

# CITY OF DUBLIN, OHIO

# BRAND ROAD BOOSTER STATION IMPROVEMENTS



## INDEX OF SHEETS

## 18-012-CIP

TITLE SHEET .....	G-0
CIVIL SITE PLAN .....	C-1
SITE DETAILS .....	C-2
PROCESS DEMOLITION PLAN .....	D-1
PROCESS PIPING PLAN .....	P-1
PROCESS PIPING SECTION AND DETAILS .....	P-2
ELECTRICAL SYMBOLS, SCHEDULES AND MODIFIED ONE LINE DIAGRAM .....	E-1
POWER AND LIGHTING DEMOLITION PLAN .....	E-2
POWER AND LIGHTING PLAN .....	E-3

### APPROVALS

SIGNATURES BELOW SIGNIFY CONCURRENCE WITH THE GENERAL PURPOSES AND GENERAL LOCATION OF THE PROJECT ONLY. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS.

#### CITY OF DUBLIN

*Paula Hummerill*  
 CITY ENGINEER,  
 CITY OF DUBLIN, OHIO

8.8.2018  
 DATE

#### CITY OF COLUMBUS

APPROVAL ON THE PART OF THE CITY OF COLUMBUS IS GIVEN PURSUANT TO THE PROVISIONS OF THE WATER SERVICE AGREEMENT BETWEEN THE CITY OF DUBLIN AND THE CITY OF COLUMBUS, OHIO, ON APRIL 13, 1993 AND ALL SUBSEQUENT AMENDMENTS THEREOF.

*Bob Brown* For RC WESTERFIELD  
 ADMINISTRATOR, DIVISION OF WATER,  
 CITY OF COLUMBUS, OHIO

8/17/18  
 DATE

*have done by AMA*  
 DIRECTOR, DEPARTMENT OF PUBLIC UTILITIES,  
 CITY OF COLUMBUS, OHIO

8.17.2018  
 DATE



PROJECT LOCATION  
 BRAND ROAD & DUBLIN RD  
 DUBLIN, OHIO 43017

### LOCATION MAP



#### PREPARED BY:

**ms consultants, inc.**  
 engineers \* architects \* planners  
 2221 SCHROCK ROAD  
 COLUMBUS, OHIO 43229-1547  
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*Adam Bittinger*  
 ADAM BITTINGER

82875  
 REG. NO.

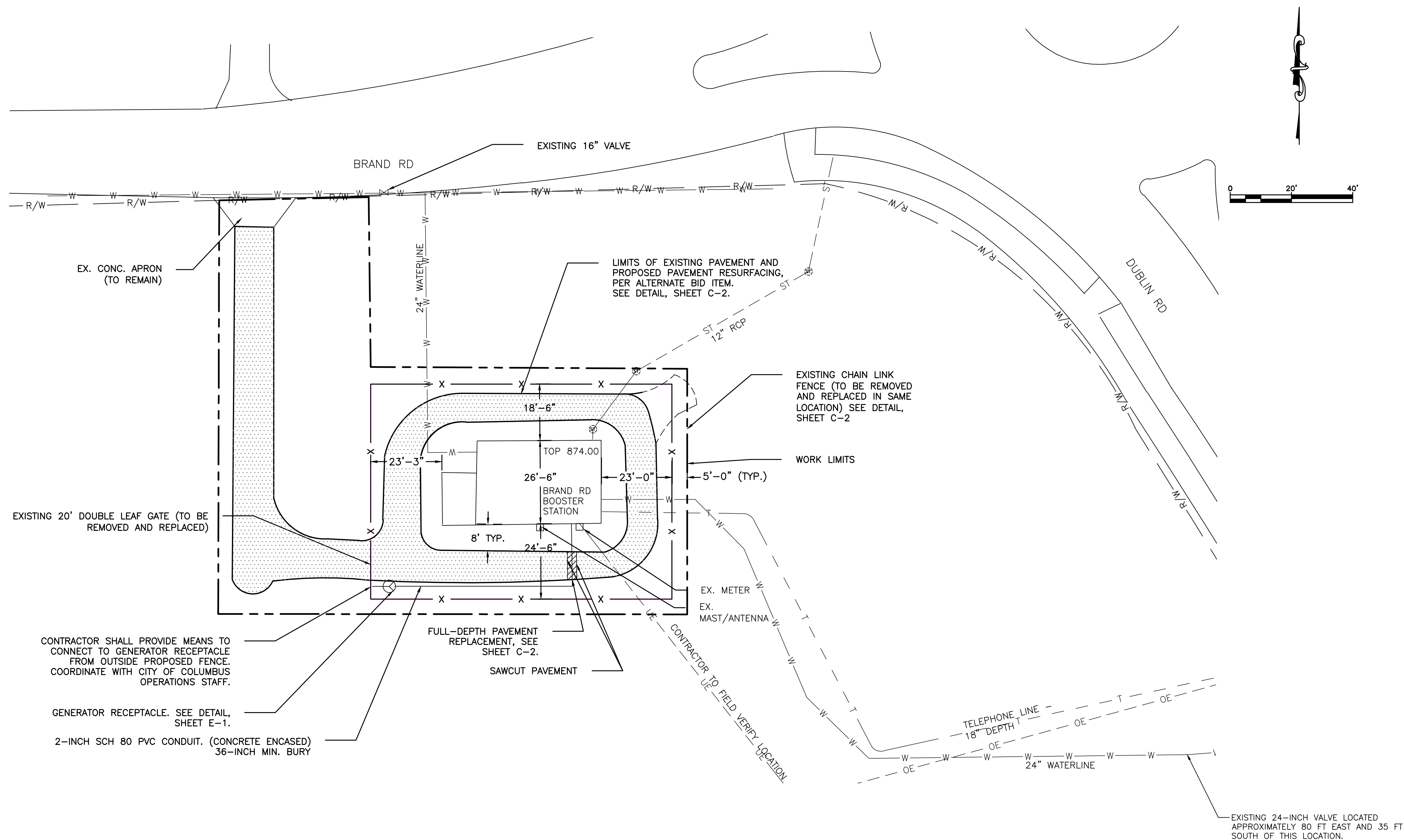
7/10/2018  
 DATE



SEAL

**GENERAL NOTES:**

- 1) CONTRACTOR SHALL MAINTAIN ACCESS TO BOOSTER STATION FOR OWNER OPERATION.
- 2) CLEAR AND GRUB AREA 4'-0" BEYOND THE PROPOSED FENCE LOCATION.
- 3) UNDERGROUND UTILITIES SHOWN ARE PER EXISTING RECORD DRAWINGS. CONTRACTOR TO FIELD VERIFY.
- 4) CONTRACTOR TO PROVIDE TRAFFIC CONTROL WHEN ACCESSING THE SITE FOR EQUIPMENT/DELIVERIES OR OTHER MATERIAL.
- 5) CONTRACTOR SHALL PROVIDE A SECURE SITE THROUGHOUT THE DURATION OF CONSTRUCTION.



**1 BRAND ROAD BOOSTER STATION SITE PLAN**

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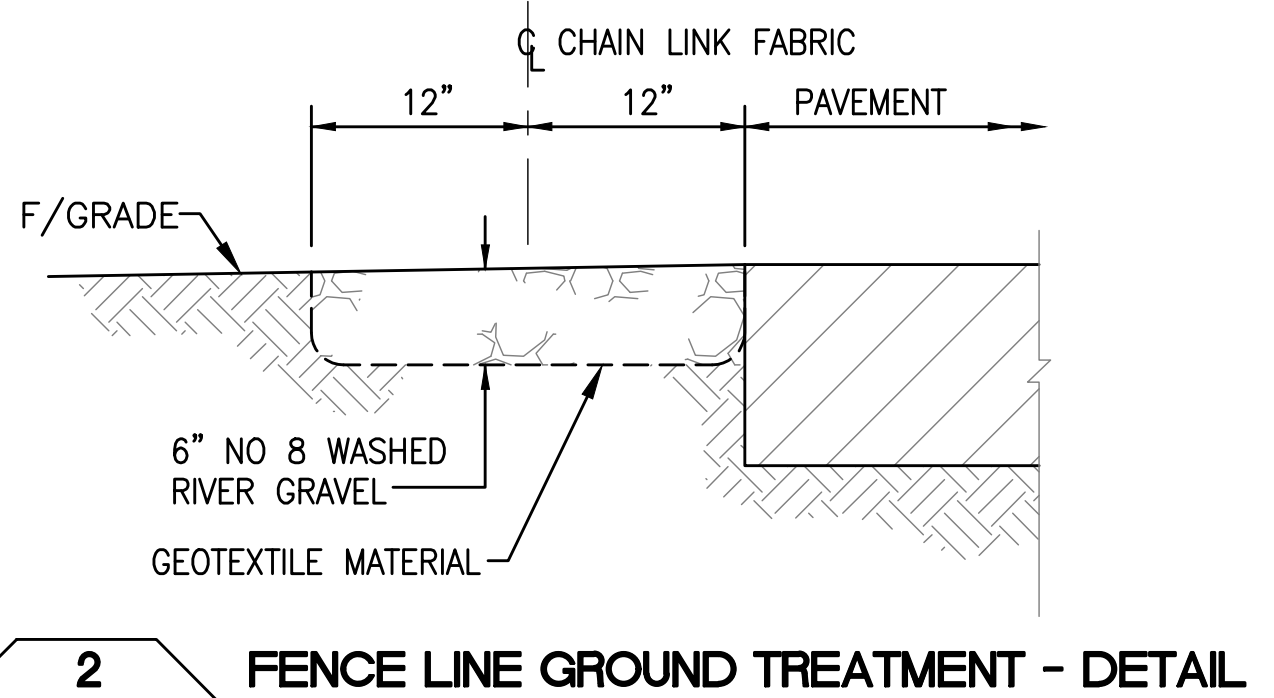
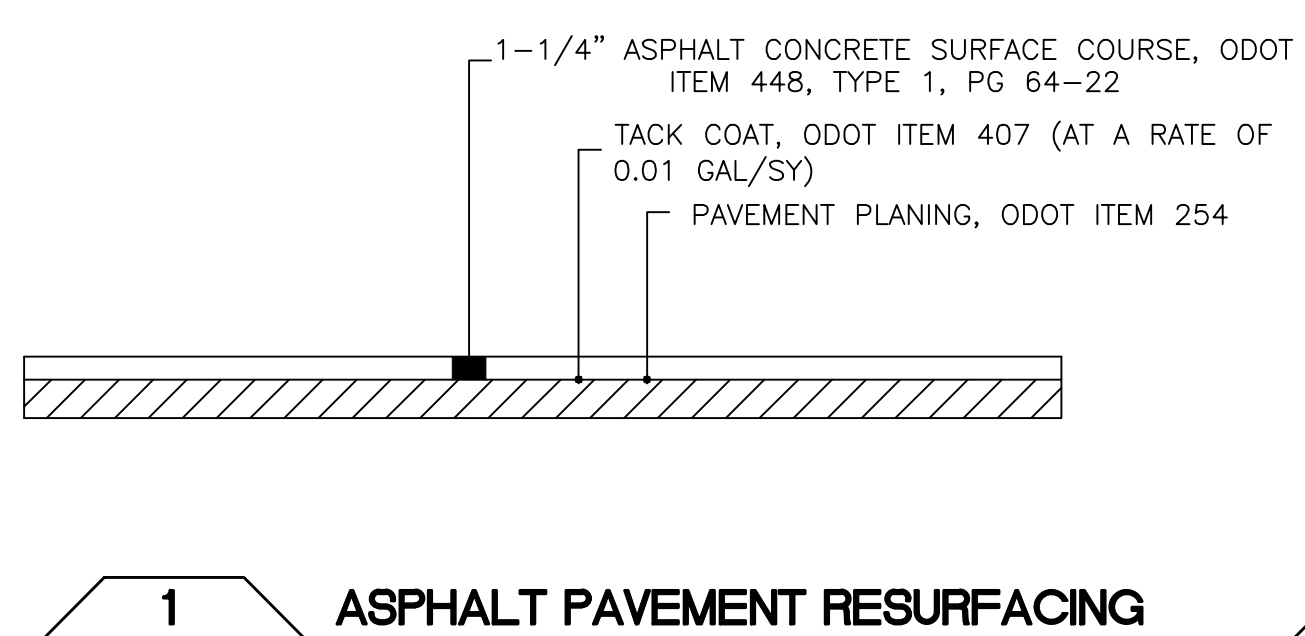
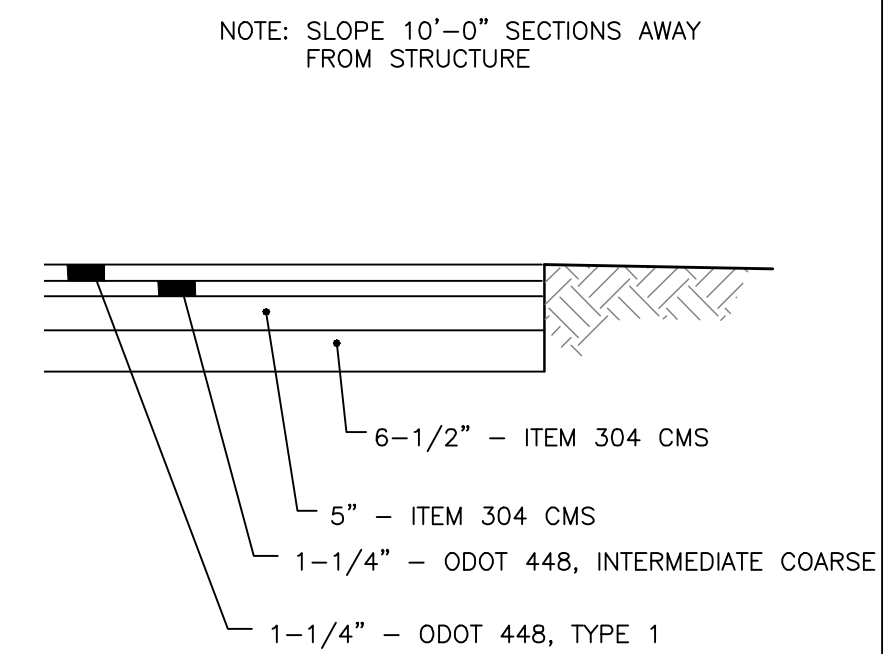
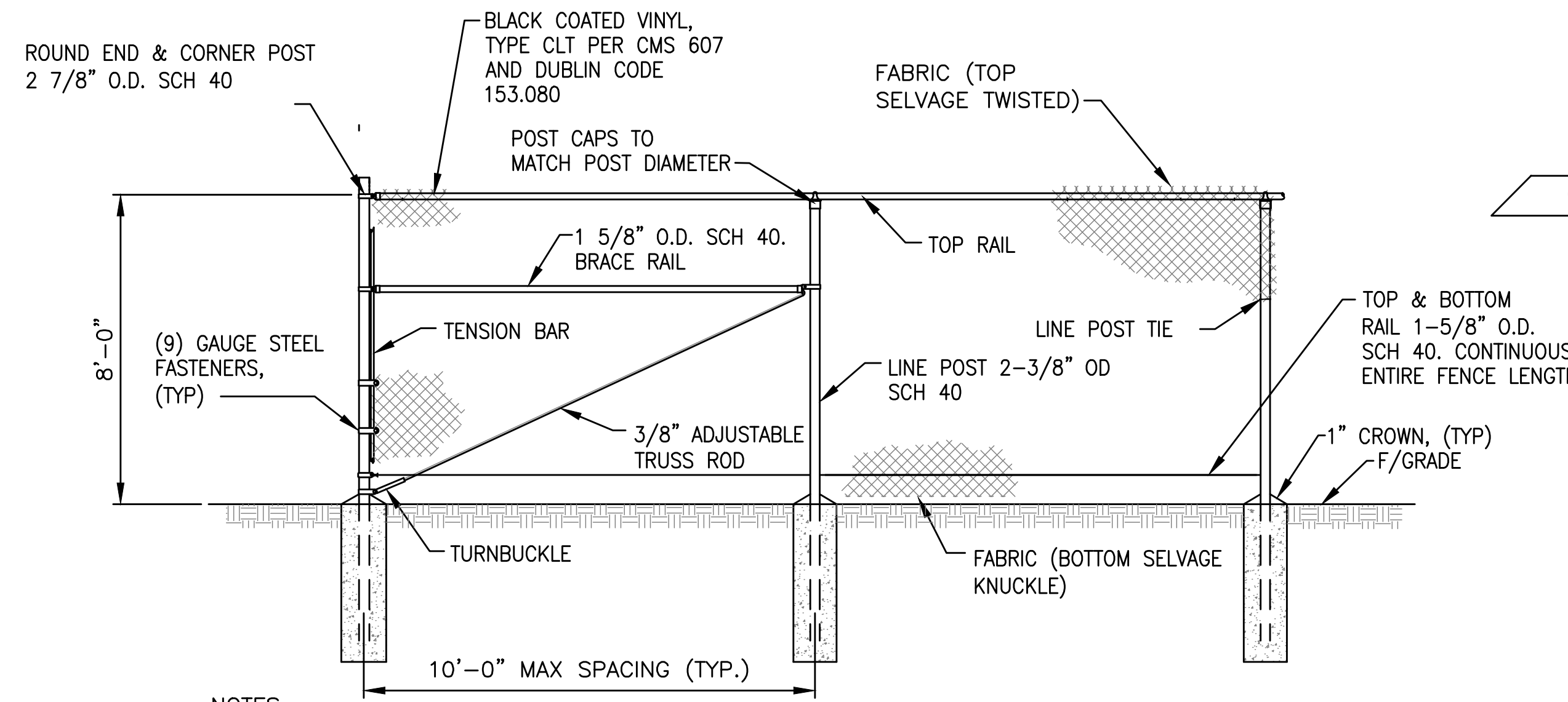
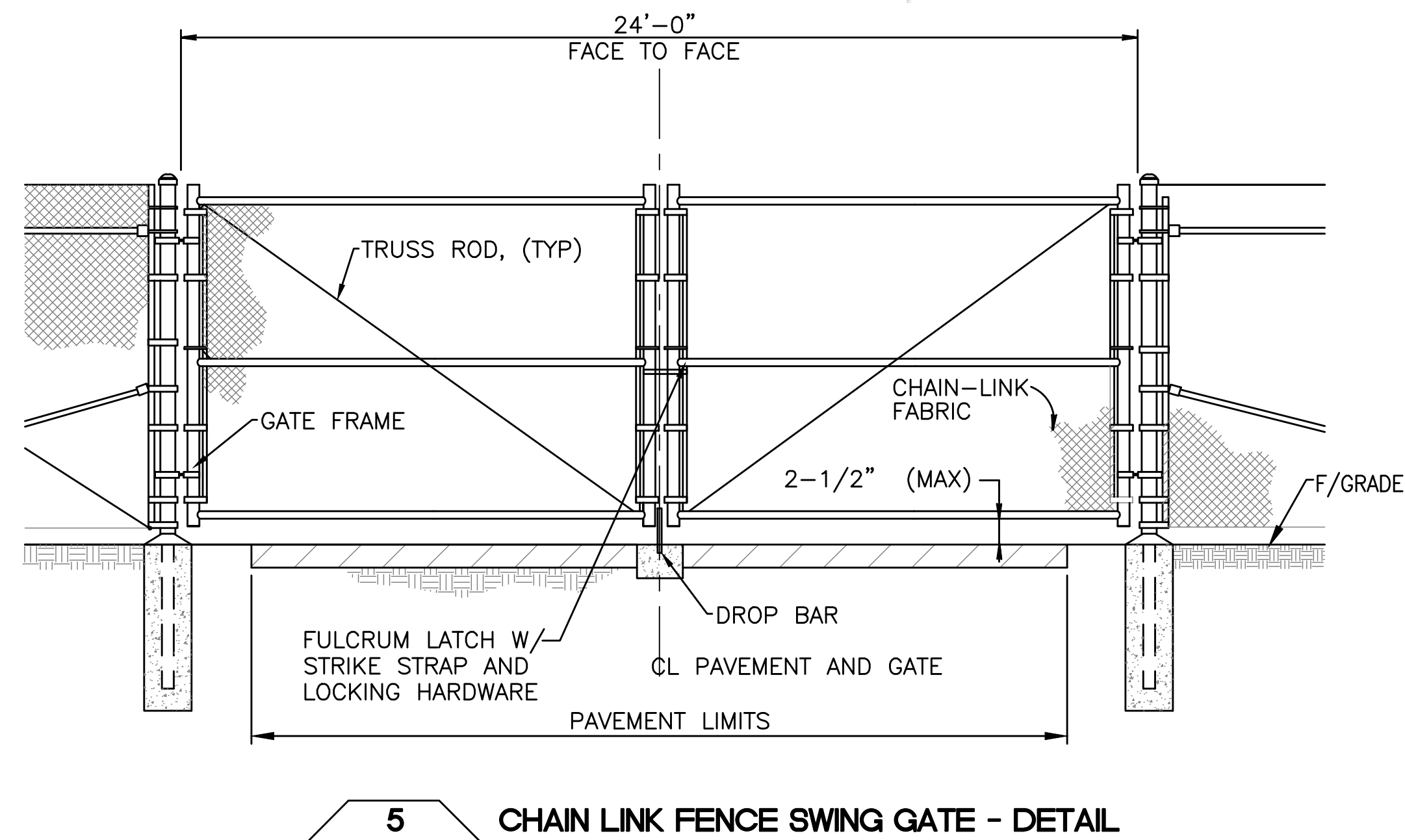
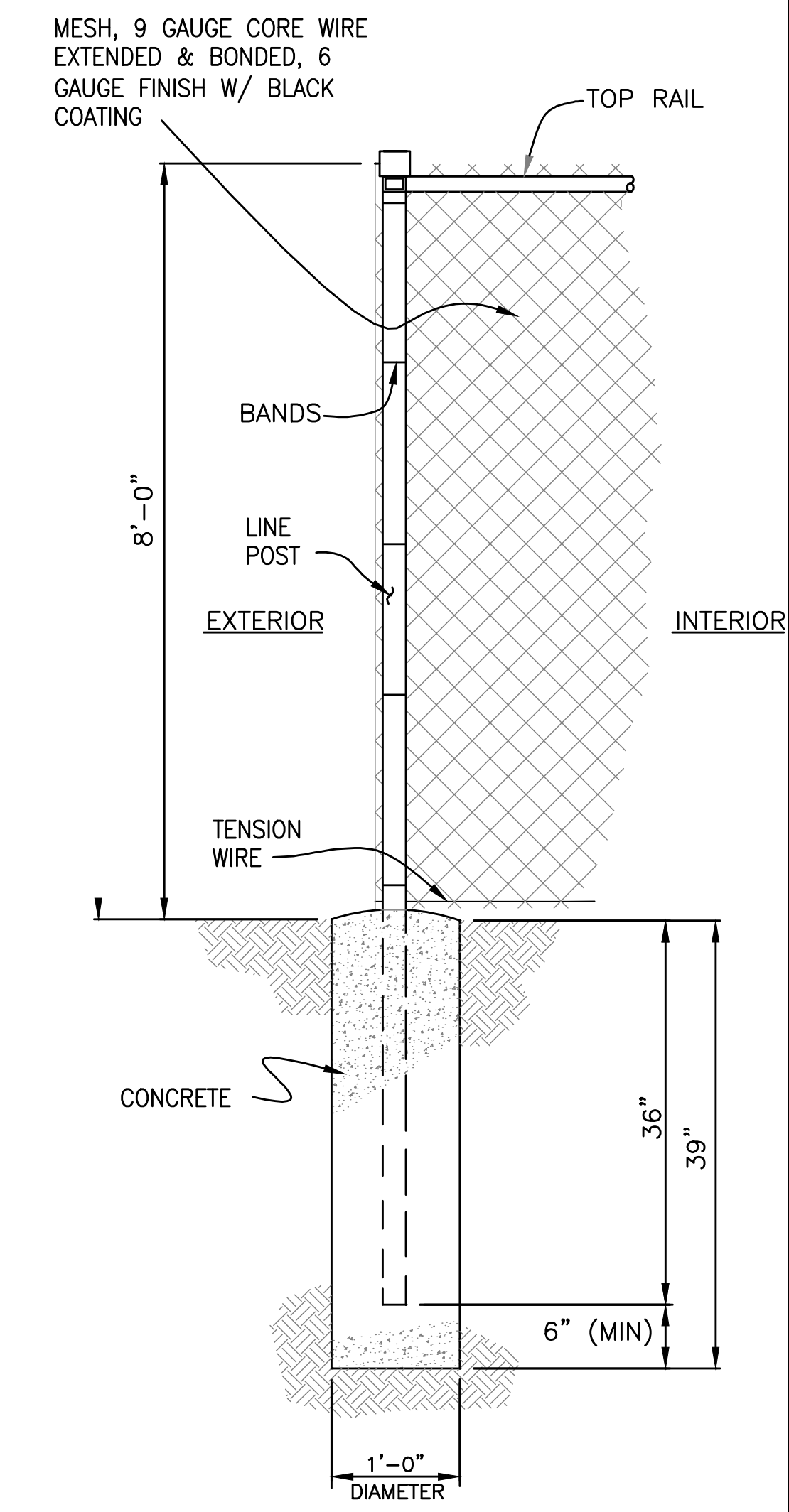
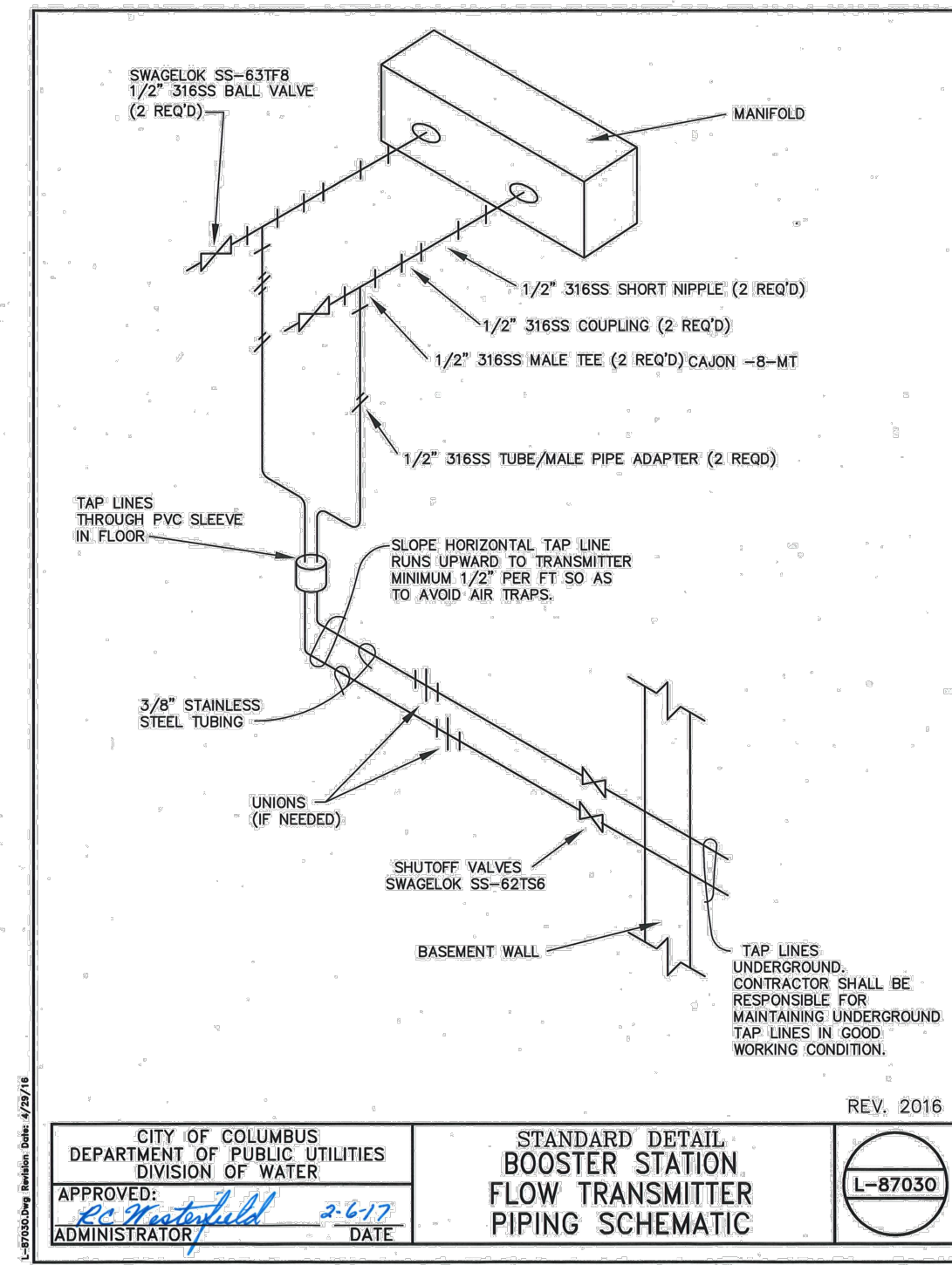
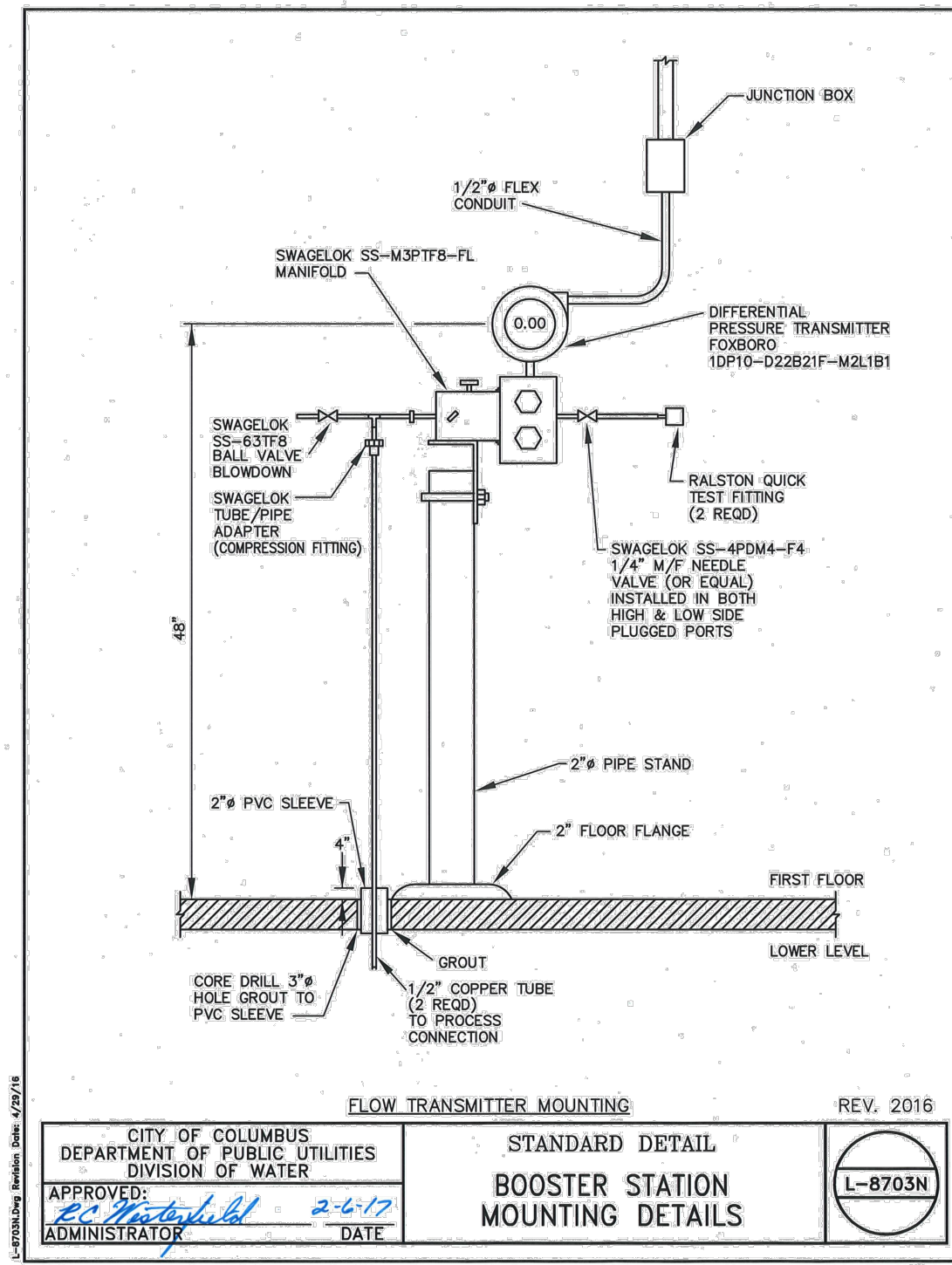
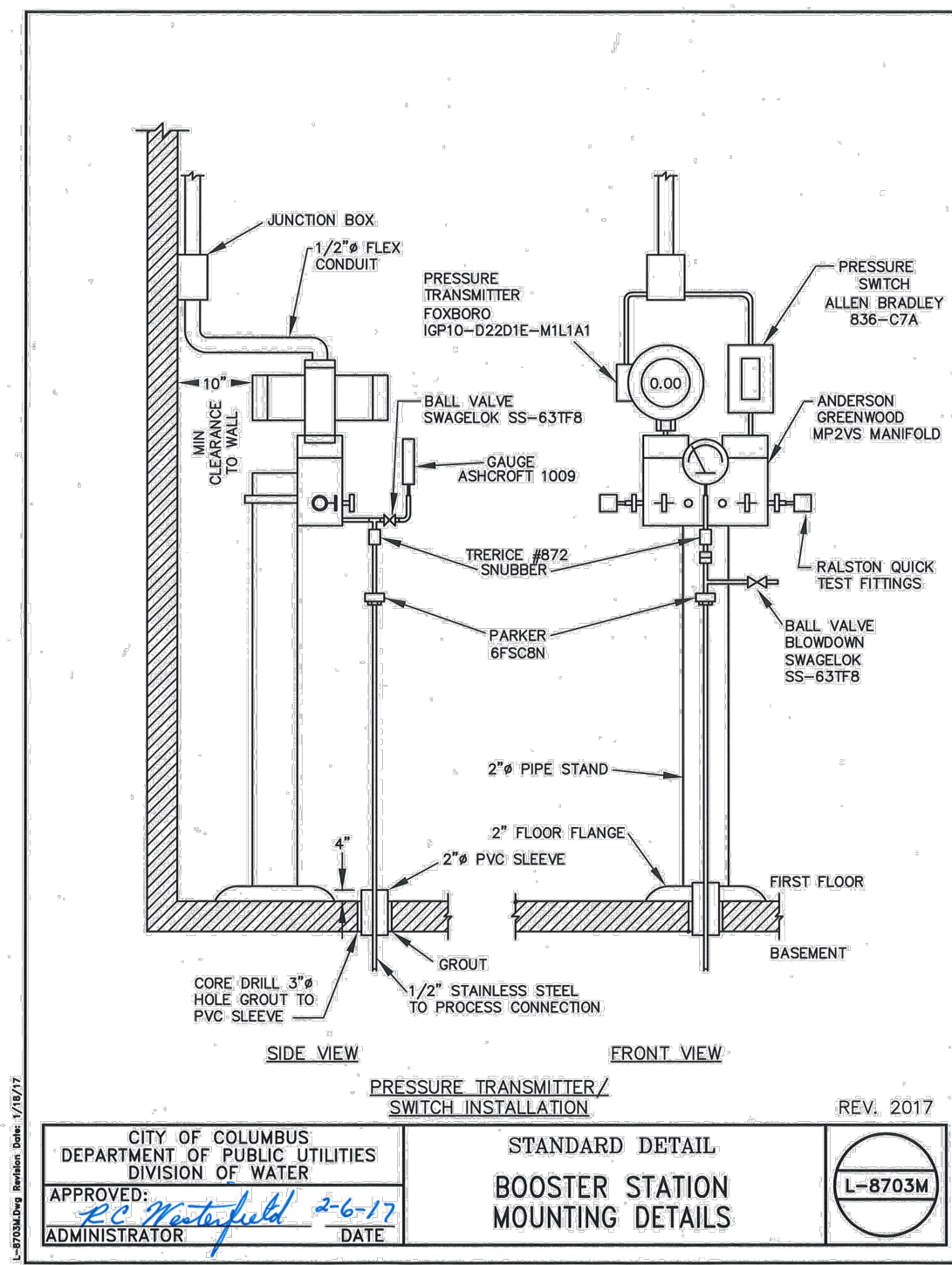
CITY OF DUBLIN, OHIO  
 BRAND ROAD BOOSTER STATION  
 IMPROVEMENTS  
 18-012-CIP

JOB NO:	
DESIGNED BY:	ADB
DRAWN BY:	RLR
CHECKED BY:	WJ
APPROVED BY:	WJ
DATE:	MARCH 28, 2018

BOOSTER STATION  
SITE PLAN

SCALE:	1" = 20'
SHEET NAME:	C-1
SHEET NO:	2 OF 9

File: N:\03161\04092 - Dublin Brand Road BPS\CF Preliminary Design\Drawings\Sheet Sets\04092\_BPS\_Bldg Site.dwg - Layout: C - DETAILS - Plot Date: Jun 23, 2018 - 11:22am Plotted By: rmap



- NOTES:
- 1.) FINAL MESH AND FENCE COLOR SHALL BE BLACK COATED.
  - 2.) ALL BOLT FASTENERS TO BE PEENED TO PREVENT REMOVAL.
  - 3.) CONTRACTOR IS RESPONSIBLE FOR SITE SECURITY. IF FENCE IS NOT REPLACED IN THE SAME WORKING DAY AS IT IS REMOVED, TEMPORARY SITE SECURITY SHALL BE PROVIDED, AS APPROVED BY THE OWNER.

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BOOSTER STATION  
 SITE AND PROCESS DETAILS

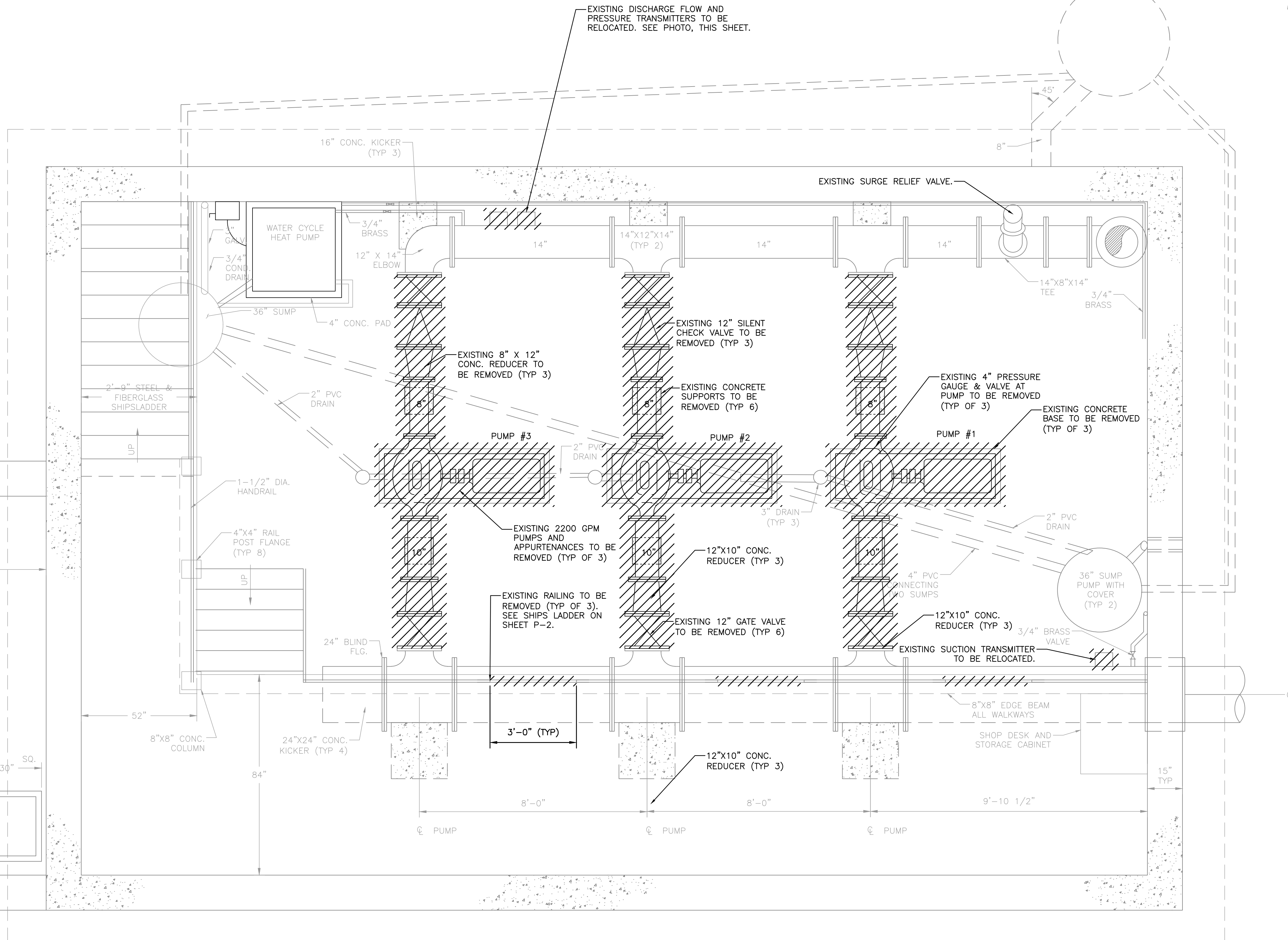
SCALE: N.T.S.
SHEET NAME: C-2
SHEET NO: 3 OF 9

**DEMOLITION NOTES:**

- 1) REFERENCE CONSTRUCTION SEQUENCE DESCRIBED ON SHEET P-1 FOR ADDITIONAL INFORMATION
- 2) ALL PIPING, VALVES, EQUIPMENT, AND OTHER MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.



**1**  
**EXISTING DISCHARGE FLOW AND PRESSURE TRANSMITTERS**



File: N:\03161\04092 - Dublin Brand Road BPS\CIP\_Preliminary\_Design\Drawings\Sheet\_Sets\04092\_BPS\_Bldg\_Process.dwg - Layout: PROCESS DEMOLITION PLAN - Plot Date: Jul 11, 2018 - 11:59am Plotted By: rrap

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PROCESS  
DEMOLITION PLAN

SCALE:	1/2" = 1'-0"
SHEET NAME:	D-1
SHEET NO:	4 OF 9



**GENERAL NOTES:**

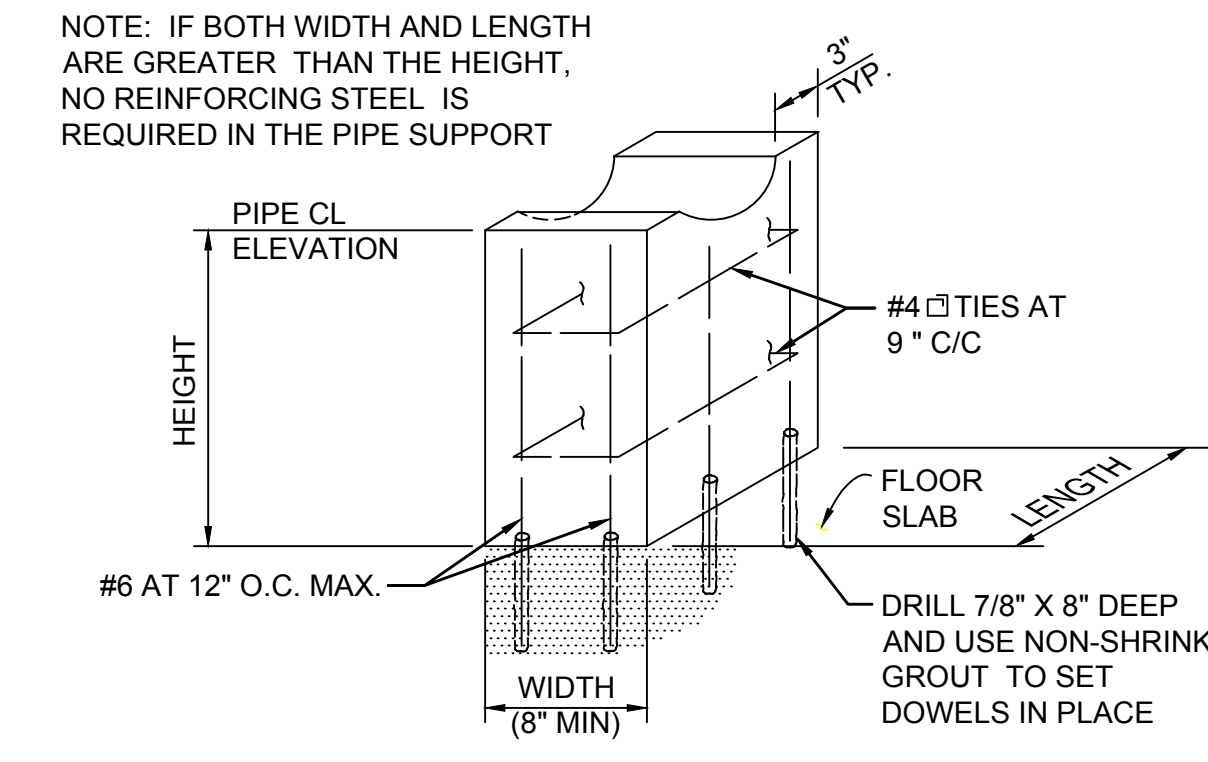
- 1) ALL WATER PIPING MATERIALS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF THE CITY OF COLUMBUS, DIVISION OF WATER.
- 2) IT SHALL BE UNLAWFUL FOR ANY PERSON TO PERFORM ANY WORK ON CITY OF COLUMBUS WATERLINE SYSTEMS WITHOUT FIRST SECURING LICENSE TO ENGAGE IN SUCH WORK, AS INDICATED IN COLUMBUS CITY CODE 1103.02 AND 1103.06. THIS WORK INCLUDES ANY ATTACHMENTS, ADDITIONS, OR ALTERATIONS IN ANY CITY SERVICE PIPE OR APPURTENANCES. THIS REQUIREMENT MAY BE MET BY UTILIZATION OF A SUBCONTRACTOR WHO HOLDS A CITY OF COLUMBUS WATER CONTRACTOR LICENSE OR A COMBINED WATER/SEWER LICENSE TO PERFORM THIS WORK. UTILIZATION OF A SUBCONTRACTOR MUST MEET THE LICENSE REQUIREMENTS OF THE CITY OF COLUMBUS BUILDING CODE, IN PARTICULAR SECTIONS 4114.119 AND 4114.529.
- 3) CONTRACTOR TO RELOCATE SUCTION PRESSURE, DISCHARGE PRESSURE, AND FLOW TRANSMITTERS TO THE LOCATIONS SHOWN. PROVIDE ALL NEW PIPING, VALVES, AND OTHER APPURTENANCES PER THE STANDARD DRAWINGS ON C-2. PROVIDE ADDITIONAL WIRE AND CONDUIT TO RECONNECT TO THE EXISTING CONDUIT.
- 4) PROPOSED CONCRETE PAD ELEVATION SHALL BE SET SUCH THAT CENTERLINE OF PUMP DISCHARGE AND SUCTION PIPING MATCHES EXISTING PIPING CENTERLINE.

**PROPOSED CONSTRUCTION SEQUENCE:**

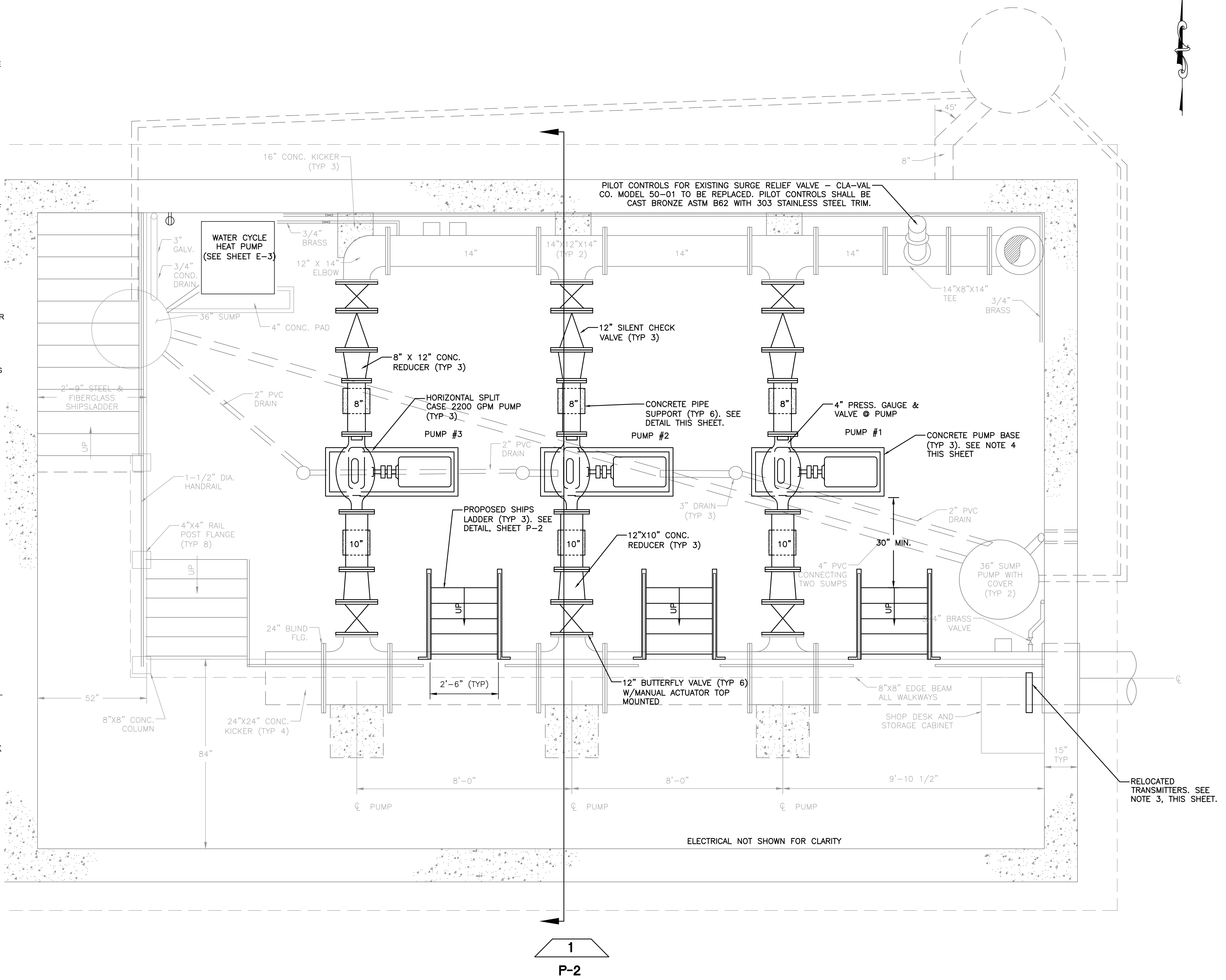
THE FOLLOWING CONSTRUCTION SEQUENCE WAS ESTABLISHED TO CREATE MINIMAL DISRUPTION OF PUMPING OPERATIONS. THE CONTRACTOR MAY VARY THIS PROPOSED SEQUENCE, HOWEVER, ANY VARIATION MUST BE APPROVED BY THE OWNER.

TWO OF THE 100 HP PUMPS SHALL REMAIN IN OPERATION AT ALL TIMES. OWNER PRE-APPROVED SHORT DURATION OUTAGES OF THE STATION ARE PERMITTED FOR THE VALVES, BUT CANNOT EXCEED 4-HOURS. A MAXIMUM OF SIX (6) 4-HOUR OUTAGES ARE PERMITTED THROUGHOUT THE PROJECT DURATION.

- 1) TAKE PUMP #1 OUT OF SERVICE. DEWATER SUCTION AND DISCHARGE PIPING. ELEVATION OF EXTERIOR SUCTION AND DISCHARGE PIPING IS SUCH THAT DEWATERING OF INTERIOR PIPING IS ALL THAT IS REQUIRED. PROVIDE NEW PIPING AND VALVES DURING A MAXIMUM 4-HOUR OUTAGE. THE CONTRACTOR SHALL NOT RELY ON ANY EXISTING GATE VALVE OR CHECK VALVE FOR ISOLATION, BUT INSTEAD SUPPLY A BLIND FLANGE DURING ALL OUTAGES.
- 2) INSTALL NEW PUMP #1 AND RELATED PIPING AND ELECTRICAL WORK. A MINIMUM OF 72-HOURS OF OPERATION WITHOUT ISSUE SHALL BE PROVIDED PRIOR TO TAKING ANOTHER PUMP OUT OF SERVICE.
- 3) REPEAT STEPS 1 & 2 FOR PUMPS #2 AND #3.
- 4) COORDINATE MCC MAINTENANCE W/CORRESPONDING PUMP OUTAGES.



**1 CONCRETE PIPE SUPPORT**



ELECTRICAL NOT SHOWN FOR CLARITY

RELOCATED TRANSMITTERS. SEE NOTE 3, THIS SHEET.

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APPROVED BY: WJ  
DATE: MARCH 28, 2018

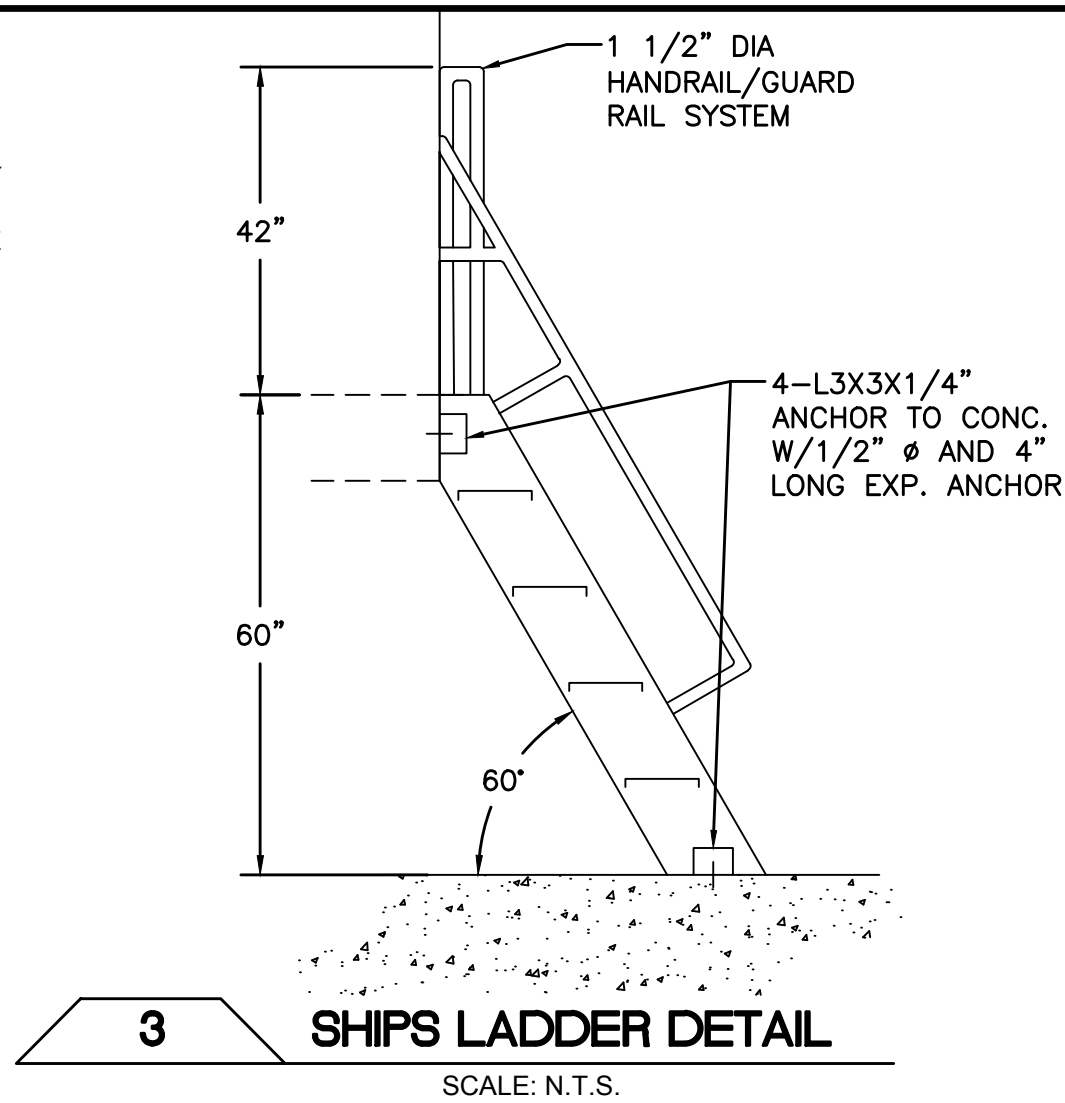
PROCESS  
PIPING PLAN

SCALE: 1/2" = 1'-0"
SHEET NAME: P-1
SHEET NO: 5 OF 9

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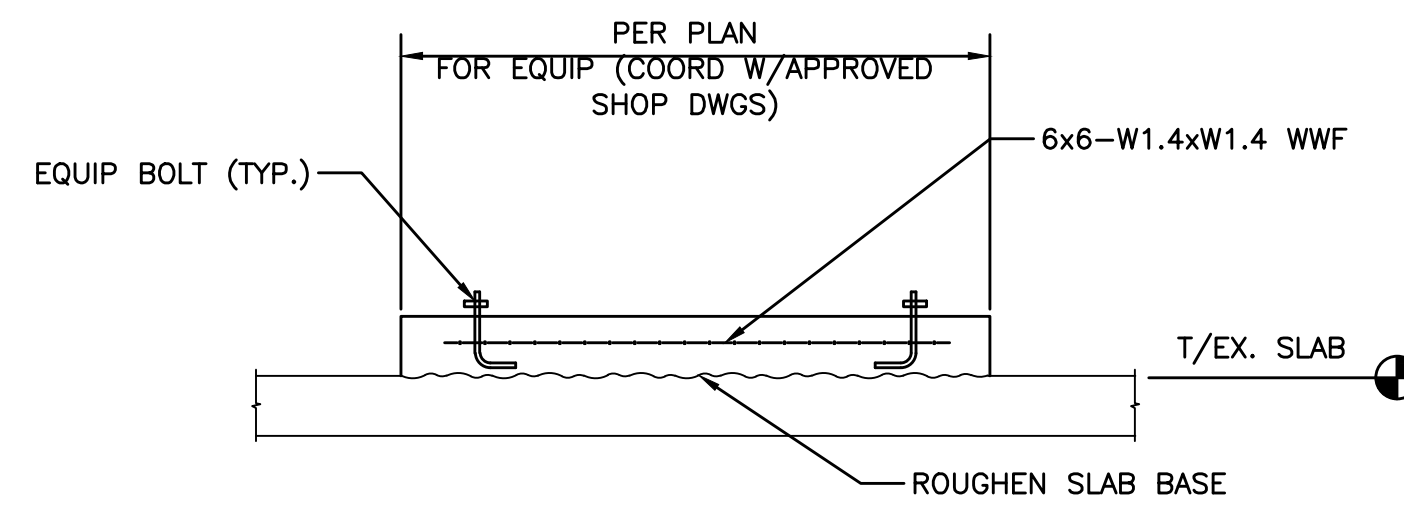
**GENERAL NOTES:**

- 1) CONTRACTOR TO TEMPORARILY REMOVE EXISTING SECURITY SENSORS AND REINSTALL ONCE ACCESS HATCHES ARE INSTALLED.
- 2) ALL EXTERIOR EXPOSED METAL SURFACES, EXCEPT THE ACCESS HATCHES BEING REPLACED, SHALL BE SAND BLASTED AND COATED PER SPECIFICATION. CONTRACTOR TO COORDINATE COATING COLOR WITH OWNER PRIOR TO APPLICATION.



**3 SHIPS LADDER DETAIL**

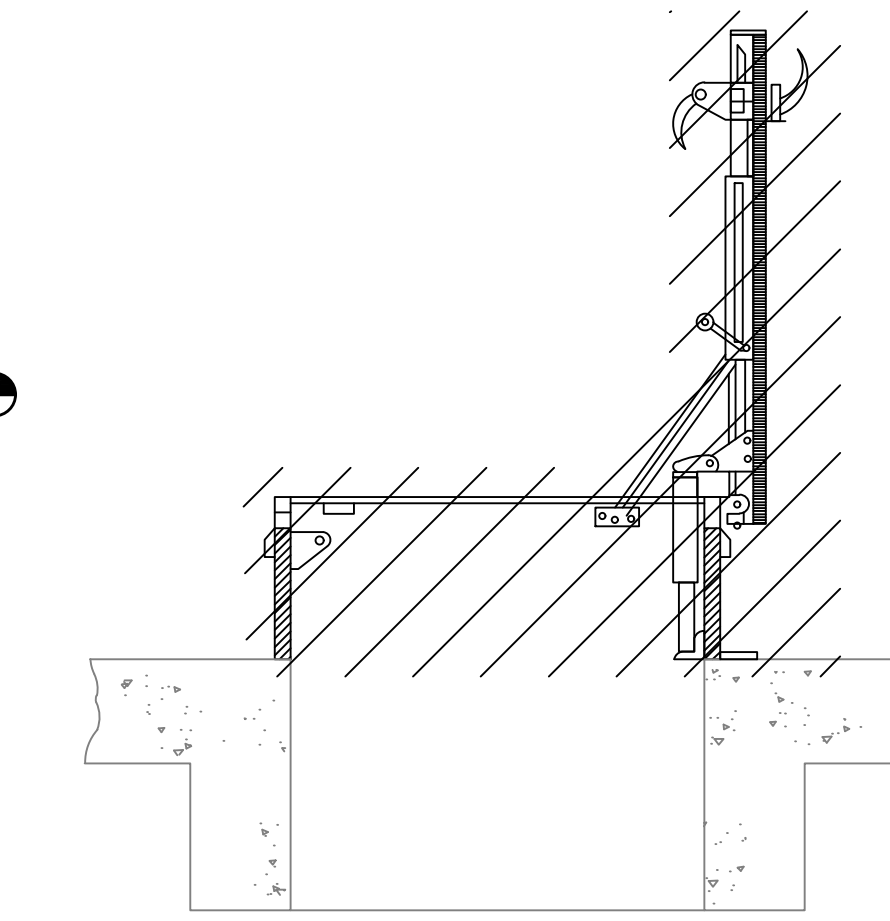
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**4 EQUIPMENT PUMP PAD DETAIL**

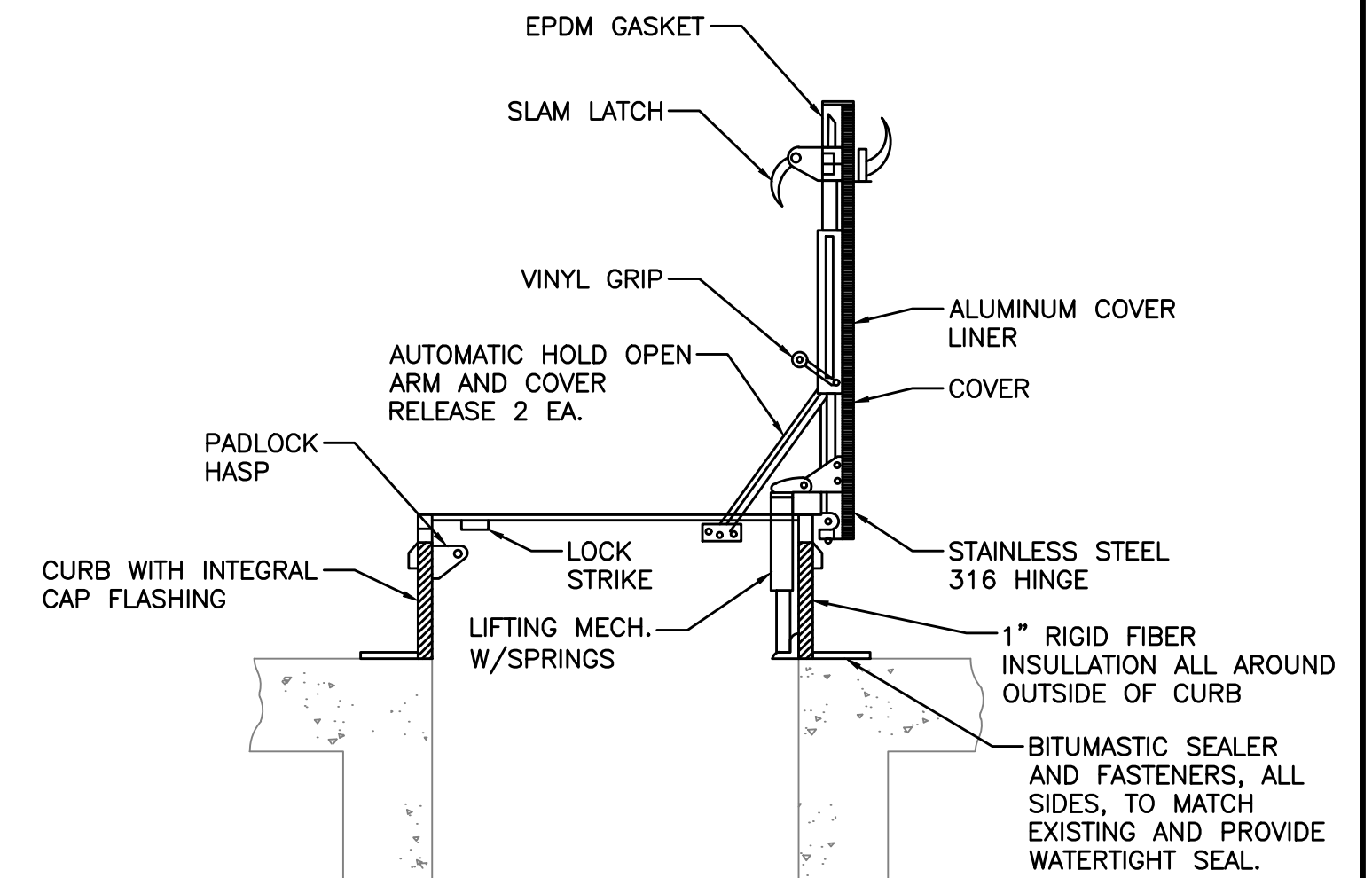
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COORD SIZE, QTY, & LOC OF EQUIP BOLTS IF REQ'D & PAD W/EQUIP SUPPLIER'S SHOP DWG. PAD HEIGHT TO BE NO LESS THAN 4" AND SHALL BE AS REQUIRED TO MATCH REQ'D PIPE ELEV.



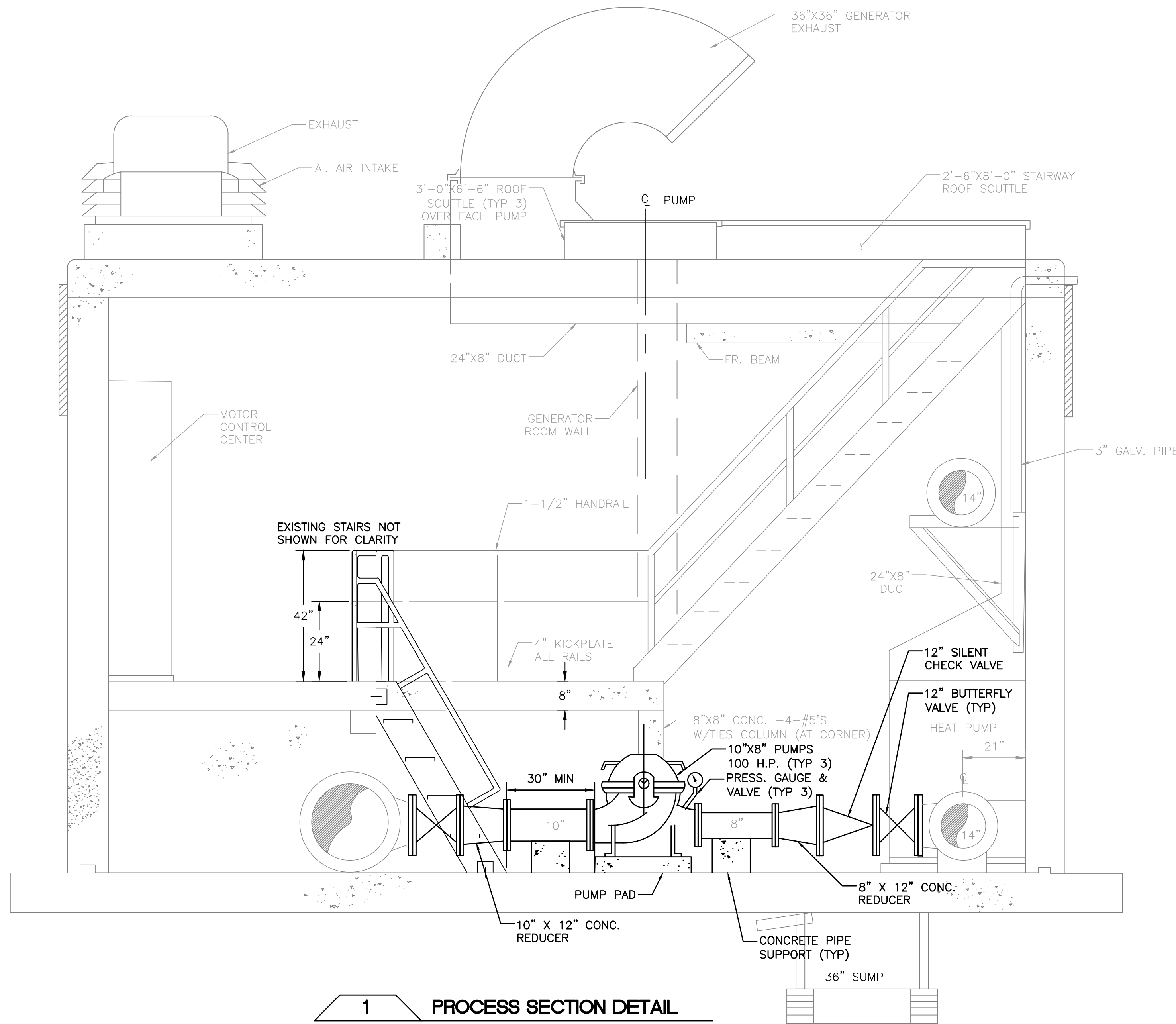
**5 ROOF ACCESS HATCH DEMO DETAIL**

SCALE: N.T.S.



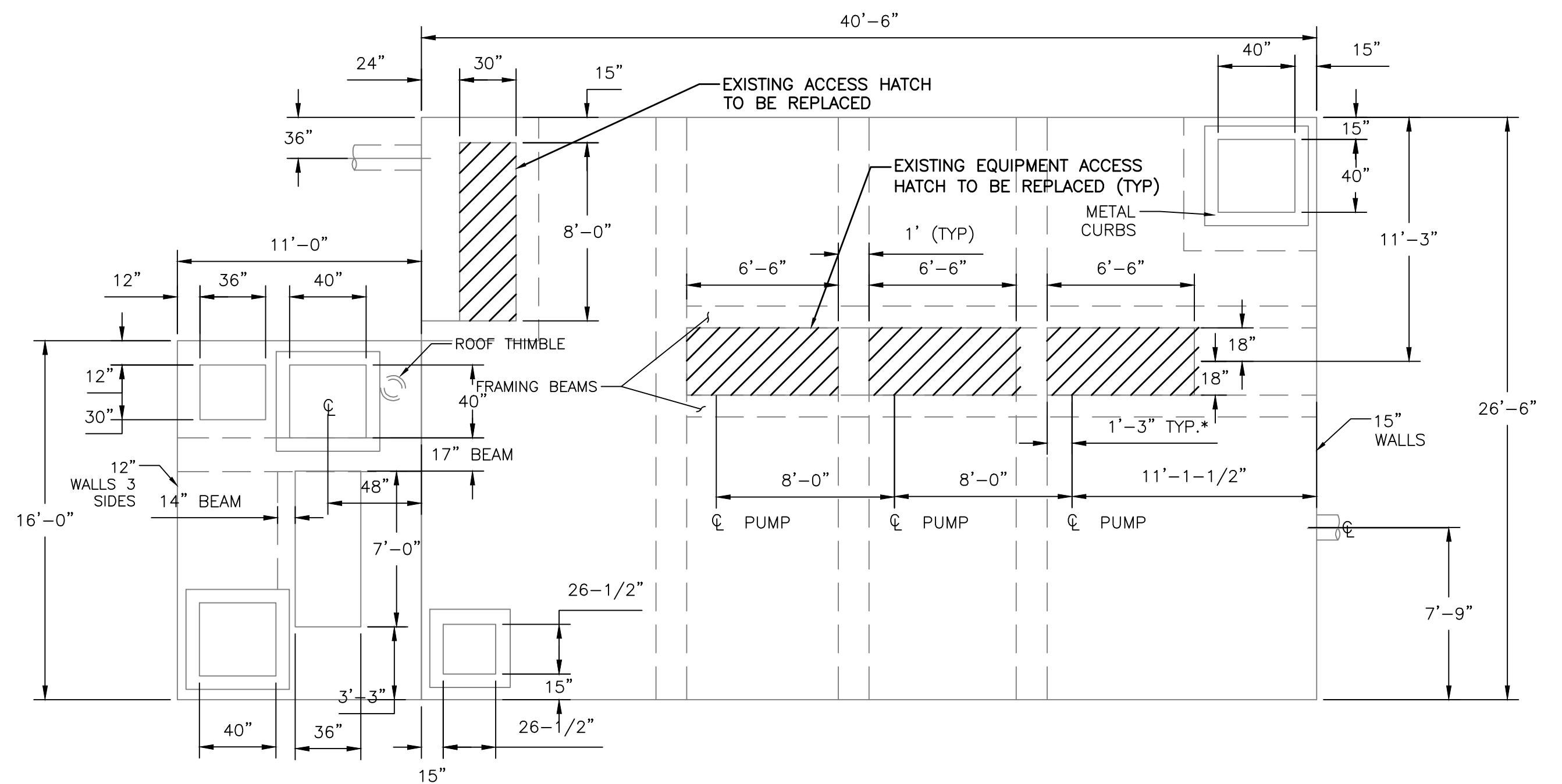
**6 ROOF ACCESS HATCH DETAIL**

SCALE: N.T.S.



**1 PROCESS SECTION DETAIL**

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



**2 TOP SLAB DETAIL**

SCALE: N.T.S.

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APPROVED BY:	WJ
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PROCESS  
SECTIONS AND DETAILS

SCALE:	AS NOTED
SHEET NAME:	P-2
SHEET NO:	6 OF 9

# ELECTRICAL AND COMMUNICATIONS SYMBOLS AND LINETYPES LEGEND

ABBREVIATION TERM SHARED ABBREVIATION

ELECTRICAL LINETYPES	
RC	RIGID CONDUIT
DC	DIRECT CURRENT ABOVEGROUND
DC	DIRECT CURRENT UNDERGROUND

SWITCHBOARDS AND PANELBOARDS	
	PANELBOARD CABINET MOUNTING: RECESSED
	PANELBOARD CABINET MOUNTING: SURFACE

INTERIOR LIGHTING	
	LIGHT FIXTURE (TYPICAL) MOUNT: RECESSED
	LIGHT FIXTURE (TYPICAL) MOUNT: SUSPENDED
	LIGHT FIXTURE (TYPICAL) MOUNT: SURFACE
	LIGHT FIXTURE (TYPICAL) MOUNT: WALL

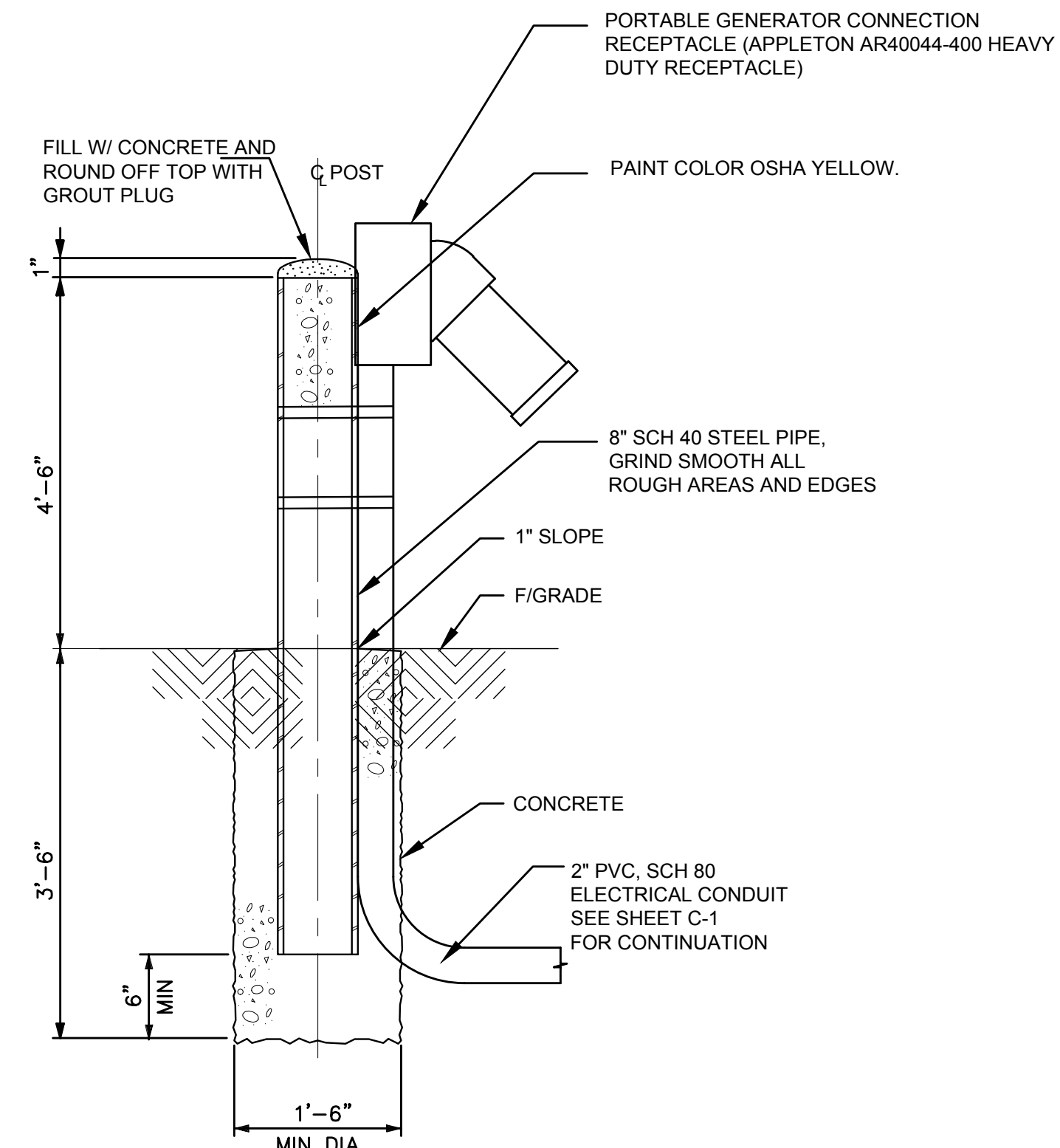
LOW-VOLTAGE CIRCUIT PROTECTIVE DEVICES	
	CIRCUIT BREAKER DUPLEX
	DISCONNECT SWITCH FUSED
	DISCONNECT SWITCH UNFUSED

COMMON WORK RESULTS FOR ELECTRICAL	
	EARTH GROUND
	JUNCTION BOX MOUNTING: WALL
	HOME RUN ARROWHEADS INDICATE THE NUMBER OF CIRCUITS
	POWER POLE

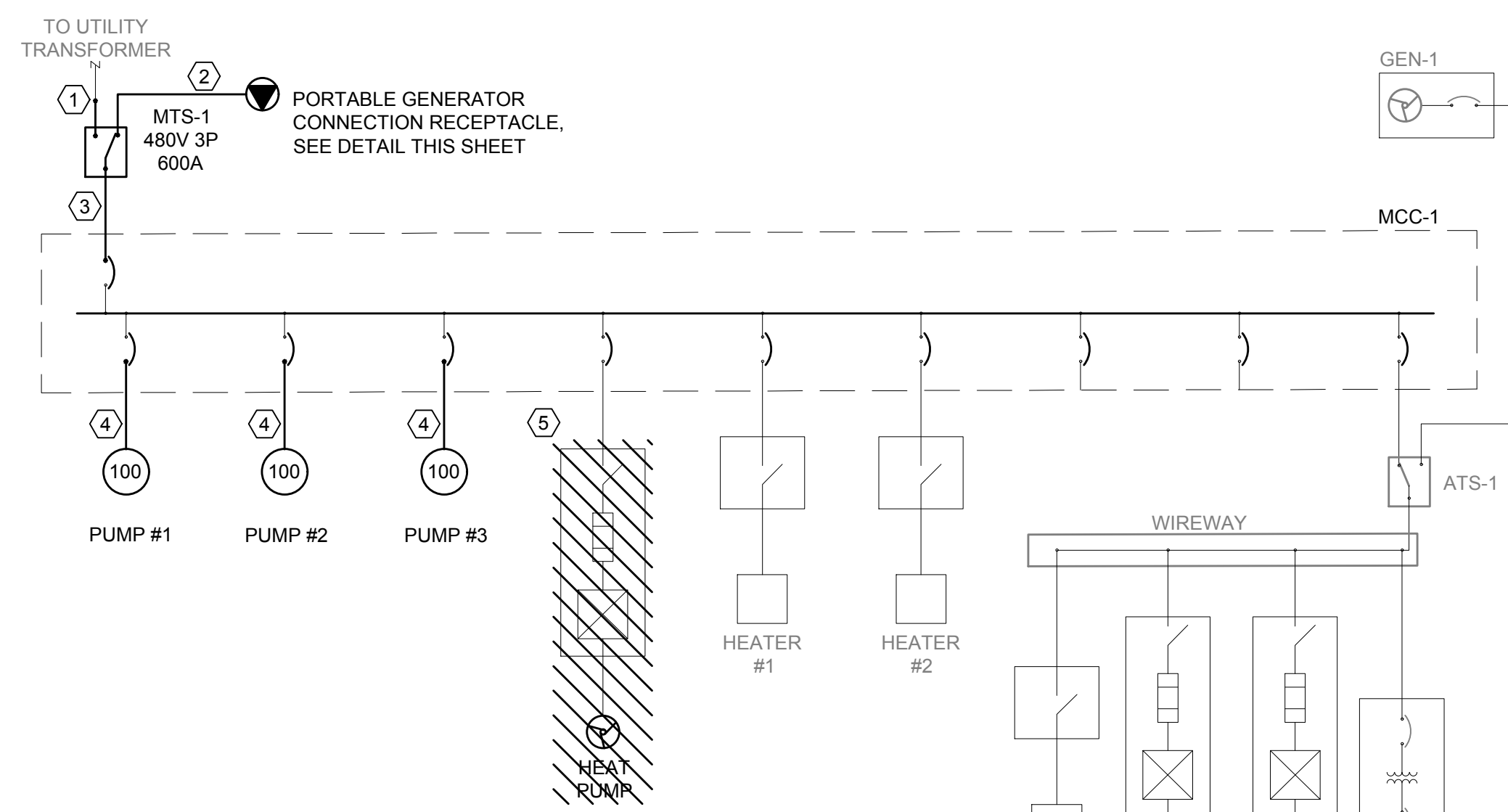
GENERAL ELECTRICAL	
	ELECTRICAL MOTOR, SINGLE PHASE
	ELECTRICAL MOTOR, THREE PHASE
	TRANSFORMER ONE-LINE
	TRANSFORMER PLAN

1PH	SINGLE-PHASE
1P	SINGLE POLE
1WAY	ONE-WAY
2/C	TWO-CONDUCTOR
2WAY	TWO-WAY
3/C	THREE-CONDUCTOR
3PH	THREE-PHASE
3WAY	THREE-WAY
4/C	FOUR-CONDUCTOR
4PDT	FOUR-POLE DOUBLE THROW
4PST	FOUR-POLE SINGLE THROW
4W	FOUR-WIRE
4WAY	FOUR-WAY
AIC	AMPERE INTERRUPTING CAPACITY
ASC	AMPS SHORT CIRCUIT
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BIL	BASIC INSULATION LEVEL
CB	CIRCUIT BREAKER
CLF	CURRENT LIMITING FUSE
CT	CURRENT TRANSFORMER
dB	DECIBEL
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
DS	DISCONNECT SWITCH
EPO	EMERGENCY POWER OFF
FC	FOOTCANDLE
FLA	FULL LOAD AMPS
F	FRAME/FUSE
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
IC	INTERRUPTING CAPACITY
J-BOX	JUNCTION BOX
LTG	LIGHTING
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MTS	MANUAL TRANSFER SWITCH
NC	NORMALLY CLOSED
NF	NONFUSED
NL	NIGHT LIGHT
NO	NORMALLY OPEN
OCB	OIL CIRCUIT BREAKER
OCR	OIL CIRCUIT RECLOSER
OSA	OIL GAGE
OL	OVERLOAD
OLVL	OIL LEVEL
PB	PUSHBUTTON
PE	PHOTOELECTRIC
RCPT	RECEPTACLE
SCC	SHORT CIRCUIT CAPACITY
SPDT	SINGLE POLE, DOUBLE THROW
SPST	SINGLE POLE, SINGLE THROW
ST	SINGLE THROW SWITCH
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
T	TRIP RATING
TL	TWIST LOCK
TP	TWISTED PAIR
TPS	TWISTED PAIR SHIELDED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	UNTWISTED PAIR
VFD	VARIABLE FREQUENCY DRIVE
XFMR	TRANSFORMER

ABOVE SUSPENDED CEILING; ASPHALT SURFACE COURSE
CERAMIC TILE; COUNT
DOUBLE STRENGTH (GLASS); DOWNSPOUT
FILE CABINET
HEAT PUMP; HIGH PRESSURE IRONING CABINET
METAL CORNER BEAD
NOISE CRITERIA; NURSE CALL
NUMBER
PAINTED BASE; PANELBOARD; PANIC BAR; FULL BOX
PNEUMATIC ELECTRIC
STAIRS; STREET SIDEWALK
TELEPHONE POLE; TOTAL PRESSURE



**GENERATOR RECEPTACLE MOUNTING DETAIL**  
NOT TO SCALE



### KEYED NOTES:

- INTERCEPT EXISTING CONDUCTORS BETWEEN CT CABINET AND EXISTING MCC UNDERNEATH MEZZANINE LEVEL AND RE-ROUTE TO (N) MTS, MAINTAIN EXISTING 2 SETS ((4) 250 KCMIL AND #2 GROUND IN 3" CONDUIT).
- PROVIDE NEW FEEDER OF (4) 400 KCMIL AND #3 GROUND IN 4" CONDUIT FROM GENERATOR RECEPTACLE TO MTS. SEE C-1 FOR CONDUIT ALIGNMENT.
- PROVIDE 2 SETS OF ((4) 250 KCMIL AND #2 GROUND IN 3" CONDUIT) FROM NEW MTS TO EXISTING MCC UTILIZING EXISTING CONDUIT RUN BENEATH MEZZANINE WHERE POSSIBLE.
- PROVIDE NEW (3) #3/0 AND #6 GROUND IN 2" CONDUIT FROM EXISTING MCC TO NEW MOTOR. FIELD COORDINATE ROUTING TO BE OVERHEAD, AVOIDING ALL HATCHES AND SUPPORTS AND PROVIDE ALL NECESSARY MOUNTING RACKS FOR SUPPORT.
- DISCONNECT AND REMOVE. MARK AS SPARE WHEN COMPLETE.

### ONE LINE DIAGRAM

NOT TO SCALE

NOTE: ALL EQUIPMENT AND WIRING ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.

### PROPOSED MTS INSTALLATION SEQUENCE OF CONSTRUCTION

- INSTALL MTS ON WALL BETWEEN EXISTING CT CABINET AND EXISTING MCC.
- INSTALL NEW CONDUIT AND FEEDERS BELOW MEZZANINE AND PREPARE ALL CONDUITS FOR INTERCEPTION OF EXISTING FEEDER.
- SCHEDULE OUTAGE AND REWORK FEEDERS IN ORDER COMPLETE WORK INDICATED ON ONE LINE DIAGRAM.
- THIS OUTAGE SHALL BE LESS THAN 4 HOURS MAXIMUM.
- SEE LOCATION, SHEET E-3

ELECTRICAL LOAD SUMMARY				
LOAD DESCRIPTION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)	CODE SECTION
LIGHTING	0.776	1.25	0.970	N.E.C. 215.2
RECEPTACLES	5.087	1	5.087	N.E.C. 220.44
MOTOR	313.946	1+(0.25*LARGEST MOTOR)	339.707	N.E.C. 220.50
HEATING	15.300	1	15.300	N.E.C. 220.51
<b>TOTAL LOAD (KVA)</b>	<b>335.109</b>		<b>361.064</b>	
<b>AMPS</b>	<b>403.07</b>		<b>434.29</b>	

### PANEL A

LOCATION: CORRIDOR		DISTRIBUTION: 208Y/120V													
MOUNTING: RECESSED		PHASE: 3													
FRAME SIZE: 60		WIRE: 4													
MAIN SIZE: 60 AMP MLO		FAULT CURRENT RATING (KAIC): 10													
FED FROM: ATS-1															
BRANCH CIRCUIT DESCRIPTION	KVA	WIRE SIZE	GND SIZE	CB	P	NOTE	CIRCUIT NO. A B C	CB	P	NOTE	WIRE SIZE	GND SIZE	KVA	BRANCH CIRCUIT DESCRIPTION	
BATTERY CHARGER	0.050			20	1	E	1	2	20	1	E	12	12	1.560	DEHUMIDIFIER
GEN RM SUMP PUMP	0.828			20	1	E	3	4	20	1	E	12	12	0.476	PUMP RM LTS.
COOLANT HEATER	0.750			20	2	E	5	6	20	1	E			0.667	EF-1/DAMPER D-2
GEN RM LTS/INLET DAMPER	0.550			20	1	E	7	8	20	1	E			0.360	RECEPTACLES
GEN RM RECEPTACLES	0.360			20	1	E	9	10	20	1	E			0.540	RECEPTACLES
GEN RM RECEPTACLES	0.360			20	1	E	11	12	20	1	E			0.300	CONTROL PANEL CP-1
<b>TOTAL CONN. LOAD:</b>		7.191 KVA		PHASE A:		2.72 KVA									
<b>CONNECTED AMPS:</b>		19.96 AMPS		PHASE B:		2.39 KVA									
<b>DEMAND AMPS:</b>		20.50 AMPS		PHASE C:		2.08 KVA									

NOTES:  
-ALL LOADS MARKED "E" ARE EXISTING TO REMAIN - PROTECT DURING CONSTRUCTION  
-ALL BREAKERS ARE EXISTING TO REMAIN UNLESS MARKED "N"

### LIGHT FIXTURE SCHEDULE

CONTRACTOR TO VERIFY CORRECT MODEL NUMBER PRIOR TO ORDERING									
TYPE MARK	DESCRIPTION	MAKE	BASE OF DESIGN			LAMPS			REMARKS
			MODEL	#	TYPE	W	WATTAGE	VOLTAGE	
C1	SURFACE MOUNTED LED ACRYLIC LENS WITH WIDE DISTRIBUTION	LITHONIA	CLX L48 4000LM SEF WDL MVOLT GZ10 40K 80CRI WH	1	LED	27.58	27.58	120	MAINTAIN EXISTING HOMERUN AND CONTROL FROM DEMOLITION

NOTE: TYPE MARK - LETTER PREFIX INDICATED TYPE OF MOUNTING AS FOLLOWS:  
 C - CEILING R - RECESSED G - GRID S - STEM SUSPENDED W - WALL MOUNTED WR - WALL RECESSED  
 CV - COVE MOUNTED UC - UNDER COUNTER RF - ROOF MOUNTED P - POST/POLE GR - GROUND H - MOUNTED IN HOOD

File: N:\03161\04092 - Dublin Brand Road BPS\CJ\_Preliminary Design\Drawings\Sheet Sets\04092-BPS-Bldg Electrical.dwg - Layout: ELECTRICAL ONE-LINE DIAGRAM SYMBOLS ABBREVIATIONS AN SCHEDULES - Plot Date: Jun 25, 2018 - 9:21am Plotted By: rrap

NO:	REVISIONS	DATE:	BY:	CHK:

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CITY OF DUBLIN, OHIO  
 BRAND ROAD BOOSTER STATION  
 IMPROVEMENTS  
 18-012-CIP

JOB NO:	
DESIGNED BY:	DED
DRAWN BY:	RLR
CHECKED BY:	WJ
APPROVED BY:	WJ
DATE:	MARCH 28, 2018

ELECTRICAL  
 ONE-LINE DIAGRAM, SYMBOLS, ABBREVIATIONS  
 AND SCHEDULES

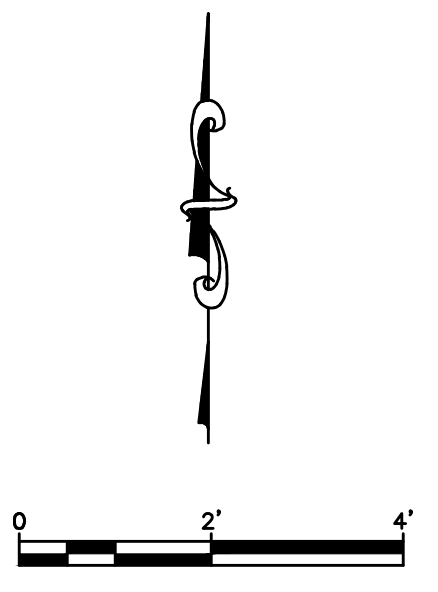
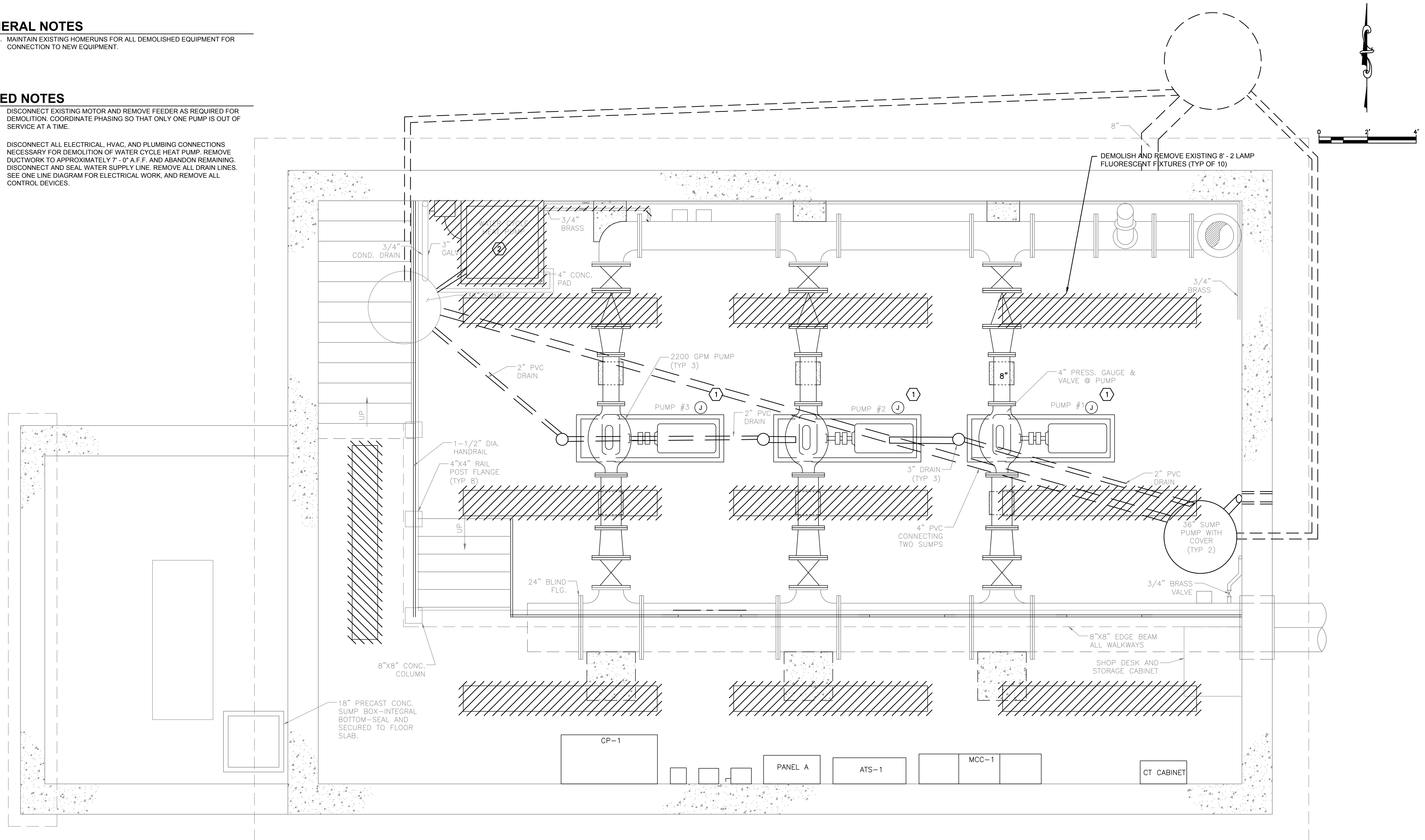
SCALE:	NONE
SHEET NAME:	E-1
SHEET NO:	7 OF 9

**GENERAL NOTES**

A. MAINTAIN EXISTING HOMERUNS FOR ALL DEMOLISHED EQUIPMENT FOR CONNECTION TO NEW EQUIPMENT.

**KEYED NOTES**

- ① DISCONNECT EXISTING MOTOR AND REMOVE FEEDER AS REQUIRED FOR DEMOLITION. COORDINATE PHASING SO THAT ONLY ONE PUMP IS OUT OF SERVICE AT A TIME.
- ② DISCONNECT ALL ELECTRICAL, HVAC, AND PLUMBING CONNECTIONS NECESSARY FOR DEMOLITION OF WATER CYCLE HEAT PUMP. REMOVE DUCTWORK TO APPROXIMATELY 7'-0" A.F.F. AND ABANDON REMAINING. DISCONNECT AND SEAL WATER SUPPLY LINE. REMOVE ALL DRAIN LINES. SEE ONE LINE DIAGRAM FOR ELECTRICAL WORK, AND REMOVE ALL CONTROL DEVICES.



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APPROVED BY:	WJ
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ELECTRICAL  
DEMOLITION PLAN

SCALE:	AS NOTED
SHEET NAME:	E-2
SHEET NO:	8 OF 9

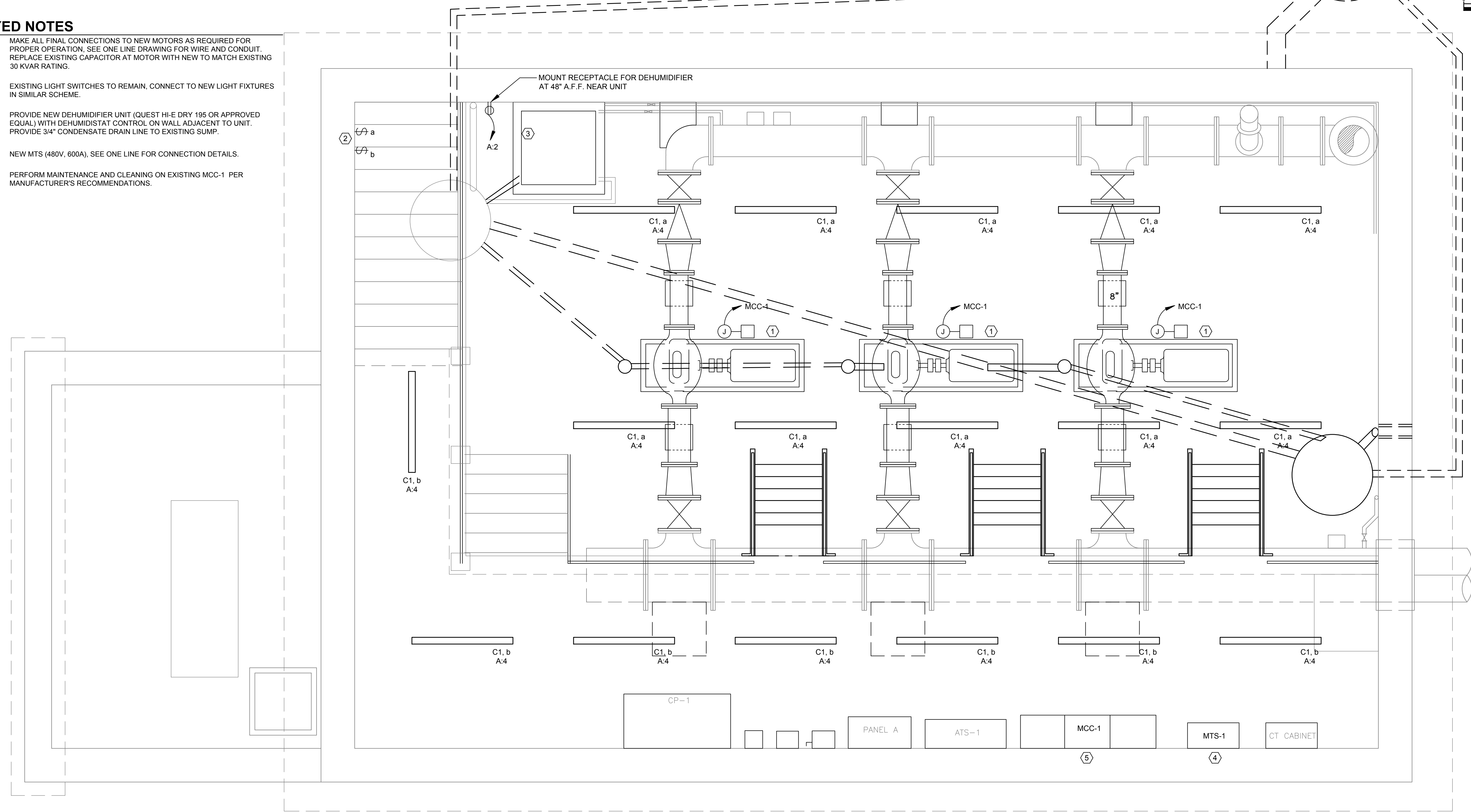
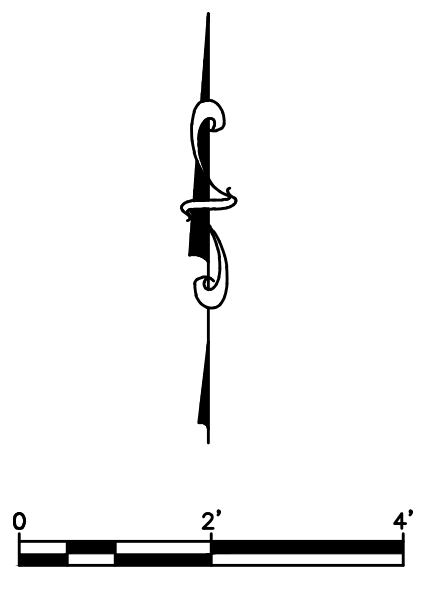


**GENERAL NOTES**

- A. COORDINATE PHASING OF WORK SO THAT ONLY ONE PUMP IS OUT OF SERVICE AT A TIME.
- B. COORDINATE ALL WORK FOR ELECTRICAL TO OCCUR DURING PUMP AND VALVE REPLACEMENT PHASES OF WORK.
- C. MOUNT ALL NEW LIGHT FIXTURES TO EXISTING UNISTRUT ON CEILING FROM DEMOLITION OF EXISTING LIGHT FIXTURES.

**KEYED NOTES**

- ① MAKE ALL FINAL CONNECTIONS TO NEW MOTORS AS REQUIRED FOR PROPER OPERATION. SEE ONE LINE DRAWING FOR WIRE AND CONDUIT. REPLACE EXISTING CAPACITOR AT MOTOR WITH NEW TO MATCH EXISTING 30 KVAR RATING.
- ② EXISTING LIGHT SWITCHES TO REMAIN, CONNECT TO NEW LIGHT FIXTURES IN SIMILAR SCHEME.
- ③ PROVIDE NEW DEHUMIDIFIER UNIT (QUEST HI-E DRY 195 OR APPROVED EQUAL) WITH DEHUMIDISTAT CONTROL ON WALL ADJACENT TO UNIT. PROVIDE 3/4" CONDENSATE DRAIN LINE TO EXISTING SUMP.
- ④ NEW MTS (480V, 600A). SEE ONE LINE FOR CONNECTION DETAILS.
- ⑤ PERFORM MAINTENANCE AND CLEANING ON EXISTING MCC-1 PER MANUFACTURER'S RECOMMENDATIONS.



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ELECTRICAL  
 POWER AND LIGHTING PLAN

SCALE:	AS NOTED
SHEET NAME:	E-3
SHEET NO:	9 OF 9