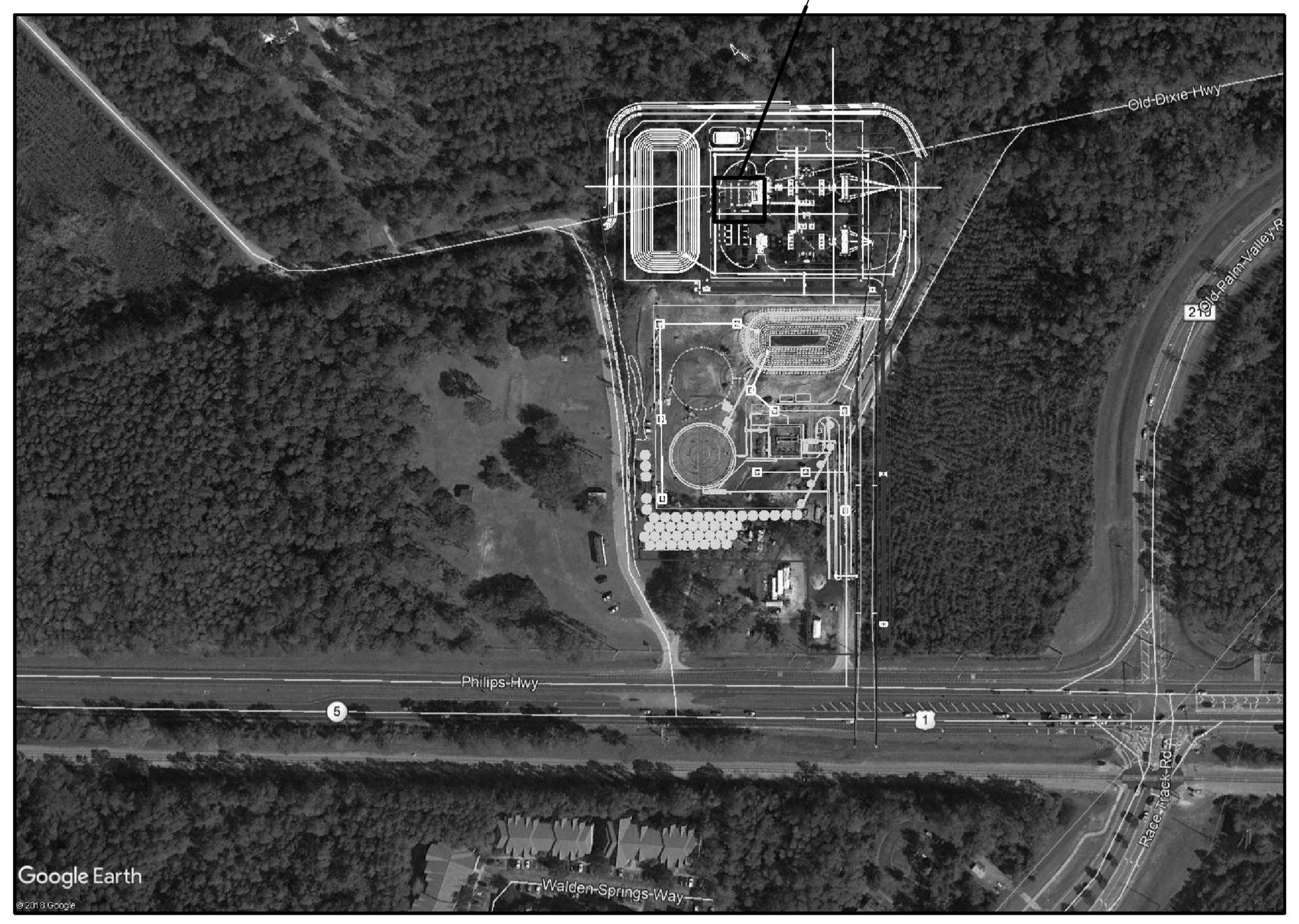
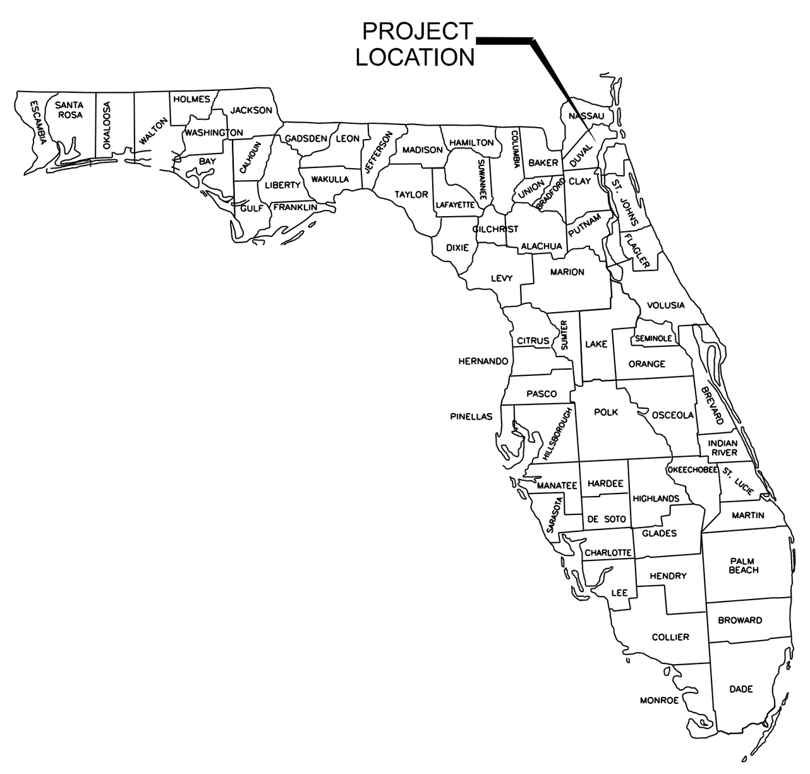
PROJECT LOCATION:
14987 PHILIPS HIGHWAY
JACKSONVILLE, FL 32258



VICINITY MAP N.T.S.



ISSUE FOR BID DRAWINGS

FOR THE

INSTALLATION OF

NOCATEE SUBSTATION T2 ADDITION

BUILDING COMMUNITY

PROJECT DESIGN SEGMENT 20410

SUBSTATION

ENGINEERING

PROJECT #8007832

JEA
225 N. PEARL 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: ____

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW BY	ENGINEERING	
0	05/08/2025	8007832	T2 AND BAY ADDITION	JWR	JWR	DATE	05/08/2025
						BY	JWR
						REVIEW BY	JWR
						DRAFTING	
						DATE	05/08/2025
						BY	JWR
						REVIEW BY	-

230-26KV T2 ADDITION

COVER AND VICINITY MAP

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

SHEET NUMBER: CV1

PROJECT ID: NC2024

SEQUENCE #: 1 OF 35

DRAWING INDEX			
SEQUENCE NUMBER	TITLE	SHEET NUMBER	REVISION
1	COVER AND VICINITY MAP	CV1	
2	DRAWING INDEX	DI1	
3	GENERAL NOTES	GN1	
4	SIGNATURE SHEET	SS	
5	EROSION CONTROL DETAILS	EC1	
6	EROSION CONTROL DETAILS	EC2	
7	EROSION CONTROL DETAILS	EC3	
8	SINGLE LINE DIAGRAM	SL1	
9	ELECTRICAL PLAN	EP1	
10	ELECTRICAL SECTIONS	ES1	
11	ELECTRICAL SECTIONS	ES2	
12	ELECTRICAL DETAIL	ED1	
13	GENERAL NOTES AND DESIGN CRITERIA	FP1	
14	FOUNDATION SITE PLAN	FP2	
15	FOUNDATION DETAILS	FD1	
16	TRANSFORMER FOUNDATION DETAILS	FD2	
17	CONTAINMENT PIT DETAILS	FD3	
18	26.4KV BREAKER FOUNDATION DETAILS	FD4	
19	230KV BREAKER FOUNDATION DETAILS	FD5	
20	GROUNDING PLAN	GP1	
21	GROUNDING DETAILS	GD1	
22	GROUNDING DETAILS	GD2	
23	CONDUIT PLAN	CP1	
24	CONDUIT PLAN	CP2	
25	DISTRIBUTION CONDUIT PLAN	CP3	
26	CONDUIT DETAILS	CD1	
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28	CONDUIT DETAIL	CD3	
29	CONDUIT SCHEDULE	CO1	
30	CABLE SCHEDULE	CA1	
31	CABLE SCHEDULE	CA2	
32	ILLUMINATION PLAN	IL1	
33	ILLUMINATION DETAILS	IL2	
34	CONTROL HOUSE ARRANGEMENT	CE1	
35	LOW VOLTAGE DISTRIBUTION PLAN	LV1	

JEA
225 N. PEARL ST.
JACKSONVILLE, FLORIDA 32202

ISSUED FOR BID

CONSULTANT INFORMATION

cma chen moore and associates
501 Riverside Ave, Ste. 501
Jacksonville, FL 32202
904.398.8636
www.chenmoore.com

PROFESSIONAL ENGINEER'S SEAL

FOR PROFESSIONAL'S SEAL SEE SIGNATURE SHEET
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REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW BY

ENGINEERING	
DATE	06/06/2025
BY	PN
REVIEW BY	TRG
DRAFTING	
DATE	06/06/2025
BY	PN
REVIEW BY	TRG

230-26KV T2 ADDITION

DRAWING INDEX

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

SHEET NUMBER: DI1

PROJECT ID: NC2024

SEQUENCE #: 2 OF 35

GENERAL CONSTRUCTION NOTES

1. ALL EXISTING CONDITIONS SHOWN ON THESE DRAWINGS REFLECT PREVAILING CONDITIONS AT THE TIME OF THE SURVEY. SURVEY WAS CONDUCTED BY JOHNSON SURVEYING & MAPPING, INC.
2. ELEVATIONS SHOWN HEREON REFER TO NORTH AMERICAN VERTICAL DATUM 1988, (NAVD 88). COORDINATE GRID SHOWN IS FLORIDA STATE PLANE COORDINATE SYSTEM (EAST ZONE) (NAD83(2011)), U.S SURVEY FEET.
3. LIMITS OF CONSTRUCTION HAVE BEEN IDENTIFIED ON THE PLAN.
4. ALL EXISTING UTILITIES & STRUCTURES, BOTH ABOVE AND BELOW GRADE, HAVE BEEN SHOWN ON THESE DRAWINGS INSOFAR AS INFORMATION IS REASONABLY AVAILABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THEIR LOCATION AND PROTECTING ALL UTILITIES & STRUCTURES, WHETHER OR NOT THEY ARE SHOWN ON THESE DRAWINGS. DURING THE DURATION OF THE CONSTRUCTION ANY AND ALL DAMAGE RESULTING FROM THE CONSTRUCTION OPERATION SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO JEA.
5. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST STANDARDS AND PERMITS SET FORTH BY THE APPLICABLE AGENCIES, FLORIDA DEPT. OF TRANSPORTATION, WATER MANAGEMENT DISTRICT, CITY OF JACKSONVILLE, FL DEP, AND JEA.
6. SHOULD A CONFLICT ARISE BETWEEN THE DETAILS SHOWN IN THESE DRAWINGS AND THE STANDARDS OR PERMITS ISSUED BY THE AGENCIES LISTED IN NOTE (5), THE STANDARDS OR PERMITS ISSUED BY THE CONTROLLING AGENCY WILL GOVERN.
7. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STRUCTURES AND MATERIALS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION AND CONSTRUCTION.
8. NO ADDITIONAL COMPENSATION BASED UPON A COMPARISON BETWEEN THE CONTRACTORS ASSUMED QUANTITIES AND FINAL " IN PLACE" QUANTITIES SHALL BE ALLOWED. THE EXCEPTION SHALL BE THE AUTHORIZED CHANGES IN THE SCOPE OF WORK TO BE PERFORMED.
9. ALL DISTURBED AREAS OFF SITE SHALL BE RESTORED AS FOLLOWS: PAVEMENT AND CONCRETE SHALL BE REPLACED MATCHING THE EXISTING. NON-PAVED AREAS SHALL BE SODDED.
10. ALL DISTURBED AREAS NOT COVERED IN ASPHALT, CONCRETE OR GRAVEL SHALL BE SODDED WITH ARGENTINE BAHIA SOD AND WILL BE REQUIRED TO BE ESTABLISHED PRIOR TO PROJECT COMPLETION.
11. SEDIMENT AND EROSION CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. AREAS OF OFF-SITE DISCHARGE DURING CONSTRUCTION SHALL BE PROTECTED WITH SEDIMENT BARRIERS OF BEST MANAGEMENT PRACTICES TO PREVENT OFF-SITE DISCHARGE OF SEDIMENTS. SEED AND MULCH SHALL BE USED TO CONTROL ON-SITE EROSION WHEN IT IS NOT PRACTICAL TO ESTABLISH PERMANENT VEGETATION. PERMANENT VEGETATION SHALL BE PLACED AS EARLY AS FEASIBLE ON ALL SLOPES STEEPER THAN 7:1. SOD SHALL BE PINNED ON SLOPES STEEPER THAN 4:1. STAGGER PIECES OF SOD ON ALL SLOPES TO AVOID SEEMS BETWEEN PIECES CREATING FLOW CHANNELS DOWN THE SLOPE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED IN WORKING ORDER THROUGHOUT THE CONSTRUCTION PHASE.
12. DRAINAGE SWALES SHALL BE MAINTAINED IN OPERATING CONDITION AND ALL EROSION DAMAGE SHALL BE REPAIRED AS IT OCCURS.
13. THE CONTRACTOR SHALL IDENTIFY AND PROTECT TREES AND VEGETATION THAT ARE TO REMAIN UNDISTURBED. THE CONSTRUCTION AREA SHALL BE CLEARED AND GRUBBED TO REMOVE ALL ROOTS AND MISCELLANEOUS VEGETATION.
14. THE CONTRACTOR SHALL USE NECESSARY MEANS AND METHODS TO CONTROL SURFACE AND GROUNDWATER FLOWS DURING CONSTRUCTION, INCLUDING, BUT NOT LIMITED TO, SURFACE GRADING, DEWATERING TRENCHES WITH SUMP PUMPS, WELL POINTING, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ACTUAL AND LIKELY DEPTHS TO GROUNDWATER AND THE WATER CONTROL NECESSARY TO MEET MOISTURE AND DENSITY REQUIREMENTS OF THE SPECIFICATION FOR THE NATIVE OR IMPORTED SOILS.
15. ALL SUITABLE MATERIAL EXCAVATED SHALL BE USED AS FILL OVER THE SITE AS NEEDED AND AS APPROVED BY THE ENGINEER. ANY UNSUITABLE MATERIAL AND OTHER DEBRIS RESULTING FROM THE CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OF LEGALLY OFF-SITE IN AN APPROVED AREA AND MANNER BY THE CONTRACTOR.
16. THE BURNING OF TREES, BRUSH OR OTHER MATERIAL IS NOT PERMITTED.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITTING IN CONNECTION WITH THIS PROJECT NOT PROVIDED BY JEA.
18. THE CONTRACTOR SHALL VISIT THE WORK SITE AND FAMILIARIZE HIMSELF WITH THE NATURE AND EXTENT OF THE CONTRACT DOCUMENTS, WORK, LOCALITY, AND ALL LOCAL CONDITIONS AND FEDERAL AND STATE LAWS, ORDNANCES, RULES AND REGULATIONS THAT IN ANY MANNER MAY AFFECT COST, PROGRESS OR PERFORMANCE OF THE WORK.
19. THE CONTRACTOR SHALL STUDY, CAREFULLY, ALL PHYSICAL CONDITIONS AT THE SITE, AFFECTING COST, PROGRESS OR PERFORMANCE OF THE WORK WHICH WERE RELIED UPON BY THE ENGINEER IN PREPARATION OF THE CONTRACT DOCUMENTS.
20. THE CONTRACTOR SHALL CORRELATE THE RESULTS OF ALL SUCH OBSERVATIONS, EXAMINATION AND INVESTIGATIONS WITH THE TERMS OF THE CONTRACT DOCUMENTS.
21. THE CONTRACTOR SHALL CALL TO THE ENGINEER'S ATTENTION, IN WRITING, ANY CONFLICT, ERROR OR DISCREPANCY IN THE CONTRACT DOCUMENTS HE MAY FIND BEFORE PROCEEDING WITH THE WORK AFFECTED THEREBY.

AS-BUILT NOTES

1. AS-BUILT DRAWINGS SHALL BE PREPARED IN AUTOCAD 2018 OR MICROSTATION CONNECT, BY A REGISTERED LAND SURVEYOR, AND SHALL BE IN ACCORDANCE WITH ALL THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION. ONE COMPLETE SET OF SIGNED PRINTS AND A COMPLETE SET OF ELECTRONIC FILES ON COMPUTER DISK SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
2. AS-BUILTS SHALL SHOW HORIZONTAL LOCATION OF ALL STRUCTURES TIED DOWN IN TWO DIRECTIONS, FINISHED FLOOR ELEVATIONS, ROCK DRIVE GRADES, ALL UNDERGROUND FACILITIES (HORIZONTAL AND VERTICAL).
3. AS-BUILTS SHALL SHOW PERIMETER DIMENSIONS AT THE TOP OF BANK AND BOTTOM OF BANK ALONG WITH ELEVATIONS OF BOTH FOR ALL ON SITE PONDS, DITCHES AND SWALES.
4. AS-BUILTS SHALL PROVIDE DETAILED DRAWINGS WHERE FIELD CONDITIONS REQUIRED A CHANGE FROM THAT SHOWN ON THE CONTRACT DRAWINGS.
5. AS-BUILTS SHALL SHOW LOCATION, DESCRIPTION AND ELEVATION OF SITE BENCHMARKS.

TYPICAL ABBREVIATIONS

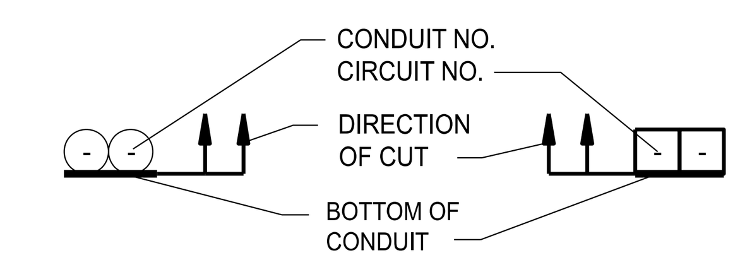
A.G.	ALLEY GRADE
BL	BASE LINE
BATT	BATTERY
BM	BENCH MARK
BC	BOTTOM OF CURVE
C.B.	CATCH BASIN
C.I.	CAST IRON
CL	CENTER LINE
C.L.	CHAIN LINK
CHGR	CHARGER
C.E.P.	CITY ELECTRIC POLE
CKT	CIRCUIT
C.O.	CLEAN OUT
CONC.	CONCRETE
CONST.	CONSTRUCTION
C.M.P.	CORRUGATED METAL PIPE
C.M.P.A.	CORRUGATED METAL PIPE ARCH
CULV.	CULVERT
C&G	CURB & GUTTER
C	CUT
D.B.I.	DITCH BOTTOM INLET
D.P.I.	DITCH BOTTOM GRADE POINT OF INTERSECTION
D.W.	DRIVEWAY
D.I.	DUCTILE IRON
DIA	DIAMETER
EMT	ELECTRICAL METALLIC TUBING
E.O.P.	EDGE OF PAVEMENT
ERCP	ELLIPTICAL REINFORCED CONC. PIPE
EXP. JT.	EXPANSION JOINT
F	FILL
F.H.	FIRE HYDRANT
FIB	FIBER OPTIC
FL	FLOW LINE
FT.	FEET
GALV	GALVANIZED
G	GAS LINE
G.V.	GAS VALVE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HDPE	HIGH DENSITY POLYETHYLENE PIPE
H.W.	HEAD WALL
H.C.	HIGH CURB
INT.	INTERSECTION
INV.	INVERT
I.P.	IRON PIPE
JEA	JACKSONVILLE ELECTRIC AUTHORITY
J.W.W.	JACKSONVILLE WATER WORKS
LT.	LEFT
MAX.	MAXIMUM
M.H.	MANHOLE
MIN.	MINIMUM
NSF	NORTH AMERICAN VERTICAL DATUM
N.T.S.	NOT TO SCALE
O.D.	OUTSIDE DIAMETER
OHU	OVERHEAD ELECTRIC UTILITY
O.E.	OVERHEAD ELECTRIC
O.T.	OVERHEAD TELEPHONE
P.R.M.	PERMANENT REFERENCE MONUMENT
PVC	POLYVINYL CHLORIDE
P.C.	POINT OF CURVE & END OF TANGENT
P.I.	POINT OF INTERSECTION OF TANGENTS
PID	PRELIMINARY INDEX DIAGRAMS
P.T.	POINT OF TANGENT & END OF CURVE
r	RADIUS
R	RATE
R.C.P.	REINFORCED CONCRETE PIPE
RECPT.	RECEPTACLE
RT	RIGHT
R/W	RIGHT OF WAY
SCHED.	SCHEDULE
S/W	SIDEWALK
STA	STATION
TC	TANGENT TO CURVE
TYP	TYPICAL
U.G.E.	UNDERGROUND ELECTRIC
U.S.C.&G.S.	UNITED STATES COASTAL & GEODETIC SURVEY
V.C.	VITRIFIED CLAY
W/	WITH
WM	WATER METER
WP	WATERPROOF
W.V.	WATER VALVE
WPF	WOOD PRIVACY FENCE
WRF	WOOD RAIL FENCE

ELECTRICAL CLEARANCE NOTES

1. SUBSTATION CONDUITS SHALL BE PLACED 22 INCHES BELOW FINISHED, ROCKED GRADE, OR 18 INCHES BELOW STABILIZED AND COMPACTED EARTH GRADE. GROUND GRID SHALL BE PLACED 28 INCHES BELOW FINISHED ROCKED GRADE, OR 24 INCHES BELOW STABILIZED AND COMPACTED EARTH GRADE. DISTRIBUTION FEEDER CONDUITS SHALL BE PLACED 48" BELOW FINAL EARTH GRADE.
2. THE FOLLOWING ARE ELECTRICAL CLEARANCES FOR JEA SUBSTATION PROJECTS. THE CONTRACTOR SHOULD CONSTRUCT THE SUBSTATION AS DEPICTED IN THE DRAWINGS AND REFER TO THESE AS A REFERENCE. NOTE THAT "PHASE SPACING" IS TYPICAL, NOT MINIMUM.

Voltage (kV)	BIL (kV)	Min. Phase-Phase (in)	(ft-in)	Min. Phase-Ground (in)	(ft-in)	Phase Spacing (ft-in)	Min. Above Grade Personnel (ft-in)	Roadway (ft)	Min. to Fence Horizontal (ft)
13.2	110	12"	1'-0"	7"	0'-7"	2'-0"	9'-0"	21'	10'
34.5	200	18"	1'-6"	13"	1'-1"	3'-0"	9'-6"	22'	10'
69	350	31"	2'-7"	25"	2'-1"	5'-0"	10'-5"	23'	12'
138	650	63"	5'-3"	50"	4'-2"	8'-0"	12'-2"	25'	14'
230	900	89"	7'-5"	71"	5'-11"	11'-0"	14'-10"	27'	16'

Reference RUS Bulletin 1724E-300 (2001), & NESC (2007)



DIRECT BURY OR DIRECTIONAL DRILLED CONDUIT SECTION

CONCRETE DUCT BANK SECTION

GENERAL LEGEND

	EXISTING	PROPOSED
BASE LINE		
RIGHT-OF-WAY		
PROPERTY LINE		
EASEMENT LINE		
LIMITS OF CONSTRUCTION		
LIMITS OF CLEARING & GRUBBING		SILT FENCE
WETLAND BOUNDARY	WF #	
MARSH		
HORIZONTAL DIRECTIONAL DRILL		DD
UNDERGROUND ELECTRIC DUCT BANK - NEW		UEN
FENCE LINE	x	x
SILT FENCE		SILT FENCE
CONTOUR LINE	89	87.7
SEWER	S	S
WATER	W	W
BOLLARD		
CAPPED PVC PIPE		
CONCRETE POWER POLE		
CONCRETE POST		
STORM DRAINAGE MANHOLE	D	
ELECTRIC HANDHOLE	E	
ELECTRIC MANHOLE	E	
GUY ANCHOR		
SANITARY SEWER MANHOLE	SS	
SENSOR	S	S
TELEPHONE RISER	T	
OVERHEAD UTILITY LINE	OHU	
UNDERGROUND ELECTRIC LINE/DUCT BANK	UGE	
FIBER OPTIC LINE	FIB	

JEA
225 N. PEARL ST.
JACKSONVILLE, FLORIDA 32202

ISSUED FOR BID

CONSULTANT INFORMATION

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Jacksonville, FL 32202
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www.chenmoore.com

PROFESSIONAL ENGINEER'S SEAL

FOR PROFESSIONAL'S SEAL SEE SIGNATURE SHEET DWG. NAME: SS.DGN
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REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW BY

ENGINEERING	
DATE	06/06/2025
BY	PN
REVIEW BY	TRG
DRAFTING	
DATE	06/06/2025
BY	PN
REVIEW BY	TRG

230-26KV T2 ADDITION

GENERAL NOTES

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

SHEET NUMBER: GN1

PROJECT ID: NC2024

SEQUENCE #: 3 OF 35

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CHEN MOORE & ASSOCIATES
501 RIVERSIDE AVE, SUITE 501
JACKSONVILLE, FL 32202

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

ELECTRICAL PLANS

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STRUCTURES INTERNATIONAL, LLC
7563 PHILIPS HIGHWAY, BLDG. 600
JACKSONVILLE, FL 32256

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STRUCTURAL PLANS

225 N. PEARL ST.
JACKSONVILLE, FLORIDA 32202

ISSUED FOR BID

CONSULTANT INFORMATION

501 Riverside Ave, Ste. 501
Jacksonville, FL 32202
904.398.8636
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BY	PN
REVIEW BY	TRG
DRAFTING	
DATE	06/06/2025
BY	PN
REVIEW BY	TRG

230-26KV T2 ADDITION

SIGNATURE SHEET

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

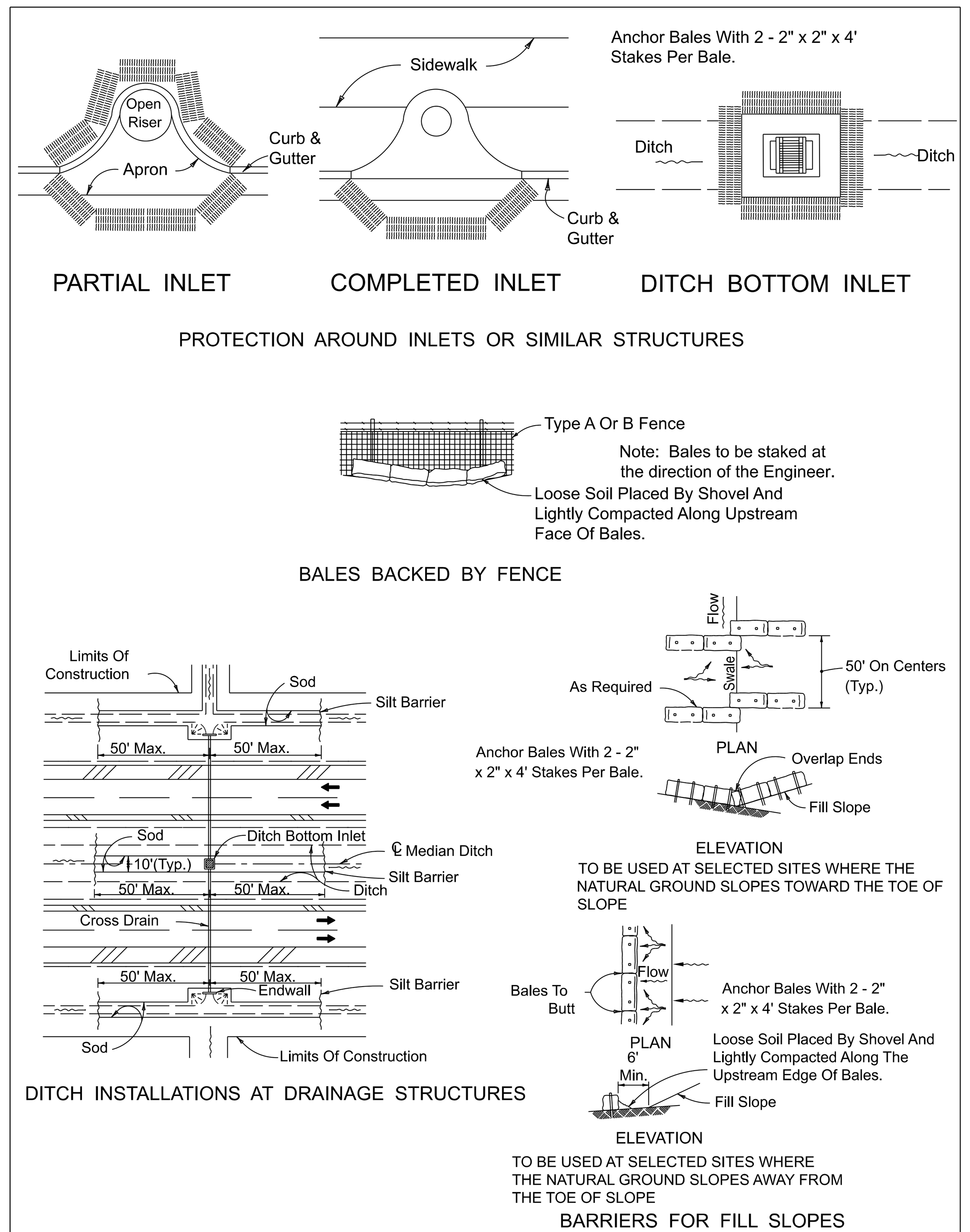
TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

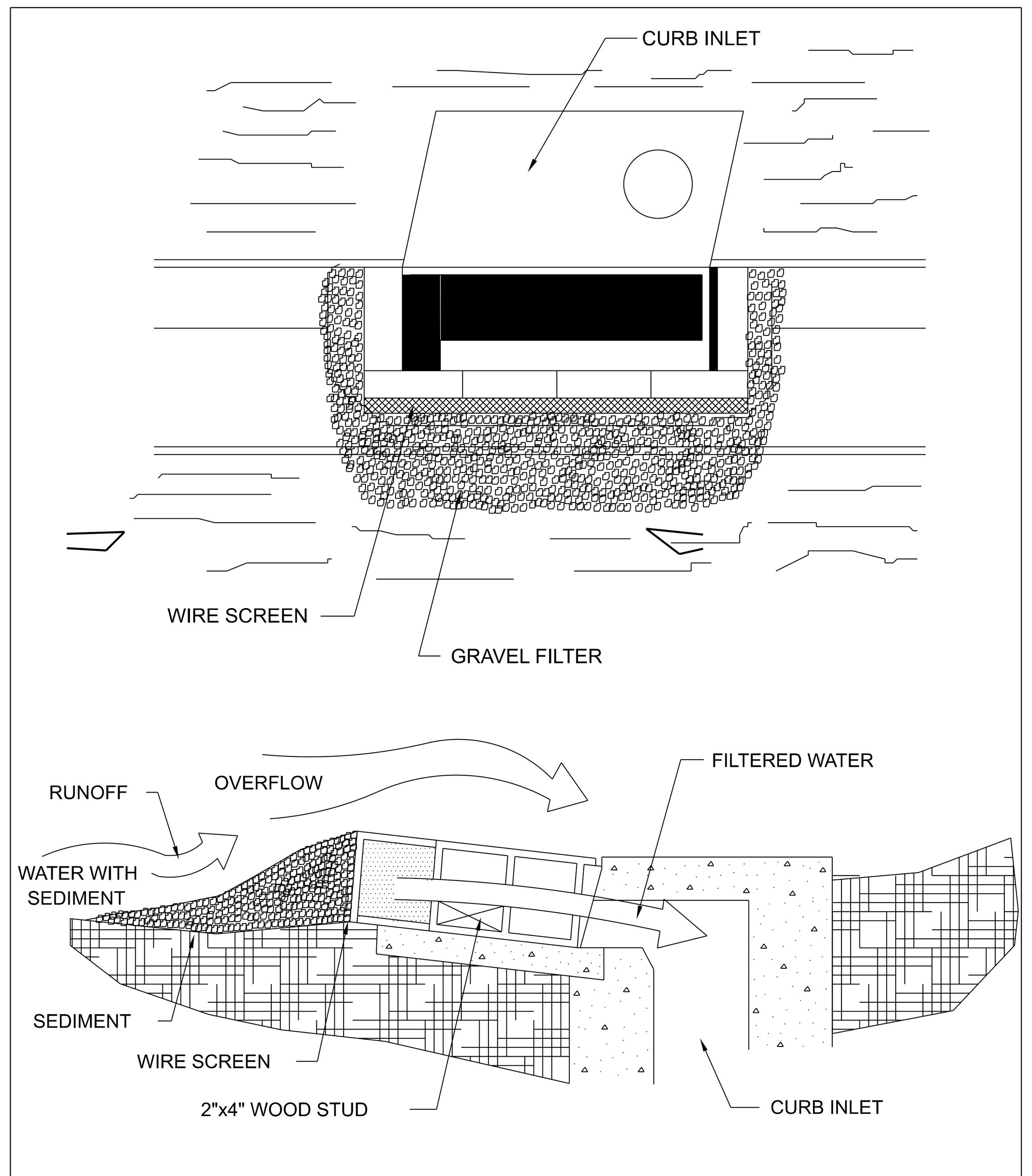
SHEET NUMBER: SS

PROJECT ID: NC2024

SEQUENCE #: 4 OF 35



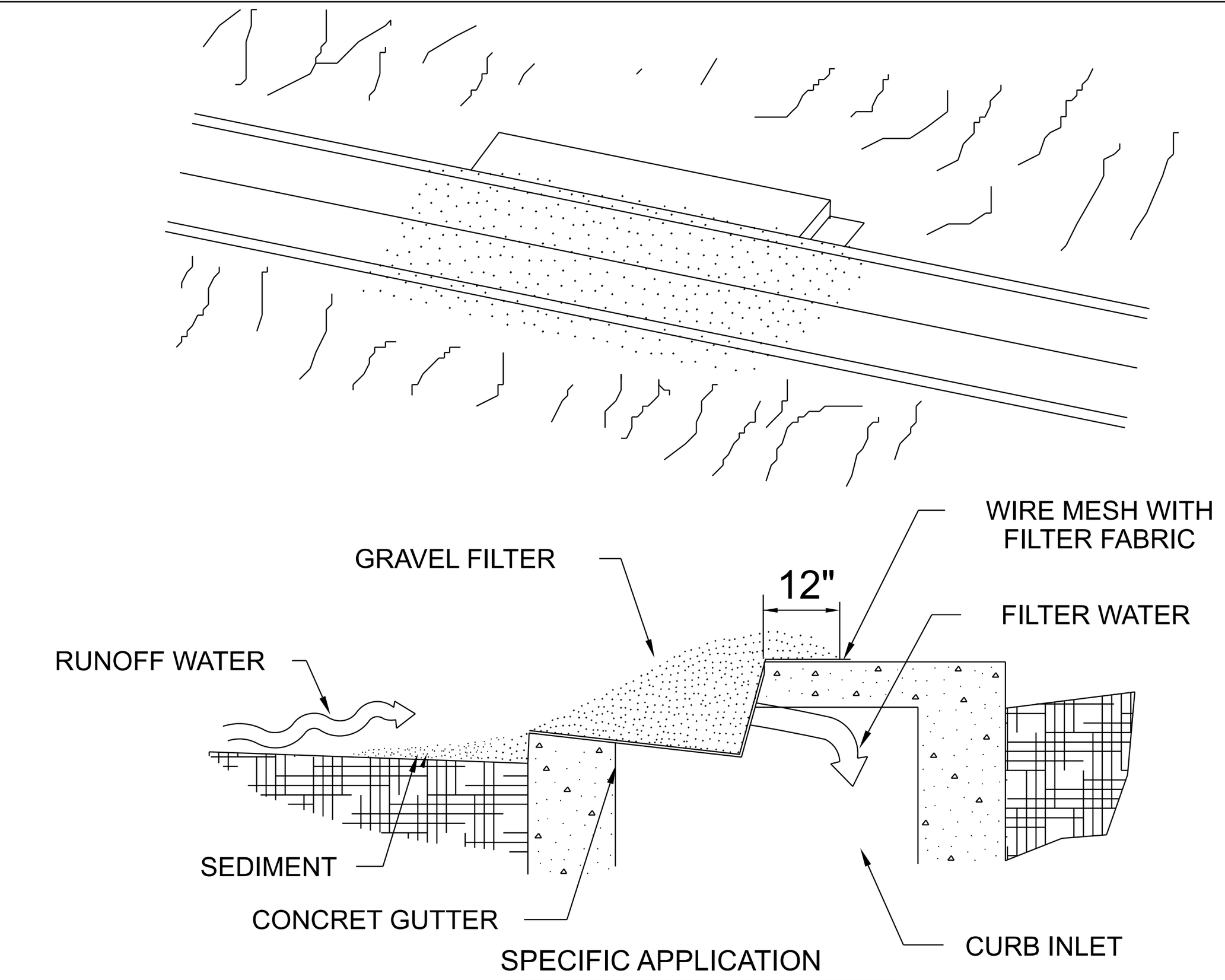
HAY BALE LOCATION	CITY OF JACKSONVILLE STANDARD	N.T.S.	PLATE D-901
		DATE DRAWN	2-20-79
		REVISED DATE	5-12-94



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.

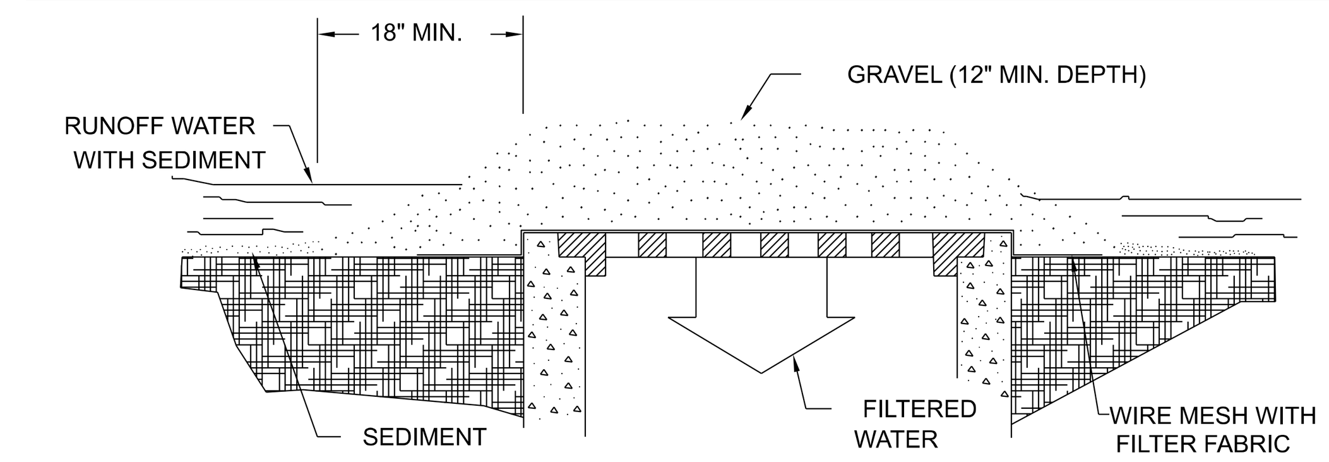
BLOCK AND GRAVEL CURB INLET SEDIMENT FILTER	CITY OF JACKSONVILLE STANDARD	N.T.S.	PLATE D-902
		DATE DRAWN	8-4-79
		REVISED DATE	5-12-94



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

GRAVEL CURB INLET SEDIMENT FILTER

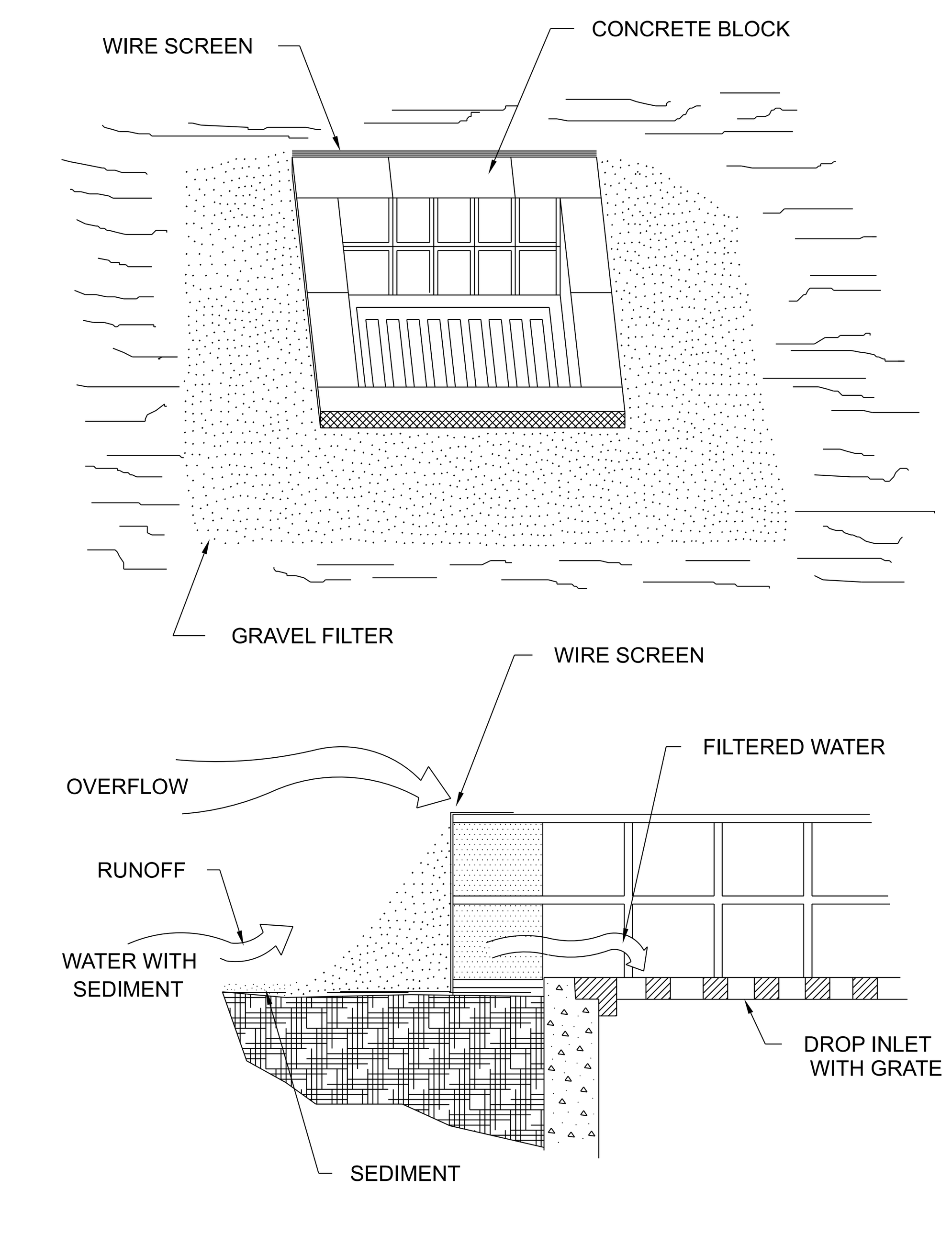


SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER

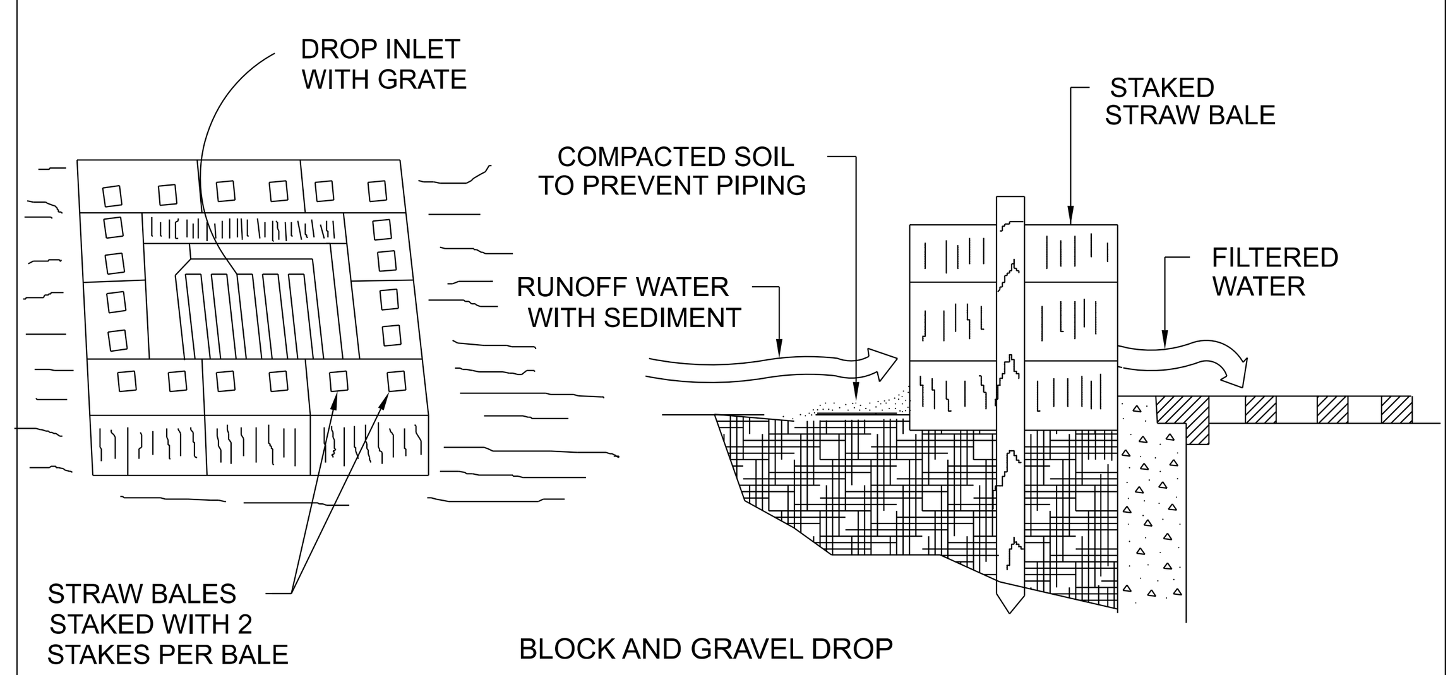
GRAVEL INLET SDEIMENT TRAP	CITY OF JACKSONVILLE STANDARD	N.T.S.	PLATE D-903
		DATE DRAWN	8-4-79
		REVISED DATE	5-12-94



SPECIFIC APPLICATION

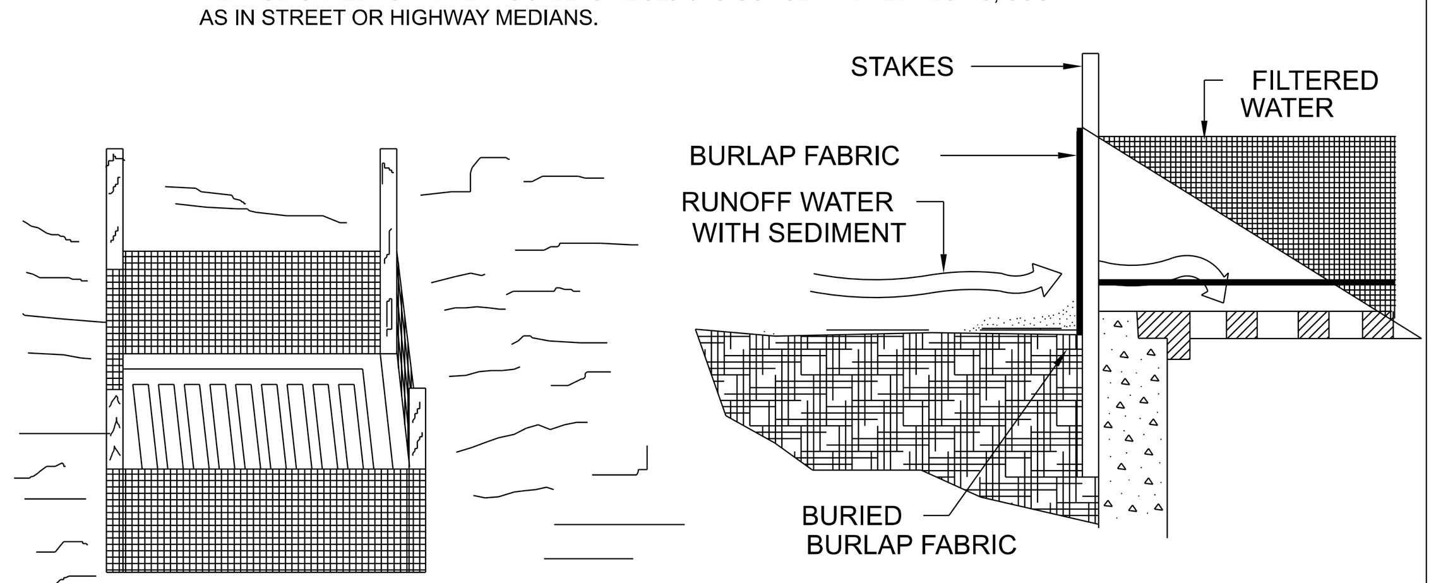
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.

BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER	CITY OF JACKSONVILLE STANDARD	N.T.S.	PLATE D-904
		DATE DRAWN	8-4-79
		REVISED DATE	5-12-94



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPES NO GREATER THAN 5 PERCENT) WHERE SHEET OR OVERLAND FLOWS (NOT EXCEEDING 0.5 cfs) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.



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DROP INLET SEDIMENT FILTER	CITY OF JACKSONVILLE STANDARD	N.T.S.	PLATE D-905
		DATE DRAWN	8-9-79
		REVISED DATE	5-12-94

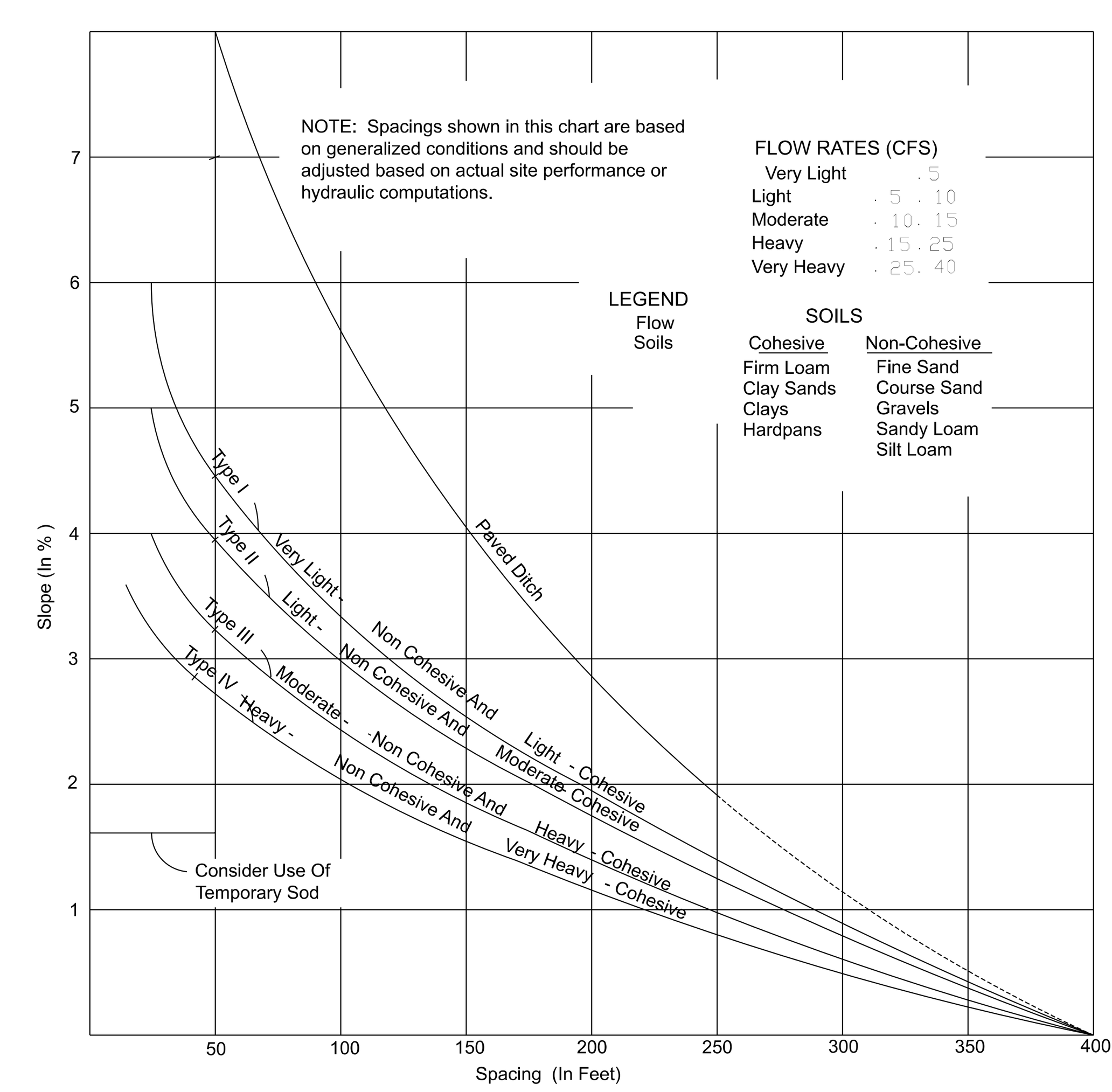
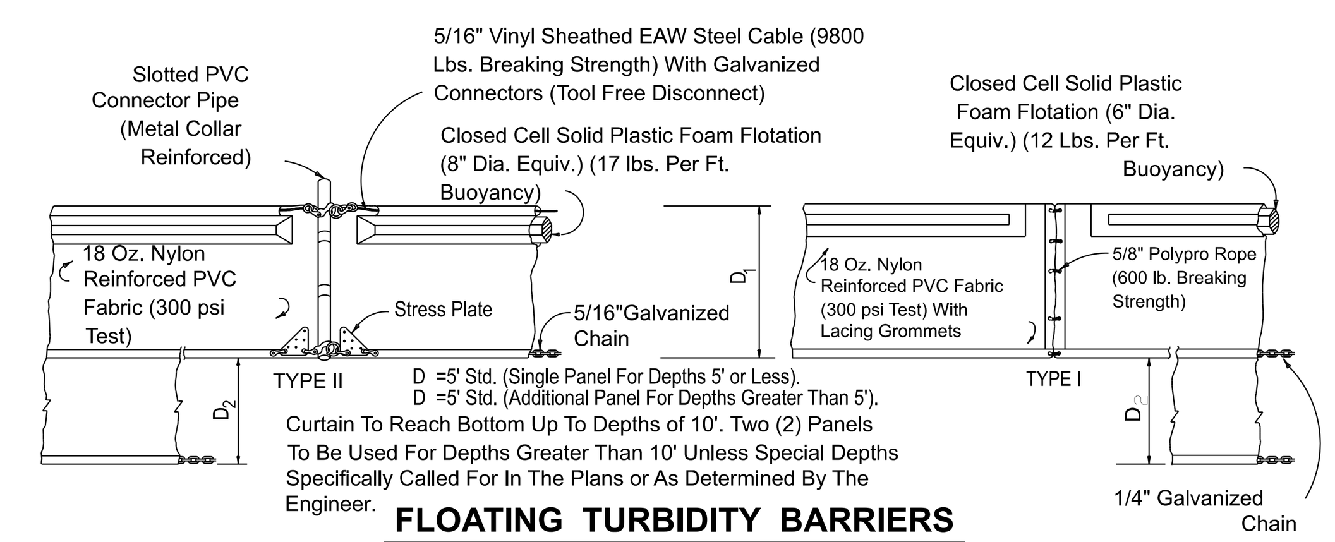


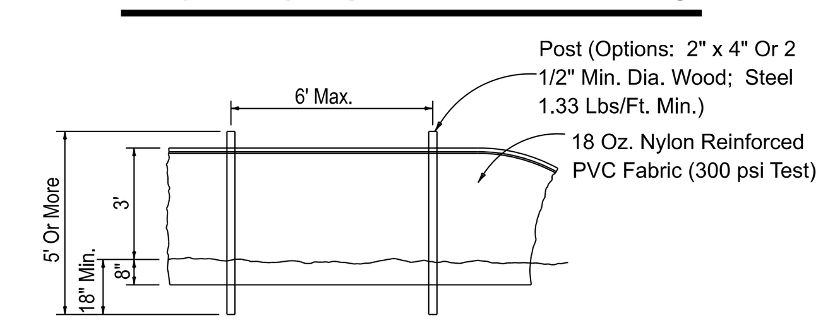
CHART I

RECOMMENDED SPACING FOR TYPE I AND TYPE II HAY BALE BARRIERS, AND TYPE III AND TYPE IV SILT FENCES AND PAVED DITCH HAY BALE BARRIERS

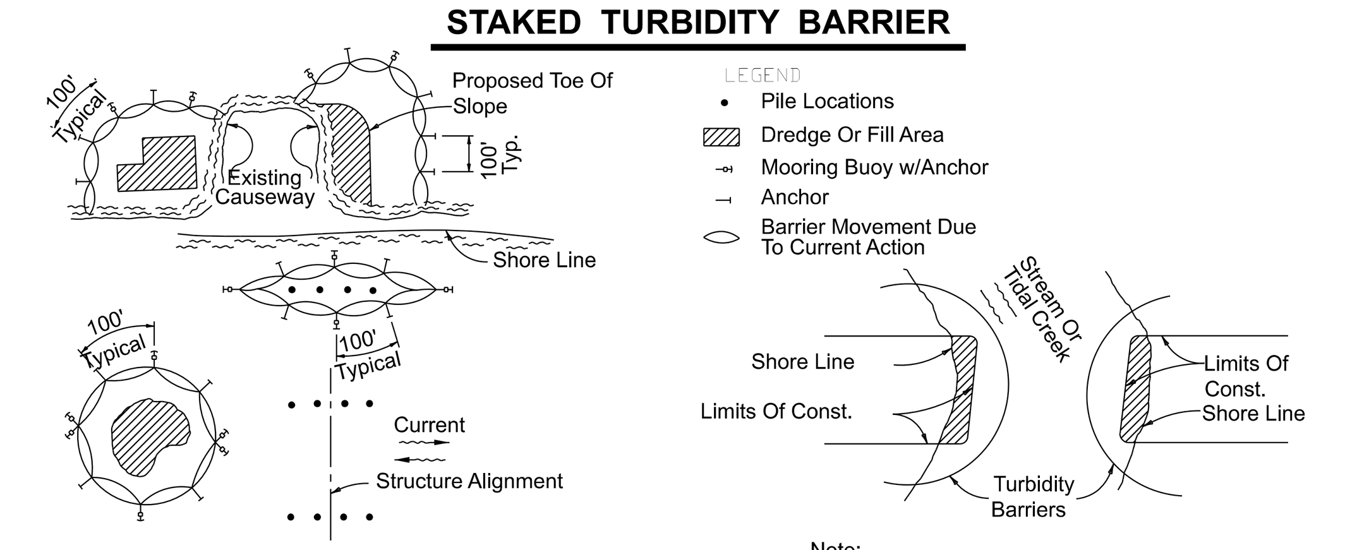
SPACING RECOMMENDATION FOR SILT FENCES AND HAY BALES	CITY OF JACKSONVILLE STANDARD	N.T.S.	PLATE D-906
		DATE DRAWN	8-9-79
		REVISED DATE	5-12-94



FLOATING TURBIDITY BARRIERS



STAKED TURBIDITY BARRIER



NOTES:

1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
2. Number and spacing of anchors dependent on current velocities.
3. Deployment of barrier around pile locations may vary to accommodate construction operations.
4. Navigation may require segmenting barrier during construction operations.

Note:
Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however payment will be under the pay item(s) established in the plans for Floating Turbidity Barrier and/or Staked Turbidity Barrier. Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.

TURBIDITY BARRIER APPLICATIONS

TURBIDITY BARRIERS	CITY OF JACKSONVILLE STANDARD	N.T.S.	PLATE D-907
		DATE DRAWN	8-9-93
		REVISED DATE	5-12-94

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE SHEET GN1.

JEA
225 N. PEARL ST.
JACKSONVILLE, FLORIDA 32202

ISSUED FOR BID

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904.398.8636
www.chenmoore.com

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ENGINEERING	
DATE	06/06/2025
BY	PN
REVIEW BY	TRG
DRAFTING	
DATE	06/06/2025
BY	PN
REVIEW BY	TRG

230-26KV T2 ADDITION

EROSION CONTROL DETAILS

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

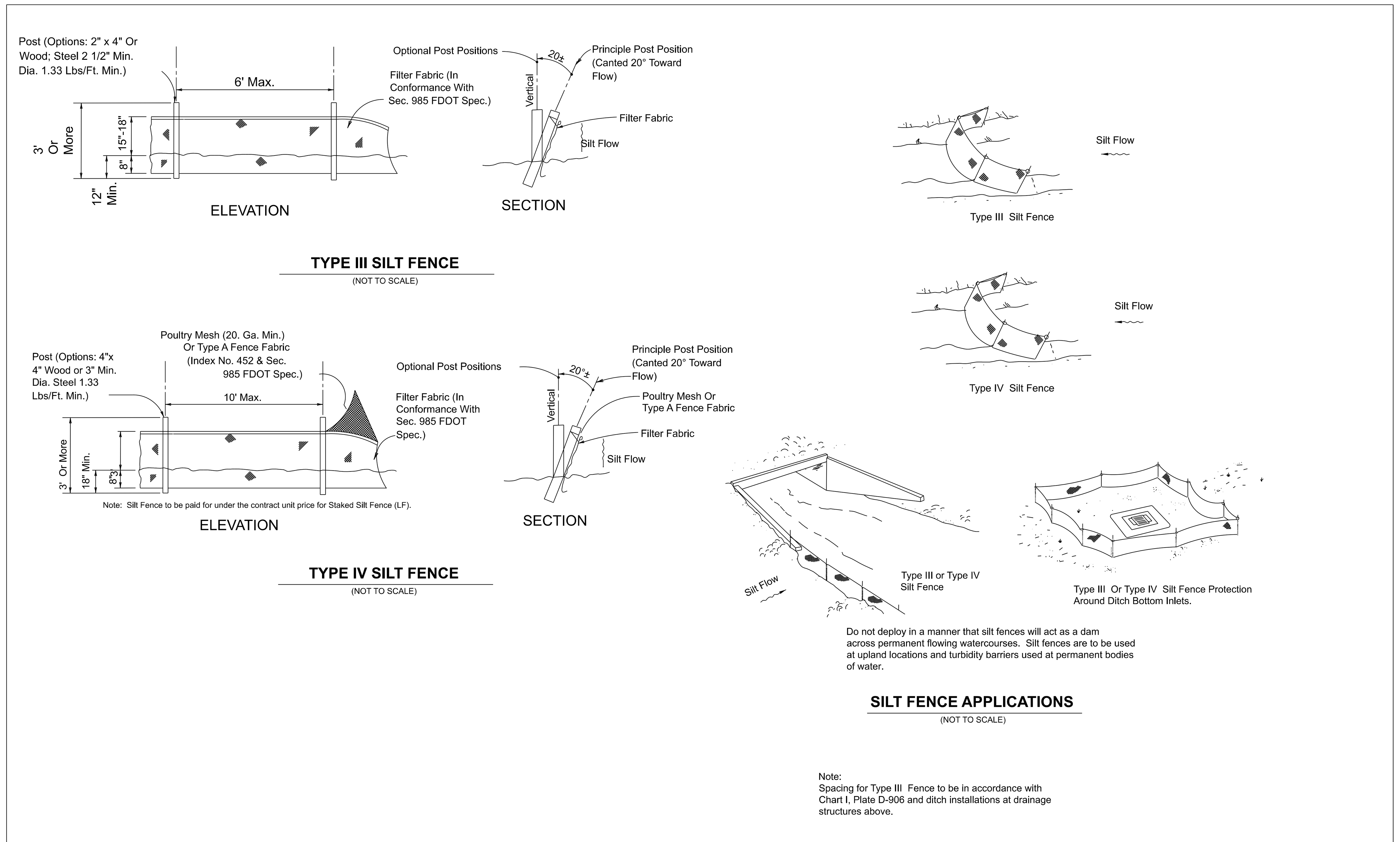
TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

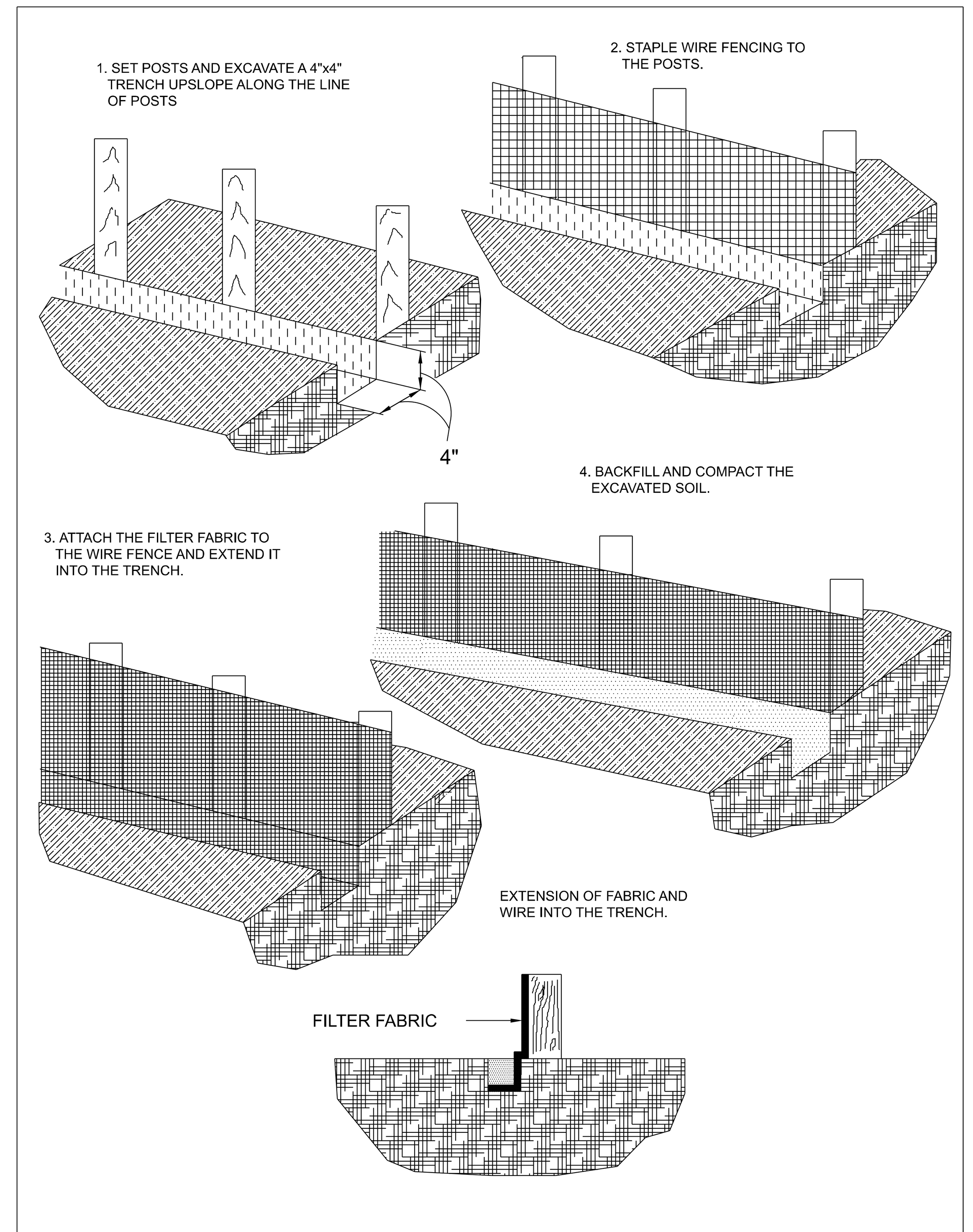
SHEET NUMBER: EC1

PROJECT ID: NC2024

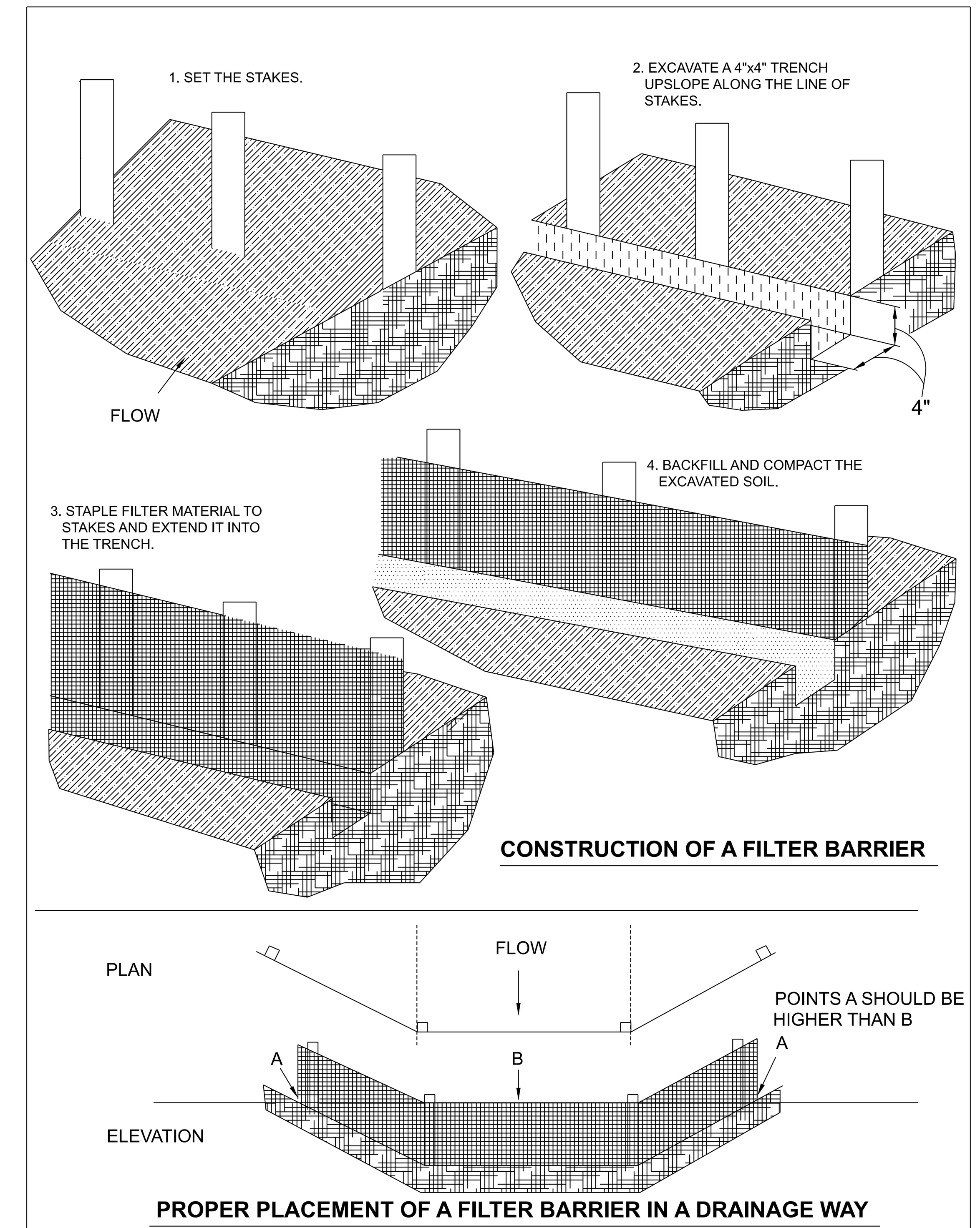
SEQUENCE #: 5 OF 35



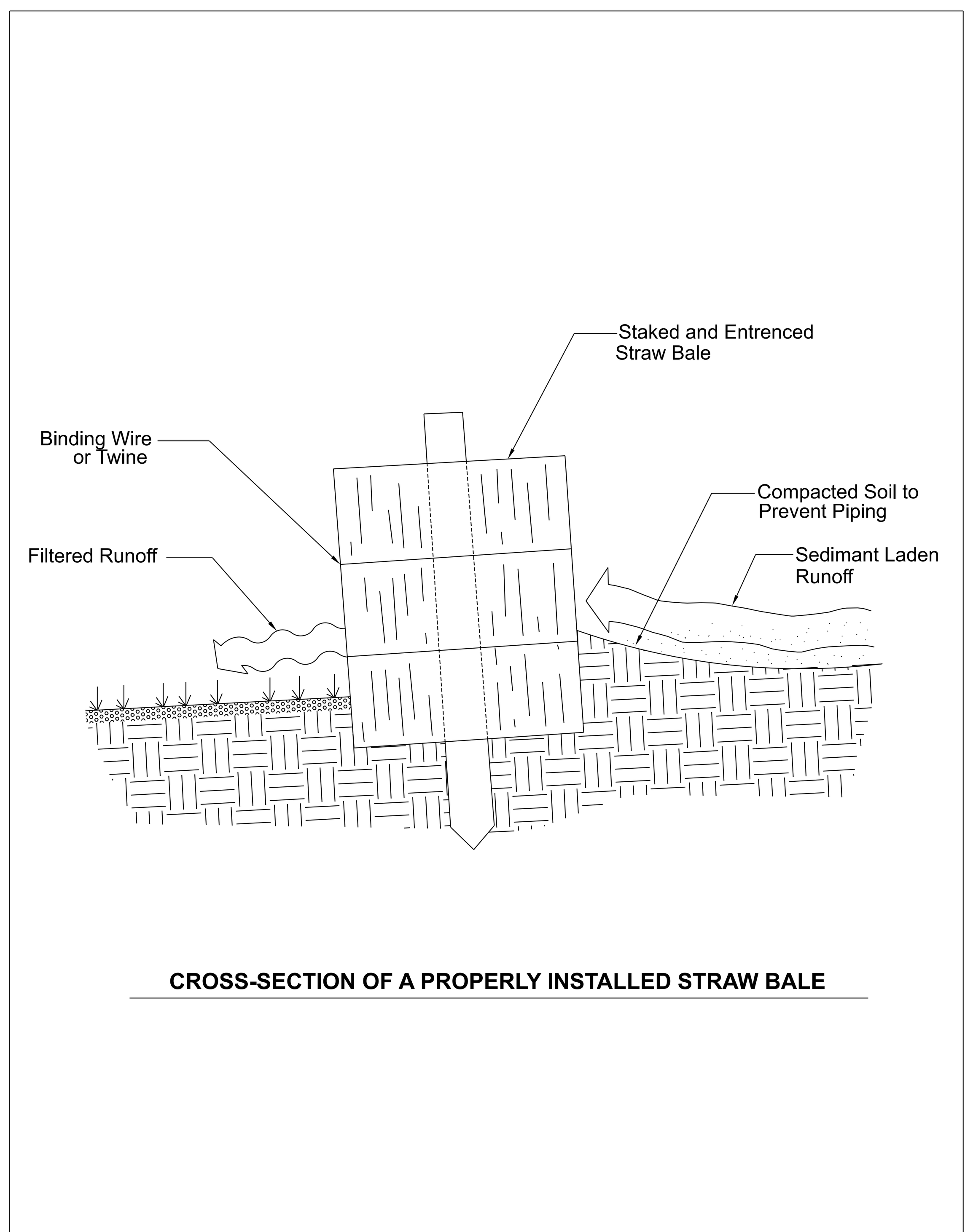
SILT FENCE TYPE III & IV	CITY OF JACKSONVILLE STANDARD	N.T.S.	PLATE D-908
		DATE DRAWN	8-9-93
		REVISED DATE	5-12-94



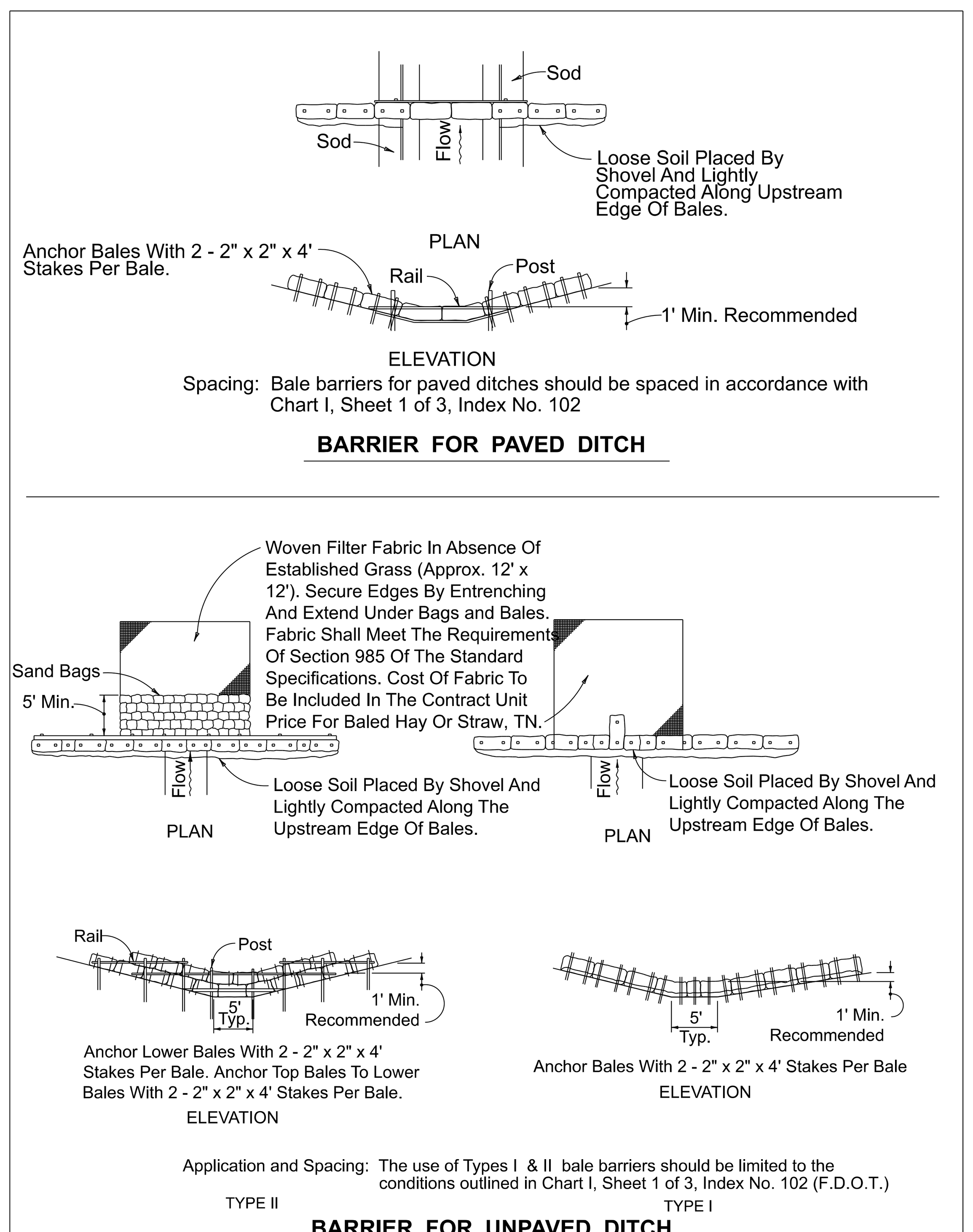
CONSTRUCTION DETAILS FOR SILT FENCES	CITY OF JACKSONVILLE STANDARD	N.T.S.	PLATE D-909
		DATE DRAWN	8-5-93
		REVISED DATE	5-12-94



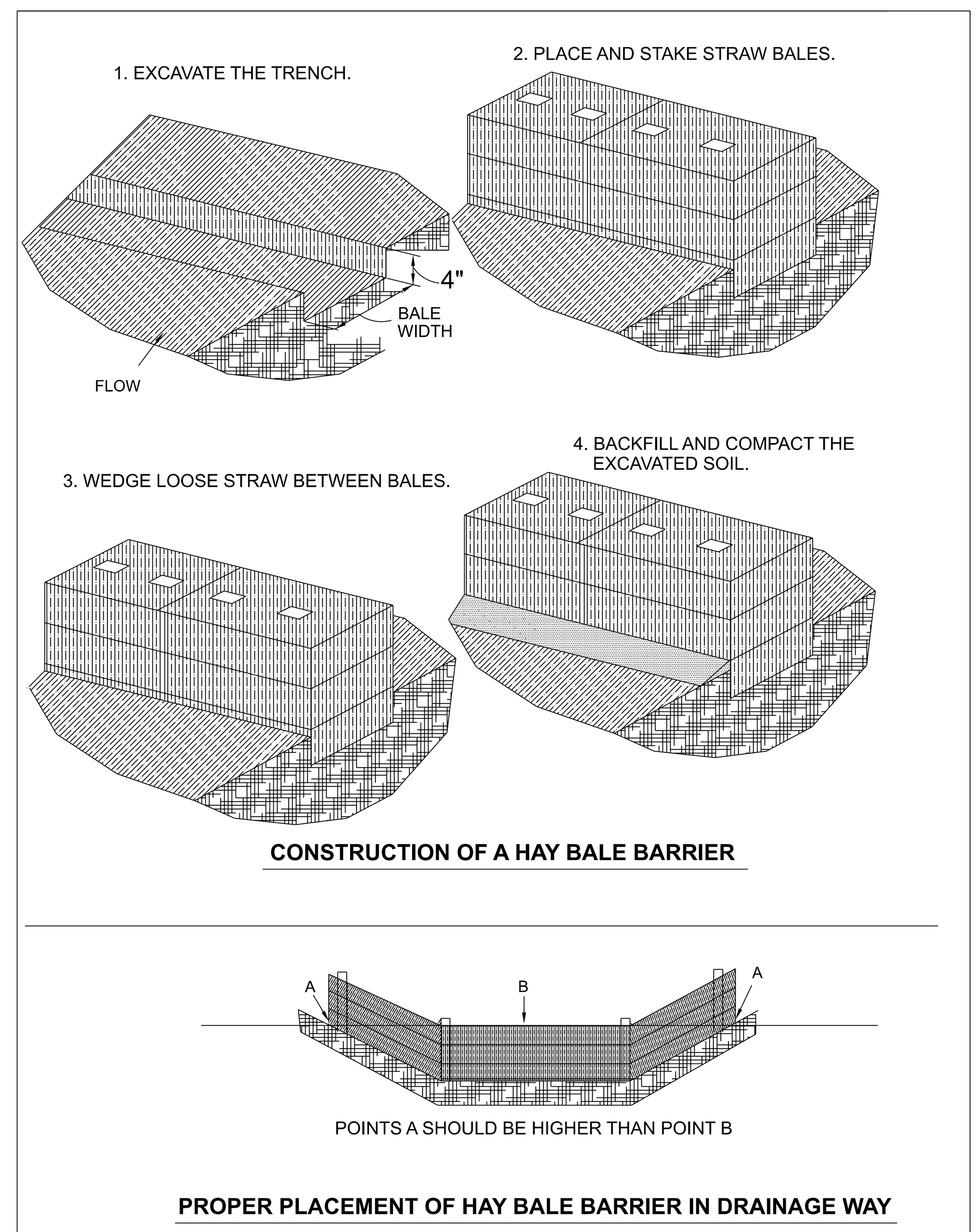
FILTER BARRIER CONSTRUCTION DETAIL	CITY OF JACKSONVILLE STANDARD	N.T.S.	PLATE D-910
		DATE DRAWN	8-5-93
		REVISED DATE	5-12-94



STAKED HAY BALE	CITY OF JACKSONVILLE STANDARD	N.T.S.	PLATE D-911
		DATE DRAWN	05-07-90
		REVISED DATE	5-12-94



HAY BALE BARRIERS TYPE I & II	CITY OF JACKSONVILLE STANDARD	N.T.S.	PLATE D-912
		DATE DRAWN	8-9-93
		REVISED DATE	5-12-94



HAY BALE BARRIER CONSTRUCTION DETAILS	CITY OF JACKSONVILLE STANDARD	N.T.S.	PLATE D-913
		DATE DRAWN	8-5-93
		REVISED DATE	5-12-94

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE SHEET GN1.

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REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW BY

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DATE	06/06/2025
BY	PN
REVIEW BY	TRG
DRAFTING	
DATE	06/06/2025
BY	PN
REVIEW BY	TRG

230-26KV T2 ADDITION

EROSION CONTROL DETAILS

JEA NOCATEE SUBSTATION

TRANSMISSION & SUBSTATION PROJECTS - 20410

SCALE: AS NOTED

PROJ #: 8007832

SHEET NUMBER: EC2

PROJECT ID: NC2024

SEQUENCE #: 6 OF 35

TEMPORARY SEEDING PLANT MATERIALS

Common Name (Botanical Name)	Seeding Rate: Acre	Seeding Rate: 1000 ft2	Planting Dates: N. FLA.	Comments
OATS (Avena saliva)	3 Bu (125 lbs)	3 lbs	September-February	Will not tolerate flooding, high water table soils.
RYE (Secale cereale)	3 Bu (170 lbs)	4 lbs	September-February	Tolerates cold and drought.
WHEAT (Triticum sp)	3 Bu (120 lbs)	3 lbs	September-February	
ANNUAL RYEGRASS (Lolium multiflorum)	60 lbs	1.5 lbs	September-February	Volunteers may return.
CRIMSON CLOVER (Trifolium incarnatum)	25 lbs	9 oz	September-November	Annual winter legume. Inoculate seed at 5 times recommended rate. Does poorly on deep dry sands, will not tolerate flooding.
RED CLOVER (Trifolium pratense)	15 lbs	6 oz	September-December	Annual winter legume. Inoculate seed at 5 times recommended rate. Grows best on moist soils, will not tolerate flooding. Easily hurt by drought.
WHITE CLOVER (Trifolium repens)	6 lbs	2.5 oz	September-December	Annual winter legume. Inoculate seed at 5 times recommended rate. Grows best on moist-wet soils, tolerates some flooding.
ANNUAL SWEETCLOVER (Melilotus altissima)	15 lbs	6 oz	September-December	Annual winter legume. Inoculate seed at 3-5 times recommended rate. Grows well on both flatwoods and upland soils. Will not tolerate flooding.
ARROWLEAF CLOVER (Trifolium vesiculosum)	15 lbs	6 oz	September-December	Annual winter legume. Inoculate seed at 3-5 times recommended rate. Grows on soil too wet for crimson, tolerates some flooding. Use scarified seed.
LUAINE CLOVER (Lupinus sp.)	60 lbs	1.5 lbs	September-December	Annual winter legume. Inoculate seed at 3 times recommended rate. Susceptible to freeze damage at time of emergence. Use scarified seed.
ALFALFA (Medicago sativa)	22 lbs	8 oz	September-December	Short lived perennial. Some drought resistance. Grows best on well-drained, fertile soils. Will not tolerate wet soils.
AUSTRIAN WINTER PEAS	45 lbs	1 lb	September-December	Grows best on well-drained soils with high clay content.
HAIRY VETCH (Vicia villosa)	25 lbs	9 oz	September-December	Grows best on well-drained, loamy soils.
ALYCECLOVER (Alysicarpus vaginalis)	15 lbs	6 oz	April-July	Warm season annual legume. Grows best on well-drained sandy soils.
COMMON LESPEDEZA (Lespideza striata)	30 lbs	11 oz	March-July	Warm season annual. Needs inoculation on eroded soils. Grows best on sandy loans. Fairly drought resistant.
HAIRY INDIGO (Indigofera hirsuta)	8 lbs (120 ls)	3 oz	March-July	
JOINT VETCH (Aeschynomera americana)	8 lbs	3 oz	March-August	Warm season annual legume. Most suitable of summer legumes for use in low, wet areas.
MILLET (Setaria sp)	30 lbs	11 oz	March-August	Warm season annual. Does not tolerate flooding. Grows best in fertile, moist soils. Pearl and Browntop are good varieties to use.
SESBANIA (Sesban macrocarpa)	30 lbs	11 oz	March-July	Warm season annual legume. Does well under extremely wet conditions.
SORGHAM SUNDANGRASS HYBRID	30 lbs	11 oz	March-July	Warm season annual. Rapid grower. Tolerates dryer soils than millet. Grows best on well-drained soils. Can also use Sudangrass alone.
WEEPING LOVEGRASS (Eragrostis curvula)	5 lbs	2 oz	March-August	Short-lived perennial, 2-3 years. Tolerates hot, dry slopes and acid, infertile soils.

Usually mixtures of the above plant materials are better than a single plant alone. Each of the legumes discussed above can be grown in mixture with annual ryegrass and/or the small grains. In a two-crop mixture cut the seeding rate of each crop to one-half of the recommended planting rate when grown alone. Similarly three plant types in a mixture requires approximately one-third of the normal seeding rate for each plant. In a three plant mixture containing a single legume, the legume should be planted at one-half of the pure stand seeding rate.

CITY OF JACKSONVILLE STANDARD

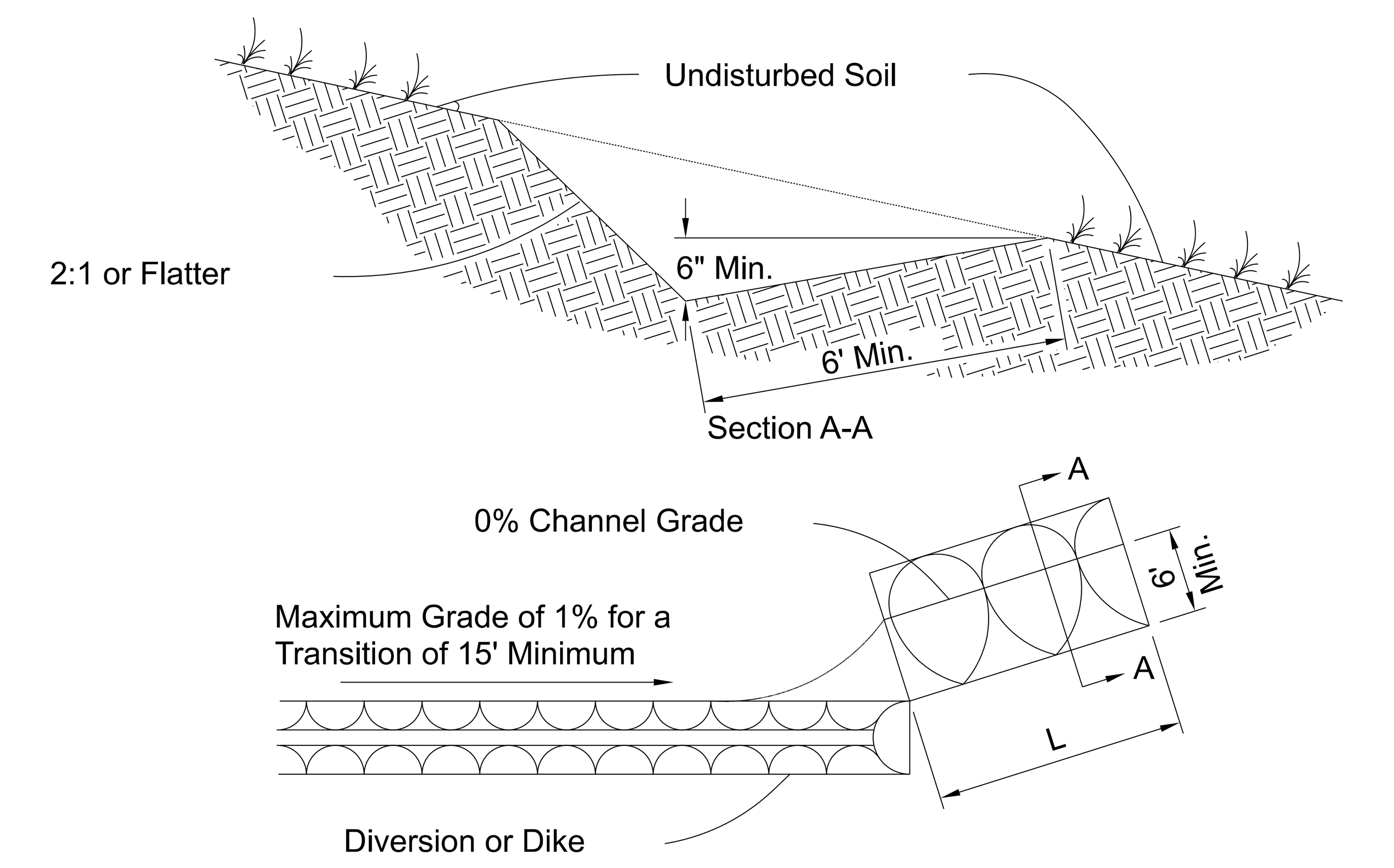
N.T.S. | PLATE D-915
DATE DRAWN 05-08-90
REVISED DATE 5-12-94

SEEDING MIXTURES, RATES AND DATES

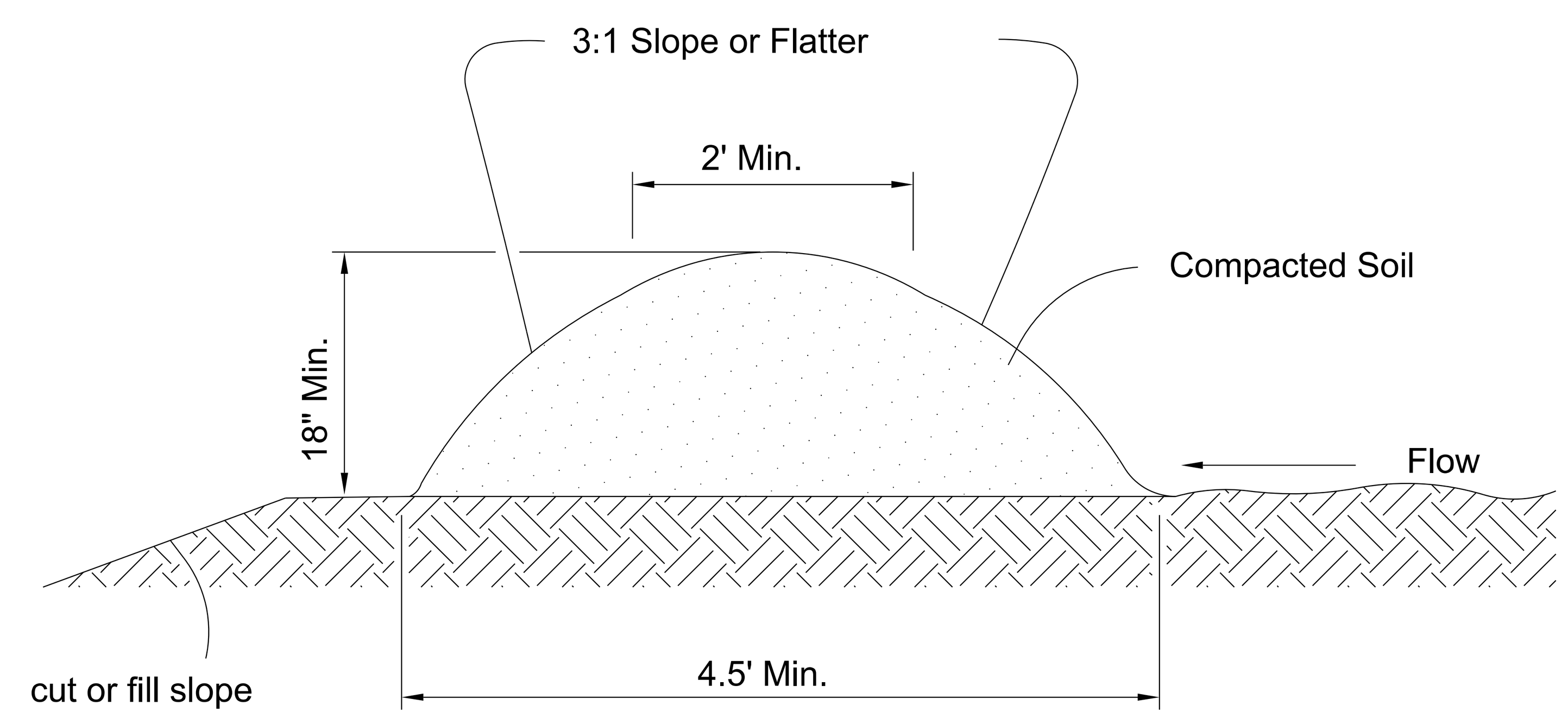
Site Conditions	Seeding Mixtures	Seeding Rate: Per Acre	Seeding Rate: Per 1000 Ft²	Seeding Dates: N. Fla.	Comments
High Maintenance Lawns					
General Use	1. Bahiagrass	40-60 lbs	1 lb	2/15-8/31	Use 50% scarified seed.
	2. Bahiagrass	40-60 lbs	1 lb	2/15-8/15	Use 50% scarified Bahia seed.
	Bermudagrass (hulled)	8-12 lbs	4 oz		
	3. Bahiagrass with one of the following:	20-30 lbs	.5 lb		Use 50% scarified Bahia seed.
	Southern White Clover	3 lbs	1.2 oz	9/1-1/1	Innoculate legumes.
	Annual White Sweetclover	8 lbs	3 oz	9/1-1/1	
	Crimson Clover	12 lbs	4.5 oz	9/1-1/1	
	Arrowleaf Clover	8 lbs	3 oz	9/1-1/1	
	Alyce Clover	8 lbs	3 oz	2/15-7/15	
	Hairy Indigo	4 lbs	1.5 oz	2/15-7/15	
	Aschynamene	12 lbs	4.5 oz	2/15-7/15	
Slopes	1. Sericea lespedeza	a.40-50 lbs	1.2 lbs	1/1-7/15	For scarified seed.
		b. 75 lbs	1.7 lbs	7/15-1/1	For unhulled seed.
	2. Serica lespedeza with one of the following:				Use seeding rate specified above.
	Bahiagrass	15 lbs	7 oz	2/15-8/15	
	Tall Fescue	20 lbs	8 oz	10/1-11/15	Best adapted to N. Florida
	Weeping Lovegrass	3 lbs	1.2 oz	2/15-8/15	
Droughty Areas	1. Weeping Lovegrass	5 lbs	2 oz	2/15-8/15	Gives quick summer cover.
	2. Weeping Lovegrass with one of the following:				
	a. Bahiagrass (50% scarified seed)	5 lbs	2 oz	2/15-8/15	
	b. Bermudagrass (Hulled)	30-40 lbs	12 oz	2/15-8/15	
	c. Hairy panicum	8-12 lbs	4 oz	2/15-8/15	
	d. Serica lespedeza	8-12 lbs	4 oz	2/15-8/15	Use seeding rate and dates specified above.

CITY OF JACKSONVILLE STANDARD

N.T.S. | PLATE D-916
DATE DRAWN 05-09-90
REVISED DATE 5-12-94



LEVEL SPREADER



TEMPORARY DIVERSION DIKE

DIVERSION DIKE	CITY OF JACKSONVILLE STANDARD	N.T.S.	PLATE D-914
		DATE DRAWN	05-09-90
		REVISED DATE	5-12-94

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE SHEET GN1.
2. NO MOWED OR CUT VEGETATIVE MATERIAL SHALL BE DEPOSITED OR REMAINING IN THE LOW MAINTENANCE ZONE OR DEPOSITED IN THE WATER.
3. CARE SHOULD BE TAKEN TO PREVENT THE OVER-SPRAY OF AQUATIC WEED PRODUCTS INTO THE LOW MAINTENANCE ZONE.

JEA
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ENGINEERING	
DATE	06/06/2025
BY	PN
REVIEW BY	TRG
DRAFTING	
DATE	06/06/2025
BY	PN
REVIEW BY	TRG

230-26KV T2 ADDITION

EROSION CONTROL DETAILS

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

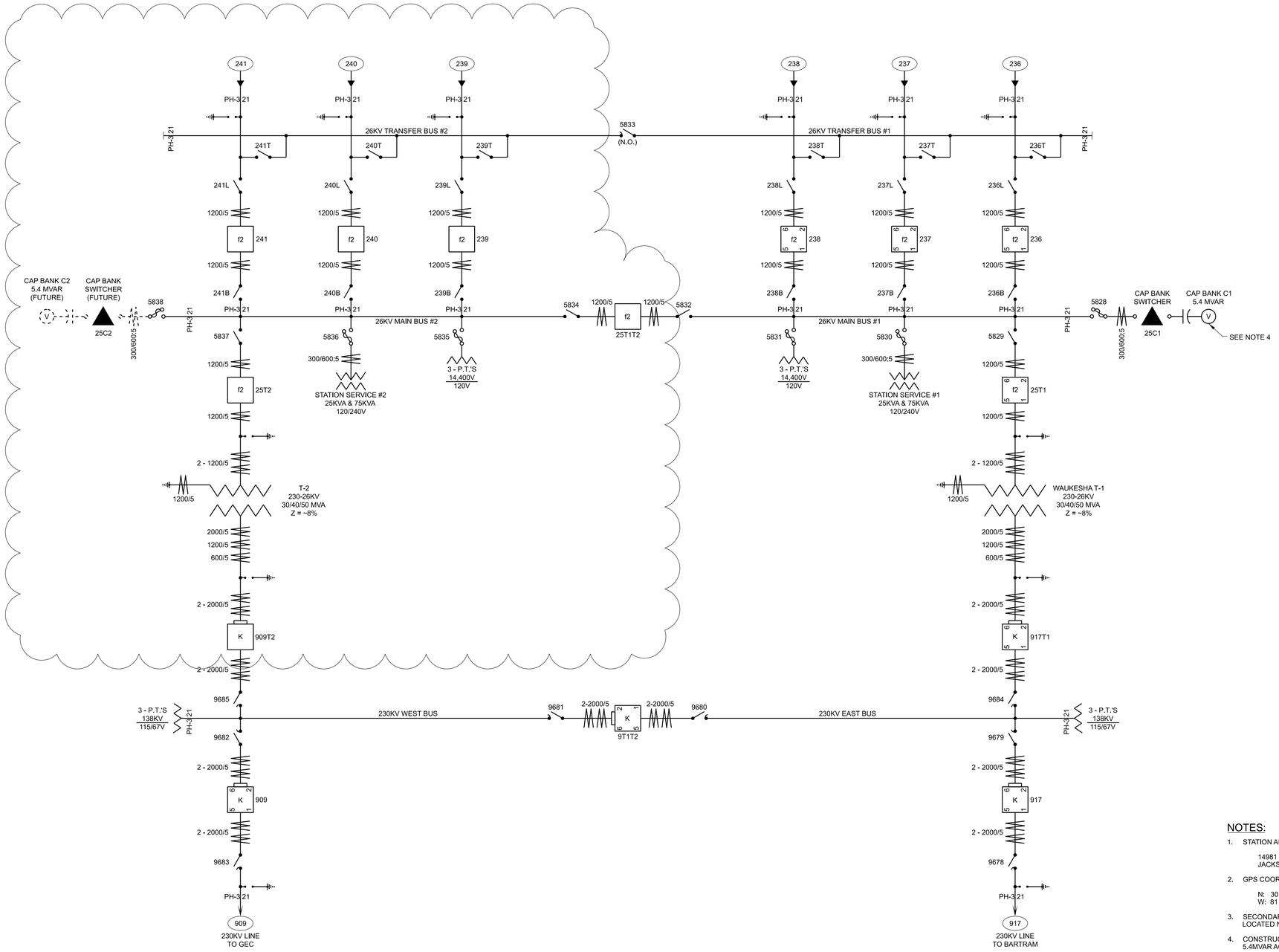
TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

SHEET NUMBER: EC3

PROJECT ID: NC2024

SEQUENCE #: 7 OF 35



CALLED

TRUE

N

NOTES:

1. STATION ADDRESS:

   14981 PHILIPS HIGHWAY
   JACKSONVILLE, FLORIDA 32258

2. GPS COORDINATES:

   N: 30 06 29
   W: 81 28 42

3. SECONDARY STATION SERVICE IS SUPPLIED FROM PADMOUNTED UNITS LOCATED NEAR MH-1 JUST OUTSIDE THE STATION WESTERN FENCE LINE.

4. CONSTRUCTION CONTRACTOR TO FIELD MODIFY CAP BANK FROM 6MVAR TO 5.4MVAR ACCORDING TO MANUFACTURER INSTRUCTIONS.

REFERENCE DRAWINGS:

1. NC202EP1 ELECTRICAL PLAN
2. NC202E91 ELECTRICAL SECTIONS
3. NC202E51 ELECTRICAL SECTIONS

JEA
225 N. PEARL 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 BY
0	02/17/2020	8005314	NOCATEE SUBSTATION - INSTALLATION (ISSUED FOR CONSTRUCTION)	JBA	REM
1	03/25/2024	8007832	ADD T2 ADDITION	JWR	

ENGINEERING	
DATE	02/17/2020
BY	TLB
REVIEW BY	REM
DRAFTING	
DATE	02/17/2020
BY	JBA
REVIEW BY	TLB

230-26KV T2 ADDITION

SINGLE LINE DIAGRAM

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

SHEET NUMBER: SL1

PROJECT ID: NC2024

SEQUENCE #: 8 OF 35

V:\Projects\2024\NC2024-0001.00\03 - Nocatee T2\Design\CAD\24-0001-00\03\dgn\NC2025L1.dgn Saved:2025-6-11 - At:16:37 By:PNGUYEN

225 N. PEARL ST. JACKSONVILLE, FLORIDA 32202	CONSULTANT INFORMATION
ISSUED FOR BID	

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ORIGINALLY PREPARED UNDER THE RESPONSIBLE SUPERVISION OF

PE:

LIC. NO.:

STATE:

DATE:

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW BY
0	05/06/2025	8007832	ADD T2 ADDITION	JWR	JWR

ENGINEERING	
DATE	05/06/2025
BY	JWR
REVIEW BY	JWR
DRAFTING	
DATE	05/06/2025
BY	JWR
REVIEW BY	-

230-26KV T2 ADDITION

ELECTRICAL PLAN

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

SHEET NUMBER: EP1

PROJECT ID: NC2024

SEQUENCE #: 9 OF 35

1 / EP1 SECTIONS 1/4" = 1'-0"

2 / EP1 SECTIONS 1/4" = 1'-0"

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LIC. NO.:
STATE:
DATE:

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW BY	ENGINEERING	
0	05/06/2025	8007832	ADD T2 ADDITION	JWR	JWR	DATE	05/06/2025
						BY	JWR
						REVIEW BY	JWR
						DRAFTING	
						DATE	05/06/2025
						BY	JWR
						REVIEW BY	-

230-26KV T2 ADDITION

ELECTRICAL SECTIONS

JEA NOCATEE SUBSTATION

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

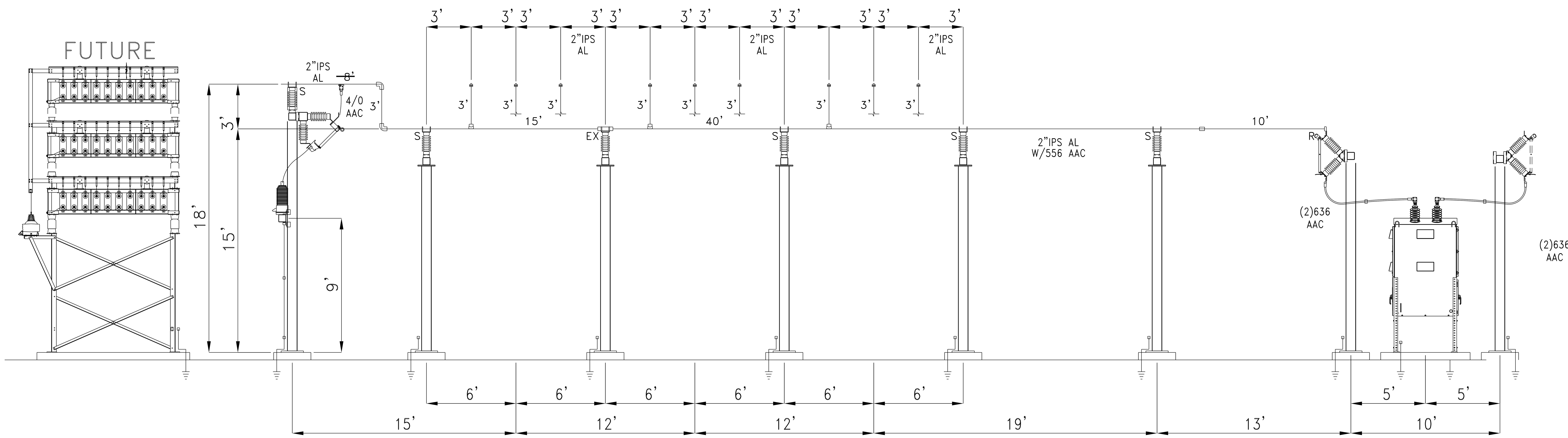
TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

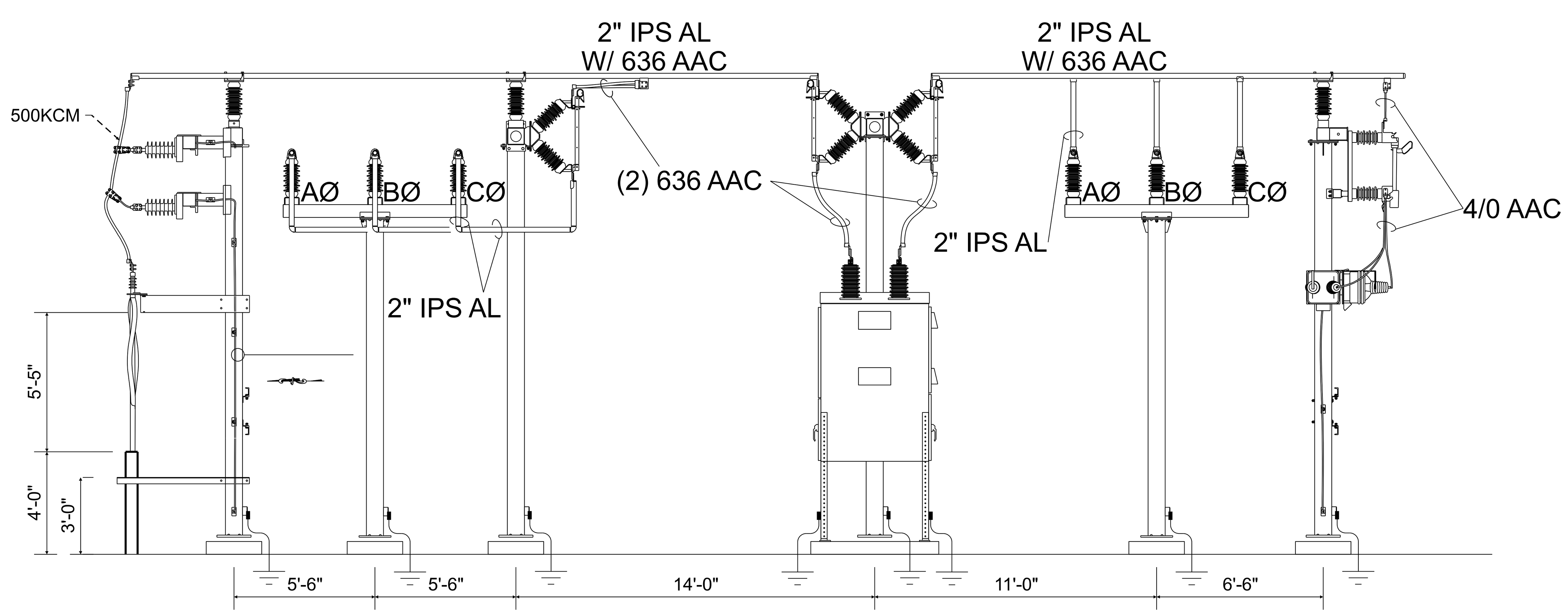
SHEET NUMBER: ES1

PROJECT ID: NC2024

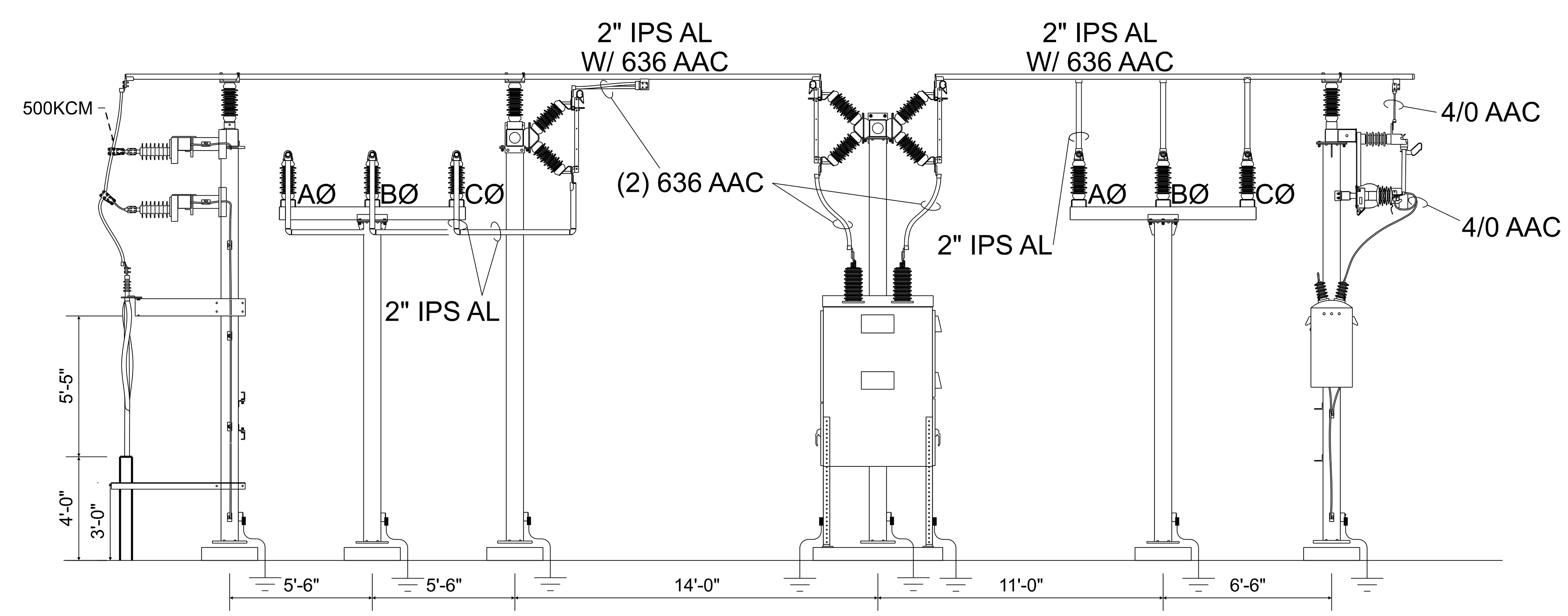
SEQUENCE #: 10 OF 35



1 EP1 SECTIONS
1/4" = 1'-0"



2 EP1 PT'S
1/4" = 1'-0"



3 EP1 STATION SERVICE
1/4" = 1'-0"

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LIC. NO.: ______
STATE: ______
DATE: ______

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW BY
0	05/06/2025	8007832	ADD T2 ADDITION	JWR	JWR

ENGINEERING	
DATE	05/06/2025
BY	JWR
REVIEW BY	JWR
DRAFTING	
DATE	05/06/2025
BY	JWR
REVIEW BY	-

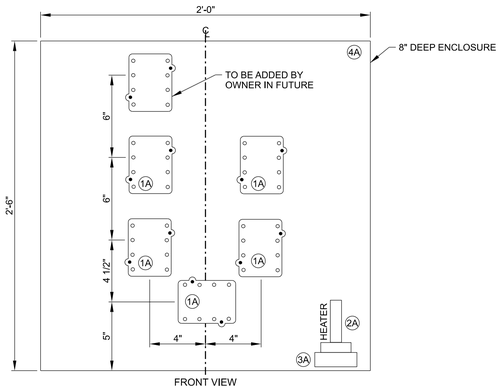
230-26KV T2 ADDITION

ELECTRICAL SECTIONS

JEA NOCATEE SUBSTATION

SCALE: 1/4"=1'-0"
TRANSMISSION & SUBSTATION PROJECTS - 20410
PROJ #: 8007832

SHEET NUMBER: ES2
PROJECT ID: NC2024
SEQUENCE #: 11 OF 35

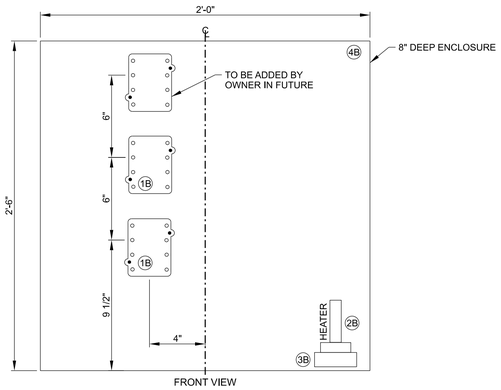


FRONT VIEW

25C1CTJB MATERIAL LIST (EACH)

1	WEATHERPROOF ENCLOSURE, NEMA 3R STAINLESS STEEL WITH HINGED COVER, AUSTIN AB-30248WLX-T304 OR APPROVED EQUAL.	
5	STATES CO., MAKE FRONT CONNECTED TEST SWITCHES WITHOUT COVERS, TYPE SJK, WITH 4 CURRENT POLES AND TEST JACK WITH SHORTING SWITCH, TYPE 20K04-W.	1A
1	HEATER, EDISON SCREW BASE, 120V, 100W CHROMALOX. P/N SCB-100-253833 (100 WATTS AT 120VAC)	2A
1	SOCKET, SCREW BASE HEATER, CLEAT RECEPTACLE, PORCELAIN KEYLESS SCREW TERMINALS, 660 WATTS MAX, 250VAC LEVITON 19062 OR EQUAL	3A
1	MOUNTING BOARD, NEMA STEEL SUBPANEL	4A
PROVISIONS FOR BOTTOM ENTRY CONDUIT, AS REQUIRED		
FURNISHED AND INSTALLED BY CONTRACTOR		

1 26kV CT JUNCTION BOX

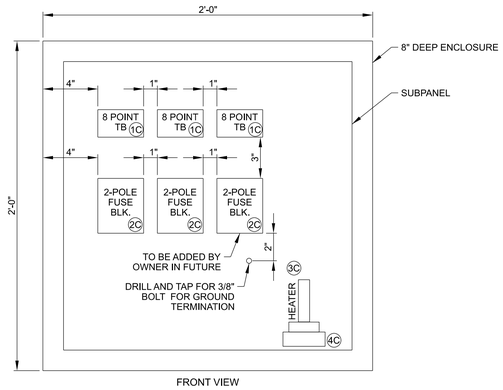


FRONT VIEW

SSB1CTJB MATERIAL LIST (EACH)

1	WEATHERPROOF ENCLOSURE, NEMA 3R STAINLESS STEEL WITH HINGED COVER, AUSTIN AB-30248WLX-T304 OR APPROVED EQUAL.	
2	STATES CO., MAKE FRONT CONNECTED TEST SWITCHES WITHOUT COVERS, TYPE SJK, WITH 4 CURRENT POLES AND TEST JACK WITH SHORTING SWITCH, TYPE 20K04-W.	1B
1	HEATER, EDISON SCREW BASE, 120V, 100W CHROMALOX. P/N SCB-100-253833 (100 WATTS AT 120VAC)	2B
1	SOCKET, SCREW BASE HEATER, CLEAT RECEPTACLE, PORCELAIN KEYLESS SCREW TERMINALS, 660 WATTS MAX, 250VAC LEVITON 19062 OR EQUAL	3B
1	MOUNTING BOARD, NEMA STEEL SUBPANEL	4B
PROVISIONS FOR BOTTOM ENTRY CONDUIT, AS REQUIRED		
FURNISHED AND INSTALLED BY CONTRACTOR		

2 26kV CT JUNCTION BOX



FRONT VIEW

25T1PTJB MATERIAL LIST (EACH)

1	WEATHERPROOF ENCLOSURE, NEMA 3R STAINLESS STEEL WITH HINGED COVER, AUSTIN AB-24248WLX-T304 WITH SUBPANEL AB-2424TP OR APPROVED EQUAL.	
3	TERMINAL BLOCK, 8 POINT, G.E. CAT. #EB25A08WC WITH WHITE MARKING STRIP AND COVER	1C
2	FUSE BLOCK, 2-POLE, 250V, 30A, GOULD SHAWMUT CAT. #20312	2C
1	HEATER, EDISON SCREW BASE, 120V, 100W CHROMALOX. P/N SCB-100-253833 (100 WATTS AT 120VAC)	3C
1	SOCKET, SCREW BASE HEATER, CLEAT RECEPTACLE, PORCELAIN KEYLESS SCREW TERMINALS, 660 WATTS MAX, 250VAC LEVITON 19062 OR EQUAL	4C
PROVISIONS FOR BOTTOM ENTRY CONDUIT, AS REQUIRED		
FURNISHED AND INSTALLED BY CONTRACTOR		

3 26kV 3ø PT JUNCTION BOX

NOTES:

1. THE CONTRACTOR TO DRILL AND TAP FOR ⅜" BOLT FOR GROUND TERMINATION IN JUNCTION BOXES AT LOCATIONS SHOWN. THE CONTRACTOR TO FURNISH AND INSTALL ALL GROUNDING PROVISIONS FOR JUNCTION BOXES TO BE CONNECTED TO STATION GRID. CONNECT 7#5 COPPERWELD TO EXTERIOR OF JUNCTION BOX AND #8 COPPER OR LARGER FROM 3/8" INTERIOR BOLT TO 7#5 COPPERWELD SPLIT BOLT CONNECTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE WIRING OF ALL SUBSTATION YARD EQUIPMENT AS LISTED IN THE SPECIFICATIONS, INCLUDING JUNCTION BOXES, CIRCUIT BREAKERS, YARD PANELS, ETC. THE CONTRACTOR SHALL NOTIFY THE JEA PROJECT REPRESENTATIVE OR PROJECT MANAGER TO REQUEST DETAILED INTERCONNECTION DRAWINGS TWO (2) WEEKS IN ADVANCE OF NEED.
3. ALL POTENTIAL TRANSFORMER (PT) JUNCTION BOXES SHOULD BE PLACED SUCH THAT WHEN LOOKING INTO THE JUNCTION BOX, THE A-PHASE PT WILL BE ON THE LEFT. IN ADDITION, WIRING INSIDE THE BOX SHOULD INDICATE PT PHASE POSITION ON THE INDIVIDUAL TERMINAL BLOCKS IN THE SAME FASHION.

JEA
225 N. PEARL 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: _____

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW BY	ENGINEERING	
0	06/10/2025	8007832	NOCATEE T2 AND BAY ADDITION	JWR	JWR	DATE	06/10/2025
						BY	JWR
						REVIEW BY	JWR
						DRAFTING	
						DATE	06/10/2025
						BY	JWR
						REVIEW BY	JWR

230-26KV T2 ADDITION

ELECTRICAL DETAIL

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

SHEET NUMBER: ED1

PROJECT ID: NC2024

SEQUENCE #: 12 OF 35

GENERAL NOTES & DESIGN CRITERIA

CODES:
FLORIDA BUILDING CODE - 8TH (2023 EDITION), ACI-318, ACI-360, ASCE 7-22, AISC, AWS, AISI, ANSI, & CRSI, ASCE MOP 113 (2ND EDITION), NESC, ASCE 48-11.

DESIGN LIMITATIONS:
THIS DESIGN AND THESE DRAWINGS ARE LIMITED TO ONLY THE STRUCTURAL ASPECTS OF THE APPLICABLE CODES. REFER TO OTHER DISCIPLINES FOR NON-STRUCTURAL ISSUES.

LOADS:
THE FOUNDATION DESIGN HAS BEEN BASED ON REACTIONS PROVIDED BY THE EQUIPMENTS MANUFACTURER WHEN PROVIDED. IN THE ABSENCE OF MANUFACTURER PROVIDED REACTIONS, FOUNDATION DESIGNS HAVE BEEN BASED ON REACTIONS DEVELOPED FROM THE WEIGHT, GEOMETRY, AND THE FOLLOWING DESIGN WIND SPEEDS, AND OTHER PROJECT PARAMETERS

WIND LOAD:

BASIC WIND SPEED, V (ASD)	102 MPH (MRI 100)
BASIC WIND SPEED, V (LRFD)	120 MPH (MRI 300)
EXPOSURE CATEGORY	C

SUBSTATION STRUCTURE FOUNDATION DESIGN REACTIONS:
FOUNDATIONS AND ANCHOR ROD DEVELOPMENT DESIGN FOR STRUCTURAL STEEL SUPPORTS DESIGNED BY SUBSTATION ENTERPRISES, INC. WERE BASED ON THE BASIC LOAD REACTIONS PROVIDED IN THE SUBSTATION ENTERPRISES STRUCTURAL CALCULATIONS REPORT, EJ-6690 DATED 11/12/2024. THESE REACTIONS WERE ADJUSTED BASED ON THE ABOVE DESIGN CRITERIA USING LOAD COMBINATION FACTORS IN ACCORDANCE WITH THE 2ND EDITION ASCE MOP 113 AND JEA SUBSTATION DESIGN CRITERIA DOCUMENT.

TRANSFORMER INFORMATION:

MODEL	PROLEC-GE WAUKESHA 100T06515R001
WEIGHT WITHOUT OIL:	142,600 LBS
WEIGHT WITH OIL:	214,800 LBS
GALLONS OF OIL:	9,965 GAL

CIRCUIT BREAKER INFORMATION:

23kV MANUFACTURER:	MITSUBISHI
MODEL:	ELECTRIC 27DV25-12
WEIGHT:	2850 LBS
230kV MANUFACTURER:	GENERAL ELECTRIC
MODEL:	CCDT1-245P-63-F1
WEIGHT:	10,359 LBS

CONSULT EOR FOR SUITABILITY OF FOUNDATION FOR DIFFERENT EQUIPMENT.

HORIZONTAL AND VERTICAL CONTROL:
REFER TO THE CIVIL DRAWINGS FOR SUBSTATION BASE ELEVATION AND HORIZONTAL & VERTICAL SITE CONTROL. MINIMUM FOUNDATION BEARING DEPTHS AND MAXIMUM TOP OF FOUNDATION REVEAL RELATIVE TO ADJACENT FINAL GRADE SHALL BE IN ACCORDANCE WITH THE STRUCTURAL FOUNDATION DETAILS ON THIS SHEET.

DEMOLITION AND UNDERGROUND CONSTRUCTION:
REFER TO THE CIVIL ENGINEERING AND SUBSTATION FOUNDATION PLAN SHEET FOR EXISTING CONDITIONS, SCOPE OF DEMOLITION & SITE CONSTRUCTION. UNLESS OTHERWISE NOTED IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ANY UNDERGROUND UTILITIES AND OTHER APPURTENANCES PRIOR TO CONSTRUCTION; REPAIR TO ANY DAMAGED UNDERGROUND UTILITIES AND OTHER APPURTENANCES IS THE RESPONSIBILITY OF THE CONTRACTOR. UNLESS OTHERWISE NOTED ANY PERMITTING REQUIRED FOR THE PROPOSED CONSTRUCTION INCLUDING CONSTRUCTION DEWATERING PERMITTING IS THE RESPONSIBILITY OF THE CONTRACTOR.

SOIL & DEEP FOUNDATIONS:
FOUNDATION DESIGN PARAMETERS WERE BASED ON THE REPORT OF GEOTECHNICAL EXPLORATION PREPARED BY MESKEL & ASSOCIATES (MAE PROJECT NO. 0020-0019, DATED JANUARY 4, 2024).
NET SOIL BEARING CAPACITY 2,500 PSF

PREPARE SITE IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS. BEARING LEVELS SOILS, AFTER COMPACTION, SHOULD EXHIBIT DENSITIES EQUIVALENT TO 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557) TO A DEPTH OF AT LEAST ONE FOOT BELOW THE FOUNDATION BEARING LEVELS.

THE CONTRACTOR SHALL FOLLOW ALL SITE PREPARATION AND TESTING RECOMMENDATIONS PROVIDED BY MESKEL & ASSOCIATES. THE GENERAL CONTRACTOR IS RESPONSIBLE TO EMPLOY AN INDEPENDENT QUALIFIED TESTING LABORATORY TO INSPECT EARTHWORK OPERATION AND TEST COMPACTED SOILS TO INSURE AND CERTIFY THAT THE SOILS SUPPORTING FOOTINGS AND SLABS ARE ADEQUATE TO PROPERLY SUPPORT DESIGN LOADS.

REQUIRED SUBMITTALS:
GENERAL CONTRACTOR SHALL SUBMIT THE FOLLOWING TO THE SEOR FOR REVIEW AND APPROVAL:
1. CONCRETE MIX DESIGN.
2. REINFORCEMENT SHOP DRAWING

CONCRETE:
ALL CONCRETE SHALL BE NORMAL WEIGHT w/:

28 DAY COMPRESSIVE STRENGTH OF:	4,000 PSI
EXPOSURE CLASS	C1
MAXIMUM WATER CEMENT RATIO:	0.50
MAXIMUM AGGREGATE SIZE:	1"
CEMENT TYPE:	II

CONTRACTOR SHALL SUBMIT MIX DESIGN TO EOR FOR APPROVAL PRIOR TO CONSTRUCTION.

REINFORCING STEEL:	ASTM A615, GRADE 60
LAPS	48 BAR DIA.

UNLESS OTHERWISE SHOWN ON DRAWINGS, MINIMUM COVER FOR REINFORCING SHALL BE THE FOLLOWING:

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSE TO EARTH:	3"
CONCRETE EXPOSED TO EARTH OR WEATHER:	
#6 THRU #18 BARS:	2"
#5 BAR, W31 OR D31 WIRE AND SMALLER	1-1/2"
CONCRETE NOTE EXPOSED TO EARTH OR WEATHER:	
SLABS, WALLS, JOISTS:	
#14 AND #18 BARS:	1-1/2"
#11 BAR AND SMALLER	3/4"
BEAMS, COLUMNS, PEDESTALS:	
PRIMARY REINFORCEMENT, STIRRUPS, TIES, SPIRALS, AND HOOPS	1-1/2"

A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD TESTING INCLUDING SLUMP TESTS AND CYLINDER BREAKS TO ENSURE CONFORMANCE WITH PLANS & SPECIFICATIONS (IF PROVIDED), SUBMIT REPORTS FOR REVIEW AND APPROVAL.

MINIMUM FREQUENCY OF TESTING FOR EACH CLASS OF CONCRETE IS THE GREATEST OF:
A) ONCE EACH DAY.
B) ONCE FOR EACH 100 CY
C) ONCE FOR EACH 5,000 SF OF SLAB OR WALL SURFACE AREA.
D) FIVE TESTS.

EACH TEST SHALL CONSIST OF A MINIMUM (2) 6"x12" OR (3) 4"x8" 28 DAY BREAKS PER ACI. EARLIER DAY BREAKS IE 3, 7, 14 DAYS ARE REQUIRED FOR APPROVAL OF EARLY INSTALLATION OF OF POST INSTALLED ADHESIVE EPOXY ANCHORS AND/OR INSTALLATION OF EQUIPMENT. SEE FOUNDATION CURING AND POST INSTALLED ADHESIVE EPOXY ANCHOR CURING REQUIREMENTS BELOW. A 56 DAY OR "HOLD" TEST IS ALSO RECOMMENDED TO ADDRESS FIELD ISSUES IN THE EVENT OF SLOW STRENGTH GAIN.

ALL REINFORCING SHALL BE HELD SECURELY IN POSITION WITH STANDARD ACCESSORIES IN CONFORMANCE WITH ACI 315 DURING PLACEMENT OF CONCRETE

PROVIDE 3/4" CHAMFER AT ALL EXPOSED CORNERS OF BEAMS, WALLS, ETC.

PROVIDE 1/4" PRE-MOLDED EXPANSION JOINT MATERIAL WHERE SLAB ON GRADE ABUTS COLUMNS & GRADE BEAMS, AND 1/2" JOINT MATERIAL AT WALLS OR OTHER VERTICAL SURFACES UNLESS OTHERWISE SHOWN OR NOTED.

STRUCTURAL STEEL:

ALL CONSTRUCTION MUST BE IN ACCORDANCE WITH AISC 360-16.

STRUCTURAL STEEL MATERIALS MUST MEET THE FOLLOWING:

WASHERS	ASTM AF436
NUTS	ASTM F563, GR. A "HEX"
H.D.G. ANCHOR BOLTS	ASTM F1554, GR. 55

SHOP DRAWINGS FOR ALL STRUCTURAL STEEL SHALL BE SUBMITTED AND APPROVED PRIOR TO ANY FABRICATION.

ALL EXPOSED STRUCTURAL AND MISCELLANEOUS STEEL SHALL BE HOT DIPPED GALVANIZED.

FOUNDATION CURING TIME:
THE MINIMUM FOUNDATION CURING TIME SHALL BE AS FOLLOWS:

	DAYS	MIN. CONCRETE STRENGTH
SETTING EQUIP OR ERECTING STR. ON FOUNDATION (U.O.N)	3	2,000 PSI
TIGHTENING CAST-IN-PLACE ANCHORS	3	2,000 PSI
INSTALLING EPOXY ADHESIVE ANCHORS	7	3,000 PSI

NO LOADS SHALL BE IMPARTED ON THE FOUNDATIONS UNTIL THE EOR HAS REVIEWED AND APPROVED CONCRETE COMPRESSIVE TEST.

POST-INSTALLED EPOXY ANCHORS:

EPOXY	HILTI "HIT-RE 500 V3" OR ENGINEER APPROVED EQUAL
ANCHORS:	ASTM F1554 GR. 55 HDG

CIRCUIT BREAKER EPOXY CURING TIME:
50° OR ABOVE MINIMUM 24 HOURS

SEE MANUFACTURER CURE TIME FOR OTHER TEMPERATURES

POST INSTALLED EPOXY ANCHORS MAY NOT BE INSTALLED PRIOR TO FOUNDATION CURE TIME AS NOTED IN THE FOUNDATION CURING TIME SECTION ABOVE.

INSTALL ANCHORS TO MEET THE REQUIREMENTS INDICATED IN THE DRAWINGS AND THE MANUFACTURER'S RECOMMENDATIONS.

LOCATE BY NON-DESTRUCTIVE MEANS, AND AVOID ALL EXISTING REINFORCEMENT PRIOR TO INSTALLATION OF ANCHORS. IF EXISTING REINFORCING LAYOUT PROHIBITS THE INSTALLATION OF ANCHORS AS INDICATED IN THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY.

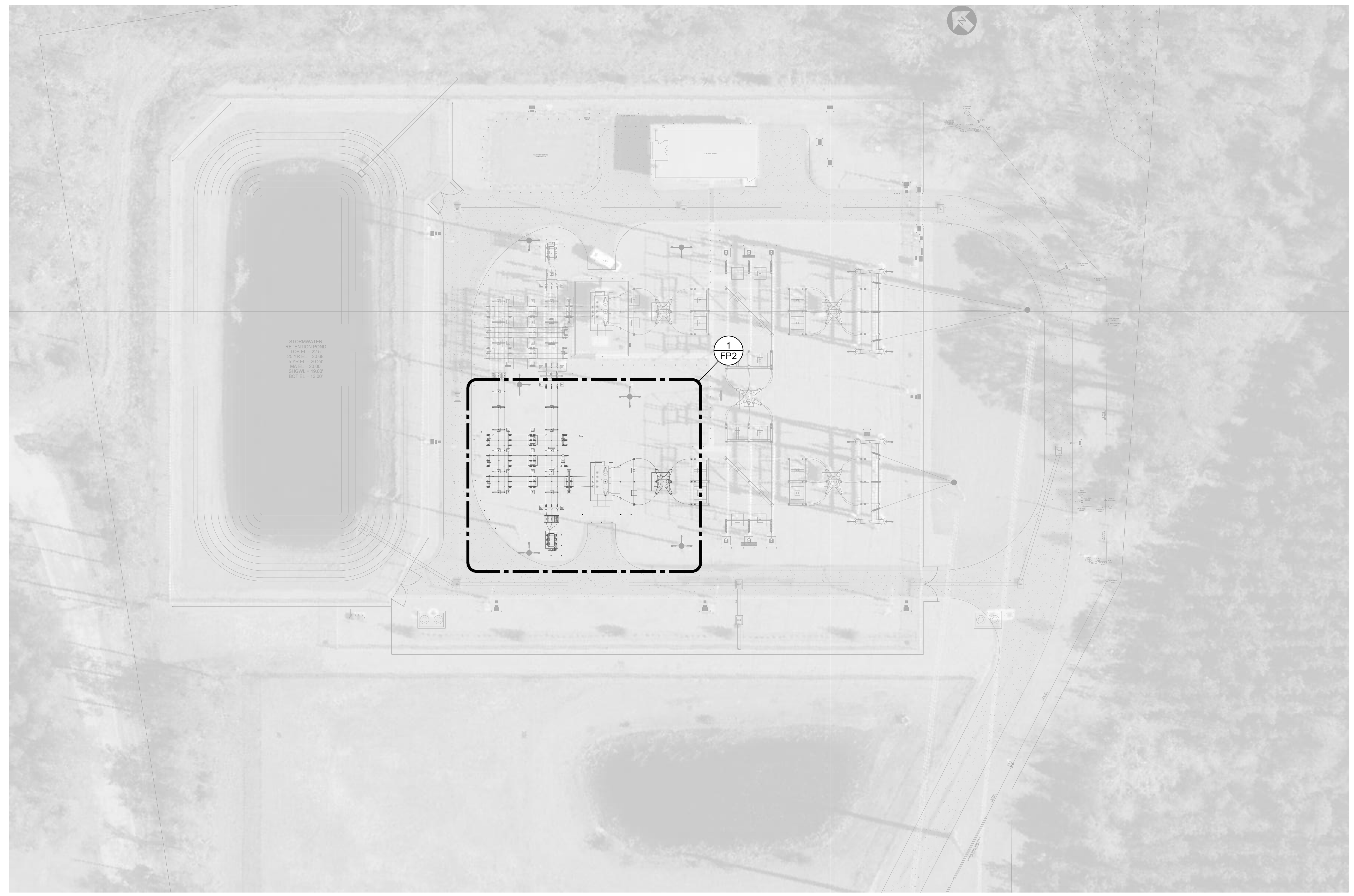
SECONDARY CONTAINMENT FOR TRANSFORMER:
MATERIALS:

POLYVINYL LINER:	
MANUFACTURER:	BCI OR EOR APPROVED EQUAL
PRODUCT:	GEOMEMBRANE LINER
GEOGRID:	
MANUFACTURER:	TENSAR
PRODUCT:	TX140
GEOTEXTILE:	
MANUFACTURER:	TENSAR
PRODUCT:	MIRAFI 140-N
CONTAINMENT DISCHARGE BOOM:	
MANUFACTURER:	BCI OR EOR APPROVED EQU
PRODUCT:	CI-AGENT

INSTALL ALL PRODUCTS IN STRICT CONFORMANCE WITH MANUFACTURER INSTRUCTIONS. ALL MATERIALS SHALL MATCH THOSE SPECIFIED ABOVE, OR SHALL BE AN EOR APPROVED EQUIVALENT.

MISCELLANEOUS NOTES:
A. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY BRACING THAT IS REQUIRED THAT IS REQUIRED DURING CONSTRUCTION TO KEEP THE STRUCTURE SAFE & PLUMB UNTIL THE ENTIRE STRUCTURE IS ERECTED. BRACING SHOWN ON DRAWINGS IS FOR THE COMPLETED STRUCTURE ONLY.
B. ALL STRUCTURAL OPENINGS AROUND OR AFFECTED BY MECHANICAL, ELECTRICAL, AND PLUMBING EQUIPMENT SHALL BE VERIFIED WITH EQUIPMENT PURCHASED BEFORE PROCEEDING WITH STRUCTURAL WORK.
C. COMPATIBILITY WITH OTHER METALS:COPPER MATERIALS SHALL NOT BE USED IN DIRECT CONTACT WITH METALLIC COATED STEEL MEMBERS OR COMPONENTS.
D. IF FOOTING ELEVATIONS SHOWN OCCUR IN DISTURBED, UNSTABLE OR UNSUITABLE SOIL, THE ENGINEER SHALL BE NOTIFIED.
E. THE GENERAL CONTRACTOR SHALL COORDINATE THE DRAWINGS FOR ALL DISCIPLINES FOR ANCHORED, EMBEDDED, AND SUPPORTED ITEMS WHICH AFFECT THE STRUCTURAL DRAWINGS AND NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES.

SHEET INDEX



1 KEY PLAN
SCALE 1" = 40'

JEA
225 N. PEARL ST.
JACKSONVILLE, FLORIDA 32202

ISSUED FOR BID

CONSULTANT INFORMATION

STRUCTURES INTERNATIONAL, LLC
7563 PHILIPS HIGHWAY
BUILDING 600
JACKSONVILLE, FL 32256
PHONE: (904) 296-2646
WWW.STRUCTURESINTL.COM
FLORIDA CERTIFICATE OF AUTHORIZATION NO: 9800

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ENGINEERING	
DATE	03/28/2025
BY	AJB
REVIEW BY	JPG
DRAFTING	
DATE	03/28/2025
BY	AJB
REVIEW BY	JPG

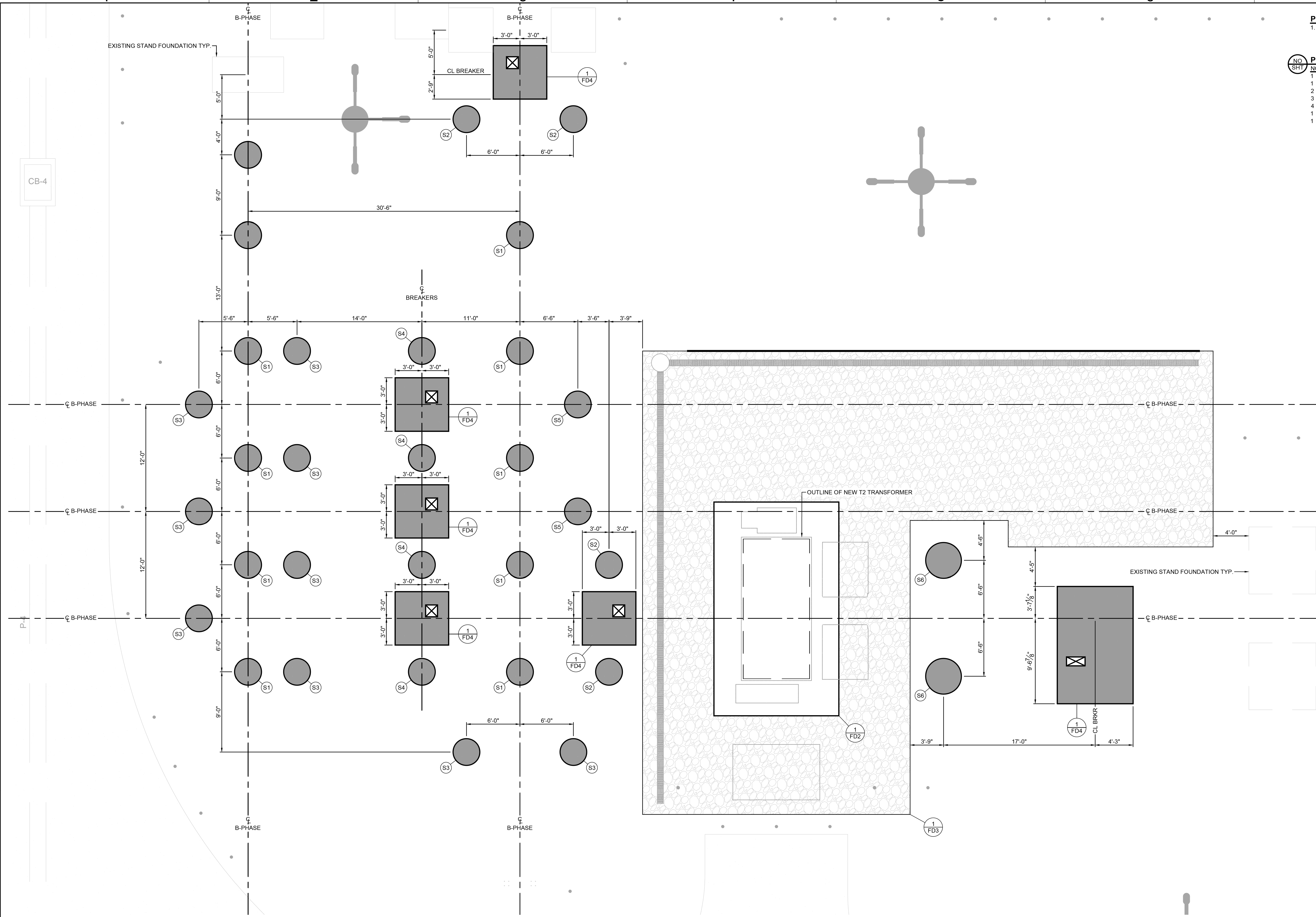
230-26KV T2 ADDITION

GENERAL NOTES & DESIGN CRITERIA

JEA NOCATEE SUBSTATION

SCALE: AS NOTE
TRANSMISSION & SUBSTATION PROJECTS - 20410
PROJ #: 8007832

SHEET NUMBER: FP1
PROJECT ID: NC2024



PLAN GENERAL NOTES

1. SEE FOUNDATION SCHEDULE ON 1/FD1 FOR FOUNDATION SIZES.

PLAN SECTION & DETAILS

NO.	SHEET	NAME
1	FD2	TRANSFORMER FOUNDATION
1	FD3	OIL CONTAINMENT PIT
2	FD3	CONTAINMENT AREA SECTION @ FOUNDATION
3	FD3	CONTAINMENT AREA SECTION @ PUMP
4	FD3	CONTAINMENT AREA TYPICAL SECTION
1	FD4	26.4kV CIRCUIT BREAKER FOUNDATION
1	FD5	230kV CIRCUIT BREAKER FOUNDATION

1 FOUNDATION SITE LAYOUT

SCALE: 1" = 5'-0"

JEA
225 N. PEARL ST.
JACKSONVILLE, FLORIDA 32202

ISSUED FOR BID

CONSULTANT INFORMATION

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BUILDING 600
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DATE	03/28/2025
BY	AJB
REVIEW BY	JPG

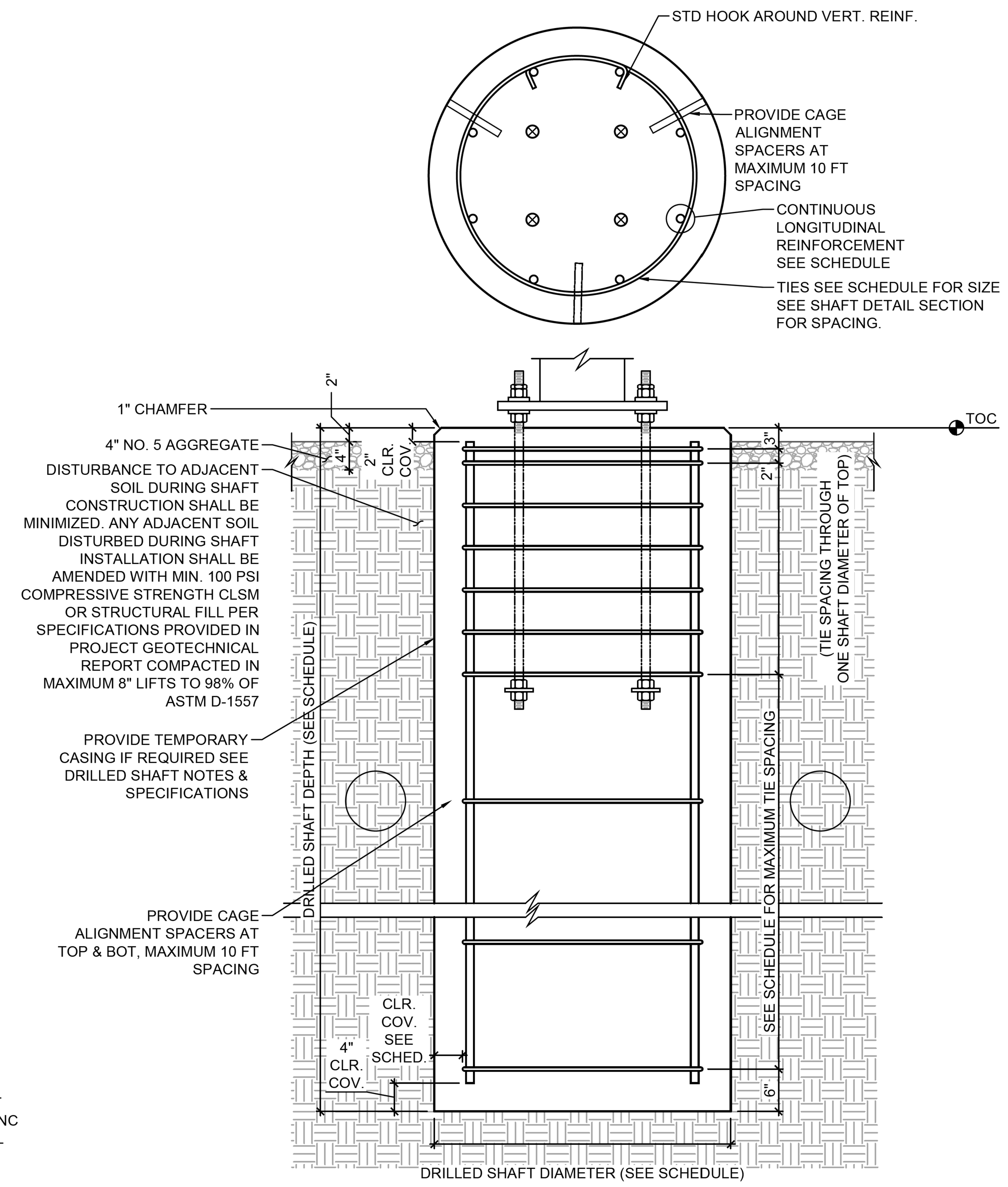
230-26KV T2 ADDITION

FOUNDATION SITE PLAN

JEA NOCATEE SUBSTATION

SCALE: AS NOTE
TRANSMISSION & SUBSTATION PROJECTS - 20410
PROJ #: 8007832

SHEET NUMBER: FP2
PROJECT ID: NC2024
SEQUENCE #: 14 OF 35

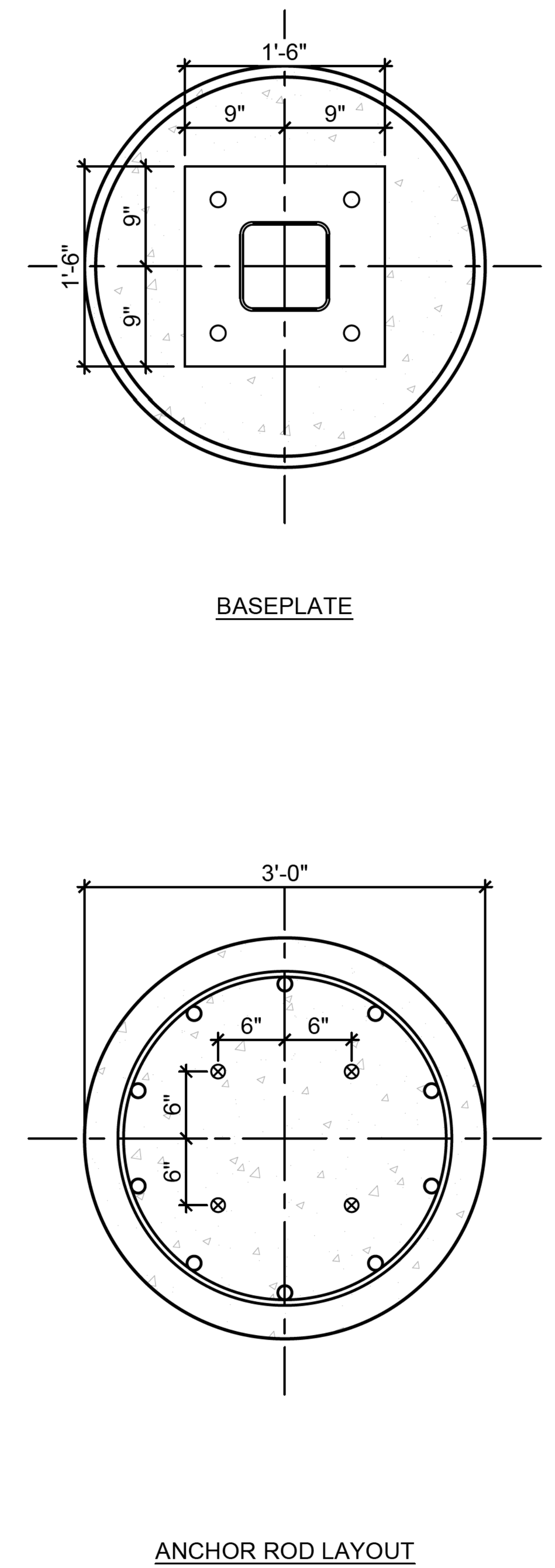


STRUCTURE FOUNDATION	SHAFT DIAMETER (IN)	LONGITUDINAL BAR SIZE	LONGITUDINAL BAR QUANTITY	TIE SIZE	MAX TIE SPACING (IN)	MAX TIE SPACING TOP OF SHAFT (IN)*	SHAFT LENGTH (FT)**	SIDE COVER (IN)
S1	36	#10	10	#4	16	4	12	3
S2	36	#10	10	#4	16	4	13	3
S3	36	#10	10	#4	16	4	14	3
S4	36	#10	10	#4	16	4	15	3
S5	36	#10	10	#4	16	4	17	3
S6	48	#11	13	#5	16	4	16	4

* SEE DETAIL SECTION FOR DECREASED TIE SPACING REQUIRED AT TOP OF SHAFT
** SHAFT LENGTH MEASURED FROM T/O CONC ELEV. TO BOT. OF SHAFT. IF DIFFERENTIAL FROM T/O CONC. TO ROCK EXCEEDS 2", SHAFT LENGTH MUST BE INCREASED PROPORTIONALLY.

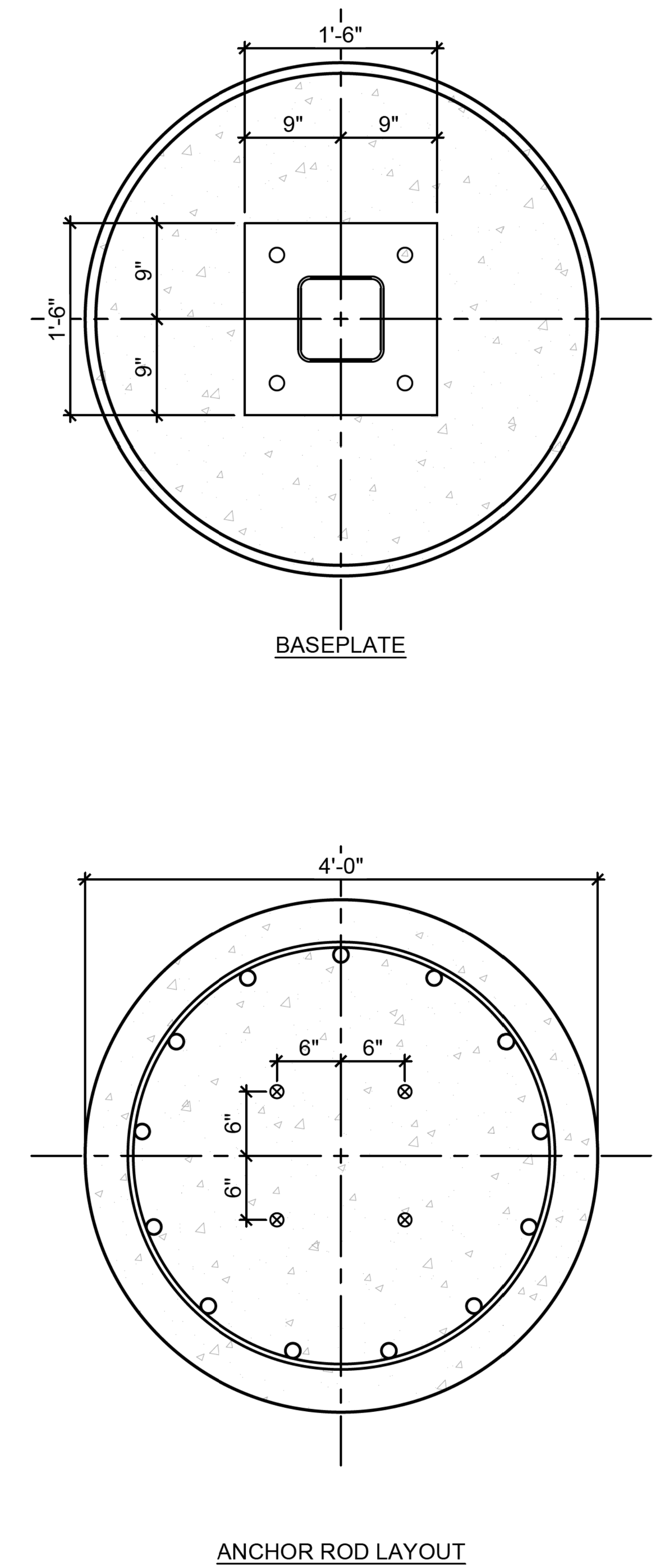
A DRILLED SHAFT SCHEDULE

SCALE: N.T.S.



1 STRUCTURE 1, 2, 3, 4 & 5

SCALE: 3/4" = 1'-0"



2 STRUCTURE 6

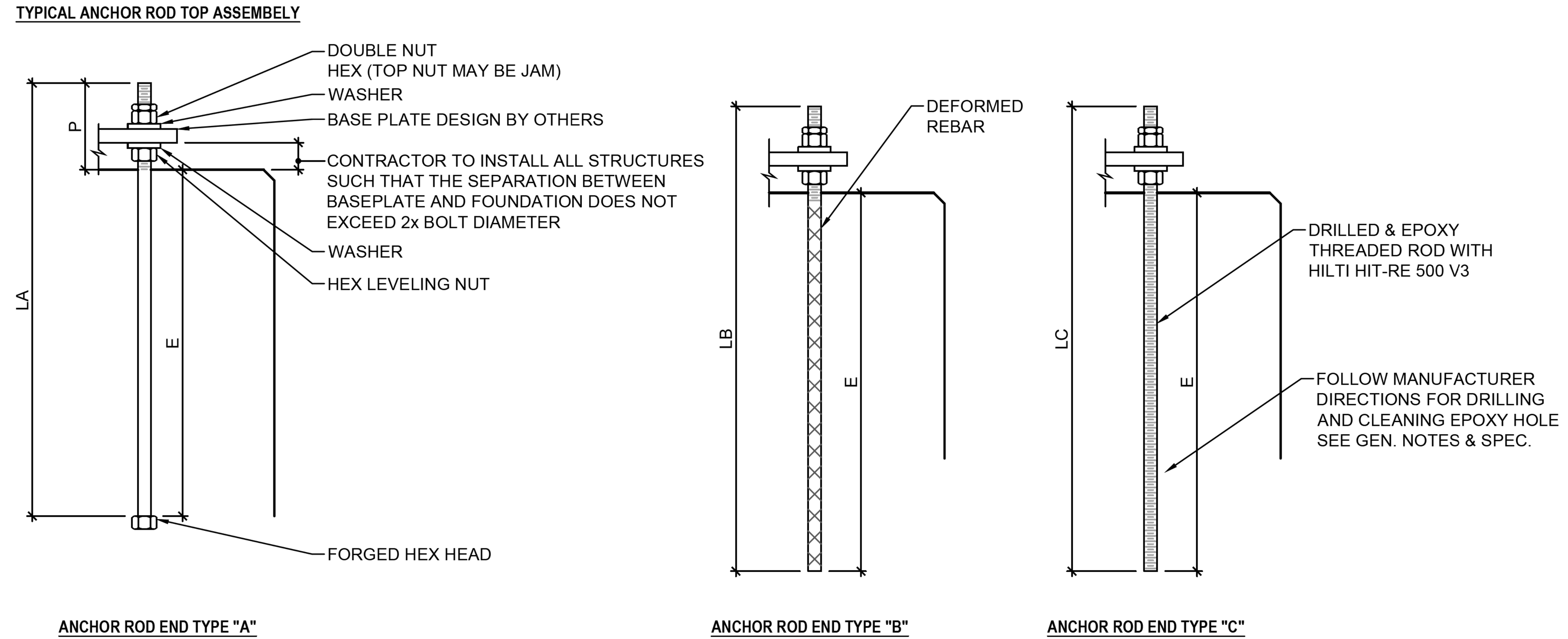
SCALE: 3/4" = 1'-0"

PACKAGER DESIGNATION	FOUNDATION PLAN DESIGNATION	ROD DIAMETER (IN)	STEEL GRADE	LA (IN): ROD LENGTH	LB (IN): ROD LENGTH	LC (IN): ROD LENGTH	E (IN): ROD EMBEDMENT	P (IN): PROJECTION	END ASSEMBLY TYPE	PACKAGER PROVIDED
AB-1	S1	1	ASTM F1554 GR 55	43.5	NA	NA	34.5	9	A	Y
AB-1	S2	1	ASTM F1554 GR 55	43.5	NA	NA	34.5	9	A	Y
AB-1	S3	1	ASTM F1554 GR 55	43.5	NA	NA	34.5	9	A	Y
AB-1	S4	1	ASTM F1554 GR 55	43.5	NA	NA	34.5	9	A	Y
AB-1	S5	1	ASTM F1554 GR 55	43.5	NA	NA	34.5	9	A	Y
AB-1	S6	1	ASTM F1554 GR 55	43.5	NA	NA	34.5	9	A	Y

ANCHOR ROD ASSEMBLY NOTES & SPECIFICATIONS:

1. HEX ANCHOR ROD END ASSEMBLY TYPE "A" MUST HAVE HEAD THAT IS INTEGRALLY FORGED FROM ROD SHAFT.
2. BASEPLATES ARE NOT TO BE GROUTED.
3. ALL ANCHOR RODS (TO THE EXTENTS REQUIRED IN THE PROJECT SPECIFICATIONS & FASTENERS) SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM F2329.
4. NUT AND WASHER GRADES SHALL BE MATCHED TO ROD GRADE PER INDUSTRY STANDARD RECOMMENDATIONS.

TYPICAL ANCHOR ROD TOP ASSEMBLY



ANCHOR ROD END TYPE "A"   ANCHOR ROD END TYPE "B"   ANCHOR ROD END TYPE "C"

CONTRACTOR TO VERIFY ALL BASEPLATE AND ANCHOR CONFIGURATIONS WITH EQUIPMENT MANUFACTURER AND/OR SUPPORT FABRICATOR PRIOR TO CONSTRUCTION AND SHALL CONTACT TO THE ENGINEER WITH ANY DISCREPANCIES.

B ANCHOR ROD SCHEDULE

SCALE: N.T.S.

JEA
225 N. PEARL ST.
JACKSONVILLE, FLORIDA 32202

ISSUED FOR BID

CONSULTANT INFORMATION

STRUCTURES INTERNATIONAL, LLC
7563 PHILIPS HIGHWAY
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FLORIDA CERTIFICATE OF AUTHORIZATION NO: 9800

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ENGINEERING	
DATE	03/28/2025
BY	AJB
REVIEW BY	JPG
DRAFTING	
DATE	03/28/2025
BY	AJB
REVIEW BY	JPG

230-26KV T2 ADDITION

FOUNDATION DETAILS

JEA NOCATEE SUBSTATION

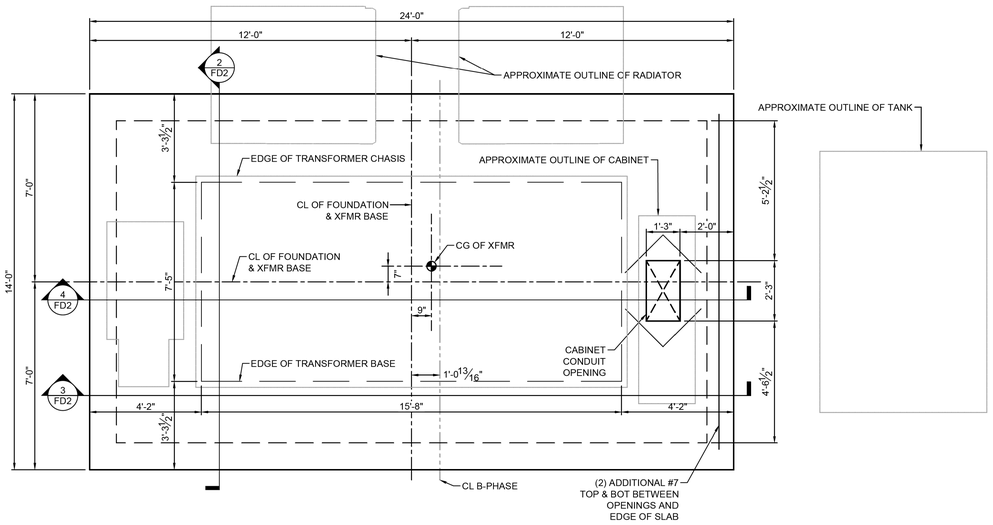
SCALE: AS NOTED

TRANSMISSION & SUBSTATION PROJECTS - 20410

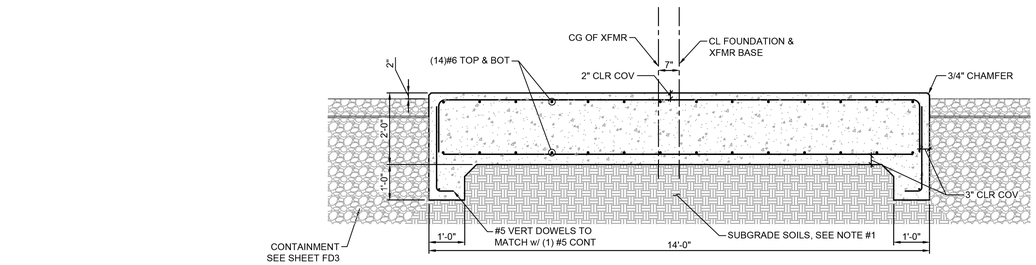
PROJ #: 8007832

SHEET NUMBER: FD1

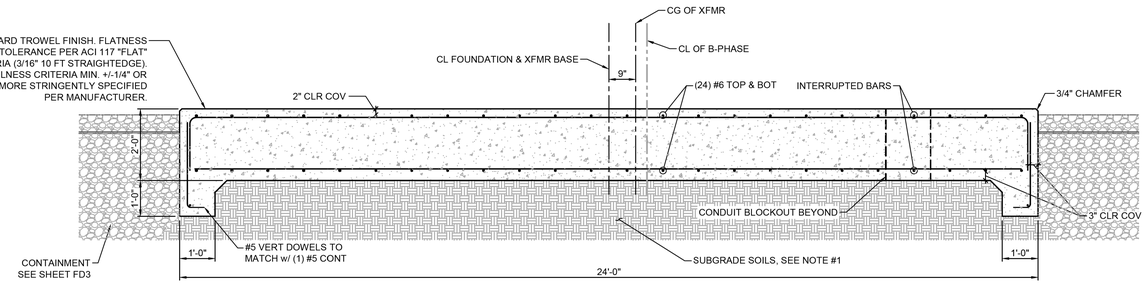
PROJECT ID: NC2024



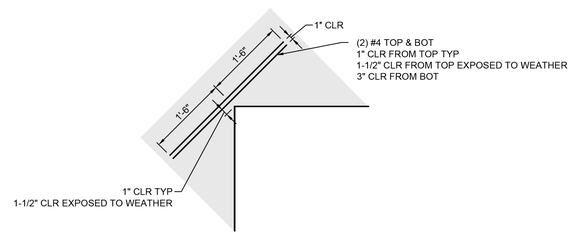
1 TRANSFORMER FOUNDATION PLAN
SCALE: 3/8" = 1'-0"



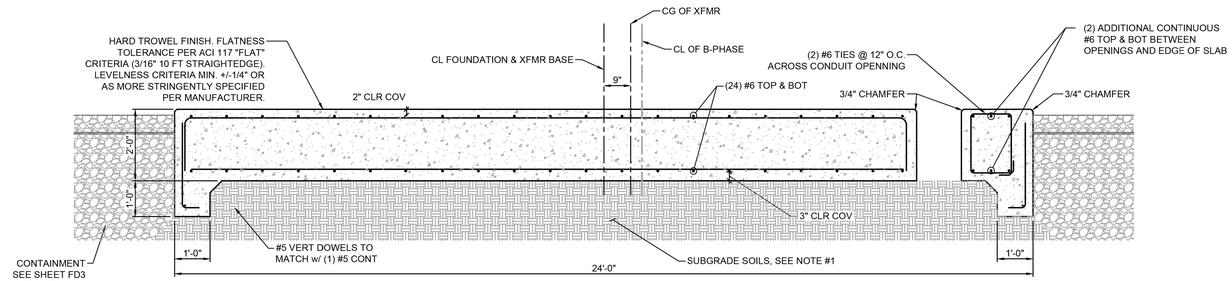
2 NEW TRANSFORMER FOUNDATION SECTION
SCALE: 1/2" = 1'-0"



3 NEW TRANSFORMER FOUNDATION SECTION
SCALE: 1/2" = 1'-0"



A TYPICAL REENTRANT CORNER REINFORCEMENT
SCALE: 3/4" = 1'-0"



4 NEW TRANSFORMER FOUNDATION SECTION
SCALE: 1/2" = 1'-0"

NOTE:
1. PREPARE SITE IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS. BEARING LEVELS SOILS, AFTER COMPACTION, SHOULD EXHIBIT DENSITIES EQUIVALENT TO 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557) TO A DEPTH OF AT LEAST ONE FOOT BELOW THE FOUNDATION BEARING LEVELS.

JEA
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CONSULTANT INFORMATION

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BUILDING 600
JACKSONVILLE, FL 32256
PHONE: (904) 296-2646
WWW.STRUCTURESINTL.COM
FLORIDA CERTIFICATE OF AUTHORIZATION NO: 9800

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REVIEW BY	JPG

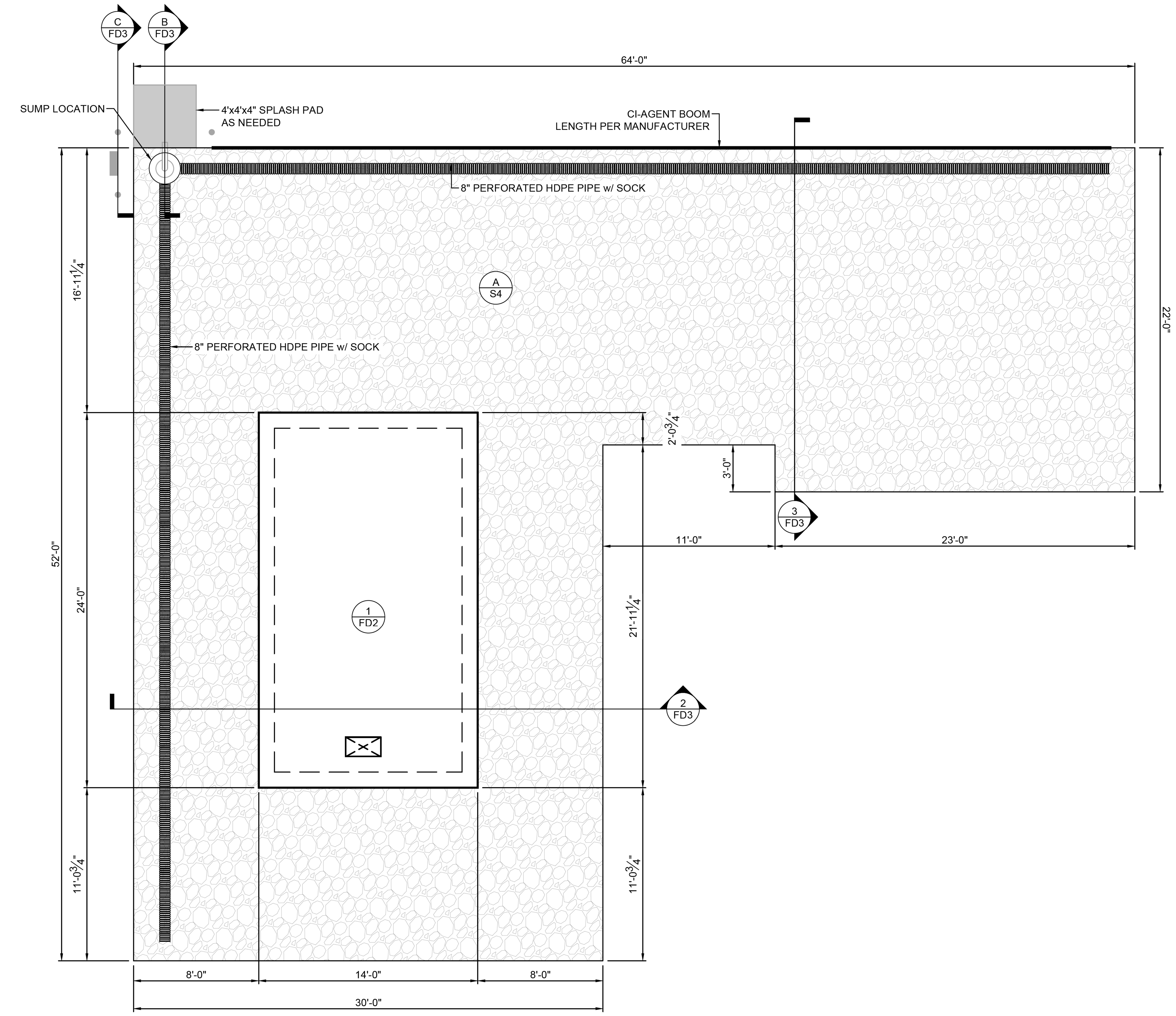
230-26KV T2 ADDITION

TRANSFORMER FOUNDATION DETAILS

JEA NOCATEE SUBSTATION

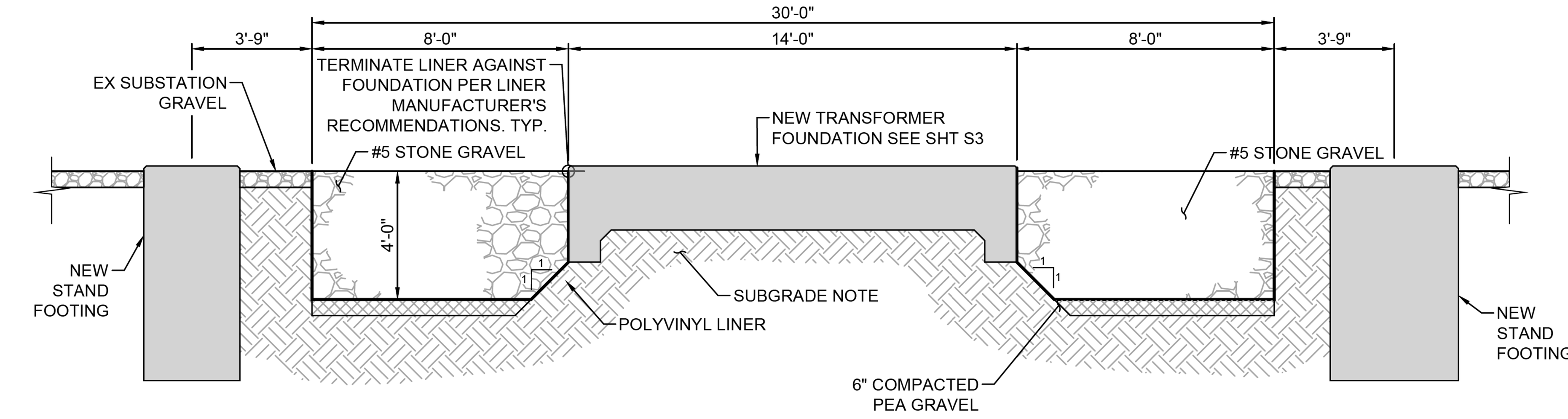
SCALE: AS NOTED
TRANSMISSION & SUBSTATION PROJECTS - 20410
PROJ #: 8007832

SHEET NUMBER: FD2
PROJECT ID: NC2024
SEQUENCE #: 16 OF 35



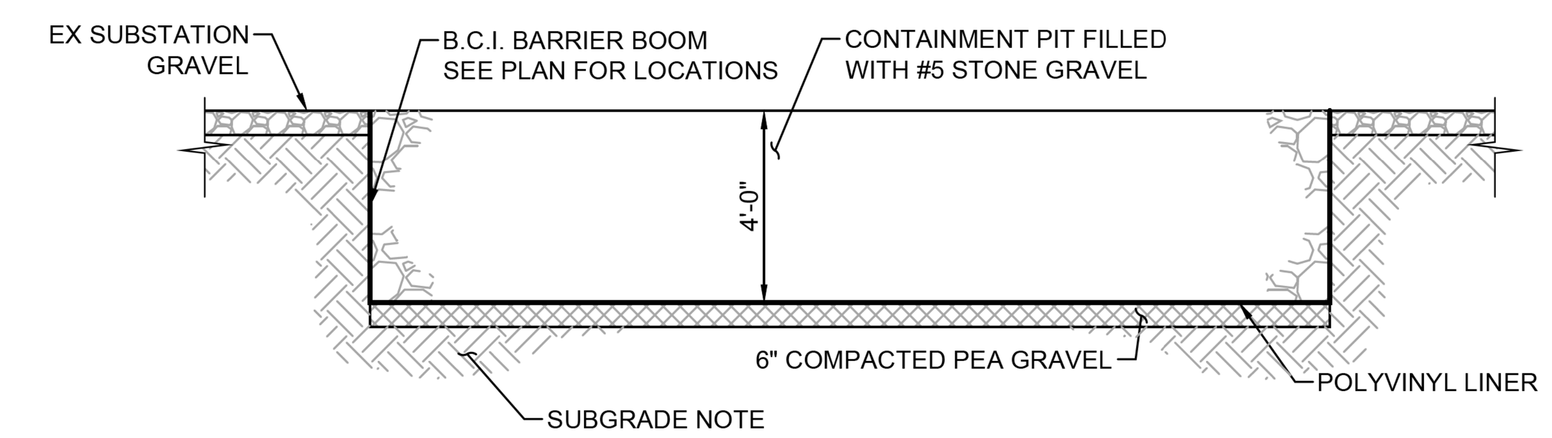
1 OIL CONTAINMENT PIT PLAN VIEW

SCALE: 1" = 5'-0"



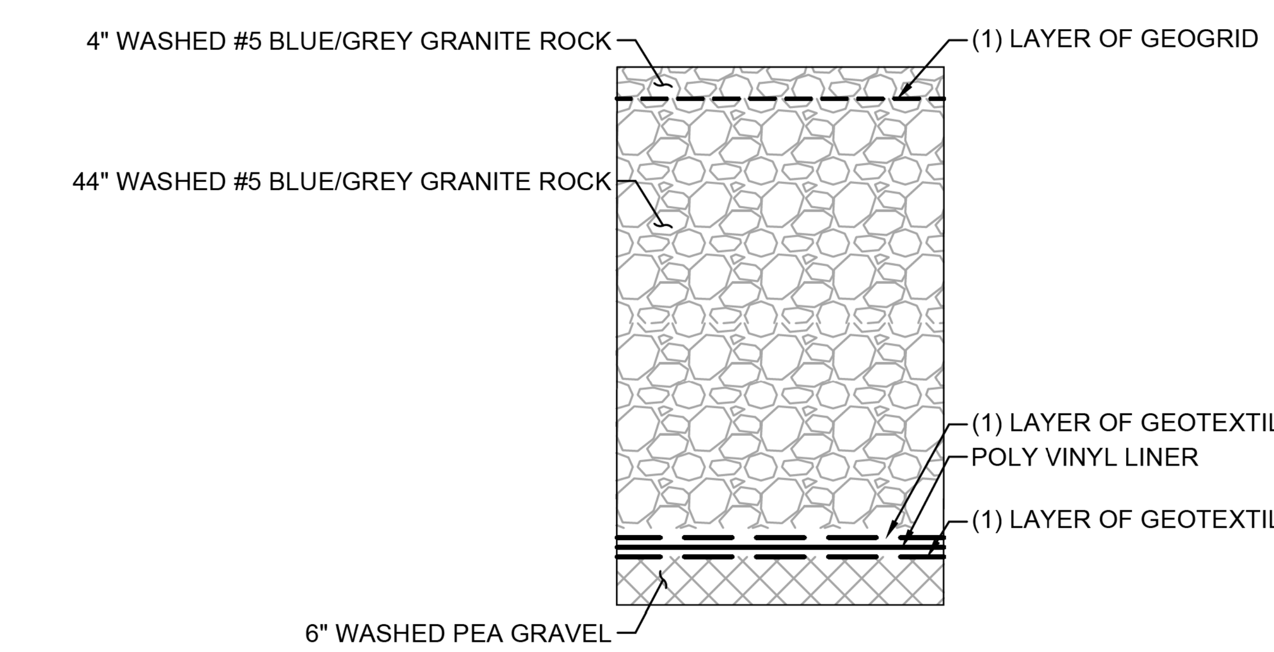
2 CONTAINMENT AREA SECTION @ FOUNDATION

SCALE: 3" = 1'-0"



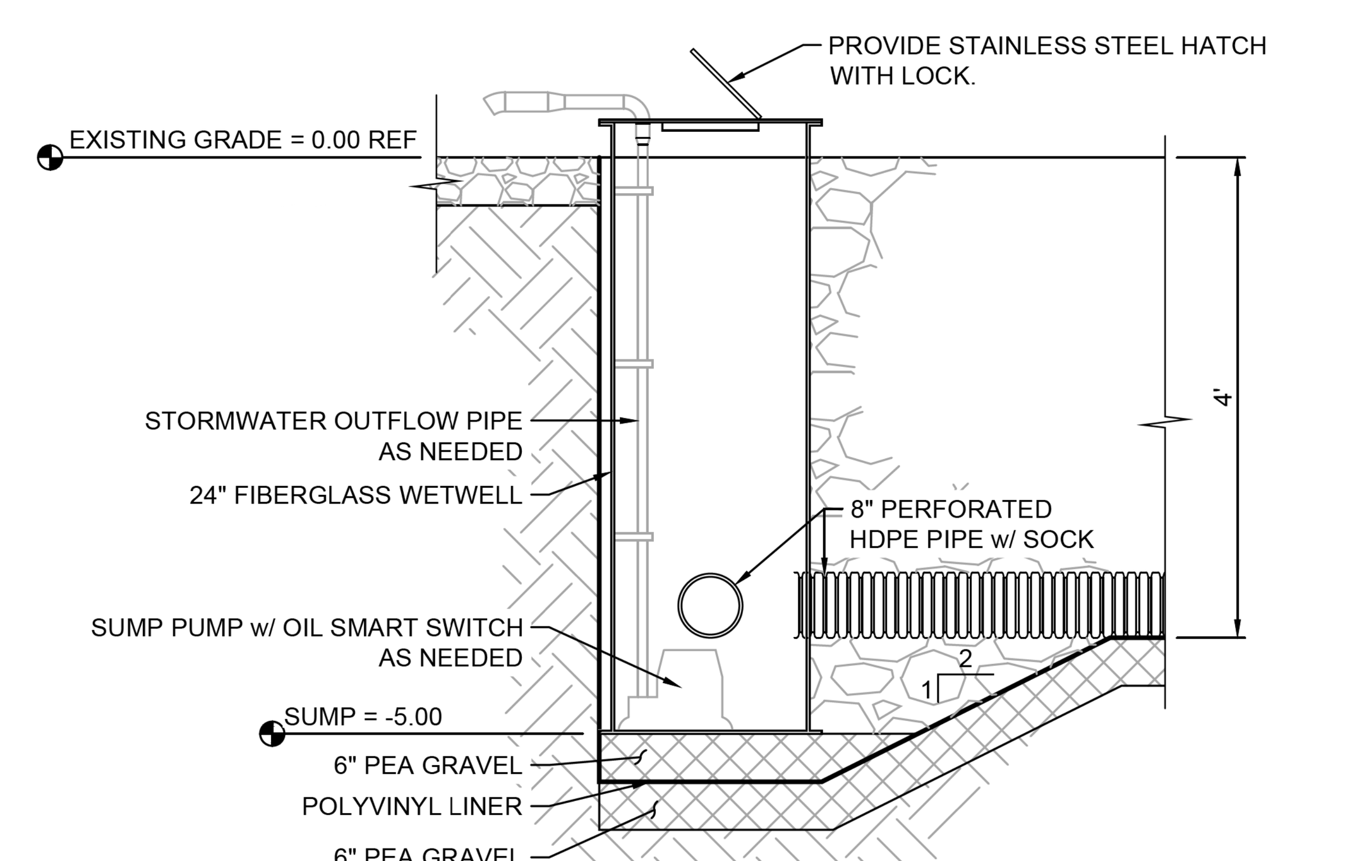
3 CONTAINMENT AREA TYPICAL SECTION

SCALE: 3" = 1'-0"



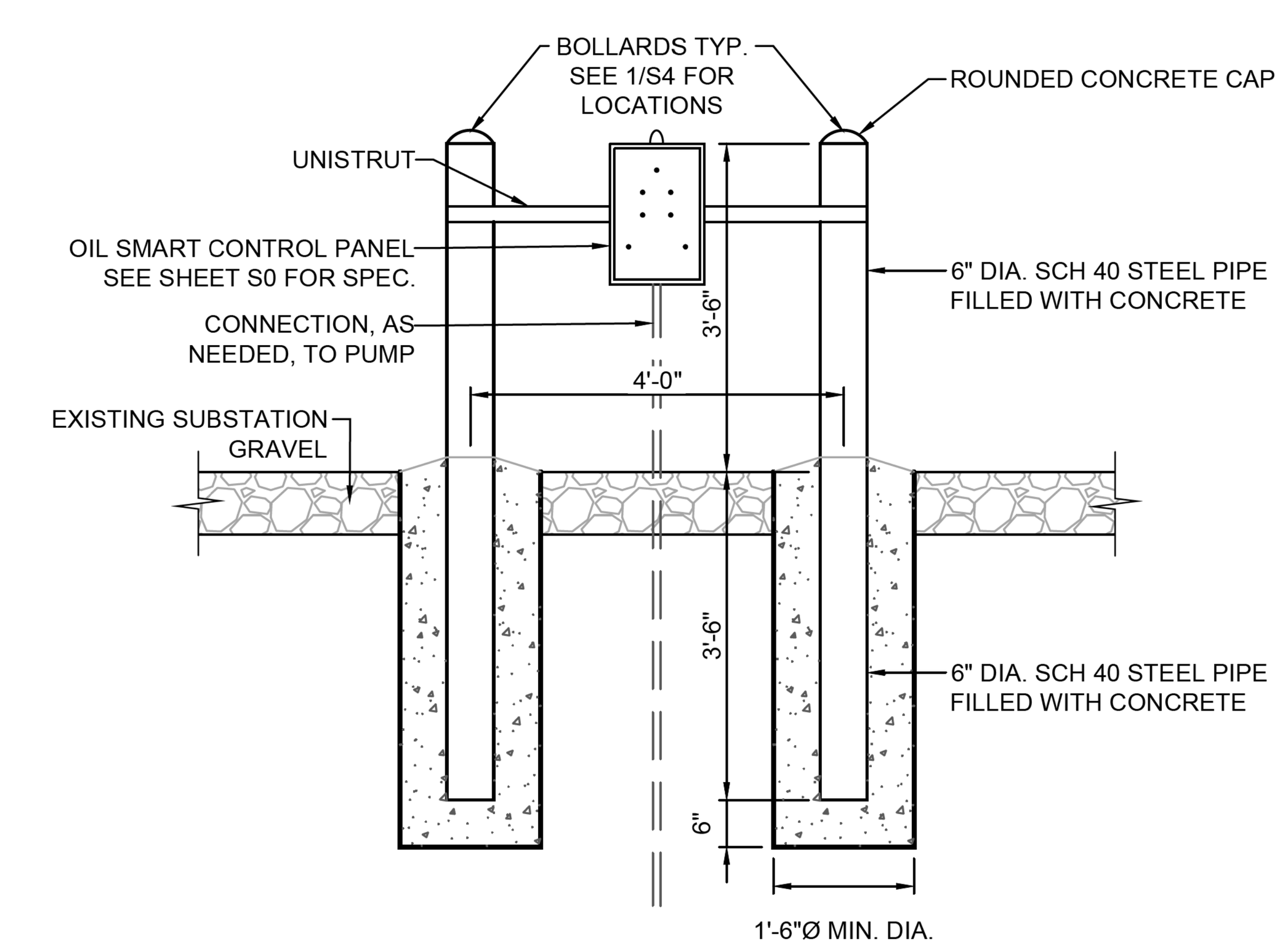
A CONTAINMENT AREA CROSS SECTION

SCALE: 6" = 1'-0"



B WETWELL & PUMP INSTALLATION

SCALE: 6" = 1'-0"



C CONTROL PANEL INSTALLATION

SCALE: 6" = 1'-0"

NOTE:
1. CONTROL PANEL INSTALLATION ONLY NECESSARY IF OPTIONAL SUMP PUMP IS INSTALLED.

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230-26KV T2 ADDITION

CONTAINMENT PIT DETAILS

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

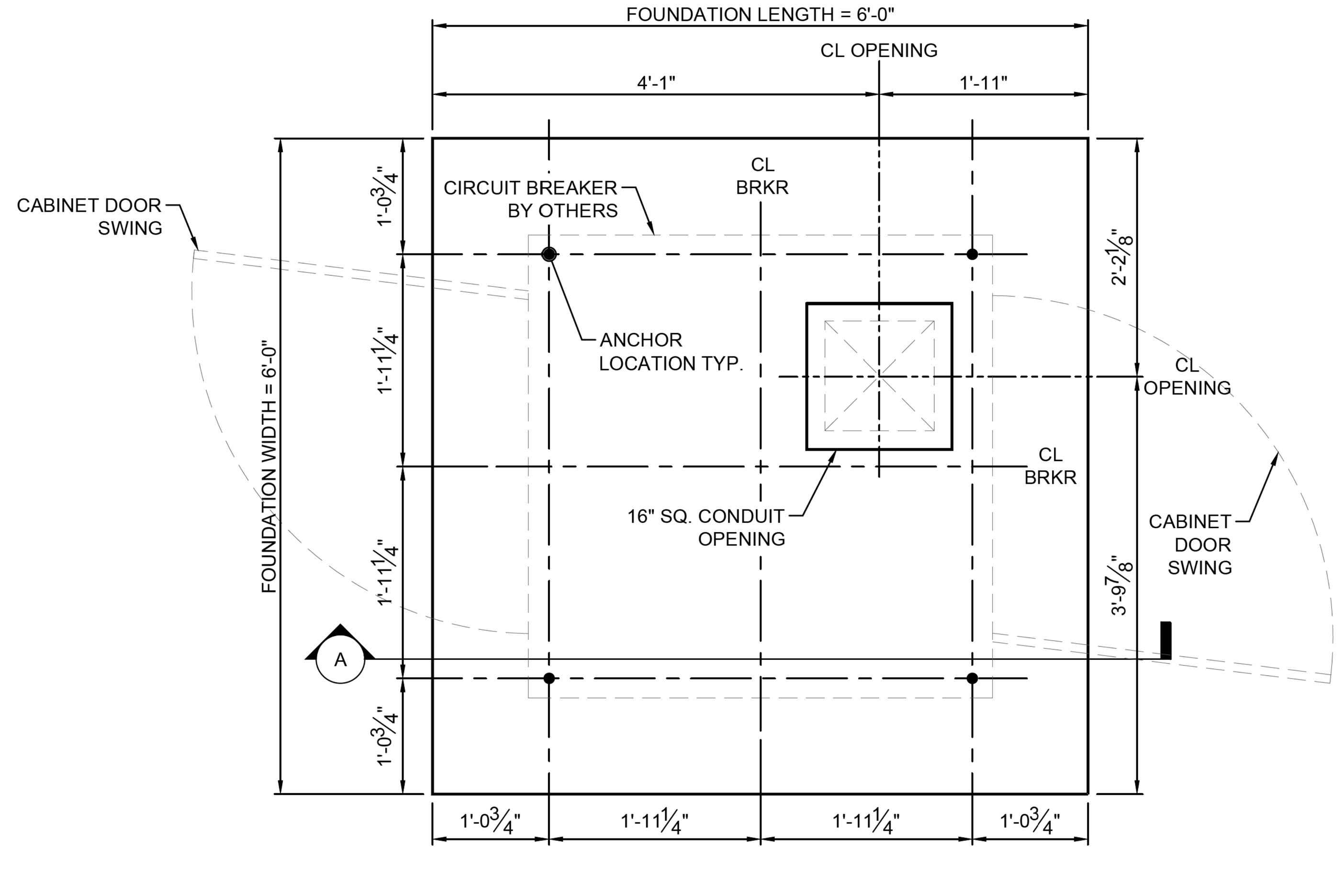
TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

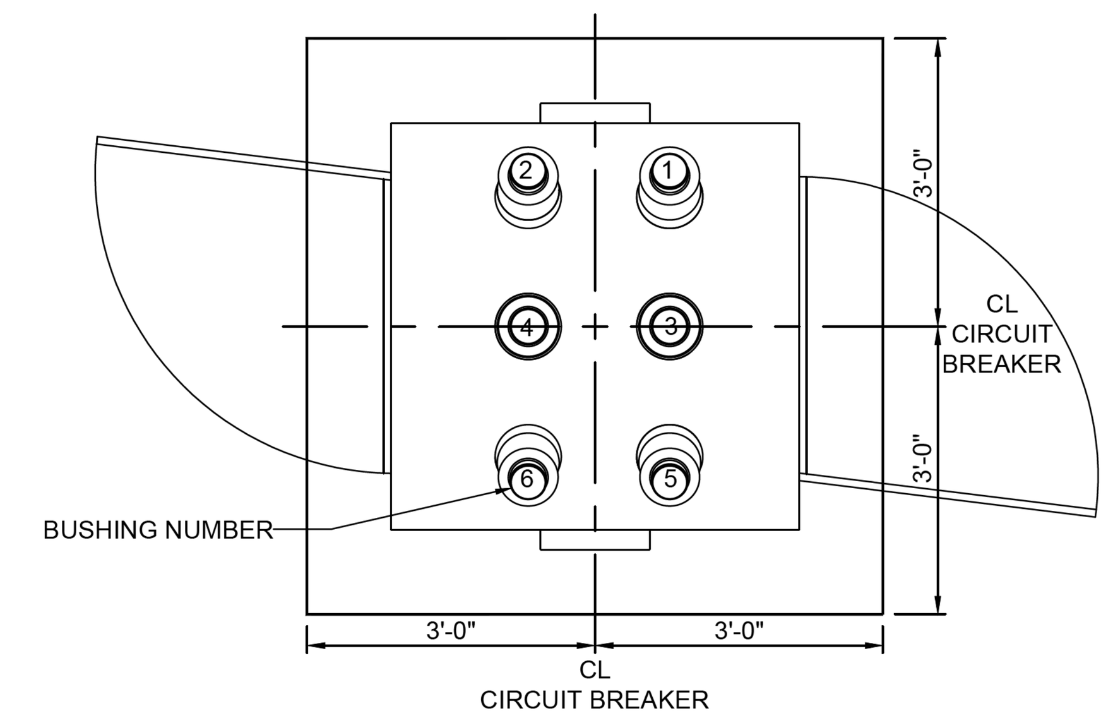
SHEET NUMBER: FD3

PROJECT ID: NC2024

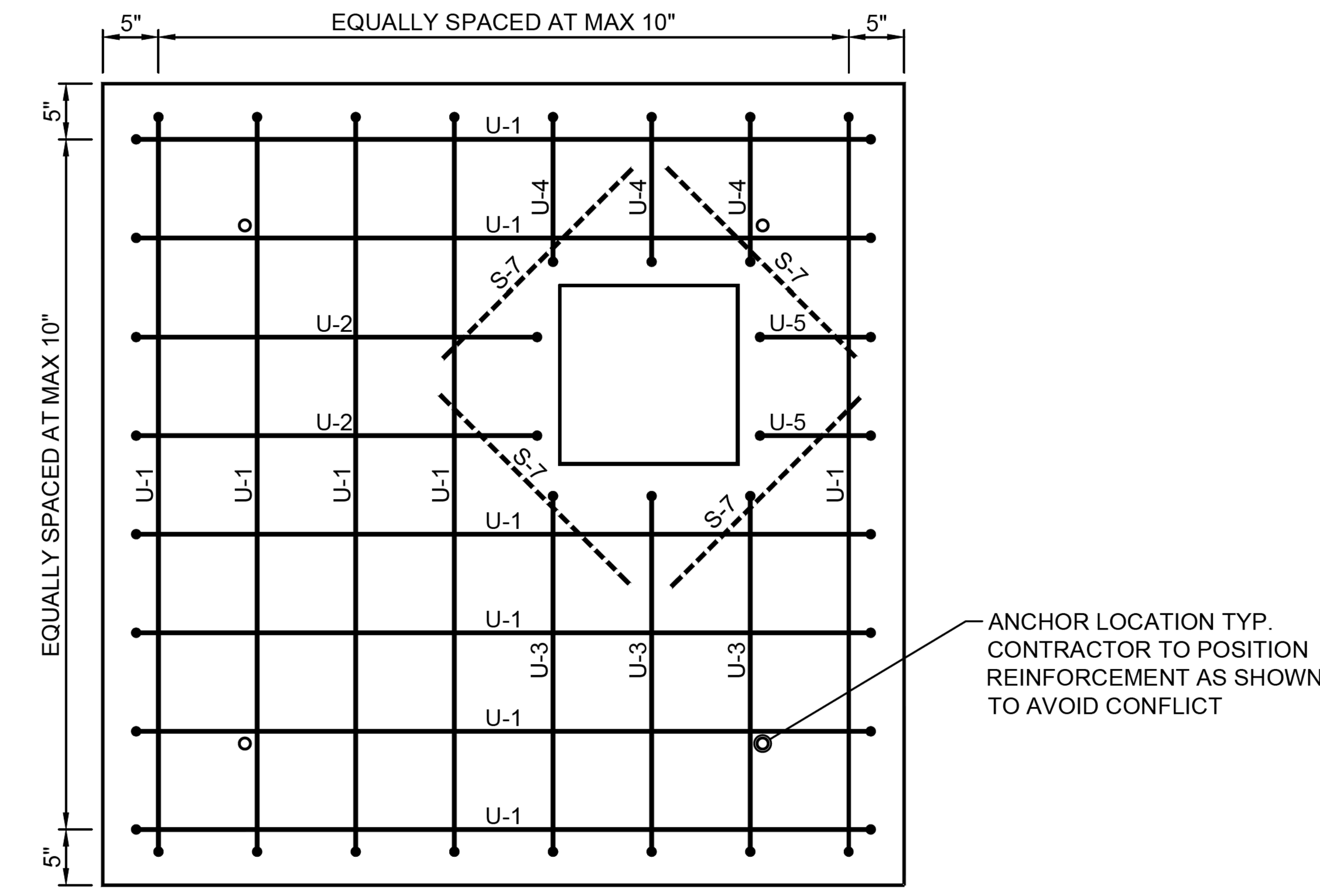
SEQUENCE #: 17 OF 35



1 26.4kV CIRCUIT BREAKER FOUNDATION
SCALE: 3/4" = 1'-0"

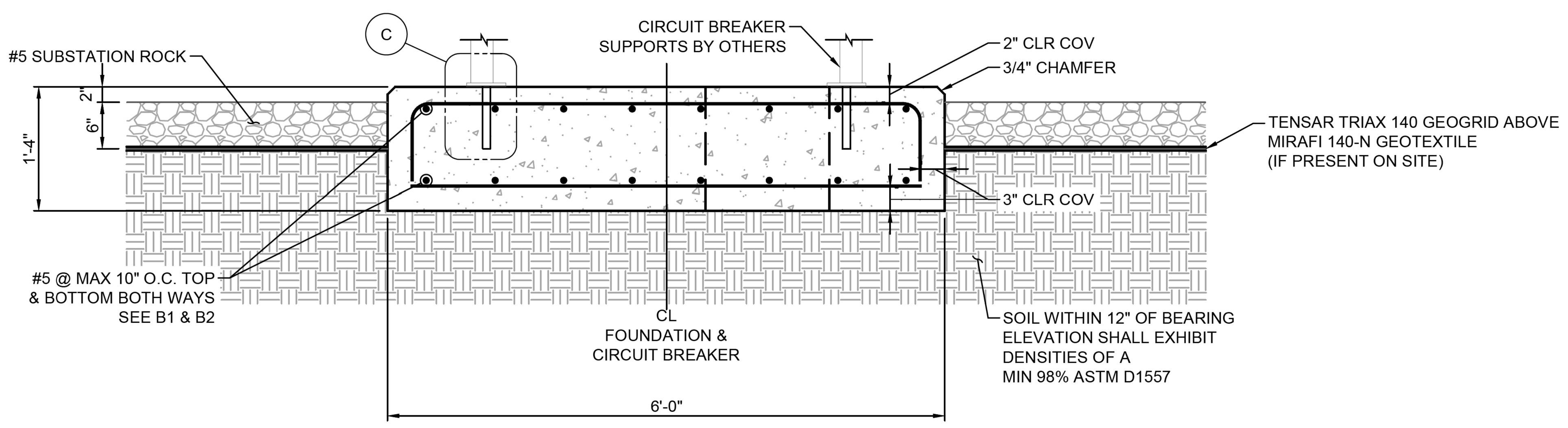


2 BUSHING ORIENTATION
SCALE: 1/2" = 1'-0"

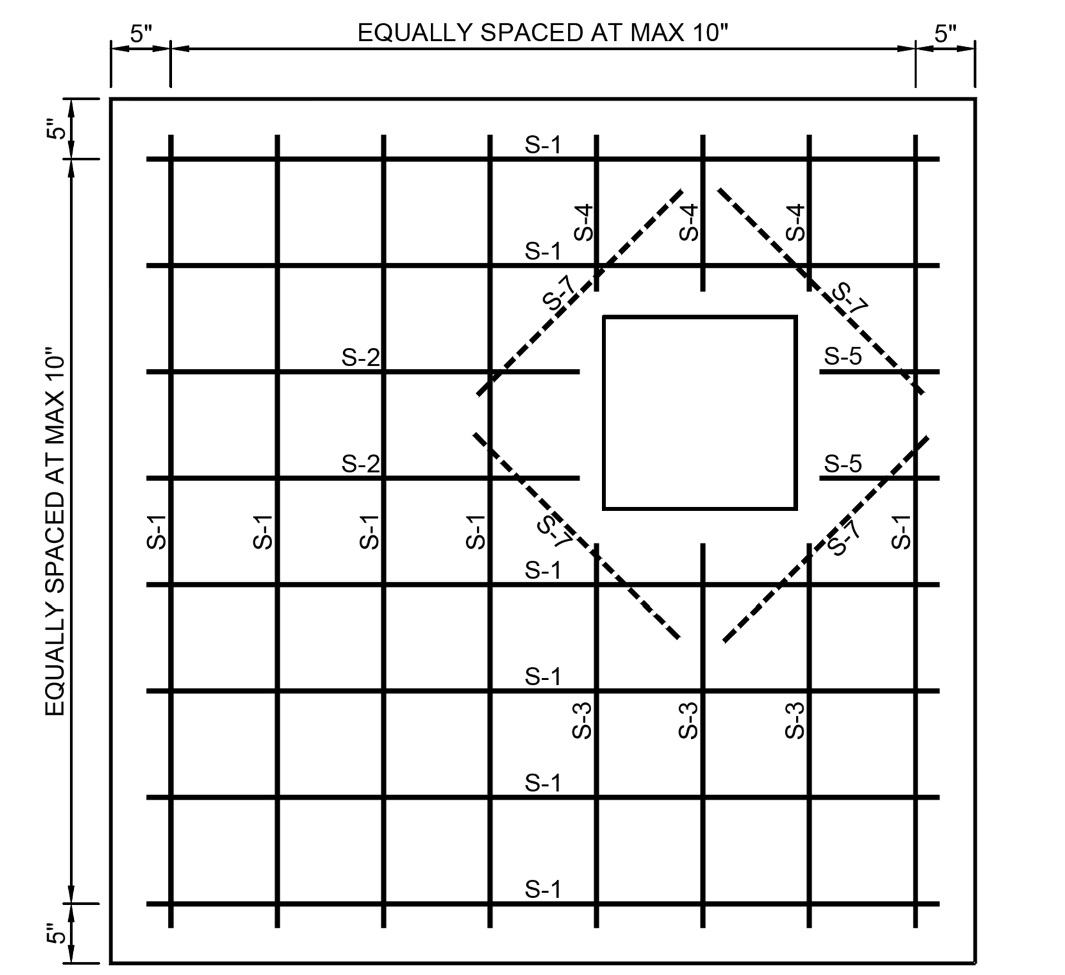


NOTE: PLACE S-7 BARS ABOVE BOT REINFORCEMENT MAT

B1 TOP REINFORCEMENT LAYOUT
SCALE: 3/4" = 1'-0"

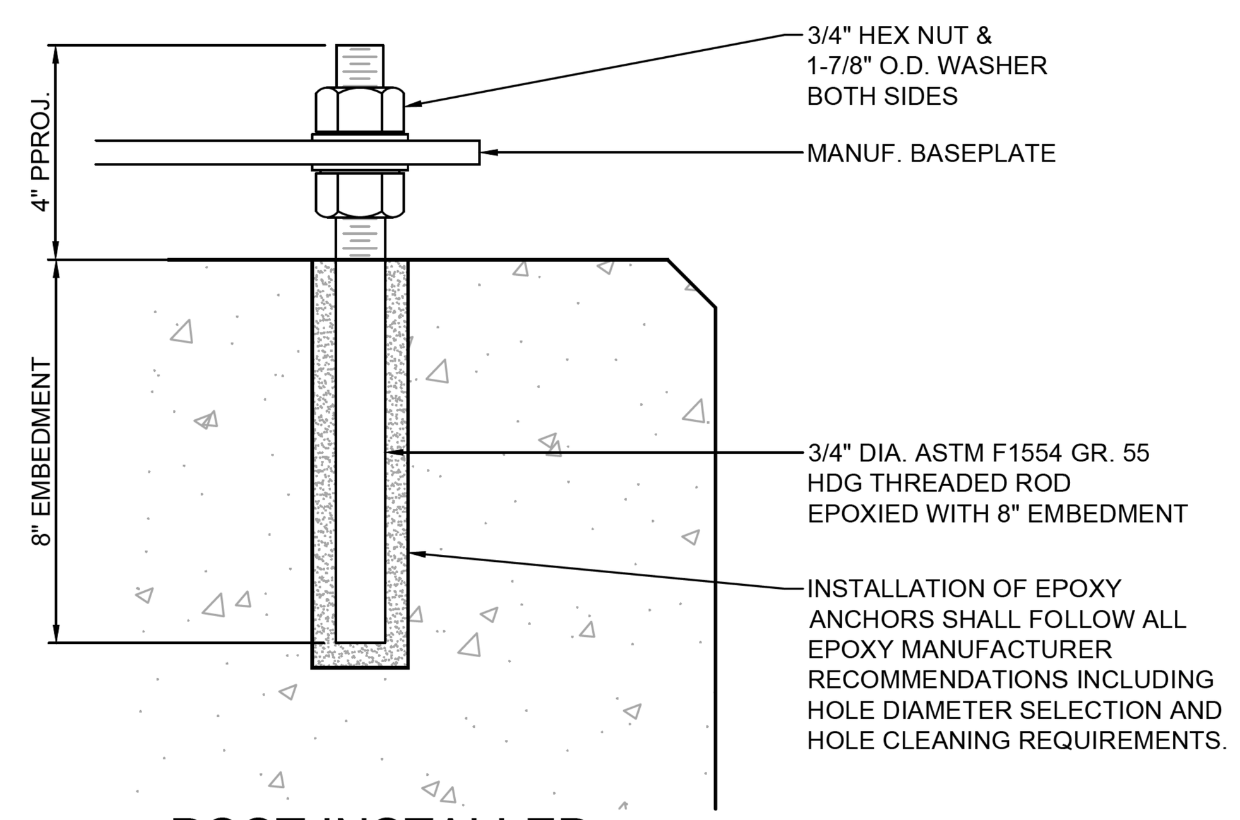


A FOUNDATION SECTION
SCALE: 3/4" = 1'-0"

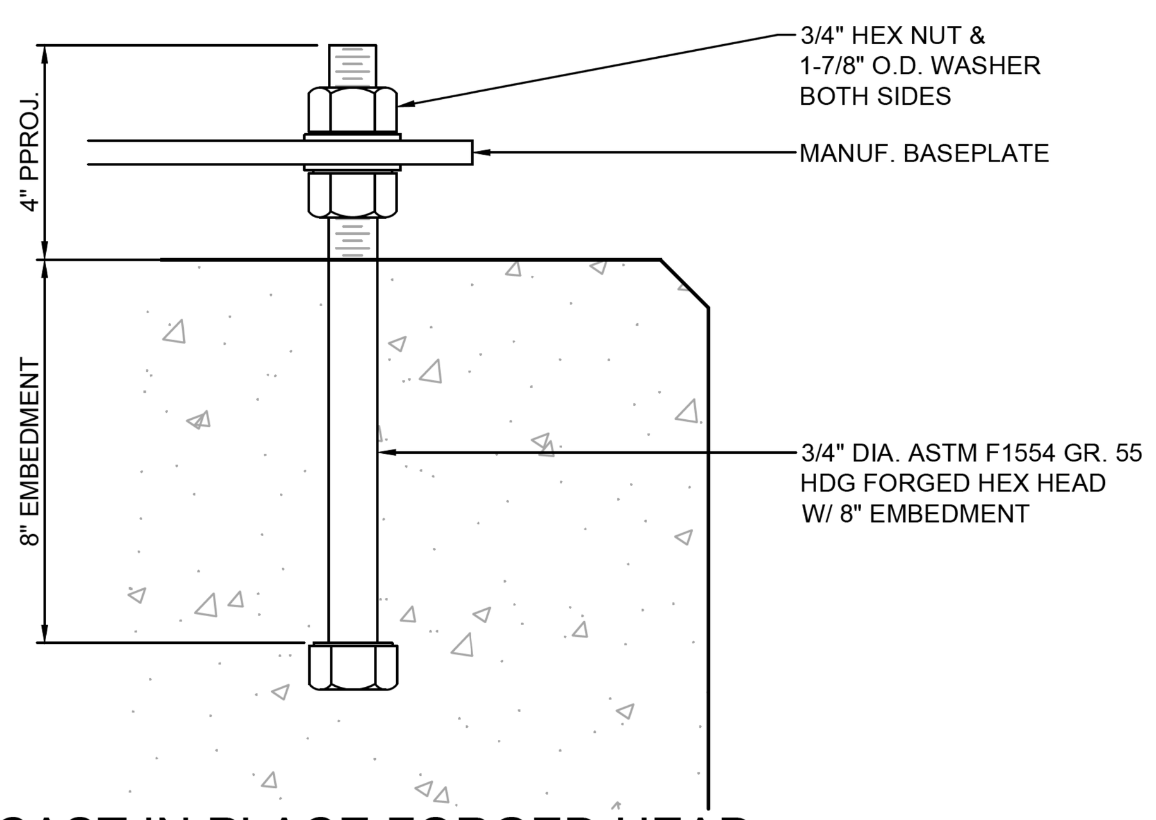


NOTE: PLACE S-7 BARS ABOVE BOT REINFORCEMENT MAT

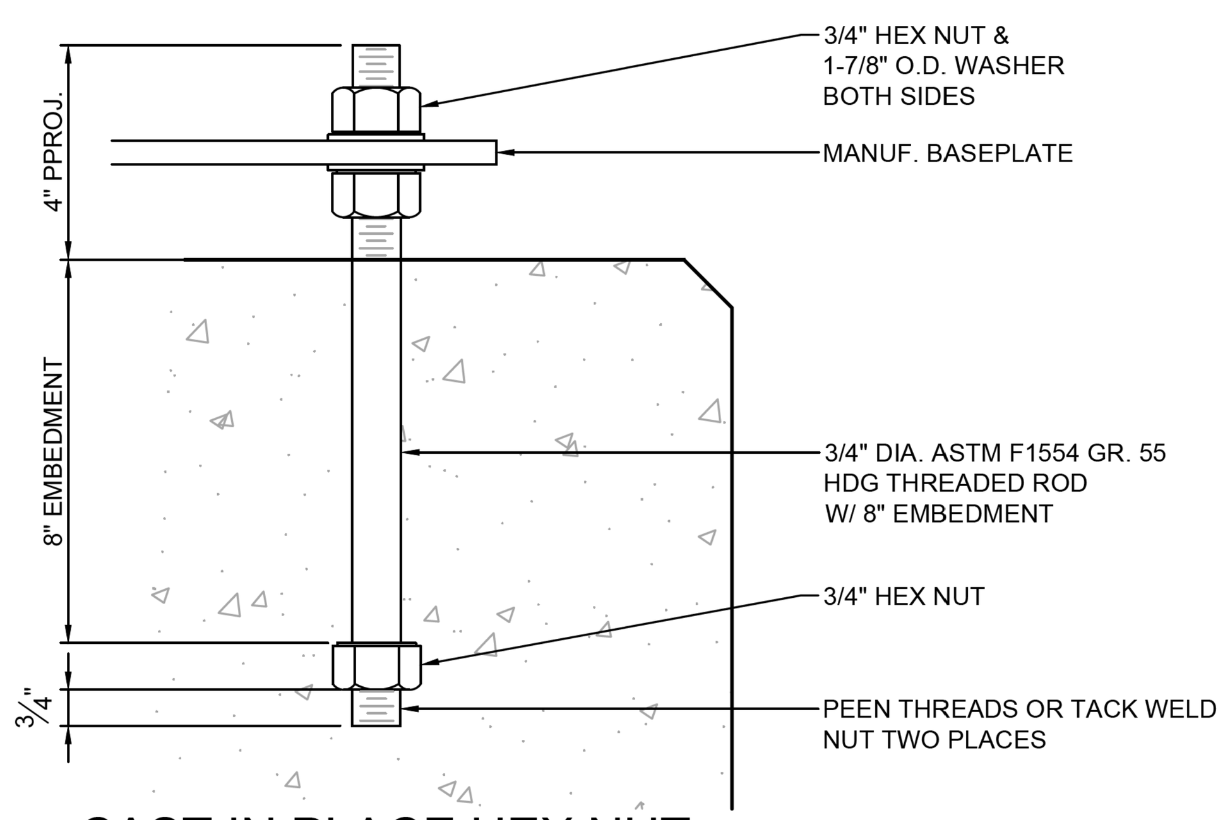
B2 BOTTOM REINFORCEMENT LAYOUT
SCALE: 3/4" = 1'-0"



POST INSTALLED



CAST IN PLACE FORGED HEAD



CAST IN PLACE HEX NUT

C ANCHOR DETAIL
SCALE: 3" = 1'-0"

REINFORCEMENT SCHEDULE

MARK	QTY	BAR SIZE	DIMENSIONS A	B	C
S-1	11	5	5'-6"	-	-
S-2	2	5	3'-0"	-	-
S-3	3	5	2'-8"	-	-
S-4	3	5	1'-1"	-	-
S-5	2	5	0'-10"	-	-
S-7	8	5	2'-0"	-	-
U-1	11	5	5'-6"	0'-10"	0'-10"
U-2	2	5	3'-0"	0'-10"	0'-10"
U-3	3	5	2'-8"	0'-10"	0'-10"
U-4	3	5	1'-1"	0'-10"	0'-10"
U-5	2	5	0'-10"	0'-10"	0'-10"

S: A
U: A, B, C

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230-26KV T2 ADDITION

26.4KV BREAKER FOUNDATION DETAILS

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

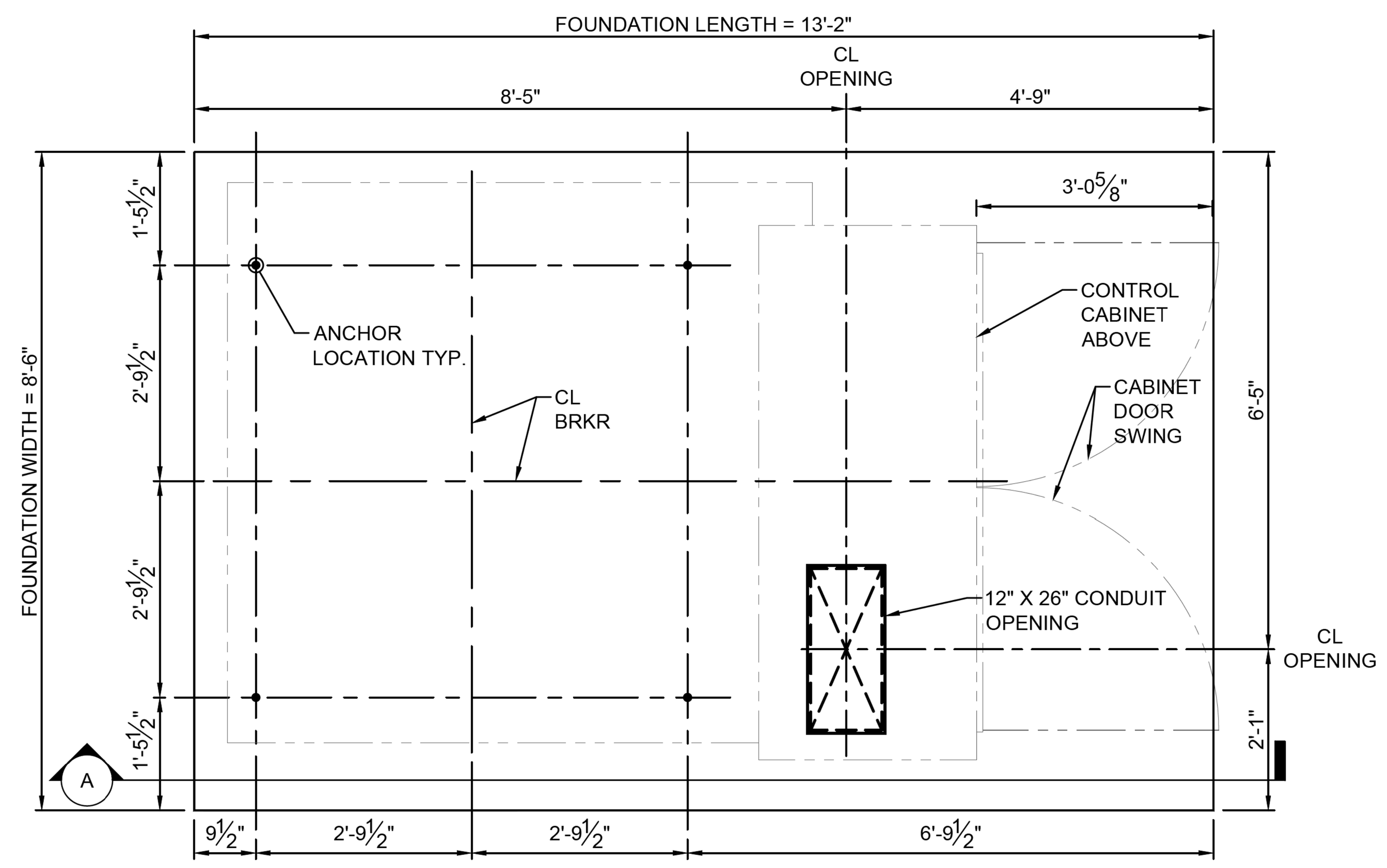
TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

SHEET NUMBER: FD4

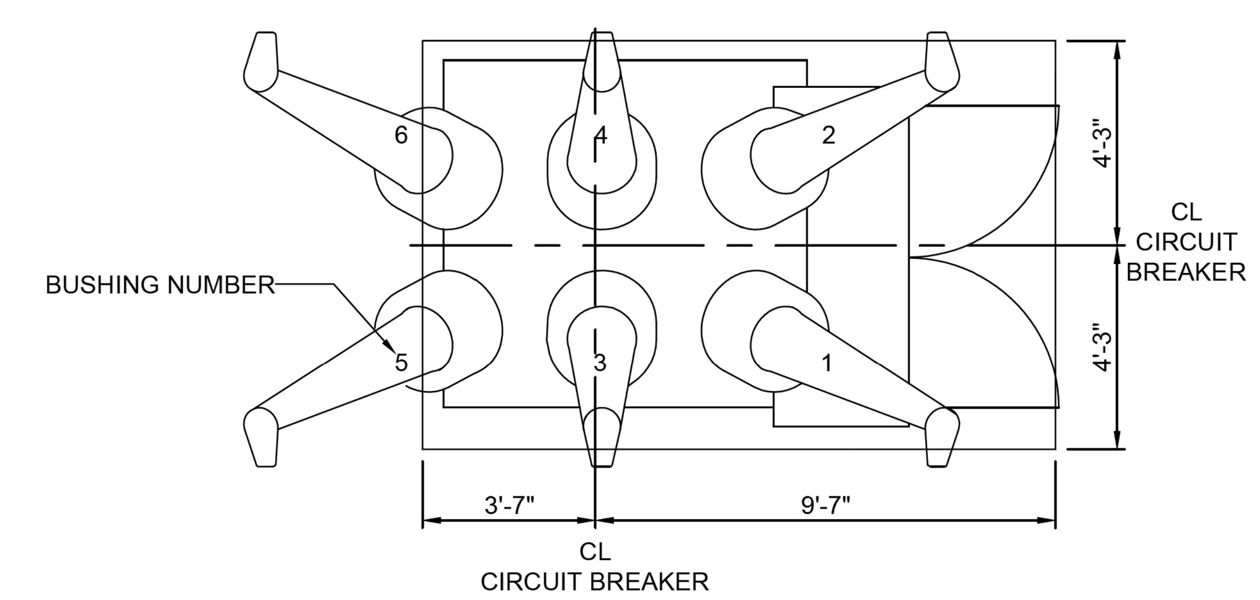
PROJECT ID: NC2024

SEQUENCE #: 18 OF 35



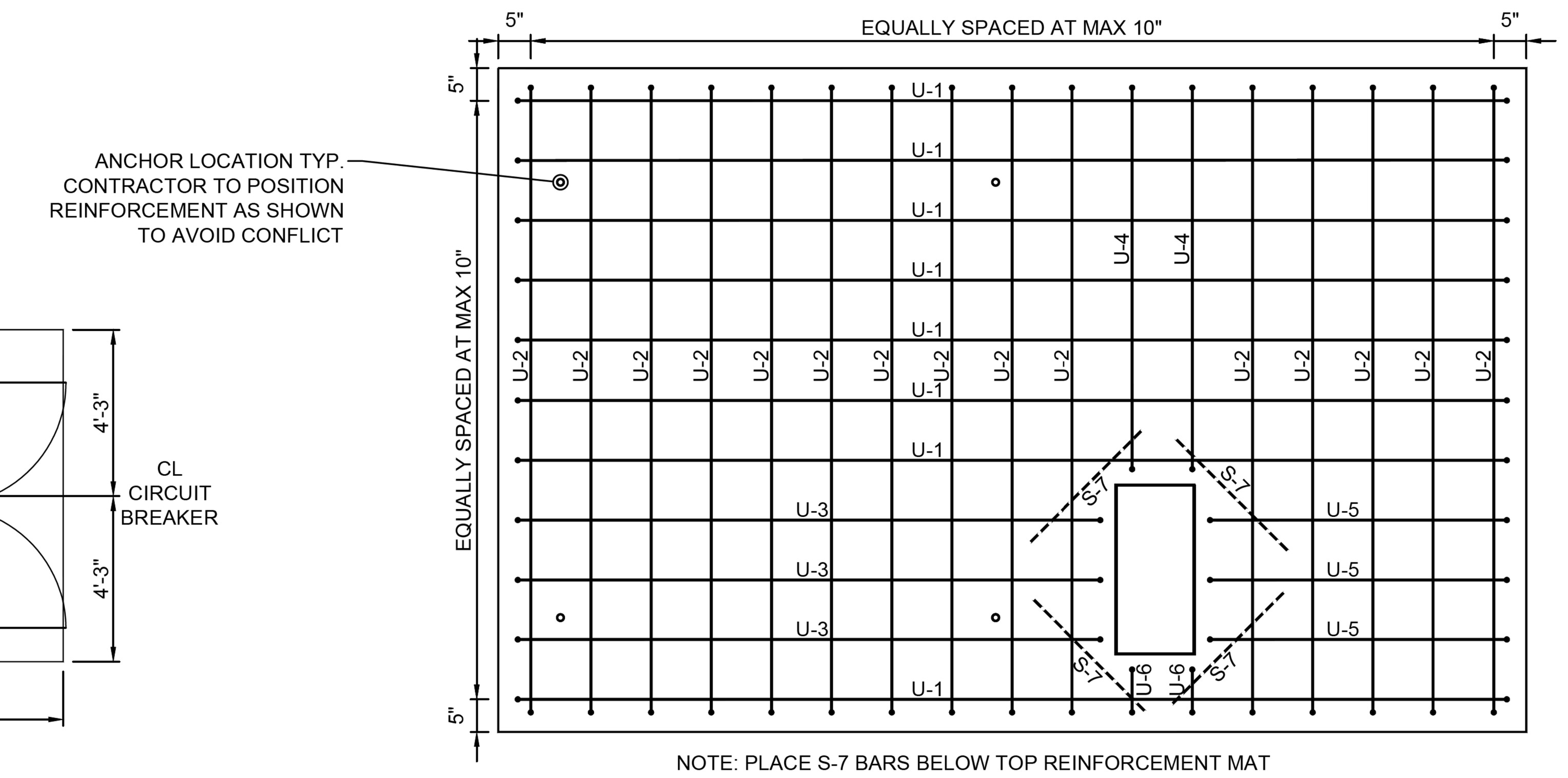
1 230kV CIRCUIT BREAKER FOUNDATION

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



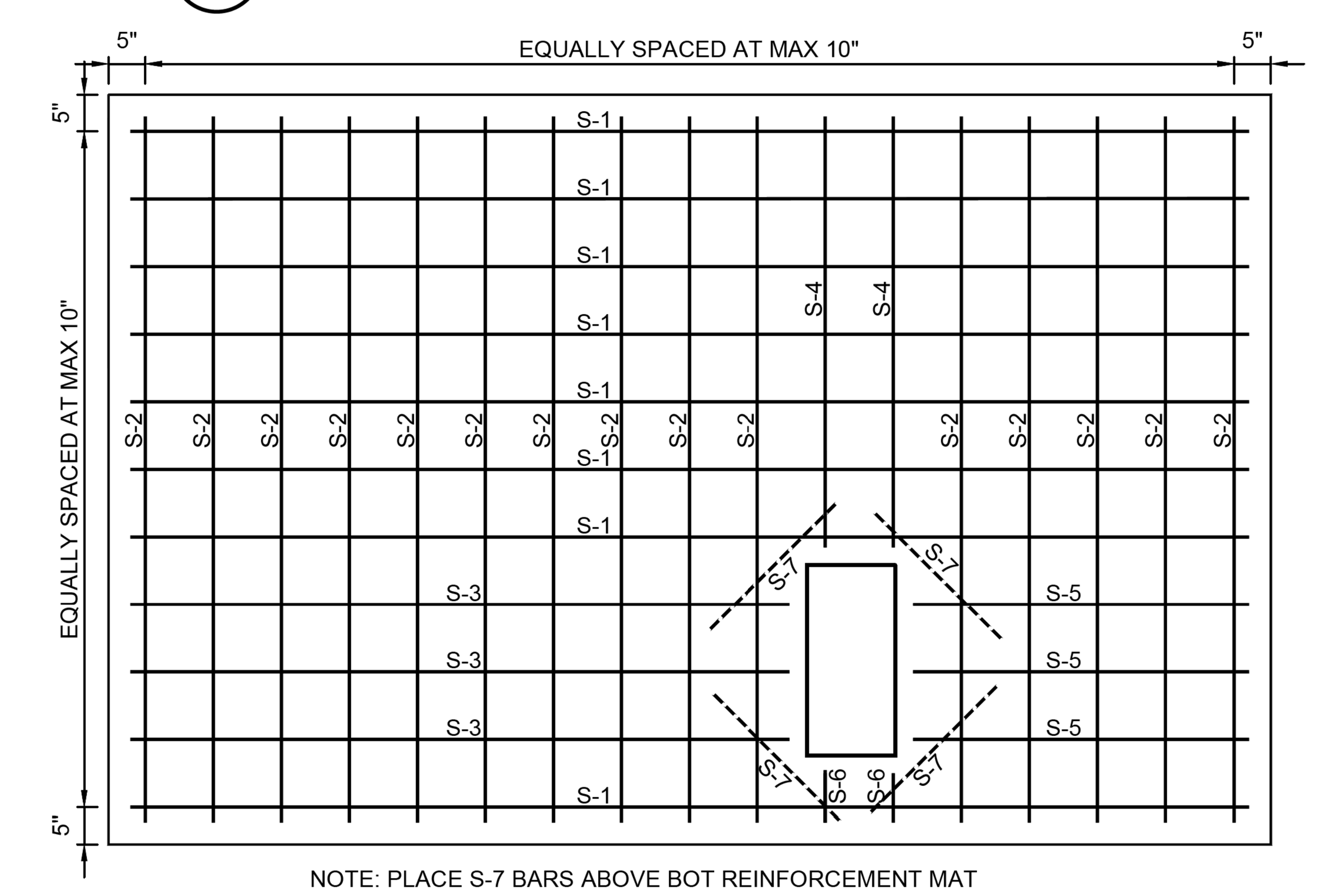
2 BUSHING ORIENTATION

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



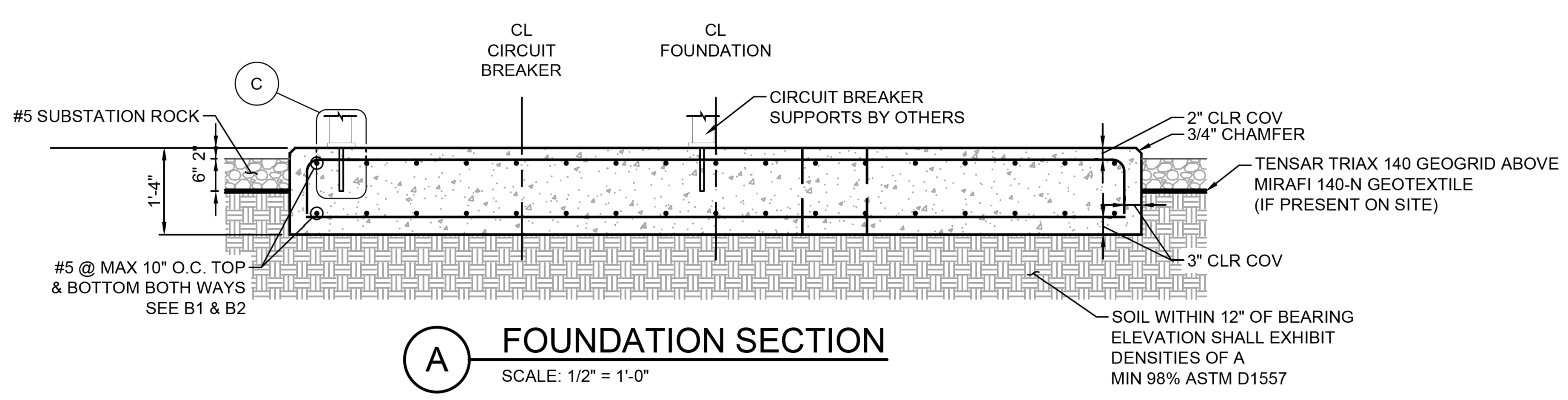
B1 TOP REINFORCEMENT LAYOUT

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



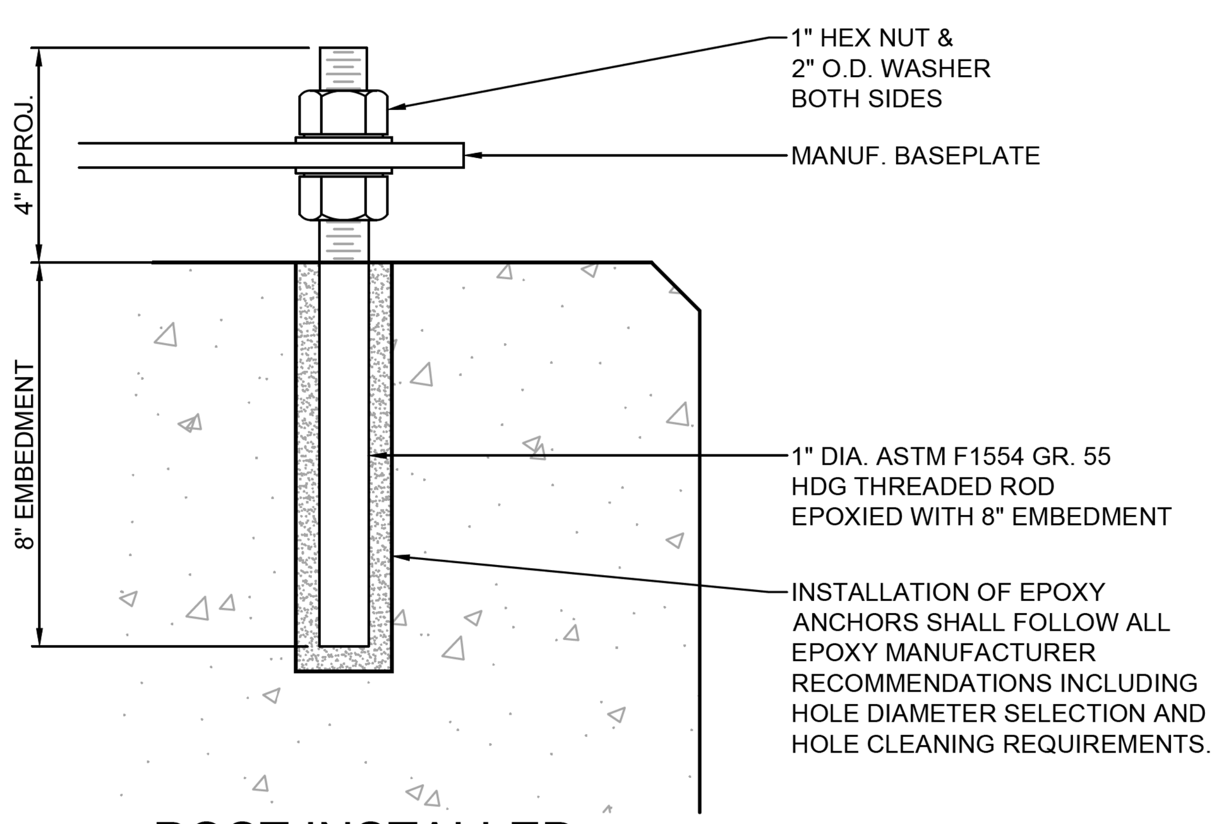
B2 BOTTOM REINFORCEMENT LAYOUT

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



A FOUNDATION SECTION

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



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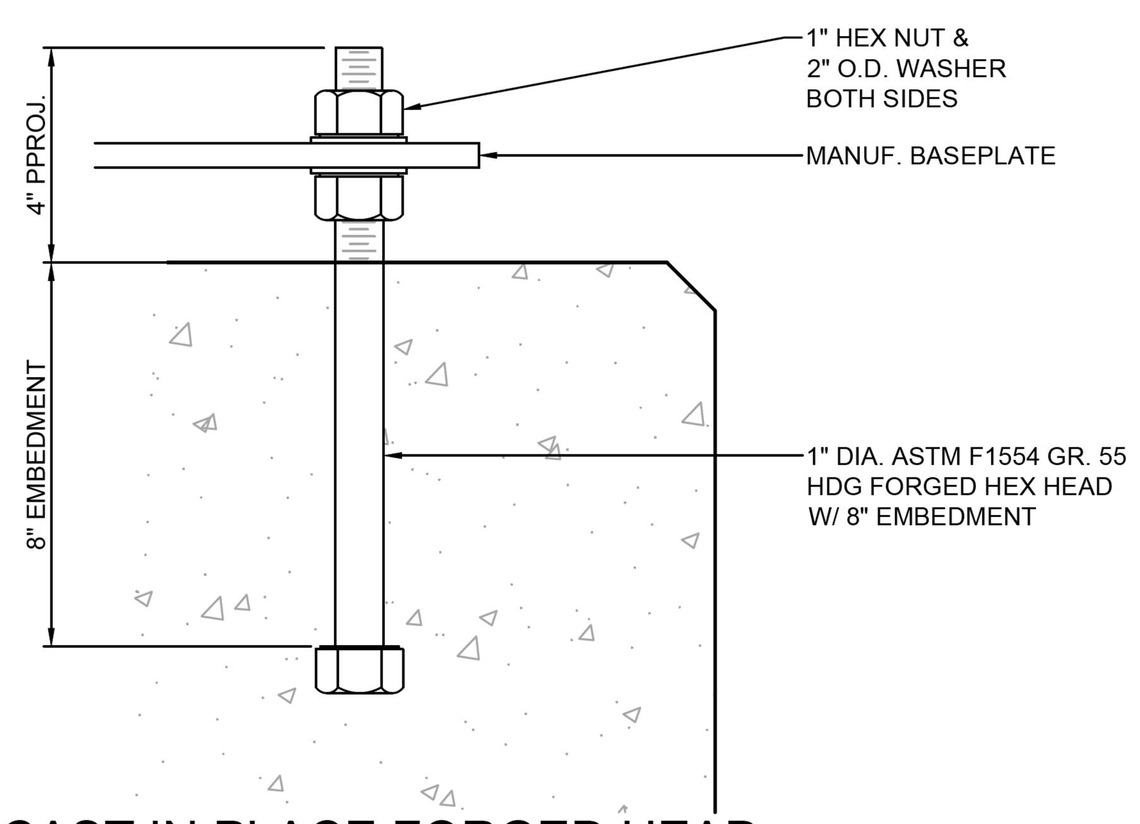
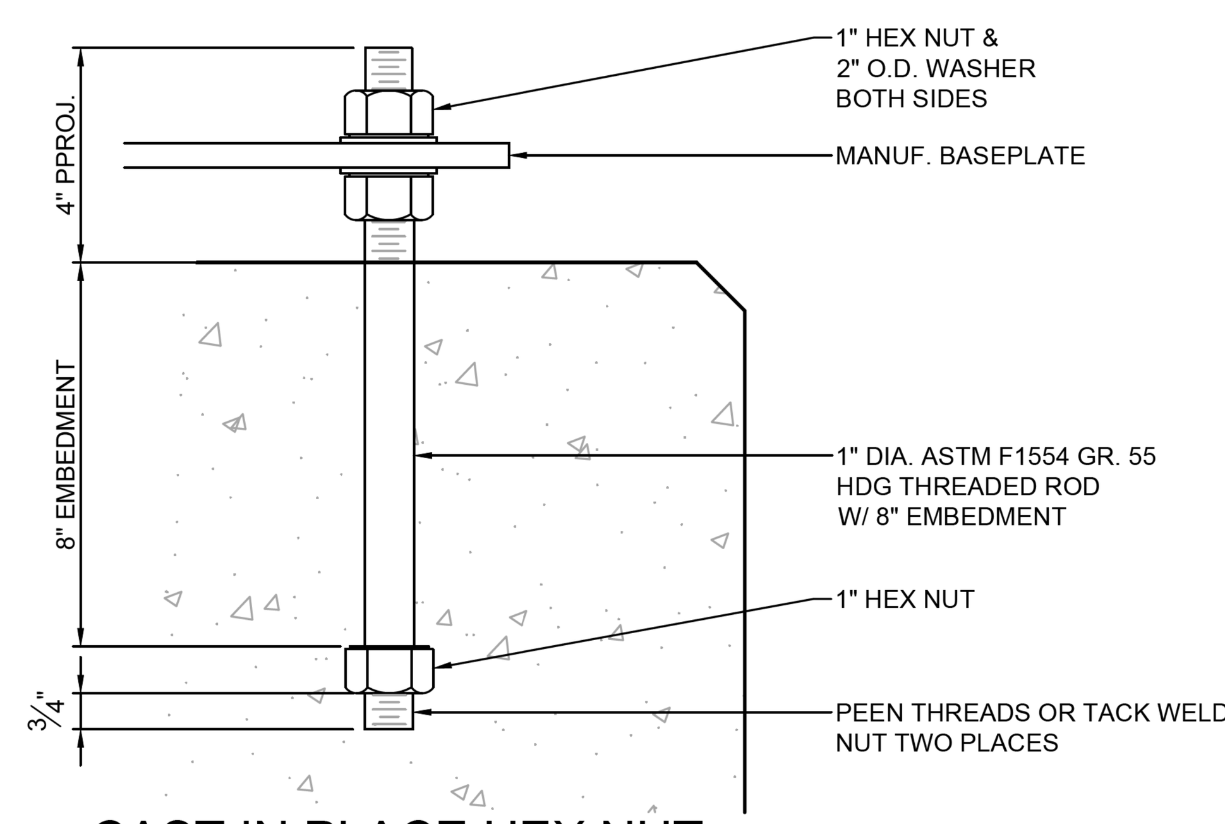


CAST IN PLACE FORGED HEAD



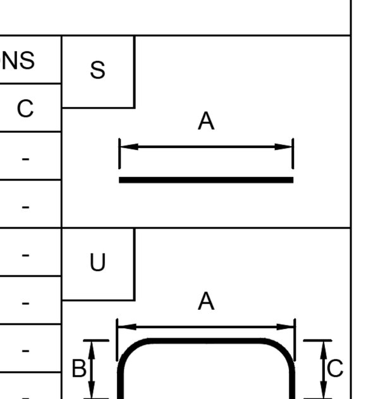
CAST IN PLACE HEX NUT

C ANCHOR DETAIL

SCALE: 3" = 1'-0"

REINFORCEMENT SCHEDULE

MARK	QTY	BAR SIZE	DIMENSIONS A	B	C
S-1	8	5	12'-8"	-	-
S-2	15	5	8'-0"	-	-
S-3	3	5	7'-5"	-	-
S-4	2	5	4'-10"	-	-
S-5	3	5	3'-9"	-	-
S-6	2	5	0'-6"	-	-
S-7	8	5	2'-0"	-	-
U-1	8	5	12'-8"	0'-10"	0'-10"
U-2	15	5	8'-0"	0'-10"	0'-10"
U-3	3	5	7'-5"	0'-10"	0'-10"
U-4	2	5	4'-10"	0'-10"	0'-10"
U-5	3	5	3'-9"	0'-10"	0'-10"
U-6	2	5	0'-6"	0'-10"	0'-10"



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230-26KV T2 ADDITION

230KV BREAKER FOUNDATION DETAILS

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

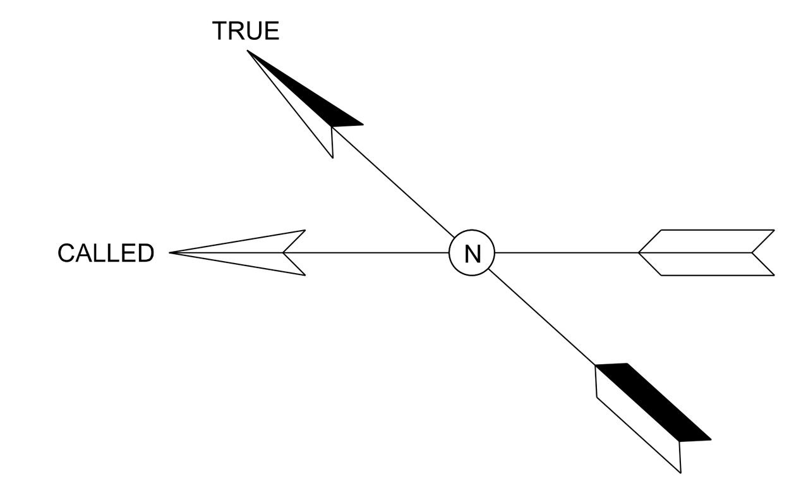
TRANSMISSION & SUBSTATION PROJECTS - 20410

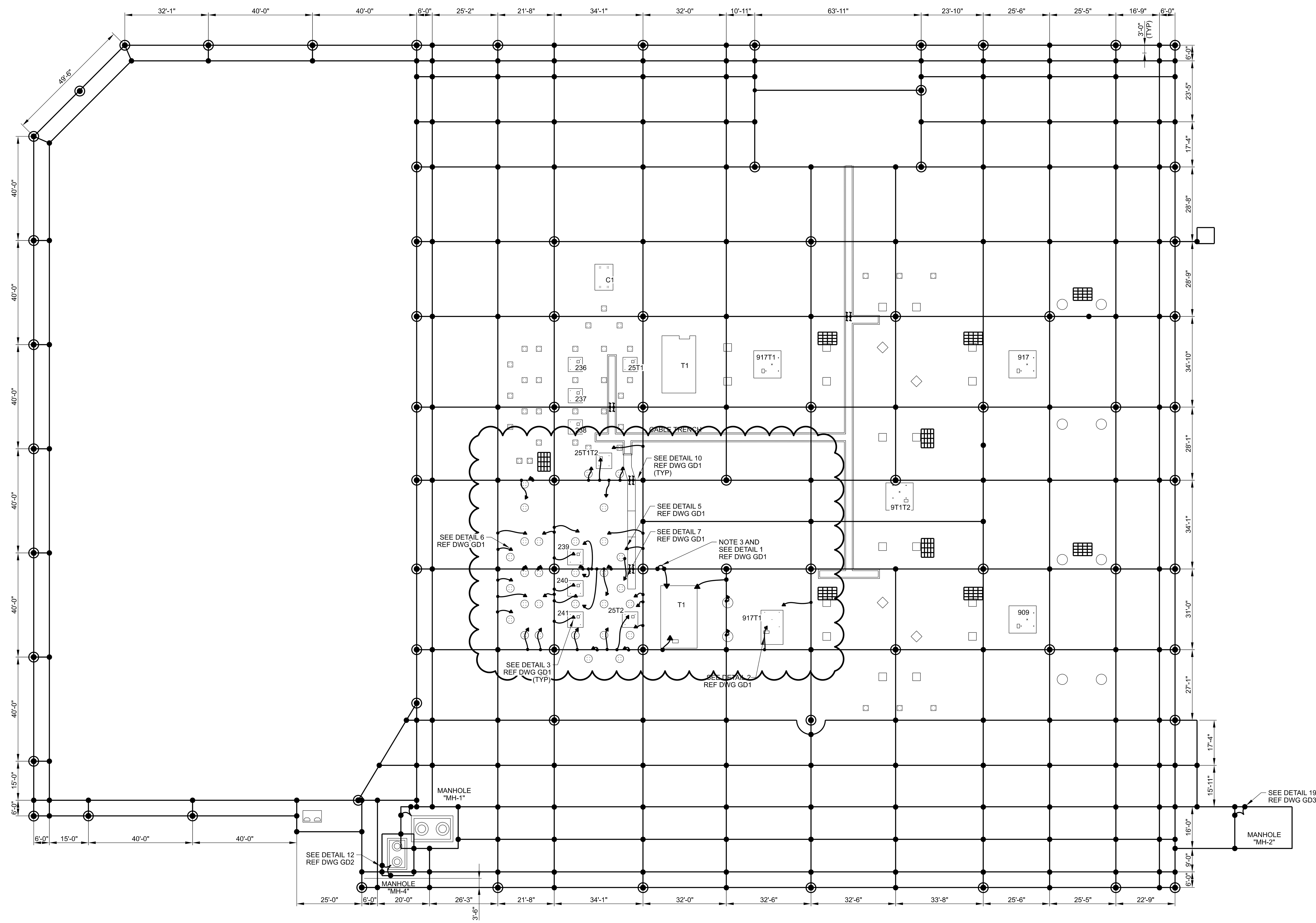
PROJ #: 8007832

SHEET NUMBER: FD5

PROJECT ID: NC2024

SEQUENCE #: 19 OF 35





GROUNDING NOTES

1. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL 7#5 COPPERWELD CONDUCTORS. ALL GROUND GRID CONDUCTORS AND TAPS SHALL BE CONNECTED USING CADWELD EXOTHERMIC CONNECTIONS AND SHALL BE INSTALLED 24" BELOW GRADE EXCEPT WHERE CONNECTION TO STRUCTURES, CABLE TRENCH AND EQUIPMENT IS ABOVE GRADE.
2. THE CONTRACTOR SHALL VERIFY THE FINAL LOCATION OF THE 7#5 COPPERWELD CONDUCTOR GROUND TAP CONNECTIONS TO THE STRUCTURES AND EQUIPMENT USING THE MANUFACTURER'S SHOP DRAWINGS, THE LOCATIONS OF GROUND TAPS SHOWN ON THIS DRAWING ARE APPROXIMATE ONLY.
3. THE 500 KCMIL NEUTRAL GROUND CABLE SHALL BE CONTINUOUS FROM NEUTRAL GROUND CONNECTION AT TRANSFORMER AND BE CONNECTED IN TWO (2) PLACES TO MAIN GRID APPROXIMATELY 3'-0" APART, AS SHOWN.
4. THIS DRAWING DEPICTS THE INSTALLATION OF THE MAJOR ELECTRICAL EQUIPMENT GROUND CONNECTIONS, AND STRUCTURE GROUND CONNECTIONS. THE CONTRACTOR SHALL REFER TO THE GROUNDING DETAIL DRAWINGS FOR OTHER GROUND GRID CONNECTIONS THAT MAY BE REQUIRED BUT NOT SHOWN ON THIS DRAWING. LOW VOLTAGE EQUIPMENT AND CIRCUITS SHALL HAVE EQUIPMENT GROUND CONDUCTOR INSTALLED AS PER NEC REQUIREMENTS.
5. ALL ABOVE GRADE CONNECTIONS OF GROUND CONDUCTOR TO STRUCTURES AND EQUIPMENT, SUCH AS TRANSFORMERS, BREAKERS, LIGHTNING ARRESTERS, ETC., SHALL BE CONNECTED USING OWNER FURNISHED MECHANICAL CONNECTORS. ALL EQUIPMENT AND STRUCTURES ERECTED IN THE SUBSTATION SHALL BE GROUNDED TO THE MAIN GRID WITHIN THE SAME WORKING DAY.
6. THE CONTRACTOR SHALL INSTALL 19#8 COPPERWELD GROUND CONDUCTORS AROUND NEW MANHOLE (MH-4) AND AT TOP OF THE EXTENDED CABLE TRENCH ON EACH SIDE AND SUPPORTED BY CABLE CLIPS. PLEASE REFER TO THE GROUNDING DETAIL DRAWINGS.

LEGEND

- GROUND GRID CONDUCTOR (19#8 COPPERWELD OR 7#5 COPPERWELD)
- EXOTHERMIC GROUND GRID CONNECTION
- MECHANICAL GROUND CONNECTION
- GROUND ROD
- SWITCH OPERATOR GROUND PLATFORM

1/16" = 1'-0" 0 16' 32'

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BY	JWR
REVIEW BY	JWR
DRAFTING	
DATE	05/05/2025
BY	JWR
REVIEW BY	-

230-26KV T2 ADDITION

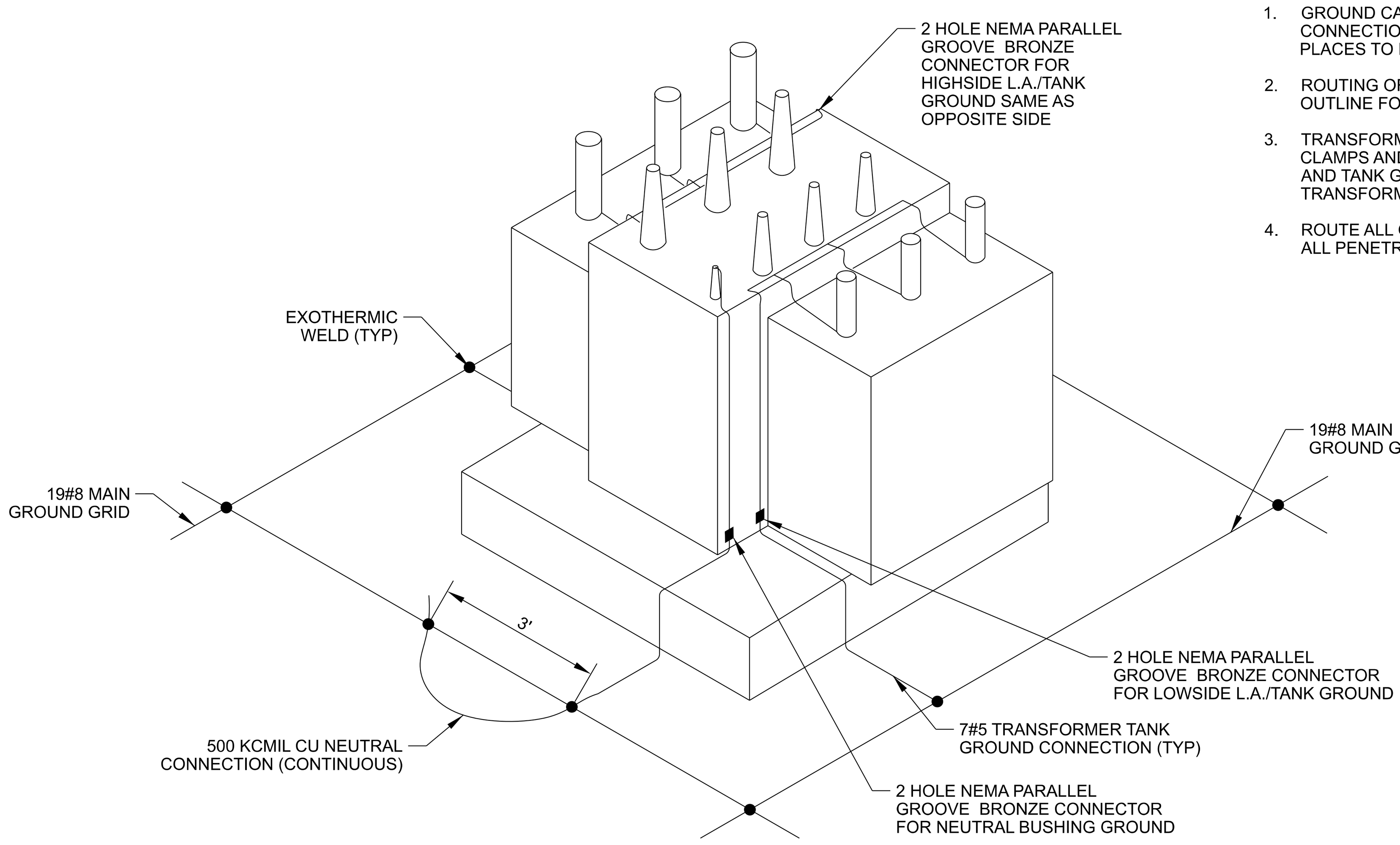
GROUNDING PLAN

JEA NOCATEE SUBSTATION
TRANSMISSION & SUBSTATION PROJECTS - 20410

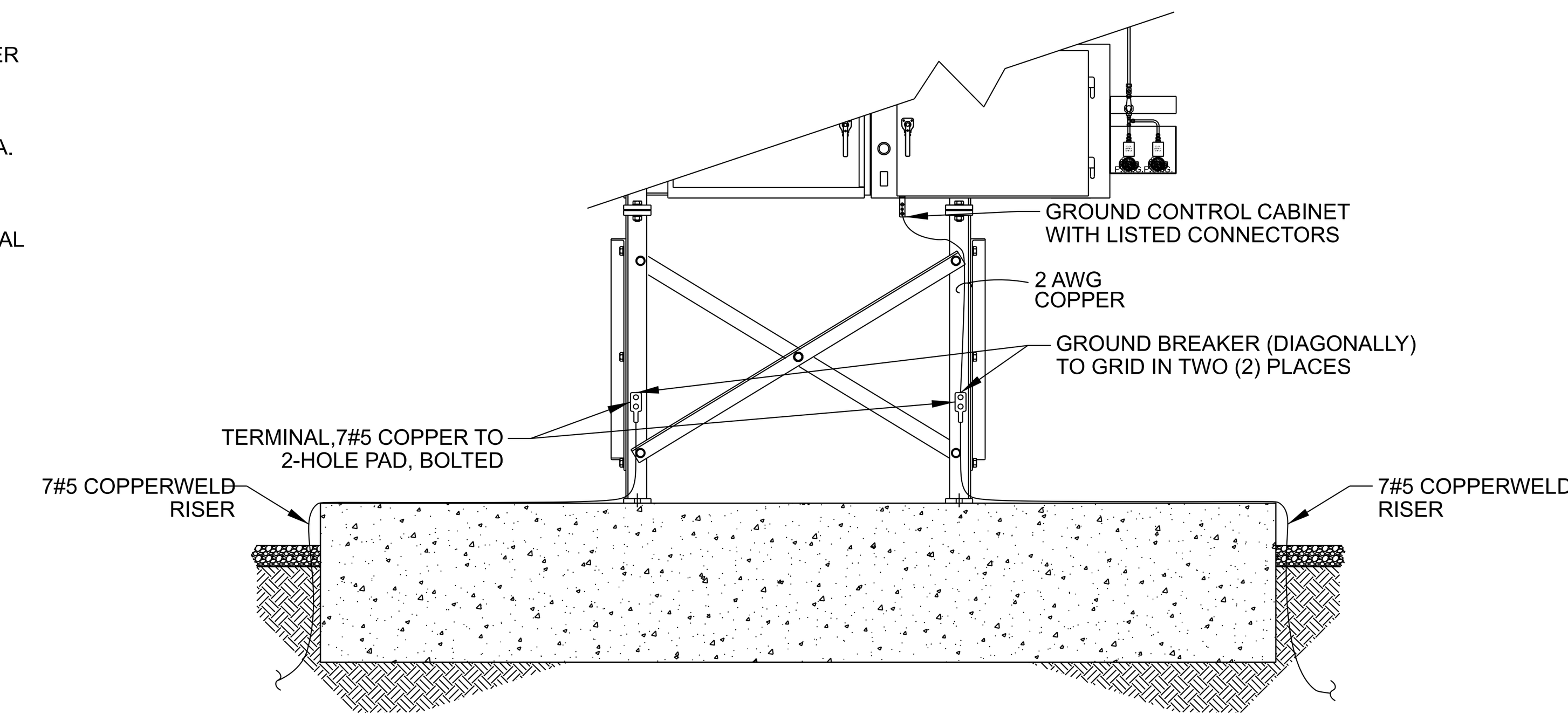
SCALE: 1"=20'
PROJ #: 8007832
SHEET NUMBER: GP1
PROJECT ID: NC2024
SEQUENCE #: 20 OF 35

TRANSFORMER NOTES:

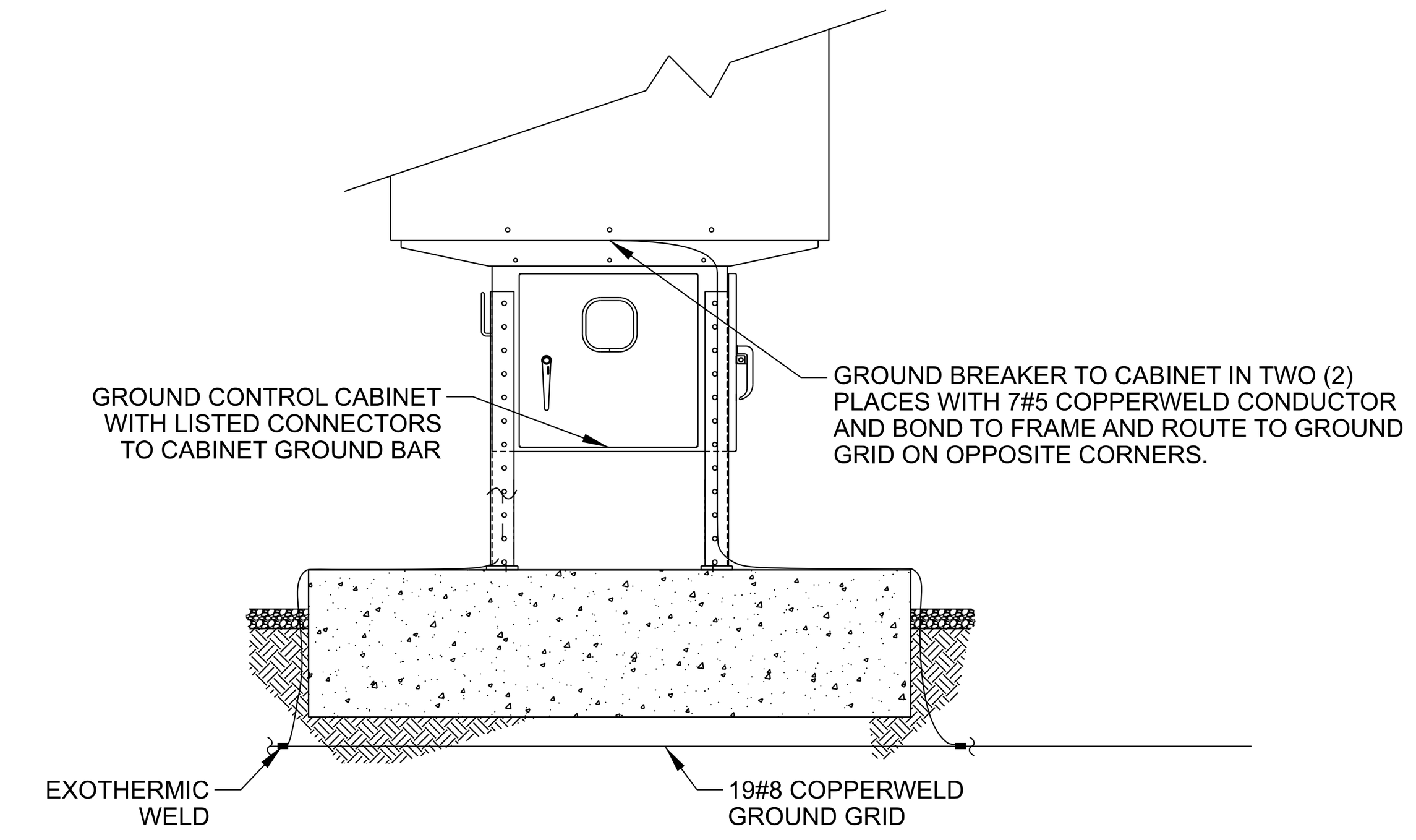
1. GROUND CABLE SHALL BE CONTINUOUS FROM NEUTRAL GROUND CONNECTION AT TRANSFORMER AND BE CONNECTED IN TWO PLACES TO MAIN GRID APPROXIMATELY 3' APART, AS SHOWN.
2. ROUTING OF GROUND CABLES IS APPROXIMATE. SEE TRANSFORMER OUTLINE FOR EXACT REQUIREMENTS.
3. TRANSFORMER MANUFACTURER TO FURNISH AND INSTALL CABLE, CLAMPS AND NEMA 2 HOLE PADS TO SUPPLY NEUTRAL BUSHING, L.A. AND TANK GROUND FOR FIELD CONNECTION AT BOTTOM OF THE TRANSFORMER.
4. ROUTE ALL GROUND GRID BELOW OIL CONTAINMENT LINER AND SEAL ALL PENETRATIONS PER MANUFACTURER INSTRUCTION.



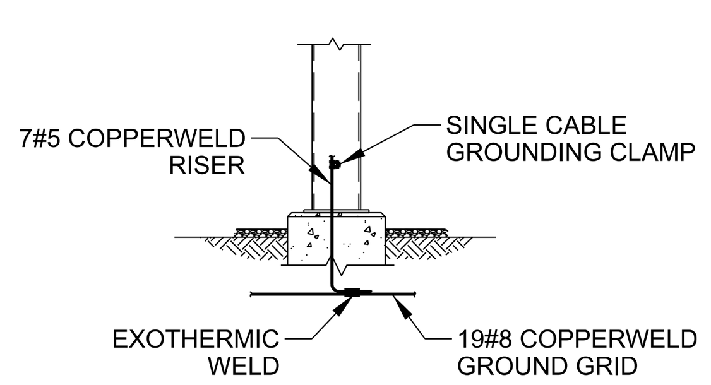
1 POWER TRANSFORMER GROUNDING
TYPICAL
NOT TO SCALE



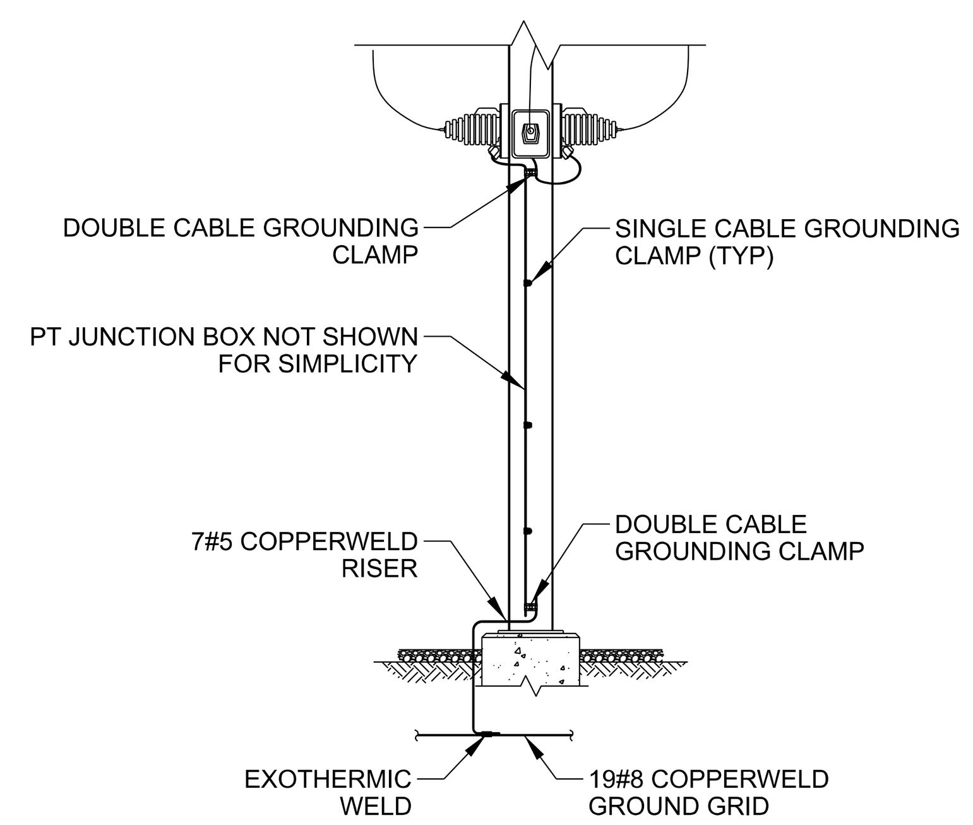
2 230KV BREAKER
TYPICAL
NOT TO SCALE



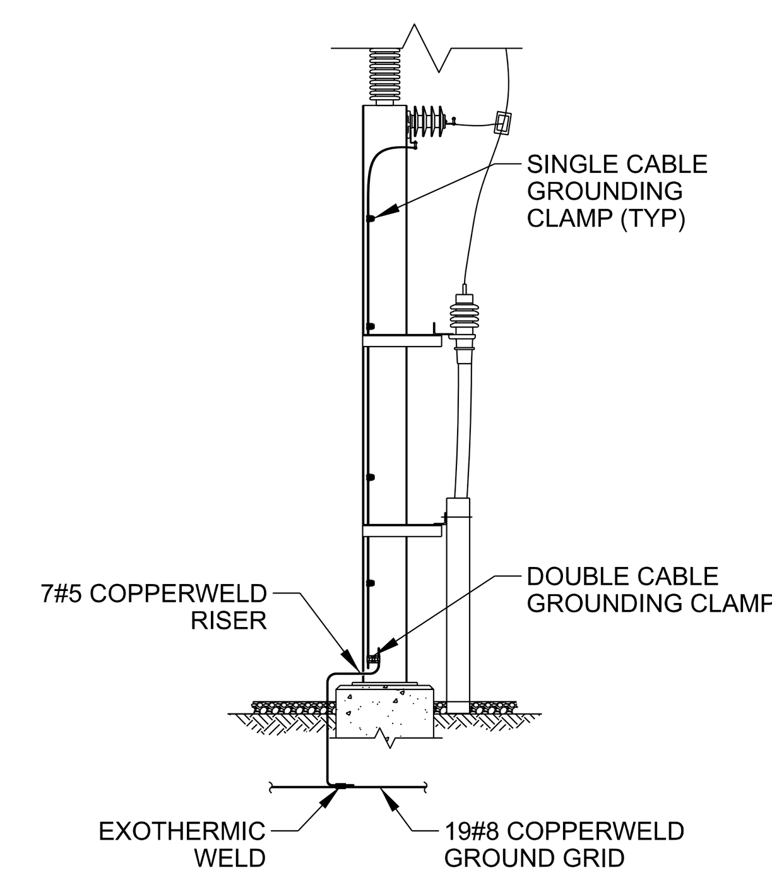
3 26KV POWER CIRCUIT BREAKER GROUNDING
TYPICAL
NOT TO SCALE



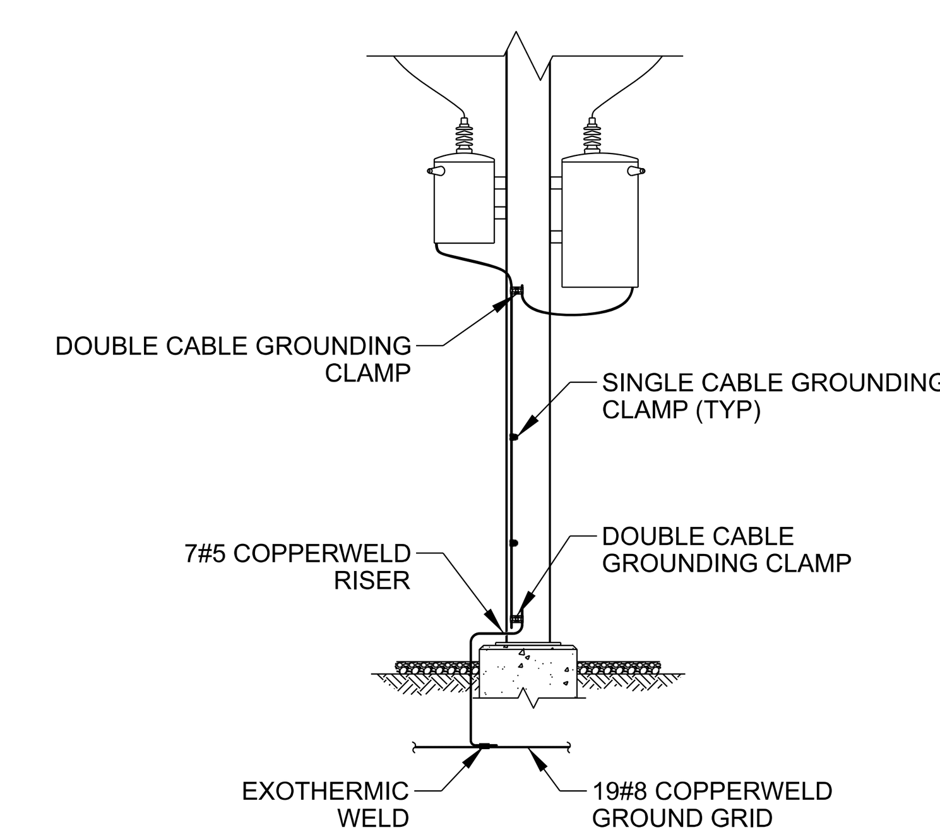
4 TYPICAL STRUCTURE GROUNDING
TYPICAL
NOT TO SCALE



5 26KV PT GROUNDING
TYPICAL
NOT TO SCALE



6 26KV LA GROUNDING
TYPICAL
NOT TO SCALE



7 STATION SERVICE GROUNDING
TYPICAL
NOT TO SCALE

NOTES:

1. WHERE A GROUND PAD IS PROVIDED, MAKE GROUND CONNECTION DIRECTLY TO THE PAD. WHERE NO GROUND PAD IS PROVIDED, DRILL REQUIRED SIZE HOLE IN SURFACE OF EQUIPMENT. USE OF RETAINING NUT IS REQUIRED IN ALL CASES AND SEAL PENETRATION WITH RTV SEALANT.

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DATE:

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0	05/06/2025	8007832	ADD T2 ADDITION	JWR	JWR

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DATE	05/06/2025
BY	JWR
REVIEW BY	JWR
DRAFTING	
DATE	05/06/2025
BY	JWR
REVIEW BY	-

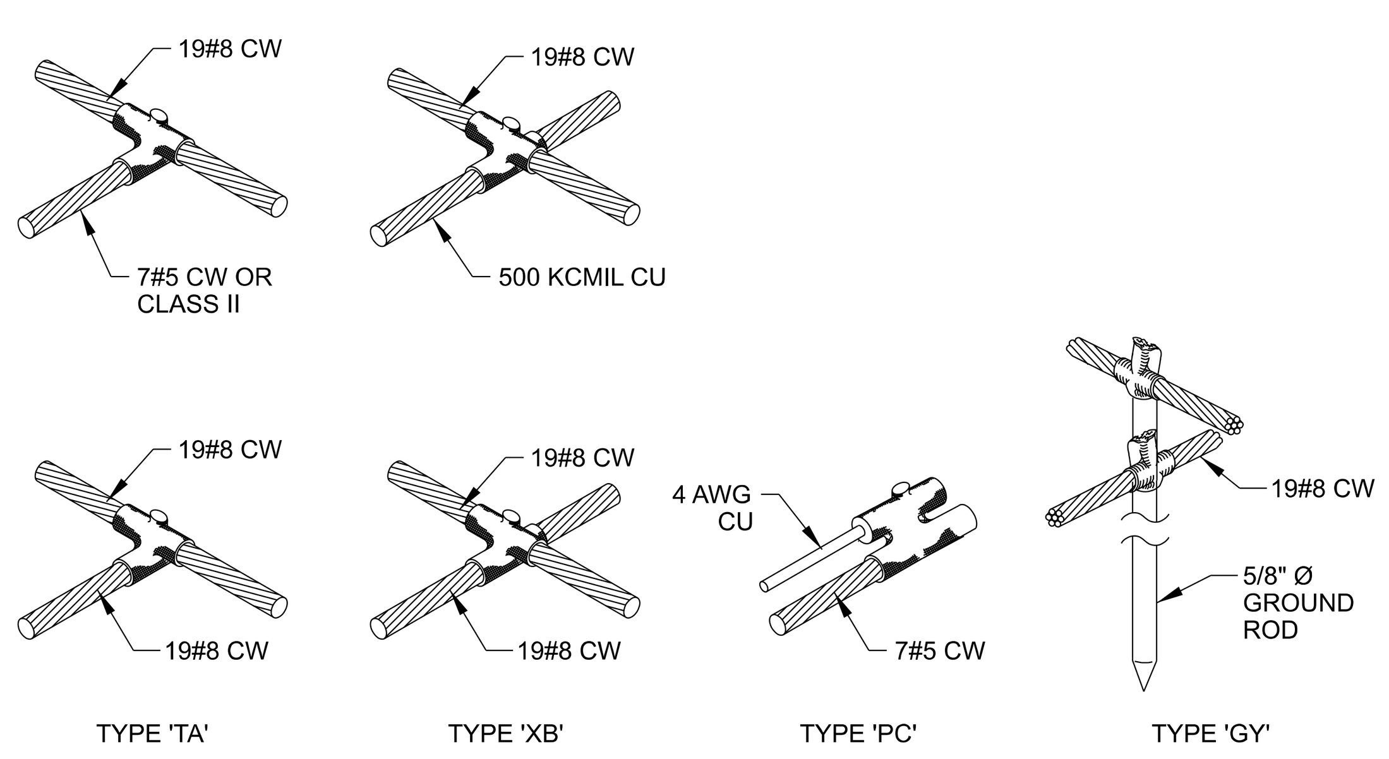
230-26KV T2 ADDITION

GROUNDING DETAILS

JEA NOCATEE SUBSTATION

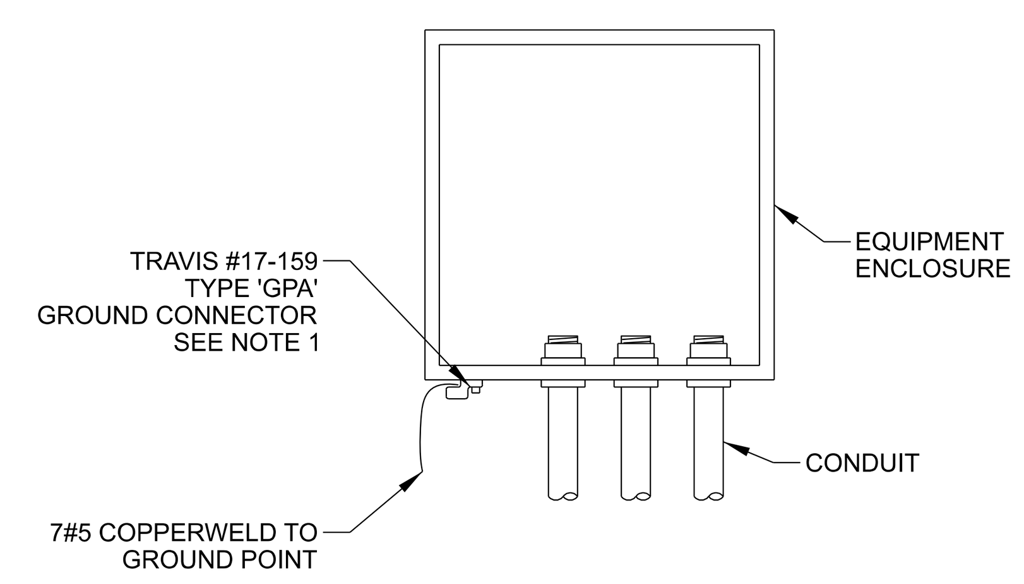
SCALE: AS NOTED
TRANSMISSION & SUBSTATION PROJECTS - 20410
PROJ #: 8007832

SHEET NUMBER: GD1
PROJECT ID: NC2024
SEQUENCE #:



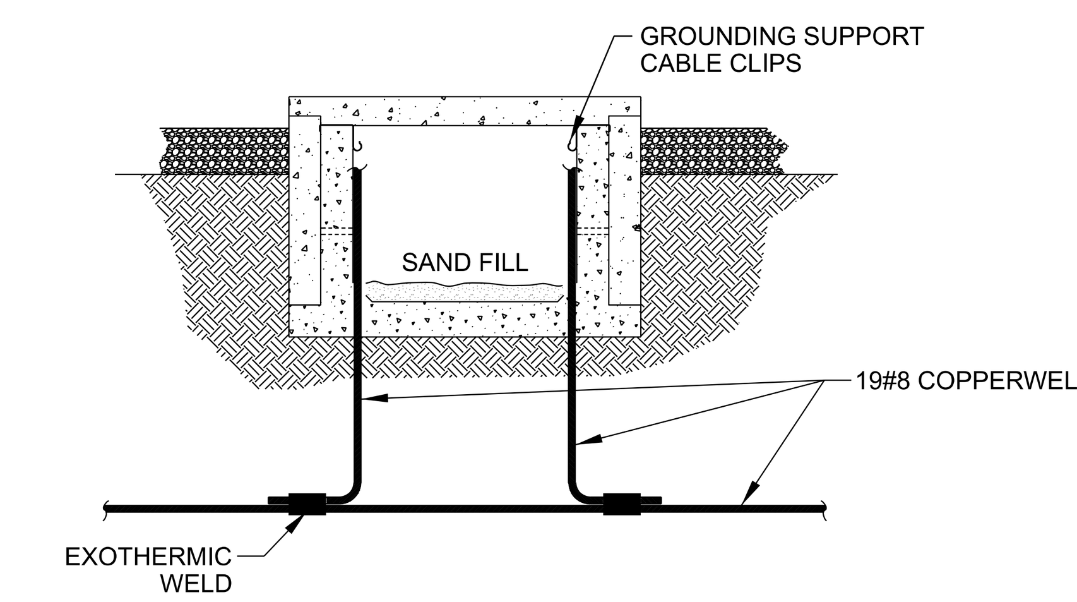
8 EXOTHERMIC GROUND CONNECTIONS

TYPICAL
NOT TO SCALE



9 METAL CABINET GROUNDING

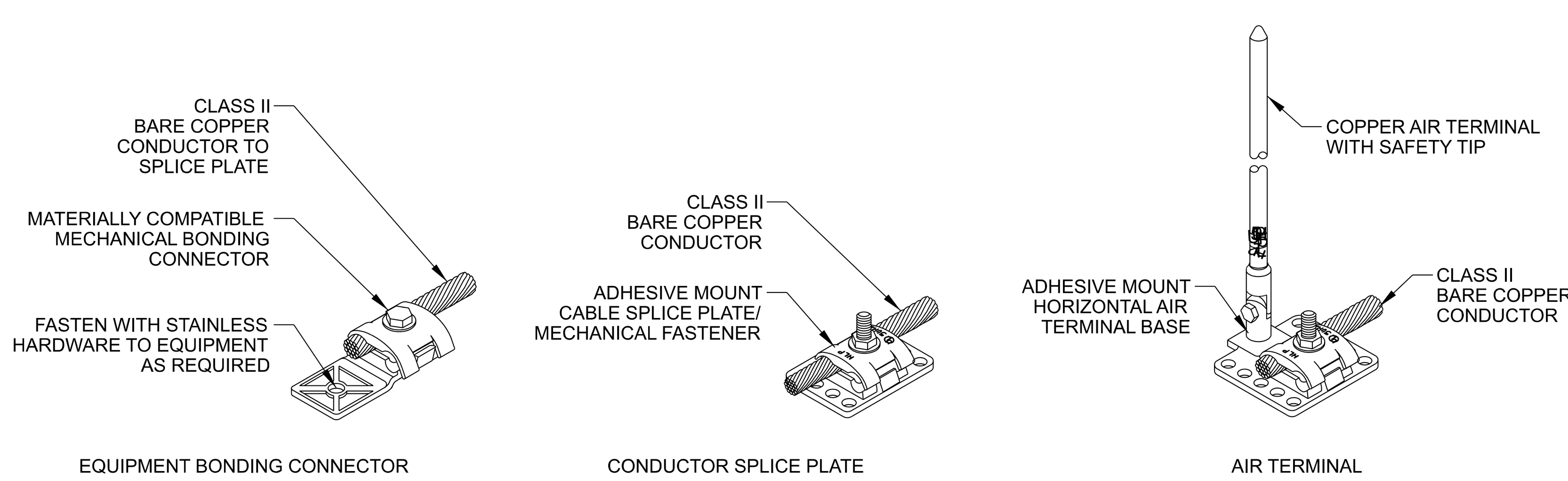
TYPICAL
NOT TO SCALE



NOTE:
19#8 COPPERWELD GROUND CONDUCTORS SHALL BE INSTALLED AT TOP OF THE CABLE TRENCH ON EACH SIDE AND SUPPORTED BY CABLE CLIPS APPROXIMATELY EVERY FIVE FEET (TRENWA TYPE GC-1 OR EQUAL). CONTRACTOR TO INSTALL TWO CONTINUOUS RUNS FROM THE TRENCH, LOOP THROUGH CONTROL BUILDING CABLE TRAY, THEN ROUTE OUTSIDE TO CONNECT TO A SECOND POINT OF THE STATION GRID.

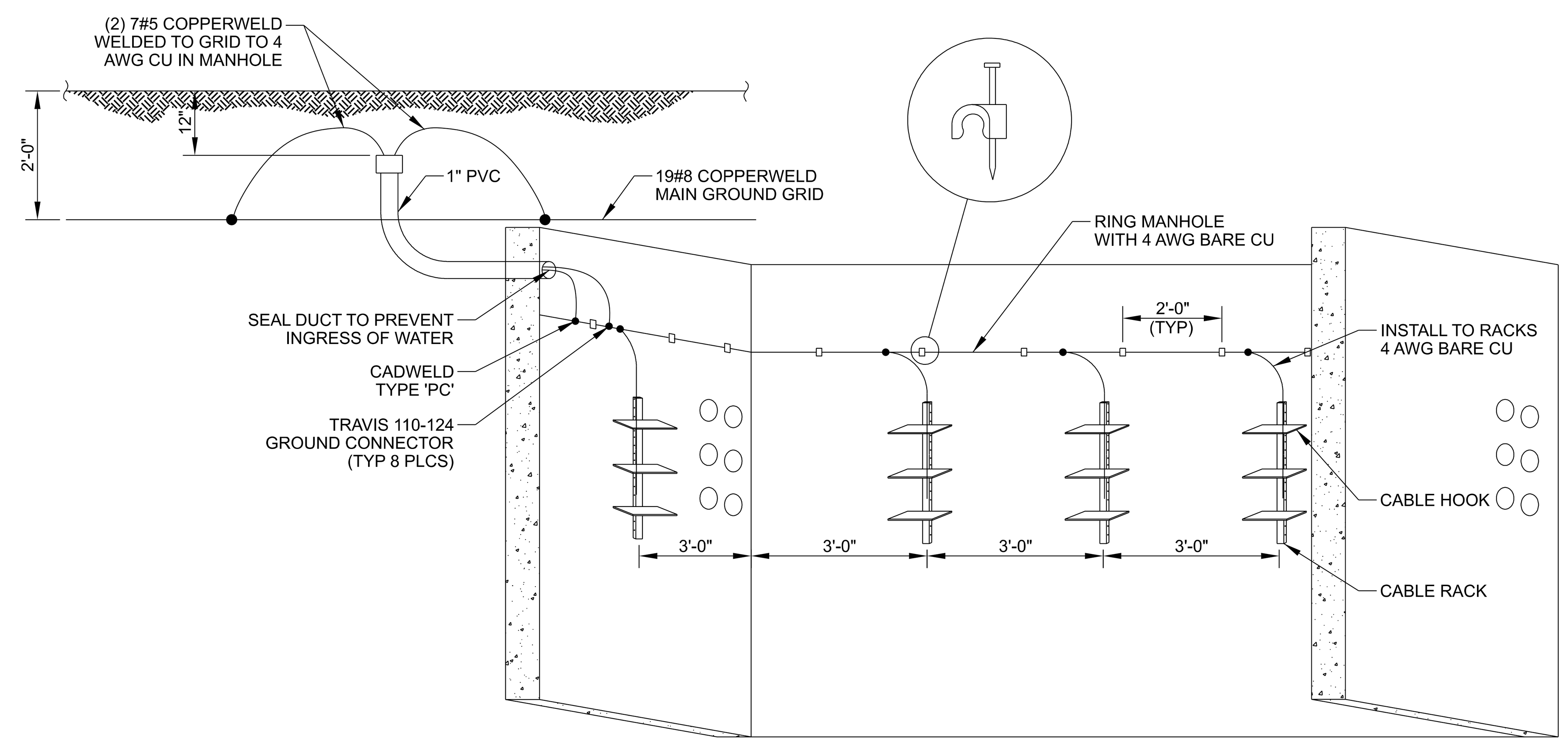
10 TYPICAL CABLE TRENCH GROUNDING

TYPICAL
NOT TO SCALE



11 LIGHTNING PROTECTION DETAILS

TYPICAL
NOT TO SCALE



12 MANHOLE RACKING AND GROUNDING

TYPICAL
NOT TO SCALE

NOTES:

1. WHERE A GROUND PAD IS PROVIDED, MAKE GROUND CONNECTION DIRECTLY TO THE PAD. WHERE NO GROUND PAD IS PROVIDED, DRILL REQUIRED SIZE HOLE IN SURFACE OF EQUIPMENT. USE OF RETAINING NUT IS REQUIRED IN ALL CASES AND SEAL PENETRATION WITH RTV SEALANT.

JEA
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REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW BY	ENGINEERING	
0	05/06/2026	8007832	ADD T2 ADDITION	JWR	JWR	DATE	05/06/2025
						BY	JWR
						REVIEW BY	JWR
						DRAFTING	
						DATE	05/06/2025
						BY	JWR
						REVIEW BY	-

230-26KV T2 ADDITION

GROUNDING DETAILS

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

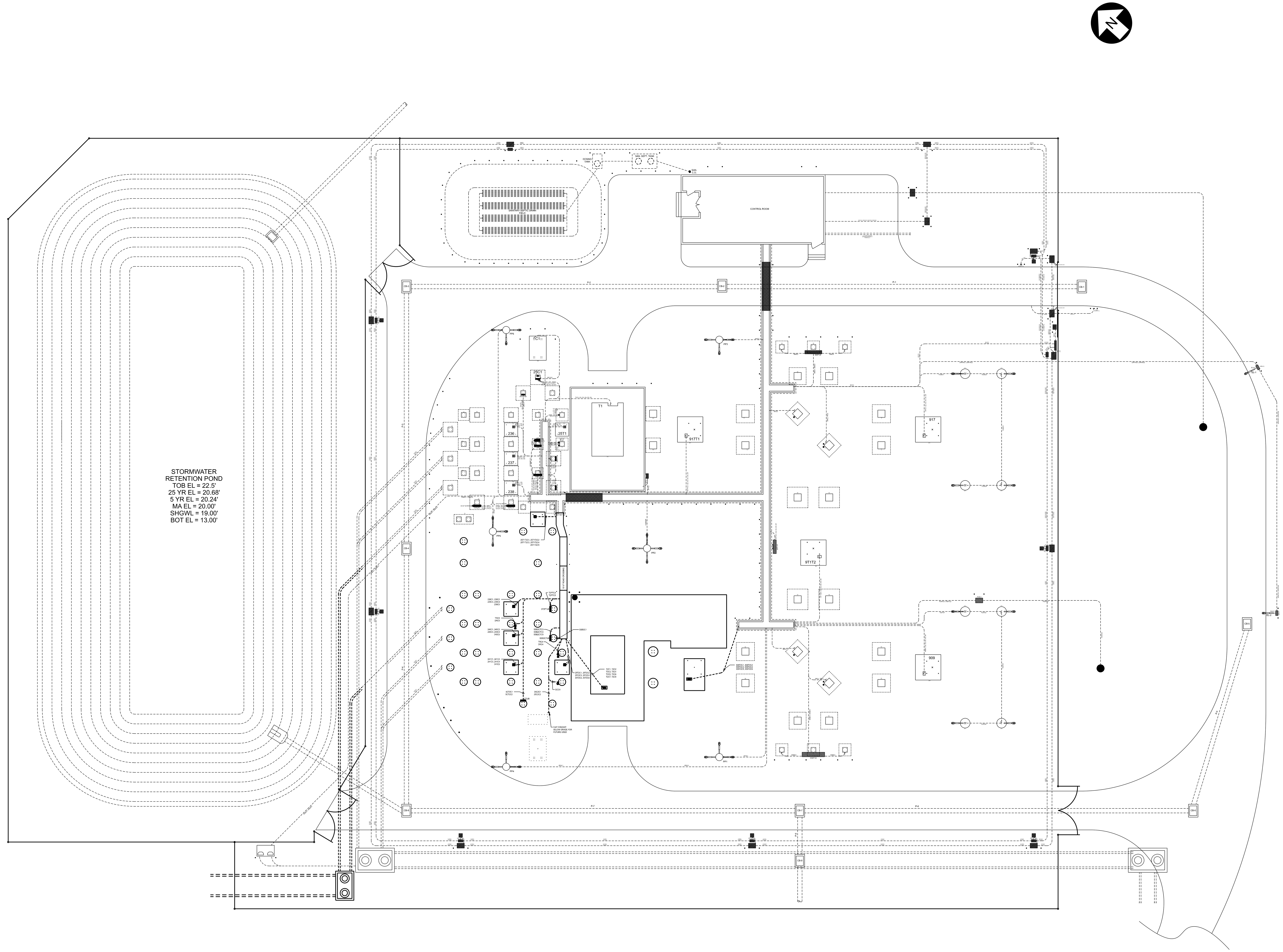
TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

SHEET NUMBER: GD2

PROJECT ID: NC2024

SEQUENCE #: 22 OF 35



NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE SHEET GN1.
2. CONDUIT SHALL BE INSTALLED A MINIMUM OF 18" BELOW FINAL GRADE. ALL CONDUITS WITHIN THE OIL CONTAINMENT AREA SHALL ROUTE BELOW THE BOTTOM OF THE CONTAINMENT LINER.
3. CONTRACTOR SHALL COORDINATE CONDUIT INSTALLATION WITH THE FOUNDATIONS, DRAINAGE, WATER/SEWER FACILITIES, ETC.
4. AFTER INSTALLATION AND BACKFILLING OF THE UNDERGROUND CONDUITS, THE CONTRACTOR SHALL COMPACT THE AREA TO THE SAME DENSITY, AND WITH SIMILAR MATERIAL AS THE ADJACENT UNDISTURBED MATERIALS.
5. CONDUIT SHALL BE ROUTED AS MUCH AS PRACTICAL INACCORDANCE WITH THE ROUTES SHOWN. ANY CHANGES TO THE ROUTING SHALL BE SHOWN ON THE CONTRACTOR'S AS-BUILT DRAWINGS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHED AND INSTALLED ALL CONDUIT AND CABLE AS LISTED IN THE CABLE AND CONDUIT SCHEDULES UNLESS THE ITEM IS SPECIFICALLY DENOTED AS 'OWNER FURNISHED'. ALL MATERIALS AND PROCEDURE SHALL CONFORM TO THEDRAWINGS AND SPECIFICATIONS.
7. THE CONDUIT LOCATIONS SHOWN ON THIS DRAWING AND IN THE REFERENCE DETAILS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE FINAL CONDUIT RISER LOCATIONS USING THE EQUIPMENT MANUFACTURER'S FINAL SHOP DRAWINGS.
8. ALL CONDUIT ENDS SHALL BE SEALED WITH AN EXPANDING WATERPROOF FOAM SPRAY TO KEEPTHE CONDUIT FREE FROM DIRT AND OTHER FOREIGN MATERIAL.
9. ALL CABLES SHALL BE CLEARLY LABELED AT BOTH ENDS AND AT ALL ENTRANCE AND EXIT POINTS TO CABLE TRENCHES, PULL BOXES OR JUNCTION BOXES. REFER TO SPECIFICATION SECTION IX FOR LABELING DETAILS.

LEGEND

- LED LUMINAIRE
- ACCESS CONTROL CARD READER
- LIGHTNING SHIELDING/LIGHTING MAST
- MANHOLE
- SECURITY/LIGHTING POLE
- DUPLEX RECEPTACLE
- TRUCK RECEPTACLE
- GAS CART RECEPTACLE
- 4" LIGHT DUTY PROTECTIVE BOLLARD
- 6" HEAVY DUTY PROTECTIVE BOLLARD
- TRENCH ROAD CROSSING

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0	05/17/2025	8007832	NOCATEE T2 ADDITION	JWR	JWR

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DATE	05/17/2025
BY	JWR
REVIEW BY	JWR
DRAFTING	
DATE	05/17/2025
BY	JWR
REVIEW BY	-

230-26KV T2 ADDITION

CONDUIT PLAN

JEA NOCATEE SUBSTATION

SCALE: 1"=20'

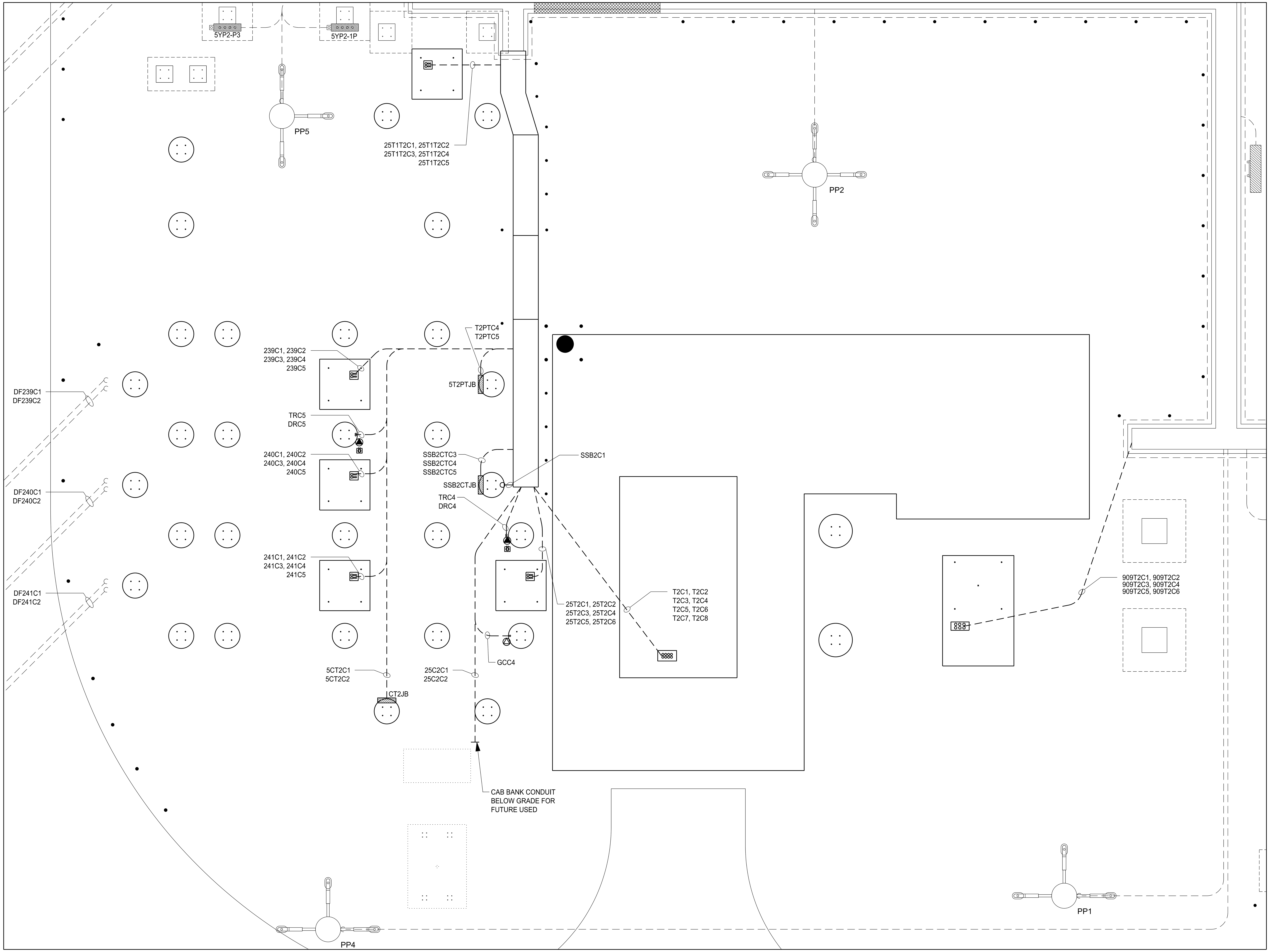
TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

SHEET NUMBER: CP1

PROJECT ID: NC2024

SEQUENCE #: 23 OF 35



NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE SHEET GN1.
2. CONDUIT SHALL BE INSTALLED A MINIMUM OF 18" BELOW FINAL GRADE. ALL CONDUITS WITHIN THE OIL CONTAINMENT AREA SHALL ROUTE BELOW THE BOTTOM OF THE CONTAINMENT LINER.
3. CONTRACTOR SHALL COORDINATE CONDUIT INSTALLATION WITH THE FOUNDATIONS, DRAINAGE, WATER/SEWER FACILITIES, ETC.
4. AFTER INSTALLATION AND BACKFILLING OF THE UNDERGROUND CONDUITS, THE CONTRACTOR SHALL COMPACT THE AREA TO THE SAME DENSITY, AND WITH SIMILAR MATERIAL AS THE ADJACENT UNDISTURBED MATERIALS.
5. CONDUIT SHALL BE ROUTED AS MUCH AS PRACTICAL INACCORDANCE WITH THE ROUTES SHOWN. ANY CHANGES TO THE ROUTING SHALL BE SHOWN ON THE CONTRACTOR'S AS-BUILT DRAWINGS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHED AND INSTALLED ALL CONDUIT AND CABLE AS LISTED IN THE CABLE AND CONDUIT SCHEDULES UNLESS THE ITEM IS SPECIFICALLY DENOTED AS 'OWNER FURNISHED'. ALL MATERIALS AND PROCEDURE SHALL CONFORM TO THEDRAWINGS AND SPECIFICATIONS.
7. THE CONDUIT LOCATIONS SHOWN ON THIS DRAWING AND IN THE REFERENCE DETAILS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE FINAL CONDUIT RISER LOCATIONS USING THE EQUIPMENT MANUFACTURER'S FINAL SHOP DRAWINGS.
8. ALL CONDUIT ENDS SHALL BE SEALED WITH AN EXPANDING WATERPROOF FOAM SPRAY TO KEEP THE CONDUIT FREE FROM DIRT AND OTHER FOREIGN MATERIAL.
9. ALL CABLES SHALL BE CLEARLY LABELED AT BOTH ENDS AND AT ALL ENTRANCE AND EXIT POINTS TO CABLE TRENCHES, PULL BOXES OR JUNCTION BOXES. REFER TO SPECIFICATION SECTION IX FOR LABELING DETAILS.

LEGEND

- LED LUMINAIRE
- ACCESS CONTROL CARD READER
- LIGHTNING SHIELDING/LIGHTING MAST
- MANHOLE
- SECURITY/LIGHTING POLE
- DUPLEX RECEPTACLE
- TRUCK RECEPTACLE
- GAS CART RECEPTACLE
- PROTECTIVE BOLLARD
- TRENCH ROAD CROSSING

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0	05/17/2025	8007832	NOCATEE T2 ADDITION	JWR	JWR

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DATE	05/17/2025
BY	JWR
REVIEW BY	JWR
DRAFTING	
DATE	05/17/2025
BY	JWR
REVIEW BY	-

230-26KV T2 ADDITION

CONDUIT PLAN

JEA NOCATEE SUBSTATION

SCALE: 3/16"=1'-0"

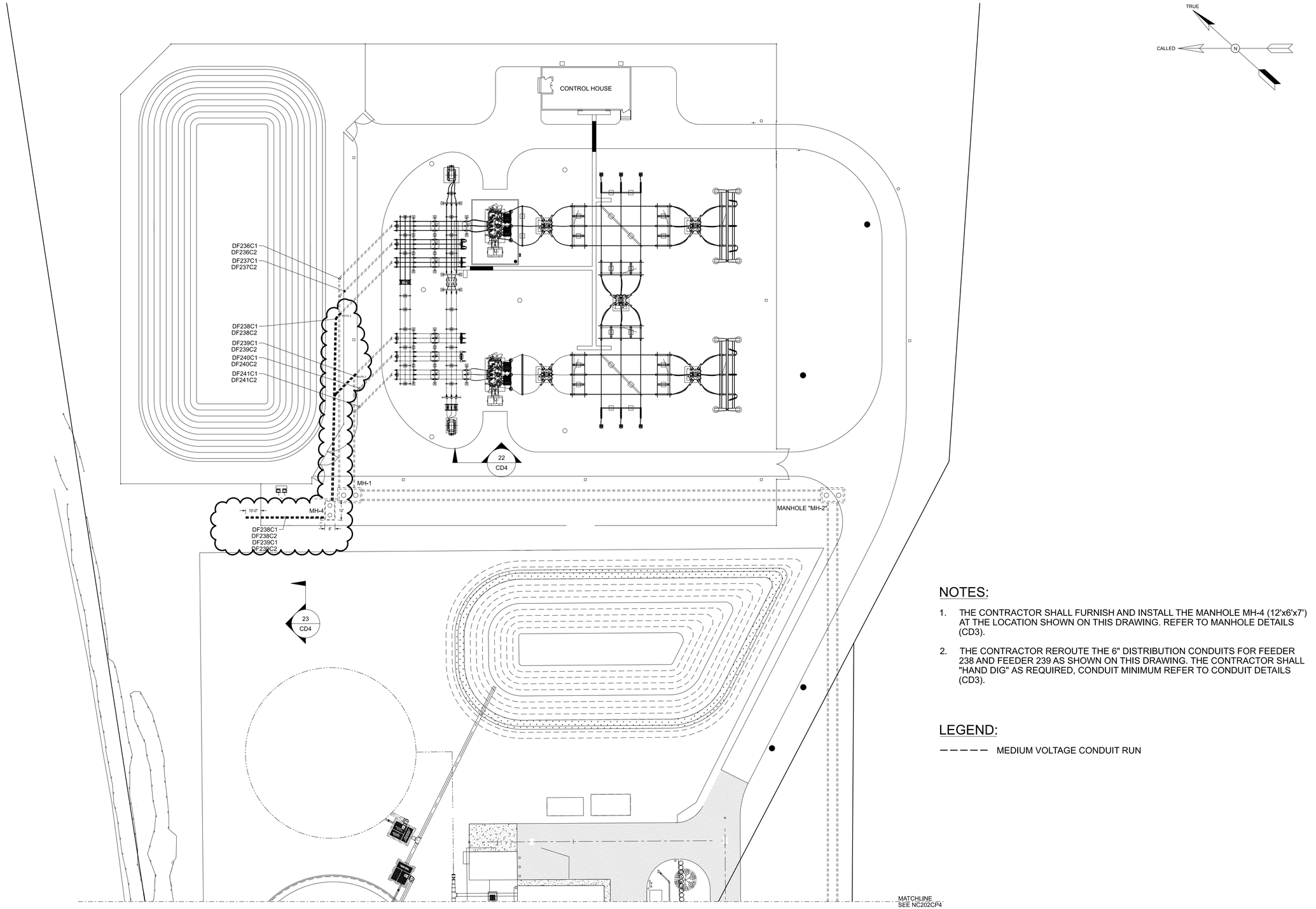
TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

SHEET NUMBER: CP2

PROJECT ID: NC2024

SEQUENCE #:



NOTES:

1. THE CONTRACTOR SHALL FURNISH AND INSTALL THE MANHOLE MH-4 (12'x6'x7') AT THE LOCATION SHOWN ON THIS DRAWING. REFER TO MANHOLE DETAILS (CD3).
2. THE CONTRACTOR REROUTE THE 6" DISTRIBUTION CONDUITS FOR FEEDER 238 AND FEEDER 239 AS SHOWN ON THIS DRAWING. THE CONTRACTOR SHALL "HAND DIG" AS REQUIRED, CONDUIT MINIMUM REFER TO CONDUIT DETAILS (CD3).

LEGEND:

– – – – – MEDIUM VOLTAGE CONDUIT RUN

1" = 30' 0 30' 60'

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BY	JWR
REVIEW BY	JWR
DRAFTING	
DATE	05/17/2025
BY	JWR
REVIEW BY	JWR

230-26KV T2 ADDITION

DISTRIBUTION CONDUIT PLAN

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

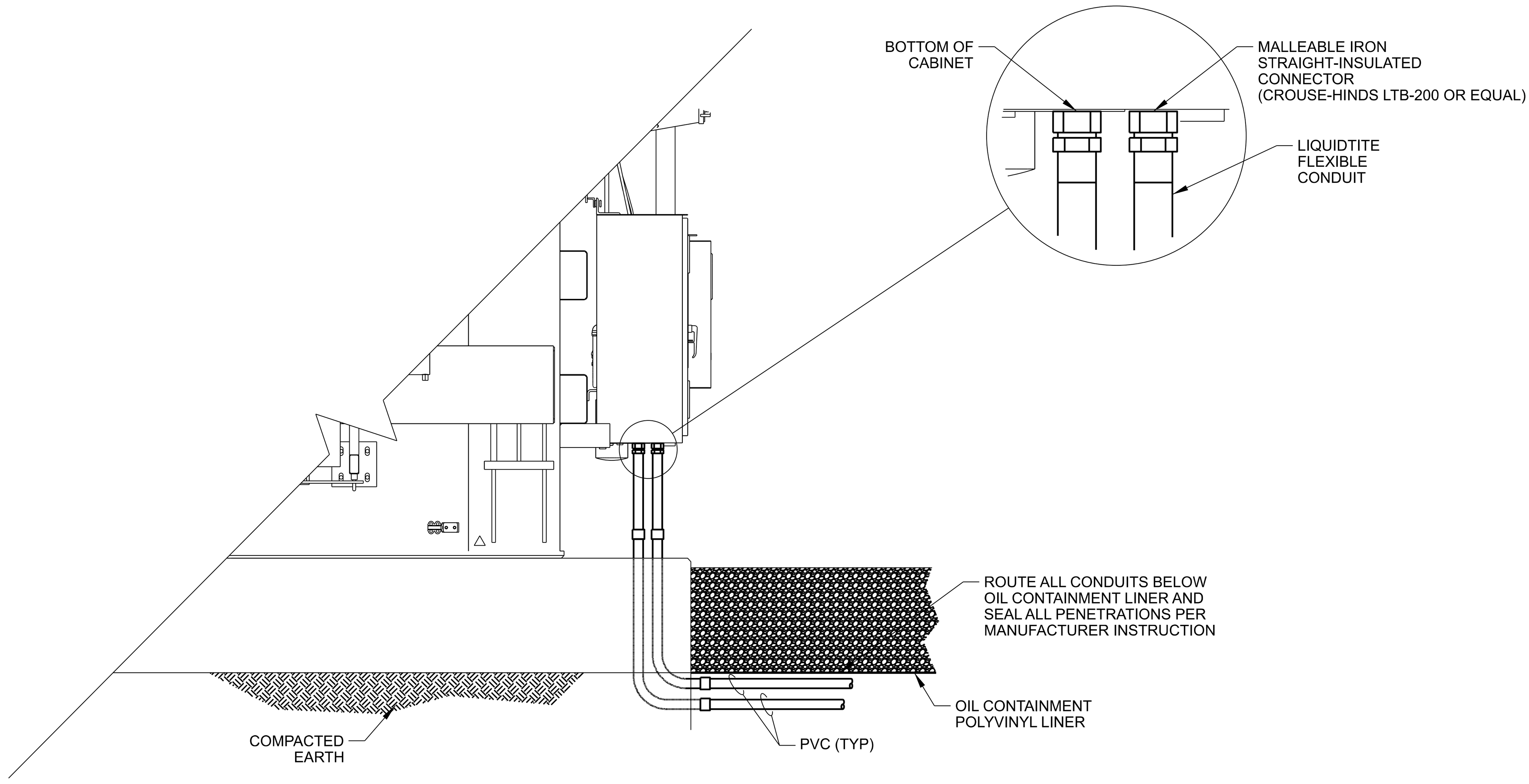
TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

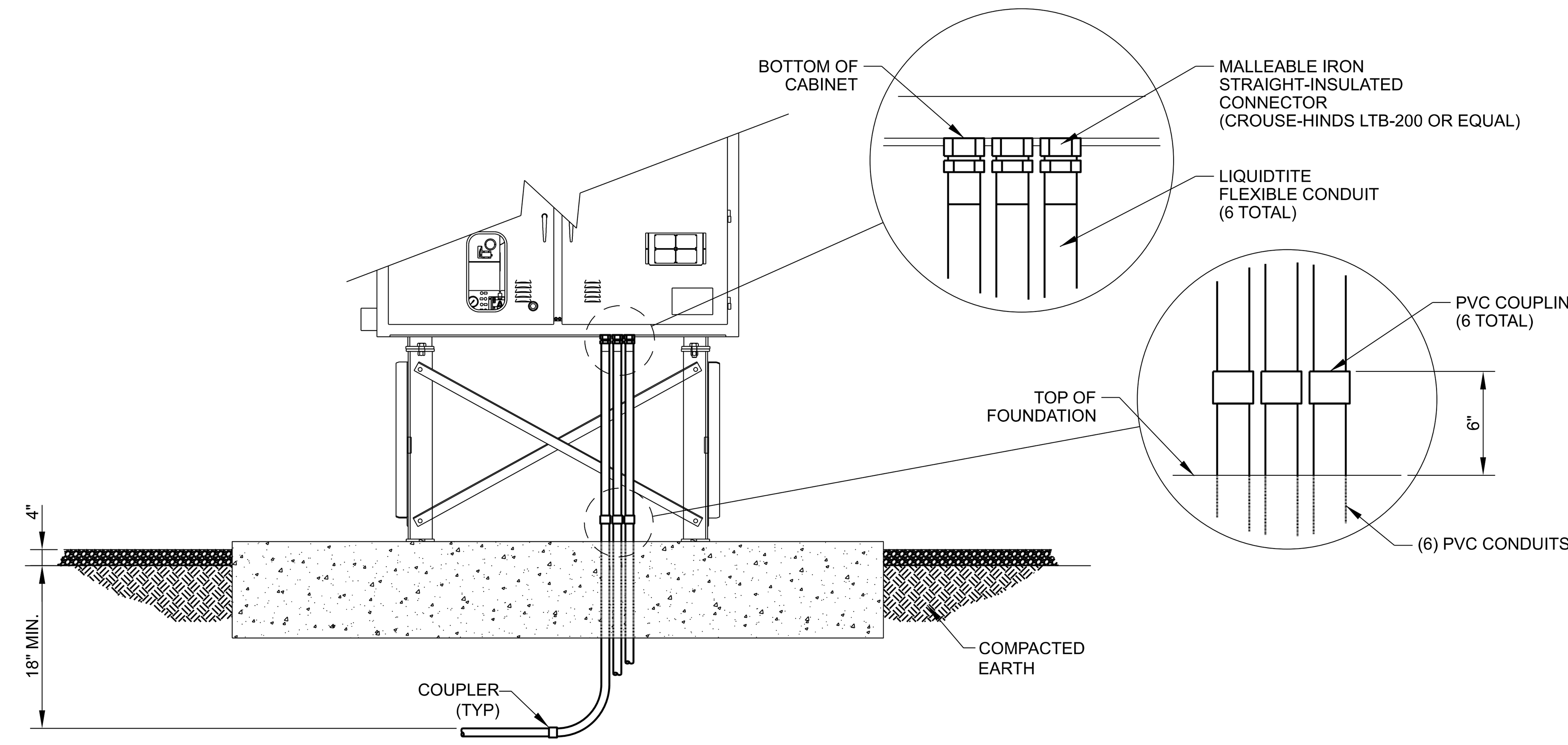
SHEET NUMBER: CP3

PROJECT ID: NC2024

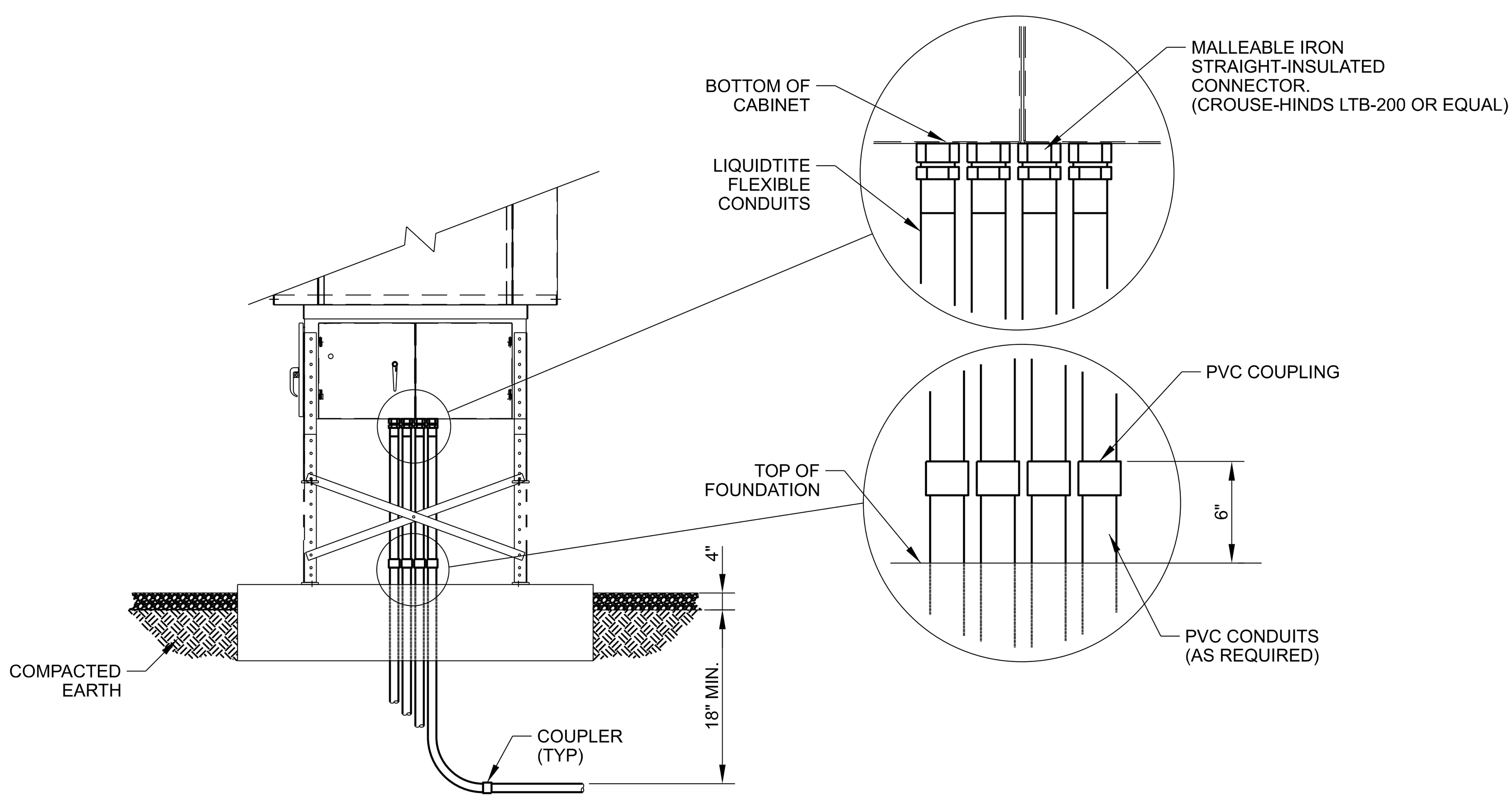
SEQUENCE #: 25 OF 35



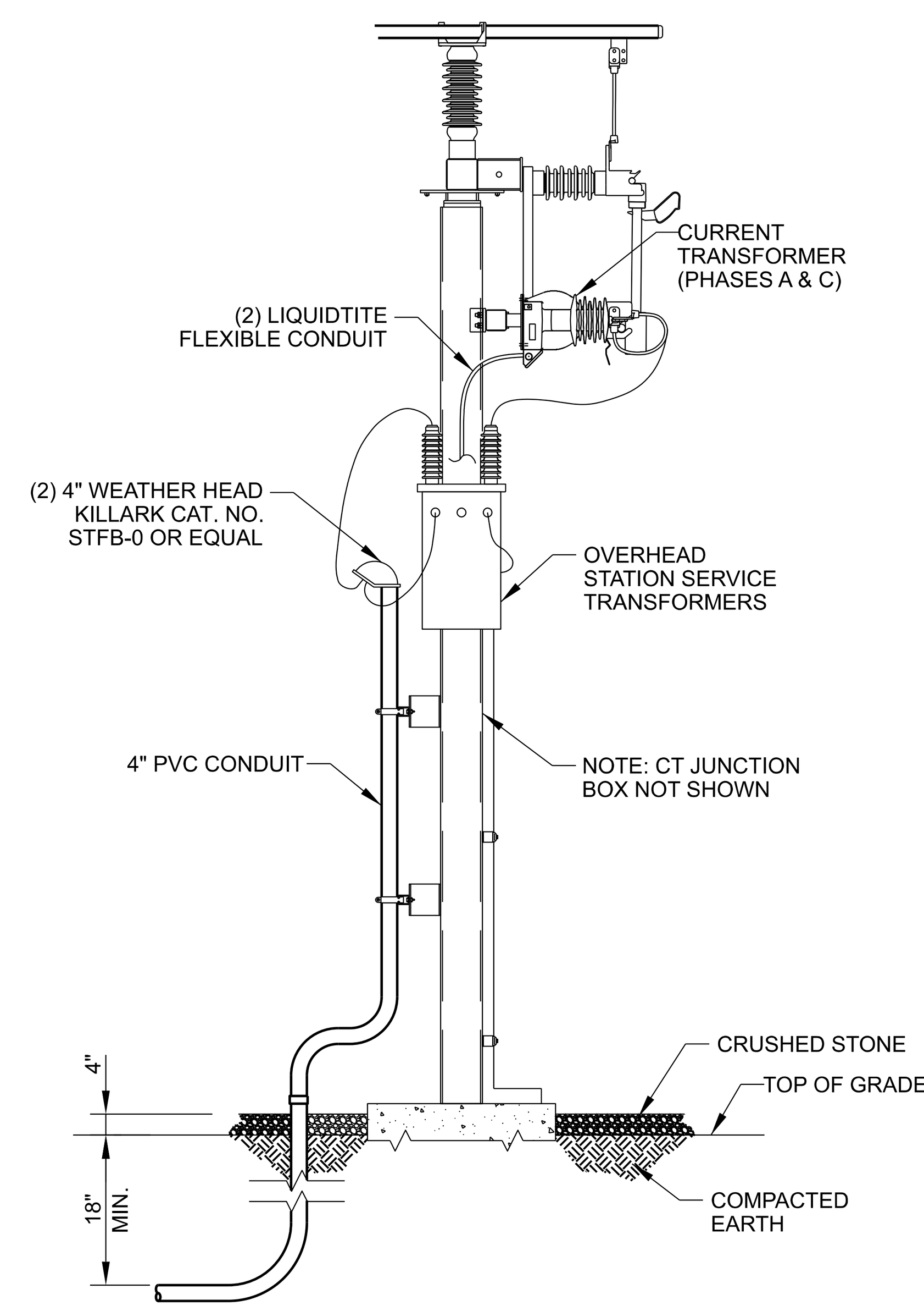
1 CONDUIT STUB UP AT 230KV TRANSFORMER
TYPICAL
NOT TO SCALE



2 CONDUIT STUB UP AT 230KV BREAKERS
TYPICAL 4 PLCS
NOT TO SCALE



3 CONDUIT STUB UP AT 26KV BREAKERS
TYPICAL
NOT TO SCALE



4 STATION SERVICE TRANSFORMERS
TYPICAL
NOT TO SCALE

NOTES:

1. APPROPRIATE CONDUIT CLAMPS SHALL BE INSTALLED BY THE CONTRACTOR TO ATTACH CONDUIT TO STEEL STRUCTURES AS NEEDED. THIS SHALL INCLUDE A CLAMP AT EACH BEND WHERE THE CONDUIT RUN DEPARTS FROM THE STRUCTURE AND A MAXIMUM SPACING BETWEEN CLAMPS OF 4'.
2. FLEXIBLE PVC CONDUIT LENGTH SHALL NOT BE MORE THAN 6'.
3. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING THE POWER DISTRIBUTION PANELS AND CONDUIT AS SHOWN. IN SOME CASES, IT MAY BE NECESSARY TO PROVIDE A SEPARATE "CONDUIT ENTRY CABINET" INTO THE BOTTOM OF PANELS; SHOULD THIS PROVE NECESSARY THE CONTRACTOR SHALL PROVIDE THIS AT NO ADDITIONAL CHARGE.
4. THE CONTRACTOR TO FURNISH, AND INSTALL IN A NON-PENETRATING FASHION TO STRUCTURAL STEEL, ALL PT AND CT JUNCTION BOXES. FOR DETAILS ON THE JUNCTION BOXES REQUIRED, SEE THE ELECTRICAL DETAILS DRAWING.
5. COORDINATE EMBEDDED CONDUITS WITH PLACEMENT OF FOUNDATIONS AS REQUIRED. ALL CONDUITS SHALL BE INSTALLED PRIOR TO THE PLACEMENT OF CONCRETE OR GROUT.
6. CONDUITS PENETRATING THE OIL CONTAINMENT PIT POLYVINYL LINER SHALL BE SEALED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS TO PREVENT OIL LEAKAGE IN THE EVENT OF A SPILL. ROUTE CONDUITS WITHIN THIS AREA BELOW THE CONTAINMENT ELEVATION EXCEPT AS REQUIRED TO RISE ABOVE GRADE.

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DATE	05/17/2025
BY	JWR
REVIEW BY	JWR
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DATE	05/17/2025
BY	JWR
REVIEW BY	-

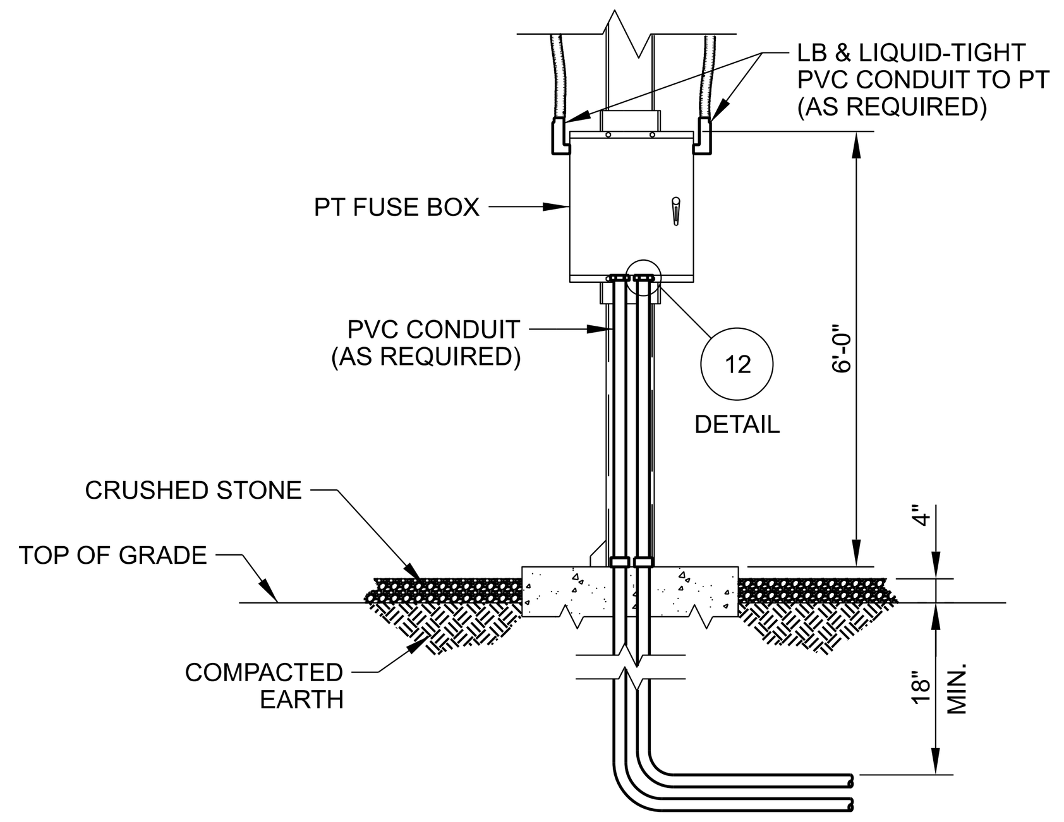
230-26KV T2 ADDITION

CONDUIT DETAILS

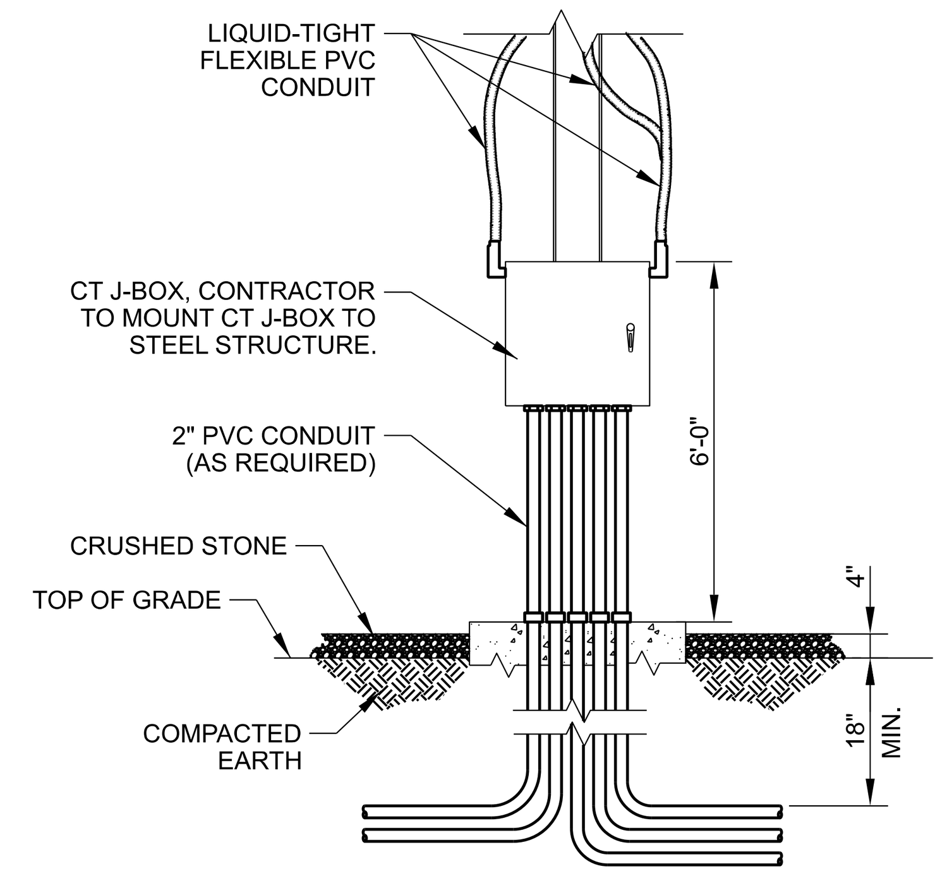
JEA NOCATEE SUBSTATION

SCALE: AS NOTED
TRANSMISSION & SUBSTATION PROJECTS - 20410
PROJ #: 8007832

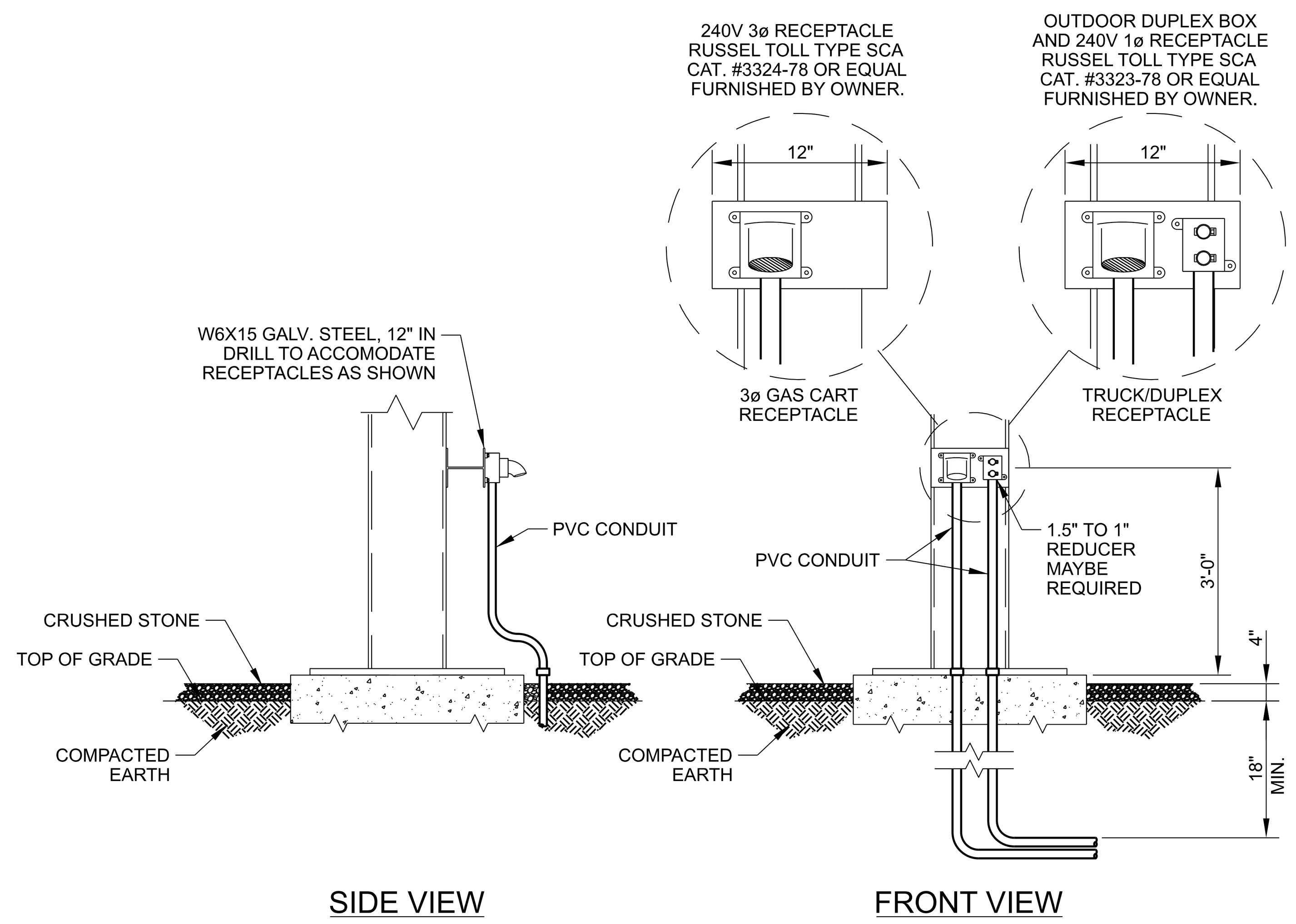
SHEET NUMBER: CD1
PROJECT ID: NC2024
SEQUENCE #: 26 OF 35



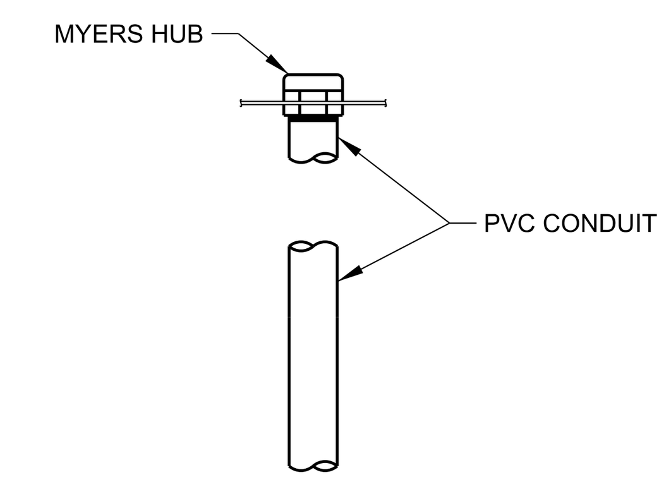
5 26kV POTENTIAL TRANSFORMER
TYPICAL
NOT TO SCALE



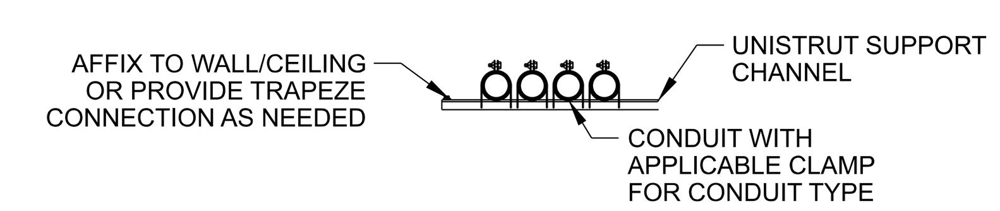
6 3Ø BUS DIFFERENTIAL CONDUIT RISER AND JUNCTION BOX
TYPICAL
NOT TO SCALE



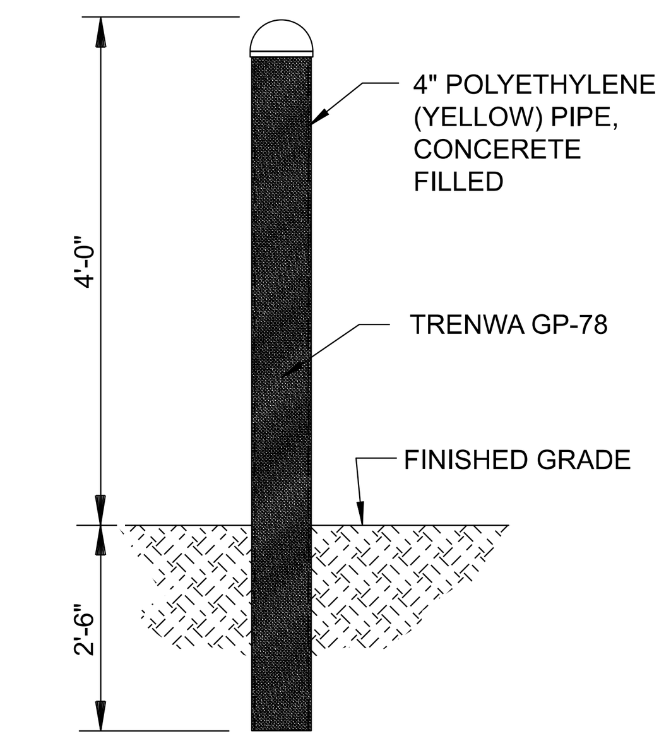
7 YARD VACUUM PUMP / GAS CART RECEPTACLE
TYPICAL
NOT TO SCALE



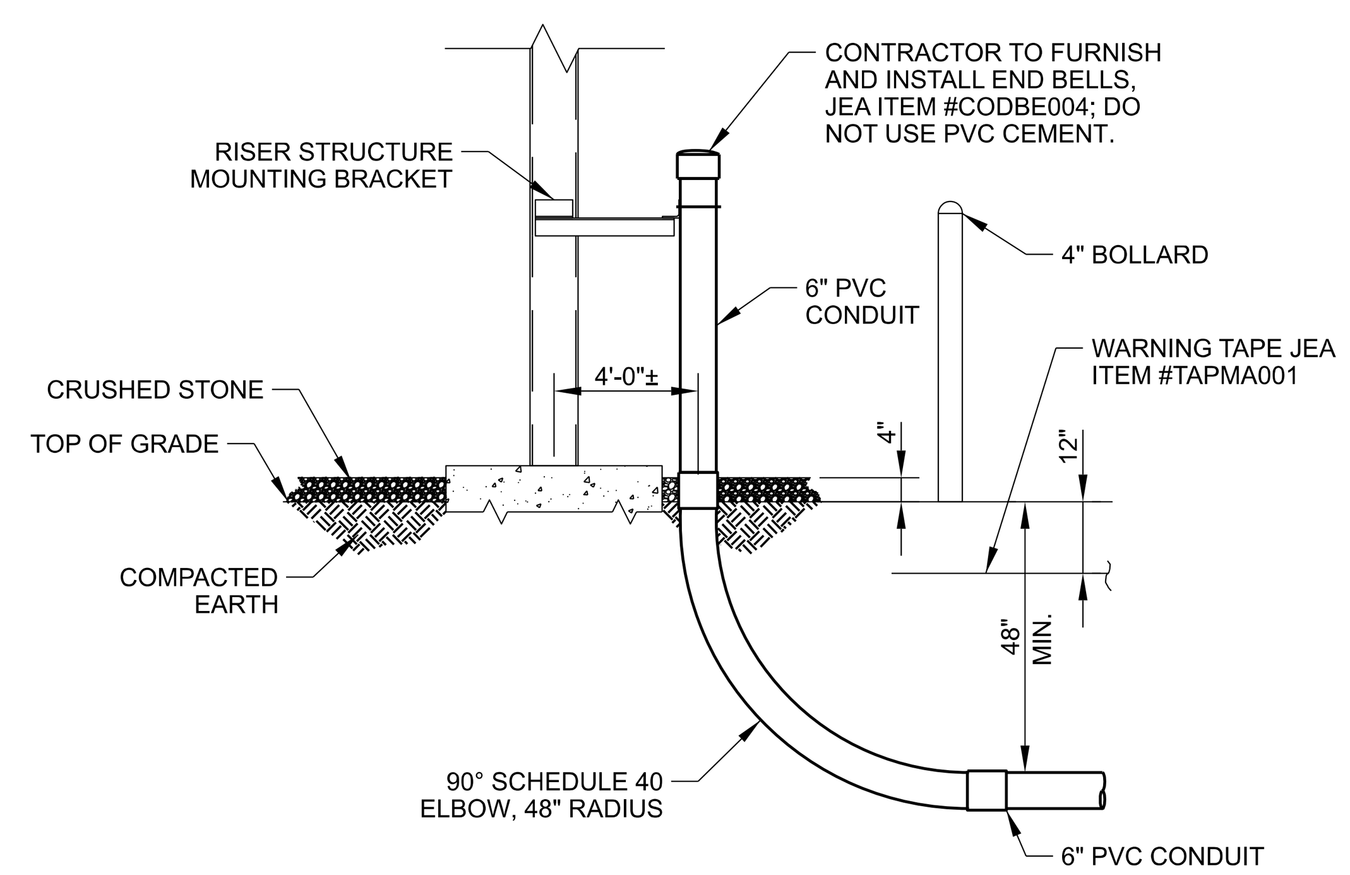
8 CONDUIT FITTINGS AS REQUIRED
TYPICAL
NOT TO SCALE



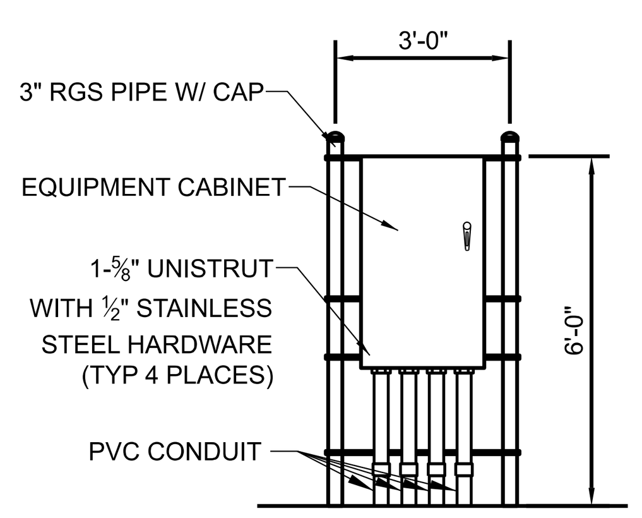
13 CONDUIT SUPPORT DETAIL
TYPICAL
NOT TO SCALE



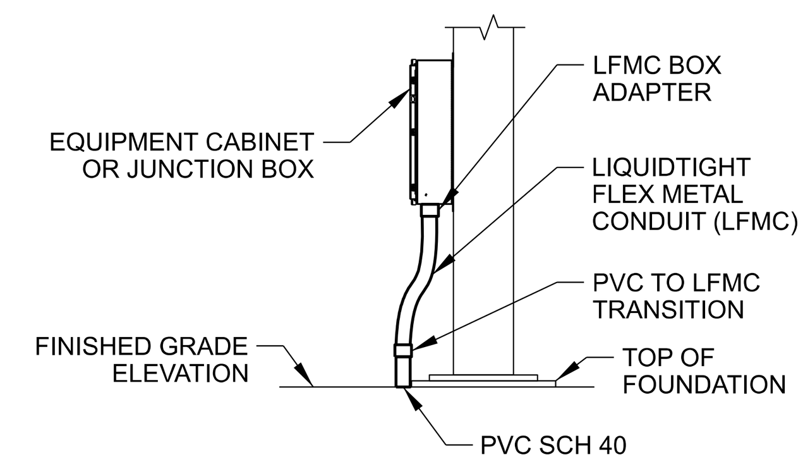
14 LIGHT DUTY BOLLARD DETAIL
TYPICAL
NOT TO SCALE



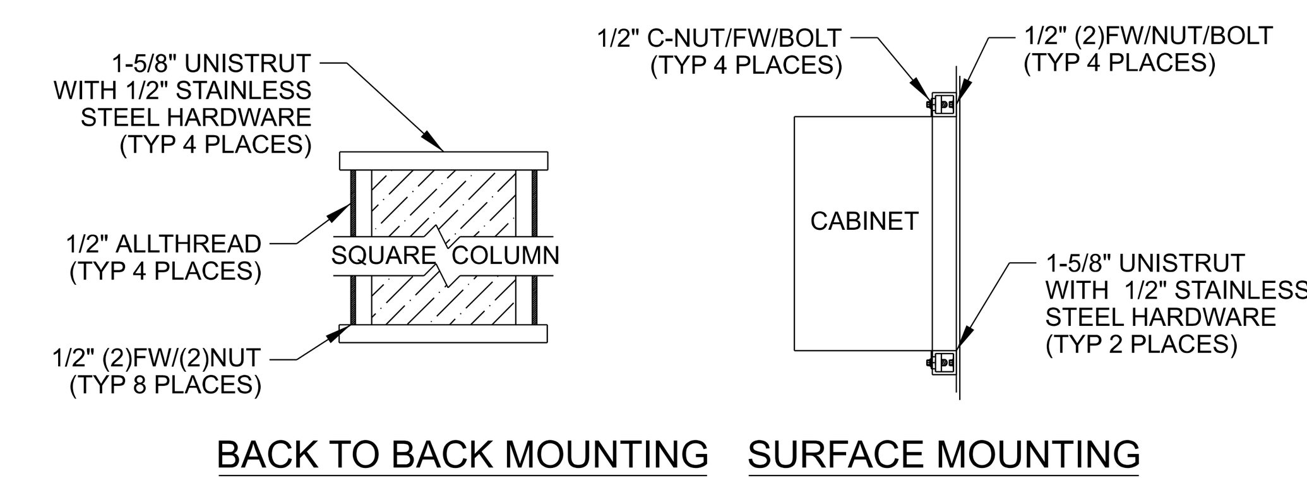
9 3Ø FEEDER RISER STRUCTURE
TYPICAL
NOT TO SCALE



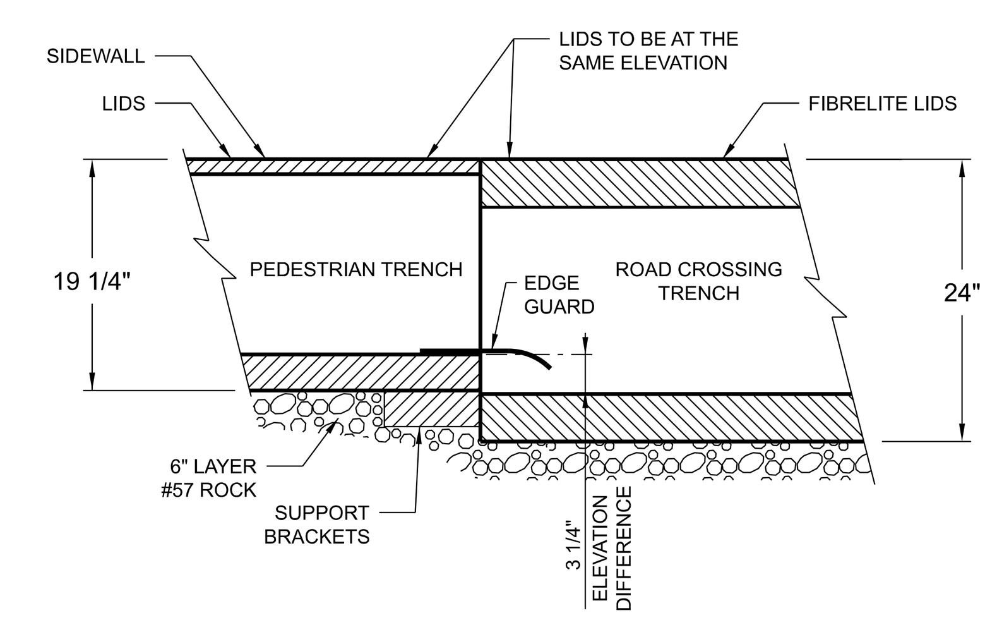
10 POST MOUNTED PANELS / CABINETS
TYPICAL
NOT TO SCALE



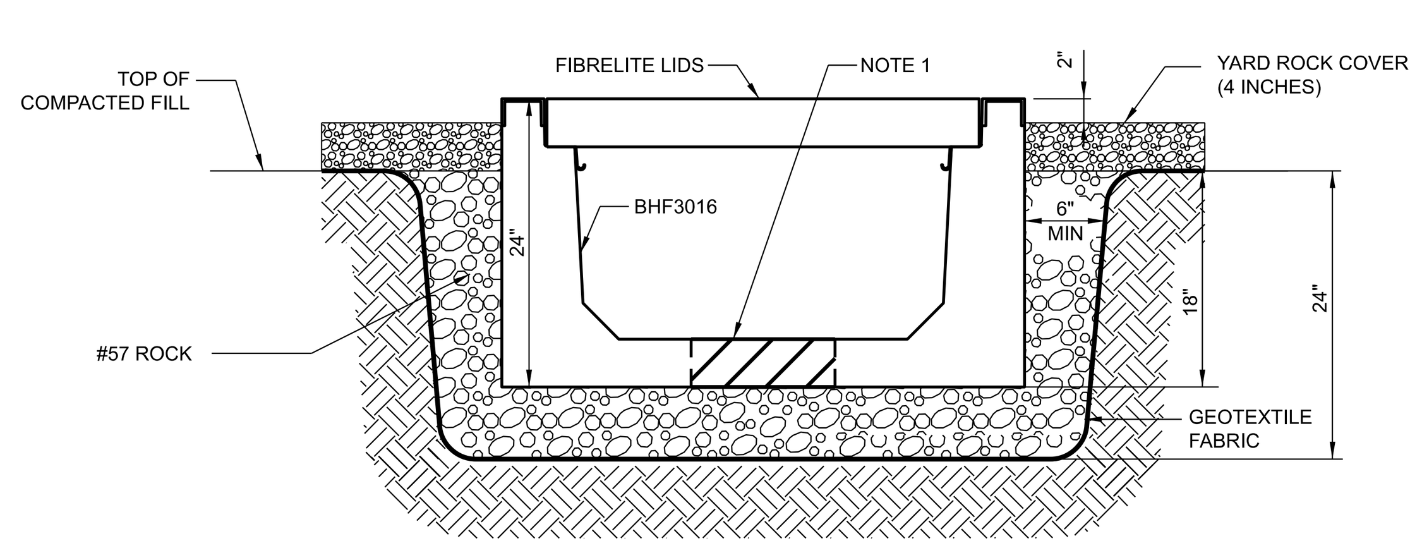
11 FLEXIBLE CONDUIT RISER DETAIL
TYPICAL
NOT TO SCALE



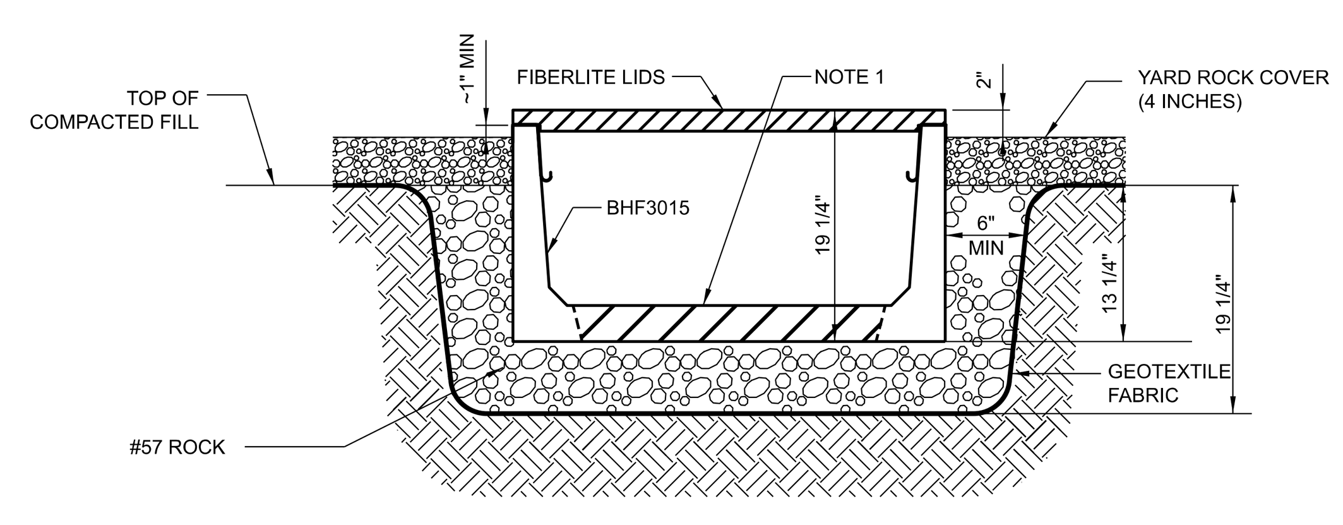
12 UNISTRUT MOUNTING DETAILS
TYPICAL
NOT TO SCALE



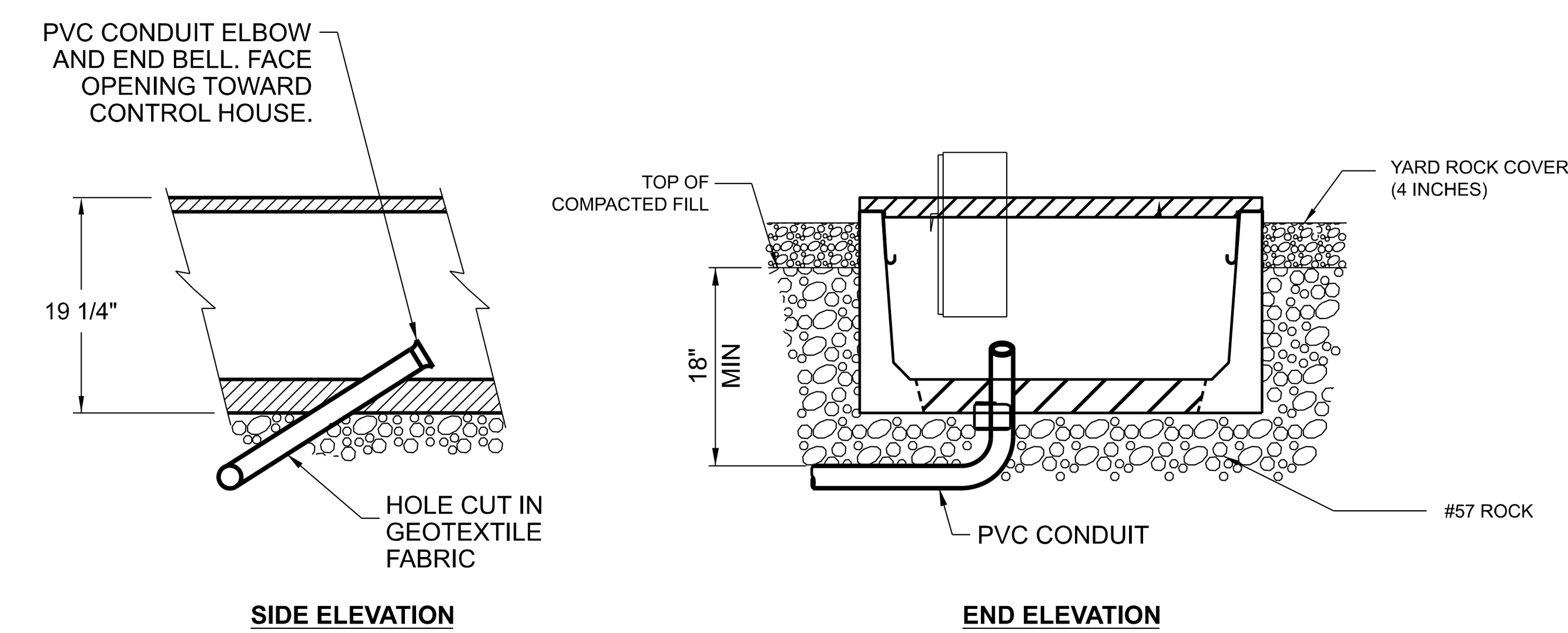
18 TRANSITION FROM PEDESTRIAN TO ROAD CROSSING TRENCH
TYPICAL
NOT TO SCALE



15 ROAD CROSSING CABLE TRENCH
TYPICAL
NOT TO SCALE



16 PEDESTRIAN CABLE TRENCH
TYPICAL
NOT TO SCALE



17 CONDUIT RISER IN CABLE TRENCH
TYPICAL
NOT TO SCALE

NOTES:

1. APPROPRIATE CONDUIT CLAMPS SHALL BE INSTALLED BY CONTRACTOR TO ATTACH CONDUIT TO STEEL STRUCTURES AS NEEDED. THIS SHALL INCLUDE A CLAMP AT EACH BEND WHERE THE CONDUIT RUN DEPARTS FROM THE STRUCTURE AND A MAXIMUM SPACING BETWEEN CLAMPS OF 4'.
2. FLEXIBLE PVC CONDUIT LENGTH SHALL NOT BE MORE THAN 6'.
3. THE CONTRACTOR IS RESPOSIBLE FOR FURNISHING AND INSTALLING THE PANELS AND CONDUIT AS SHOWN. IN SOME CASES, IT MAY BE NECESSARY TO PROVIDE A SEPARATE "CONDUIT ENTRY CABINET" INTO THE BOTTOM OF PANELS; SHOULD THIS PROVE NECESSARY THE CONTRACTOR SHALL PROVIDE THIS AT NO ADDITIONAL CHARGE.
4. CONTRACTOR TO FURNISH, AND INSTALL IN A NON-PENETRATING FASHION TO STRUCTURAL STEEL, ALL PT AND CT JUNCTION BOXES. FOR DETAILS ON THE JUNCTION BOXES REQUIRED, SEE THE ELECTRICAL DETAILS DRAWING.

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0	05/17/2025	8007832	NOCATEE T2 ADDITION	JWR	JWR

ENGINEERING	
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BY	JWR
REVIEW BY	JWR
DRAFTING	
DATE	05/17/2025
BY	JWR
REVIEW BY	-

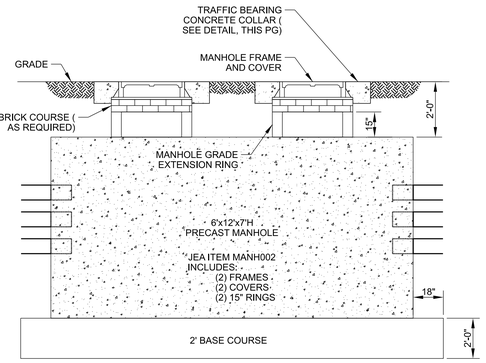
230-26KV T2 ADDITION

CONDUIT DETAILS

JEA NOCATEE SUBSTATION

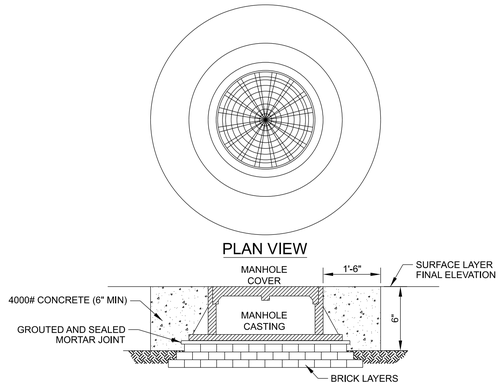
SCALE: AS NOTED
TRANSMISSION & SUBSTATION PROJECTS - 20410
PROJ #: 8007832

SHEET NUMBER: CD2
PROJECT ID: NC2024
SEQUENCE #: 27 OF 35



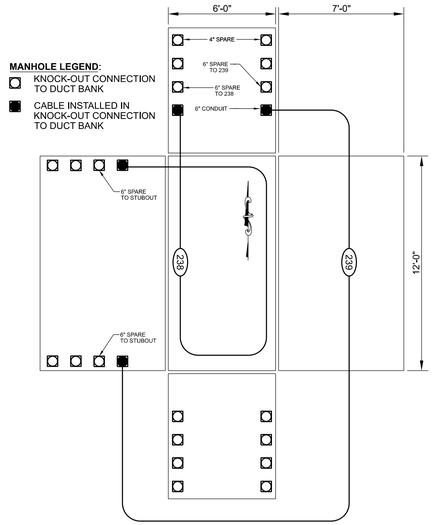
19 MANHOLE INSTALLATION DETAIL

MANHOLE



20 MANHOLE BEARING COLLAR

TYPICAL



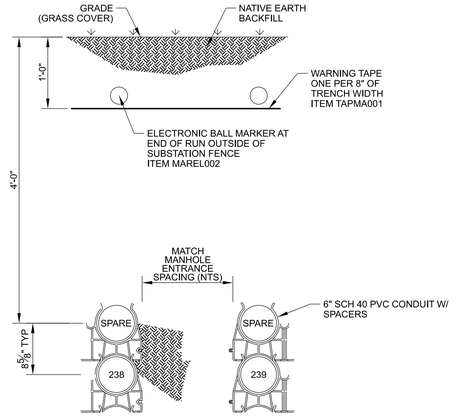
21 MANHOLE DETAIL

MANHOLE "MH-2"

NOTES:

1. THE OWNER TO FURNISH AND THE CONTRACTOR TO INSTALL MATERIAL AS LISTED IN THE TABLE BELOW. ALL OTHER ITEMS NOT LISTED, THE CONTRACTOR SHALL FURNISH AND INSTALL (INCLUDING MANHOLE, CONDUCTOR, CLIPS, CONNECTORS, CONDUIT, CONCRETE, BRICK, MORTAR, ETC.) TO PROVIDE A COMPLETE INSTALLATION OF THE MANHOLE AS SHOWN.

OWNER SUPPLIED MATERIAL		
JEA ITEM ID	QUANTITY	DESCRIPTION
COVMA001	SEE SPEC	MANHOLE COVERS
FRAMC001	SEE SPEC	MANHOLE COVER FRAME
MANER003	SEE SPEC	MANHOLE GRADE EXTENSION RING (INCLUDES NECK)
HOKCA003	SEE SPEC	DOUBLE CABLE HOOK, 8-1/4" EXTENSION, LOCK TYPE
RACUC002	SEE SPEC	CABLE RACK (42")
TAPMA001	SEE SPEC	ELECTRIC WARNING TAPE (6" X 1000' ROLL)
MAREL002	SEE SPEC	ELECTRONIC BALL MARKER, 3M 1402-XR (5' RANGE)



22 DUCTBANK SECTION

26kV FEEDER DUCT BANK

JEA
225 N. PEARL 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: _____

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW BY
0	05/08/2025	8007832	ADD T2 ADDITION	JWR	JWR

ENGINEERING	
DATE	05/08/2025
BY	JWR
REVIEW BY	JWR
DRAFTING	
DATE	05/08/2025
BY	JWR
REVIEW BY	JWR

230-26KV T2 ADDITION

CONDUIT DETAIL

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

SHEET NUMBER: CD3

PROJECT ID: NC2024

SEQUENCE #: 28 OF 35

CONDUIT #	FROM	TO	SIZE IN.	TYPE	~LENGTH FT	CABLES IN CONDUIT #	REMARKS
T2C1	Transformer T2	TRENCH	3	UV	55	9T2/C1	
T2C2	Transformer T2	TRENCH	3	UV	55	9T2/C2	
T2C3	Transformer T2	TRENCH	3	UV	55	T2 MON/FBR, 9T2/T2SC, 9T2/PH	
T2C4	Transformer T2	TRENCH	3	UV	55	9T2/G, 9T2/DC	
T2C5	Transformer T2	TRENCH	3	UV	55	T2/FO	
T2C6	Transformer T2	TRENCH	3	UV	55	9T2/AC	
T2C7	Transformer T2	TRENCH	3	UV	55		
T2C8	Transformer T2	TRENCH	3	UV	55		
239C1	Breaker 239	TRENCH	3	UV	30	239/C1	
239C2	Breaker 239	TRENCH	3	UV	30	239/PH, 239/BD	
239C3	Breaker 239	TRENCH	2	UV	30		
239C4	Breaker 239	TRENCH	1.5	UV	30	239/AC	
239C5	Breaker 239	TRENCH	2	UV	30		
241C1	Breaker 241	TRENCH	3	UV	50	241/C1	
241C2	Breaker 241	TRENCH	3	UV	50	241/PH, 241/BD	
241C3	Breaker 241	TRENCH	2	UV	50		
241C4	Breaker 241	TRENCH	1.5	UV	50	241/AC	
241C5	Breaker 241	TRENCH	2	UV	50		
25T1T2C1	Breaker 25T1T2	TRENCH	3	UV	15	25T1T2/C1	
25T1T2C2	Breaker 25T1T2	TRENCH	3	UV	15	25T1T2/C2	
25T1T2C3	Breaker 25T1T2	TRENCH	2	UV	15	25T1T2/BD1, 25T1T2/BD2	
25T1T2C4	Breaker 25T1T2	TRENCH	1.5	UV	15	25T1T2/AC	
25T1T2C5	Breaker 25T1T2	TRENCH	2	UV	15		
25T2C1	Breaker 25T2	TRENCH	3	UV	25	25T2/C1	
25T2C2	Breaker 25T2	TRENCH	3	UV	25	25T2/C2	
25T2C3	Breaker 25T2	TRENCH	2	UV	25	25T2/TD, 25T2/BD	
25T2C4	Breaker 25T2	TRENCH	2	UV	25		
25T2C5	Breaker 25T2	TRENCH	1.5	UV	25	25T2/AC	
25T2C6	Breaker 25T2	TRENCH	2	UV	25		
909T2C1	Breaker 909T2	TRENCH	3	UV	60	909T2/C1	
909T2C2	Breaker 909T2	TRENCH	3	UV	60	909T2/C2	
909T2C3	Breaker 909T2	TRENCH	3	UV	60	909T2/9T2PR, 909T2/9T2SC	
909T2C4	Breaker 909T2	TRENCH	3	UV	60	909T2/WBPR, 909T2/WBSC	
909T2C5	Breaker 909T2	TRENCH	1.5	UV	60	909T2/AC	
909T2C6	Breaker 909T2	TRENCH	3	UV	60		
240C1	Breaker 240	TRENCH	3	UV	35	240/C1	
240C2	Breaker 240	TRENCH	3	UV	35	240/PH, 240/BD	
240C3	Breaker 240	TRENCH	2	UV	35		
240C4	Breaker 240	TRENCH	1.5	UV	35	240/AC	
240C5	Breaker 240	TRENCH	2	UV	35		
SSB2CTC1	25C2 Phase "A" CT	Junction Box SSB2CTJB	1.5	UV	10	SS2CT/PHA	
T2PTC1	25C2 Phase "A" PT	Junction Box 5T2PTJB	1.5	UV	10	26T2PT/PHA	
T2PTC2	25C2 Phase "B" PT	Junction Box 5T2PTJB	1.5	UV	10	26T2PT/PHB	
SSB2CTC2	25C2 Phase "C" CT	Junction Box SSB2CTJB	1.5	UV	10	SS2CT/PHC	
T2PTC3	25C2 Phase "C" PT	Junction Box 5T2PTJB	1.5	UV	10	26T2PT/PHC	
T2PTC4	Junction Box 5T2PTJB	TRENCH	2	UV	20	26T2PT/JB	
T2PTC5	Junction Box 5T2PTJB	TRENCH	2	UV	20	26T2PT/AC	
SSB2CTC3	Junction Box SSB2CTJB	TRENCH	2	UV	20	SSB2/BD	
SSB2CTC4	Junction Box SSB2CTJB	TRENCH	2	UV	20	SST2/AC	
SSB2CTC5	Junction Box SSB2CTJB	TRENCH	1.5	UV	20		
SSB2C1	Station Service #2	TRENCH	4	UV	25	SSB2ATS/AC	
25C2C1	Future Cap Bank	TRENCH	3	UV	55		
25C2C2	Future Cap Bank	TRENCH	2	UV	55		
25C2C3	Future Cap Bank	TRENCH	2	UV	55		
25C2C4	Future Cap Bank	TRENCH	2	UV	55		
25C2C5	Future Cap Bank	TRENCH	2	UV	55		
25C2C6	Future Cap Bank	TRENCH	3	UV	55		
DRC5	Duplex Receptacle at 240	TRENCH	1.5	UV	40	DR240/AC	
DRC4	Duplex Receptacle at 25T2	TRENCH	1.5	UV	15	DR25T2/AC	
GCC4	Gas Cart/Vacuum Pump Receptacle at 25T2	TRENCH	1.5	UV	30	GC25T2/AC	
TRC5	Trauck Receptacle at 240	TRENCH	1.5	UV	40	TR240/AC	
TRC4	Trauck Receptacle at 25T2	TRENCH	1.5	UV	15	TR25T2/AC	
DF238C3	Distribution Manhole MH-4	~10' BEYOND FENCE	6	UV	60		
DF238C4	Distribution Manhole MH-4	~10' BEYOND FENCE	6	UV	60		
DF239C3	Distribution Manhole MH-4	~10' BEYOND FENCE	6	UV	60		
DF239C4	Distribution Manhole MH-4	~10' BEYOND FENCE	6	UV	60		
DF238C1	Feeder 238 Conduit #1	Distribution Manhole MH-4	6	UV	160		Reroute the existing conduit
DF238C2	Feeder 238 Conduit #2	Distribution Manhole MH-4	6	UV	160		Reroute the existing conduit
DF239C1	Feeder 239 Conduit #1	Distribution Manhole MH-4	6	UV	160		Reroute the existing conduit
DF239C2	Feeder 239 Conduit #2	Distribution Manhole MH-4	6	UV	160		Reroute the existing conduit

NOTES:

1. THE CONTRACTOR IS 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. CONDUIT DESIGNATIONS:

UV - UV RESISTANT PVC CONDUIT, SCH 40 (LFMC AS REQUIRED)
EMT - ELECTRICAL METALLIC TUBING
RMC - RIGID METALLIC (GALVANIZED STEEL) CONDUIT
IMC - INTERMEDIATE METALLIC CONDUIT
LFMC - LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT
WW - SQUARE WIREWAY
AL - ALUMINUM CONDUIT

JEA
225 N. PEARL 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:

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW BY
0	05/17/2025	8007832	NOCATEE T2 ADDITION	JBA	REM

ENGINEERING	
DATE	05/17/2025
BY	JWR
REVIEW BY	JWR
DRAFTING	
DATE	05/17/2025
BY	JWR
REVIEW BY	-

230-26KV T2 ADDITION

CONDUIT SCHEDULE

JEA NOCATEE SUBSTATION

SCALE: AS NOTED
TRANSMISSION & SUBSTATION PROJECTS - 20410
PROJ #: 8007832

SHEET NUMBER: CO1
PROJECT ID: NC2024
SEQUENCE #:

CABLE #	FROM	TO	VOLT	SIZE	#C	S/M	TYPE	LENGTH ckt ft	CONDUIT#	REMARKS	STATUS
T2 MON/FBR	FIBER PATCH PNL	RTU PNL 11	600				FO	60	T2C3, CT, TRAY	SEL-2414	NEW
9T2/AC	TRANSFORMER T2	AC YARD PNL	600	6	4	S	C	450	T2C6, CT, 5YP2C1	XFMR T2 AC	NEW
9T2/C1	TRANSFORMER T2	230KV PNL 16	600	10	21	M	BS	450	T2C1, CT, TRAY	XFMR T2 CONTROL	NEW
9T2/C2	TRANSFORMER T2	230KV PNL 17	600	10	21	M	BS	450	T2C2, CT, TAY	XFMR T2 CONTROL	NEW
9T2/DC	TRANSFORMER T2	DC PNL 2	600	10	4	M	BS	450	T2C4, CT, TRAY	XFMR T2 DC	NEW
9T2/G	TRANSFORMER T2	230KV PNL 16	600	10	4	M	BS	450	T2C4, CT, TRAY	XFMR T2 GROUND	NEW
9T2/PH	TRANSFORMER T2	230KV PNL 17	600	10	4	M	BS	450	T2C3, CT, TRAY	25T2 OVERCURRENT	NEW
9T2/T2SC	TRANSFORMER T2	230KV PNL 16	600	10	4	M	BS	450	T2C3, CT, TRAY	XFMR T2 PROTECTION	NEW
T2/FO	TRANSFORMER T2	FIBER PATCH PNL	600				FO	450	T2C5, CT, TRAY	SEL-2414	NEW
239/AC	BREAKER 239	AC YARD PNL	600	8	3	S	C	120	239C4, CT, 5YP1C4	BKR 239 AC	NEW
239/BD	BREAKER 239	26KV PNL 18	600	10	4	M	BS	340	239C2, CT, TRAY	26KV BUS PROTECTION	NEW
239/C1	BREAKER 239	26KV PNL 19	600	10	21	M	BS	340	239C1, CT, TRAY	BKR 239 CONTROL	NEW
239/PH	BREAKER 239	26KV PNL 19	600	10	4	M	BS	340	239C2, CT, TRAY	BKR 239 PROTECTION	NEW
240/AC	BREAKER 240	AC YARD PNL	600	8	3	S	C	130	240C4, CT, 5YP1C4	BKR 240 AC	NEW
240/BD	BREAKER 240	26KV PNL 18	600	10	4	M	BS	355	240C2, CT, TRAY	26KV BUS PROTECTION	NEW
240/C1	BREAKER 240	26KV PNL 19	600	10	21	M	BS	355	240C1, CT, TRAY	BKR 240 CONTROL	NEW
240/PH	BREAKER 240	26KV PNL 19	600	10	4	M	BS	355	240C2, CT, TRAY	BKR 240 PROTECTION	NEW
241/AC	BREAKER 241	AC YARD PNL	600	8	3	S	C	140	241C4, CT, 5YP1C4	BKR 241 AC	NEW
241/BD	BREAKER 241	26KV PNL 18	600	10	4	M	BS	370	241C2, CT, TRAY	26KV BUS PROTECTION	NEW
241/C1	BREAKER 241	26KV PNL 19	600	10	21	M	BS	370	241C1, CT, TRAY	BKR 241 CONTROL	NEW
241/PH	BREAKER 241	26KV PNL 19	600	10	4	M	BS	370	241C2, CT, TRAY	BKR 241 PROTECTION	NEW
25T1T2/AC	BREAKER 25T1T2	AC YARD PNL	600	8	3	S	C	80	25T1T2C4, CT, 5YP1C4	BKR 25T1T2 AC	NEW
25T1T2/BD1	BREAKER 25T1T2	26KV PNL 14	600	10	4	M	BS	290	25T1T2C3, CT, TRAY	26KV BUS PROTECTION	NEW
25T1T2/BD2	BREAKER 25T1T2	26KV PNL 18	600	10	4	M	BS	290	25T1T2C3, CT, TRAY	26KV BUS PROTECTION	NEW
25T1T2/C1	BREAKER 25T1T2	26KV PNL 13	600	10	21	M	BS	290	25T1T2C1, CT, TRAY	BKR 25T1T2 CONTROL	NEW
25T1T2/C2	BREAKER 25T1T2	26KV PNL 13	600	10	8	M	BS	290	25T1T2C2, CT, TRAY	BKR 25T1T2 CONTROL	NEW
25T2/AC	BREAKER 25T2	AC YARD PNL	600	8	3	S	C	135	25T2C5, CT, 5YP1C4	BKR 25T2 AC	NEW
25T2/BD	BREAKER 25T2	26KV PNL 18	600	10	4	M	BS	410	25T2C3, CT, TRAY	26KV BUS PROTECTION	NEW
25T2/C1	BREAKER 25T2	26KV PNL 17	600	10	21	M	BS	410	25T2C1, CT, TRAY	BKR 25T2 CONTROL	NEW
25T2/C2	BREAKER 25T2	26KV PNL 17	600	10	8	M	BS	410	25T2C2, CT, TRAY	BKR 25T2 CONTROL	NEW
25T2/TD	BREAKER 25T2	26KV PNL 16	600	10	4	M	BS	410	25T2C3, CT, TRAY	XFMR T2 PROTECTION	NEW
909T2/9T2PR	BREAKER 909T2	230KV PNL 16	600	10	4	M	BS	350	909T2C3, CT, TRAY	XFMR PROTECTION	NEW
909T2/9T2SC	BREAKER 909T2	230KV PNL 7	600	10	4	M	BS	350	909T2C3, CT, TRAY	XFMR PROTECTION	NEW
909T2/AC	BREAKER 909T2	AC YARD PNL	600	8	3	M	C	120	909T2C5, CT, 9YP1C4	BKR 909T2 AC	NEW
909T2/C1	BREAKER 909T2	230KV PNL 7	600	10	21	M	BS	350	909T2C1, CT, TRAY	BKR 909T2 CONTROL	NEW
909T2/C2	BREAKER 909T2	230KV PNL 7	600	10	21	M	BS	350	909T2C2, CT, TRAY	BKR 909T2 CONTROL	NEW
909T2/WBPR	BREAKER 909T2	230KV PNL 4	600	10	4	M	BS	350	909T2C4, CT, TRAY	BKR 909T2 PROTECTION	NEW
909T2/WBSC	BREAKER 909T2	230KV PNL 4	600	10	4	M	BS	350	909T2C4, CT, TRAY	BKR 909T2 PROTECTION	NEW
26T2PT/AC	26KV BUS 2 PT JB	AC YARD PNL	600	8	3	S	C	110	T2PTC5, CT, 5YP1C2	26T2PTJB AC	NEW
26T2PT/JB	26KV BUS 2 PT JB	26KV PNL 18	600	10	4	M	BS	350	T2PTC4, CT, TRAY	26KV BUS 2 PT	NEW
26T2PT/PHA	26KV BUS PHASE "A" PT	JUNCTION BOX 5T2PTJB	600	10	4	M	BS	10	T2PTC1	26KV BUS 2 PT – PHASE "A"	NEW
26T2PT/PHB	26KV BUS PHASE "B" PT	JUNCTION BOX 5T2PTJB	600	10	4	M	BS	10	T2PTC2	26KV BUS 2 PT – PHASE "B"	NEW
26T2PT/PHC	26KV BUS PHASE "C" PT	JUNCTION BOX 5T2PTJB	600	10	4	M	BS	10	T2PTC3	26KV BUS 2 PT – PHASE "C"	NEW
DR240/AC	DUPLEX RECEPTACLE AT 240	YARD PANEL 5YP1-1P	600	10	3	S	C	350	DRC5, CT, 5YP1C2	120VAC POWER	NEW
DR25T2/AC	DUPLEX RECEPTACLE AT 25T2	YARD PANEL 5YP1-1P	600	10	3	S	C	400	DRC4, CT, 5YP1C2	120VAC POWER	NEW
GC25T2/AC	GAS CART/VACUUM PUMP RECEPTACLE AT 25T2	YARD PANEL 5YP2-3P	600	6	4	S	C	415	GCC4, CT, 5YP1C2	240VAC POWER 3-PHASE	NEW
TR240/AC	TRUCK RECEPTACLE AT 240	YARD PANEL 5YP1-1P	600	6	3	S	C	350	TRC5, CT, 5YP1C2	240VAC POWER	NEW
TR25T2/AC	TRUCK RECEPTACLE AT 25T2	YARD PANEL 5YP1-1P	600	6	3	S	C	400	TRC4, CT, 5YP1C2	240VAC POWER	NEW
SSB2/BD	26KV STA SERVICE 2 JB	26KV PNL 18	600	10	4	M	BS	360	SSB2CTC3, CT, TRAY	26KV STA SERVICE 2 CT	NEW
SST2/AC	26KV STA SERVICE 2 JB	AC YARD PNL	600	8	3	S	C	135	SSB2CTC4, CT, 5YP1C2	SSB2CTJB AC	NEW
SS2CT/PHA	STA SERV BUS "A" CT	JUNCTION BOX SSB2CTJB	600	10	4	M	BS	10	SSB2CTC1	STATION SERVICE BUS 2 CT	NEW
SS2CT/PHC	STA SERV BUS "C" CT	JUNCTION BOX SSB2CTJB	600	10	4	M	BS	10	SSB2CTC2	STATION SERVICE BUS 2 CT	NEW
SSB2ATS/AC	STATION SERVICE #2	ATS	600	4/0	8	S	C	165	SSB2C1, CT, ATSC2	EMERGENCY AC FEED	NEW
RLYIRIG/P1P7	PNL 1	PNL 7				F	SEL C953	40	COMM TRAY	451-909T2 TO 87B1-EB	NEW
ESDFR/P4	PNL 11	PNL 11				F	SEL CA605	10	COMM TRAY	DAU TO DFR	NEW
P11P16/C1	PNL 11	PNL 16	600	10	4	M	BS	35	TRAY		NEW
P11P16/C2	PNL 11	PNL 16	600	10	4	M	BS	35	TRAY		NEW
P11P16/C3	PNL 11	PNL 16	600	10	8	M	BS	35	TRAY		NEW
T2 MON/FBR	PNL 11	PNL 11				F	SEL C478A	10	COMM TRAY	FIBER PATCH PANEL TO 3555	NEW
P13P14/C6	PNL 13	PNL 14	600	10	4	M	BS	25	TRAY		NEW
P13P16/C1	PNL 13	PNL 16	600	10	4	M	BS	35	TRAY		NEW
P13P17/C1	PNL 13	PNL 17	600	10	4	M	BS	40	TRAY		NEW
P13P17/C2	PNL 13	PNL 17	600	10	4	M	BS	40	TRAY		NEW
P13P18/C1	PNL 13	PNL 18	600	10	4	M	BS	45	TRAY		NEW
P13P19/C1	PNL 13	PNL 19	600	10	4	M	BS	50	TRAY		NEW
RLYIRIG/P14P16	PNL 14	PNL 16				F	SEL C953	30	COMM TRAY	87T1-T2 TO 87B-B1	NEW
RLYIRIGP15P16	PNL 15	PNL 16				F	SEL C953	25	COMM TRAY	87T2-T2 TO 451-238	NEW
ES1/P16	PNL 16	PNL 11				F	SEL CA605	40	COMM TRAY	2730 TO 87T1-9T2	NEW
ES2/P16	PNL 16	PNL 11				F	SEL CA605	40	COMM TRAY	2730 TO 87T2-9T2	NEW
P16P17/C1	PNL 16	PNL 17	600	10	4	M	BS	25	TRAY		NEW
P16P17/C2	PNL 16	PNL 17	600	10	4	M	BS	25	TRAY		NEW
P16P17/C3	PNL 16	PNL 17	600	10	4	M	BS	25	TRAY		NEW

NOTES:

1. CONTROL CABLE FOR RELAY PANELS AND FO CABLE SHALL BE FURNISHED BY THE OWNER, UNLESS OTHERWISE SPECIFIED.
2. THE CONTRACTOR SHALL FURNISH ALL OTHER CABLES, INCLUDING AC & DC POWER CABLES AS SPECIFIED.
3. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL CABLE LENGTHS. CABLE LENGTHS LISTED ARE APPROXIMATE.
4. CABLE DESIGNATIONS:

A- THHN INSULATED COPPER CONDUCTOR, RATED 600V
B- CONTROL CABLE
BS - SHIELDED CONTROL CABLE
C - RHW, THHW, OR THWN INSULATED COPPER CONDUCTOR, RATED 600V
F - INSTRUMENT CABLE
FO - FIBER OPTIC CABLE
S - SINGLE CONDUCTOR
M - MULTIPLE CONDUCTOR

JEA
225 N. PEARL 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:

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW BY
0	05/17/2025	8007832	NOCATEE T2 ADDITION	JWR	JWR

ENGINEERING	
DATE	05/17/2025
BY	JWR
REVIEW BY	JWR
DRAFTING	
DATE	05/17/2025
BY	JWR
REVIEW BY	-

230-26KV T2 ADDITION

CABLE SCHEDULE

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

SHEET NUMBER: CA1

PROJECT ID: NC2024

SEQUENCE #: 30 OF 35

CABLE #	FROM	TO	VOLT	SIZE	#C	S/M	TYPE	LENGTH ckt ft	CONDUIT#	REMARKS	STATUS
P16P17/C4	PNL 16	PNL 17	600	10	4	M	BS	25	TRAY		NEW
P16P17/C5	PNL 16	PNL 17	600	10	4	M	BS	25	TRAY		NEW
P16P17/C6	PNL 16	PNL 17	600	10	4	M	BS	25	TRAY		NEW
P16P17/C7	PNL 16	PNL 17	600	10	4	M	BS	25	TRAY		NEW
P16P19/C1	PNL 16	PNL 19	600	10	4	M	BS	35	TRAY		NEW
RLYIRIG/P16P17	PNL 16	PNL 17				F	SEL C953	25	COMM TRAY	451-25T2 TO 87T1-T2	NEW
RLYIRIG/P16P19	PNL 16	PNL 19				F	SEL C953	30	COMM TRAY	451-239 TO 87T2-T2	NEW
ES2/P21	PNL 17	PNL 11				F	SEL CA605	40	COMM TRAY	2730 TO 451-2572	NEW
P17P18/C1	PNL 17	PNL 18	600	10	8	M	BS	25	TRAY		NEW
P17P18/C2	PNL 17	PNL 18	600	10	4	M	BS	25	TRAY		NEW
RLYIRIG/P17P18	PNL 17	PNL 18				F	SEL C953	25	COMM TRAY	87B1-B2 TO 451-25T2	NEW
RTU/90T2	PNL 17	PNL 11				F	SEL C605A	40	COMM TRAY	3555 TO BECKWITH 2001C	NEW
ES1/P20	PNL 18	PNL 11				F	SEL CA605	45	COMM TRAY	2730 TO 87B1-B2	NEW
P18P19/C1	PNL 18	PNL 19	600	10	8	M	BS	25	TRAY		NEW
P18P19/C2	PNL 18	PNL 19	600	10	8	M	BS	25	TRAY		NEW
P18P19/C3	PNL 18	PNL 19	600	10	8	M	BS	25	TRAY		NEW
P18P19/C4	PNL 18	PNL 19	600	10	8	M	BS	25	TRAY		NEW
ES2/P13	PNL 19	PNL 11				F	SEL CA605	45	COMM TRAY	2730 TO 451-240	NEW
ES2/P14	PNL 19	PNL 11				F	SEL CA605	45	COMM TRAY	2730 TO 451-241	NEW
ES2/P9	PNL 19	PNL 11				F	SEL CA605	45	COMM TRAY	2730 TO 451-239	NEW
RLYIRIGP19P19-1	PNL 19	PNL 19				F	SEL C953	10	COMM TRAY	451-240 TO 451-239	NEW
RLYIRIGP19P19-2	PNL 19	PNL 19				F	SEL C953	10	COMM TRAY	451-241 TO 451-240	NEW
DFRIRIG/P2P11	PNL 2	PNL 11				F	SEL C953	50	COMM TRAY	DAU TO DAU	NEW
P4P13/C1	PNL 4	PNL 13	600	10	4	M	BS	40	TRAY		NEW
P4P17/C1	PNL 4	PNL 17	600	10	4	M	BS	40	TRAY		NEW
P4P17/C2	PNL 4	PNL 17	600	10	4	M	BS	40	TRAY		NEW
P4P7/C1	PNL 4	PNL 7	600	10	4	M	BS	25	TRAY		NEW
P4P7/C2	PNL 4	PNL 7	600	10	4	M	BS	25	TRAY		NEW
P4P7/C3	PNL 4	PNL 7	600	10	4	M	BS	25	TRAY		NEW
P4P7/C4	PNL 4	PNL 7	600	10	4	M	BS	25	TRAY		NEW
P4P7/C5	PNL 4	PNL 7	600	10	4	M	BS	25	TRAY		NEW
P5P16/C1	PNL 5	PNL 16	600	10	8	M	BS	35	TRAY		NEW
P5P7/C1	PNL 5	PNL 7	600	10	4	M	BS	30	TRAY		NEW
P5P7/C2	PNL 5	PNL 7	600	10	4	M	BS	30	TRAY		NEW
P5P7/C3	PNL 5	PNL 7	600	10	8	M	BS	30	TRAY		NEW
P6P13/C1	PNL 6	PNL 13	600	10	4	M	BS	35	TRAY		NEW
P6P16/C1	PNL 6	PNL 16	600	10	8	M	BS	35	TRAY		NEW
P6P17/C1	PNL 6	PNL 17	600	10	4	M	BS	40	TRAY		NEW
P6P7/C1	PNL 6	PNL 7	600	10	4	M	BS	25	TRAY		NEW
P6P7/C10	PNL 6	PNL 7	600	10	4	M	BS	25	TRAY		NEW
P6P7/C11	PNL 6	PNL 7	600	10	4	M	BS	25	TRAY		NEW
P6P7/C12	PNL 6	PNL 7	600	10	4	M	BS	25	TRAY		NEW
P6P7/C13	PNL 6	PNL 7	600	10	4	M	BS	25	TRAY		NEW
P6P7/C2	PNL 6	PNL 7	600	10	4	M	BS	25	TRAY		NEW
P6P7/C3	PNL 6	PNL 7	600	10	4	M	BS	25	TRAY		NEW
P6P7/C4	PNL 6	PNL 7	600	10	4	M	BS	25	TRAY		NEW
P6P7/C5	PNL 6	PNL 7	600	10	4	M	BS	25	TRAY		NEW
P6P7/C6	PNL 6	PNL 7	600	10	4	M	BS	25	TRAY		NEW
P6P7/C7	PNL 6	PNL 7	600	10	4	M	BS	25	TRAY		NEW
P6P7/C8	PNL 6	PNL 7	600	10	4	M	BS	25	TRAY		NEW
P6P7/C9	PNL 6	PNL 7	600	10	4	M	BS	25	TRAY		NEW
ES1/P10	PNL 7	PNL 11				F	SEL CA605	40	COMM TRAY	2730 TO 451-909T2	NEW
P7P16/C1	PNL 7	PNL 16	600	10	4	M	BS	40	TRAY		NEW
P7P16/C2	PNL 7	PNL 16	600	10	4	M	BS	40	TRAY		NEW
P7P16/C3	PNL 7	PNL 16	600	10	4	M	BS	40	TRAY		NEW
P7P16/C4	PNL 7	PNL 16	600	10	4	M	BS	40	TRAY		NEW
P7P16/C5	PNL 7	PNL 16	600	10	4	M	BS	40	TRAY		NEW
P7P16/C6	PNL 7	PNL 16	600	10	4	M	BS	40	TRAY		NEW
P7P17/C1	PNL 7	PNL 17	600	10	4	M	BS	45	TRAY		NEW
P7P17/C2	PNL 7	PNL 17	600	10	4	M	BS	45	TRAY		NEW
P5P11/C2	PANEL 5	PANEL 11								REMOVAL CABLE	REMOVE
P16P17/AC	26KV PNL 16	26KV PNL 17	600	10	4	M	BS	45	TRAY	26KV PNL 16 THRU 19 – AC POWER	NEW
P17P18/AC	26KV PNL 17	26KV PNL 18	600	10	4	M	BS	45	TRAY	26KV PNL 16 THRU 19 – AC POWER	NEW
P18P19/AC	26KV PNL 18	26KV PNL 19	600	10	4	M	BS	45	TRAY	26KV PNL 16 THRU 19 – AC POWER	NEW
P16/AC	AC POWER PNL ACP-2	26KV PNL 16	600	10	4	M	BS	55	ACP2W1, TRAY	26KV PNL 16 THRU 19 – AC POWER	NEW
P7/AC	AC POWER PNL ACP-2	230KV PNL 7	600	10	4	M	BS	60	ACP2W1, TRAY	230KV PNL 7 – AC POWER	NEW
P16/DC1	DC POWER PNL DCP-1	230KV PNL 16	600	10	4	M	B	65	DCP1W1, TRAY	230KV PNL 16 – DC POWER # 1	NEW
P17/DC1	DC POWER PNL DCP-1	230KV PNL 17	600	10	4	M	B	70	DCP1W1, TRAY	230KV PNL 17 – DC POWER # 1	NEW
P18/DC1	DC POWER PNL DCP-1	230KV PNL 18	600	10	4	M	B	70	DCP1W1, TRAY	230KV PNL 18 – DC POWER # 1	NEW
P19/DC1	DC POWER PNL DCP-1	230KV PNL 19	600	10	4	M	B	75	DCP1W1, TRAY	230KV PNL 19 – DC POWER # 1	NEW
P7/DC1	DC POWER PNL DCP-1	230KV PNL 7	600	10	4	M	B	65	DCP1W1, TRAY	230KV PNL 7 – DC POWER # 1	NEW
P16/DC2	DC POWER PNL DCP-2	230KV PNL 16	600	10	4	M	B	65	DCP2W1, TRAY	230KV PNL 16 – DC POWER # 2	NEW
P18/DC2	DC POWER PNL DCP-2	230KV PNL 18	600	10	4	M	B	70	DCP2W1, TRAY	230KV PNL 18 – DC POWER # 2	NEW
P7/DC2	DC POWER PNL DCP-2	230KV PNL 7	600	10	4	M	B	65	DCP2W1, TRAY	230KV PNL 7 – DC POWER # 2	NEW

NOTES:

1. CONTROL CABLE FOR RELAY PANELS AND FO CABLE SHALL BE FURNISHED BY THE OWNER, UNLESS OTHERWISE SPECIFIED.
2. THE CONTRACTOR SHALL FURNISH ALL OTHER CABLES, INCLUDING AC & DC POWER CABLES AS SPECIFIED.
3. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL CABLE LENGTHS. CABLE LENGTHS LISTED ARE APPROXIMATE.
4. CABLE DESIGNATIONS:

A- 600V THHN INSULATED COPPER CONDUCTOR, RATED
B- CONTROL CABLE
BS - SHIELDED CONTROL CABLE
C - RHW, THHW, OR THWN INSULATED COPPER CONDUCTOR, RATED 600V
F - INSTRUMENT CABLE
FO - FIBER OPTIC CABLE
S - SINGLE CONDUCTOR
M - MULTIPLE CONDUCTOR

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0	05/17/2025	8007832	NOCATEE T2 ADDITION	JWR	JWR

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DATE	05/17/2025
BY	JWR
REVIEW BY	JWR
DRAFTING	
DATE	05/17/2025
BY	JWR
REVIEW BY	-

230-26KV T2 ADDITION

CABLE SCHEDULE

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

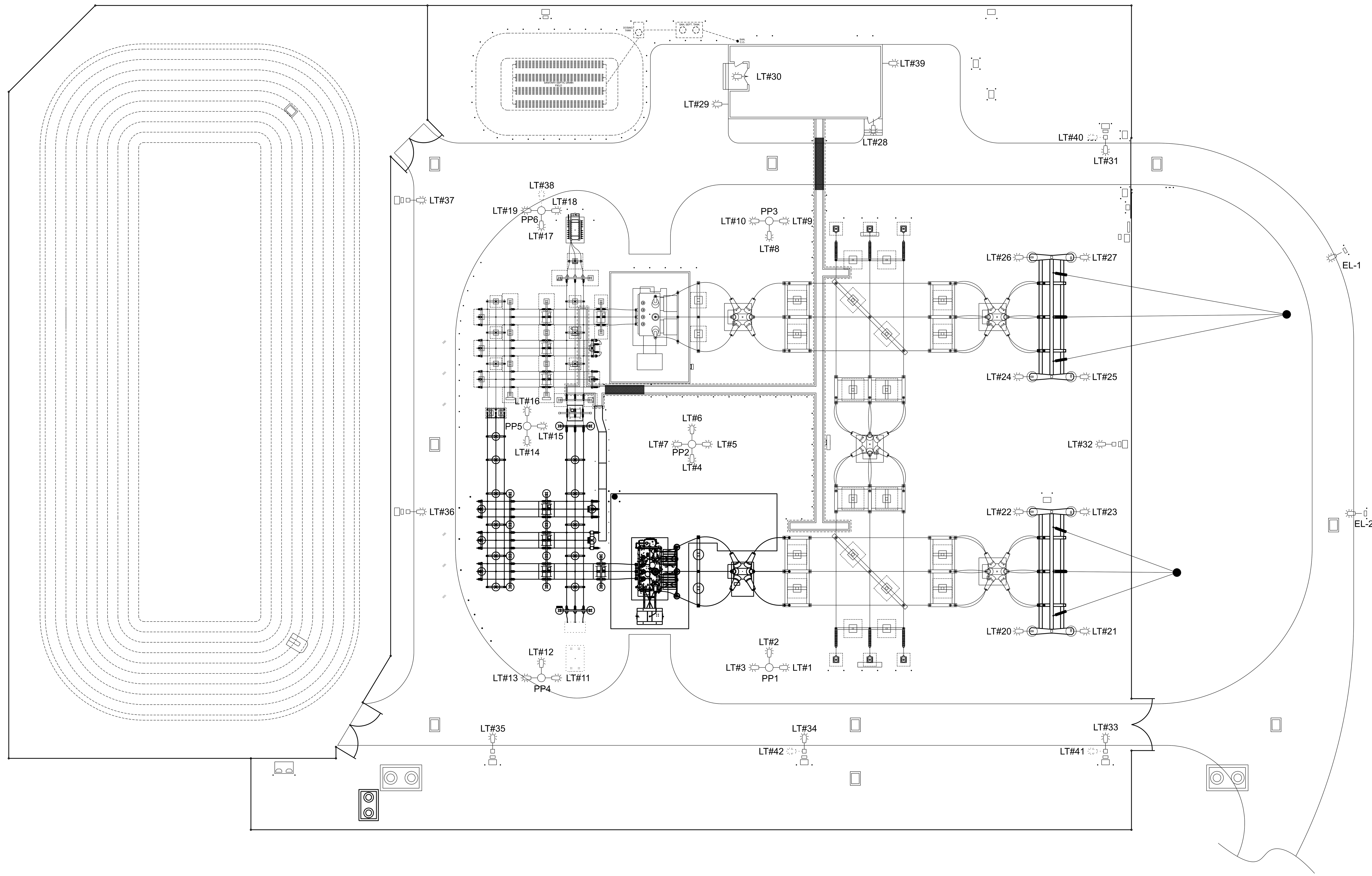
TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

SHEET NUMBER: CA2

PROJECT ID: NC2024

SEQUENCE #: 31 OF 35



NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE SHEET GN1.
2. FOR LIGHT FIXTURE DETAILS SEE TABLES ON DRAWING IL2.
3. ADD LIGHTING FIXTURE SHIELDS TO EXISTING FIXTURES TO BLOCK LIGHT SPILLAGE OUTSIDE STATION FENCE. CONTRACTOR TO FURNISH AND INSTALL (35) SHIELDS.

LEGEND

PROPOSED LIGHT FIXTURE

EXISTING LIGHT FIXTURE

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BY	PN
REVIEW BY	TRG
DRAFTING	
DATE	06/06/2025
BY	PN
REVIEW BY	TRG

230-26KV T2 ADDITION

ILLUMINATION PLAN

JEA NOCATEE SUBSTATION

SCALE: 1"=20'

TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

SHEET NUMBER: IL1

PROJECT ID: NC2024

TABLE 1

LUMINAIRE LOCATION SUMMARY

LUM. #	LUMINAIRE TYPE	MOUNTING HEIGHT (FT)	BRACKET/ARM	DESCRIPTION
LT#1	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#2	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#3	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#4	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#5	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#6	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#7	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#8	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#9	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#10	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#11	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#12	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#13	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#14	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#15	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#16	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#17	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#18	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#19	AREA LIGHT - 40W	30	LM 3' EXISTING	EXISTING
LT#20	AREA LIGHT - 40W	30	3' EXISTING	EXISTING
LT#21	AREA LIGHT - 40W	30	3' EXISTING	EXISTING
LT#22	AREA LIGHT - 40W	30	3' EXISTING	EXISTING
LT#23	AREA LIGHT - 40W	30	3' EXISTING	EXISTING
LT#24	AREA LIGHT - 40W	30	3' EXISTING	EXISTING
LT#25	AREA LIGHT - 40W	30	3' EXISTING	EXISTING
LT#26	AREA LIGHT - 40W	30	3' EXISTING	EXISTING
LT#27	AREA LIGHT - 40W	30	3' EXISTING	EXISTING
LT#28	WALLPACK - 69W	8	N/A	EXISTING
LT#29	WALLPACK - 69W	8	N/A	EXISTING
LT#30	WALLPACK - 69W	8	N/A	EXISTING
LT#31	AREA LIGHT - 115W	30	8' EXISTING	EXISTING
LT#32	AREA LIGHT - 40W	30	8' EXISTING	EXISTING
LT#33	AREA LIGHT - 115W	30	8' EXISTING	EXISTING
LT#34	AREA LIGHT - 115W	30	8' EXISTING	EXISTING
LT#35	AREA LIGHT - 115W	30	8' EXISTING	EXISTING
LT#36	AREA LIGHT - 115W	30	8' EXISTING	EXISTING
LT#37	AREA LIGHT - 115W	30	8' EXISTING	EXISTING
LT#38	AREA LIGHT - 40W	30	LM 3' FUTURE	FUTURE
LT#39	WALLPACK - 69W	30	N/A	FUTURE
LT#40	AREA LIGHT - 115W	30	8' FUTURE	FUTURE
LT#41	AREA LIGHT - 115W	30	8' FUTURE	FUTURE
LT#42	AREA LIGHT - 115W	30	8' FUTURE	FUTURE

TABLE 2

LUMINAIRE SCHEDULE

LUMINAIRE TYPE	LUMINAIRE LUMENS	LLF	DESCRIPTION	JEA CATALOG #	EXISTING QTY	FUTURE QTY
AREA LIGHT - 40W	5000	0.81	ERLC005C540AGRAYLT088	STLLE001	28	1
WALLPACK - 69kV	10700	0.81	WGH2-LSCS-5K-70W		3	1
AREA LIGHT - 115W	11500	0.81	ERLH011C340AGRAYLTX180	STLLE002	6	3
AREA LIGHT - 135W	15037	0.81	VP-1-160L-135-4K7-4W	CONTRACTOR SUPPLIED	0	0

TABLE 3

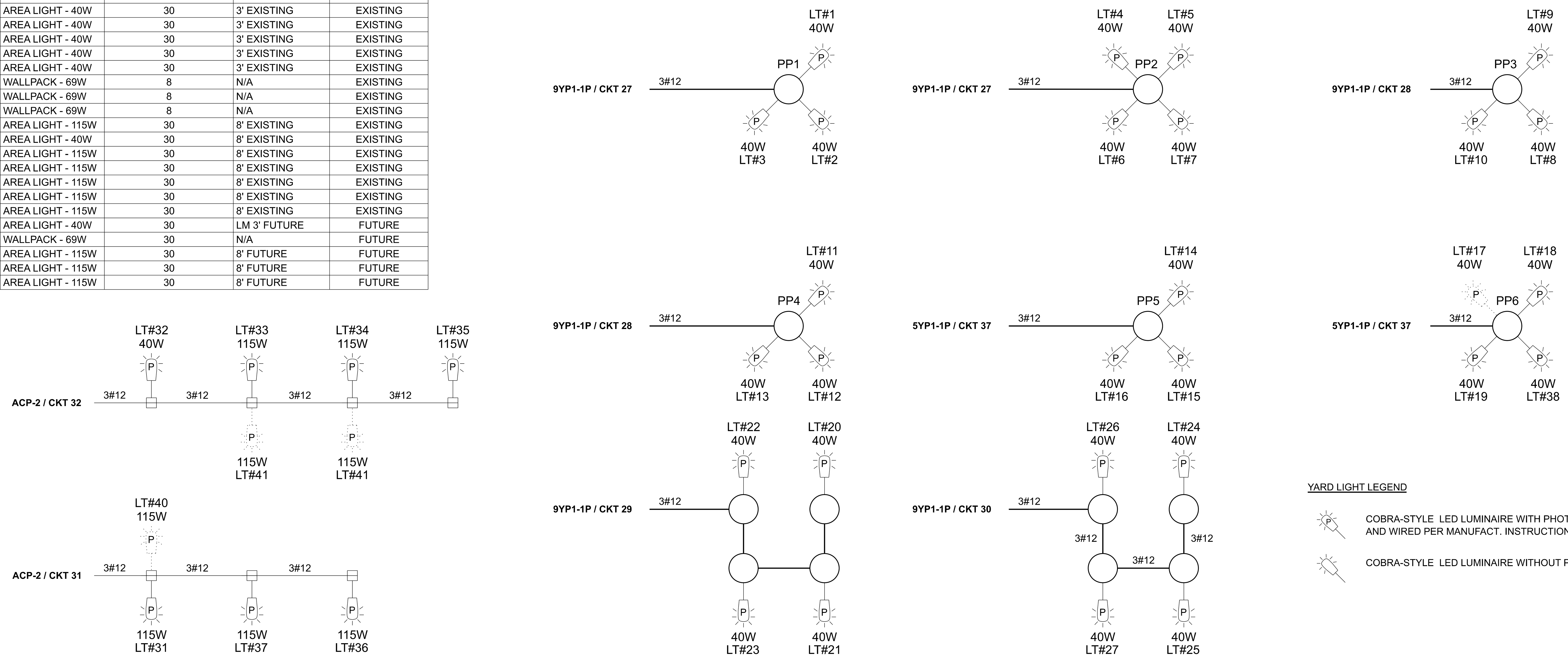
"EXISTING" CALCULATION SUMMARY

LABEL	CALCTYPE	UNITS	AVG.	MAX.	MIN.
EQUIPMENT YARD	ILLUMINANCE	FC	1.80	17.6	0.2
PERIMETER	ILLUMINANCE	FC	1.42	6.1	0
TOTAL INSIDE FENCE	ILLUMINANCE	FC	1.67	17.6	0
SPILL AREA	ILLUMINANCE	FC	0.15	4.2	0

TABLE 4

"FUTURE" CALCULATION SUMMARY

LABEL	CALCTYPE	UNITS	AVG.	MAX.	MIN.
EQUIPMENT YARD	ILLUMINANCE	FC	2.04	17.6	0.5
PERIMETER	ILLUMINANCE	FC	2.14	34.0	0
TOTAL INSIDE FENCE	ILLUMINANCE	FC	2.08	34.0	0
SPILL AREA	ILLUMINANCE	FC	0.16	4.2	0



YARD LIGHT LEGEND

COBRA-STYLE LED LUMINAIRE WITH PHOTOCELL MOUNTED ONTO LUMINAIRE AND WIRED PER MANUFACT. INSTRUCTIONS.

COBRA-STYLE LED LUMINAIRE WITHOUT PHOTOCELL

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE SHEET GN1.

JEA
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DATE	06/06/2025
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230-26KV T2 ADDITION

ILLUMINATION DETAILS

JEA NOCATEE SUBSTATION

SCALE: AS NOTED

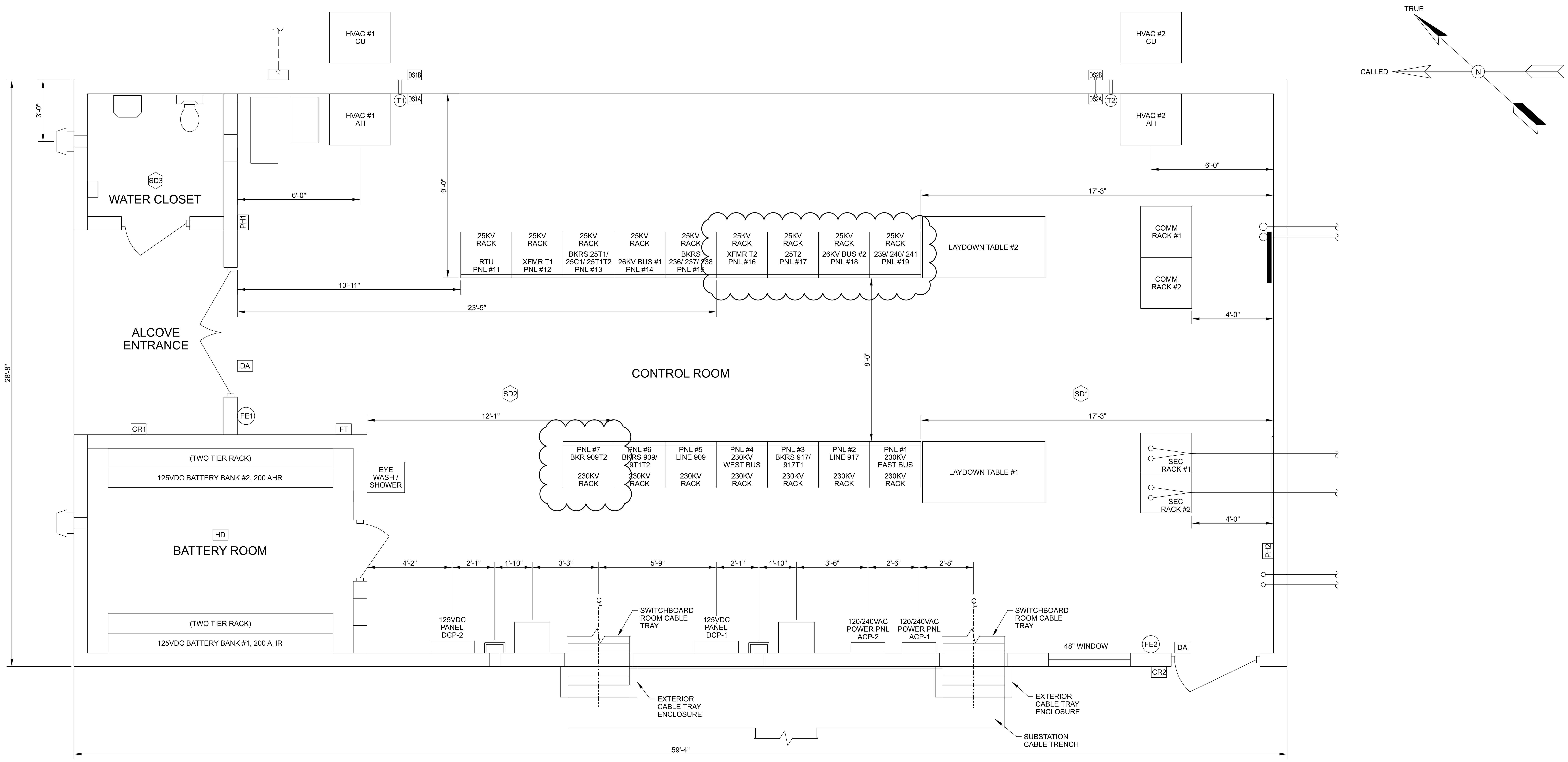
TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8007832

SHEET NUMBER: IL2

PROJECT ID: NC2024

SEQUENCE #: 33 OF 35



NOTES:

1. THE OWNER WILL FURNISH ONE (1) 230KV AND FOUR (4) 26KV RELAY PANELS. THE RELAY PANELS SHALL BE DELIVERED TO THE JOB SITE BY THE RELAY PANEL MANUFACTURER. THE CONTRACTOR SHALL UNLOAD THEM FROM THE TRUCK AND INSTALL THEM PER THESE PLANS AND DRAWINGS. INSTALLATION SHALL INCLUDE ANCHORING THE EQUIPMENT TO THE CONTROL HOUSE FLOOR AND CONNECTING THE PANELS/RACKS TO THE CABLE TRAY GROUND CONDUCTOR.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL AC & DC POWER CABLES FOR FIVE NEW RELAY PANELS.

LEGEND:

- DA — DOOR ALARM (FURNISHED & INSTALLED BY JEA)
- CR — CARD READER (FURNISHED & INSTALLED BY JEA)
- DS — HVAC ELECTRICAL DISCONNECT SWITCH
- T — HVAC UNIT THERMOSTAT (FURNISHED & INSTALLED BY CONTRACTOR)
- PH — WALLMOUNT / TELEPHONE HANDSET (SEE NOTE 14)
- SD — SMOKE DETECTOR (FURNISHED & INSTALLED BY CONTRACTOR)
- HD — EXPLOSION PROOF HEAT DETECTOR (FURNISHED & INSTALLED BY CONTRACTOR)
- FT — INTERMATIC FAN TIMER MODEL T1975 (FURNISHED AND INSTALLED BY CONTRACTOR)
- FE — FIRE EXTINGUISHER (SEE NOTE 12)
- — — CONDUITS PLACED IN SLAB/UNDERGROUND

3/8" = 1'-0" 0 2' 4'

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BY	JWR
REVIEW BY	JWR
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DATE	05/08/2025
BY	JWR
REVIEW BY	JWR

230-26KV T2 ADDITION

CONTROL HOUSE ARRANGEMENT

JEA NOCATEE SUBSTATION

SCALE: 3/8"=1'-0"

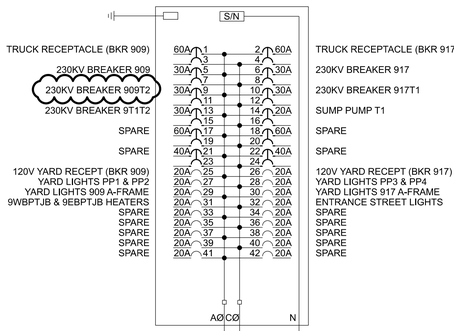
TRANSMISSION & SUBSTATION PROJECTS - 20410

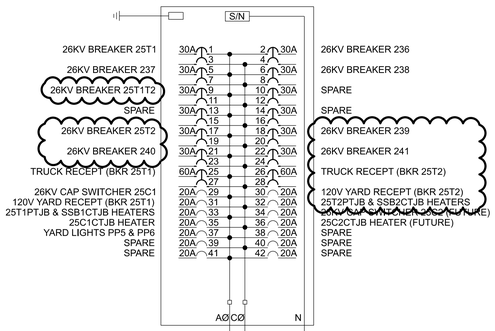
PROJ #: 8007832

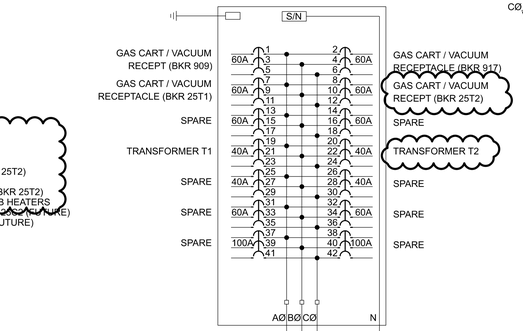
SHEET NUMBER: CE1

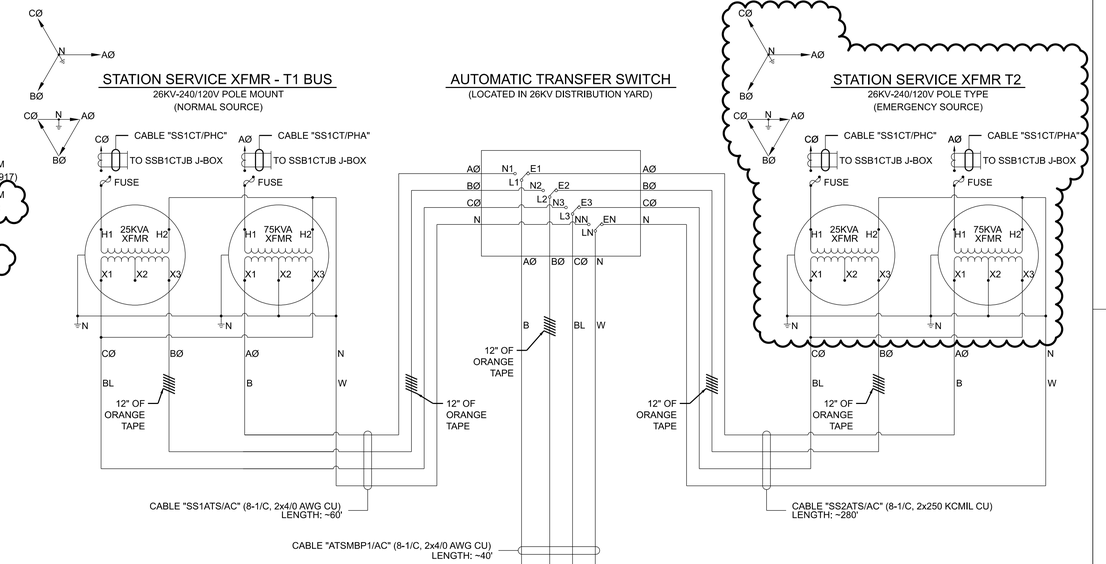
PROJECT ID: NC2024

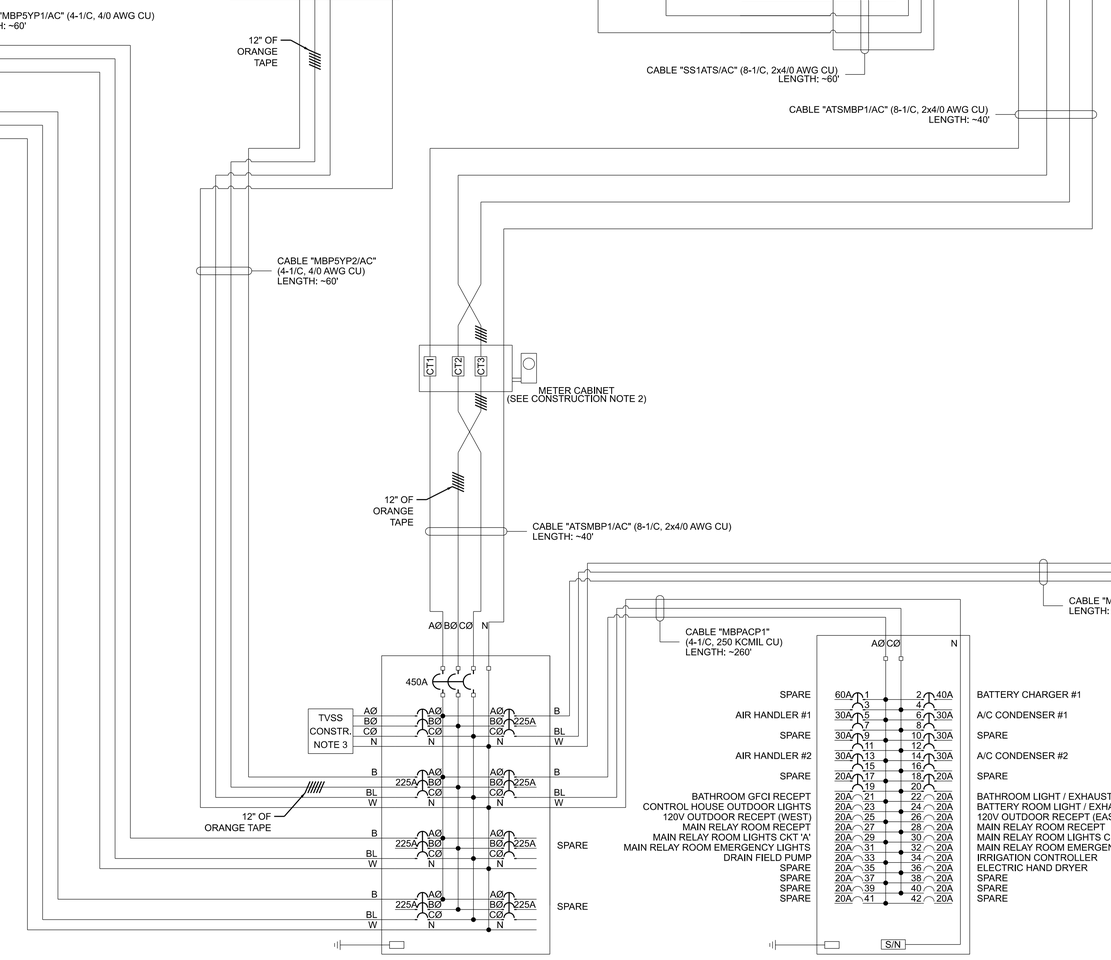
SEQUENCE #: 34 OF 35





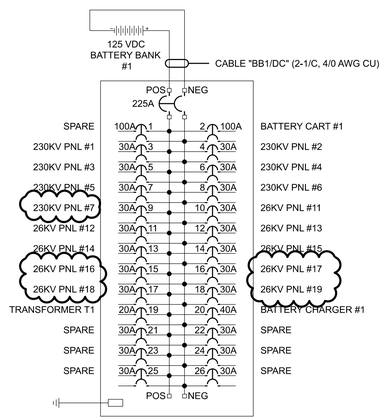






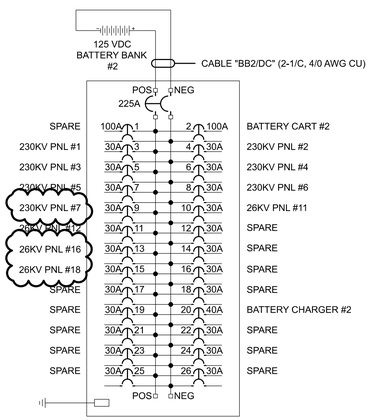
CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL VERIFY THE PANEL BREAKER SIZES AND REPLACE ANY INCORRECT BREAKER AS NECESSARY FOR THIS PROJECT. PANEL BREAKERS SHALL BE BOLT-ON TYPE AND LABELED AND RATED IN ACCORDANCE WITH THIS DRAWING.
2. THE CONTRACTOR SHALL BE AWARE OF AND DETERMINE THE "HIGH LEG" OF THE THREE PHASE STATION SERVICE AND MARK WITH TWELVE (12") INCHES OF ORANGE TAPE AT ALL TERMINATION POINTS. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT NO 120V CIRCUITS ARE CONNECTED TO THE "HIGH LEG".
3. THE CONTRACTOR SHALL LABEL THE ELECTRICAL PANELS AND BRANCH BREAKERS ACCORDING TO THE INSTRUCTIONS IN THE LABELING SUBSECTION OF THE ELECTRICAL SPECIFICATIONS.
4. ELECTRICAL INSTALLATION SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE. LUG TEMPERATURE RATINGS SHALL BE 75°C.
5. WIRE TYPE AND MINIMUM SIZE, FOR AC CIRCUITS NOT SHOWN ON THIS SHEET OR DEFINED ON THE CONDUIT & CIRCUIT SCHEDULE SHALL BE AS FOLLOWS, UNLESS SPECIFIED OTHERWISE:
   - 5.1. 20A BREAKER - STRANDED 12 AWG THWN CU.
   - 5.2. 30A BREAKER - STRANDED 10 AWG THWN CU.
   - 5.3. 40A BREAKER - STRANDED 8 AWG THWN CU.
   - 5.4. 50A & 60A BREAKER - STRANDED 6 AWG THWN CU.



D.C. PANEL #1 (DCP-1)

(LOCATED IN THE CONTROL HOUSE)
2-WIRE, 125 VDC, 225A, SURFACE MOUNTED,
SQUARE D, I-LINE TYPE HCN WITH SQUARE D
TYPE FA BREAKERS WITH NEMA 1 ENCLOSURE
WITH 225A MAIN LUGS (TOP) AND
SUB-FEED LUGS (BOTTOM)
(LOCKABLE COVER AND / OR DOOR).

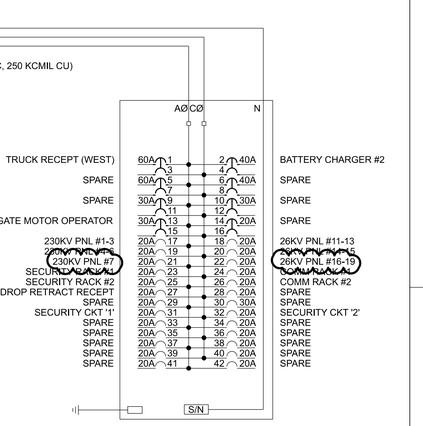


D.C. PANEL #2 (DCP-2)

(LOCATED IN THE CONTROL HOUSE)
2-WIRE, 125 VDC, 225A, SURFACE MOUNTED,
SQUARE D, I-LINE TYPE HCN WITH SQUARE D
TYPE FA BREAKERS WITH NEMA 1 ENCLOSURE
WITH 225A MAIN LUGS (TOP) AND
SUB-FEED LUGS (BOTTOM)
(LOCKABLE COVER AND / OR DOOR).

A.C. PANEL #1 (ACP-1)

(LOCATED IN THE CONTROL HOUSE)
1Ø, 3-WIRE, 120/240V, 225A, SOLID NEUTRAL,
SURFACE MOUNTED, SQUARE D, TYPE NQOD PANELBOARD
WITH 42 SINGLE POLE BRANCHES EQUIPPED WITH SQUARE D
TYPE QOB BREAKERS WITH NEMA 1 ENCLOSURE
AND LIGHTNING ARRESTER
(LOCKABLE COVER AND / OR DOOR).



A.C. PANEL #2 (ACP-2)

(LOCATED IN THE CONTROL HOUSE)
1Ø, 3-WIRE, 120/240V, 225A, SOLID NEUTRAL,
SURFACE MOUNTED, SQUARE D, TYPE NQOD PANELBOARD
WITH 42 SINGLE POLE BRANCHES EQUIPPED WITH SQUARE D
TYPE QOB BREAKERS WITH NEMA 1 ENCLOSURE
AND LIGHTNING ARRESTER
(LOCKABLE COVER AND / OR DOOR).

JEA
225 N. PEARL 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: _____

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW BY
0	05/05/2025	8007832	NOCATEE T2 ADDITION	JWR	JWR

ENGINEERING	
DATE	05/05/2025
BY	JWR
REVIEW BY	JWR
DRAFTING	
DATE	05/05/2025
BY	JWR
REVIEW BY	JWR

230-26KV T2 ADDITION

LOW VOLTAGE DISTRIBUTION PLAN

JEA NOCATEE SUBSTATION

SCALE: AS NOTED
TRANSMISSION & SUBSTATION PROJECTS - 20410
PROJ #: 8007832

SHEET NUMBER: LV1
PROJECT ID: NC2024
SEQUENCE #: 35 OF 35