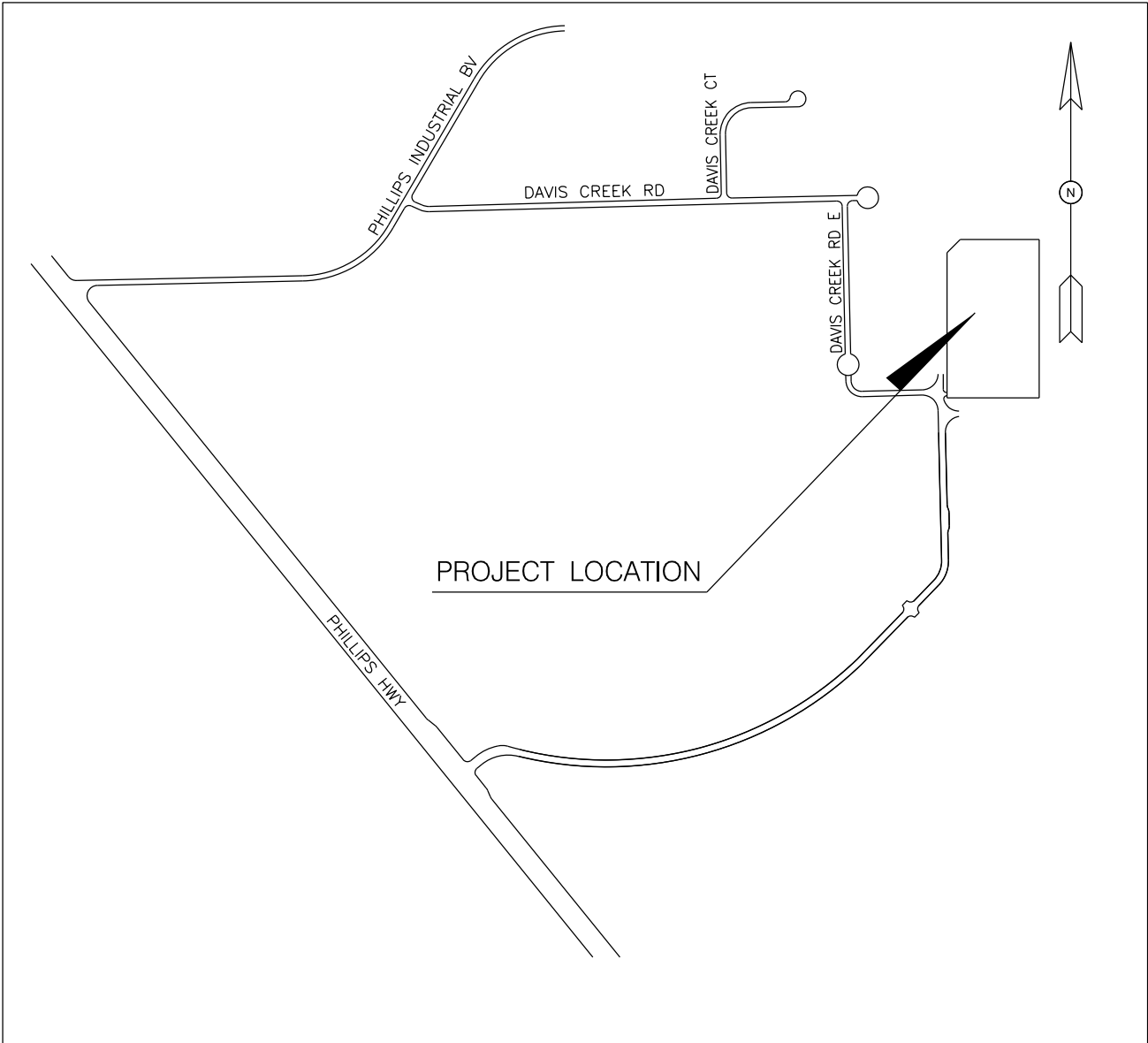
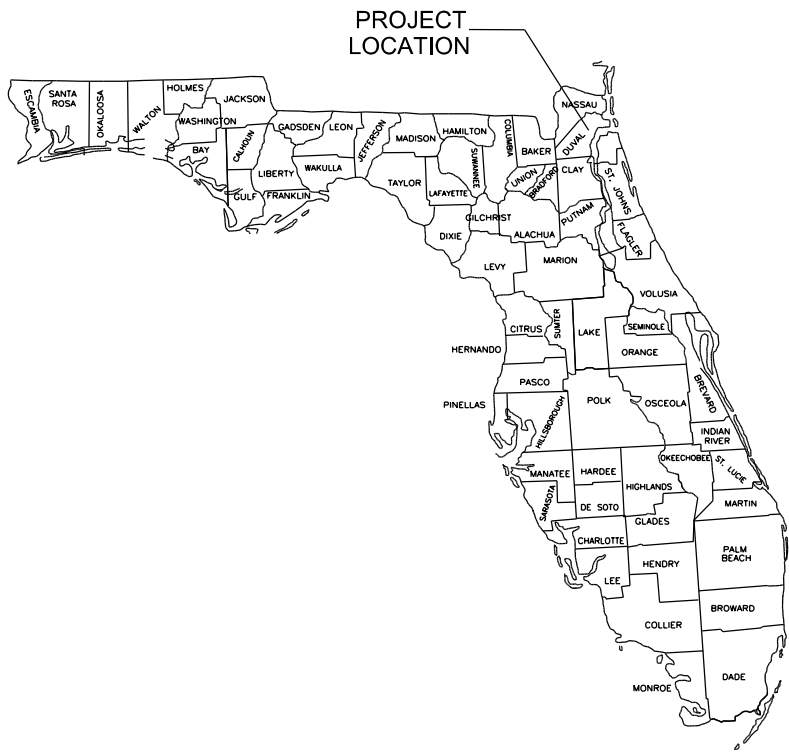


INDEX TO DRAWINGS			
DWG #	DRAWING NAME	TOTAL SHEETS	DRAWING TITLE
01	GE2017-CV	1	COVER SHEET
02	GE2017-BM	1	BILL OF MATERIALS
03	GE2017-FP	3	FOUNDATION PLAN
04	GE2017-SL	1	SINGLE LINE DIAGRAM
05	GE2017-EP	5	ELECTRICAL PLAN
06	GE2017-GP	1	GROUNDING PLAN
07	GE2017-CP	1	CONDUIT PLAN
08	GE2017-CS	1	CONDUIT SCHEDULE
09	GE2017-CT	1	CABLE SCHEDULE
10	GE2017-CE	1	CONTROL HOUSE ELECTRICAL
11	GE2017-LV	3	LOW VOLTAGE



VICINITY MAP  
N.T.S.

12121 PHILIPS HWY, JACKSONVILLE, FL 32256




ISSUED FOR BID

GREENLAND ENERGY CENTER SWITCHYARD  
GEC 230 kV BAY AND BREAKER ADDITION FOR CIRCUIT  
909


*BUILDING COMMUNITY*

SUBSTATION & TRANSMISSION ENGINEERING  
PROJECT # 8004817

<div> 21 W CHURCH ST. JACKSONVILLE, FLORIDA 32202</div>	CONSULTANT INFORMATION	PROFESSIONAL ENGINEER'S SEAL	REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING		GEC 230 KV BAY AND BREAKER ADDITION FOR CIRCUIT 909				DRAWING NAME: GE2017-CV.dgn		
		ORIGINALLY PREPARED UNDER THE RESPONSIBLE SUPERVISION OF  PE: _____  LIC. NO.: _____  STATE: _____  DATE: _____		-	-	-	-	-	DATE	7/24/2018	COVER SHEET				DRAWING SET: GE2017		
				-	-	-	-	-	BY	RMS							
ISSUED FOR BID				-	-	-	-	-	REVIEW	JAR	DRAFTING		SCALE: AS SHOWN		DRAWING #:		SHEET #:
				-	-	-	-	-			DATE	7/24/2018	GREENLAND ENERGY CENTER SWITCHYARD		01 OF 11		1 OF 1
				-	-	-	-	-	REVIEW	JAR			SUBSTATION & TRANSMISSION ENGINEERING		PROJ #: 8004817		

BILL OF MATERIALS

ITEM #	QTY	UNIT	DESCRIPTION	MANUFACTURER	PART #	FURNISHED BY	COMMENTS	PO #	REV
A1	2	EA	230KV "A FRAME DEADEND STRUCTURE, 1 BAY, 60'-0" CONDUCTOR PULL-OFF HEIGHT, APPX WT = 40,319 LBS EA	DISTRAN		DIS-TRAN		171222	
A3	2	EA	230KV LOW BUS SUPPORT STAND, 3 PHASE, 20'-0" BUS HEIGHT, STRUCTURE HEIGHT 12'-11½", APPX WT = 2,693 LBS EA	DISTRAN		DIS-TRAN		171222	
A4	4	EA	230KV SWITCH STAND, 3 PHASE, 20'-0" BUS HEIGHT, APPX WT = 4,421 LBS EA	DISTRAN		DIS-TRAN		171222	
A7	3	EA	230KV POTENTIAL TRANSFORMER STAND, SINGLE PHASE, 7'-6" STRUCTURE HEIGHT, APPX WT = 724 LBS EA	DISTRAN		DIS-TRAN		171222	
A8	6	EA	230KV LIGHTING ARRESTER STAND, THREE PHASE, 8'-6" STRUCTURE HEIGHT, APPX WT = 2,100 LBS EA	DISTRAN		DIS-TRAN		171222	
A9	4	EA	GROUND PLATFORM, GALVANIZED, 1"X3'X4'	P&R METALS		DIS-TRAN		171222	
A10	LOT	-	GALVANIZED EQUIPMENT MTG. BOLTS, NUTS, & WASHERS	T.F.		DIS-TRAN		171222	
A11	LOT	-	ANCHOR BOLTS, COMPLETE WITH (2) NUTS AND (2) FLATWASHERS INCLUDES CAGES FOR STRUCTURE A1	T.F.		DIS-TRAN		171222	
B1	4	EA	230KV, 2000 AMP, 900KV BIL, 3 PHASE GROUP OPERATED VERTICAL BREAK SWITCH, COMPLETE WITH: A: ALUMINUM LIVE PARTS B: PROVISIONS FOR TR-304 STATION POST INSULATORS C: MANUAL WORM GEAR OPERATOR 30:1 RATIO D: STANDARD ARCING HORNS E: 20'-0" BUS HEIGHT F: 4 HOLE TERM PADS TIN PLATED	PASCOR ATLANTIC	TTR8-AC	DIS-TRAN		171222	
B3	36	EA	STATION POST INSULATOR, 230KV, 900KV BIL, TR-304, GRAY 950 # CANTILEVER STRENGTH, 5" BOLT CIRCLE (FOR GROUP OPERATED SWITCHES)	NGK-LOCKE	PS090201	DIS-TRAN		171222	
B4	3	EA	230KV, POTENTIAL TRANSFORMER, OIL FILLED, SINGLE POLE, WOUND TYPE, 900 kV BIL -MAX SYS VOLTAGE: (kV): 245 -NOM. SYS VOLTAGE: (kV): 230 -NOM. FREQUENCY (Hz): 60 -ALTITUDE- (FASL): 3300 -PRFW (kV): 460 -RATED PRIM. VOLTAGE (GY/V): 230000/138000 -RATIO: 1200/2000:1:1 -ACCURACY/BURDEN: 0.3 WXYZ.ZZ -OVERVOLTAGE FACTOR: 1.4/1 MIN; 1.2 CONT. -THERMAL BURDEN (VA): 5000 -INSULATOR TYPE: PORCELAIN -CREEPAGE DISTANCE (IN/MM): 248/6300 -COLOR: GREY -COMPLIANCE STANDARD: IEEE C57.13-2008	GE	OTEF245	DIS-TRAN		171222	
B5	6	EA	STATION CLASS SURGE ARRESTER, 144 MCOV, ANSI 70, GRAY, POLYMER	OHIO BRASS	EVPO1440-3001	DIS-TRAN		171222	
B6	12	EA	STATION POST INSULATOR, EXTRA HIGH STRENGTH, 230 KV, 900 KV BIL, 2750# CANTILEVER, GRAY, UNIFORM STACK 7" BOLT CIRCLE -(6) UPRIGHT -(6) UNDERHUNG	NGK-LOCKE	PE090201	DIS-TRAN		171222	
B7	6	EA	BUS SUPPORT CLAMP, 4" IPS ALUM TUBING TO 7" B.C., WELDED	SEFCOR	ASVW647SE	DIS-TRAN		171222	
B8	6	EA	BUS SUPPORT CLAMP, 4" IPS ALUM TUBING TO 7" B.C., VERTICAL TYPE, WELDED	SEFCOR	WVTI647	DIS-TRAN		171222	
B9	600	FT	RIGID BUS PIPE, ALUMINUM, 4" DIA, NPS, SCH 40, 6063-T8, ASTM B241, 53% IACS CONDUCTIVITY, 3.733PLF, 25KSI YIELD STRENGTH, SUITABLE FINISH FOR HIGH VOLTAGE APPLICATION -(6) 20' PCS -(9) 30' PCS -(6) 35' PCS	WILLIAMS M		DIS-TRAN		171222	
B11	1000	FT	954 MCM AAC, 37 STRAND, CODE NAME "MAGNOLIA" -(INCLUDES DAMPENING CABLE) -(390) DAMPENING -(610) JUMPER	MID STATE		DIS-TRAN		171222	
B12	9	EA	TERMINAL, 4" IPS ALUM TUBING TO 4 HOLE PAD, 4" PAD, WELDED, CENTERFORMED	SEFCOR	WFTC-64-4B	DIS-TRAN		171222	
B13	15	EA	TERMINAL, 4" IPS ALUMINUM TUBING TO 4 HOLE, 4" WIDE PAD, CENTERFORMED, EXPANSION	SEFCOR	WFXTC-64-4B	DIS-TRAN		171222	
B16	24	EA	TEE CONNECTOR, 4" IPS ALUM TUBING TO 4" 4 HOLE PAD, WELDED	SEFCOR	WTF-6269-4B	DIS-TRAN		171222	
B18	6	EA	ALUMINUM GROUNDING STUD FOR 4" IPS ALUM TUBING, WELDED	SEFCOR	WTS-6064	DIS-TRAN		171222	
B19	6	EA	COUPLER, 4" IPS ALUM TUBING TO 4" IPS ALUM TUBING, WELDED	SEFCOR	WSC-6464	DIS-TRAN		171222	
B23	12	EA	TERMINAL, (2) 954 MCM AAC TO 4 HOLE 4" WIDE PAD, WELDED	SEFCOR	WFC2-34-4B	DIS-TRAN		171222	
B24	12	EA	TERMINAL, (2) 954 MCM AAC TO 4 HOLE 4" WIDE PAD, WELDED, 45 DEGREE	SEFCOR	WFC2-45-34-4B	DIS-TRAN		171222	
B25	24	EA	CABLE SPACER, (2) 954 MCM AAC CABLES, 6" SPACING	SEFCOR	ASPC-35-6	DIS-TRAN		171222	
B26	12	EA	TERMINAL, 954 MCM AAC TO 4 HOLE PAD, 4" WIDE PAD, WELDED	SEFCOR	WFC-34-4B	DIS-TRAN		171222	
B28	LOT	-	SET OF (4) STAINLESS STEEL TERMINAL BOLTS, 2 FLAT WASHERS & BRONZE NUTS WITH BELLEVILLE WASHERS RATED FOR 4000# OF COMPRESSION	T.F.		DIS-TRAN		171222	
B30	6	EA	TERMINAL, 954 AAC TO 3" 4 HOLE PAD, WELDED	SEFCOR	WFC-34-4A	DIS-TRAN		171222	
B41	166	EA	GROUND CLAMP, 2 PIECE, 1 CONDUCTOR, 7#5 COPPERWELD TO STEEL, TINNED	SEFOCR	GTC-14	DIS-TRAN		171222	
B42	69	EA	GROUND CLAMP, 2 PIECE, 2 CONDUCTOR, 7#5 COPPERWELD TO STEEL, TINNED	SEFCOR	GTC2-14	DIS-TRAN		171222	
B43	7	EA	TERMINAL, 7#5 COPPERWELD TO 2 HOLE PAD, BOLTED	AEC	VL4D-41-4H	DIS-TRAN		171222	
B44	700	FT	7 # 5 COPPER WELD CABLE FOR STRUCTURE GROUNDING 40% DSA	MID STATE		DIS-TRAN		171222	
B45	6	EA	TERMINAL, 7#5 COPPERWELD TO 2 HOLE PAD, BOLTED	AEC	VL4D-61-4H	DIS-TRAN		171222	
B50	30	EA	ELECTRICAL JOINT COMPOUND	AEC	ING8	DIS-TRAN		171222	
C01	4750	FT	CONTROL CABLE CONDUCTOR SIZE: #10 STR/B NO OF CONDUCTORS:4 SHIELDED REEL SIZE: NCR32.24 (PER JEA TECHNICAL SPECIFICATIONS JFX-035-09 SECTION XI)	JEA STOREROOM	CAICN016	JEA			
C02	450	FT	CONTROL CABLE CONDUCTOR SIZE: #10 STR/B NO OF CONDUCTORS:8 SHIELDED REEL SIZE: NCR40.24 (PER JEA TECHNICAL SPECIFICATIONS JFX-035-09 SECTION XI)	JEA STOREROOM	CAICN017	JEA			
C03	1500	FT	CONTROL CABLE CONDUCTOR SIZE: #10 STR/B NO OF CONDUCTORS:21 SHIELDED REEL SIZE: NCR58.32 (PER JEA TECHNICAL SPECIFICATIONS JFX-035-09 SECTION XI)	JEA STOREROOM	CAICN018	JEA			
C04	8	EA	LUMINAIRE, 40W LED, 70W HPS EQUIVALENT, COBRAHEAD, 120 VAC, PE RECEPTACLE, 7-PIN	JEA STOREROOM	STLLE001	JEA			
C05	8	EA	PHOTOCONTROL, LONG LIFE FOR LED FIXTURE, 1280 JOULE MOV, FAIL OFF, GREEN	JEA STOREROOM	STLPC010	JEA			
C06	2	EA	245KV, 50kA, 3000A CIRCUIT BREAKER, SF6 GAS	HITACHI	HS245-A-50	JEA	DELIVERED TO SITE	172981	



**BUILDING COMMUNITY**  
21 W CHURCH ST.  
JACKSONVILLE, FLORIDA 32202

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CONSULTANT INFORMATION	PROFESSIONAL ENGINEER'S SEAL
	ORIGINALLY PREPARED UNDER THE RESPONSIBLE SUPERVISION OF  PE: _____  LIC. NO.: _____  STATE: _____  DATE: _____

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW
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ENGINEERING	
DATE	7/24/2018
BY	RMS
REVIEW	JAR
DRAFTING	
DATE	7/24/2018
BY	RMS
REVIEW	JAR

GEC 230 kV BAY AND BREAKER ADDITION FOR CIRCUIT 909

BILL OF MATERIALS

GREENLAND ENERGY CENTER SWITCHYARD  
SUBSTATION & TRANSMISSION ENGINEERING

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GE2017-BM.dgn

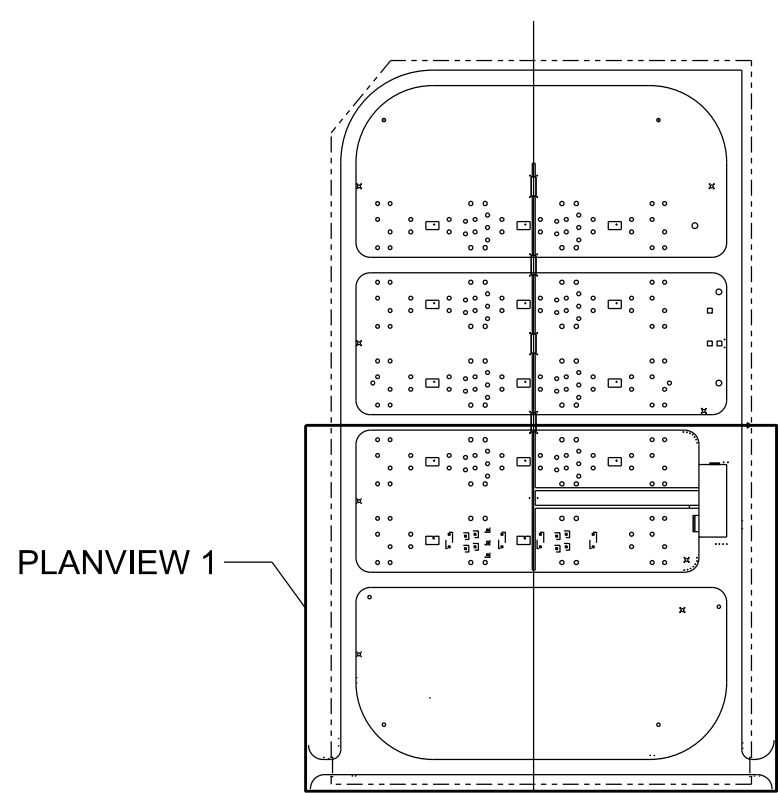
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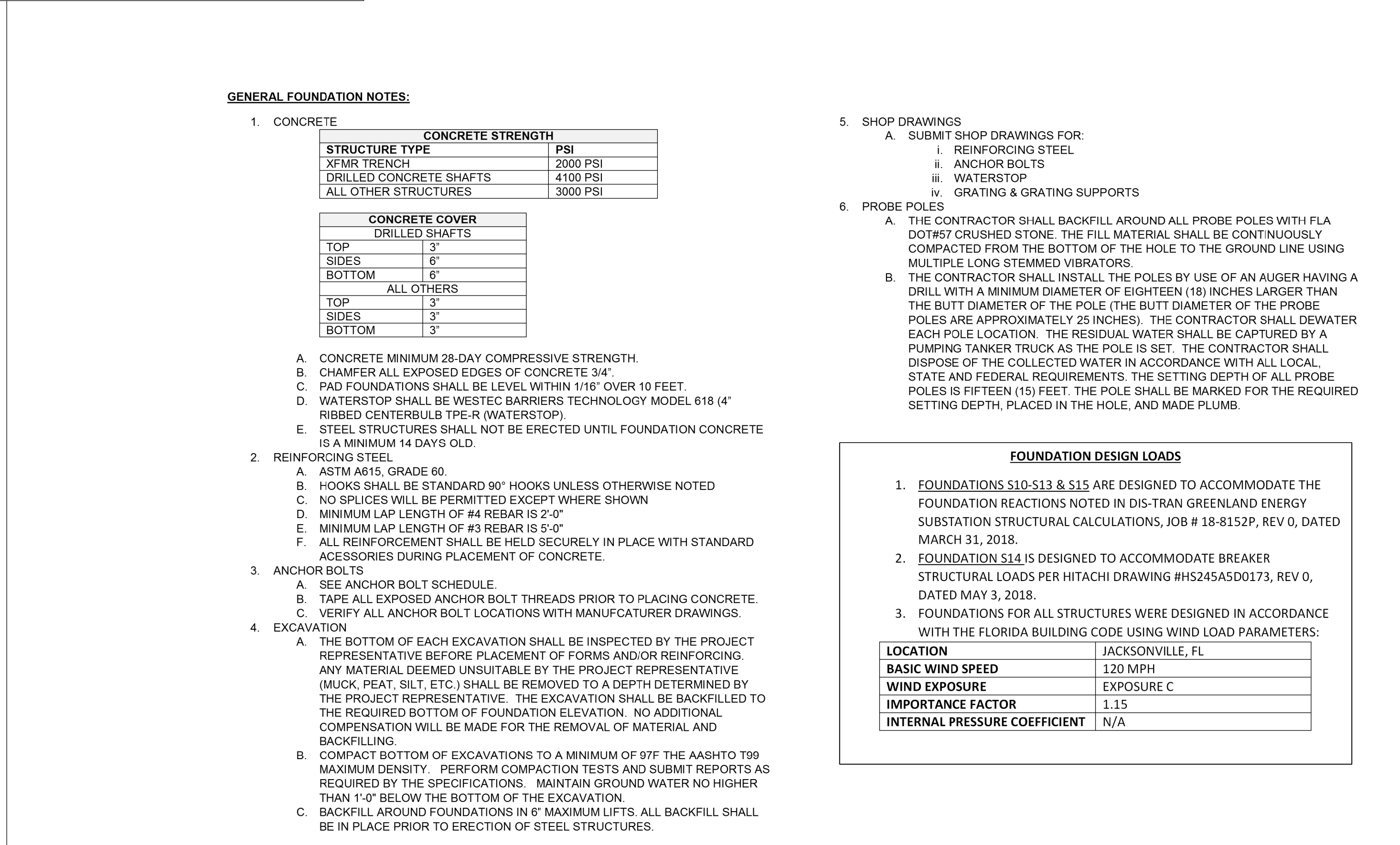
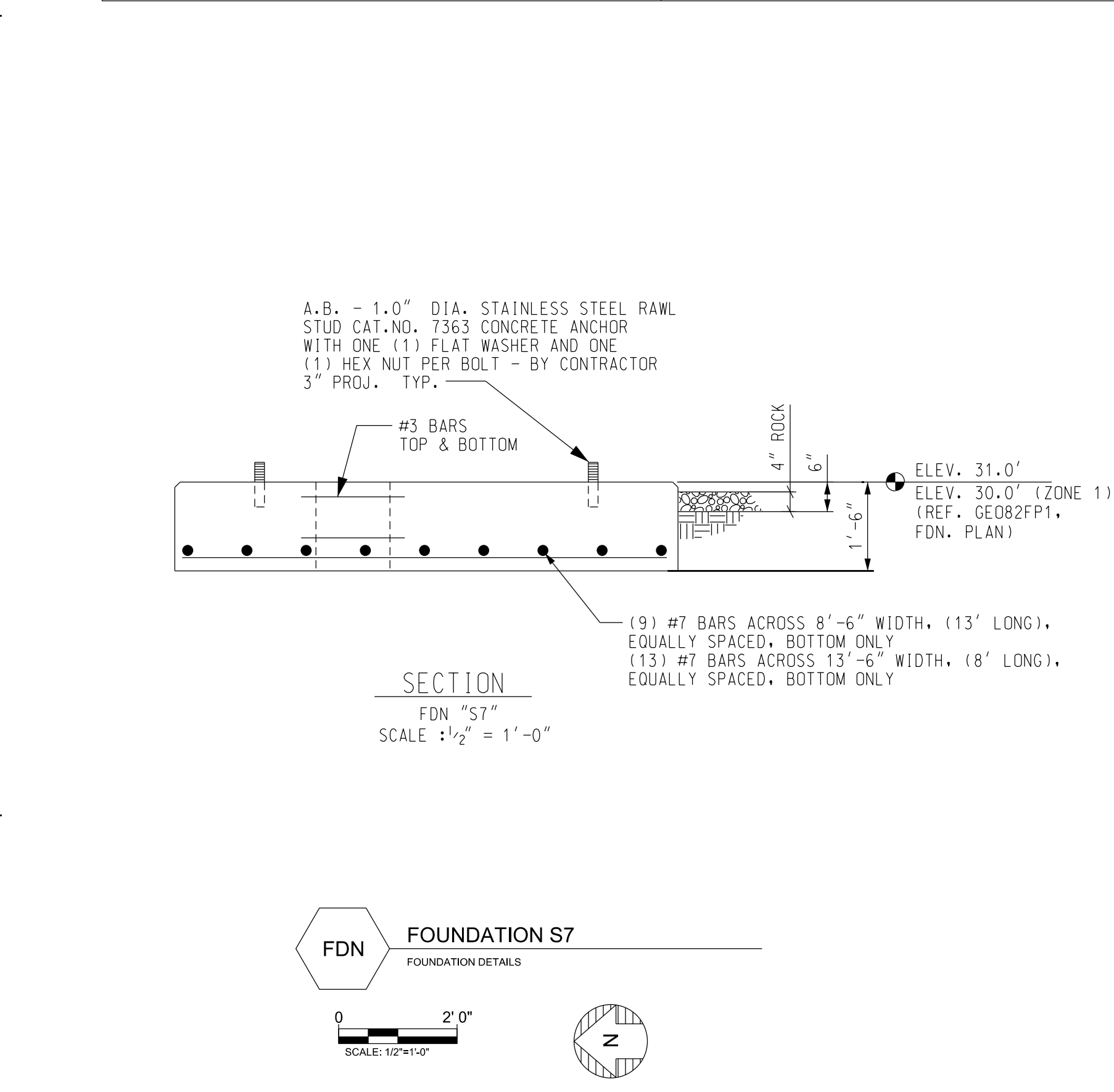
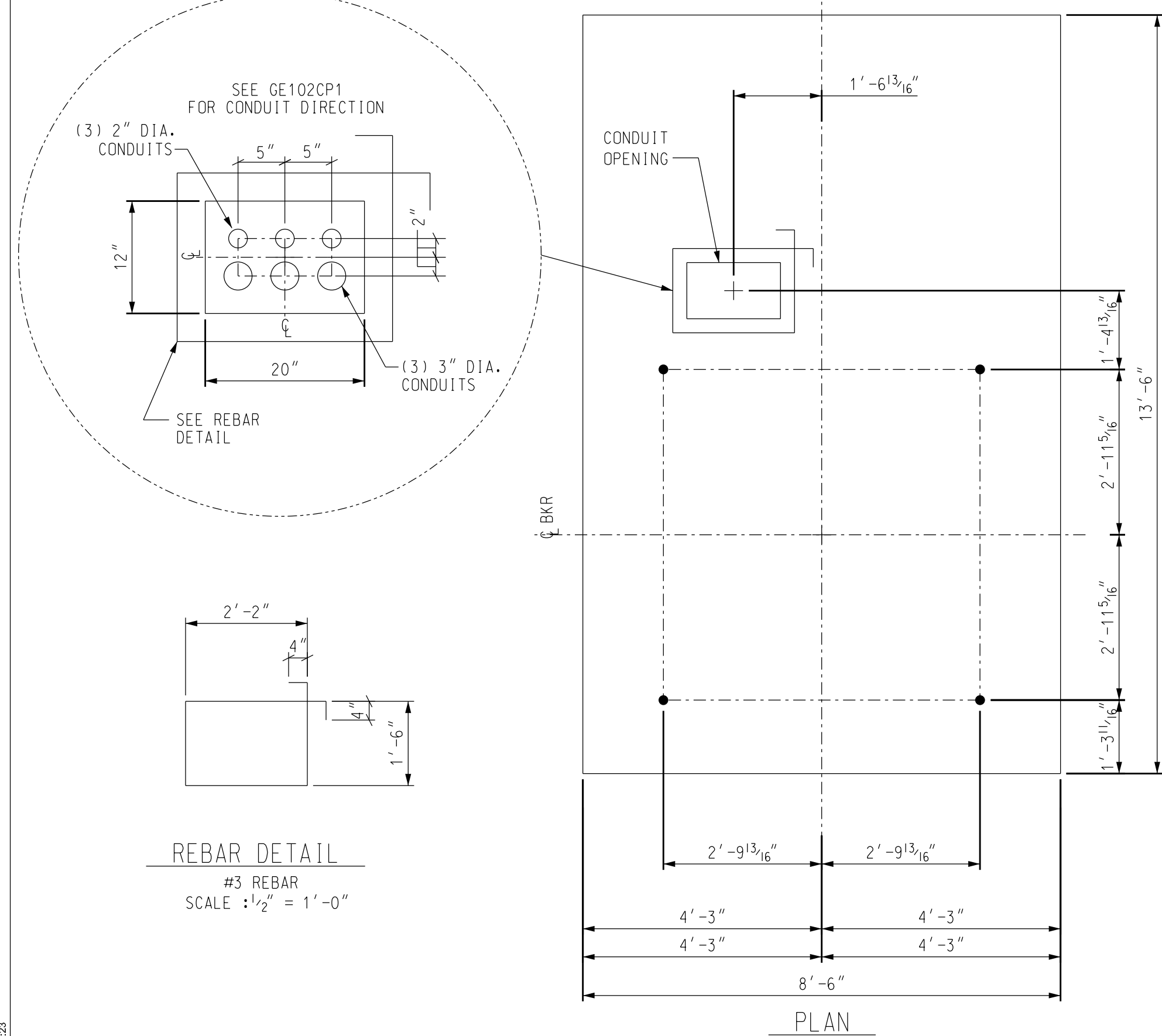
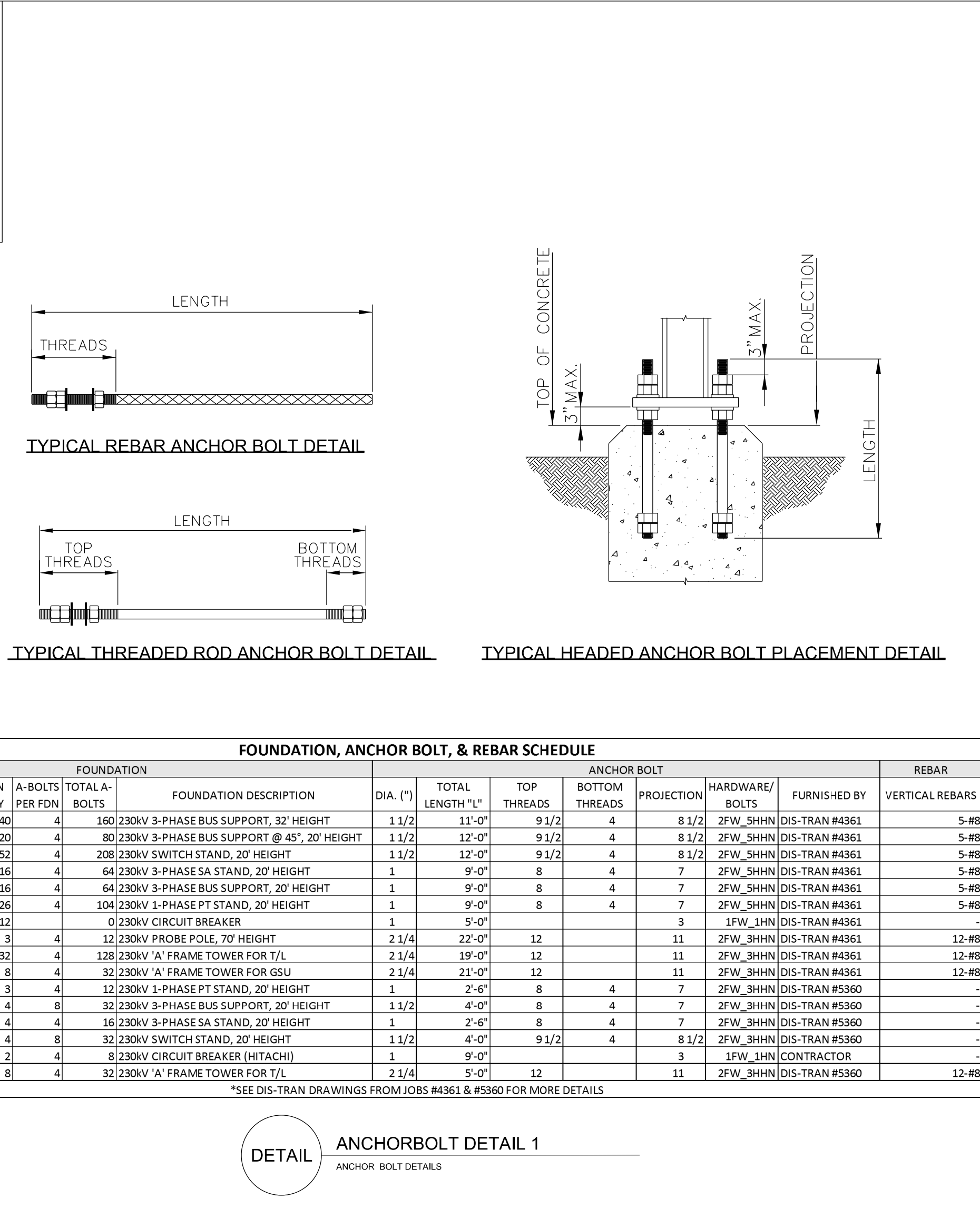
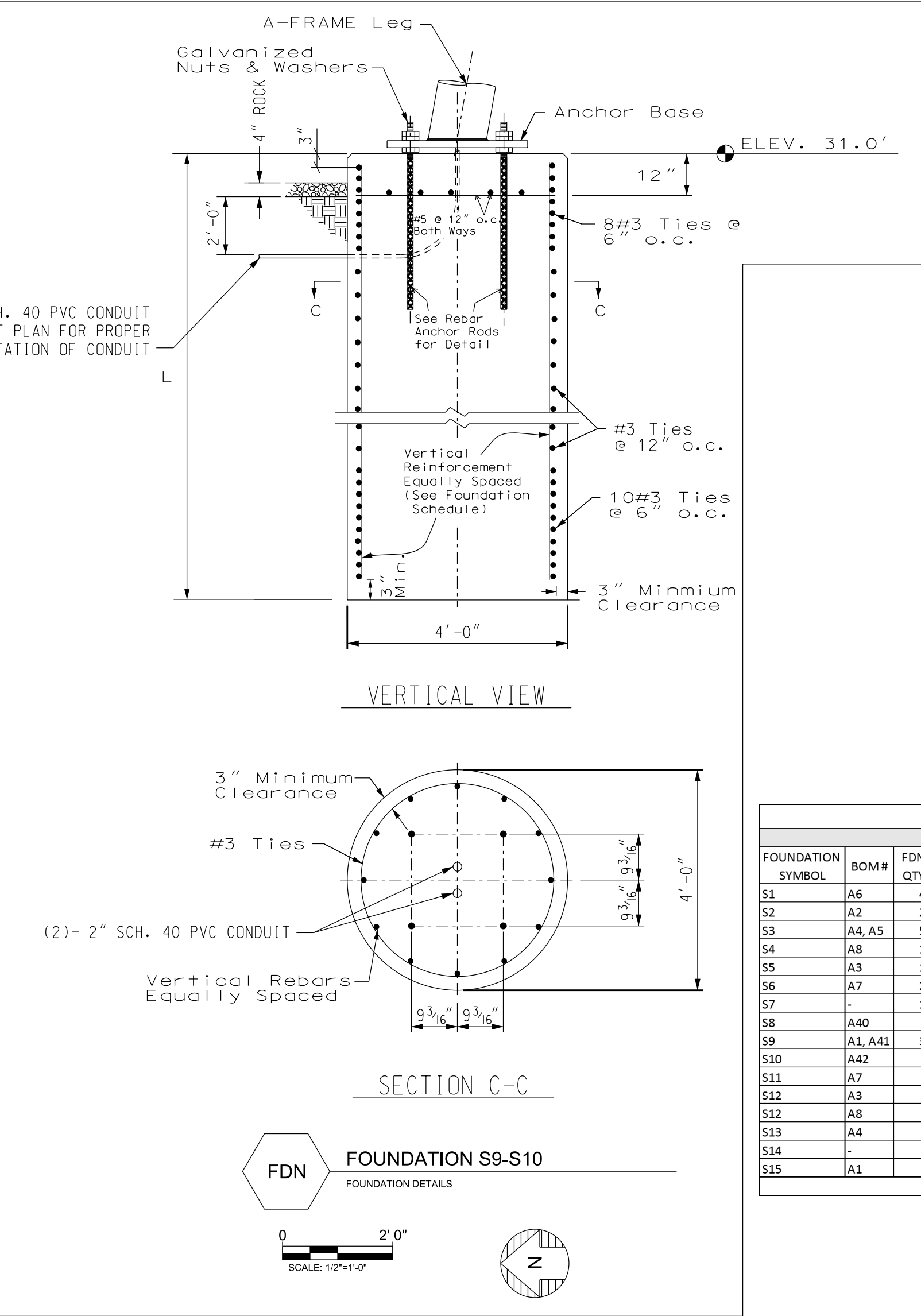
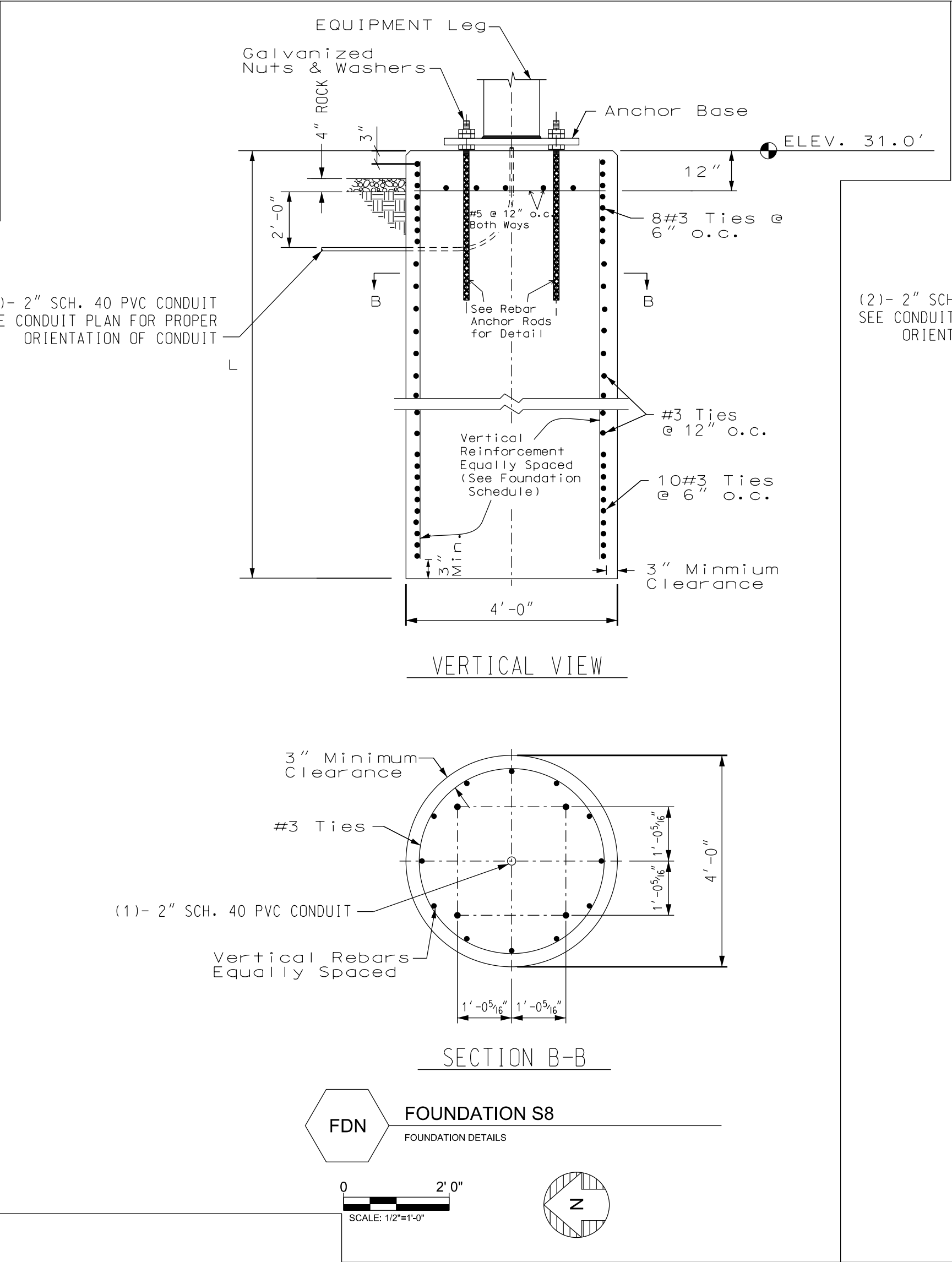
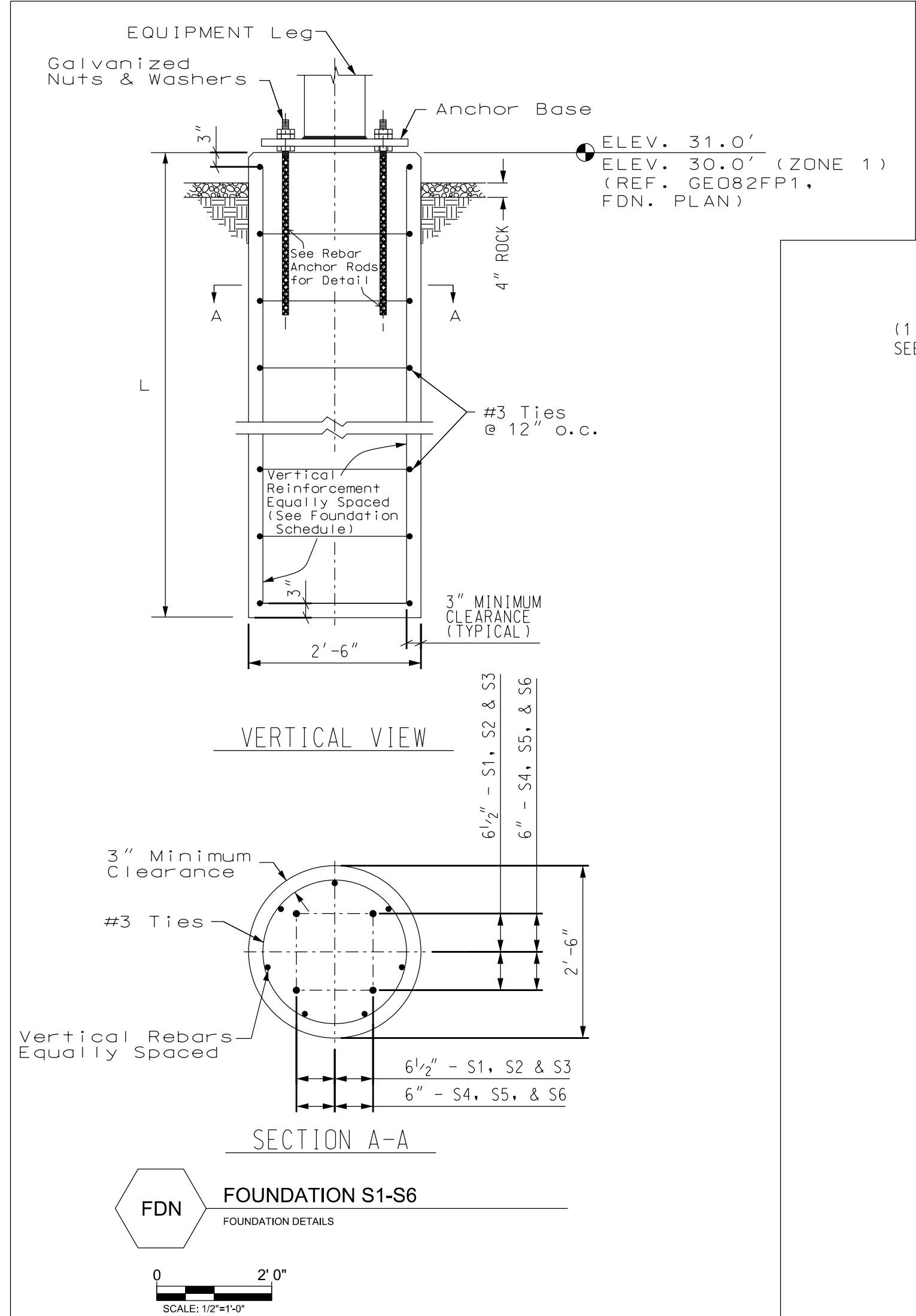
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SHEET #: 1 OF 1

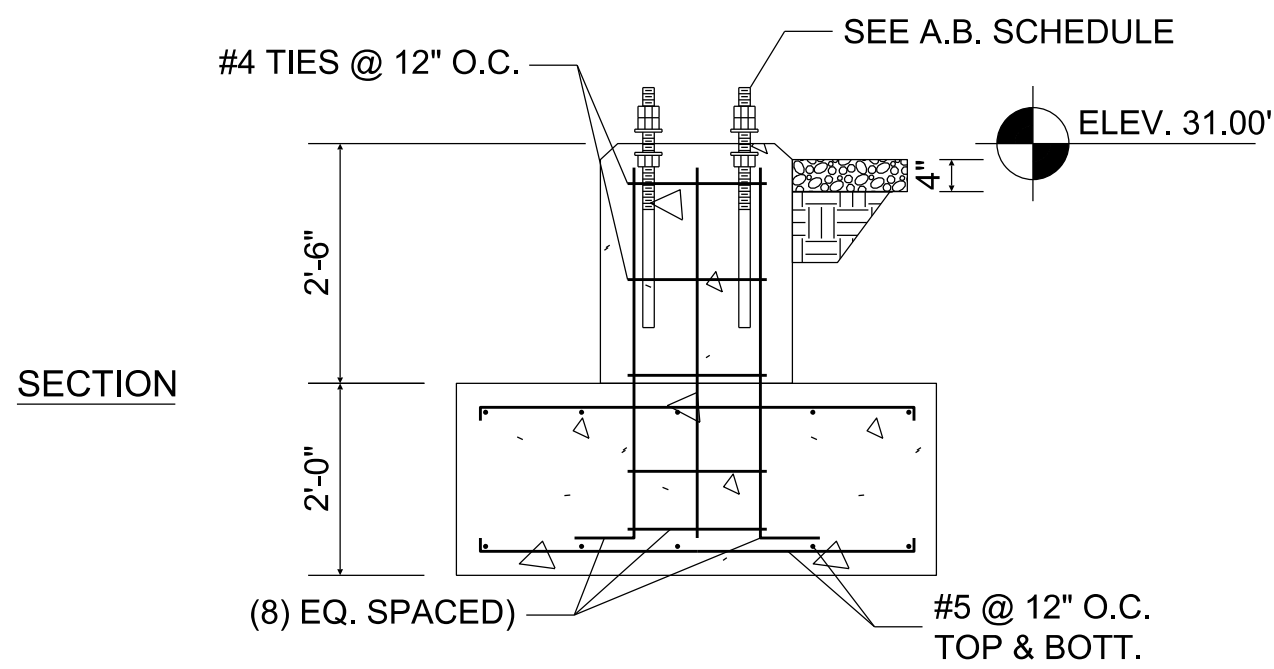
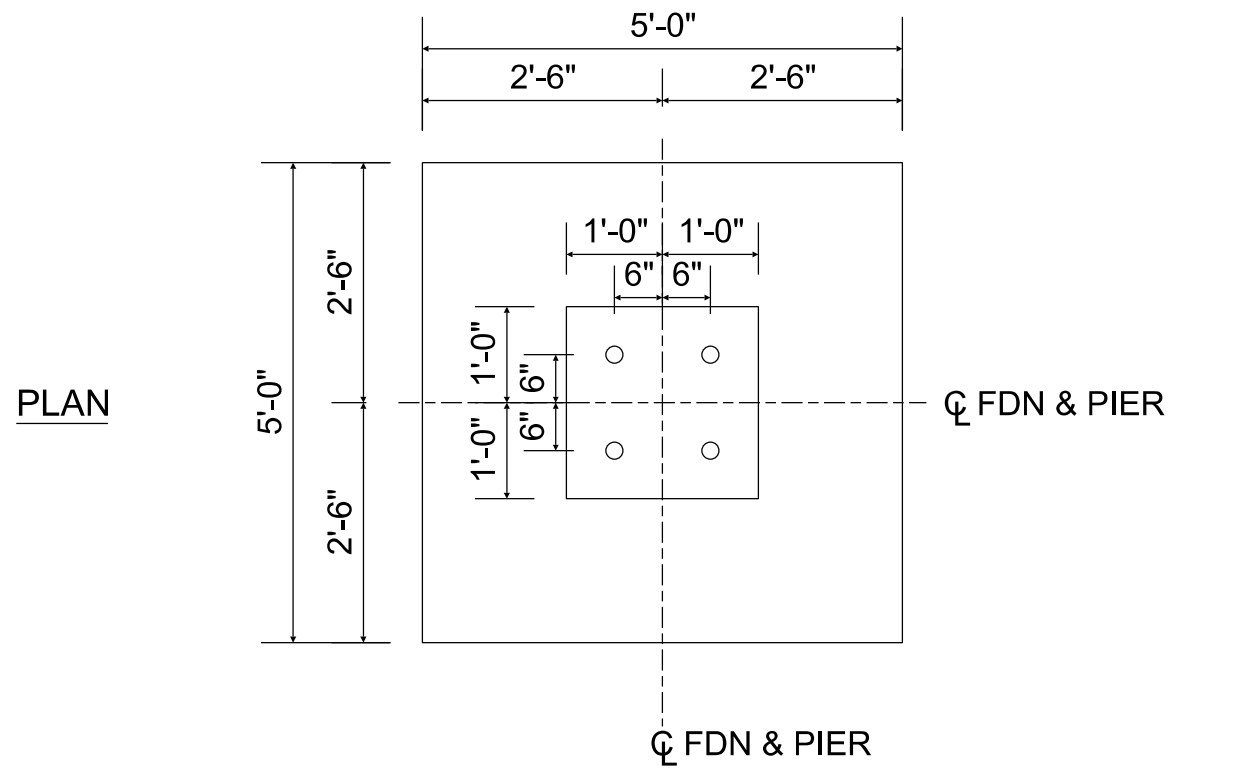
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PROJ #: 8004817

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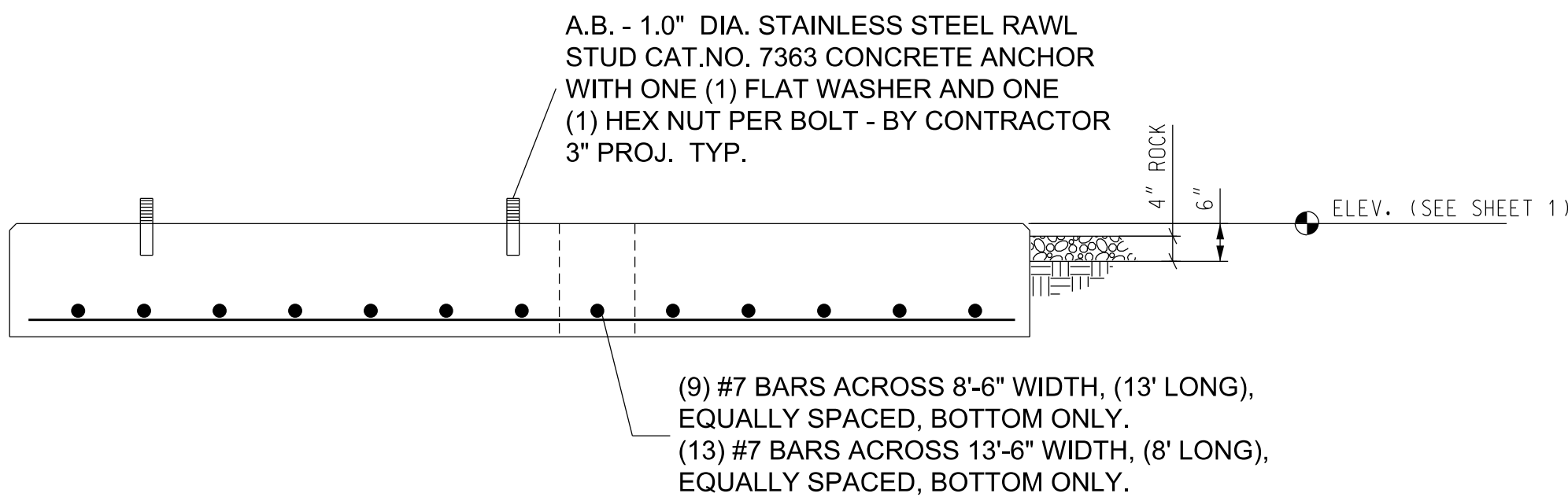
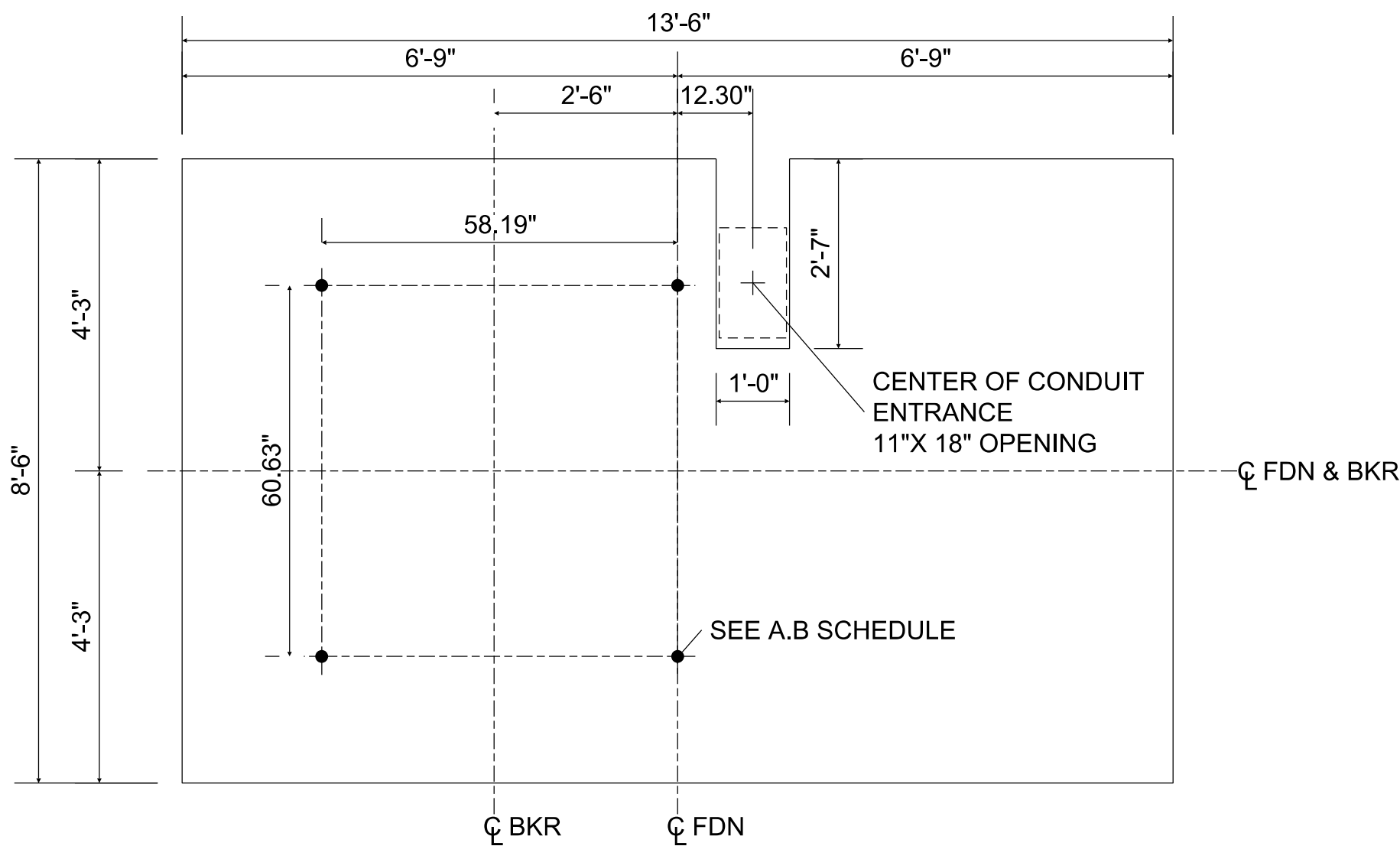






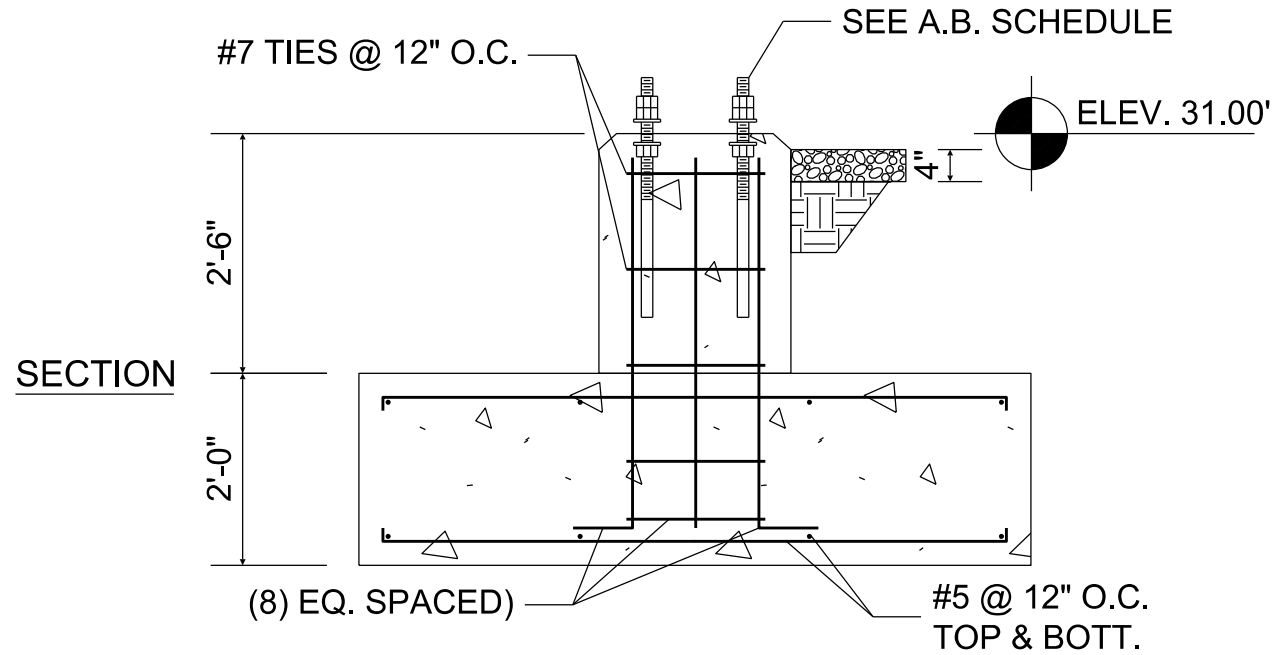
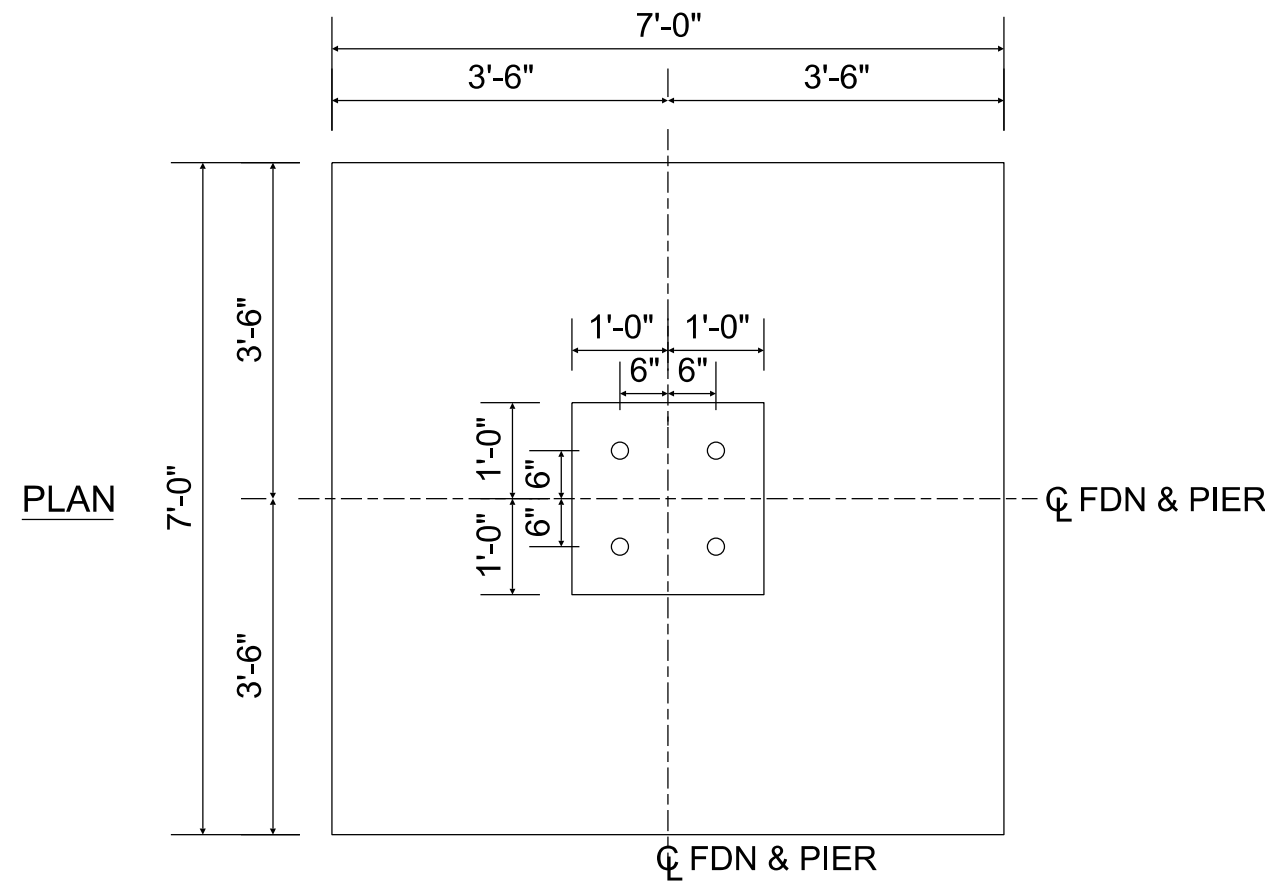
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FOUNDATION DETAIL FOR DIS-TRAN STRUCTURE A7

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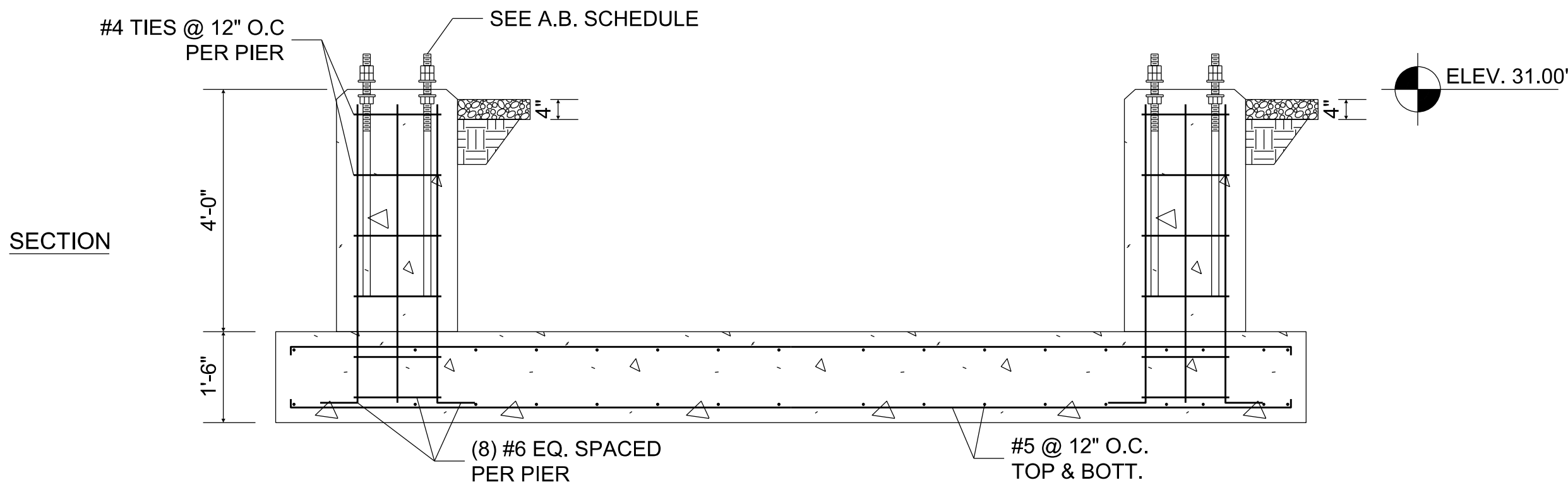
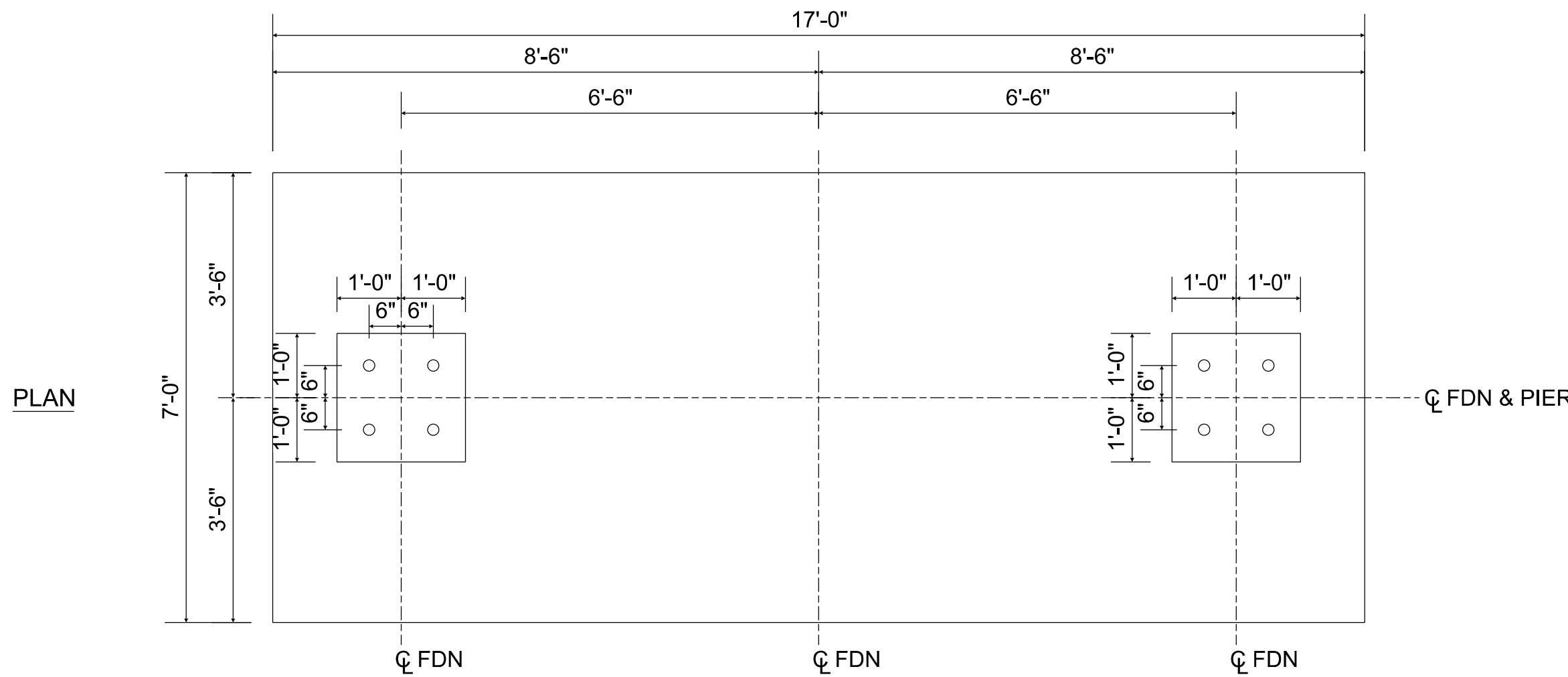
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FOUNDATION DETAILS OF CKT BKR (HITACHI)

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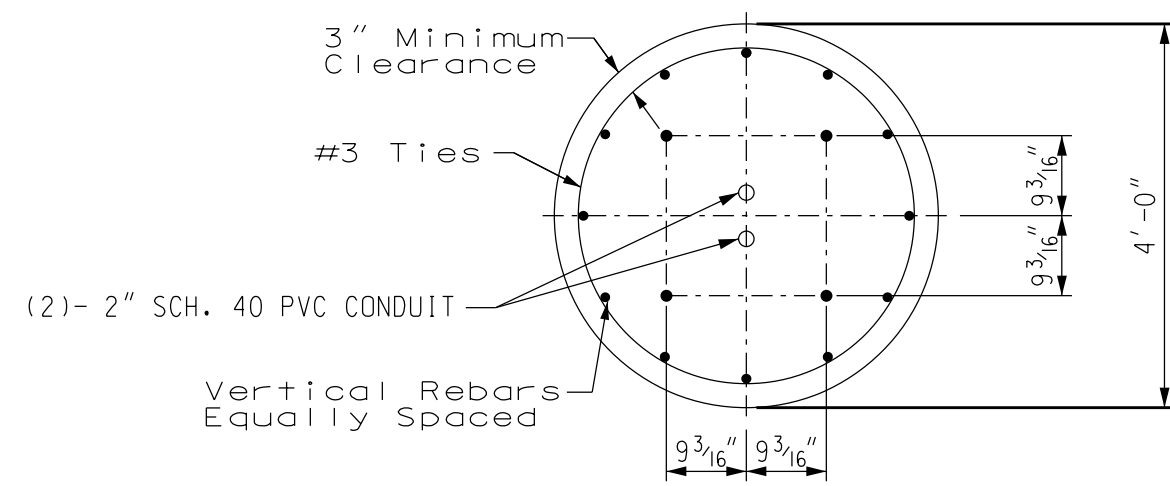
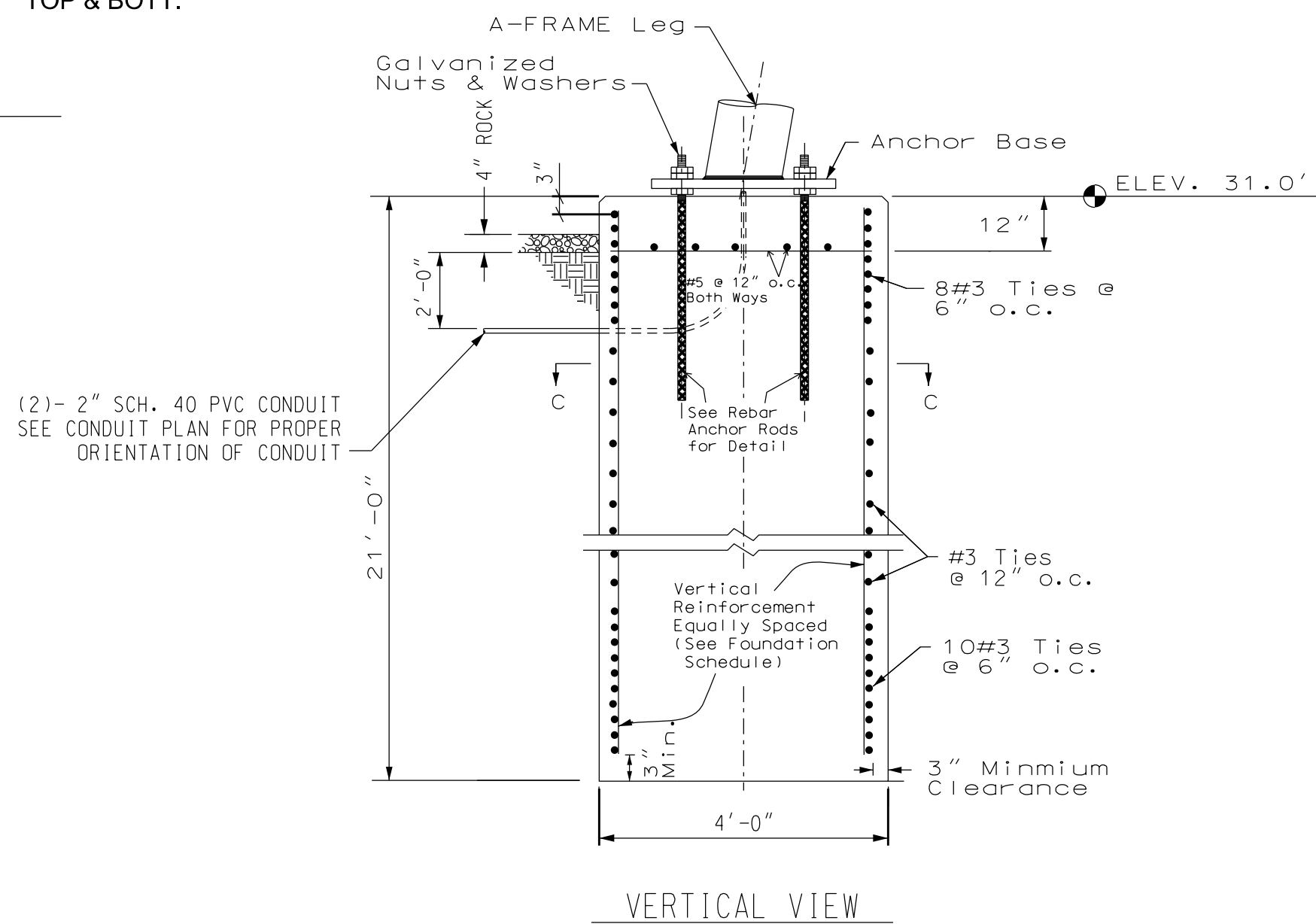
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FOUNDATION DETAIL FOR DIS-TRAN STRUCTURE A3 & A8

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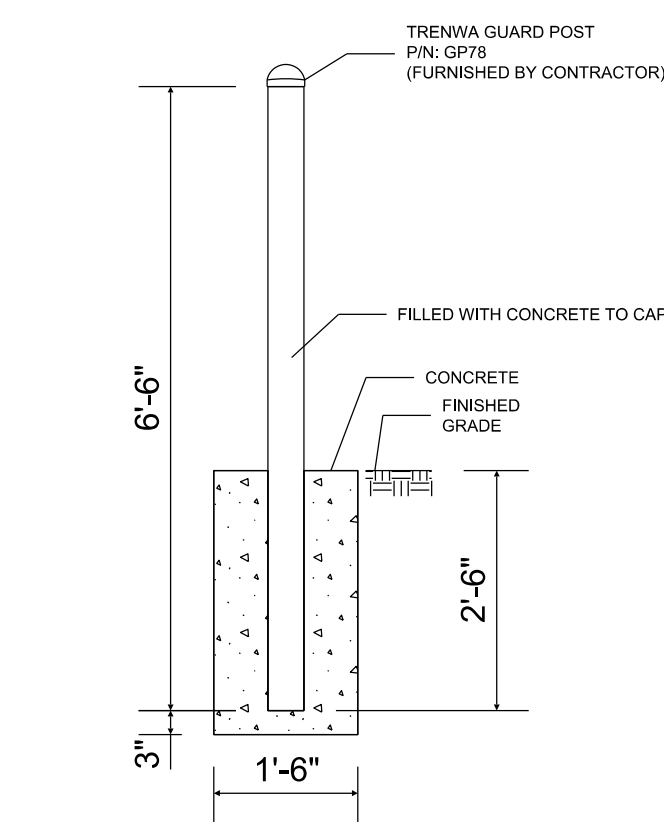
FDN FOUNDATION S13  
FOUNDATION DETAIL FOR DIS-TRAN STRUCTURE A4

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



FDN FOUNDATION S15  
FOUNDATION DETAILS FOR DIS-TRAN STRUCTURE A1

0 1  
SCALE: N.T.S.



FDN FOUNDATION B  
TYPICAL BOLLARD DETAIL

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



21 W CHURCH ST.  
JACKSONVILLE, FLORIDA 32202

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LIC. NO.: \_\_\_\_\_

STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING
-	-	-	-	-	-	DATE 7/24/2018
-	-	-	-	-	-	BY LJJ
-	-	-	-	-	-	REVIEW JAR
-	-	-	-	-	-	DRAFTING
-	-	-	-	-	-	DATE 7/24/2018
-	-	-	-	-	-	BY RMS
-	-	-	-	-	-	REVIEW JAR

GEC 230 kV BAY AND BREAKER ADDITION FOR CIRCUIT 909

## FOUNDATION PLAN

GREENLAND ENERGY CENTER SWITCHYARD

SUBSTATION & TRANSMISSION ENGINEERING

PROJ # 8004817

DRAWING NAME:

GE2017-FP.dgn

DRAWING SET:

GE2017

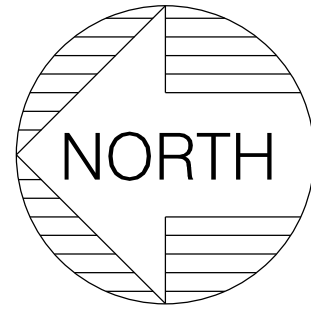
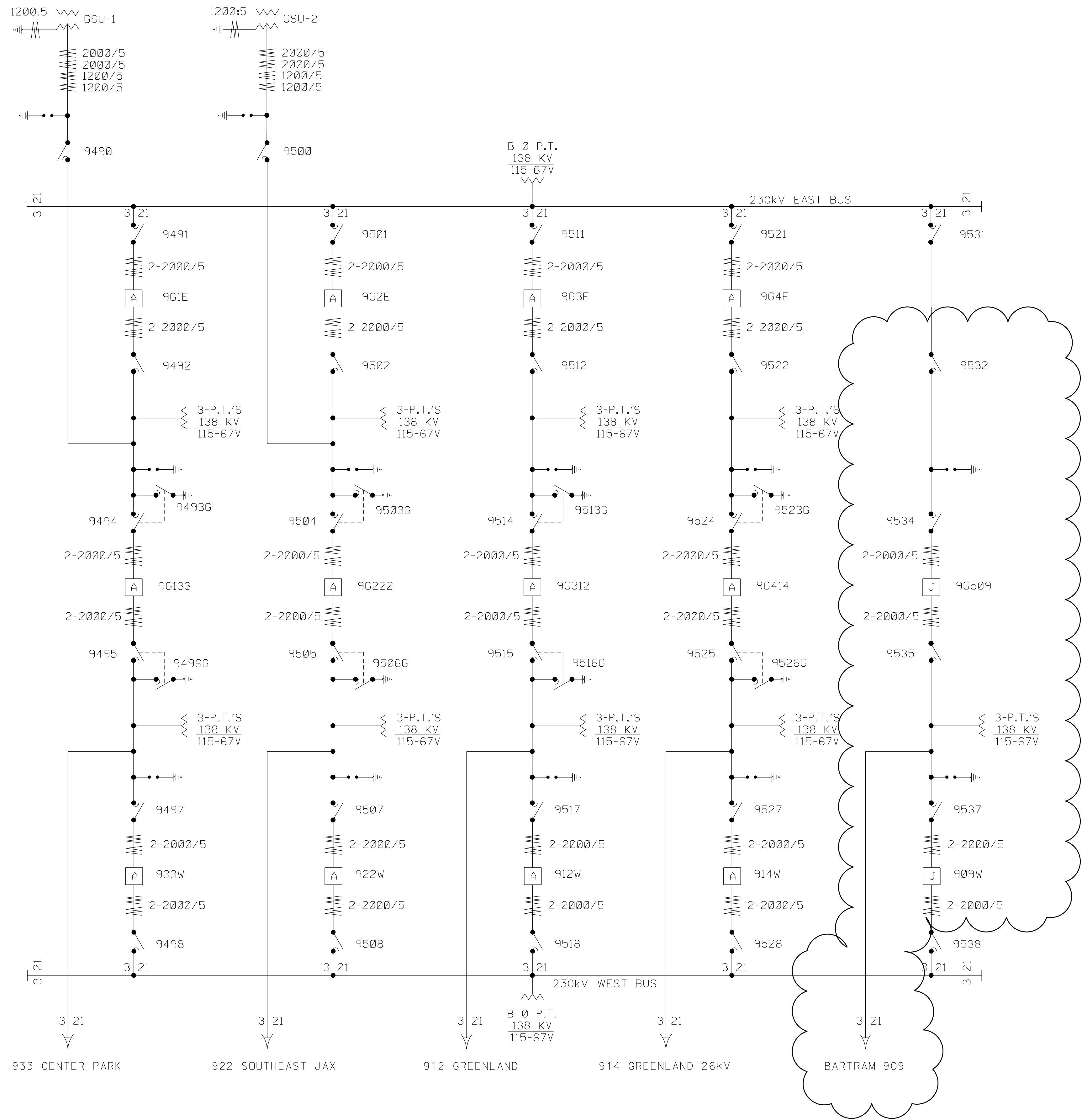
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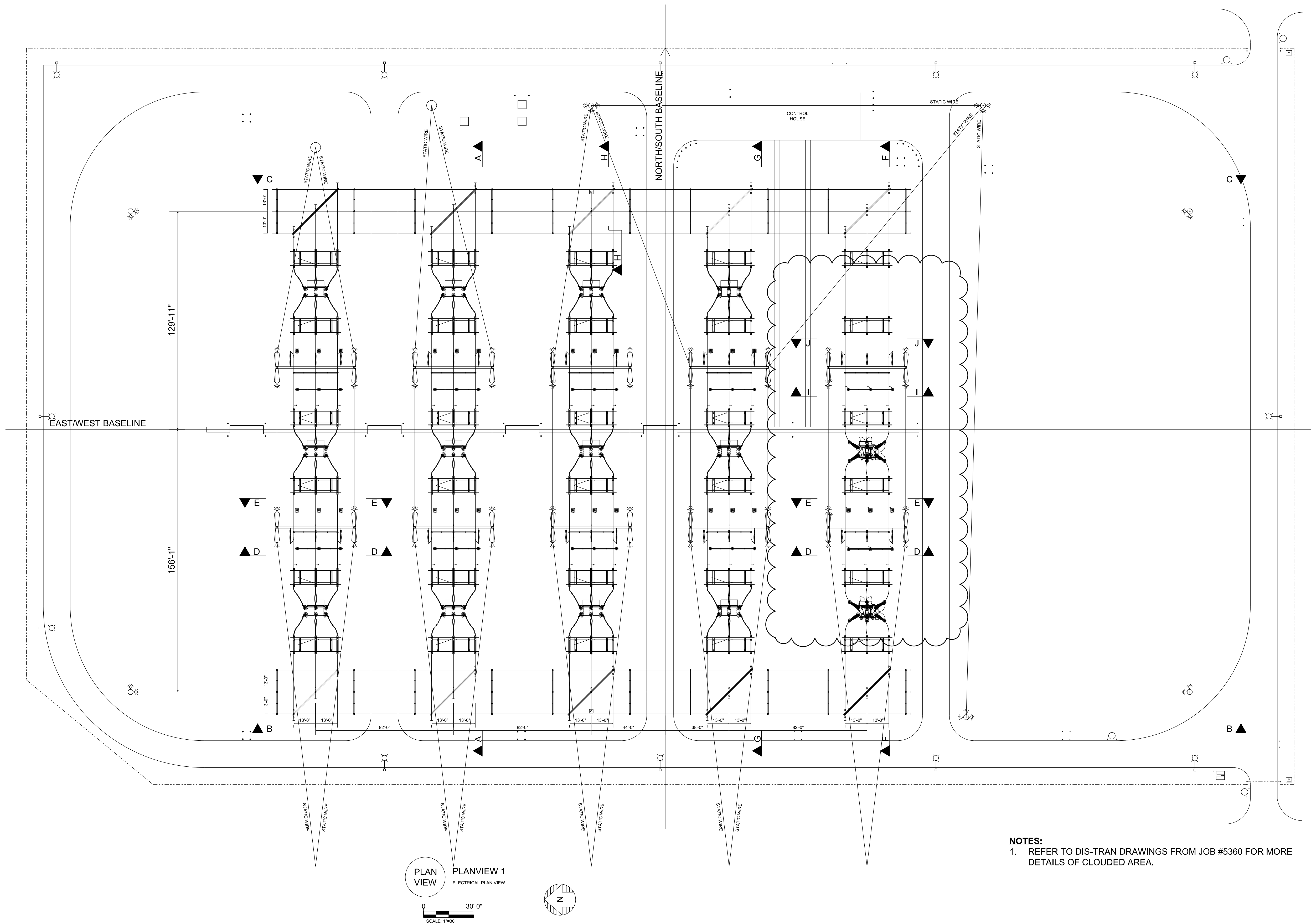
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3 OF 3





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NOTES:  
1. REFER TO DIS-TRAN DRAWINGS FROM JOB #5360 FOR MORE DETAILS OF CLOUDED AREA.

CONSULTANT INFORMATION

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-	-	-	-	-	-	REVIEW JAR
-	-	-	-	-	-	DRAFTING
-	-	-	-	-	-	DATE 7/24/2018
-	-	-	-	-	-	BY RMS
-	-	-	-	-	-	REVIEW JAR

GEC 230 kV BAY AND BREAKER ADDITION FOR CIRCUIT 909

## ELECTRICAL PLAN

GREENLAND ENERGY CENTER SWITCHYARD  
SUBSTATION & TRANSMISSION ENGINEERING

PROJ # 8004817

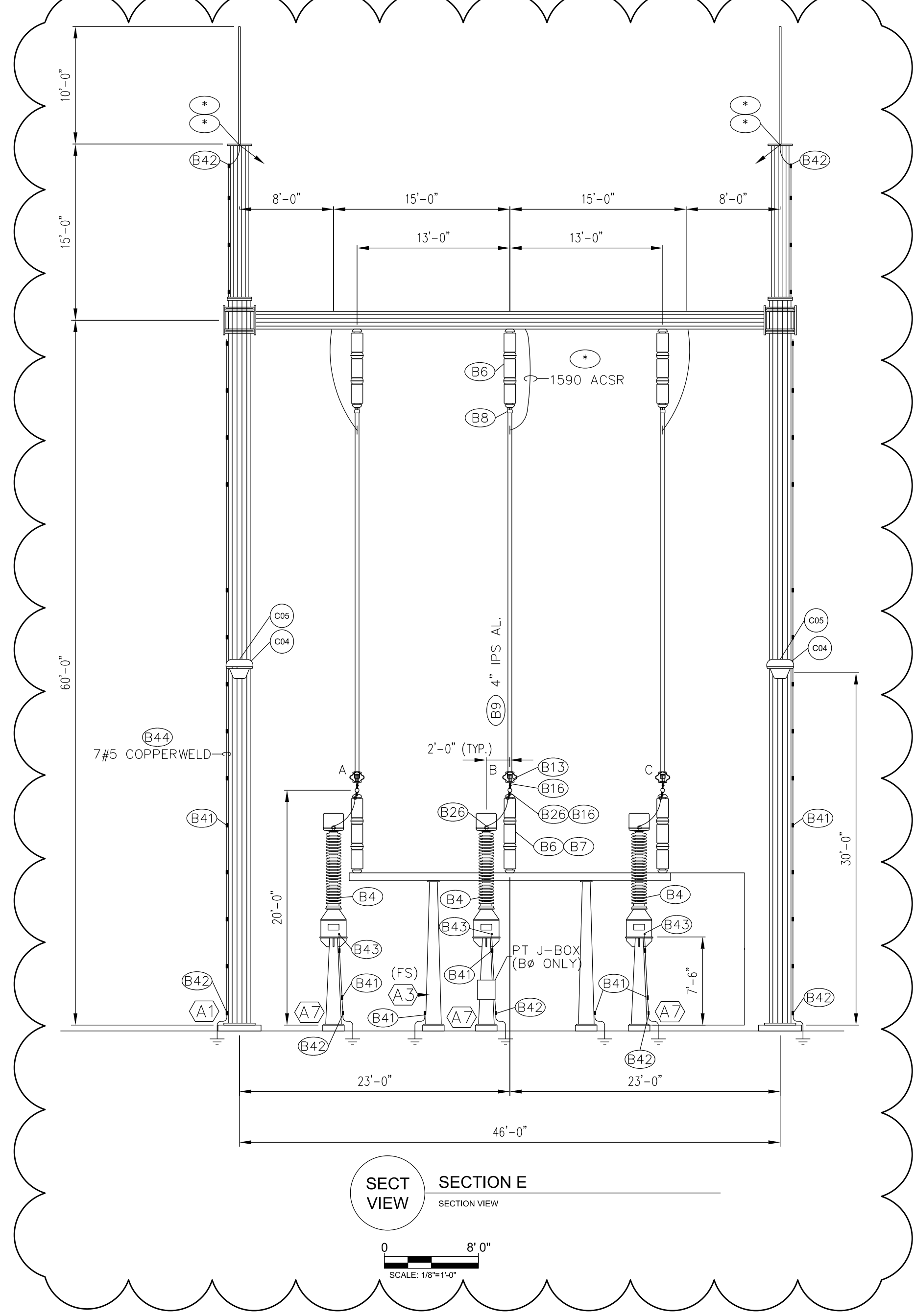
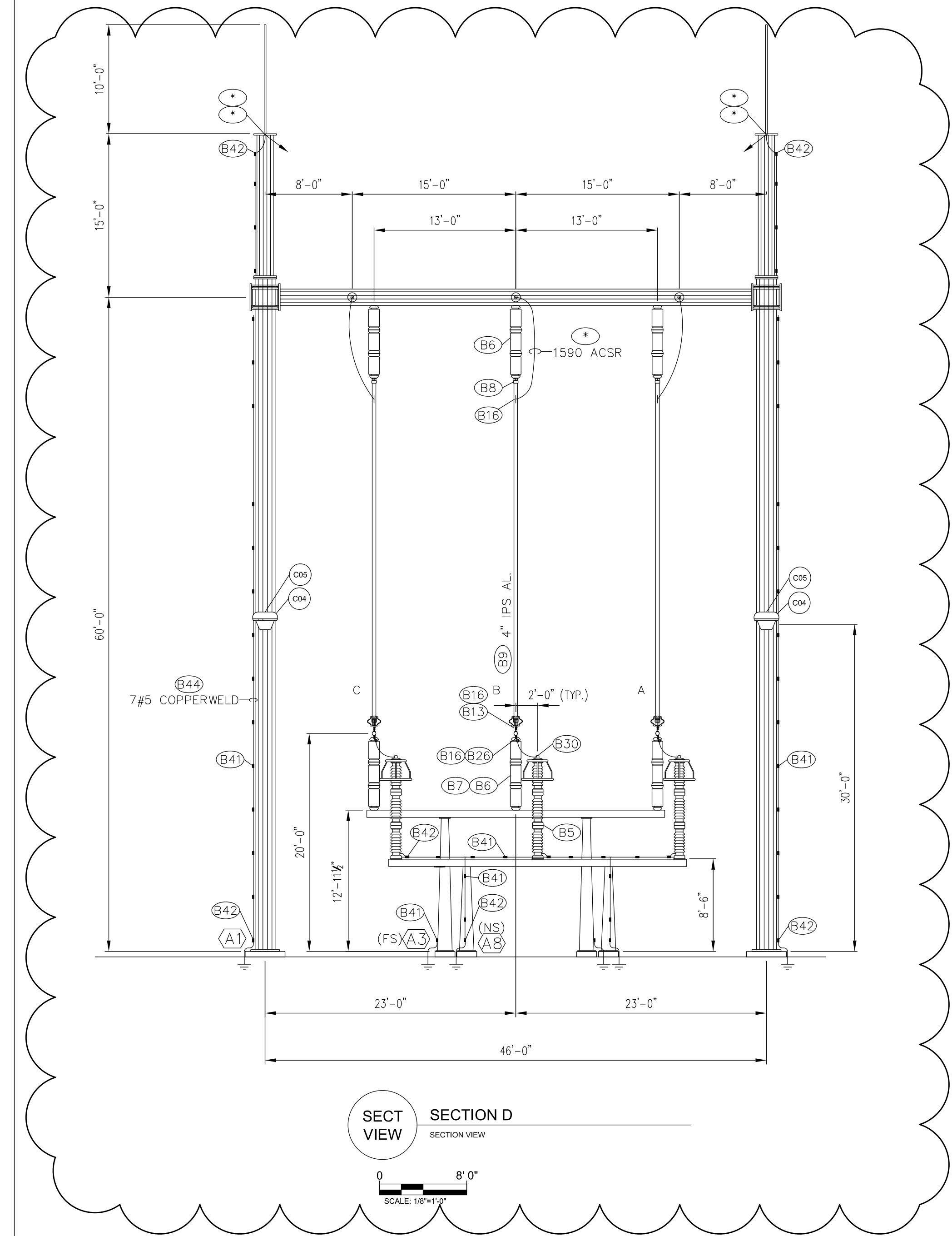
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DRAWING SET:  
GE2017

DRAWING #:  
05 OF 11

SHEET #:  
1 OF 5

JEA ARCH 2474306 GE2017EP.dgn 2018-06-11 11:51



- LEGEND:
- - MATERIAL FURNISHED BY OTHERS
  - - REFER TO BILL OF MATERIAL
  - - STRUCTURE DESIGNATION
  - ⊠ - RIGID BUS FITTING
  - ⊠ - SLIP BUS FITTING
  - ⊠ - EXPANSION BUS FITTING
  - ⊠ - OPERATING MECHANISM
  - - FUTURE STRUCTURES/EQUIPMENT

**JEA**  
BUILDING COMMUNITY  
21 W CHURCH ST.  
JACKSONVILLE, FLORIDA 32202

ISSUED FOR BID

CONSULTANT INFORMATION		PROFESSIONAL ENGINEER'S SEAL
		ORIGINALLY PREPARED UNDER THE RESPONSIBLE SUPERVISION OF
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		LIC. NO.: _____
		STATE: _____
		DATE: _____

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW
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GEC 230 kV BAY AND BREAKER ADDITION FOR CIRCUIT 909				DRAWING NAME: GE2017-EP.dgn	
ELECTRICAL PLAN				DRAWING SET: GE2017	
				DRAWING #: 05 OF 11	
GREENLAND ENERGY CENTER SWITCHYARD				SHEET #: 2 OF 5	
SCALE: AS SHOWN		SUBSTATION & TRANSMISSION ENGINEERING		PROJ #: 8004817	



JEA AND ISO 24" X 36" GE2017-EP.dgn 2018-06-11 11:35



21 W CHURCH ST.  
JACKSONVILLE, FLORIDA 32202

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-	-	-	-	-	-	REVIEW JAR
-	-	-	-	-	-	DRAFTING
-	-	-	-	-	-	DATE 7/24/2018
-	-	-	-	-	-	BY RMS
-	-	-	-	-	-	REVIEW JAR

GEC 230 kV BAY AND BREAKER ADDITION FOR CIRCUIT 909

ELECTRICAL PLAN

GREENLAND ENERGY CENTER SWITCHYARD

SUBSTATION & TRANSMISSION ENGINEERING

SCALE: AS SHOWN

PROJ # 8004817

DRAWING NAME:

GE2017-EP.dgn

DRAWING SET:

GE2017

DRAWING #:

05 OF 11

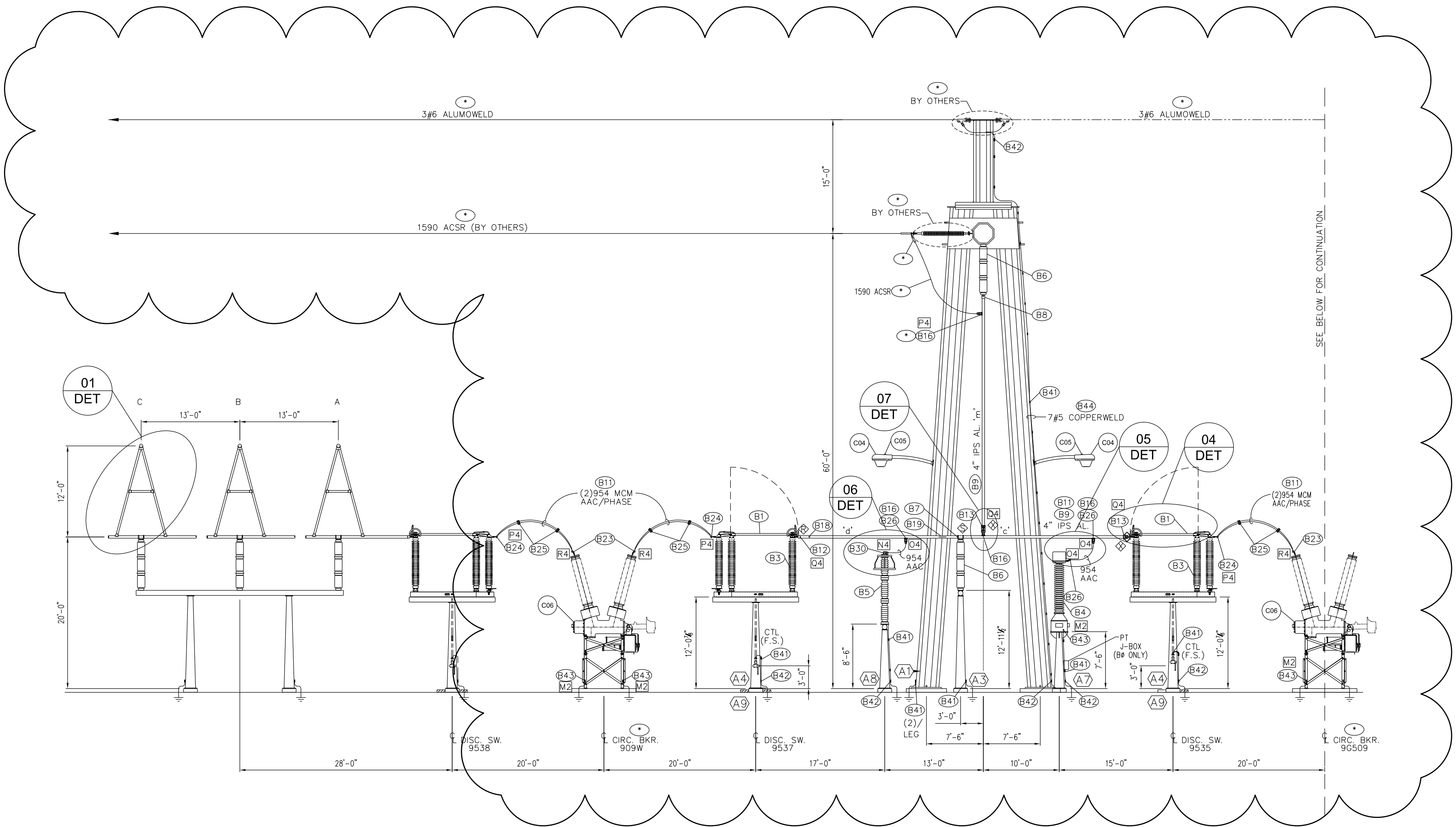
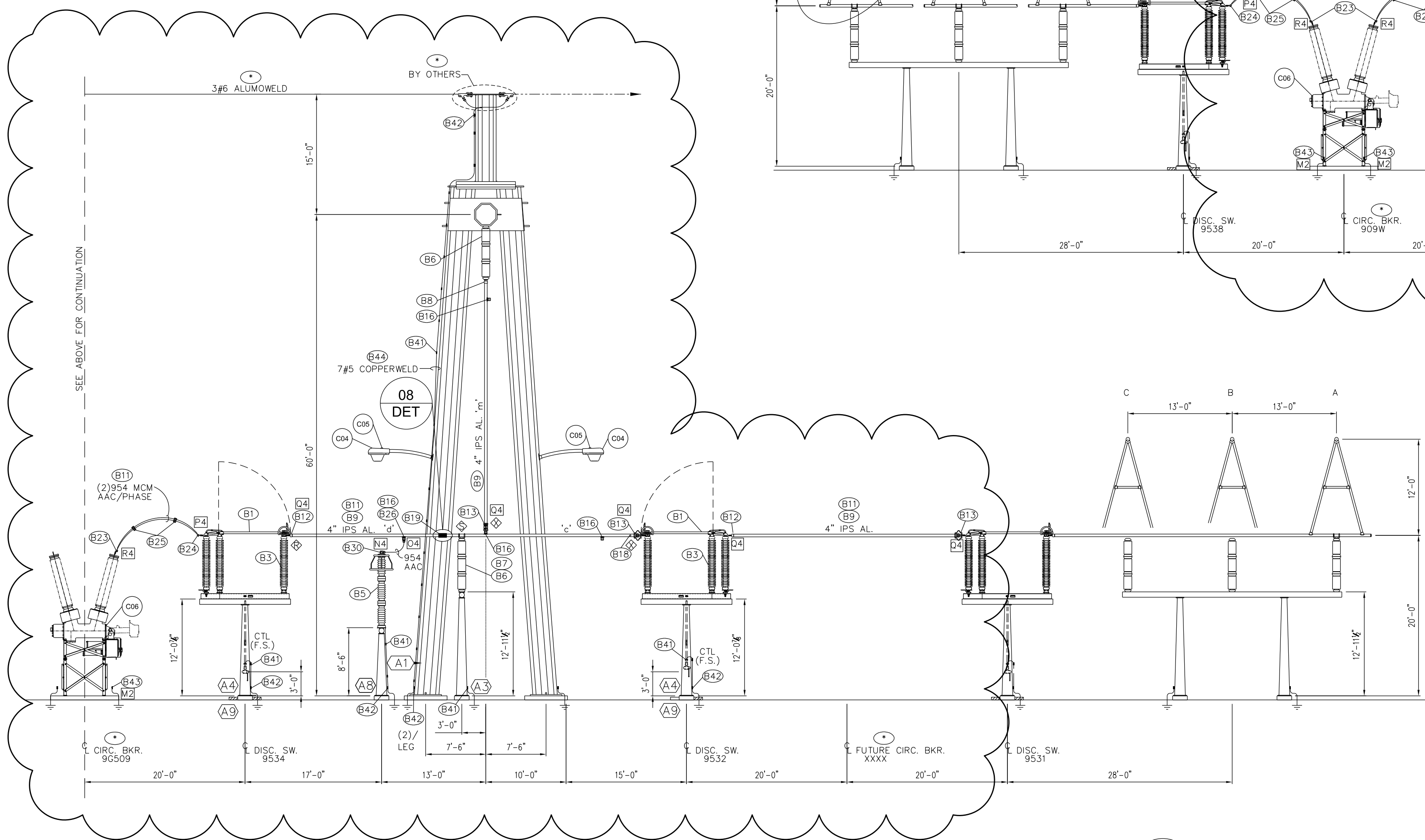
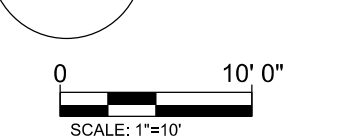
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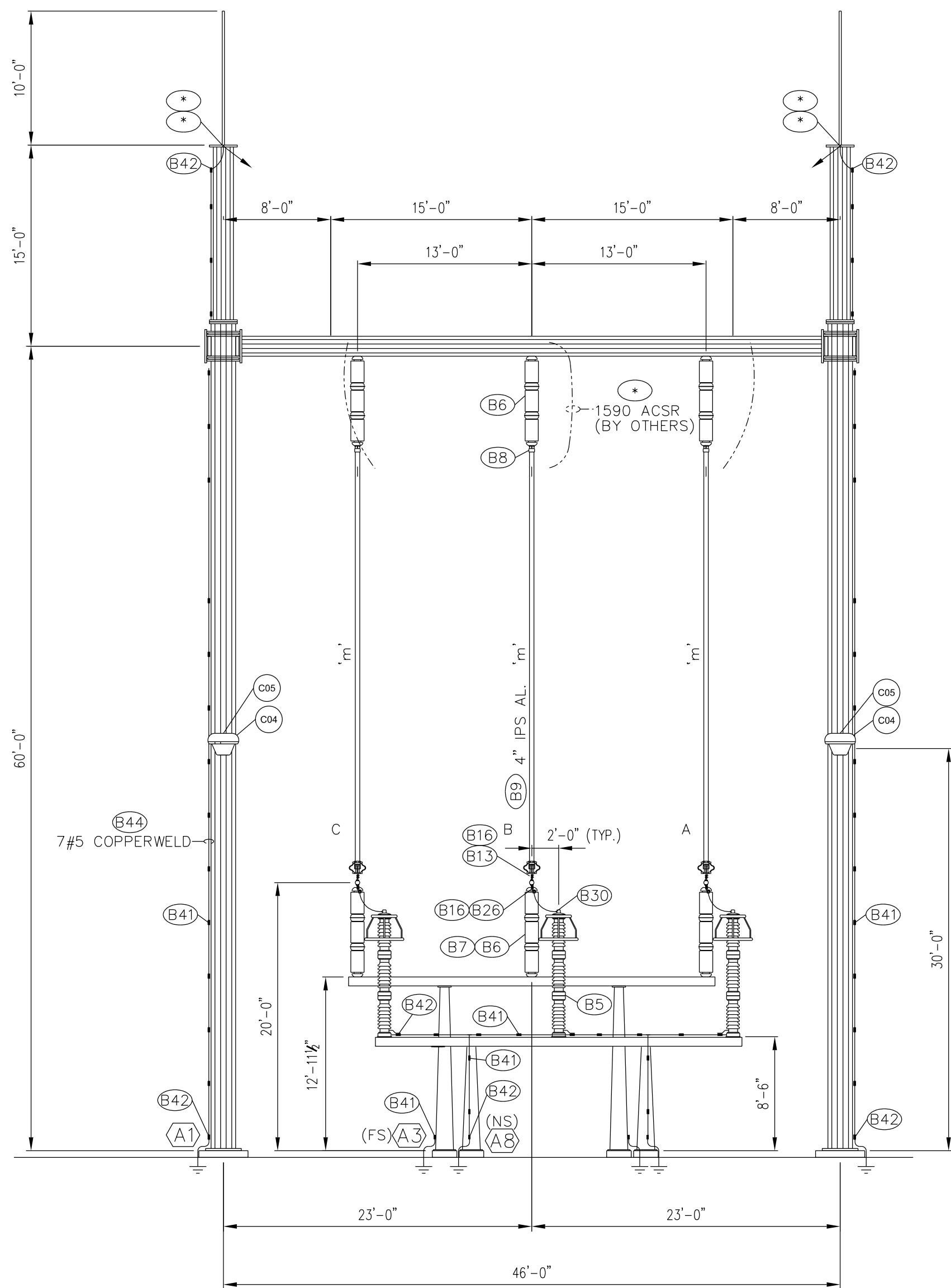
3 OF 5

LEGEND:

- - MATERIAL FURNISHED BY OTHERS
- - REFER TO BILL OF MATERIAL
- - STRUCTURE DESIGNATION
- ⊠ - RIGID BUS FITTING
- ⊠ - SLIP BUS FITTING
- ⊠ - EXPANSION BUS FITTING
- ⊠ - OPERATING MECHANISM
- - FUTURE STRUCTURES/EQUIPMENT

SECT VIEW SECTION F

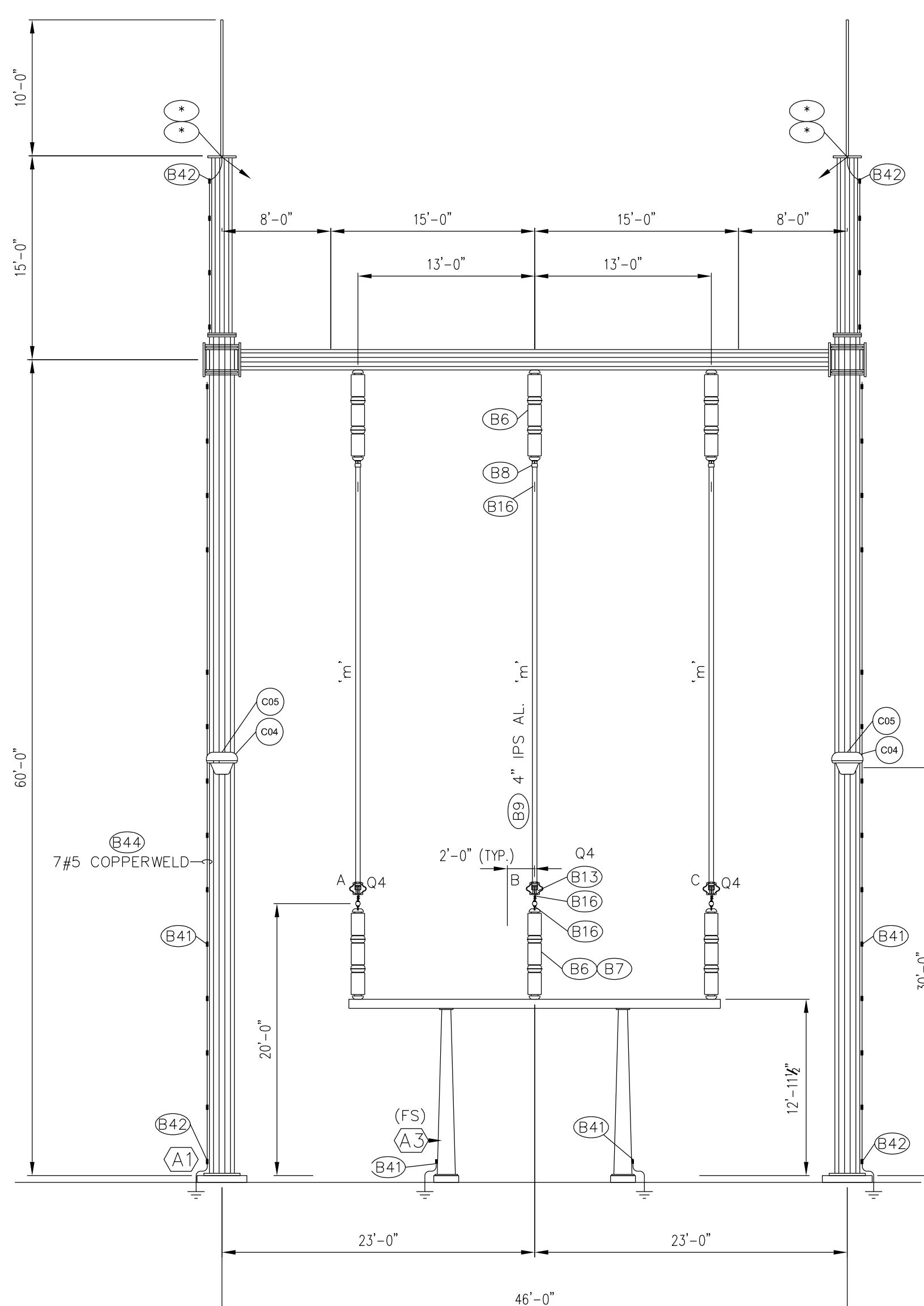




SECT  
VIEW

SECTION I  
SECTION VIEW

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



SECT  
VIEW

SECTION J  
SECTION VIEW

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

LEGEND:

- - MATERIAL FURNISHED BY OTHERS
- - REFER TO BILL OF MATERIAL
- - STRUCTURE DESIGNATION
- ⬢ - RIGID BUS FITTING
- ⬢ - SLIP BUS FITTING
- ⬢ - EXPANSION BUS FITTING
- ⊕ - OPERATING MECHANISM
- - FUTURE STRUCTURES/EQUIPMENT



ISSUED FOR BID

CONSULTANT INFORMATION

PROFESSIONAL  
ENGINEER'S SEAL

ORIGINALLY PREPARED UNDER  
THE RESPONSIBLE SUPERVISION OF

PE: \_\_\_\_\_

LIC. NO.: \_\_\_\_\_

STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW
-	-	-	-	-	-
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ENGINEERING

DATE 7/24/2018

BY RMS

REVIEW JAR

DRAFTING

DATE 7/24/2018

BY RMS

REVIEW JAR

GEC 230 kV BAY AND BREAKER ADDITION FOR CIRCUIT 909

ELECTRICAL PLAN

GREENLAND ENERGY CENTER SWITCHYARD

SUBSTATION & TRANSMISSION ENGINEERING

PROJ # 8004817

DRAWING NAME:

GE2017-EP.dgn

DRAWING SET:

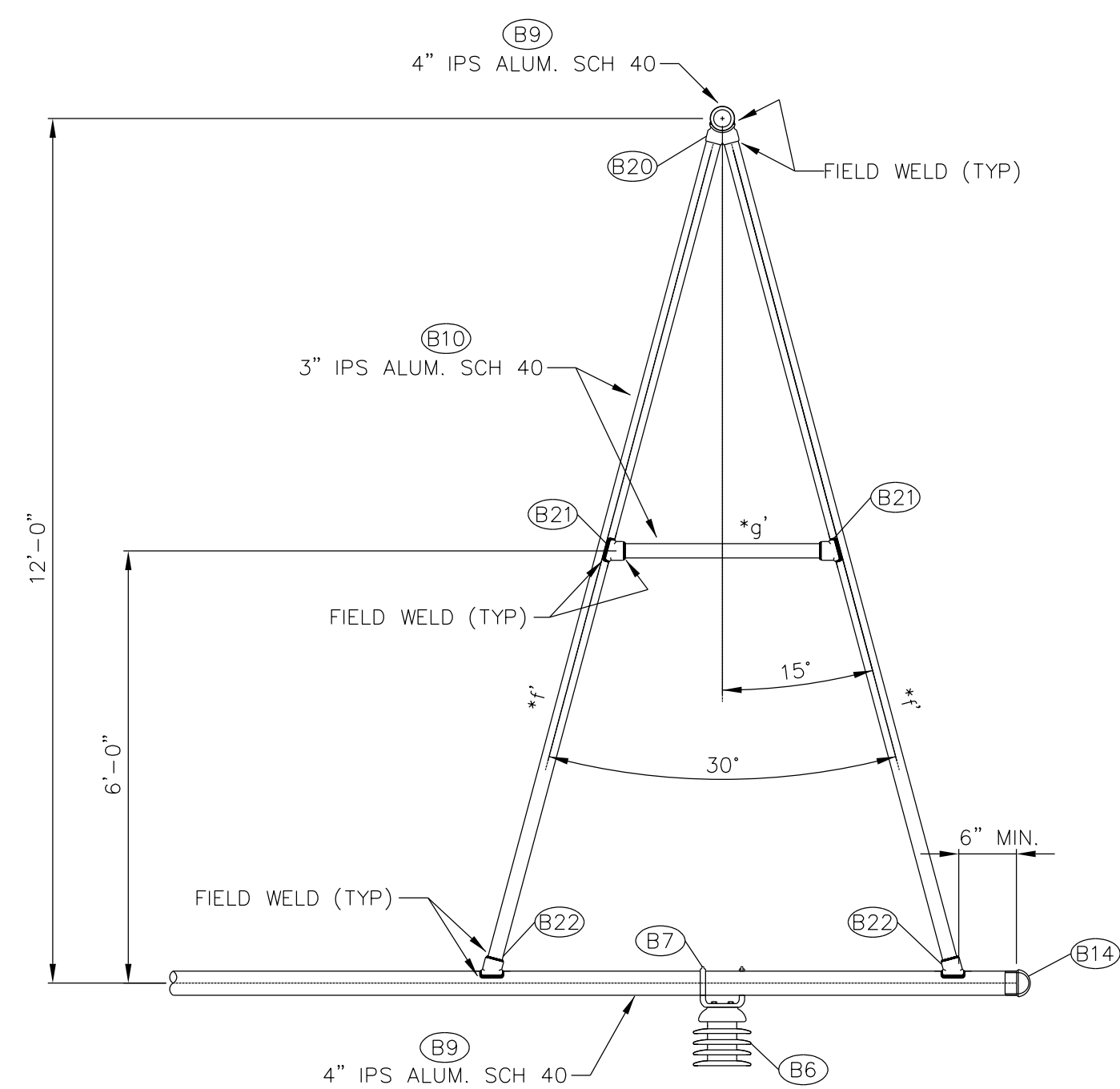
GE2017

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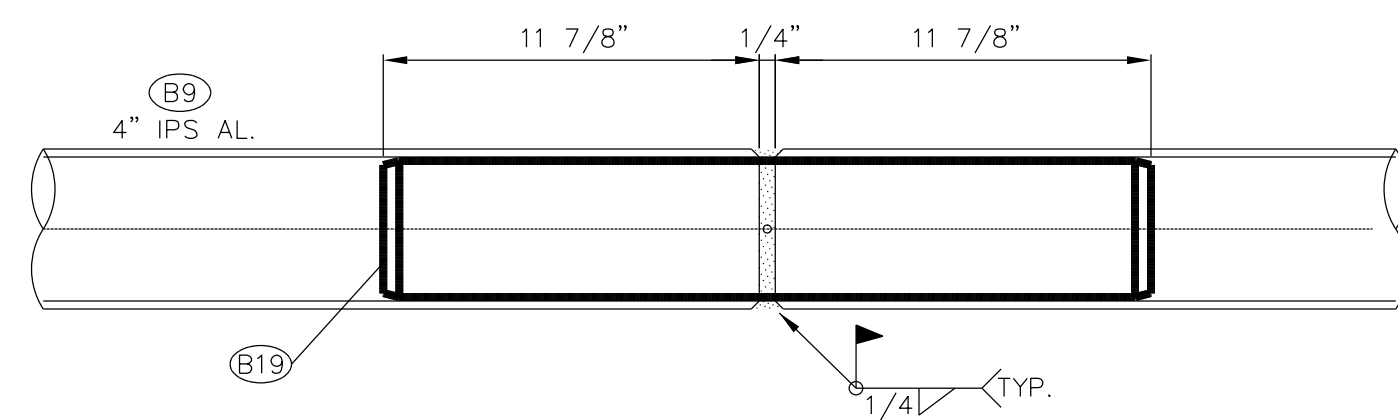
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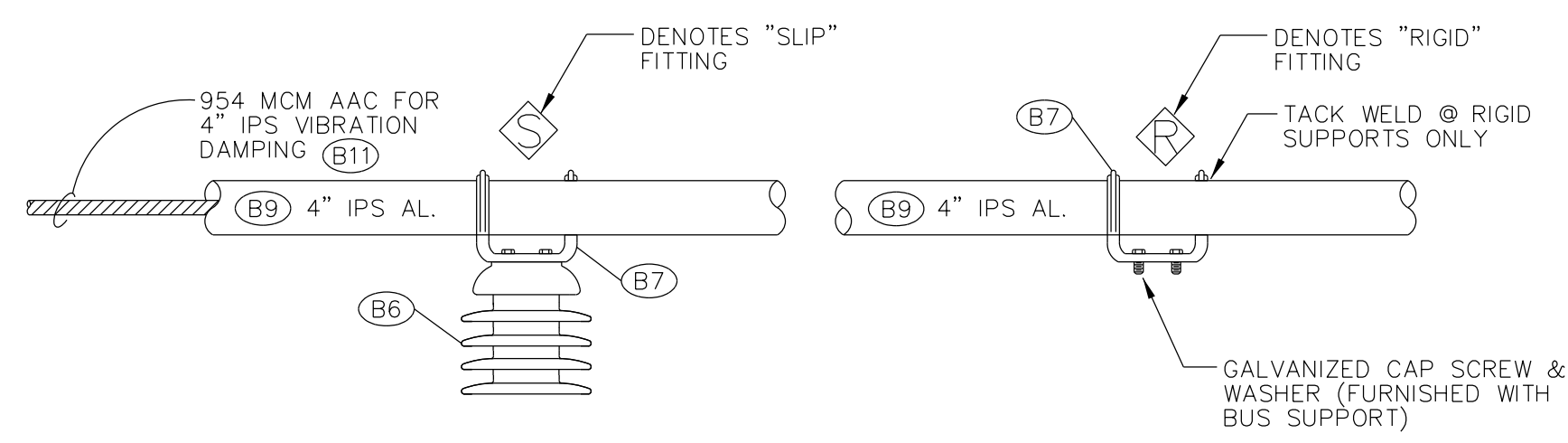
4 OF 5



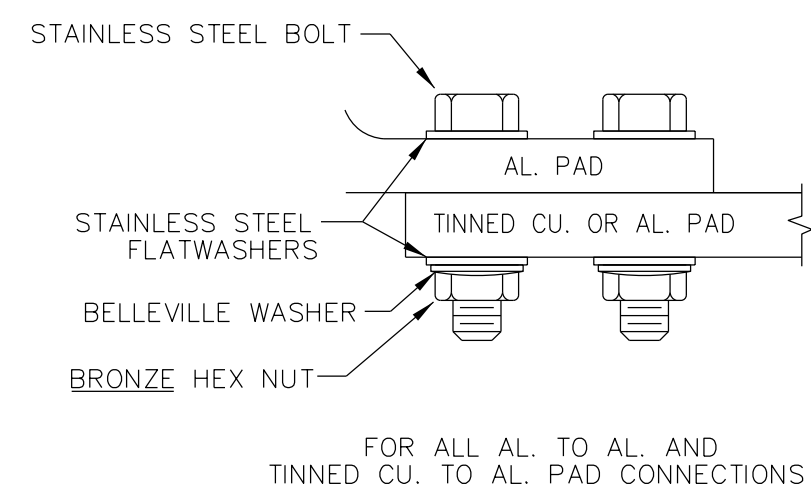
DETAIL 01  
A-TAP DETAIL



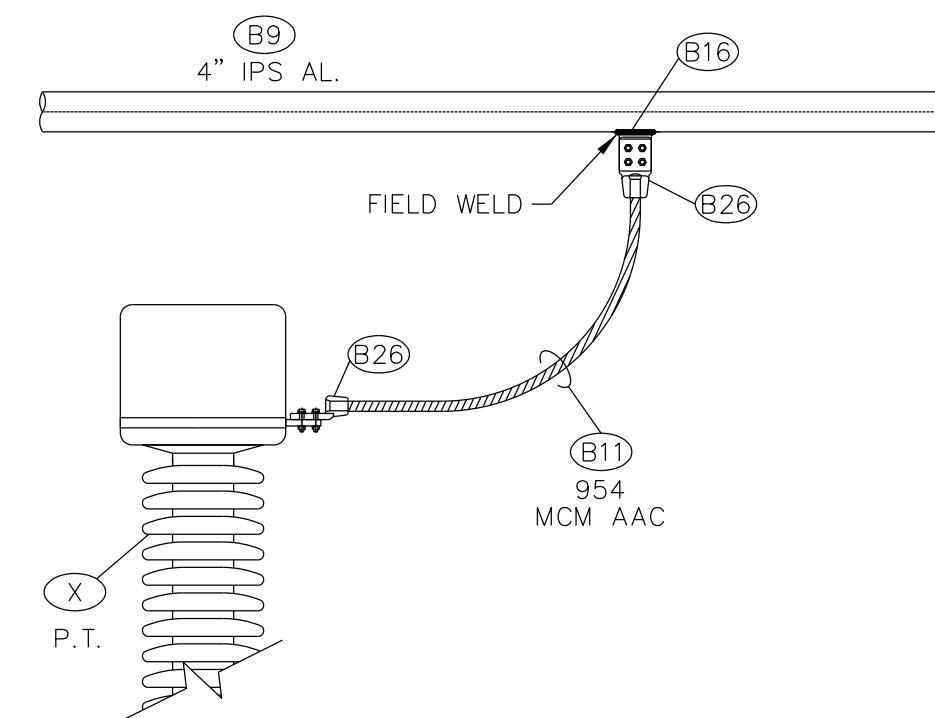
**DETAIL** **DETAIL 08**  
ALUMINUM BUS COUPLER DETAIL



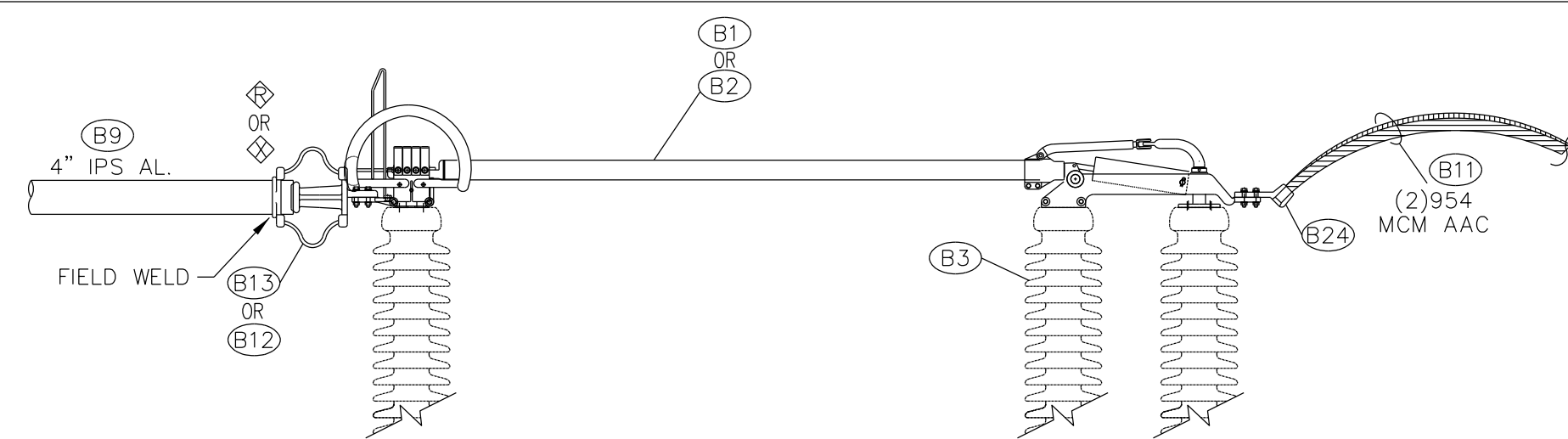
DETAIL 02  
BUS SUPPORT (TYPICAL)



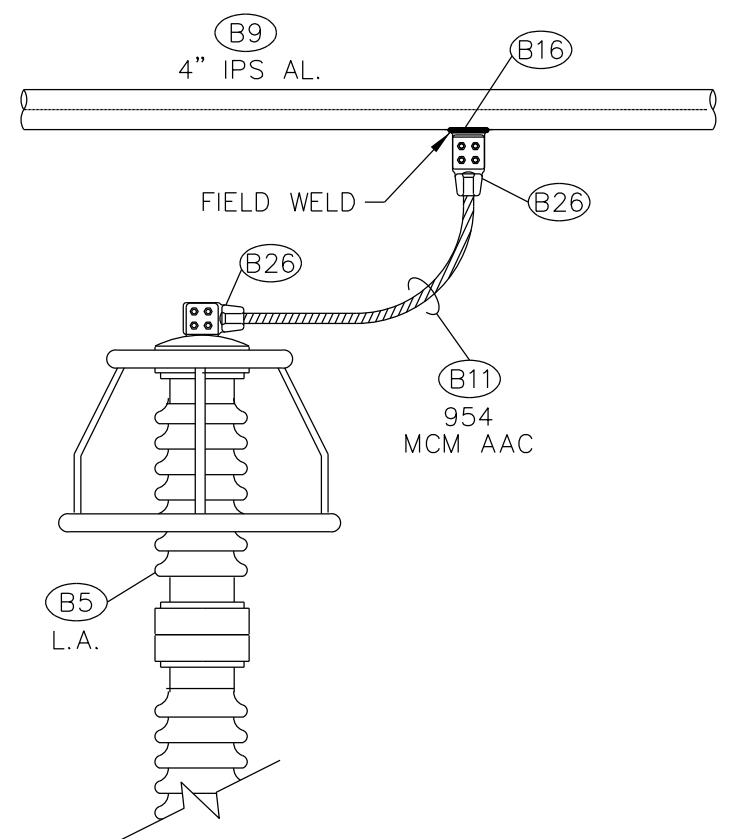
**DETAIL** **DETAIL 03**  
BOLTED CONNECTION (TYPICAL)



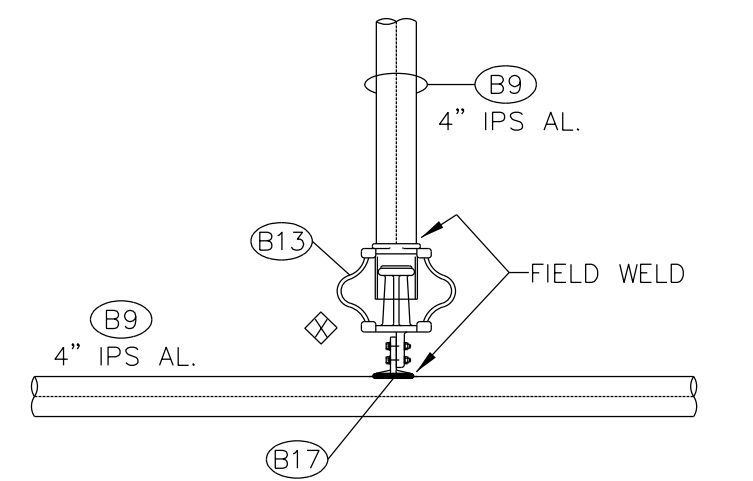
DETAIL 05  
P.T. CONNECTION DETAIL



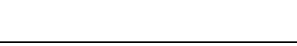
DETAIL 04  
230KV VERTICAL BREAK BUS DISCONNECT

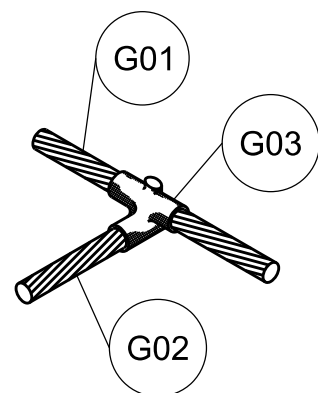
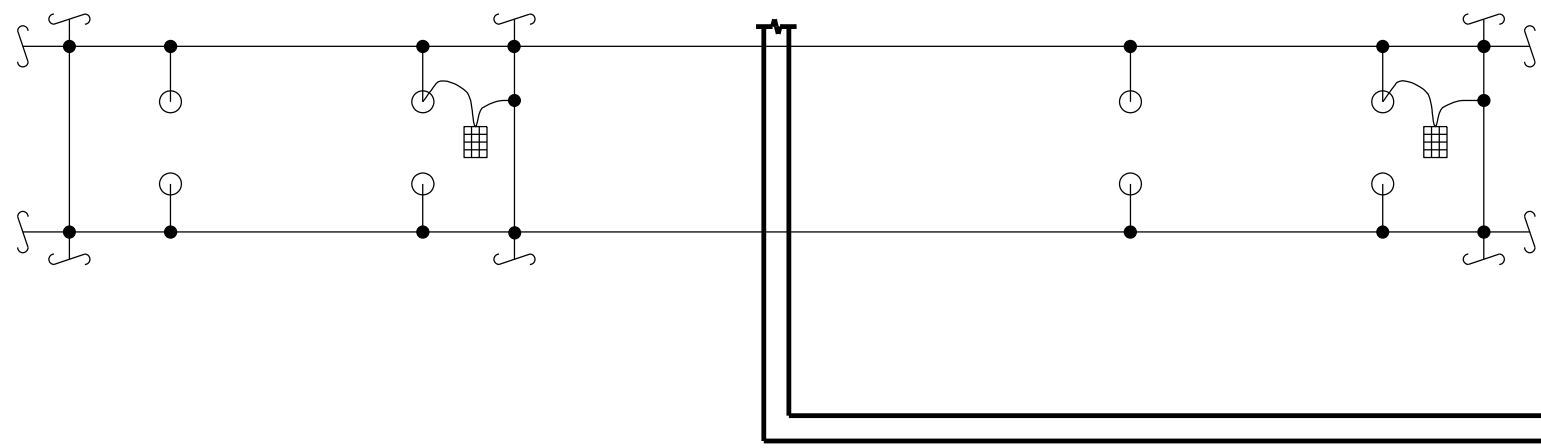


**DETAIL** **DETAIL 06**  
LIGHTNING ARRESTER CONNECTION DETAIL



DETAIL 07  
VERTICAL BUS EXPANSION CONNECTION DETAIL

<div><p><b>JEA</b> BUILDING COMMUNITY 21 W CHURCH ST. JACKSONVILLE, FLORIDA 32202</p></div>	CONSULTANT INFORMATION	PROFESSIONAL ENGINEER'S SEAL	REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING	GEC 230 kV BAY AND BREAKER ADDITION FOR CIRCUIT 909			DRAWING NAME: GE2017-EP.dgn
	ISSUED FOR BID	ORIGINALLY PREPARED UNDER THE RESPONSIBLE SUPERVISION OF  PE: _____  LIC. NO.: _____  STATE: _____  DATE: _____	-	-	-	-	-	-	DATE	7/24/2018	ELECTRICAL PLAN	DRAWING SET: GE2017	
			-	-	-	-	-	-	BY	RMS		DRAWING #: _____ SHEET #: _____	
			-	-	-	-	-	-	REVIEW	JAR		05 OF 11 5 OF 5	
			-	-	-	-	-	-	DRAFTING		SCALE: AS SHOWN		
			-	-	-	-	-	-	DATE	7/24/2018	GREENLAND ENERGY CENTER SWITCHYARD		
			-	-	-	-	-	-	BY	RMS			
			-	-	-	-	-	-	REVIEW	JAR	SUBSTATION & TRANSMISSION ENGINEERING	PROJ #: 8004817	



ITEM	QTY	DESCRIPTION	MANUFACTURER	Mfg. P/N	FURNISHED BY
G01	*	19#8 COPPERWELD, 40% CONDUCTIVITY, HIGH STRENGTH, SOFT ANNEALED	COPPERWELD		N/A
G02	*	7#5 COPPERWELD, 40% CONDUCTIVITY, HIGH STRENGTH, SOFT ANNEALED	COPPERWELD		CONTRACTOR
G03	*	WELDED GROUND CONNECTION, 19#8 CABLE MAIN TO 7#5 CABLE TAP, WITH WELD METAL (AS REQUIRED).	CADWELD/ERICO	TAC9G9E / 150PLUSF20	CONTRACTOR

\* CONTRACTOR TO DETERMINE

DETAIL

DETAIL 01

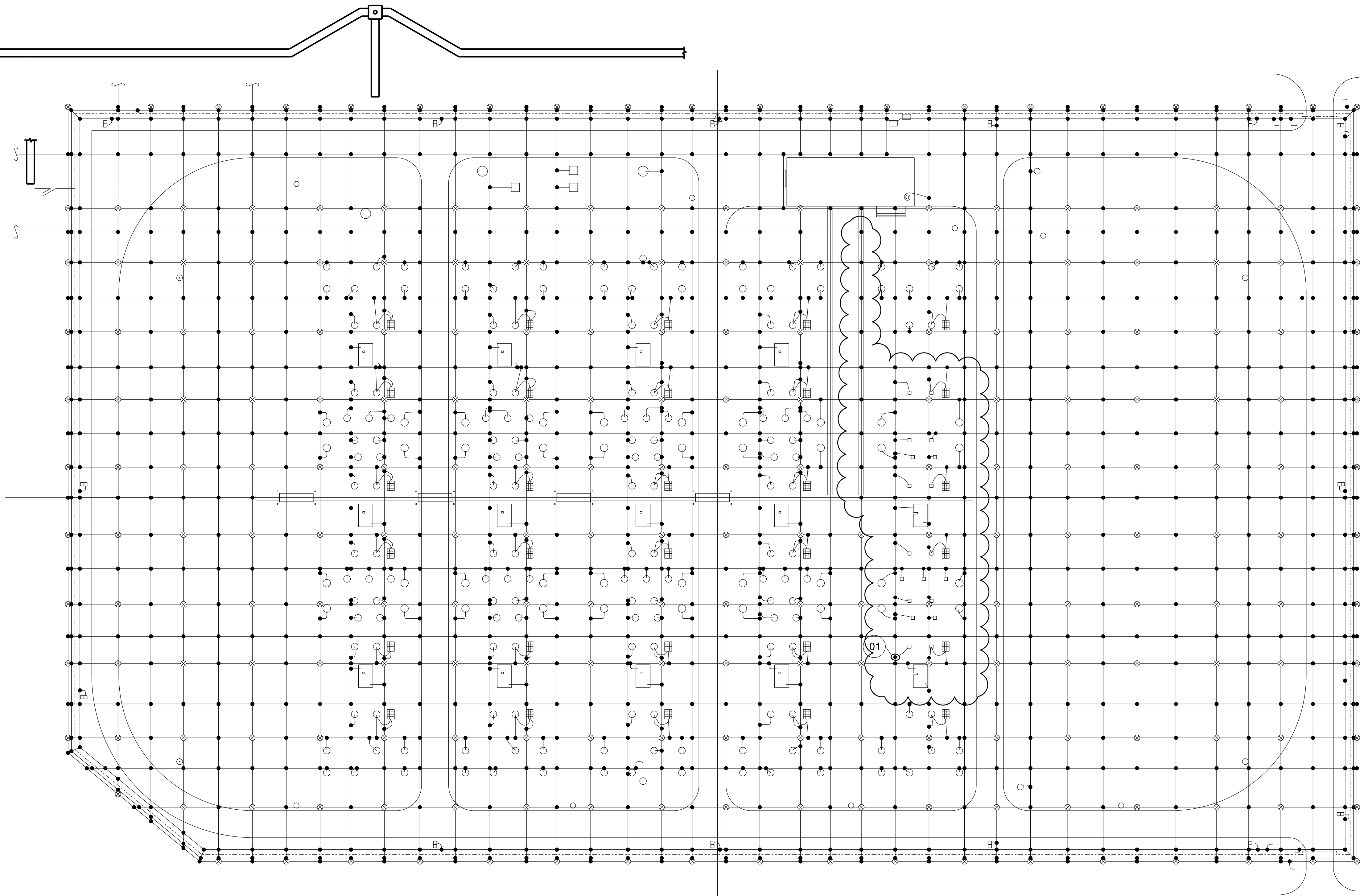
TYPICAL BELOW GRADE CONNECTIONS

#### CONSTRUCTION NOTES:

- NO ADDITIONAL MAIN GROUND GRID OR GROUND RODS REQUIRED. CONTRACTOR TO GROUND ALL STRUCTURES AND EQUIPMENT IN CLOUDED AREA.

#### LEGEND:

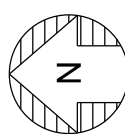
- 19#8 COPPERWELD CONDUCTOR FOR MAIN GRID
- 7#5 COPPERWELD CONDUCTOR FOR STRUCTURE & EQUIPMENT GROUNDING TO MAIN GRID
- GROUND CONNECTOR
- GROUND ROD
- GROUND PLATFORM



PLAN  
VIEW

PLAN VIEW 1  
GROUND PLAN VIEW 1

0 35' 0"  
SCALE: CUSTOM 420



ISSUED FOR BID

CONSULTANT INFORMATION

PROFESSIONAL  
ENGINEER'S SEAL

ORIGINALLY PREPARED UNDER  
THE RESPONSIBLE SUPERVISION OF

PE: \_\_\_\_\_

LIC. NO.: \_\_\_\_\_

STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING
-	-	-		-	-	DATE 7/24/2018
-	-	-		-	-	BY RMS
-	-	-		-	-	REVIEW JAR
-	-	-		-	-	DRAFTING
-	-	-		-	-	DATE 7/24/2018
-	-	-		-	-	BY RMS
-	-	-		-	-	REVIEW JAR

GEC 230 kV BAY AND BREAKER ADDITION FOR CIRCUIT 909

## GROUNDING PLAN

GREENLAND ENERGY CENTER SWITCHYARD

SUBSTATION & TRANSMISSION ENGINEERING

SCALE: AS SHOWN

PROJ # 8004817

DRAWING NAME:

GE2017-GP.dgn

DRAWING SET:

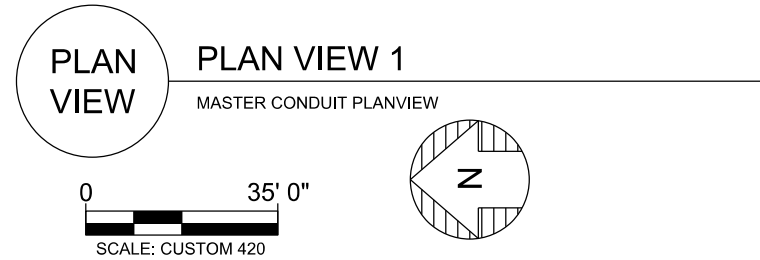
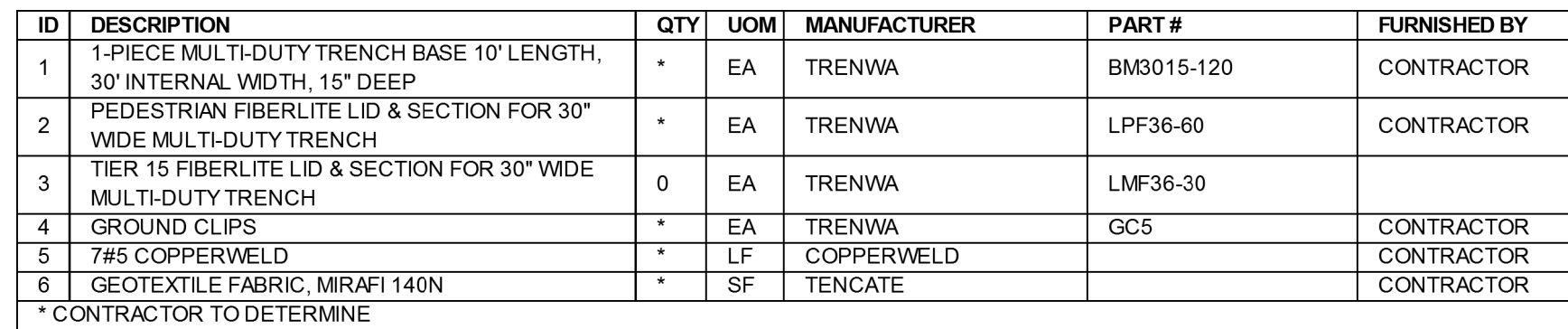
GE2017

DRAWING #:

06 OF 11

SHEET #:

1 OF 1





CONDUIT NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CONDUIT MATERIALS, INCLUDING FITTINGS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL CONDUIT LENGTHS. CONDUIT LENGTHS ARE APPROXIMATE.
3. CONTROL HOUSE CONDUIT EXPOSED RUNS SHALL BE EMT. CONTRACTOR MAY CONCEAL CONTROL HOUSE CONDUIT WITHIN BLOCK WALLS UNLESS STATED OTHERWISE IN THE DRAWINGS. CONTRACTOR SHALL NOT CONCEAL ALUMINUM CONDUIT RUNS.
4. ALL RUNS WITHIN BATTERY ROOM SHALL UTILIZE ALUMINUM CONDUIT. PENETRATIONS THROUGH THE BLOCK WALL SHALL UTILIZE PVC COATED ALUMINUM TO PROVIDE SUFFICIENT ALKALI CORROSION PROTECTION, WITH PENETRATION PROPERLY SEALED.

CONDUIT LEGEND:

UV	UV RESISTANT PVC CONDUIT, SCH 40
FLEX	FLEXIBLE UV RESISTANT PVC CONDUIT, SCH 40
EMT	ELECTRICAL METALLIC TUBING
RMC	RIGID METALLIC (GALVANIZED STEEL) CONDUIT
IMC	INTERMEDIATE METALLIC CONDUIT
LFMC	LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT
SW	SQAURE WIREWAY
AL	ALUMINUM CONDUIT

CONDUIT SCHEDULE

ID	CONDUIT #	FROM	TO	SIZE	TYPE	LENGTH (FT)	CABLES IN CONDUIT	REMARKS	DWG SET	REV
647	9G509C1	BREAKER 9G509	CABLE TRENCH 1	3	UV	15	9G509/C1, 9G509/909PR-1, 9G509/909SC-1, 9G509/EBD1		GE2017	
648	9G509C2	BREAKER 9G509	CABLE TRENCH 1	3	UV	15	9G509/C2, 9G509/909PR-2, 9G509/909SC-2, 9G509/EBD2		GE2017	
649	9G509C3	BREAKER 9G509	CABLE TRENCH 1	2	UV	15	9G509/AC		GE2017	
650	9G509C4	BREAKER 9G509	CABLE TRENCH 1	2	UV	15		SPARE	GE2017	
651	9G509C5	BREAKER 9G509	CABLE TRENCH 1	2	UV	15		SPARE	GE2017	
652	909WC1	BREAKER 909W	CABLE TRENCH 1	3	UV	125	909W/C1, 909W/909PR-1, 909W/909SC-1, 909W/WBD1		GE2017	
653	909WC2	BREAKER 909W	CABLE TRENCH 1	3	UV	125	909W/C2, 909W/909PR-2, 909W/909SC-2, 909W/WBD2		GE2017	
654	909WC3	BREAKER 909W	CABLE TRENCH 1	2	UV	125	909W/AC		GE2017	
655	909WC4	BREAKER 909W	CABLE TRENCH 1	2	UV	125		SPARE	GE2017	
656	909WC5	BREAKER 909W	CABLE TRENCH 1	2	UV	125		SPARE	GE2017	
657	PT909C1	230KV PTJB 9FJB909	CABLE TRENCH 1	2	UV	50	909PT1/JB, 909PT2/JB, 909PT/AC		GE2017	
658	PT909C2	230KV PTJB 9FJB909	909PT PH A	1.5	UV	15	909PT/A		GE2017	
659	PT909C3	230KV PTJB 9FJB909	909PT PH B	1.5	UV	5	909PT/B		GE2017	
660	PT909C4	230KV PTJB 9FJB909	909PT PH C	1.5	UV	15	909PT/C		GE2017	
661	PT909C5	230KV PTJB 9FJB909	CABLE TRENCH 1	2	UV	50		SPARE	GE2017	
662	YL23C1	YARD LIGHT 23	CABLE TRENCH 1	1.5	UV	45	YL23/AC		GE2017	
663	YL24C1	YARD LIGHT 24	YARD LIGHT 23	1.5	UV	20	YL24/AC		GE2017	
664	YL25C2	YARD LIGHT 25	YARD LIGHT 24	1.5	UV	45	YL25/AC		GE2017	
665	YL26C2	YARD LIGHT 26	YARD LIGHT 25	1.5	UV	20	YL26/AC		GE2017	
666	YL43C1	YARD LIGHT 43	CABLE TRENCH 1	1.5	UV	55	YL43/AC		GE2017	
667	YL44C1	YARD LIGHT 44	YARD LIGHT 43	1.5	UV	20	YL44/AC		GE2017	
668	YL45C1	YARD LIGHT 45	YARD LIGHT 44	1.5	UV	45	YL45/AC		GE2017	
669	YL46C1	YARD LIGHT 46	YARD LIGHT 45	1.5	UV	20	YL46/AC		GE2017	
670	9YP1C6	YD PNL 9YP1-1P	CABLE TRENCH 2	3	UV	220	YL23/AC, YL43/AC, 909W/AC, 9G509/AC, 909PT/AC		GE2017	

CABLE NOTES:

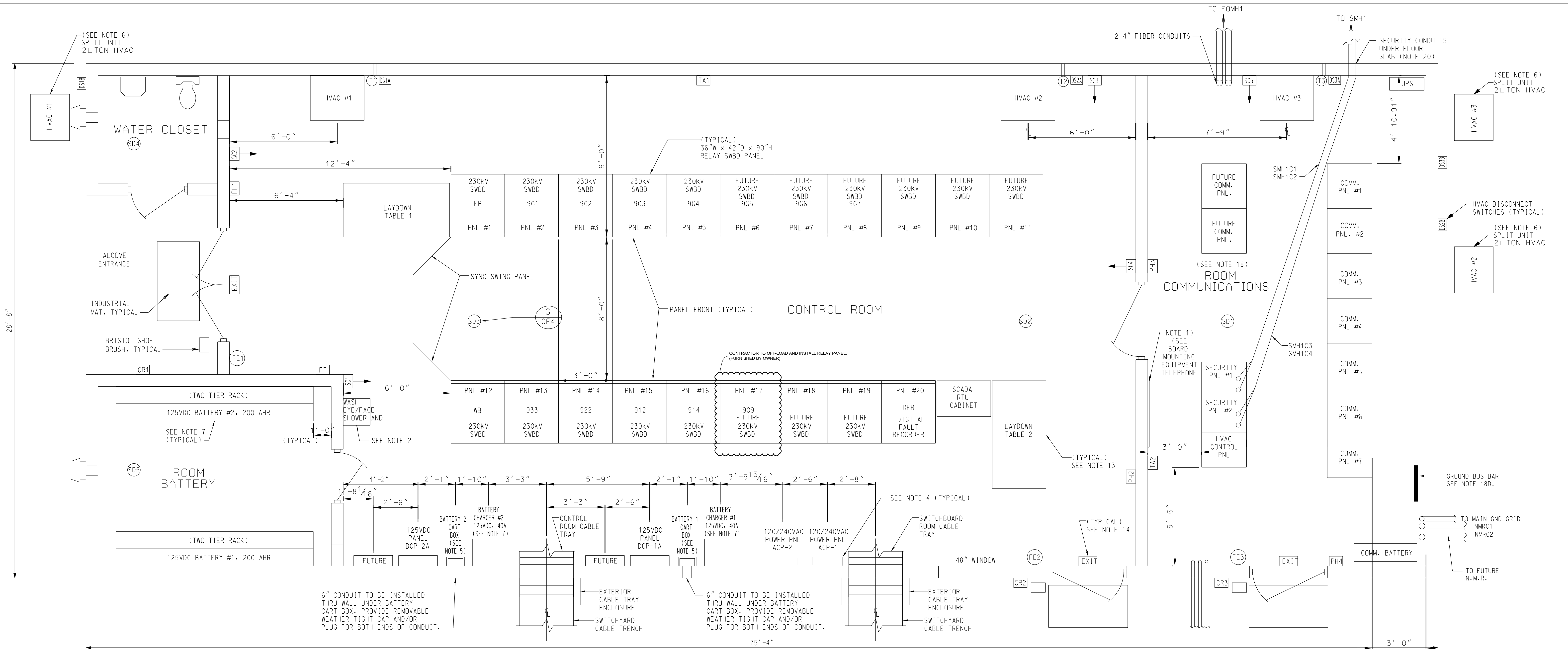
1. TYPE B, BS, F, AND FO CABLE SHALL BE FURNISHED BY THE OWNER, UNLESS OTHERWISE SPECIFIED.
2. THE CONTRACTOR SHALL FURNISH ALL OTHER CABLE, AS SPECIFIED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL CABLE LENGTHS. CABLE LENGTHS ARE APPROXIMATE.

CABLE LEGEND:

- A  
B  
BS  
C  
F  
FO  
M  
S  
CY  
CT
- THHN INSULATED COPPER CONDUCTOR  
CONTROL CABLE  
SHIELDED CONTROL CABLE  
RHW, THHW, OR THWN INSULATED COPPER CONDUCTOR  
INSTRUMENT CABLE  
FIBER OPTIC CABLE  
MULTIPLE CONDUCTOR  
SINGLE CONDUCTOR  
CONTROL HOUSE CABLE TRAY  
CONTROL HOUSE CABLE TRENCH

CABLE SCHEDULE

ID	CABLE #	FROM	TO	VOLT (V)	SIZE	#	S/M	TYPE	LENGTH (FT)	CONDUIT ROUTE	REMARKS	DWG SET	REV
480	YL23/AC	YARD LIGHT 23	YARD PANEL 9YP1-1P	600	10	2	M	C	500	YL23C1, CT2, 9YP1C6		GE2017	
481	YL24/AC	YARD LIGHT 24	YARD LIGHT 23	600	10	2	S	C	50	YL24C1		GE2017	
482	YL25/AC	YARD LIGHT 25	YARD LIGHT 24	600	10	2	S	C	50	YL25C1		GE2017	
483	YL26/AC	YARD LIGHT 26	YARD LIGHT 25	600	10	2	S	C	50	YL26C1		GE2017	
484	YL43/AC	YARD LIGHT 43	YARD PANEL 9YP1-1P	600	10	2	M	C	500	YL43C1, CT2, 9YP1C6		GE2017	
485	YL44/AC	YARD LIGHT 44	YARD LIGHT 43	600	10	2	S	C	50	YL44C1		GE2017	
486	YL45/AC	YARD LIGHT 45	YARD LIGHT 44	600	10	2	S	C	50	YL45C1		GE2017	
487	YL46/AC	YARD LIGHT 46	YARD LIGHT 45	600	10	2	S	C	50	YL46C1		GE2017	
488	9G509/C1	BKR 9G509	230KV PNL 17	600	10	21	M	BS	250	9G509C1, CT1, CT3, TRAY	BKR 9G509 CONTROL	GE2017	
489	9G509/C2	BKR 9G509	230KV PNL 17	600	10	21	M	BS	250	9G509C2, CT1, CT3, TRAY	BKR 9G509 CONTROL	GE2017	
490	9G509/909PR-1	BKR 9G509	230KV PNL 17	600	10	4	M	BS	250	9G509C1, CT1, CT3, TRAY	LINE 909 PRIMARY PROTECTION	GE2017	
491	9G509/909PR-2	BKR 9G509	230KV PNL 17	600	10	4	M	BS	250	9G509C2, CT1, CT3, TRAY	LINE 909 PRIMARY PROTECTION	GE2017	
492	9G509/909SC-1	BKR 9G509	230KV PNL 17	600	10	4	M	BS	250	9G509C1, CT1, CT3, TRAY	LINE 909 SECONDARY PROTECTION	GE2017	
493	9G509/909SC-2	BKR 9G509	230KV PNL 17	600	10	4	M	BS	250	9G509C2, CT1, CT3, TRAY	LINE 909 SECONDARY PROTECTION	GE2017	
494	9G509/EBD1	BKR 9G509	EBCTJB1	600	10	4	M	BS	275	9G509C1, CT1, EBCTJB1C3	230KV EAST BUS PRIMARY PROTECTION	GE2017	
495	9G509/EBD2	BKR 9G509	EBCTJB2	600	10	4	M	BS	275	9G509C2, CT1, EBCTJB2C3	230KV EAST BUS SECONDARY PROTECTION	GE2017	
496	9G509/AC	BKR 9G509	YARD PANEL 9YP1-1P	600	6	3	S	C	450	9G509C3, CT1, CT2, 9YP1C6	240VAC POWER	GE2017	
497	909W/C1	BKR 909W	230KV PNL 17	600	10	21	M	BS	350	909WC1, CT1, CT3, TRAY	BKR 909W CONTROL	GE2017	
498	909W/C2	BKR 909W	230KV PNL 17	600	10	21	M	BS	350	909WC2, CT1, CT3, TRAY	BKR 909W CONTROL	GE2017	
499	909W/909PR-1	BKR 909W	230KV PNL 17	600	10	4	M	BS	350	909WC1, CT1, CT3, TRAY	LINE 909 PRIMARY PROTECTION	GE2017	
500	909W/909PR-2	BKR 909W	230KV PNL 17	600	10	4	M	BS	350	909WC2, CT1, CT3, TRAY	LINE 909 PRIMARY PROTECTION	GE2017	
501	909W/909SC-1	BKR 909W	230KV PNL 17	600	10	4	M	BS	350	909WC1, CT1, CT3	LINE 909 SECONDARY PROTECTION	GE2017	
502	909W/909SC-2	BKR 909W	230KV PNL 17	600	10	4	M	BS	350	909WC2, CT1, CT3	LINE 909 SECONDARY PROTECTION	GE2017	
503	909W/WBD1	BKR 909W	WBCTJB1	600	10	4	M	BS	350	909WC1, CT1, WBCTJB1C3	230KV WEST BUS PRIMARY PROTECTION	GE2017	
504	909W/WBD2	BKR 909W	WBCTJB2	600	10	4	M	BS	350	909WC2, CT1, WBCTJB2C3	230KV WEST BUS SECONDARY PROTECTION	GE2017	
505	909W/AC	BKR 909W	YARD PANEL 9YP1-1P	600	6	3	S	C	550	909WC3, CT1, CT2, 9YP1C6	240VAC AC POWER	GE2017	
506	909PT/A	LINE 909 PHASE "A" PT	909PTJB	600	10	8	M	BS	30	PT909C2	LINE 909 PT - PHASE "A"	GE2017	
507	909PT/B	LINE 909 PHASE "B" PT	909PTJB	600	10	8	M	BS	20	PT909C3	LINE 909 PT - PHASE "B"	GE2017	
508	909PT/C	LINE 909 PHASE "C" PT	909PTJB	600	10	8	M	BS	30	PT909C4	LINE 909 PT - PHASE "C"	GE2017	
509	909PT1/JB	230KV PT FUSE JUNCTION BOX 909PTJB	230KV PNL 17	600	10	8	M	BS	300	PT909C1, CT1, CT3, TRAY	LINE 909 PT'S TO PNL 17	GE2017	
510	909PT2/JB	230KV PT FUSE JUNCTION BOX 909PTJB	230KV PNL 17	600	10	4	M	BS	300	PT909C1, CT1, CT3, TRAY	LINE 909 PT'S TO PNL 17	GE2017	
511	909PT/AC	230KV PT FUSE JUNCTION BOX 909PTJB	YARD PANEL 9YP1-1P	600	10	3	M	C	485	PT909C2, CT1, CT2, 9YP1C6	120VAC AC POWER	GE2017	



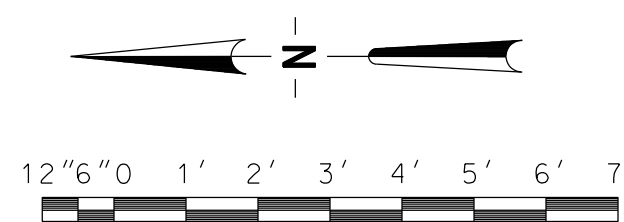
NOTES:

1. CONTRACTOR SHALL FURNISH AND INSTALL TWO (2) 3' X 3' X 3/4" PLYWOOD TELEPHONE EQUIPMENT MOUNTING BOARDS IN THE LOCATIONS SHOWN ON THIS DRAWING. THE TOP OF THE TELEPHONE BOARDS SHALL BE MOUNTED 6'-0" ABOVE THE FINISHED FLOOR.  
A. PAINT EACH TELEPHONE BOARD WITH FIRE RETARDANT PAINT. FINISH COLOR TO BE WHITE.  
B. ATTACH 48" X 48" X 1/4" TELEPHONE BOARD TO WALL IN COMMUNICATIONS ROOM WITH TOP 6'-0" ABOVE THE FINISHED FLOOR.
2. CONTRACTOR SHALL FURNISH AND INSTALL ONE EYE/FACE WASH UNIT (WALL MOUNTED), SPEAKMAN MODEL NO. SE-603.
3. CONTRACTOR SHALL FURNISH AND INSTALL TWO TEMPERATURE ALARM THERMOSTATS AT LOCATIONS SHOWN ON THIS DRAWING. THE THERMOSTATS SHALL HAVE TEMPERATURE RANGE FROM 50°F TO 90°F, WITH AN ADJUSTABLE TEMPERATURE DIFFERENTIAL OF 3°F TO 30°F, AND AN ALARM CONTACT RATED 0.5 AMPERE, 125 VDC. THERMOSTATS SHALL BE JOHNSON CONTROLS AT2AA-3 OR ACCEPTABLE EQUAL. THERMOSTATS SHALL BE MOUNTED ON WALL 4'-6" ABOVE FINISHED FLOOR.
4. CONTRACTOR SHALL FURNISH AND INSTALL ALL AC AND DC STATION SERVICE POWER PANELS AT THE LOCATIONS SHOWN ON THIS DRAWING. THE TOP OF THE AC AND DC POWER PANELS SHALL BE MOUNTED 6'-6" ABOVE FINISHED FLOOR. THE AC AND DC POWER PANELS SHALL BE IN ACCORDANCE WITH DRAWING GE102LV1 AND THE SPECIFICATIONS.
5. CONTRACTOR SHALL FURNISH AND INSTALL THE BATTERY CART BOXES (QTY 2) IN ACCORDANCE WITH DETAIL J, DRAWING GE102CE5. THE TOP OF THE BATTERY CART BOX SHALL BE 4'-0" ABOVE FINISHED FLOOR.
6. THE CONTRACTOR SHALL FURNISH AND INSTALL TWO (2) SPLIT UNIT HVAC UNITS, COMPLETE WITH THERMOSTAT AND DUCT WORK IN THE CONTROL ROOM ALSO. THE CONTRACTOR SHALL FURNISH AND INSTALL ONE (1) SPLIT UNIT HVAC COMPLETE WITH THERMOSTAT AND DUCT WORK IN THE COMMUNICATIONS ROOM. THE CONTRACTOR SHALL FURNISH AND INSTALL INTERIOR AND EXTERIOR HVAC DISCONNECT SWITCHES, SEE DETAIL G, DRAWING GE102CE5. THE CONTRACTOR SHALL INSTALL ALL WALL PENETRATIONS REQUIRED FOR THESE AC UNITS, ONE (1) 2" CONDUIT FOR FREON LINE AND ONE (1) 1" CONDUIT FOR A DRAIN LINE, PER A/C UNIT, IN LOCATIONS TO BE DETERMINED BY JEA PROJECT REPRESENTATIVE.
7. THE OWNER WILL FURNISH TWO (2), 125VDC BATTERIES, RACKS AND CHARGERS, PICKUP AND TRANSPORTATION TO THE SITE BY THE CONTRACTOR. INSTALLATION OF THE BATTERY CHARGERS WITH ASSEMBLY AND INSTALLATION OF BATTERIES AND RACKS BY MANUFACTURER.
8. THE OWNER WILL FURNISH THE 230KV SWITCHBOARD PANELS AND SCADA RTU CABINET. THE RELAY PANELS SHALL BE DELIVERED TO THE JOB SITE BY THE RELAY PANEL MANUFACTURER. CONTRACTOR SHALL UNLOAD THEM FROM THE TRUCK AND INSTALL THEM PER THESE PLANS AND DRAWINGS. INSTALLATION SHALL INCLUDE ANCHORING THE EQUIPMENT TO THE CONTROL BUILDING FLOOR AND CONNECTING THE PANELS/CABINETS TO THE CABLE TRAY GROUND CONDUCTOR.
9. THE CARD READERS, SECURITY CAMERAS AND SECURITY PANELS WILL BE FURNISHED AND INSTALLED BY THE OWNER.
10. THE COMMUNICATIONS AND NETWORK PANELS WILL BE FURNISHED AND INSTALLED BY THE OWNER.
11. SEE DRAWING GE102CP2 AND DRAWING GE102CP3 FOR CONTINUATION OF CONDUIT RUNS.
12. TOP OF CONTRACTOR FURNISHED AND INSTALLED DRY SODA TYPE FIRE EXTINGUISHER SHALL NOT EXCEED 5'-0" ABOVE FINISHED FLOOR, BOTTOM OF FIRE EXTINGUISHER SHALL NOT BE LOWER THAN 6" ABOVE FINISHED FLOOR.
13. THE CONTRACTOR SHALL FURNISH TWO (2) 3' X 6' LAYDOWN TABLES, BOISE OFFICE FURNITURE #E8UTM3672WPCR. THE CONTRACTOR SHALL ALSO FURNISH AND INSTALL, IN A LOCATION APPROVED BY THE PROJECT REPRESENTATIVE, FOUR (4) EACH SHEET-FILE PLAN CENTERS, OFFICE MAX #20092150, FOUR (4) EACH SHEET HANGING CLAMP (2 CARBONS OF 6), OFFICE MAX #20092189, ONE (1) EACH HDN. STEEL STORAGE CABINET WITH 5 ADJUSTABLE SHELVES, 71 3/4" H X 36" W X 24 1/4" D, LIGHT GRAY, OFFICE DEPOT ITEM # 989780, AND FOUR (4) LEGAL FILE 530 SERIES FOUR-DRAWER, OFFICE MAX #20555061, OR APPROVED EQUAL. TWO (2) OF THE FOUR (4) CONTRACTOR-FURNISHED LEGAL FILES AND TWO (2) OF THE FOUR (4) ASSEMBLED SHEET-FILE PLAN CENTERS SHALL BE DELIVERED BY THE CONTRACTOR TO THE JEA DOCUMENT CENTER IN JACKSONVILLE, FL. THE REMAINING ITEMS SHALL BE PLACED AT LOCATIONS DETERMINED BY THE JEA PROJECT REPRESENTATIVE.

14. CONTRACTOR SHALL FURNISH AND INSTALL EXIT SIGN OVER EVERY EXIT DOOR, LIGHTWORLD MODEL L-XR-EM WITH BATTERY BACKUP, PUSH TO TEST AND OPERATES ON 120VAC.
15. THE CONTRACTOR TO COORDINATE LOCATIONS OF TELEPHONES WITH JEA PROJECT REPRESENTATIVE. APPROXIMATE LOCATIONS ARE INDICATED. RACEWAY AND WALL MOUNT BOXES FURNISHED AND INSTALLED BY THE CONTRACTOR. JEA WILL FURNISH AND INSTALL CABLES AND TELEPHONE HANDSETS.
16. THE CONTRACTOR SHALL INSTALL A MINIMUM OF 4'-4" AND 8'-2" CONDUITS IN CONTROL HOUSE FLOOR WITH CONNECTIONS TO RACEWAY EXTERNAL TO THE CONTROL HOUSE. LOCATION OF THESE CONDUITS SHALL BE COORDINATED WITH JEA PROJECT REPRESENTATIVE.
17. SCADA RTU FURNISHED BY JEA FOR TRANSPORTATION TO THE SITE, INSTALLATION AND CONNECTION BY THE CONTRACTOR. INSTALLATION SHALL INCLUDE ANCHORING THE EQUIPMENT TO THE CONTROL HOUSE FLOOR AND CONNECTING TO THE CABLE TRAY GROUND CONDUCTOR.
18. COMMUNICATIONS ROOM:  
A. FLOOR IN COMMUNICATIONS ROOM SHALL BE FINISHED BUT NOT SEALED. JEA SHALL FURNISH AND INSTALL PAINT FOR THE COMMUNICATIONS ROOM FLOOR  
B. THE CONTRACTOR SHALL COORDINATE SCHEDULE OF WORK IN THE COMMUNICATIONS ROOM WITH JEA.  
C. PANELS, BATTERY AND CABLE TRAY IN COMMUNICATIONS ROOM FURNISHED AND INSTALLED BY JEA.  
D. THE CONTRACTOR SHALL FURNISH AND INSTALL A GROUND BUS BAR ON THE COMMUNICATIONS ROOM WALL AS SHOWN. THIS GROUND BUS SHALL BE 4" X 60" COPPER BAR WITH CONNECTION TO THE CABLE TRAY GROUND AT A SINGLE POINT. GROUND BUS SHALL BE MOUNTED ON INSULATORS WITH DRILLING AND TAPPING AS DIRECTED BY JEA.
19. THE CONTRACTOR SHALL FURNISH AND INSTALL FIVE (5) SMOKE DETECTORS GE MODEL 350CX IN THE LOCATIONS SHOWN ON THIS DRAWING. MOUNT SMOKE DETECTOR ELECTRICAL BOX TO NEAREST UNOBSTRUCTED CEILING JOIST.
20. CONTRACTOR TO FURNISH AND INSTALL FOUR (4) 2" SCH. 40 PVC CONDUITS FROM SECURITY MANHOLE SMH1 TO SECURITY PANELS 1 & 2 AS SHOWN ON THIS DRAWING. STUB UP THROUGH FLOOR IN LOCATION SHOWN.

LEGEND:

- CR - CARD READER (FURNISHED & INSTALLED BY JEA)
- DS - HVAC ELECTRICAL DISCONNECT SWITCH
- FE - FIRE EXTINGUISHER (SEE NOTE 12)
- PH - WALLMOUNT/ TELEPHONE HANDSET (SEE NOTE 15)
- SC - SECURITY CAMERA (FURNISHED & INSTALLED BY JEA)
- SD - SMOKE DETECTOR (FURNISHED & INSTALLED BY CONTRACTOR)
- T - HVAC UNIT THERMOSTAT (FURNISHED & INSTALLED BY JEA)
- TA - TEMPERATURE ALARM THERMOSTAT (FURNISHED & INSTALLED BY JEA)
- (2) - 2" SCH. 40 PVC CONDUITS PLACED IN SLAB
- FT - INTERMATIC FAN TIMER MODEL T1975 (FURNISHED AND INSTALLED BY CONTRACTOR)



JEA

BUILDING COMMUNITY

21 W CHURCH ST.

JACKSONVILLE, FLORIDA 32202

ISSUED FOR BID

CONSULTANT INFORMATION

PROFESSIONAL ENGINEER'S SEAL

ORIGINALLY PREPARED UNDER THE RESPONSIBLE SUPERVISION OF

PE: \_\_\_\_\_

LIC. NO.: \_\_\_\_\_

STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

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ENGINEERING	
DATE	7/24/2018
BY	RMS
REVIEW	JAR
DRAFTING	
DATE	7/24/2018
BY	RMS
REVIEW	JAR

GEC 230 kV BAY AND BREAKER ADDITION FOR CIRCUIT 909

CONTROL HOUSE ELECTRICAL

GREENLAND ENERGY CENTER SWITCHYARD

SUBSTATION & TRANSMISSION ENGINEERING

SCALE: AS SHOWN

PROJ # 8004817

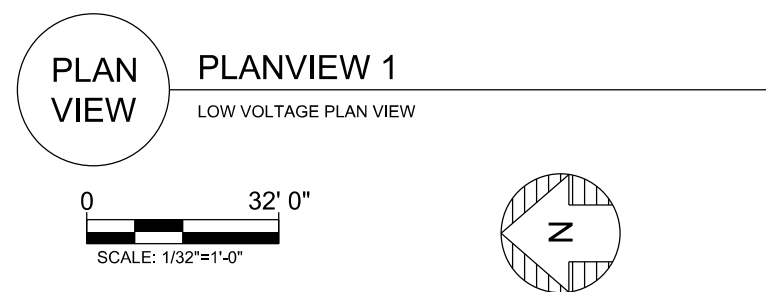
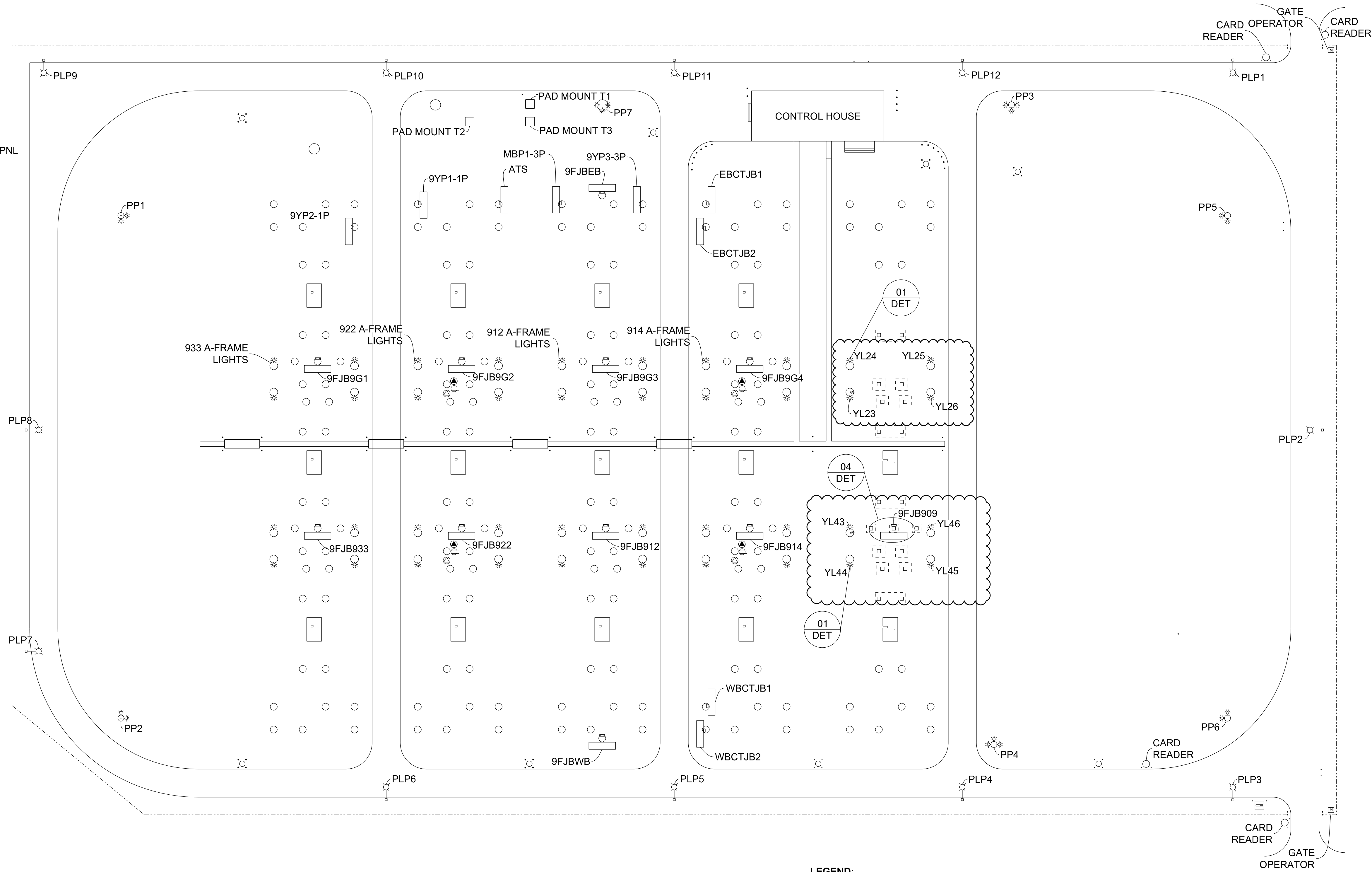
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DRAWING SET: GE2017

DRAWING #: 10 OF 11

SHEET #: 1 OF 1

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- LEGEND:**
- PERIMETER LIGHTS
  - YARD LIGHTS
  - LIGHT SWITCH
  - ELECTRICAL PANEL / JUNCTION BOX
  - 1-PHASE 240V RECEPTACLE
  - 3-PHASE 240V RECEPTACLE
  - 1-PHASE 120V RECEPTACLE

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ENGINEERING	
DATE	7/24/2018
BY	RMS
REVIEW	JAR
DRAFTING	
DATE	7/24/2018
BY	RMS
REVIEW	JAR

GEC 230 kV BAY AND BREAKER ADDITION FOR CIRCUIT 909

## LOW VOLTAGE


GREENLAND ENERGY CENTER SWITCHYARD  
SUBSTATION & TRANSMISSION ENGINEERING

SCALE: AS SHOWN

PROJ # 8004817

DRAWING NAME: GE2017-LV.dgn	
DRAWING SET: GE2017	
DRAWING #: 11 OF 11	SHEET #: 1 OF 3

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**JEA**  
BUILDING COMMUNITY  
21 W CHURCH ST.  
JACKSONVILLE, FLORIDA 32202

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CONSULTANT INFORMATION

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LIC. NO.: _____
STATE: _____
DATE: _____

REVISION DESCRIPTION

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-	-	-	-	-	BY RMS
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-	-	-	-	-	DRAFTING
-	-	-	-	-	DATE 7/24/2018
-	-	-	-	-	BY RMS
-	-	-	-	-	REVIEW JAR

LOW VOLTAGE

GREENLAND ENERGY CENTER SWITCHYARD

SUBSTATION & TRANSMISSION ENGINEERING

SCALE: AS SHOWN

PROJ # 8004817

DRAWING NAME: GE2017-LV.dgn

DRAWING SET: GE2017

DRAWING #: 11 OF 11 SHEET #: 2 OF 3

