES:**
- INDIVIDUAL TRANSMITTERS, CONTROLLERS AND MISCELLANEOUS DEVICES SHALL BE PROVIDED AND INSTALLED WITH SEPARATE DIN RAIL MOUNTED CIRCUIT BREAKERS. AMPERAGE PER MANUFACTURERS RECOMMENDATION OR REQUIREMENTS.
 - VFD FAULT SIGNAL IS ELECTRICALLY ENERGIZED DURING NORMAL OPERATION WHEN NO FAULT CONDITION EXISTS.
 - SIZE A/C UNIT BASED ON TWO RUNNING 30 HP MOTORS, DIRECT SUN EXPOSURE, AND STAINLESS STEEL ENCLOSURE. A/C SHALL MAINTAIN 80°F INTERIOR TEMPERATURE WITH 100°F AMBIENT TEMPERATURE.
 - VFD'S SHALL BE PROGRAMED TO RAMP UP SPEED IN RESPONSE TO 4-20mA SIGNAL FROM ULTRASONIC LEVEL SENSOR LOCATED IN WET WELL.

LIFT STATION
CONTROL PANEL
SCHEMATIC 02
NTS

3rd GENERATION ENGINEERING
7920 BELT LINE ROAD, SUITE 591
DALLAS, TX 75254, (972) 387-8784

REV	DATE	BY

CITY OF WESTON
EAST FORK WWTP

ELECTRICAL SCHEMATICS

FOR REVIEW

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PREPARED BY:
LARRY J. FREEMAN, P.E.
No. 29907 ON
04.16.2021

IF SHEET IS IN 11"x17" FORMAT, DRAWINGS ARE AT 1/2" OF NOTED SCALE.

3GEN PROJECT # 041004
TX REG. #10822

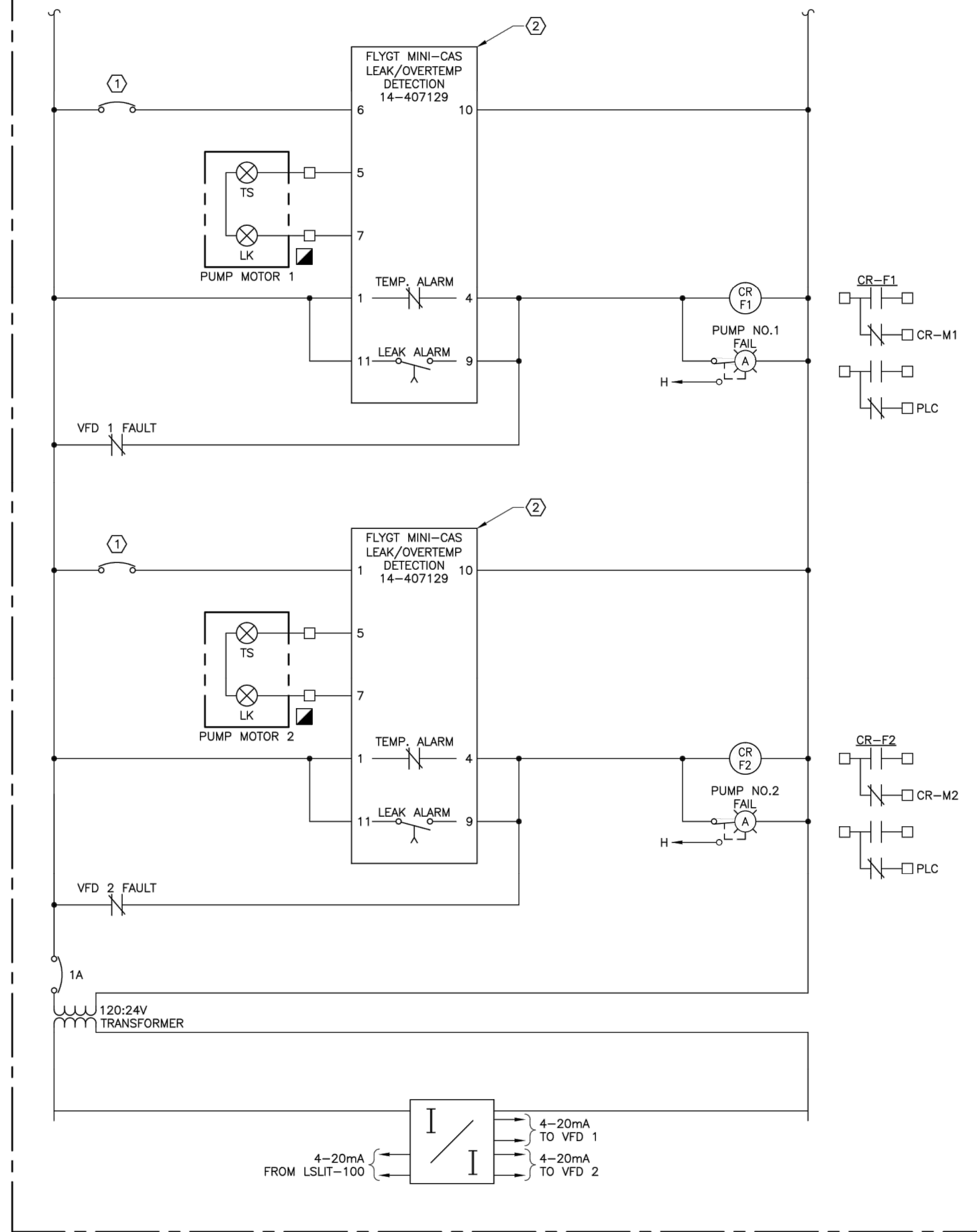
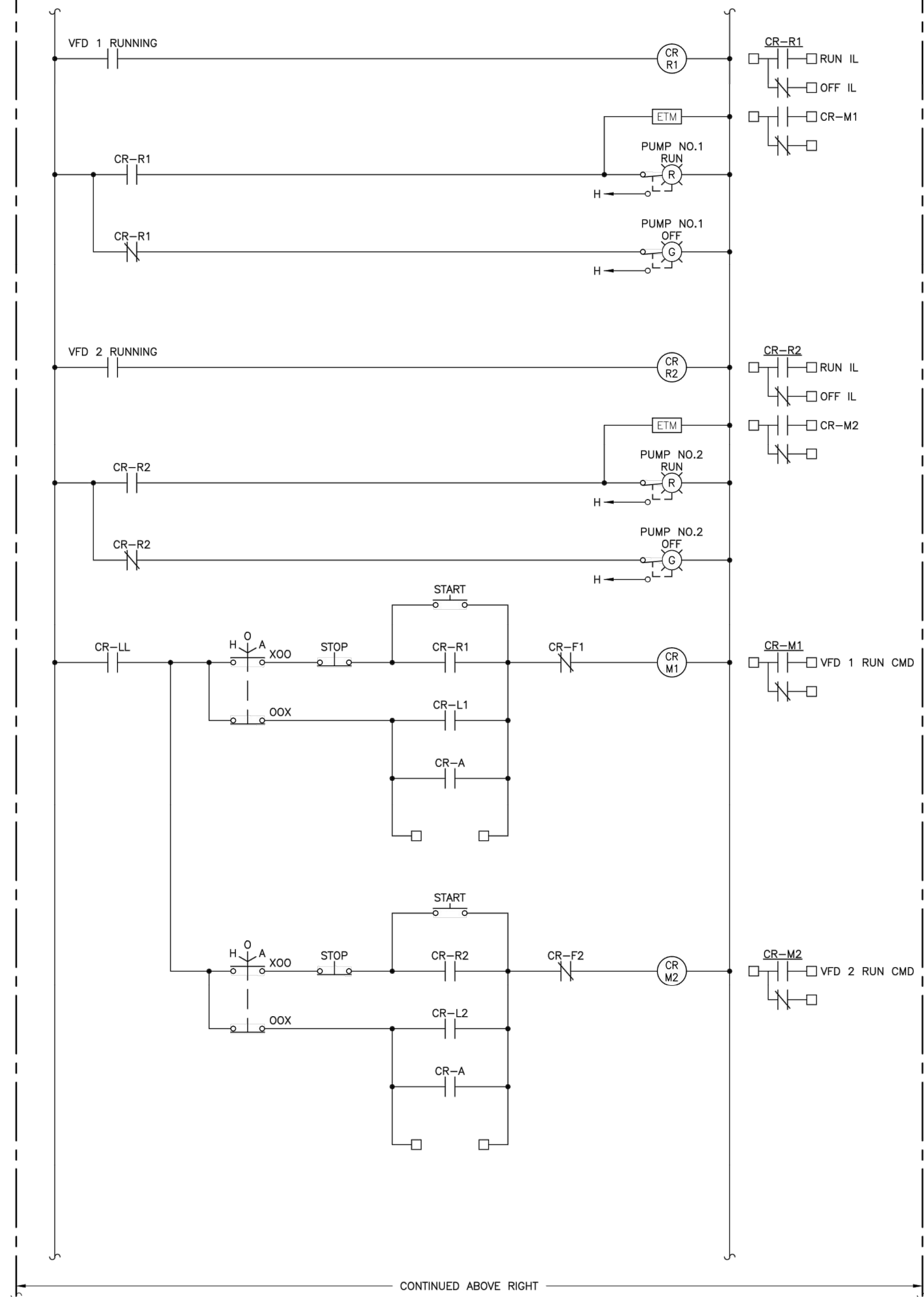
PROJECT No. 19032
DESIGNED: ###
DRAWN: FMI
CHECKED: ###

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ENGINEERS - ARCHITECTS - PLANNERS
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CONTINUED FROM EY-02

CONTINUED BELOW LEFT



GENERAL NOTES:

1. REFER TO SHEET E-01 FOR ELECTRICAL SYMBOLS ABBREVIATIONS AND GENERAL NOTES.

KEYED NOTES:

- ① INDIVIDUAL TRANSMITTERS, CONTROLLERS AND MISCELLANEOUS DEVICES SHALL BE PROVIDED AND INSTALLED WITH SEPARATE DIN RAIL MOUNTED CIRCUIT BREAKERS. AMPERAGE PER MANUFACTURES RECOMMENDATION OR REQUIREMENTS.
- ② MOTOR LEAK AND THERMAL PROTECTION MODULE SHOWN IS AS MANUFACTURED BY FLYGT. CONTRACTOR MAY SUBSTITUTE EQUIVALENT DETECTION MODULE PROVIDED BY THE SELECTED PUMP MANUFACTURER. THIRD PARTY LEAK AND DETECTION MODULES SHALL BE PRE-APPROVED BY THE PUMP MANUFACTURER.

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LIFT STATION CONTROL PANEL
SCHEMATIC 02
NTS

No.	DATE	REVISION	BY

CITY OF WESTON
EAST FORK WWTP

ELECTRICAL SCHEMATICS

FOR REVIEW

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No. 29907 ON
04.16.2021

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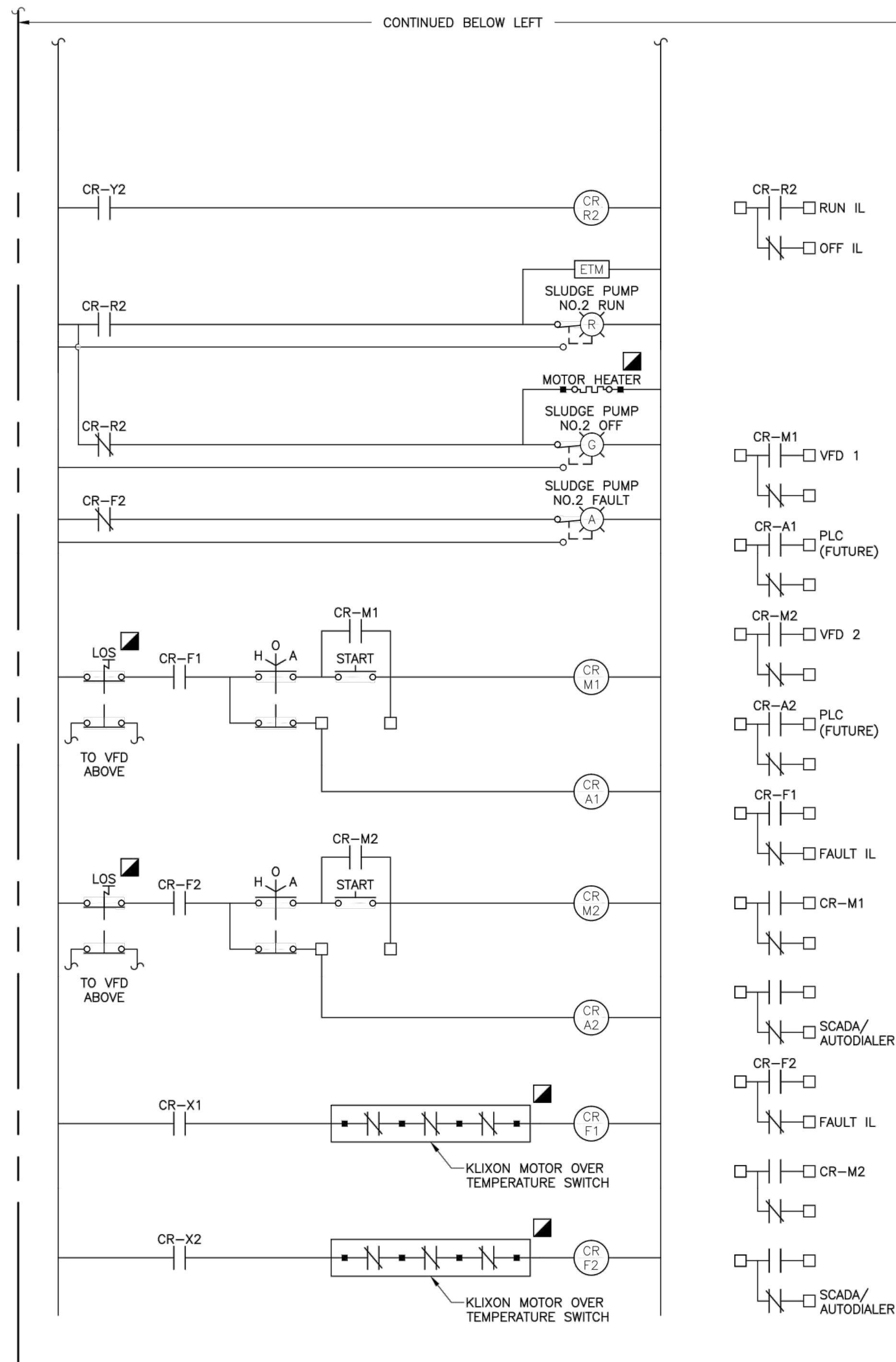
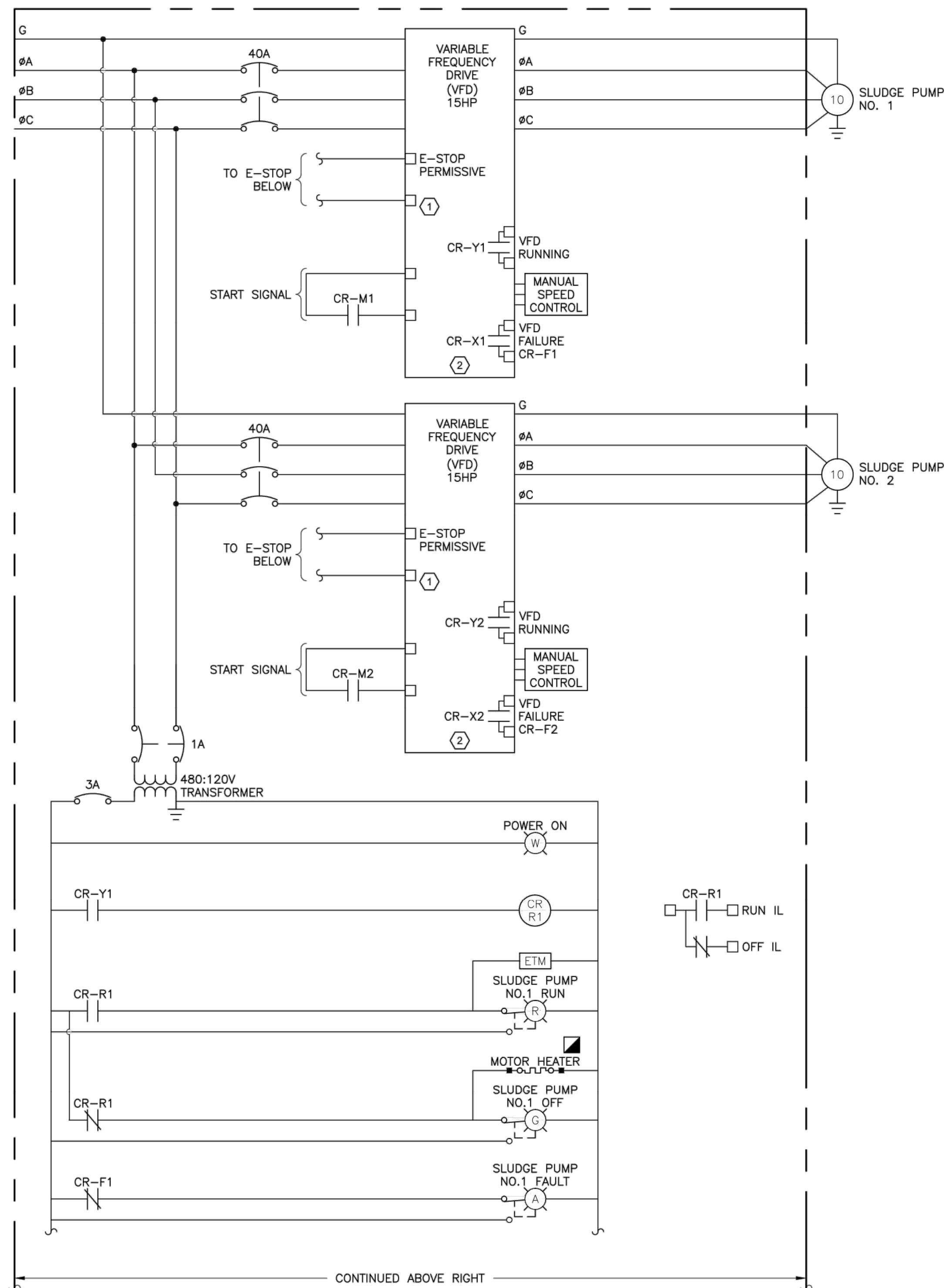
3rd GENERATION ENGINEERING

7920 BELT LINE ROAD, SUITE 591
DALLAS, TX 75254, (972) 387-8784

3GEN PROJECT # 041004
TX REG. #10822

SHEET
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GENERAL NOTES:

- REFER TO SHEET E-01 FOR ELECTRICAL SYMBOLS ABBREVIATIONS AND GENERAL NOTES.
- CONTROL PUSHBUTTONS, INDICATION LIGHTS AND SELECTOR SWITCHES SHALL BE MOUNTED ON INTERIOR DOOR PANEL. STARTERS, CIRCUIT BREAKERS, CONTROL RELAYS, FUSE BLOCKS, TERMINAL BLOCKS, ETC... SHALL BE MOUNTED ON THE CONTROL PANEL'S BACK PANEL.

KEYED NOTES:

- INDIVIDUAL TRANSMITTERS, CONTROLLERS AND MISCELLANEOUS DEVICES SHALL BE PROVIDED AND INSTALLED WITH SEPARATE DIN RAIL MOUNTED CIRCUIT BREAKERS. AMPERAGE PER MANUFACTURERS RECOMMENDATION OR REQUIREMENTS.
- VFD FAULT SIGNAL IS ELECTRICALLY ENERGIZED DURING NORMAL OPERATION WHEN NO FAULT CONDITION EXISTS.

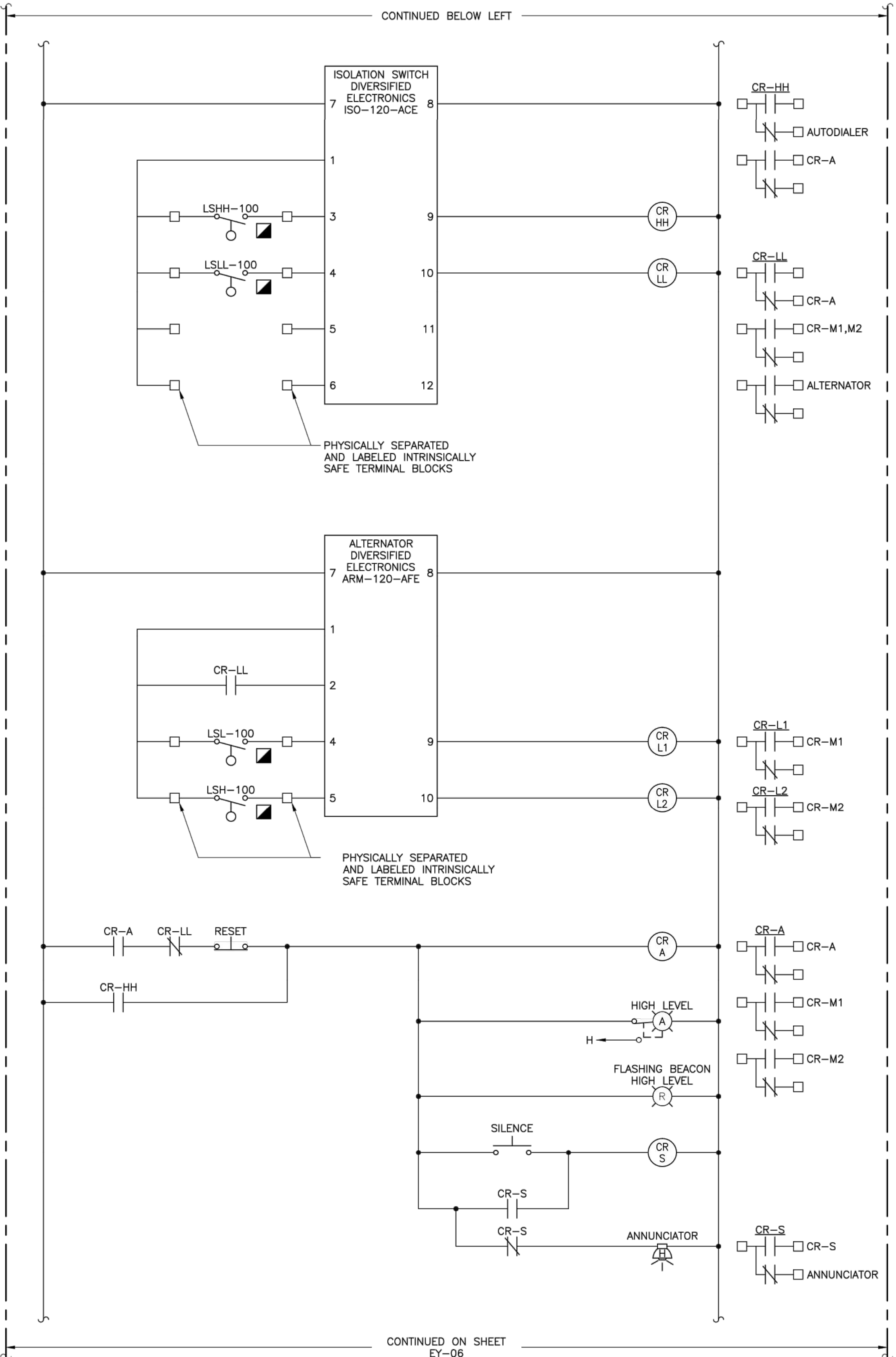
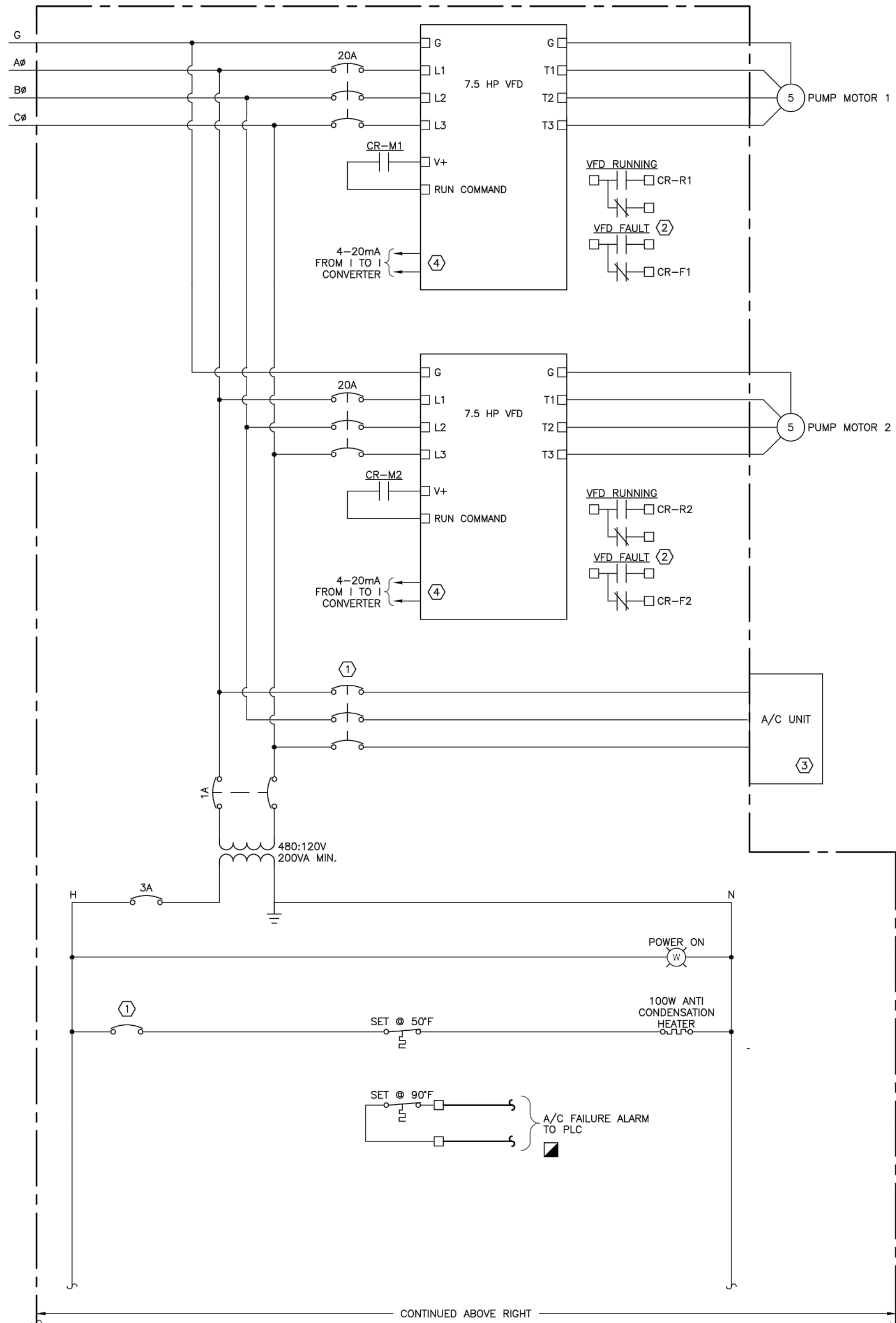
SLUDGE PUMP CONTROL PANEL
SCHEMATIC 03
NTS

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3GEN PROJECT # 041004
TX REG. #10822



- GENERAL NOTES:**
- REFER TO SHEET E-01 FOR ELECTRICAL SYMBOLS ABBREVIATIONS AND GENERAL NOTES.
 - CONTROL PUSHBUTTONS, INDICATION LIGHTS AND SELECTOR SWITCHES SHALL BE MOUNTED ON INTERIOR DOOR PANEL. STARTERS, CIRCUIT BREAKERS, CONTROL RELAYS, FUSE BLOCKS, TERMINAL BLOCKS, ETC... SHALL BE MOUNTED ON THE CONTROL PANEL'S BACK PANEL.
- KEYED NOTES:**
- INDIVIDUAL TRANSMITTERS, CONTROLLERS AND MISCELLANEOUS DEVICES SHALL BE PROVIDED AND INSTALLED WITH SEPARATE DIN RAIL MOUNTED CIRCUIT BREAKERS. AMPERAGE PER MANUFACTURERS RECOMMENDATION OR REQUIREMENTS.
 - VFD FAULT SIGNAL IS ELECTRICALLY ENERGIZED DURING NORMAL OPERATION WHEN NO FAULT CONDITION EXISTS.
 - SIZE A/C UNIT BASED ON TWO RUNNING 7.5 HP MOTORS, DIRECT SUN EXPOSURE, AND STAINLESS STEEL ENCLOSURE. A/C SHALL MAINTAIN 80°F INTERIOR TEMPERATURE WITH 100°F AMBIENT TEMPERATURE.
 - VFD'S SHALL BE PROGRAMED TO RAMP UP SPEED IN RESPONSE TO 4-20mA SIGNAL FROM ULTRASONIC LEVEL SENSOR LOCATED IN WET WELL.

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ELECTRICAL SCHEMATICS

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LARRY J. FREEMAN, P.E.
No. 29907 ON
04.16.2021

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PROJECT No. 19032
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DRAWN: FMI
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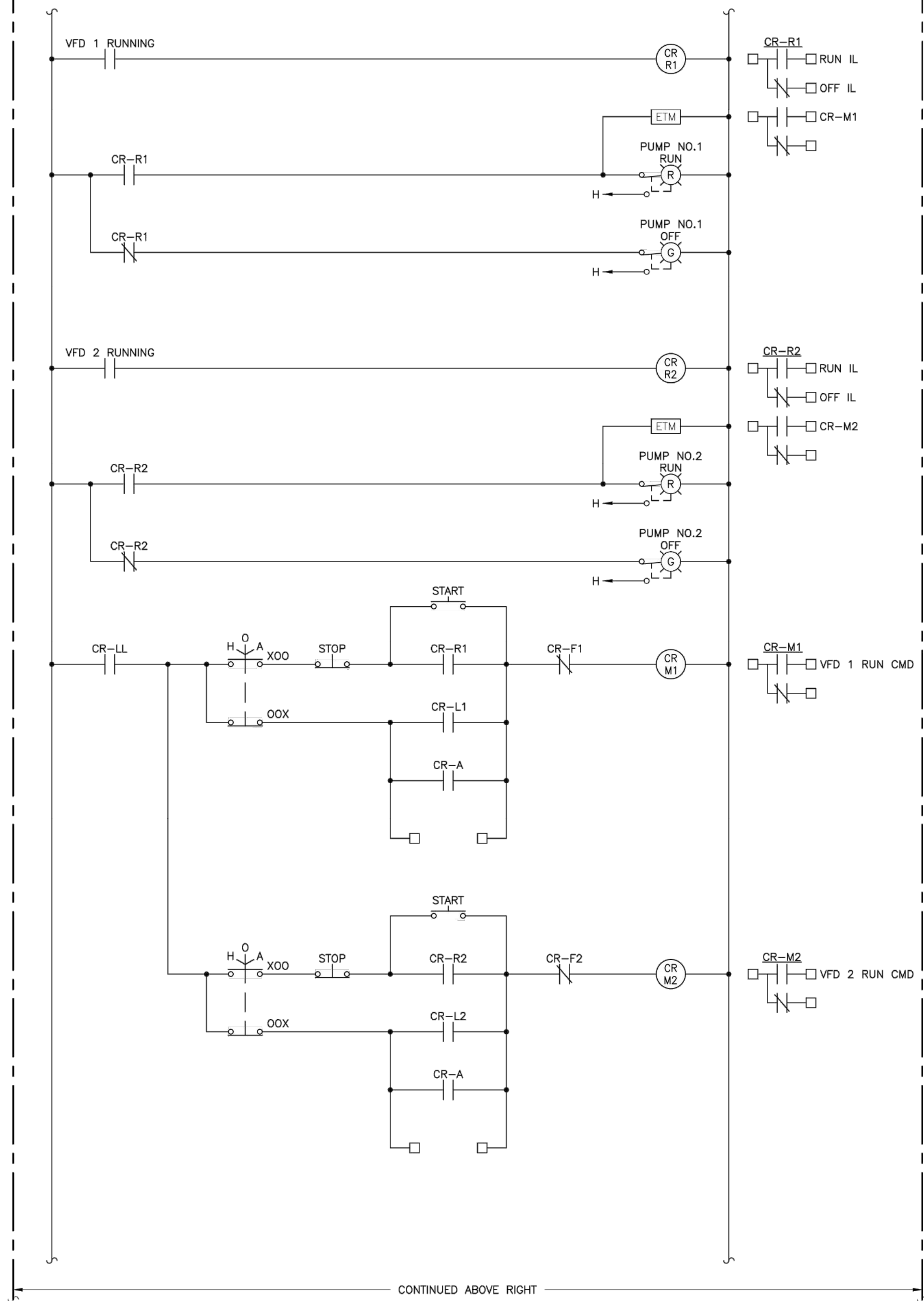
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3GEN PROJECT # 041004
TX REG. #10822

3rd GENERATION ENGINEERING
7920 BELT LINE ROAD, SUITE 591
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NON-POTABLE PUMP CONTROL PANEL
SCHEMATIC A
NTS

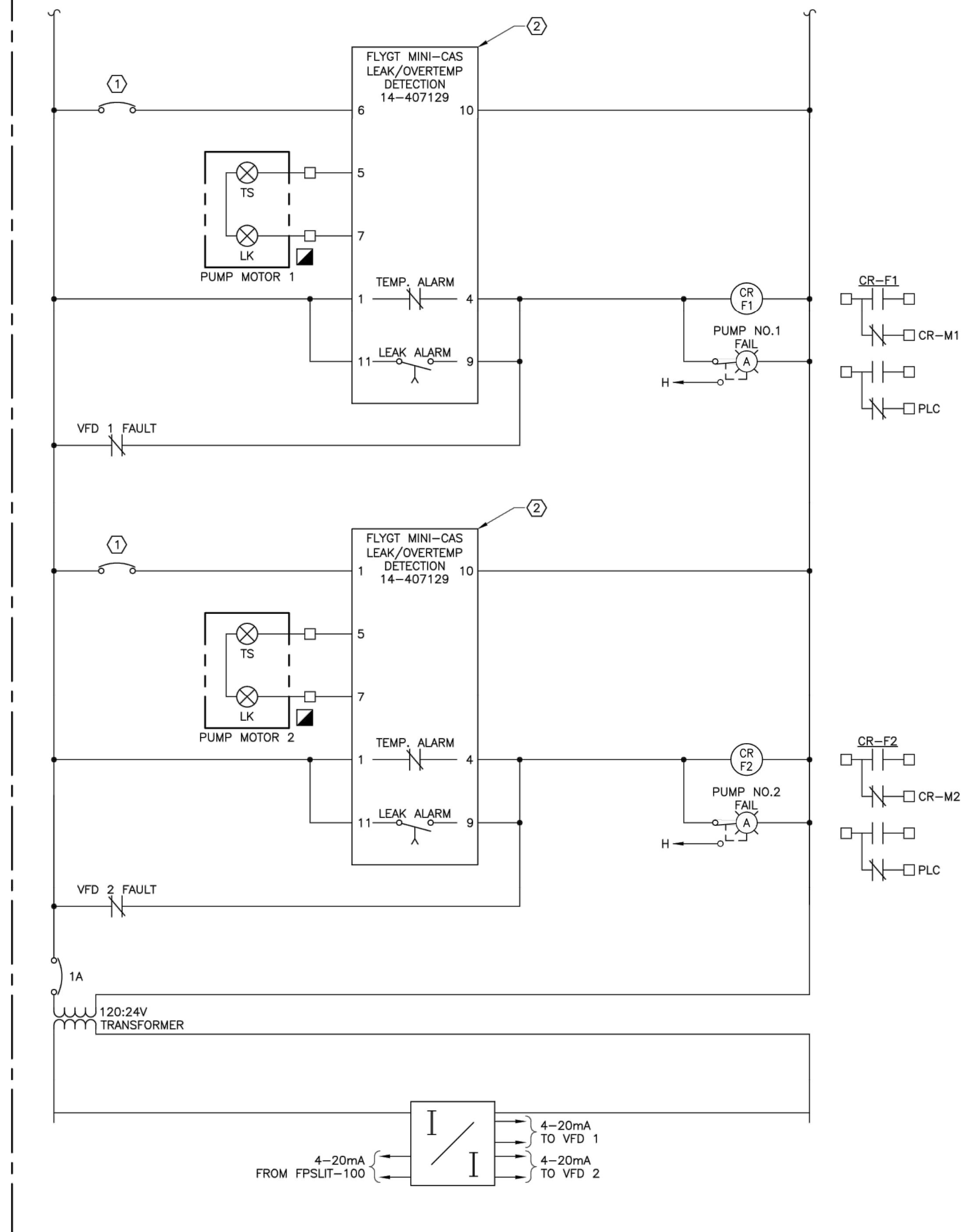
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NON-POTABLE PUMP
CONTROL PANEL
SCHEMATIC A
NTS

CONTINUED BELOW LEFT



GENERAL NOTES:

1. REFER TO SHEET E-01 FOR ELECTRICAL SYMBOLS ABBREVIATIONS AND GENERAL NOTES.

KEYED NOTES:

- ① INDIVIDUAL TRANSMITTERS, CONTROLLERS AND MISCELLANEOUS DEVICES SHALL BE PROVIDED AND INSTALLED WITH SEPARATE DIN RAIL MOUNTED CIRCUIT BREAKERS. AMPERAGE PER MANUFACTURES RECOMMENDATION OR REQUIREMENTS.
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ELECTRICAL SCHEMATICS

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No. 29907 ON
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3GEN PROJECT # 041004
TX REG. #10822

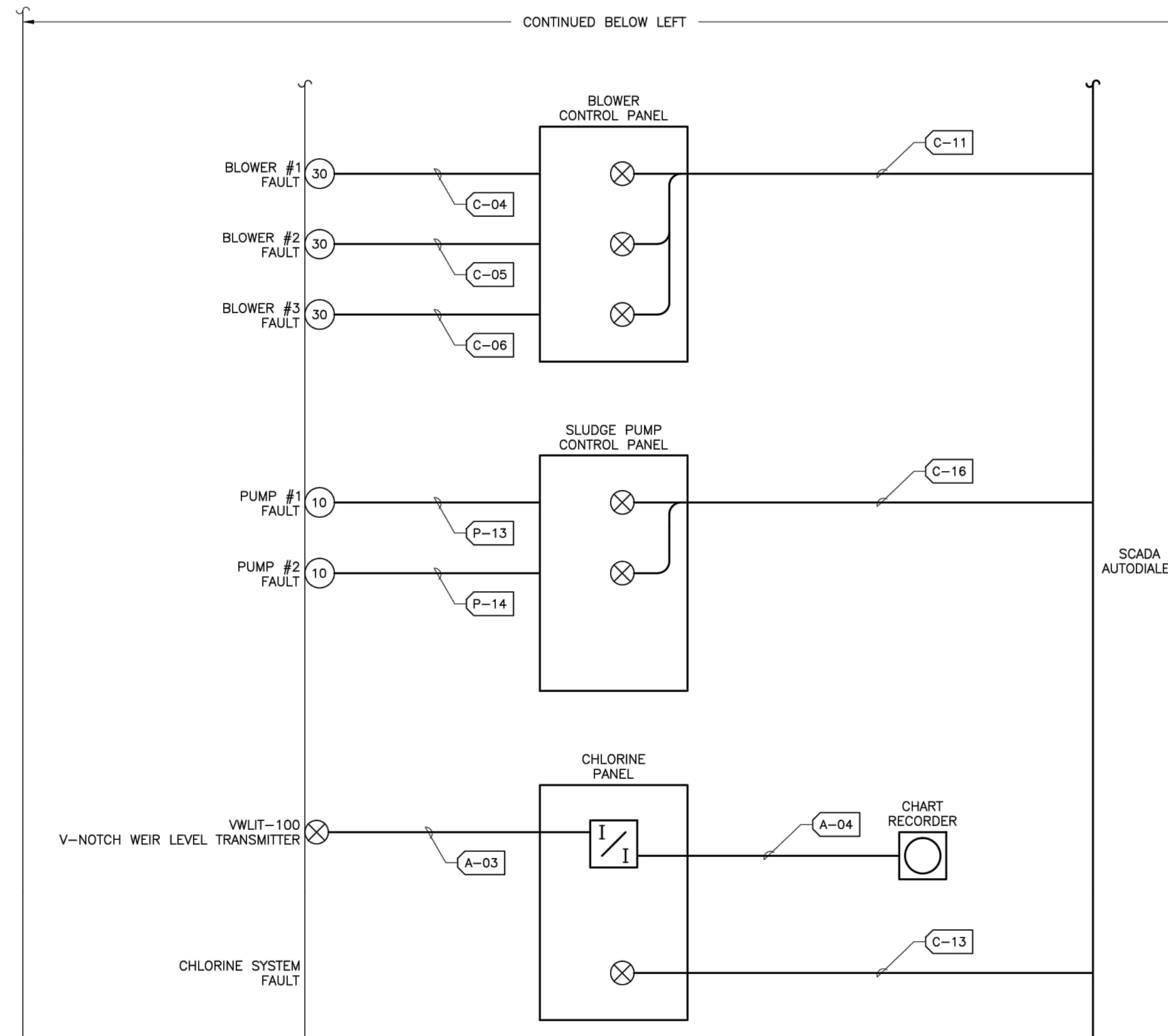
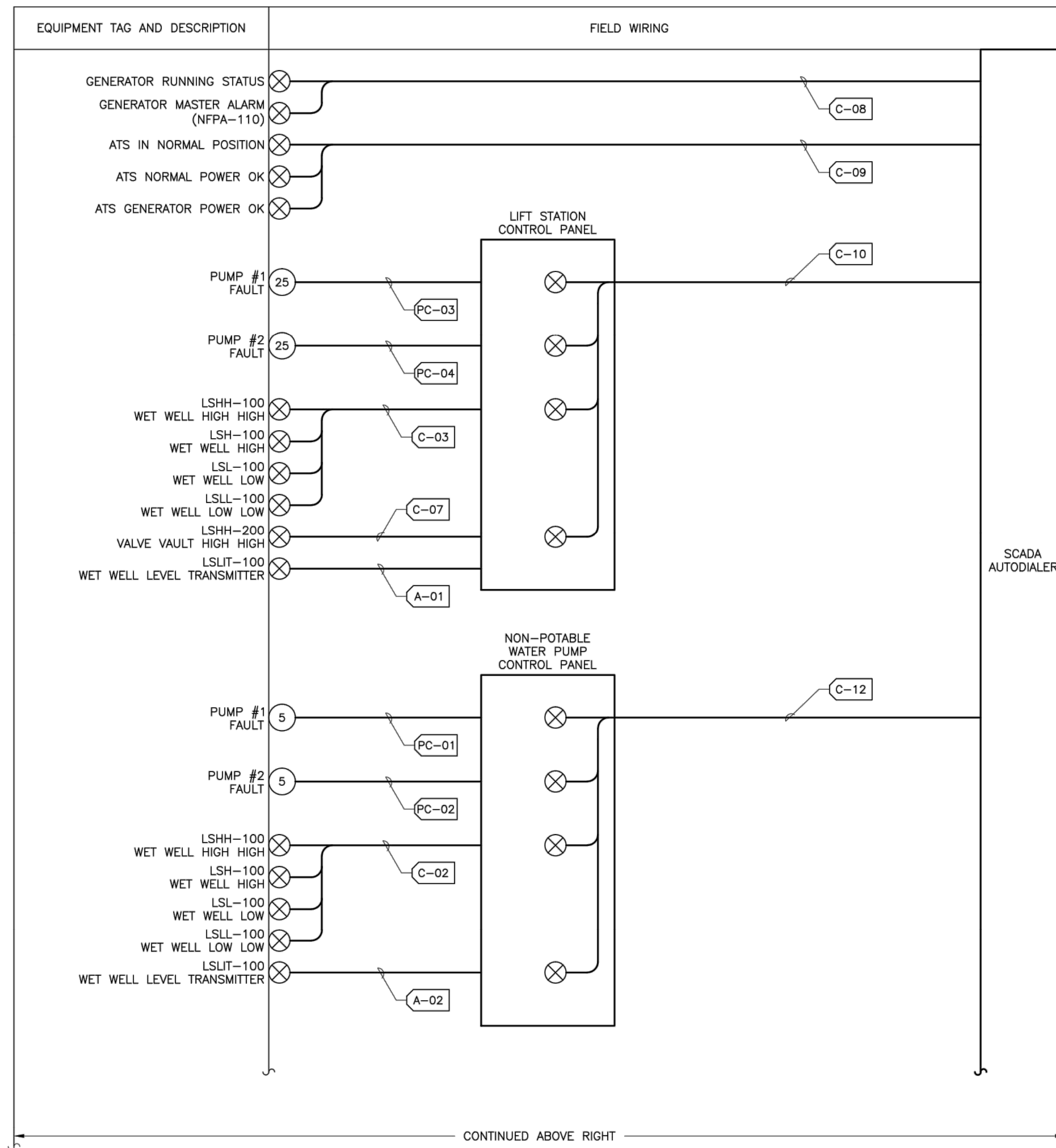
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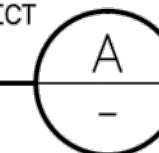


GENERAL NOTES:

- REFER TO SHEET E-01 FOR ELECTRICAL SYMBOLS ABBREVIATIONS AND GENERAL NOTES.



INSTRUMENTATION
INTERCONNECT
DIAGRAM
NTS



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CITY OF WESTON
EAST FORK WWTP
INTERCONNECT DIAGRAM

FOR REVIEW

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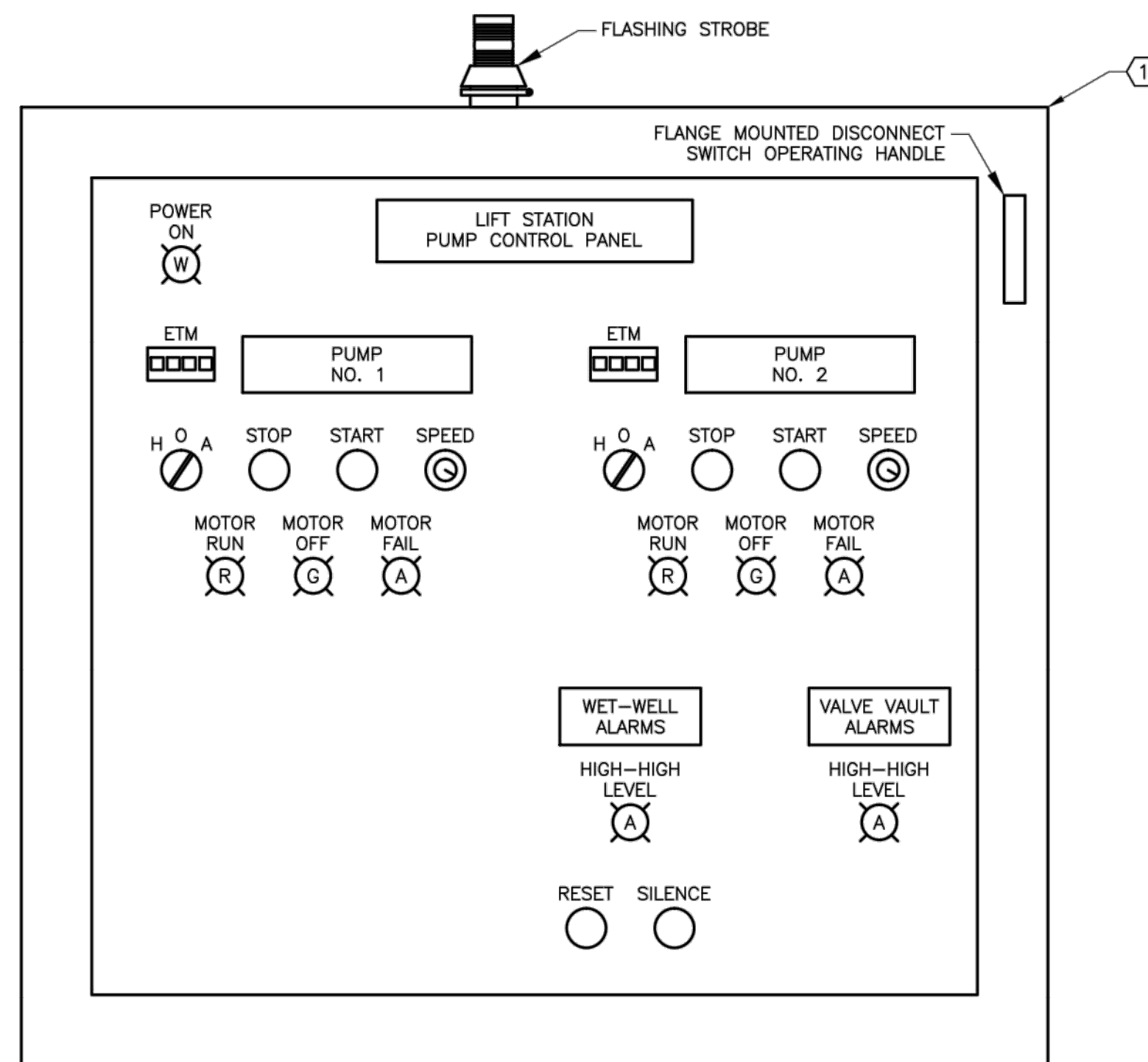
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04.16.2021

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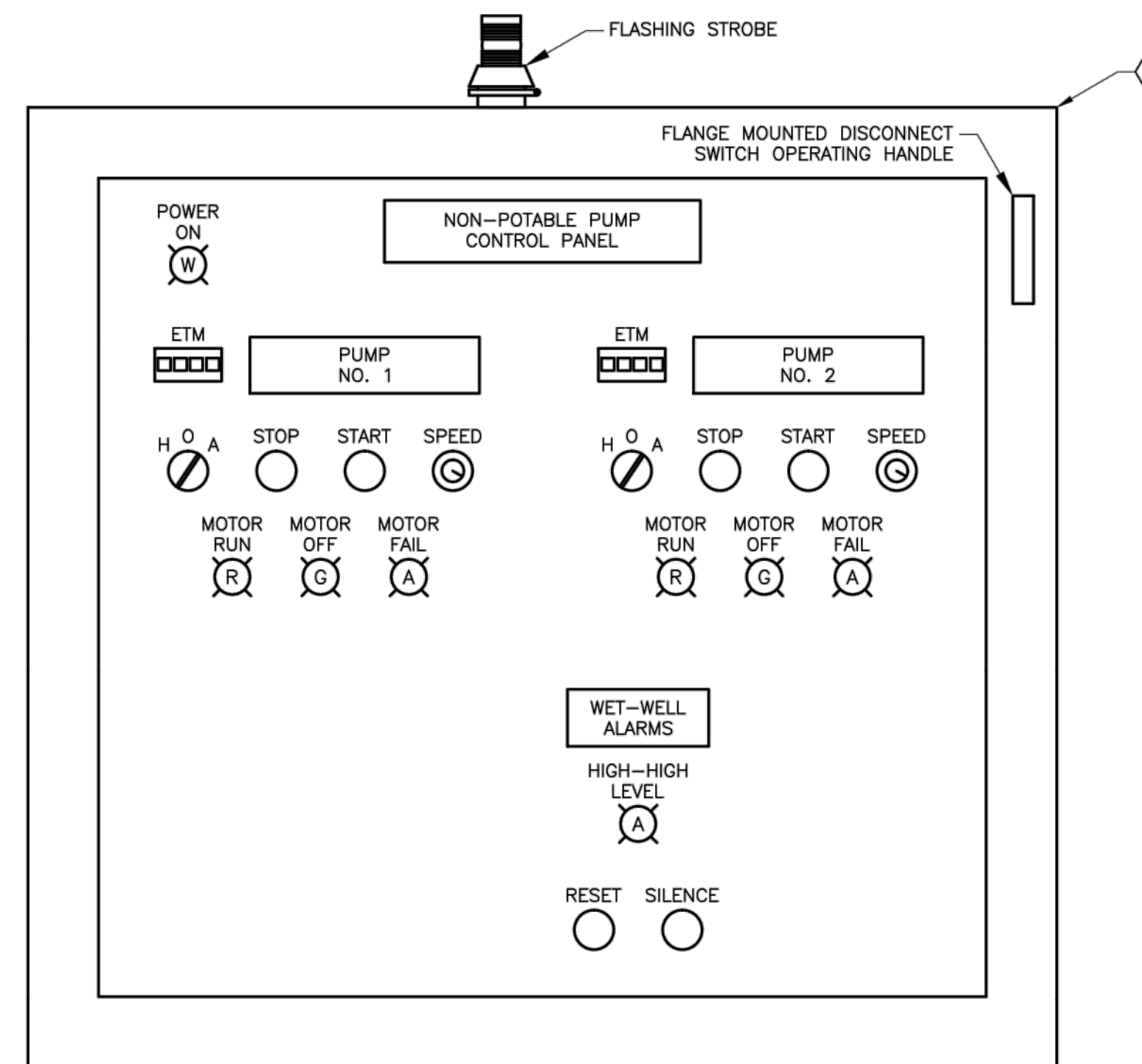
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3GEN PROJECT # 041004
TX REG. #10822

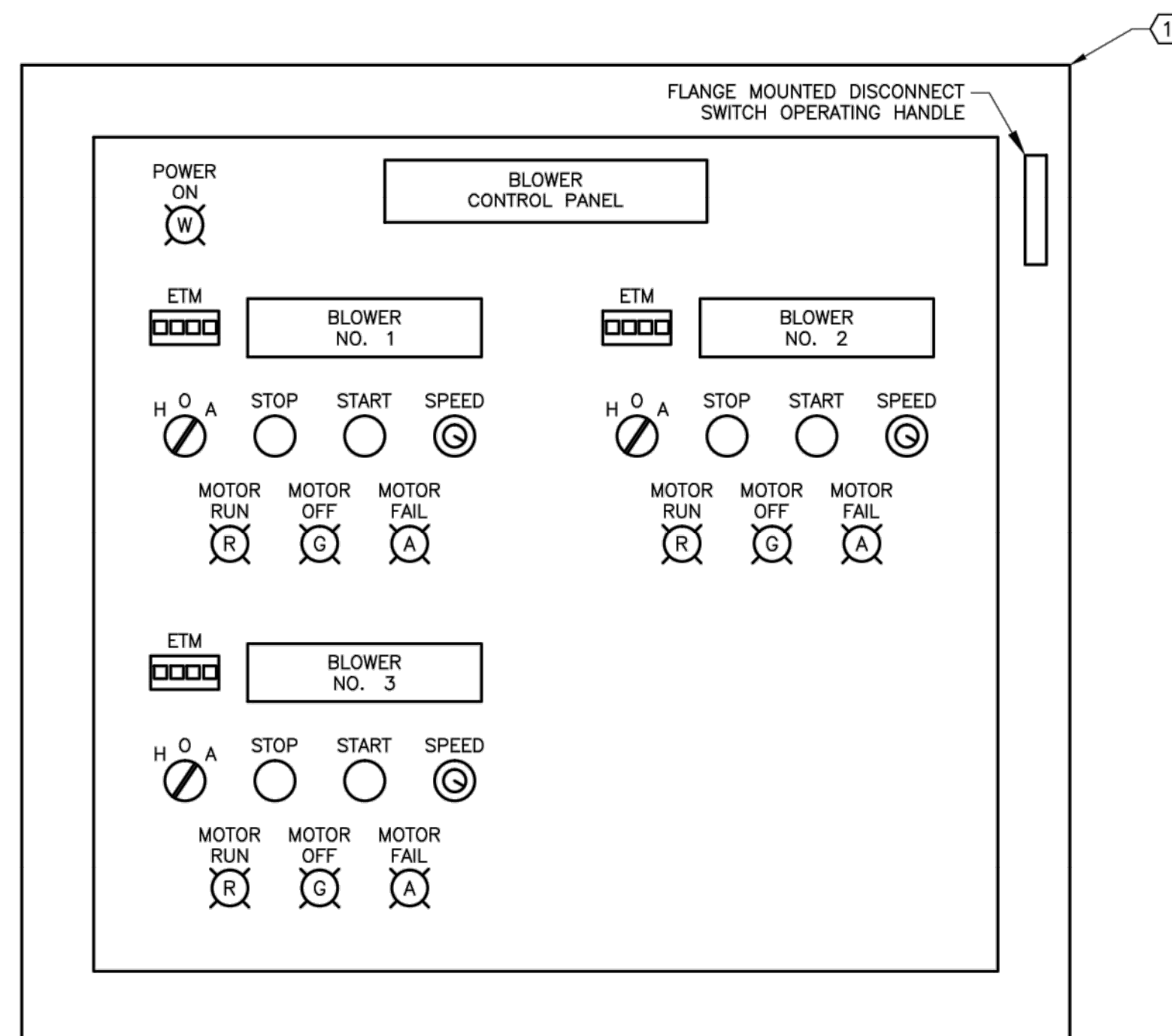
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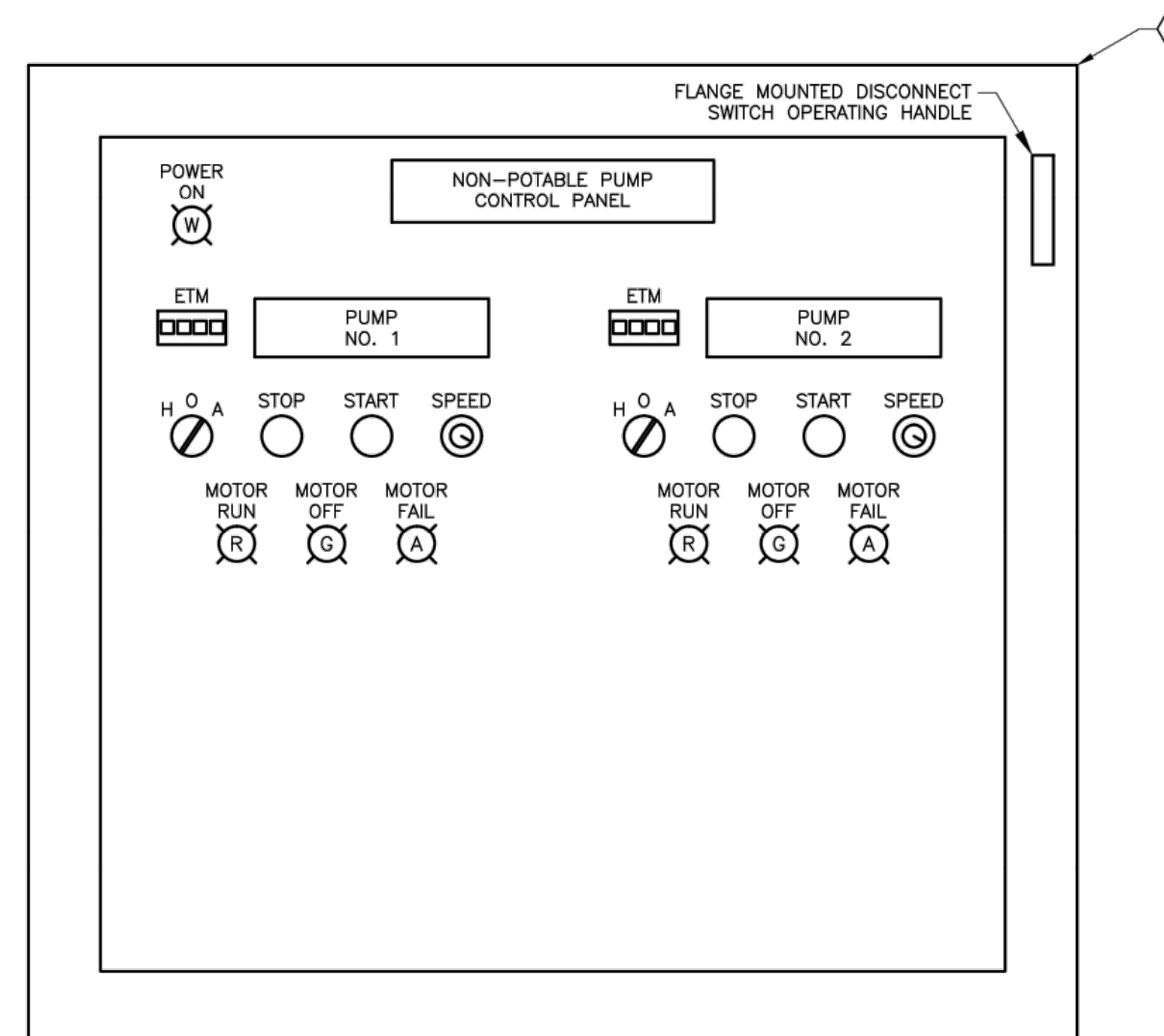
LIFT STATION CONTROL PANEL
INTERIOR DOOR
DIAGRAM
NTS



NON-POTABLE PUMP CONTROL PANEL
INTERIOR DOOR
DIAGRAM
NTS



BLOWER CONTROL PANEL
INTERIOR DOOR
DIAGRAM
NTS



SLUDGE PUMP CONTROL PANEL
INTERIOR DOOR
DIAGRAM
NTS

GENERAL NOTES:

- REFER TO SHEET E-01 FOR ELECTRICAL SYMBOLS ABBREVIATIONS AND GENERAL NOTES.
- CONTROL PUSHBUTTONS, INDICATION LIGHTS AND SELECTOR SWITCHES SHALL BE MOUNTED ON INTERIOR DOOR PANEL. STARTERS, CIRCUIT BREAKERS, CONTROL RELAYS, FUSE BLOCKS, TERMINAL BLOCKS, ETC... SHALL BE MOUNTED ON THE CONTROL PANEL'S BACK PANEL.

KEYED NOTES:

- ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL WITH LOCKING HARDWARE. INTERIOR DOOR SHALL BE INTERLOCKED WITH MAIN CIRCUIT BREAKER SUCH THAT IT WILL NOT OPEN UNLESS THE MIN CIRCUIT BREAKER IS IN THE OFF POSITION OR THE INTERLOCK IS MANUALLY DEFEATED.

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PANEL DIAGRAMS

FOR REVIEW

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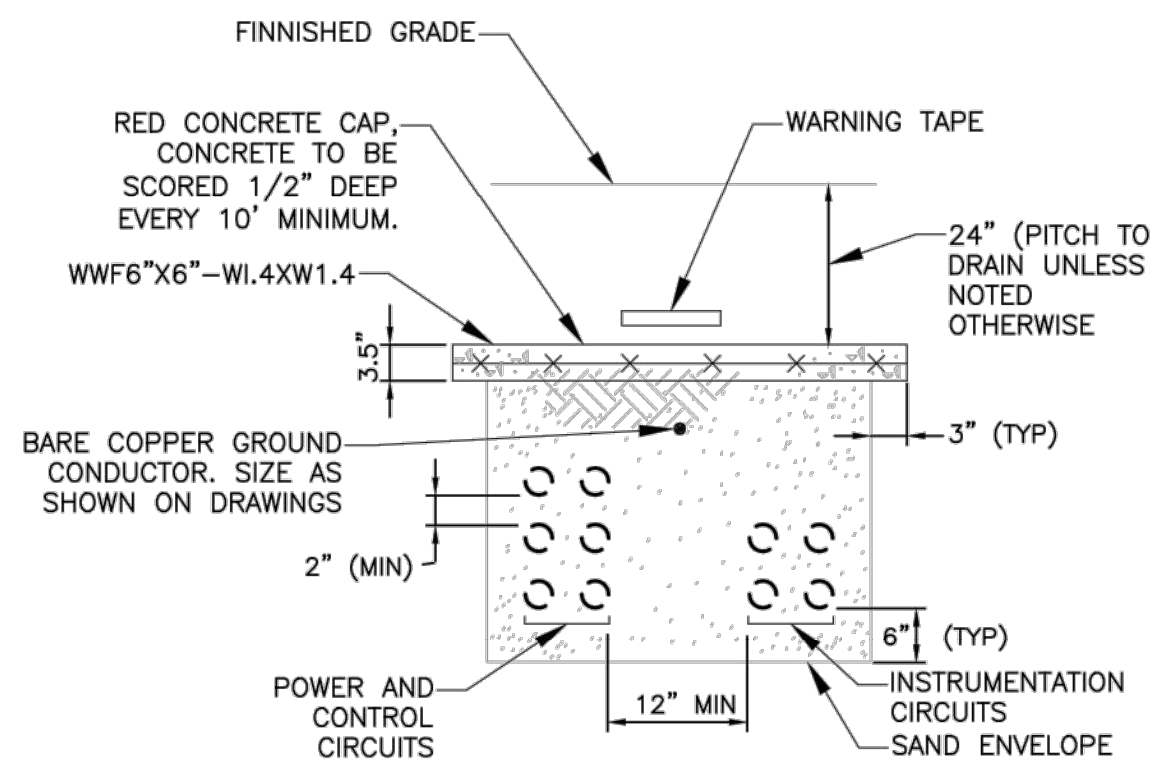
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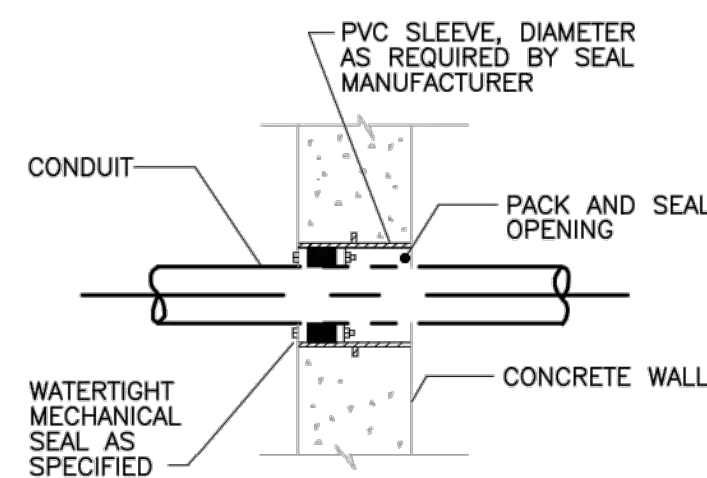
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TX REG. #10822

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DALLAS, TX 75254, (972) 387-8784

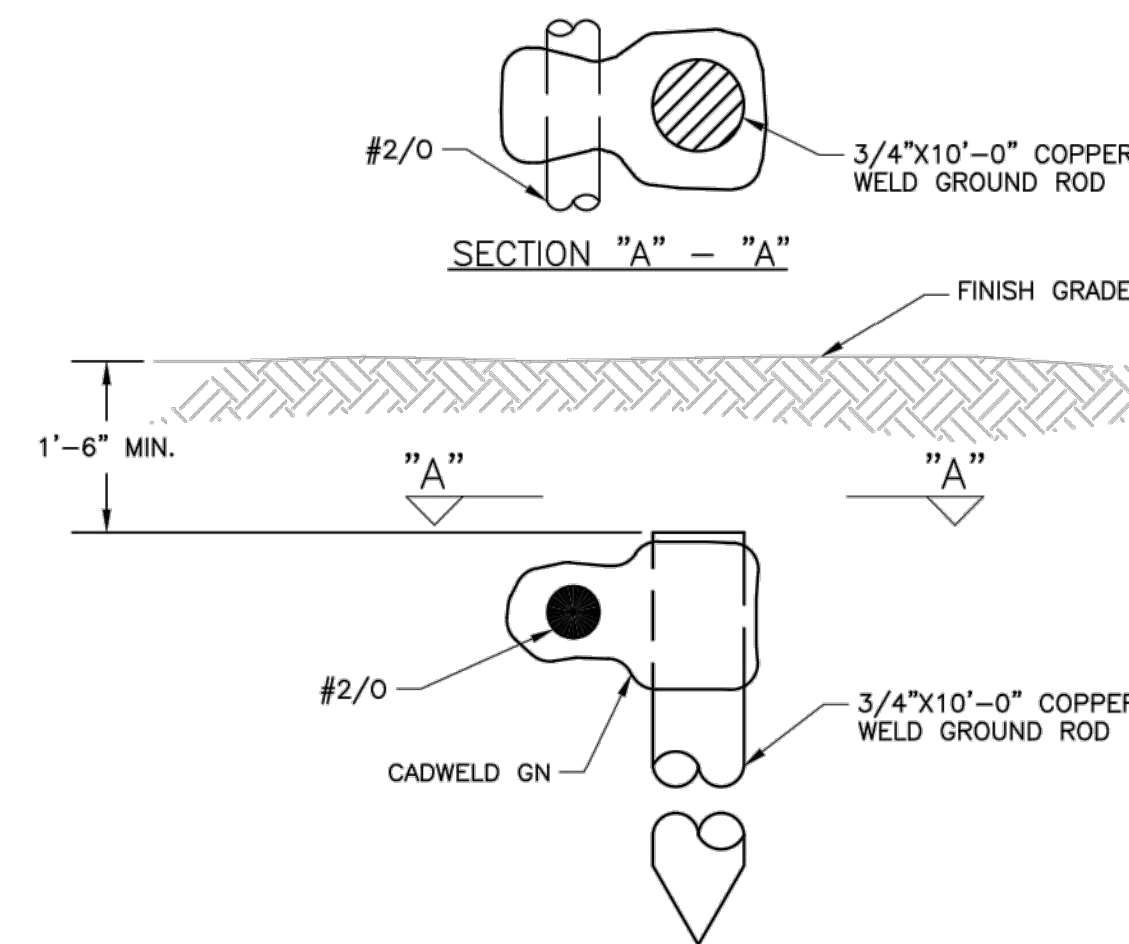
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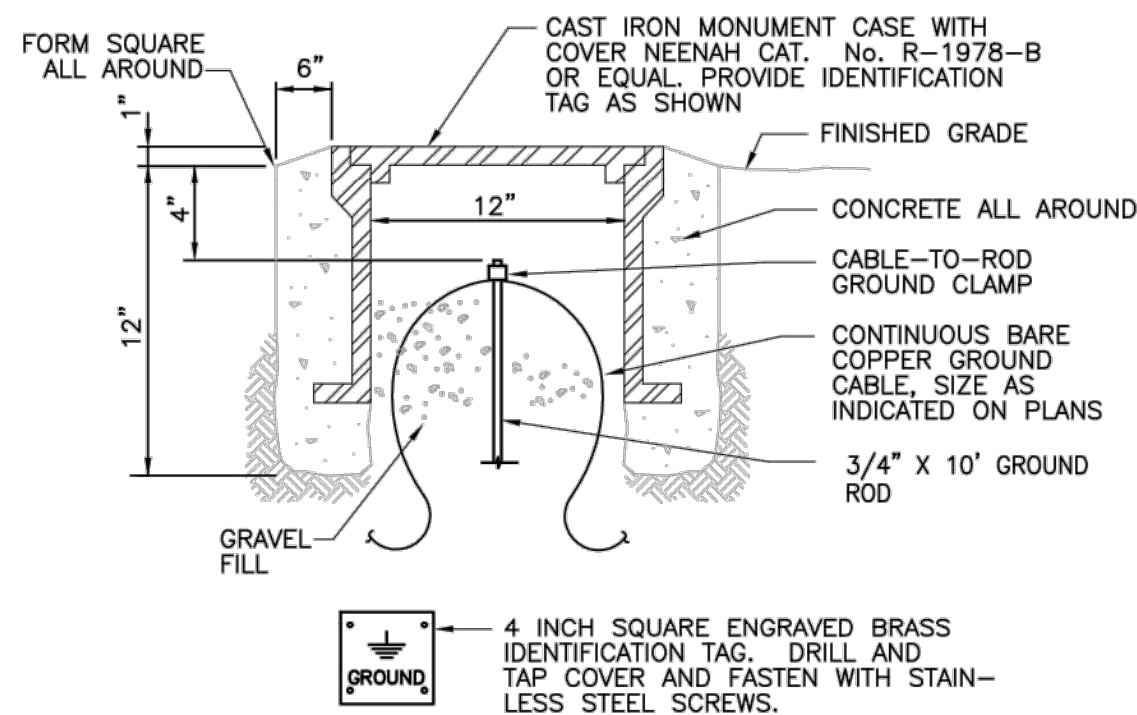
DETAIL 001
NTS



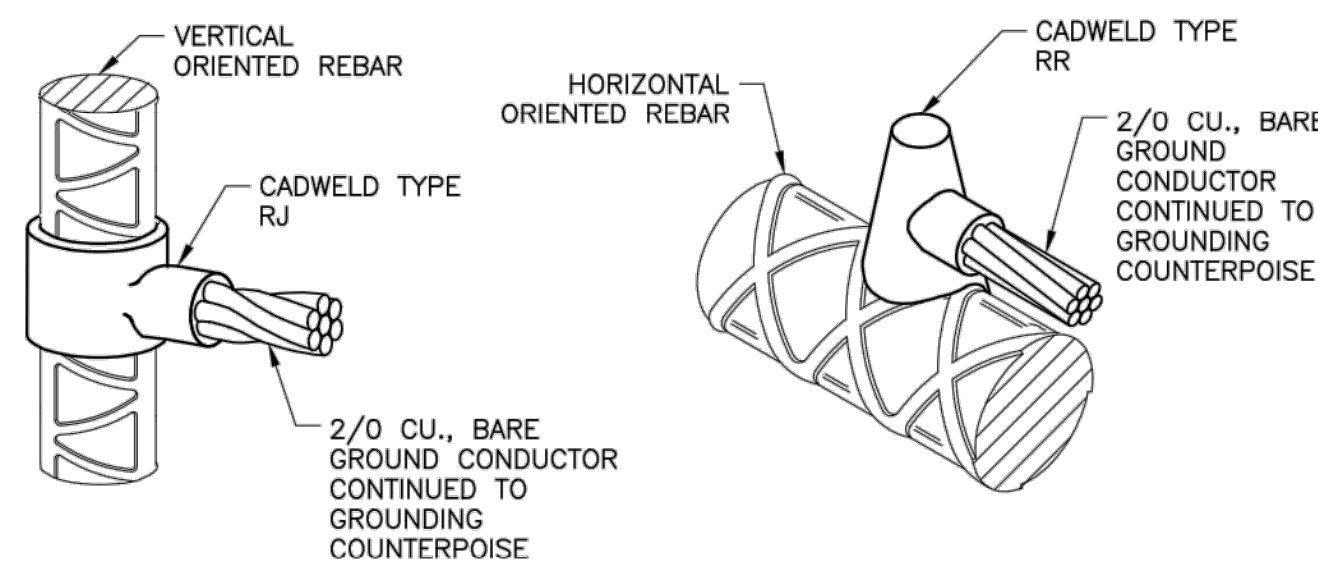
DETAIL 002
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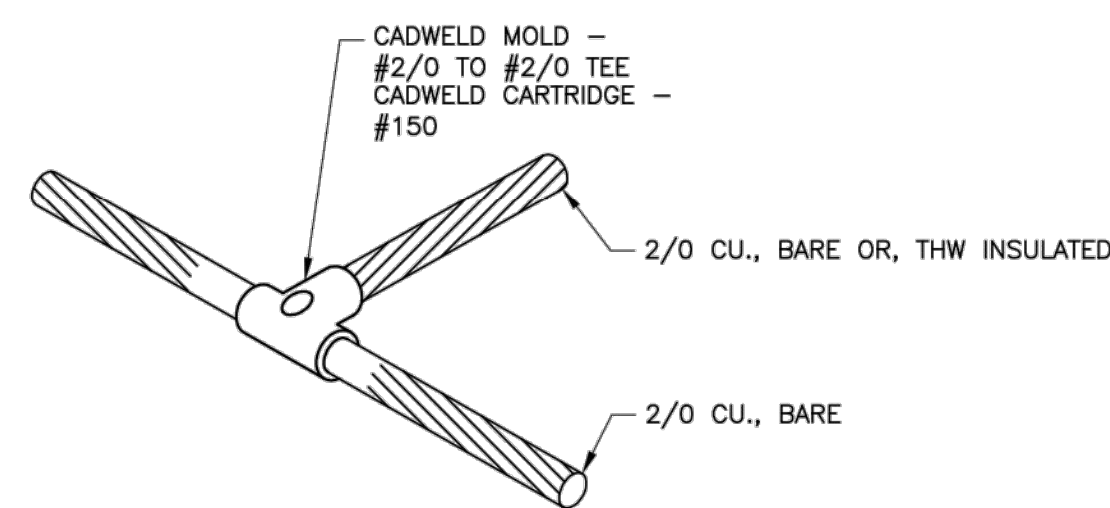
DETAIL 003
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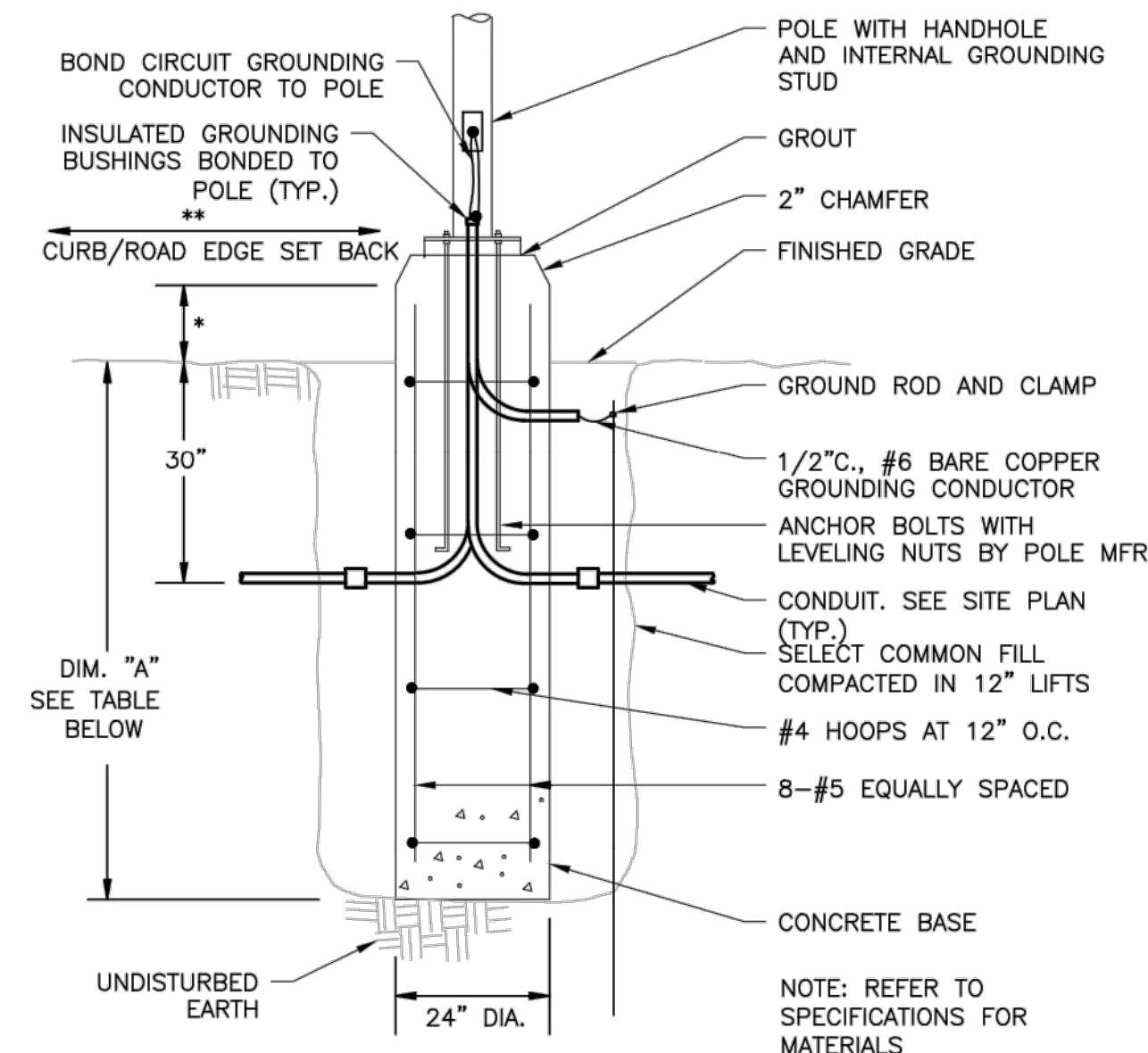
DETAIL 004
NTS



DETAIL 005
NTS



DETAIL 007
NTS



POLE HEIGHT	DIMENSION "A"
10'-0"	4'-6"
20'-0"	4'-6"
30'-0"	6'-6"
40'-0"	6'-6"

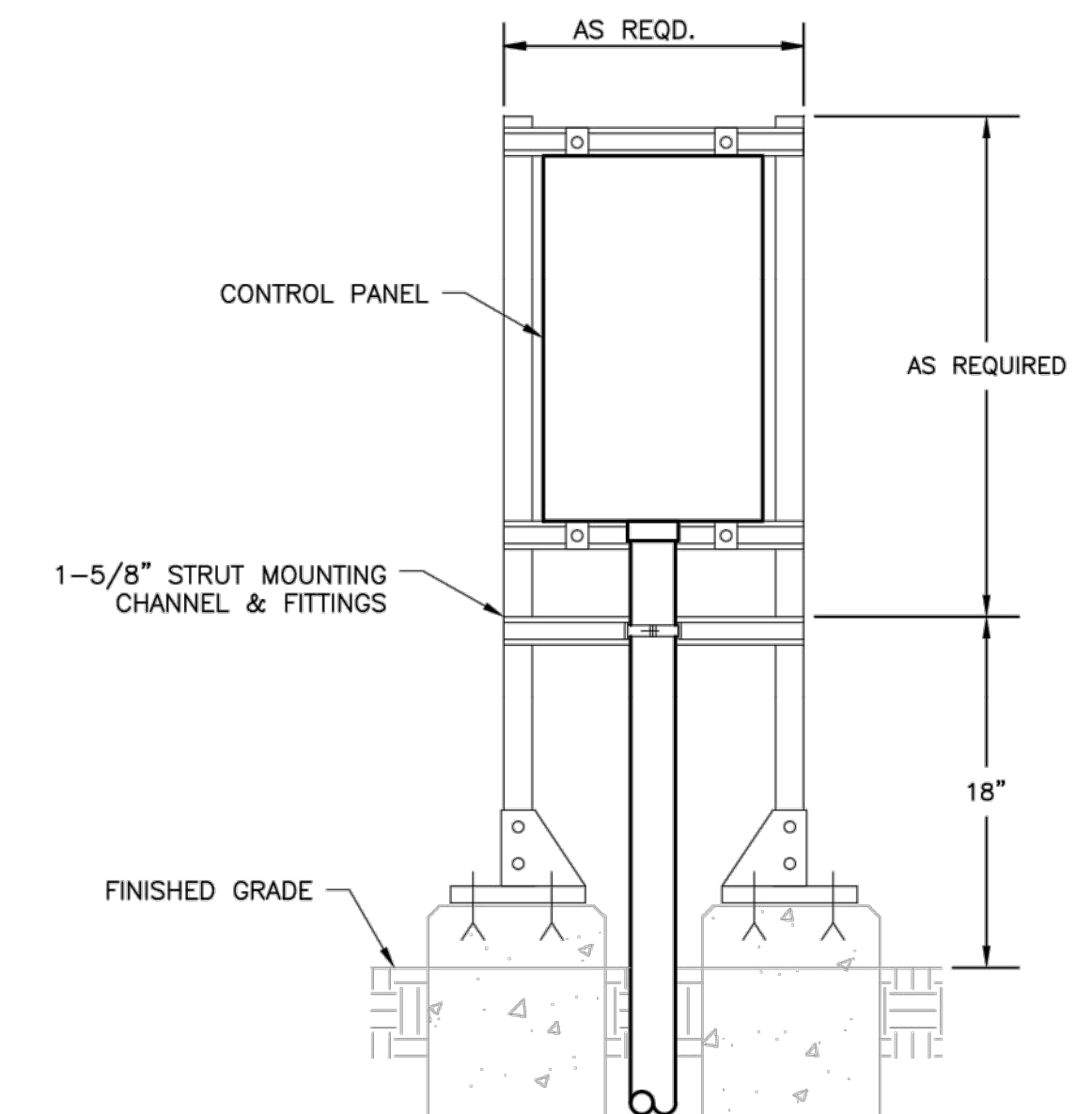
* = 2" AT WALKWAYS;
18" AT ROADWAYS &
PARKING AREAS

** = 48" AT WALKWAYS;
24" AT ROADWAYS

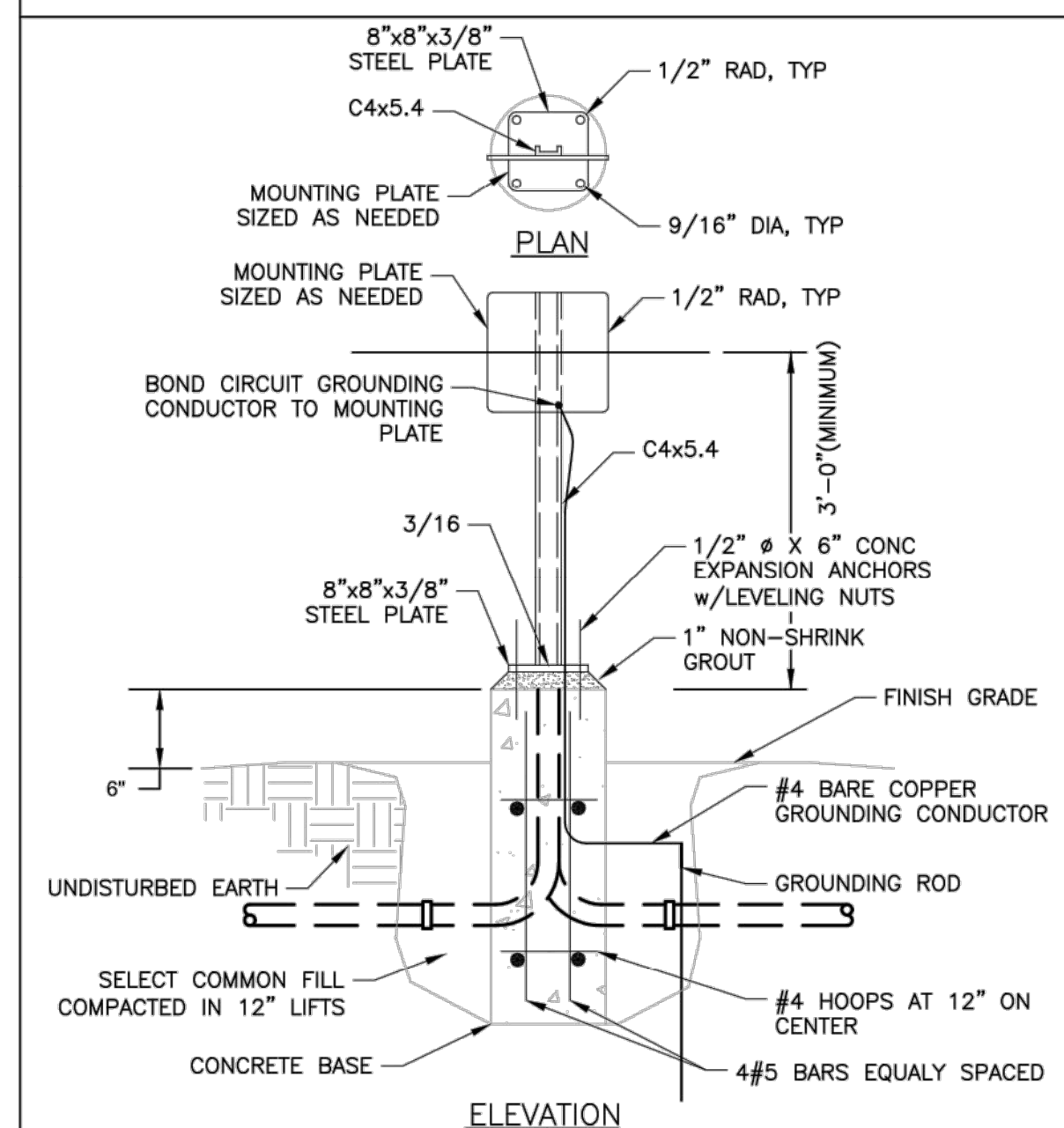
DETAIL 008
NTS

GENERAL NOTES:

- REFER TO SHEET E-01 FOR ELECTRICAL SYMBOLS ABBREVIATIONS AND GENERAL NOTES.



DETAIL 009
NTS



DETAIL 010
NTS

NOTES:

- HOT-DIP GALVANIZE ASSEMBLY AFTER FABRICATION.
- USE 316 STAINLESS STEEL HARDWARE. USE WASHERS AND SPLIT-LOCK WASHERS UNDER ALL NUTS AND BOLTS.

3rd GENERATION ENGINEERING
7920 BELT LINE ROAD, SUITE 591
DALLAS, TX 75254, (972) 387-8784

3GEN PROJECT # 041004
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No. 29907 ON 04.16.2021

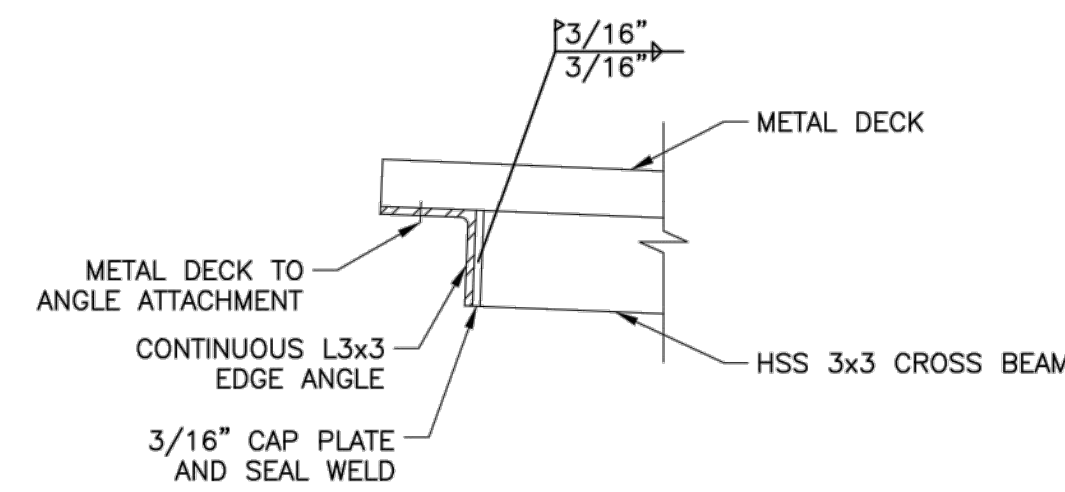
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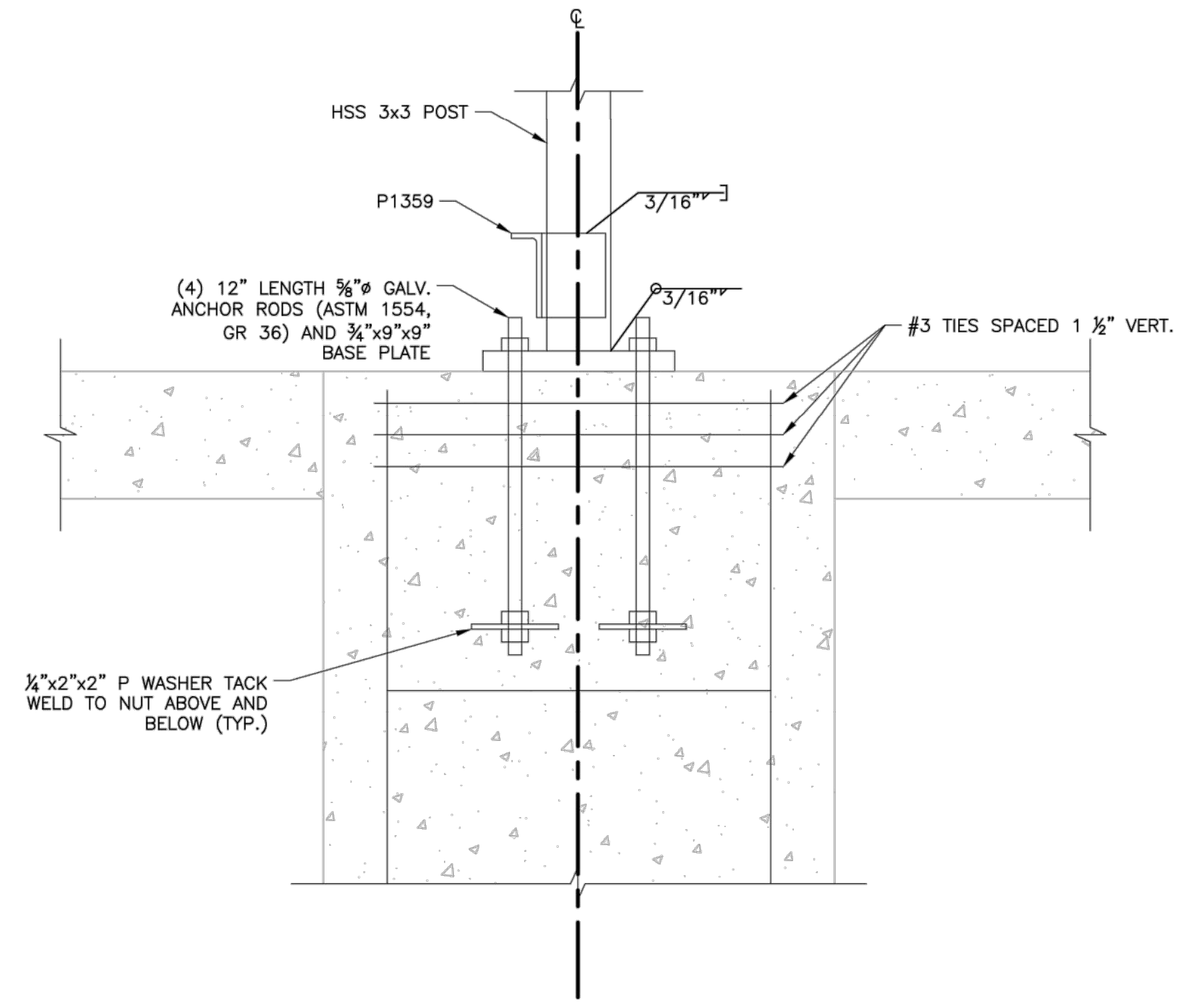
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GENERAL NOTES:

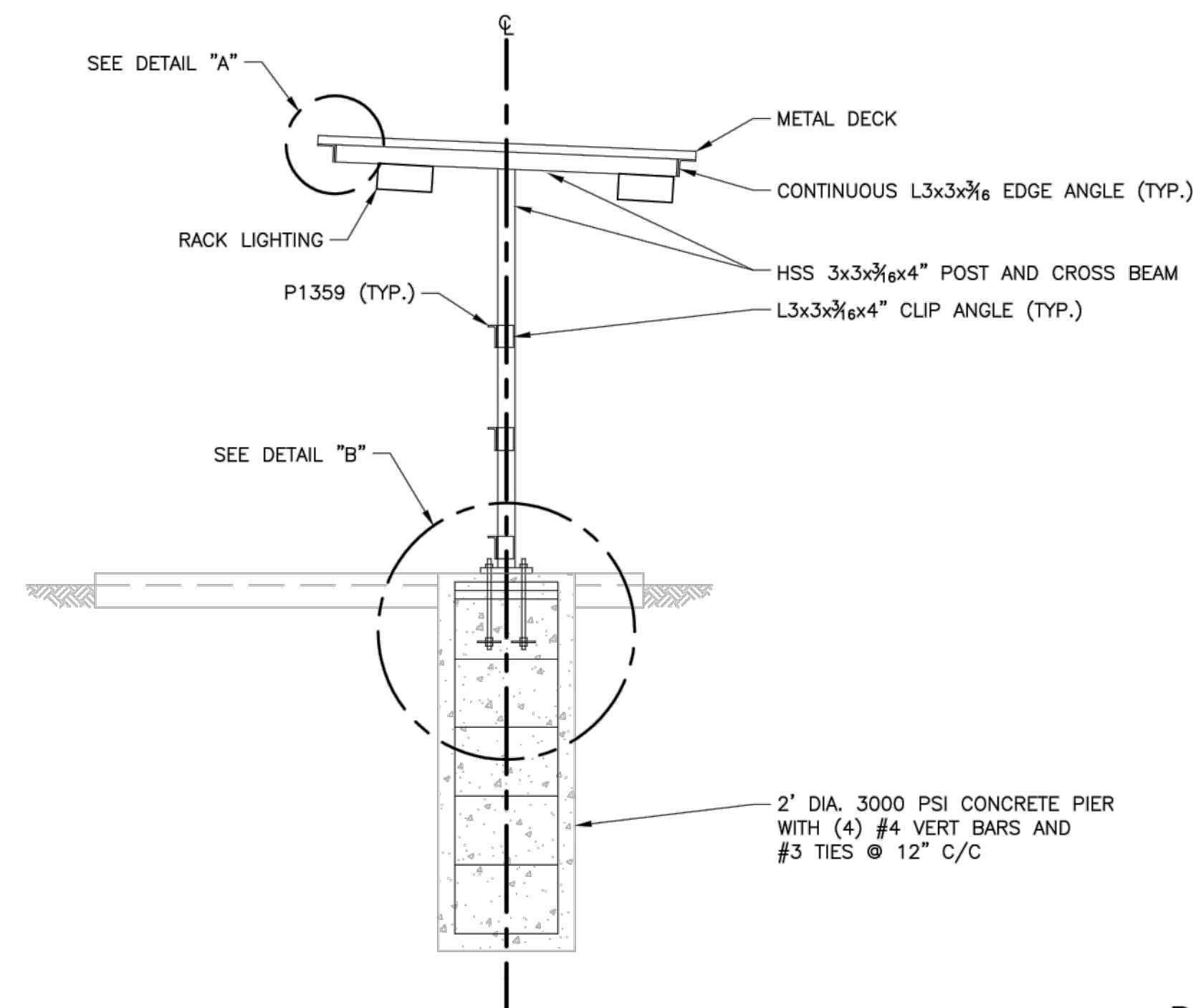
- REFER TO SHEET E-01 FOR ELECTRICAL SYMBOLS ABBREVIATIONS AND GENERAL NOTES.



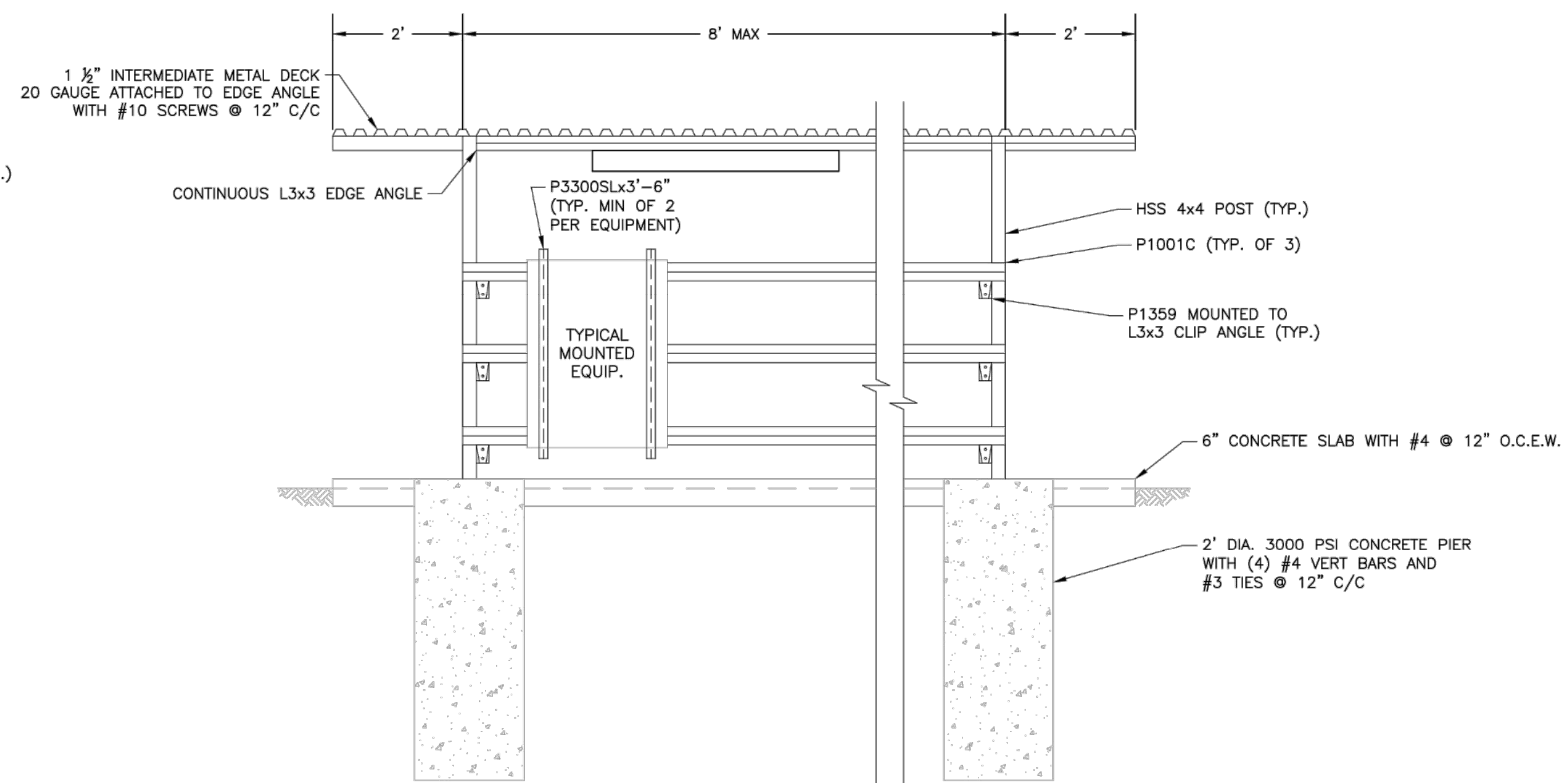
DETAIL "A"
N.T.S.



DETAIL "B"
N.T.S.



ELECTRICAL EQUIPMENT
RACK WITH COVER
DETAIL 011
NTS



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DETAILS

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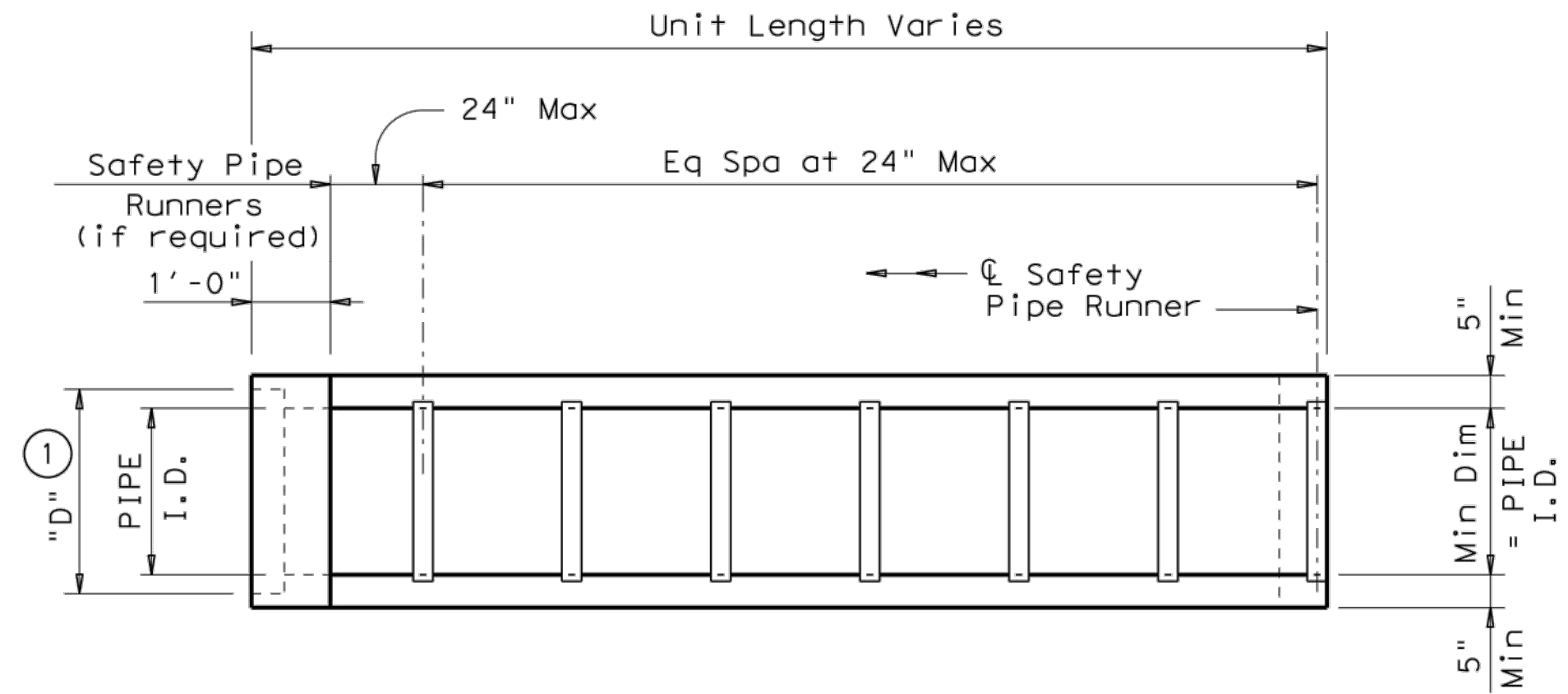
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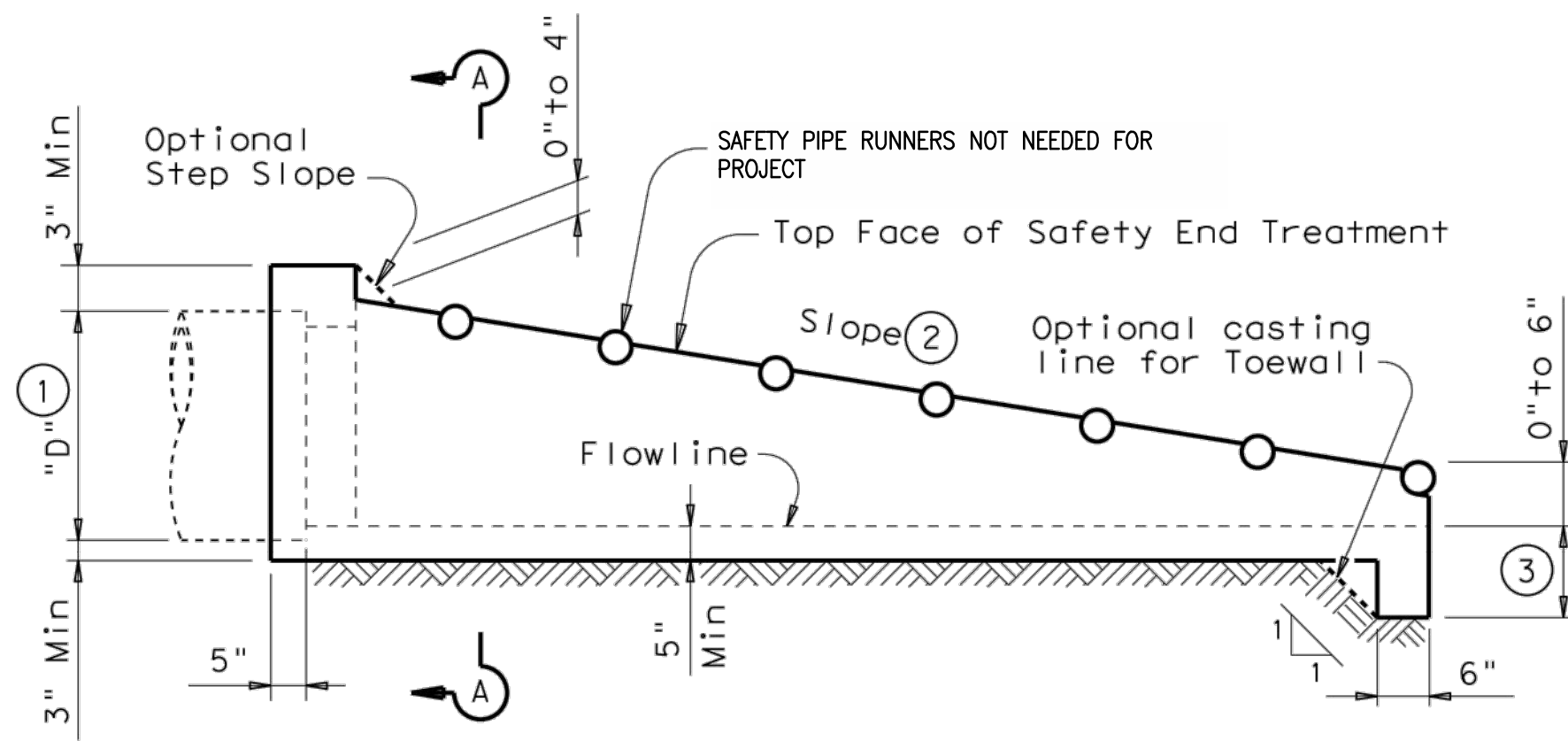
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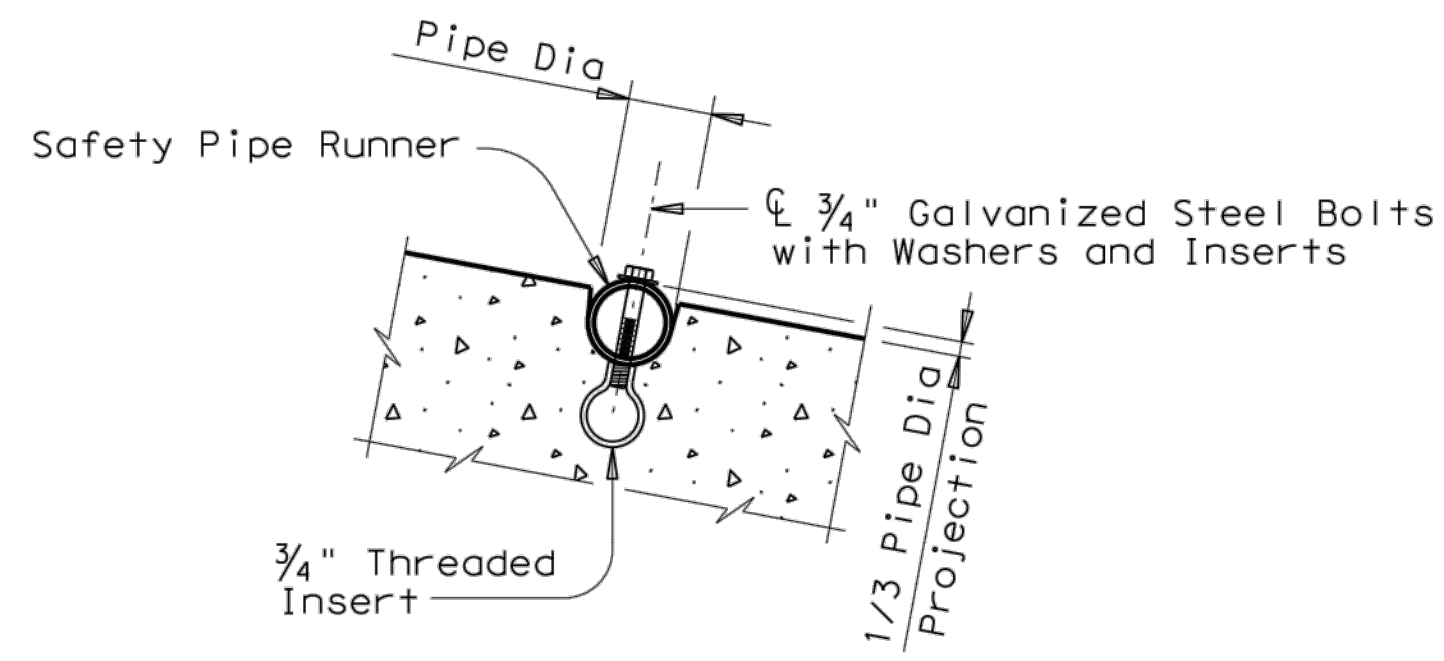
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PLAN

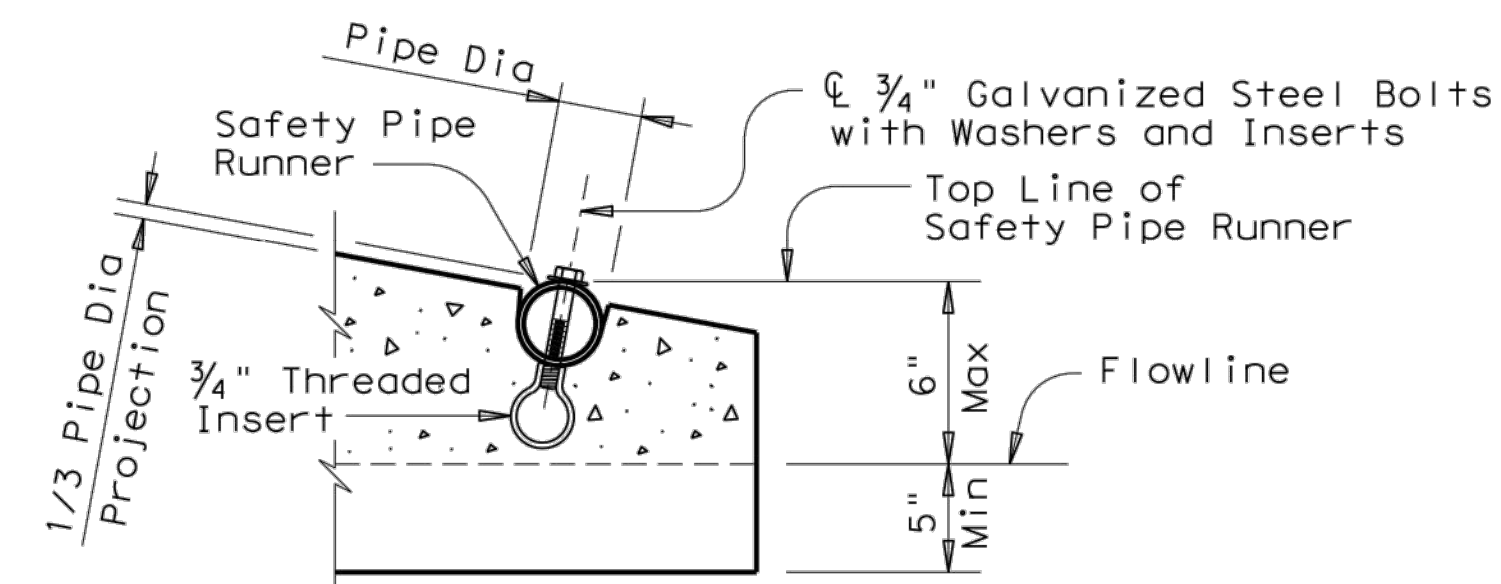


LONGITUDINAL ELEVATION

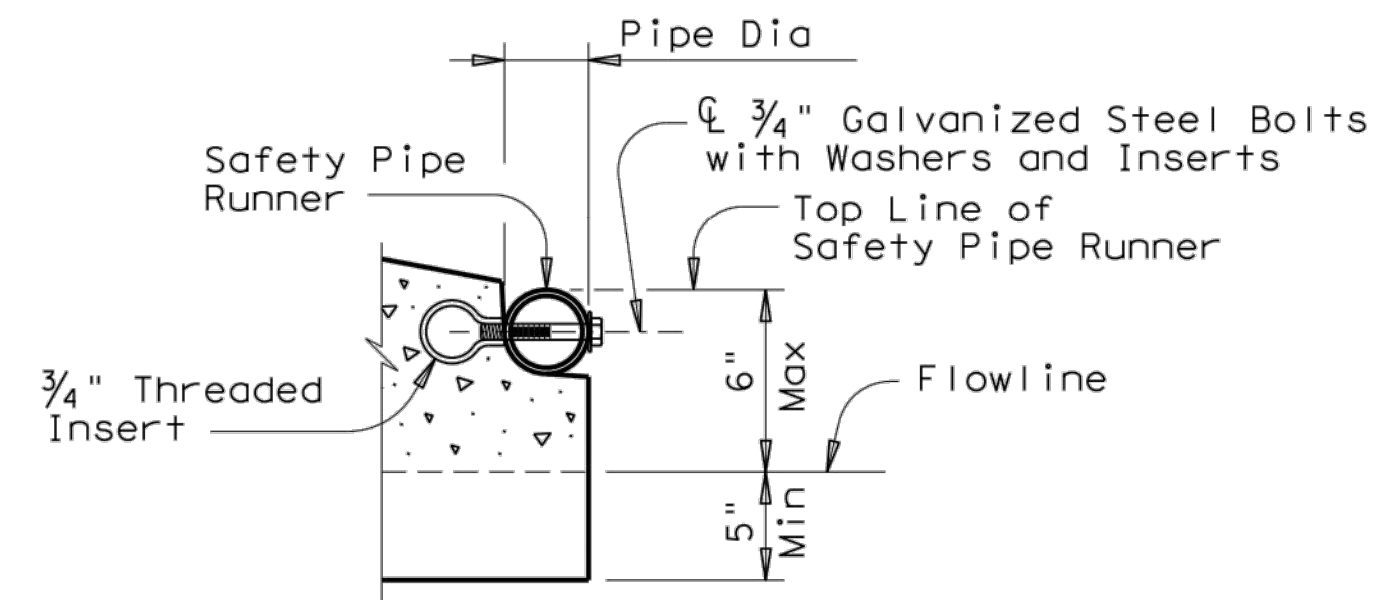


INSTALLATION DETAIL FOR SAFETY PIPE RUNNERS

(If required)



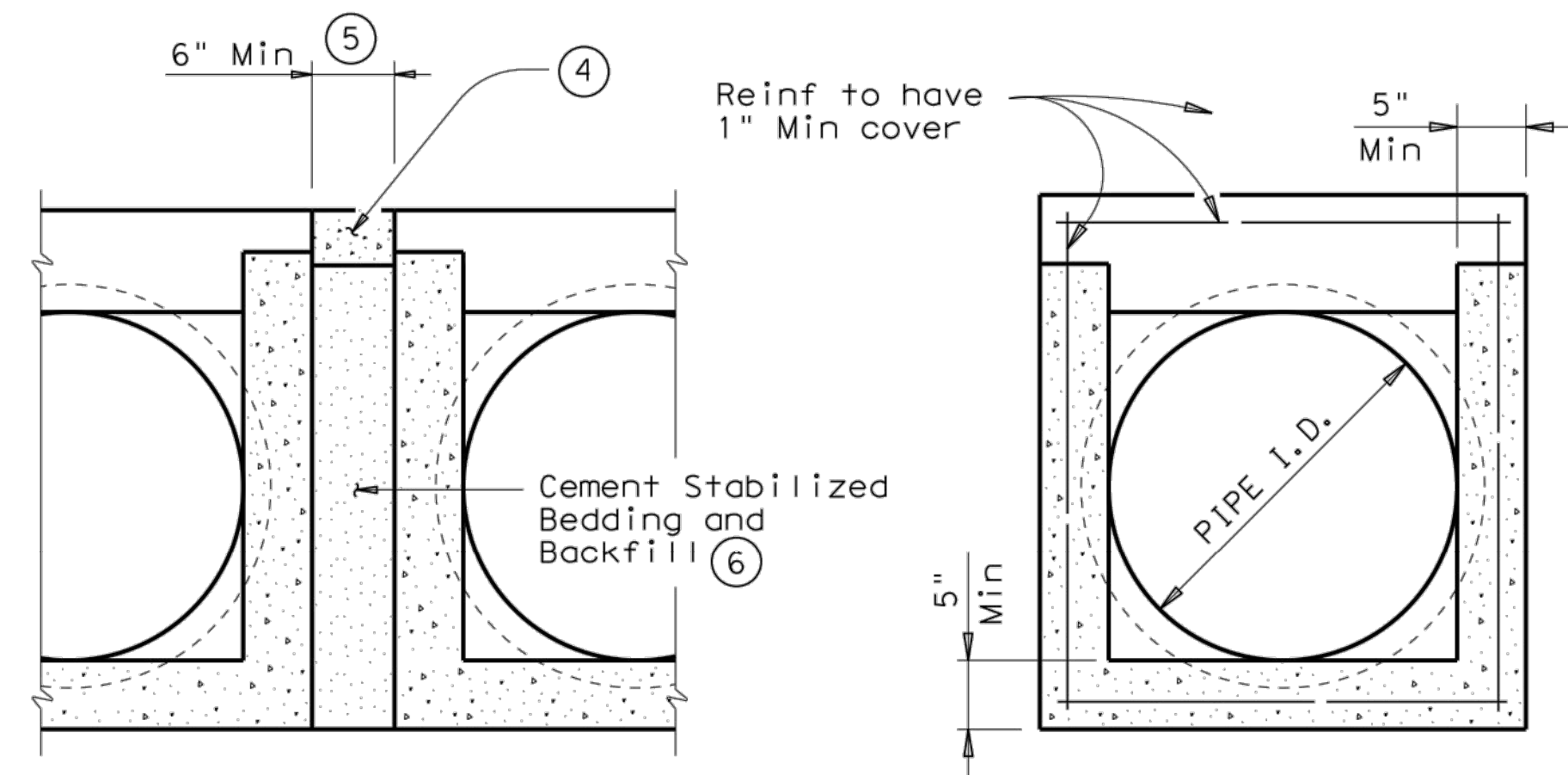
OPTION A



OPTION B

END DETAILS FOR INSTALLATION OF SAFETY PIPE RUNNERS

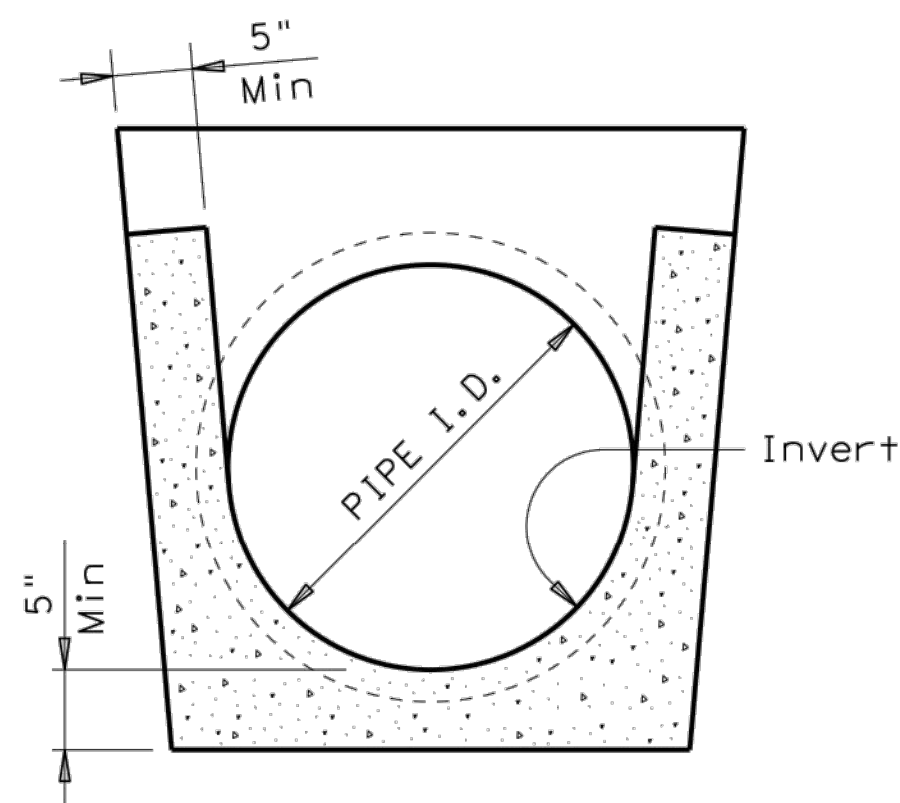
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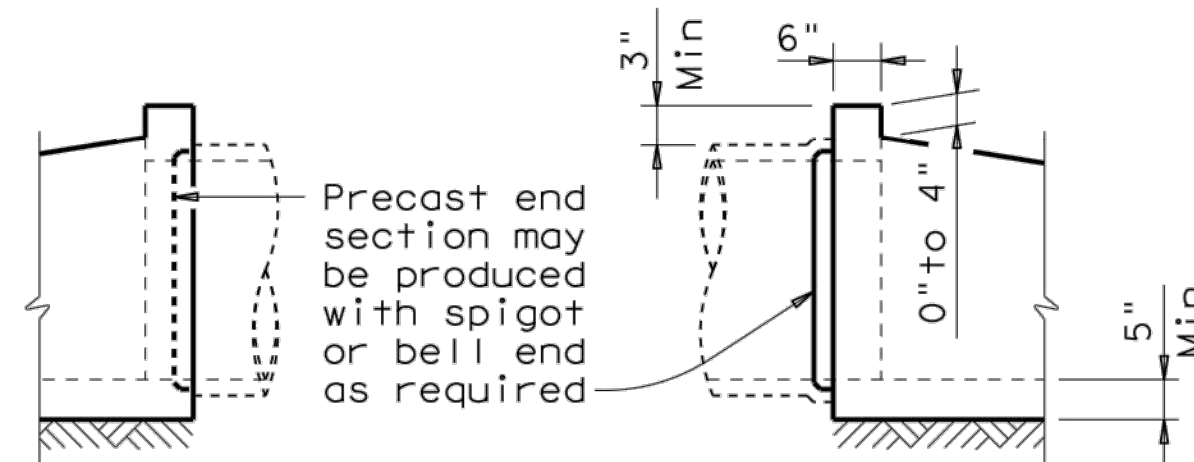
MULTIPLE PIPE INSTALLATION

OPTION WITH SQUARE BOTTOM

SECTION A-A



OPTION WITH INVERT BOTTOM



OPTIONAL JOINT

(Showing joint between RCP and Precast Safety End Treatment)

PIPE I.D.	PIPE WALL "B" THICKNESS	"D" ①	MAXIMUM SLOPE	MINIMUM LENGTH OF UNIT	PIPE RUNNERS REQUIRED		REQUIRED PIPE RUNNER SIZES		
					SINGLE PIPE	MULTIPLE PIPE	NOMINAL DIA.	O.D.	I.D.
12"	2"	17"	6:1	4'-9"	No	Yes, for >2 pipes	3" STD	3.500"	3.068"
15"	2 1/4"	20 1/2"	6:1	6'-5"	No	Yes, for >2 pipes	3" STD	3.500"	3.068"
18"	2 1/2"	24"	6:1	8'-0"	No	Yes, for >2 pipes	3" STD	3.500"	3.068"
24"	3"	31"	6:1	11'-3"	No	Yes, for >2 pipes	3" STD	3.500"	3.068"
30"	3 1/2"	38 1/2"	6:1	14'-8"	No	Yes	4" STD	4.500"	4.026"
36"	4"	45 1/2"	6:1	17'-11"	Yes	Yes	4" STD	4.500"	4.026"
42"	4 1/2"	52 1/2"	6:1	21'-2"	Yes	Yes	4" STD	4.500"	4.026"

- ① Dimension "D" is based on ASTM C-76, Class III, Wall "B" thickness. If any other wall thickness is used, dimension "D" must be adjusted accordingly.
- ② Slope as shown elsewhere in the plans. Slope of 6:1 or flatter is required for vehicle safety.
- ③ Toewall to be used only when dimension is shown elsewhere in the plans.
- ④ The top 4" of void between Precast End Treatments shall be filled with concrete Riprap and shall be considered subsidiary to Safety End Treatment.
- ⑤ Clear distance between pipes shall be adjusted to provide for the minimum distance between safety end treatments.
- ⑥ Cement stabilized bedding and backfill shall be in accordance with the Item, "Excavation and Backfill for Structures". Bedding and backfill shall be considered subsidiary to the Item "Safety End Treatment". When concrete riprap is specified around the safety end treatment, backfill shall be as directed by Engineer.

GENERAL NOTES:

Precast safety end treatment for reinforced concrete pipe may be used for TYPE II end treatment as specified in Item "Safety End Treatment". When Precast Safety End Treatment is used as a Contractor's alternate to mitered RCP, Riprap will not be required unless noted otherwise on the plans.

Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise.

Manufacture of this product shall conform to requirements of Item "Safety End Treatment" except as noted below:

A. Minimum reinforcing shall be #4 at 6" (Grade 40) or #4 at 9" (Grade 60) each way or 6 x 6 - W12 x W12 or 5 x 5 - W10 x W10 welded wire reinforcement (WWR).

B. Concrete for precast (steel formed) sections shall be Class "C" with a minimum compressive strength of 3600 psi.

At the option and expense of the Contractor the next larger size of Safety End Treatment may be furnished; as long as the "D" dimension cast is that of the required size of pipe.

Pipe Runners are designed for a traversing load of 10,000 Lbs at yield as recommended by Research Report 280-2F, "Safety Treatment of Roadside Parallel-Drainage Structures", Texas Transportation Institute, March 1981.

Pipe Runners shall conform to the requirements of ASTM A53 (Type E or S, Grade B), ASTM A500 (Grade B), or API 5LX52.

All steel components except reinforcing, shall be galvanized after fabrication. Galvanizing damaged during transport or construction shall be repaired in accordance with the specifications.

		Bridge Division Standard	
PRECAST SAFETY END TREATMENT TYPE II ~ PARALLEL DRAINAGE			
PSET-SP			
FILE: psetspss.dgn	DN: RLW	CK: KLR	DW: JTR
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REVISIONS			
11-10: Add note for synthetic fibers.	DIST	COUNTY	SHEET NO.

DATE:
FILE: