

METER AND CURRENT TRANSFORMER SCHEDULE

TAG	FROM	TO	SHOWN ON SHEET	BUILDING/LOCATION	NAE/NCE NUMBER	CAPACITY (KVA)	SYSTEM ARCHITECTURE SCENARIO	COMMUNICATION TRUNK	SERVICE VOLT/PHASE/WIRE	CURRENT RATIO	REMARKS
XFMR-MD	NAE-1	XFMR-MG	ES102	133	1	1500	A		480/277V / 3ø / 4W	2000 TO 5	D3, N3
XFMR-MG	XFMR-MD	XFMR-MA	ES102	133	1	750	A	A	208/120V / 3ø / 4W	2400 TO 5	D3, N3
XFMR-MA	XFMR-MG	XFMR-MC	ES102	133	1	2000	A	A	480/277V / 3ø / 4W	2400 TO 5	D3, N3
XFMR-MC	XFMR-MA	XFMR-MB	ES102	133	1	300	A	A	208/120V / 3ø / 4W	1000 TO 5	D3, N3
XFMR-MB	XFMR-MC	XFMR-MF	ES102	133	1	2000	A	A	2400V / 3ø / 3W	600 TO 5	D3, N3, N15
XFMR-MF	XFMR-MB	XFMR-ME	ES102	133	1	2500	A	A	480/277V / 3ø / 4W	3000 TO 5	N14
XFMR-ME	XFMR-MF	EOL	ES102	133	1	2500	A	A	480/277V / 3ø / 4W	3000 TO 5	D5, N3
XFMR-MI	NAE-15	XFMR-MH	ES103	133	15	3000	A	-	480/277V / 3ø / 4W	4000 TO 5	N2
XFMR-MH	XFMR-MI	EOL	ES103	133	15	1000	A	-	4160V / 3ø / 4W	200 TO 5	N2, N15
XFMR-TB	NAE-19	XFMR-TA	ES103	1798	19	500	A	A1	208/120V / 3ø / 4W	1600 TO 5	D4, N2
XFMR-TA	XFMR-TB	XFMR-TD	ES103	1798	19	750	A	A1	480V / 3ø / 3W	1000 TO 5	D4, N2, N15
XFMR-TD	XFMR-TA	XFMR-TC	ES103	1798	19	300	A	A1	480/277V / 3ø / 4W	400 TO 5	D8, N6
XFMR-TC	XFMR-TD	XFMR-UA	ES103	1798	19	2160	A	A1	660/380V / 3ø / 4W	2000 TO 5	D8, N6, N15
XFMR-UA	XFMR-TC	XFMR-UB	ES103	3767	19	150	A	A1	208/120V / 3ø / 4W	400 TO 5	D9, N2
XFMR-UB	XFMR-UA	XFMR-RA	ES103	4809	19	225	A	A1	480/277V / 3ø / 4W	300 TO 5	N2
XFMR-RA	XFMR-UB	EOL	ES102	3402	19	2500	A	A1	480/277V / 3ø / 4W	3000 TO 5	D3, N3
XFMR-OC	SBC	XFMR-OD	ES102	4498	-	750	C	A2	480/277V / 3ø / 4W	1000 TO 5	D4, N2, N13
XFMR-OD	XFMR-OC	XFMR-OA	ES102	4498	-	750	C	A2	480/277V / 3ø / 4W	1000 TO 5	D4, N2, N13
XFMR-OA	XFMR-OD	XFMR-OB	ES102	4533	-	500	C	A2	480/277V / 3ø / 4W	600 TO 5	D4, N2, N13
XFMR-OB	XFMR-OA	EOL	ES103	4497	-	750	C	A2	480/277V / 3ø / 4W	1000 TO 5	D8, N6, N13
XFMR-JA	NAE-1	XFMR-JB	ES102	4035	1	1500	A	B	480/277V / 3ø / 4W	2000 TO 5	D6, N7
XFMR-JB	XFMR-JA	XFMR-KA	ES102	4035	1	1500	A	B	480/277V / 3ø / 4W	2000 TO 5	D6, N7
XFMR-KA	XFMR-JB	XFMR-FJ	ES102	129	1	500	A	B	208/120V / 3ø / 4W	1600 TO 5	D4, N4
XFMR-FJ	XFMR-KA	XFMR-FB	ES102	137	1	1500	A	B	480/277V / 3ø / 4W	2000 TO 5	D6, N3
XFMR-FB	XFMR-FJ	XFMR-J	ES101	137	1	750	A	B	208/120V / 3ø / 4W	2400 TO 5	D3, N3
XFMR-FD	-	-	ES101	137	17	1000	E	-	480/277V / 3ø / 4W	1200 TO 5	N5
XFMR-FG	-	-	ES101	137	17	750	E	-	208/120V / 3ø / 4W	2400 TO 5	N5
XFMR-FF	-	-	ES101	137	17	2000	E	-	480/277V / 3ø / 4W	2400 TO 5	N5
XFMR-FE	-	-	ES101	137	17	1500	E	-	240V / 3ø / 3W	4000 TO 5	N5
XFMR-FI	XFMR-FE	XFMR-FH	ES101	137	1	1000	A	B	480/277V / 3ø / 4W	1200 TO 5	D3, N3
XFMR-FH	XFMR-FI	XFMR-FK	ES101	137	1	3000	A	B	2400V / 3ø / 4W	800 TO 5	N2, N15
XFMR-FK	XFMR-FH	XFMR-FA	ES101	137	1	1500	A	B	480/277V / 3ø / 4W	2000 TO 5	D3, N3
XFMR-FA	XFMR-FK	XFMR-ED	ES101	137	1	1500	A	B	480/277V / 3ø / 4W	2000 TO 5	D3, N3
XFMR-ED	XFMR-FA	XFMR-EA	ES101	138	1	750	A	B	480/277V / 3ø / 4W	1000 TO 5	D3, N3
XFMR-EA	XFMR-ED	XFMR-EB	ES101	138	1	2500	A	B	480/277V / 3ø / 4W	3000 TO 5	D4, N4
XFMR-EB	XFMR-EA	XFMR-EC	ES101	138	1	500	A	B	208/120V / 3ø / 4W	1600 TO 5	D3, N3
XFMR-EC	XFMR-EB	XFMR-EE	ES101	138	1	2500	A	B	2600V / 3ø / 3W	600 TO 5	D3, N3, N15
XFMR-EE	XFMR-EC	XFMR-FC	ES101	138	1	300	A	B	240V / 3ø / 3W	800 TO 5	D3, N3, N11, N15
XFMR-FC	XFMR-EE	XFMR-DA	ES101	137	1	750	A	B	480/277V / 3ø / 4W	1000 TO 5	D4, N6
XFMR-DA	XFMR-FC	XFMR-CA	ES101	4036	1	500	A	B	480/277V / 3ø / 4W	600 TO 5	D4, N4
XFMR-CA	XFMR-DA	XFMR-BA	ES101	3766	1	500	A	B	480/277V / 3ø / 4W	600 TO 5	D4, N2
XFMR-BA	XFMR-CA	EOL	ES101	245	1	2300	A	B	480/277V / 3ø / 4W	3000 TO 5	D5, N3
XFMR-IB	NAE-1	XFMR-IA	ES102	83	1	500	A	C	480/277V / 3ø / 3W	600 TO 5	D4, N2
XFMR-IA	XFMR-IB	XFMR-HA	ES102	83	1	300	A	C	208/120V / 3ø / 4W	1000 TO 5	D4, N2
XFMR-HA	XFMR-IA	XFMR-GA	ES102	84	1	300	A	C	208/120V / 3ø / 4W	1000 TO 5	D4, N2
XFMR-GA	XFMR-HA	XFMR-AAA	ES102	RAMAIR	1	1500	A	C	2400V / 3ø / 3W	400 TO 5	D4, N4, N15
XFMR-AAA	XFMR-GA	XFMR-YA	ES104	143	1	1000	A	C	208/120V / 3ø / 4W	3000 TO 5	D4, N2
XFMR-YA	XFMR-AAA	XFMR-XB	ES104	1794	1	112.5	A	C	208/120V / 3ø / 4W	400 TO 5	D4, N6
XFMR-XB	XFMR-YA	XFMR-XA	ES104	1792	1	500	A	C	480/277V / 3ø / 4W	600 TO 5	D4, N9
XFMR-XA	XFMR-XB	EOL	ES104	1793	1	4000	A	C	575V / 3ø / 4W	4000 TO 5	D8, N16, N17
XFMR-VA	NAE-6	XFMR-VB	ES103	4224	6	2500	F	-	480/277V / 3ø / 4W	3000 TO 5	N8
XFMR-VB	XFMR-VA	EOL	ES103	4224	6	2500	F	-	480/277V / 3ø / 4W	3000 TO 5	N8
XFMR-WB	NAE-8	XFMR-WA	ES103	4225	8	2500	A	D	480/277V / 3ø / 4W	3000 TO 5	D5, N3
XFMR-WA	XFMR-WB	XFMR-IIC	ES103	4225	8	2500	A	D	480/277V / 3ø / 4W	3000 TO 5	D5, N3
XFMR-IIC	XFMR-WA	XFMR-IIA	ES106	159	8	500	A	D	480/277V / 3ø / 4W	600 TO 5	D8, N6, N11
XFMR-IIA	XFMR-IIC	XFMR-HHA	ES106	159	8	1500	A	D	480/277V / 3ø / 4W	2000 TO 5	D4, N2
XFMR-HHA	XFMR-IIA	EOL	ES103	154	8	500	A	D	480/277V / 3ø / 4W	600 TO 5	D4, N2
XFMR-LA	NAE-2	XFMR-LB	ES102	188	2	750	B	-	208/120V / 3ø / 4W	2400 TO 5	N10
XFMR-LB	XFMR-LA	STALL 1 ER	ES102	188	2	750	B	-	480/277V / 3ø / 4W	1000 TO 5	N10
STALL 1 ER	XFMR-LB	STALL 2 ER	ES102	188	2	-	B	-	480/277V / 3ø / 4W	400 TO 5	N3
STALL 2 ER	STALL 1 ER	STALL 4 ER	ES102	188	2	-	B	-	480/277V / 3ø / 4W	400 TO 5	N3
STALL 4 ER	STALL 2 ER	STALL 3 ER	ES102	188	2	-	B	-	480/277V / 3ø / 4W	400 TO 5	N3
STALL 3 ER	STALL 4 ER	EOL	ES102	188	2	-	B	-	480/277V / 3ø / 4W	400 TO 5	N3
XFMR-BBA	UNKNOWN	UNKNOWN	ES105	163	4	300	A	-	480/277V / 3ø / 4W	400 TO 5	D2, N2, N20
XFMR-CCA	UNKNOWN	UNKNOWN	ES105	4033	4	225	A	-	208/120V / 3ø / 4W	800 TO 5	D2, N2, N20
XFMR-NA	UNKNOWN	UNKNOWN	ES102	4188	5	750	A	-	480/277V / 3ø / 4W	1000 TO 5	D2, N2, N20
XFMR-SA	UNKNOWN	UNKNOWN	ES103	1006	5	300	A	-	480/277V / 3ø / 4W	400 TO 5	D2, N2, N20
XFMR-SB	UNKNOWN	UNKNOWN	ES103	CANS	5	150	A	-	208/120V / 3ø / 4W	400 TO 5	D2, N2, N20
XFMR-DDA	UNKNOWN	UNKNOWN	ES105	4032	7	1000	A	-	480/277V / 3ø / 4W	1200 TO 5	D2, N2, N20
XFMR-FFA	UNKNOWN	UNKNOWN	ES105	4172	7	75	A	-	208/120V / 3ø / 4W	200 TO 5	D2, N2, N20
XFMR-EEA	UNKNOWN	XFMR-GCA	ES105	4172	7	300	A	-	480V / 3ø / 3W	400 TO 5	D2, N2, N15, N20
XFMR-GCA	XFMR-EEA	XFMR-IWPD	ES105	4247	7	300	A	-	208/120V / 3ø / 4W	1000 TO 5	N2
XFMR-IWPD	XFMR-GCA	EOL	ES105	4247	7	225	A	-	480/277V / 3ø / 4W	300 TO 5	N2

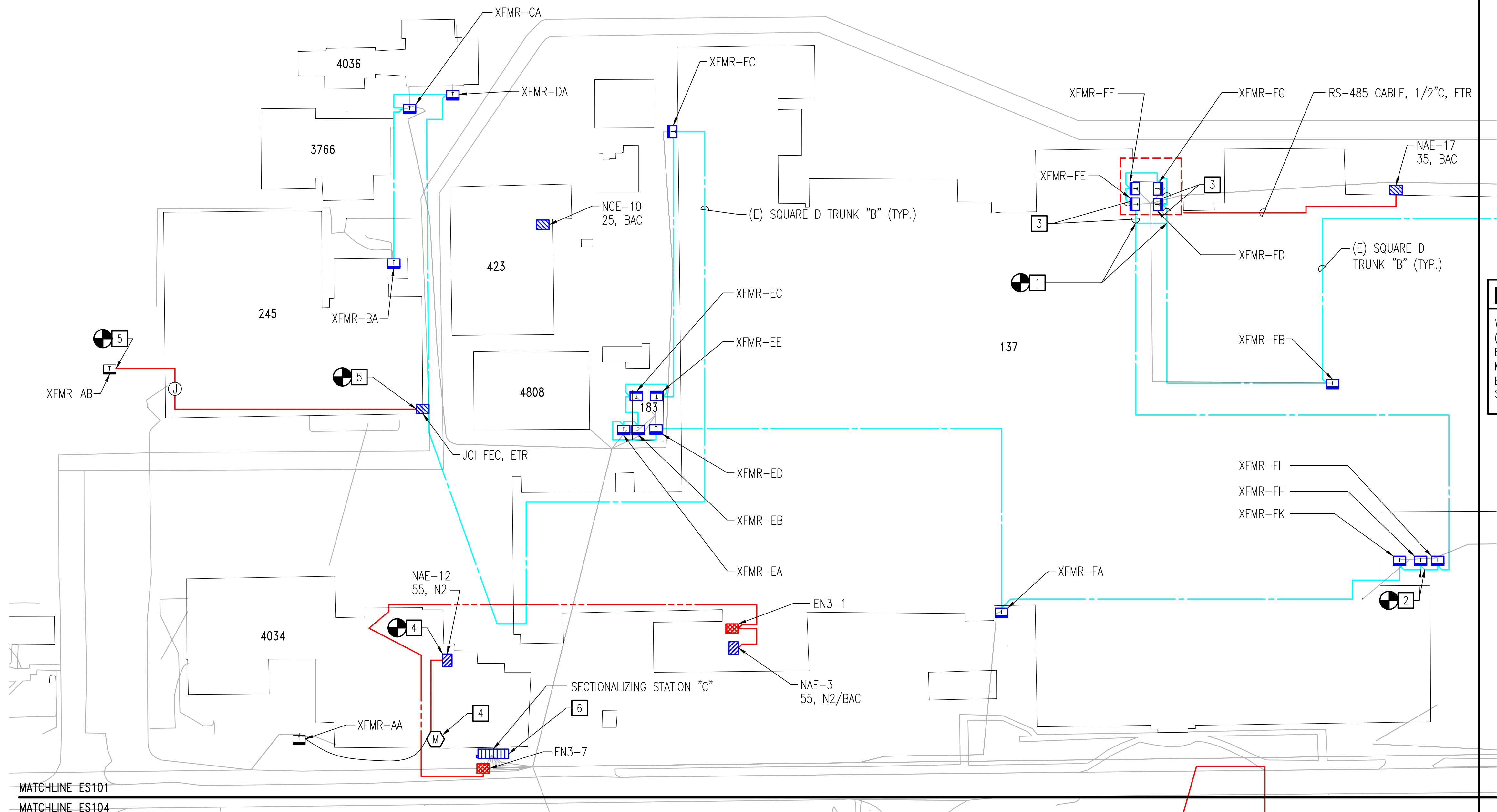
METER AND CURRENT TRANSFORMER SCHEDULE (CONT.)

TAG	FROM	TO	SHOWN ON SHEET	BUILDING/LOCATION	NAE/NCE NUMBER	CAPACITY (KVA)	SYSTEM ARCHITECTURE SCENARIO	COMMUNICATION TRUNK	SERVICE VOLT/PHASE/WIRE	CURRENT RATIO	REMARKS
XFMR-JJB	NAE-9	XFMR-JJA	ES107	200	9	500	A	-	480/277V / 3ø / 4W	600 TO 5	D2, N2
XFMR-JJA	XFMR-JJB	EOL	ES107	4470	9	1500	A	-	480/277V / 3ø / 4W	2000 TO 5	D2, N2
XFMR-ZZ2	UNKNOWN	XFMR-ZZ1	ES107	4841	16	500	A	-	480/277V / 3ø / 4W	600 TO 5	N11, N18, N20
XFMR-ZZ1	XFMR-ZZ2	4841PV	ES107	4841	16	500	A	-	208/120V / 3ø / 4W	1600 TO 5	N11, N18, N20
4841PV	XFMR-ZZ1	UNKNOWN	ES107	4841	16	50	A	-	480/277V / 3ø / 4W	100 TO 5	D11, N17, N20
XFMR-ZZ3	UNKNOWN	UNKNOWN	ES107	4930	18	750	A	-	480/277V / 3ø / 4W	1000 TO 5	N11, N19, N20
XFMR-ZZ4	UNKNOWN	UNKNOWN	ES107	4930	18	2000	A	-	4160/2400V / 3ø / 4W	400 TO 5	D10, N3, N11, N15, N20
4930PV	UNKNOWN	UNKNOWN	ES107	4930	18	50	A	-	480/277V / 3ø / 4W	100 TO 5	D11, N17, N20
C7	NAE-3	C8	ES101	C STATION	3	-	D	-	12470/7200V / 3ø / 4W	1200 TO 5	D1, N1, N15
C8	C7	C9	ES101	C STATION	3	-	D	-	12470/7200V / 3ø / 4W	1200 TO 5	D1, N1, N15
C9	C8	C10	ES101	C STATION	3	-	D	-	12470/7200V / 3ø / 4W	1200 TO 5	D1, N1, N15
C10	C9	BLADE	ES101	C STATION	3	-	D	-	12470/7200V / 3ø / 4W	1200 TO 5	D1, N1, N15
BLADE	C10	EOL	ES101	C STATION	3	-	D	-	12470/7200V / 3ø / 4W	1200 TO 5	D1, N1, N15
D9	NAE-2	D10	ES102	D STATION	2	-	D	-	12470/7200V / 3ø / 4W	2000 TO 5	D1, N1, N15
D10	D9	D13	ES102	D STATION	2	-	D	-	12470/7200V / 3ø / 4W	2000 TO 5	D1, N1, N15
D13	D10	D14	ES102	D STATION	2	-	D	-	12470/7200V / 3ø / 4W	2000 TO 5	D1, N1, N15
D14	D13	D17	ES102	D STATION	2	-	D	-	12470/7200V / 3ø / 4W	2000 TO 5	D1, N1, N15
D17	D14	D18	ES102	D STATION	2	-	D	-	12470/7200V / 3ø / 4W	2000 TO 5	D1, N1, N15
D18	D17	D24	ES102	D STATION	2	-	D	-	12470/7200V / 3ø / 4W	2000 TO 5	D1, N1, N15
D24	D18	D25	ES102	D STATION	2	-	D	-	12470/7200V / 3ø / 4W	2000 TO 5	D1, N1, N15
D25	D24	EOL	ES102	D STATION	2	-	D	-	12470/7200V / 3ø / 4W	2000 TO 5	D1, N1, N15
F19	NAE-8	F20	ES103	F STATION	8	-	D	-	12470/7200V / 3ø / 4W	600 TO 5	D1, N1, N15
F20	F19	F21	ES103	F STATION	8	-	D	-	12470/7200V / 3ø / 4W	600 TO 5	D1, N1, N15
F21	F20	F22	ES103	F STATION	8	-	D	-	12470/7200V / 3ø / 4W	600 TO 5	D1, N1, N15
F22	F21	ZFDR	ES103	F STATION	8	-	D	-	12470/7200V / 3ø / 4W	600 TO 5	D1, N1, N15
ZFDR	F22	F-E TIE	ES103	F STATION	8	-	D	-	12470/7200V / 3ø / 4W	600 TO 5	D1, N1, N15
F-E TIE	ZFDR	EOL	ES103	F STATION	8	-	D	-	12470/7200V / 3ø / 4W	3000 TO 5	D1, N1, N15
XFMR-AB	N2 BUS CONN	EOL	ES101	245	3	1000	B	-	480/277V / 3ø / 4W	1200 TO 5	N12
XFMR-AA	NAE-12	EOL	ES101	4034	12	1500	A	-	480/277V / 3ø / 4W	2000 TO 5	D12, N3
XFMR-NB	N2 BUS CONN	EOL	ES102	4807	14	1000	B	-	480/277V / 3ø / 4W	1200 TO 5	N2

DEMOLITION AND NEW WORK NOTES:

- D1. REMOVE EXISTING ELECTRO-MECHANICAL METER MOUNTED TO EXISTING SUPPORT RACK.
- D2. REMOVE EXISTING VERIS MODEL H-8026 METER FROM XFMR.
- D3. REMOVE EXISTING SQUARE D MODEL PM-620 OR PM-650 METER FROM SWITCHBOARD OR SWITCHGEAR.
- D4. REMOVE EXISTING SQUARE D MODEL PM-620 OR PM-650 METER AT XFMR.
- D5. REMOVE EXISTING SQUARE

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MATCHLINE ES101
MATCHLINE ES102

- ### NOTES THIS SHEET
- 1 METERS AT XFMR-FD, -FE, -FF, AND -FG ARE NO LONGER ASSOCIATED WITH COMMUNICATIONS TRUNK "B". THESE METERS COMMUNICATE VIA MODBUS TCP, AND ARE CONNECTED THROUGH A GATEWAY TO NAE-17 VIA BACNET MS/TP. TO REESTABLISH TRUNK "B" CONNECTIVITY, PROVIDE 1" C AND PULL-BOXES IN BUILDING 137, "VAULT 2", TO INTERCEPT, EXTEND, AND COMPLETE TRUNK "B" PATHWAY BETWEEN XFMR-FB AND XFMR-FI.
 - 2 PROVIDE 1" CONDUIT FROM METER SERVING XFMR-FH AND INTERCEPT COMMUNICATIONS TRUNK "B".
 - 3 EXISTING SECTION OF SQUARE D TRUNK "B" SHALL BE ABANDONED IN PLACE.
 - 4 METER AT MAIN SWITCHBOARD (ASSOCIATED WITH XFMR-AA) IN ELECTRICAL ROOM MUST BE CONNECTED TO THE N2 BUS OF NAE-12, THROUGH A GATEWAY, TO BE INSTALLED AT THE NAE-12 LOCATION IN THE STEAM ROOM IN BUILDING 4034. PROVIDE 1" CONDUIT AND COMMUNICATIONS CABLING FROM GATEWAY TO METER AT SWITCHBOARD.
 - 5 THE EXISTING METER SERVING XFMR-AB SHALL BE CONNECTED TO THE N2 COMMUNICATIONS BUS OF NAE-03 THROUGH A GATEWAY, TO BE INSTALLED AT THE EXISTING JCI FEC ENCLOSURE IN BUILDING 245 AS INDICATED. AN EXISTING CONDUIT IS EXTENDED FROM THE METER AT XFMR-AB TO JUST INSIDE THE BUILDING, TERMINATING AT A JUNCTION BOX. PROVIDE 1" CONDUIT FROM THIS JUNCTION BOX AND COMMUNICATION CABLING FROM THE METER AT XFMR-AB TO THE GATEWAY.
 - 6 METERS AT SECTIONALIZING STATION "C" SHALL BE CONNECTED TO THE BACNET BUS OF NAE-3 THROUGH A GATEWAY, TO BE INSTALLED AT THE NAE-3 LOCATION IN BUILDING 137. PROVIDE COMMUNICATION CABLING (MODBUS RTU AND N2 BUSES) IN EXISTING CONDUIT, MAKING TERMINATIONS AT EXISTING N2 DEVICES AND POWER METERS. SEE SHEET E-702 FOR CONTINUATION.

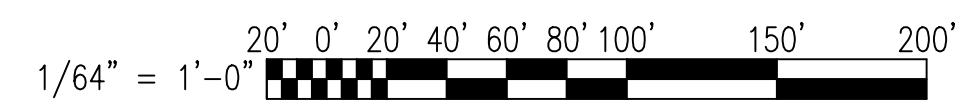
EXISTING N2 COMMUNICATION TRUNKS

WHILE THE NAE'S/NCE'S ASSOCIATED WITH EACH N2 METER ARE KNOWN (IDENTIFIED IN METER AND CURRENT TRANSFORMER SCHEDULE ON SHEET E-002), THE ROUTING OF EXISTING N2 COMMUNICATION BUSES FROM N2 METERS TO ASSOCIATED NAE'S/NCE'S IS UNKNOWN. DOCUMENT EXISTING BUS ROUTING ON CONTRACTOR'S RED-LINED SET OF DRAWINGS AND SUBMIT TO THE GOVERNMENT FOR REVIEW.

DATE	DESCRIPTION	SYN	APP

MECHANICAL ELECTRICAL ENGINEERS
VIRGINIA BEACH, VA - 757-689-7223
WWW.PACE-ENGINEERING.COM

MATCHLINE ES101
MATCHLINE ES104
ELECTRICAL POWER METERING SITE PLAN
SCALE: 1/64" = 1'-0"



KEY PLAN
NOT TO SCALE

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO

DES JAK | DRW MTF | CHK JEB

U.S. MARINE CORPS AIR STATION
CHERRY POINT, NORTH CAROLINA
**REPAIR POWER MONITORING
SYSTEM AT FRC EAST**
ELECTRICAL POWER METERING SITE PLAN

SCALE: AS NOTED

PROJECT NO.: XK32984

MAXIMO WORK ORDER NO. 6861567

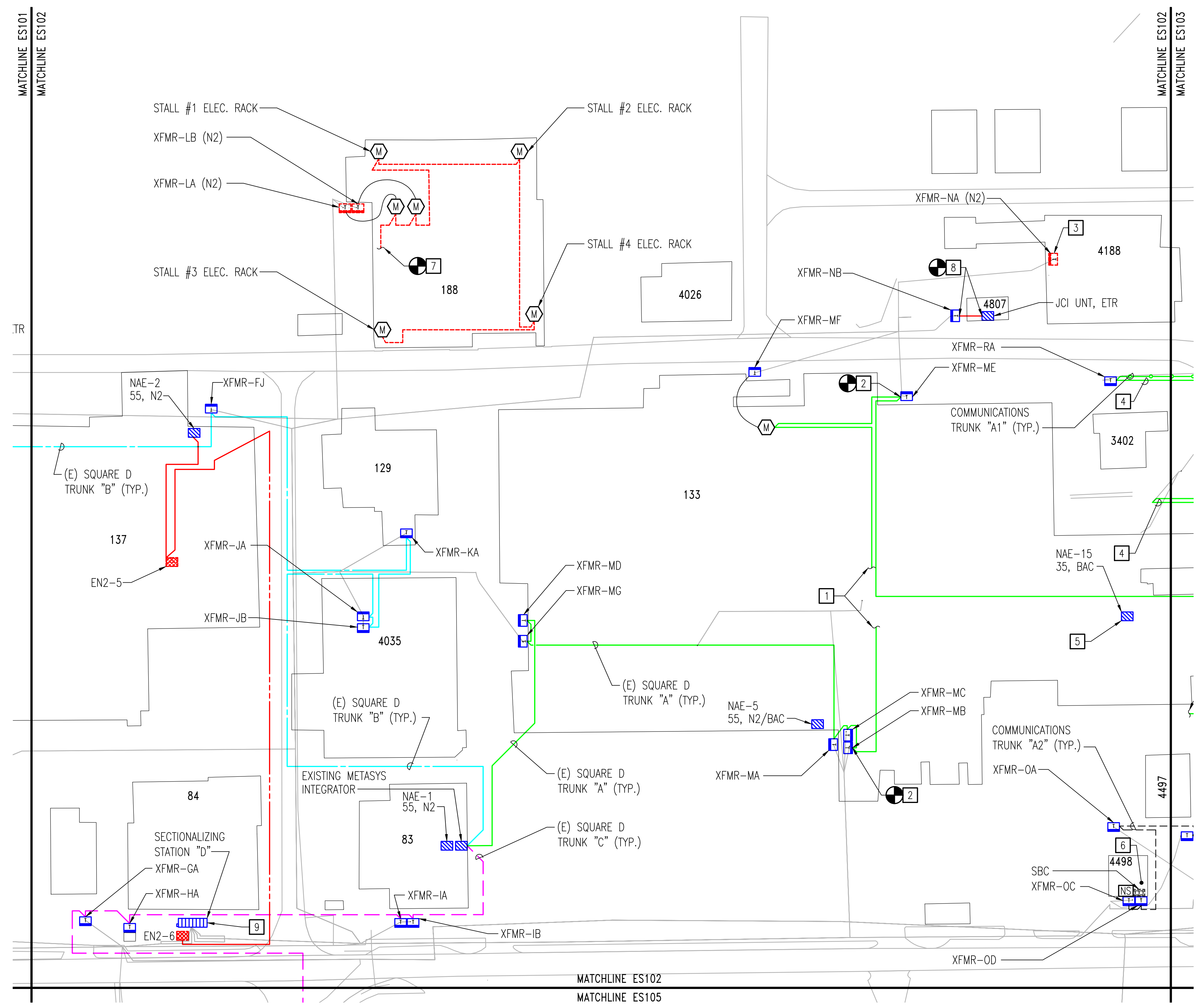
NAVFAC DRAWING NO. 12782913

SHEET 04 OF 14

ES101

DRAWN/REVISED: 10 MAY 2014

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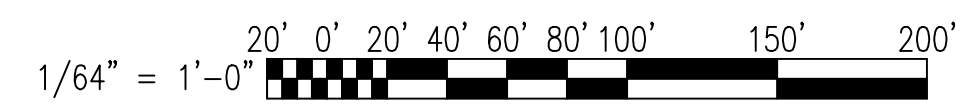


- ### NOTES THIS SHEET
- 1 POSSIBLE LOCATION OF SEVERED COMMUNICATION TRUNK.
 - 2 PROVIDE 1" CONDUIT FROM XFMR-ME TO METER SERVING XFMR-MF TO COMPLETE SEVERED COMMUNICATION TRUNK.
 - 3 XFMR-NA IS LOCATED IN THE SECOND FLOOR ELECTRICAL ROOM OF BUILDING 4188.
 - 4 THIS PORTION OF THE EXISTING SQUARE D TRUNK "A" PATHWAY SHALL BE ABANDONED IN PLACE.
 - 5 NAE-15 IS LOCATED IN 2ND FLOOR TELECOM ROOM.
 - 6 PROVIDE RDT&E DATA PORT IN BUILDING 4498 "MAINT. RM" AND CAT-6 UTP CABLING, CONCEALED IN CONDUIT TO CLOSEST RDT&E NETWORK SWITCH AS DIRECTED BY THE GOVERNMENT. PROVIDE SBC AND GATEWAY IN "MAINT. RM" TO SERVE COMMUNICATIONS TRUNK "A2". CONNECT TO NEAREST UN-SWITCHED 120V OUTLET IN "MAINT. RM" FOR POWER. PROVIDE 1" CONDUIT AND COMMUNICATION CABLING FROM GATEWAY TO XFMR-OC TO INTERCEPT COMMUNICATIONS TRUNK "A2".
 - 7 METERS IN BUILDING 188 SHALL BE CONNECTED TO THE N2 BUS OF NAE-2 THROUGH A GATEWAY TO BE INSTALLED IN BUILDING 188. PROVIDE 1" CONDUIT AND COMMUNICATION CABLING FROM GATEWAY TO METERS. CONNECT GATEWAY TO EXISTING N2 BUS IN BUILDING 188.
 - 8 METER SERVING XFMR-NB SHALL BE CONNECTED TO THE N2 COMMUNICATIONS BUS OF NAE-14 THROUGH A GATEWAY, TO BE INSTALLED AT THE EXISTING JCI UNITARY ENCLOSURE IN BUILDING 4807. PROVIDE 1" CONDUIT AND COMMUNICATION CABLING FROM GATEWAY TO METER AT TRANSFORMER.
 - 9 METERS AT SECTIONALIZING STATION "D" SHALL BE CONNECTED TO THE BACNET BUS OF NAE-2 THROUGH A GATEWAY, TO BE INSTALLED AT THE NAE-2 LOCATION IN BUILDING 137. PROVIDE COMMUNICATION CABLING (MODBUS RTU AND N2 BUSES) IN EXISTING CONDUIT, MAKING TERMINATIONS AT EXISTING N2 DEVICES AND POWER METERS. SEE SHEET E-702 FOR CONTINUATION.

EXISTING N2 COMMUNICATION TRUNKS

WHILE THE NAE'S/NCE'S ASSOCIATED WITH EACH N2 METER ARE KNOWN (IDENTIFIED IN METER AND CURRENT TRANSFORMER SCHEDULE ON SHEET E-002), THE ROUTING OF EXISTING N2 COMMUNICATION BUSES FROM N2 METERS TO ASSOCIATED NAE'S/NCE'S IS UNKNOWN. DOCUMENT EXISTING BUS ROUTING ON CONTRACTOR'S RED-LINED SET OF DRAWINGS AND SUBMIT TO THE GOVERNMENT FOR REVIEW.

ELECTRICAL POWER METERING SITE PLAN
SCALE: 1/64" = 1'-0"



APPROVED		DATE	APP
FOR COMMANDER NAVFAC			
ACTIVITY			
SATISFACTORY TO			
BES JAK	DRW MTF	CHK JEB	
U.S. MARINE CORPS AIR STATION CHERRY POINT, NORTH CAROLINA REPAIR POWER MONITORING SYSTEM AT FRC EAST ELECTRICAL POWER METERING SITE PLAN			
SCALE: AS NOTED			
PROJECT NO.: XK32984			
MAXIMO WORK ORDER NO. 6861567			
NAVFAC DRAWING NO. 12782914			
SHEET 05 OF 14			
ES102			
DRAWN/REVISED: 10 MAY 2014			

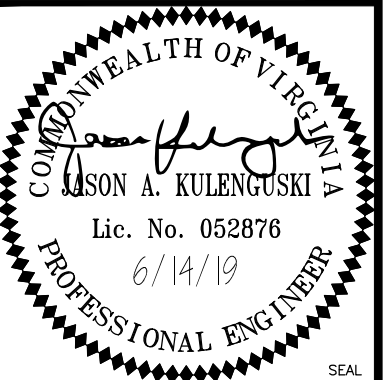
NOTES THIS SHEET

- 1 POSSIBLE LOCATION OF SEVERED COMMUNICATION TRUNK.
- 2 PROVIDE 1" CONDUIT FROM XFMR-UA TO EXTEND COMMUNICATIONS TRUNK "A1" TO XFMR-UB.
- 3 UTILIZE EXISTING FIELDSEVER PROTONODE GATEWAY IN ELECTRICAL ROOM TO CONNECT EXISTING METERS TO NAE-6. PROVIDE 1" CONDUIT AND COMMUNICATION CABLING FROM NAE TO GATEWAY TO METERS AT SWITCHBOARDS ASSOCIATED WITH XFMR-VA AND XFMR-VB.
- 4 METERS AT XFMR-MH AND XFMR-MI SHALL BE CONNECTED TO THE BACNET BUS OF NAE-15 THROUGH A GATEWAY, TO BE INSTALLED AT THE NAE-15 LOCATION IN BUILDING 133. PROVIDE 1" CONDUIT AND COMMUNICATION CABLING FROM GATEWAY TO METERS AT XFMR-MH AND XFMR-MI.
- 5 THIS PORTION OF THE EXISTING SQUARE D TRUNK "A" PATHWAY SHALL BE ABANDONED IN PLACE.
- 6 METERS ON COMMUNICATIONS TRUNK "A1" SHALL BE CONNECTED TO THE BACNET BUS OF NAE-19 THROUGH A GATEWAY, TO BE INSTALLED AT THE NAE-19 LOCATION IN THE TELECOM CLOSET IN BUILDING 1798. PROVIDE 1" CONDUIT AND COMMUNICATION CABLING FROM GATEWAY TO METER AT XFMR-TB.
- 7 METERS AT SECTIONALIZING STATION "F" SHALL BE CONNECTED TO THE BACNET BUS OF NAE-8 THROUGH A GATEWAY, TO BE INSTALLED AT THE NAE-8 LOCATION IN BUILDING 4225. PROVIDE COMMUNICATION CABLING (MODBUS RTU AND N2 BUSES) IN EXISTING CONDUIT, MAKING TERMINATIONS AT EXISTING N2 DEVICES AND POWER METERS. SEE SHEET E-702 FOR CONTINUATION.
- 8 THIS PORTION OF THE EXISTING SQUARE D TRUNK "D" PATHWAY SHALL BE ABANDONED IN PLACE.

EXISTING N2 COMMUNICATION TRUNKS

WHILE THE NAE'S/NCE'S ASSOCIATED WITH EACH N2 METER ARE KNOWN (IDENTIFIED IN METER AND CURRENT TRANSFORMER SCHEDULE ON SHEET E-002), THE ROUTING OF EXISTING N2 COMMUNICATION BUSES FROM N2 METERS TO ASSOCIATED NAE'S/NCE'S IS UNKNOWN. DOCUMENT EXISTING BUS ROUTING ON CONTRACTOR'S RED-LINED SET OF DRAWINGS AND SUBMIT TO THE GOVERNMENT FOR REVIEW.

DATE	DESCRIPTION	SYN	APPR

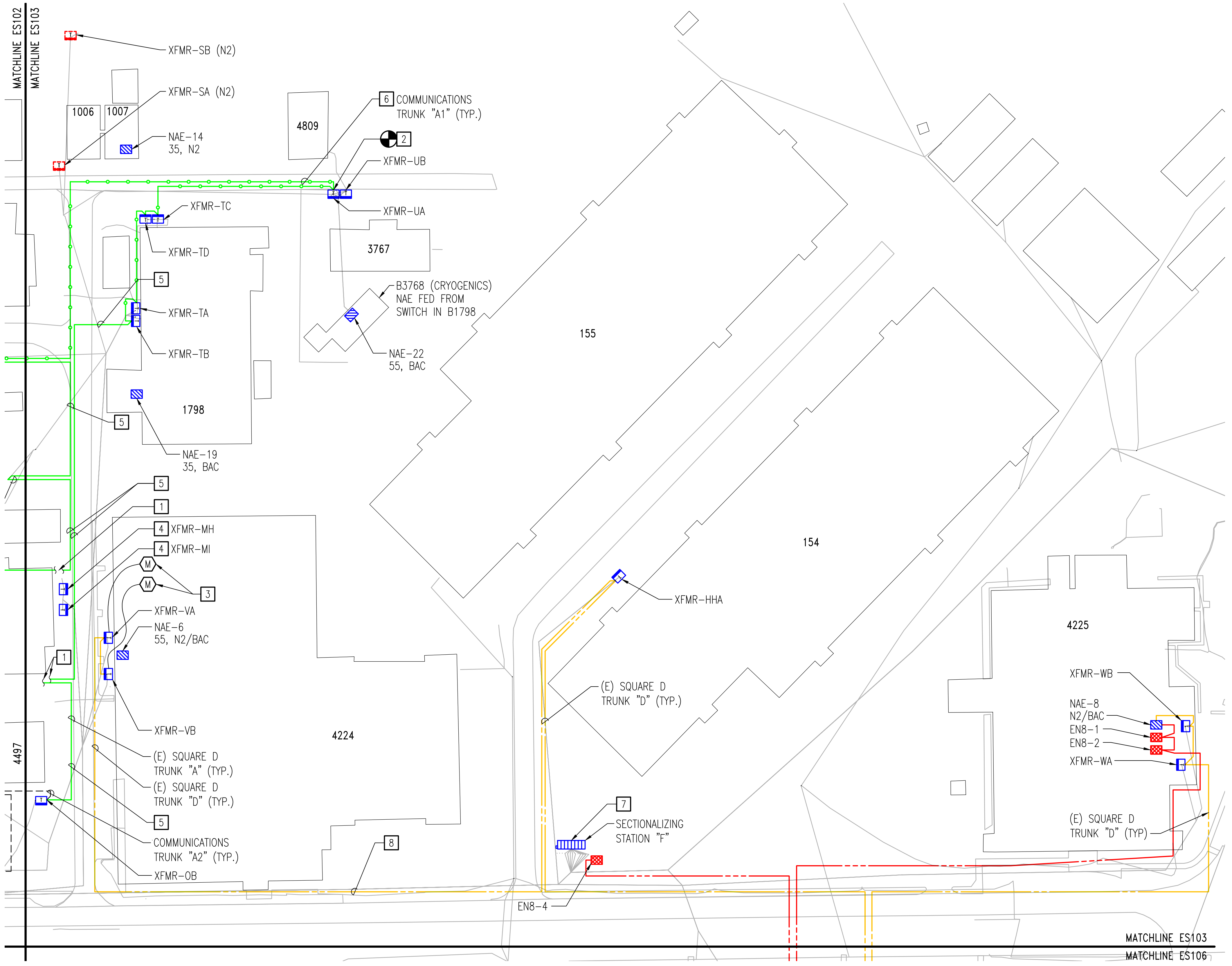


APPROVED	A/E INFO
FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO	
DES JAK	DRW MTF
CHK JEB	

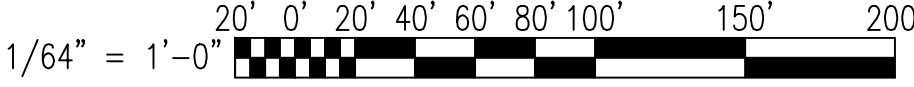
U.S. MARINE CORPS AIR STATION
CHERRY POINT, NORTH CAROLINA
REPAIR POWER MONITORING
SYSTEM AT FRC EAST
ELECTRICAL POWER METERING SITE PLAN

SCALE: AS NOTED
PROJECT NO.: XK32984
MAXIMO WORK ORDER NO. 6861567
NAVFAC DRAWING NO. 12782915
SHEET 06 OF 14
ES103

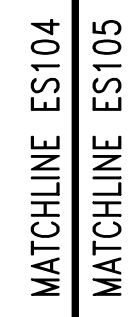
DRAWN: JAK
CHECKED: MTF
DATE: 10 MAY 2014



ELECTRICAL POWER METERING SITE PLAN
SCALE: 1/64" = 1'-0"



KEY PLAN
NOT TO SCALE



SEAL

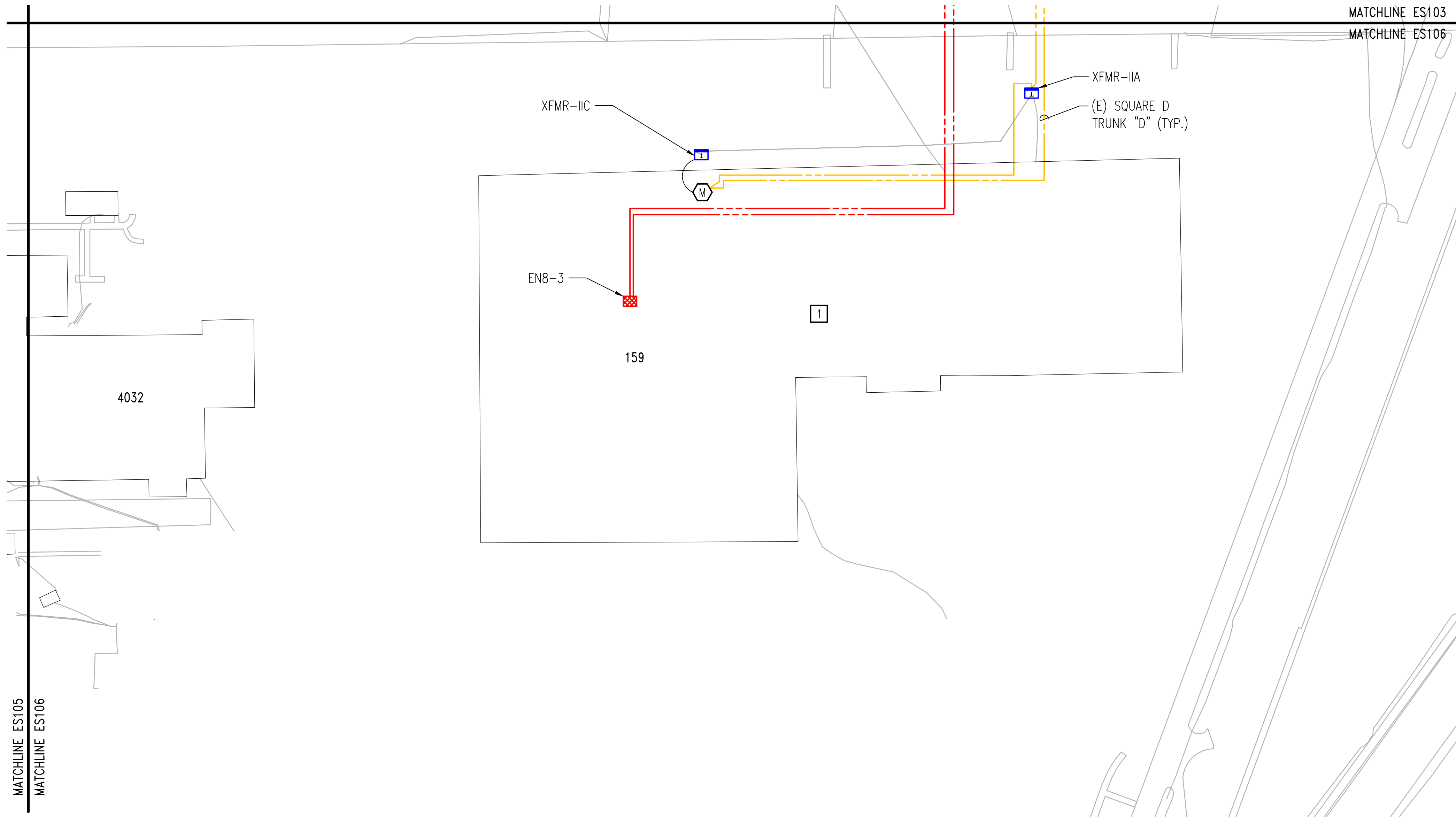
SCALE: AS NOTED			
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SHEET 07		OF 14	
ES104			

D

C

B

A



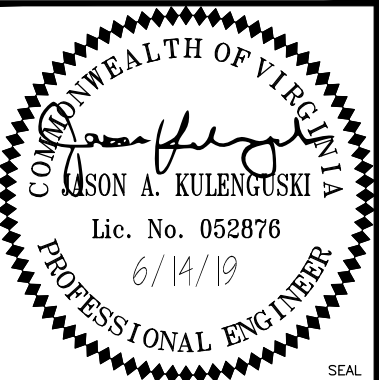
NOTES THIS SHEET

1 FOR THE EMCS WORKSTATIONS AND PRINTERS REQUIRED BY SECTION 25 10 10, PROVIDE FOUR RDT&E DATA PORTS IN THE FRC-E ENGINEERING OFFICES ON THE SECOND FLOOR AND CAT-6 UTP CABLING, CONCEALED IN CONDUIT WITHIN WALLS AND ABOVE CEILING, BACK TO CLOSEST RDT&E NETWORK SWITCH AS DIRECTED BY THE GOVERNMENT.

EXISTING N2 COMMUNICATION TRUNKS

WHILE THE NAE'S/NCE'S ASSOCIATED WITH EACH N2 METER ARE KNOWN (IDENTIFIED IN METER AND CURRENT TRANSFORMER SCHEDULE ON SHEET E-002), THE ROUTING OF EXISTING N2 COMMUNICATION BUSES FROM N2 METERS TO ASSOCIATED NAE'S/NCE'S IS UNKNOWN. DOCUMENT EXISTING BUS ROUTING ON CONTRACTOR'S RED-LINED SET OF DRAWINGS AND SUBMIT TO THE GOVERNMENT FOR REVIEW.

SYN	DESCRIPTION	DATE	APPR



A/E INFO

APPROVED

FOR COMMANDER NAVFAC

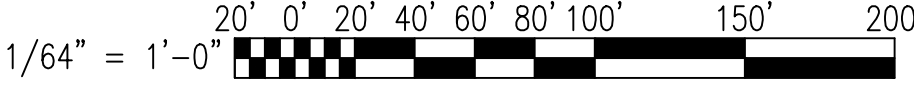
ACTIVITY

SATISFACTORY TO

DES JAK DRW MTF CHK JEB

ELECTRICAL POWER METERING SITE PLAN

SCALE: 1/64" = 1'-0"

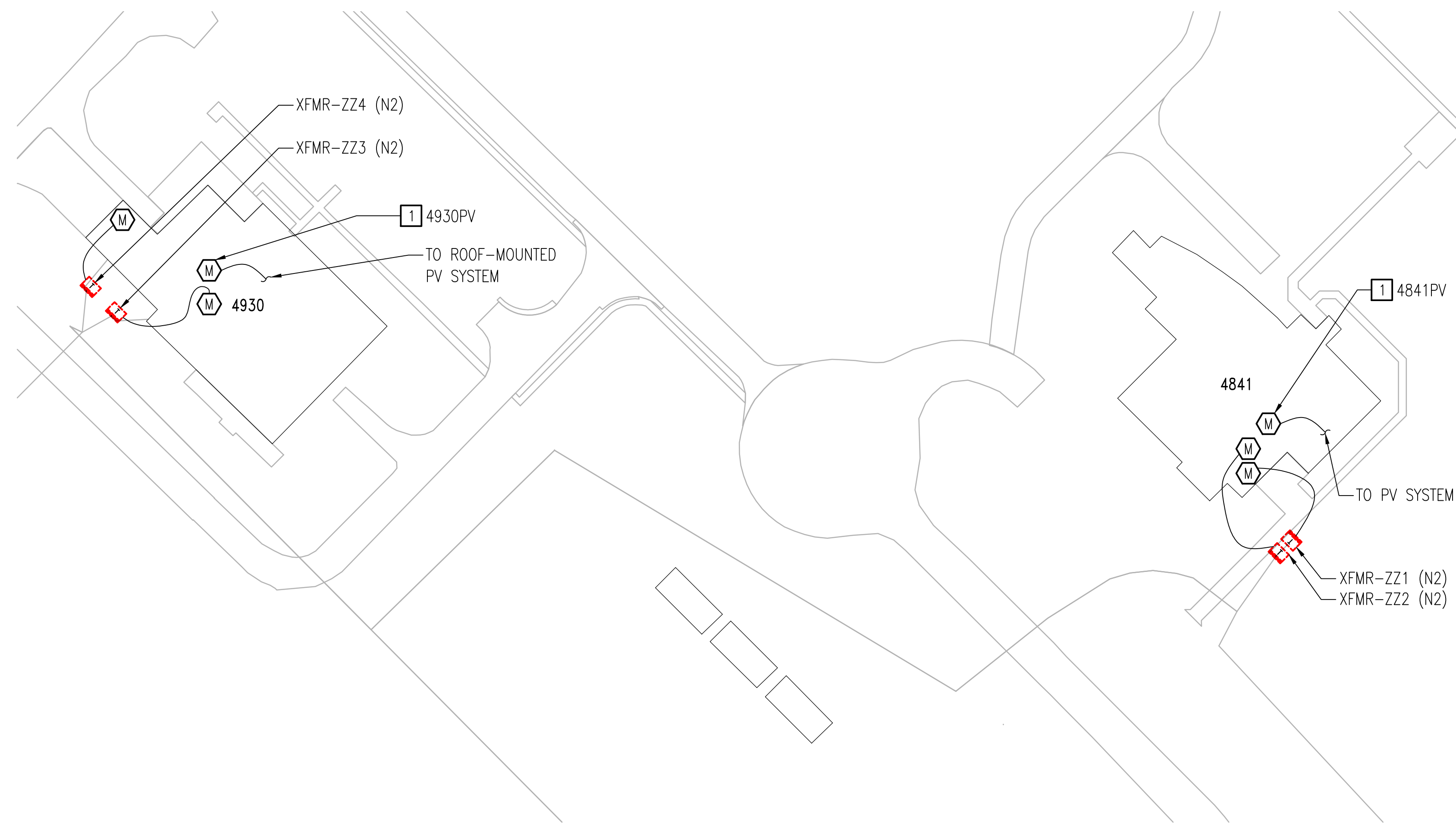


KEY PLAN

NOT TO SCALE

SCALE: AS NOTED
PROJECT NO.: XK32984
MAXIMO WORK ORDER NO. 6861567
NAVFAC DRAWING NO. 12782918
SHEET 09 OF 14
ES106

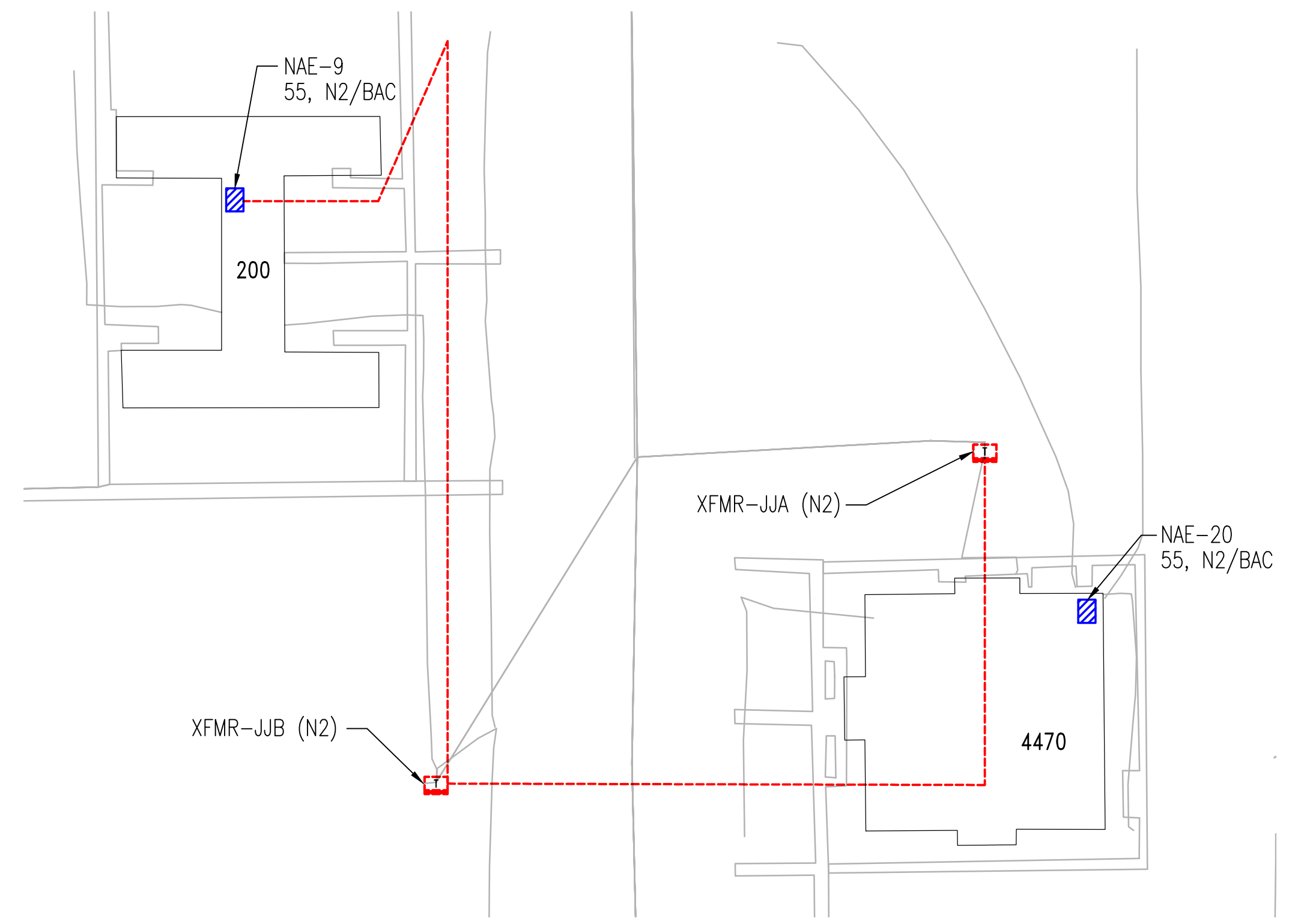
DRAWN/REVISED: 10 MAY 2014



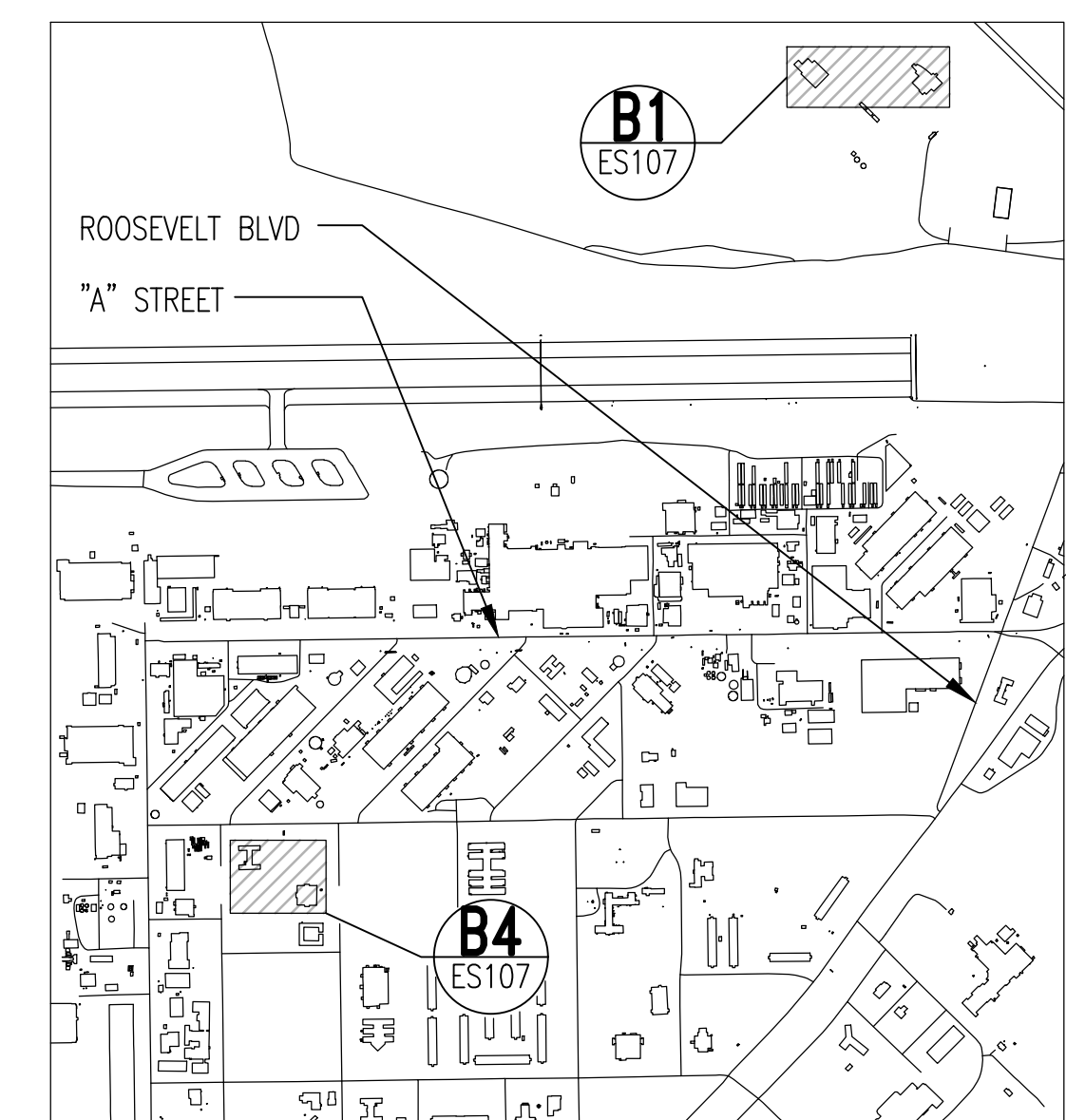
B1 ELECTRICAL POWER METERING SITE PLAN
ES107 SCALE: 1/64" = 1'-0"

NOTES THIS SHEET

- 1 REMOVE EXISTING VERIS MODEL 8100 METER SERVING PV SYSTEM AND REPLACE WITH NEW METER IN NEMA 1 ENCLOSURE. MOUNT TO INTERIOR WALL.



B4 ELECTRICAL POWER METERING SITE PLAN
ES107 SCALE: 1/64" = 1'-0"



KEY PLAN

NOT TO SCALE

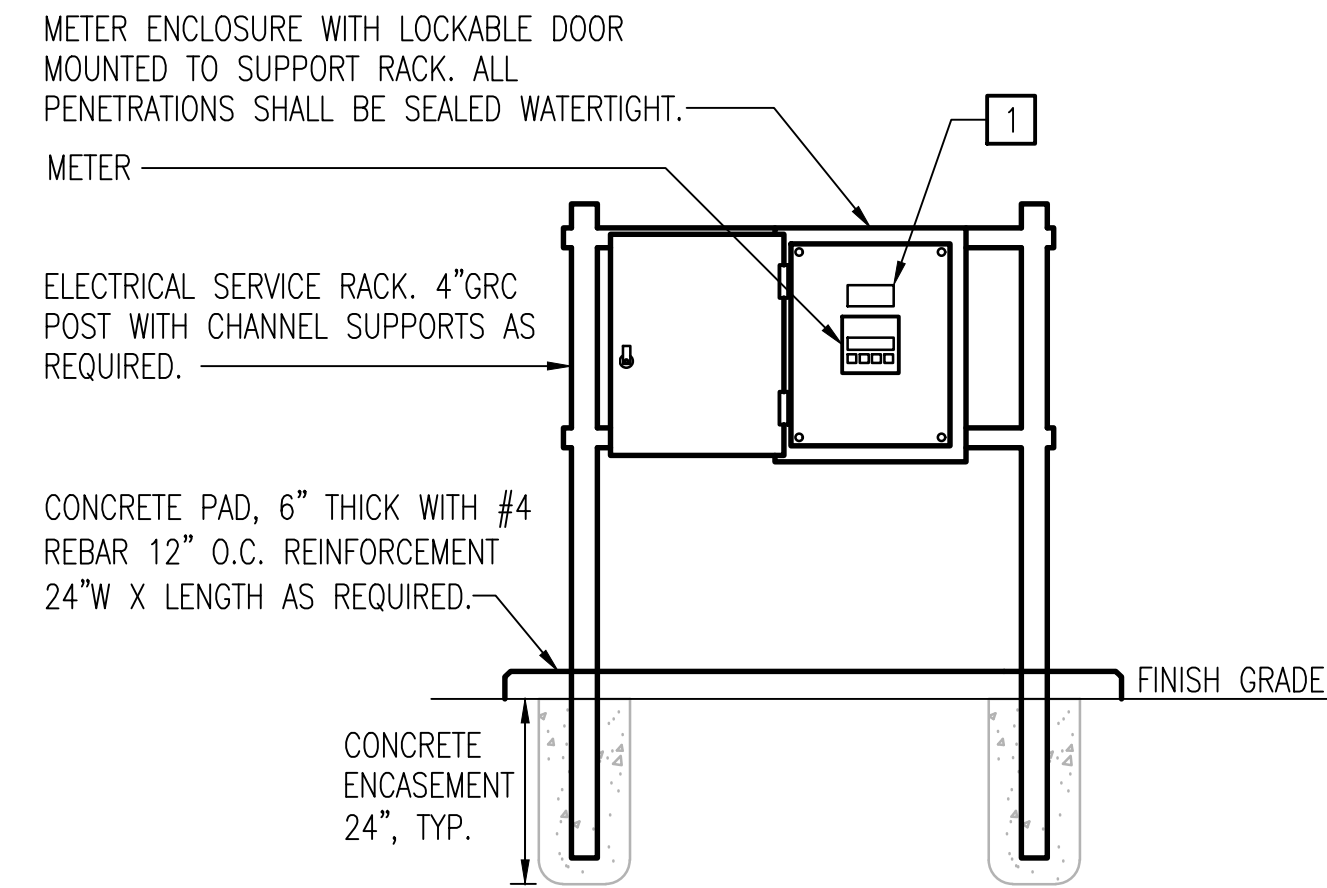
EXISTING N2 COMMUNICATION TRUNKS

WHILE THE NAE'S/NCE'S ASSOCIATED WITH EACH N2 METER ARE KNOWN (IDENTIFIED IN METER AND CURRENT TRANSFORMER SCHEDULE ON SHEET E-002), THE ROUTING OF EXISTING N2 COMMUNICATION BUSES FROM N2 METERS TO ASSOCIATED NAE'S/NCE'S IS UNKNOWN. DOCUMENT EXISTING BUS ROUTING ON CONTRACTOR'S RED-LINED SET OF DRAWINGS AND SUBMIT TO THE GOVERNMENT FOR REVIEW.

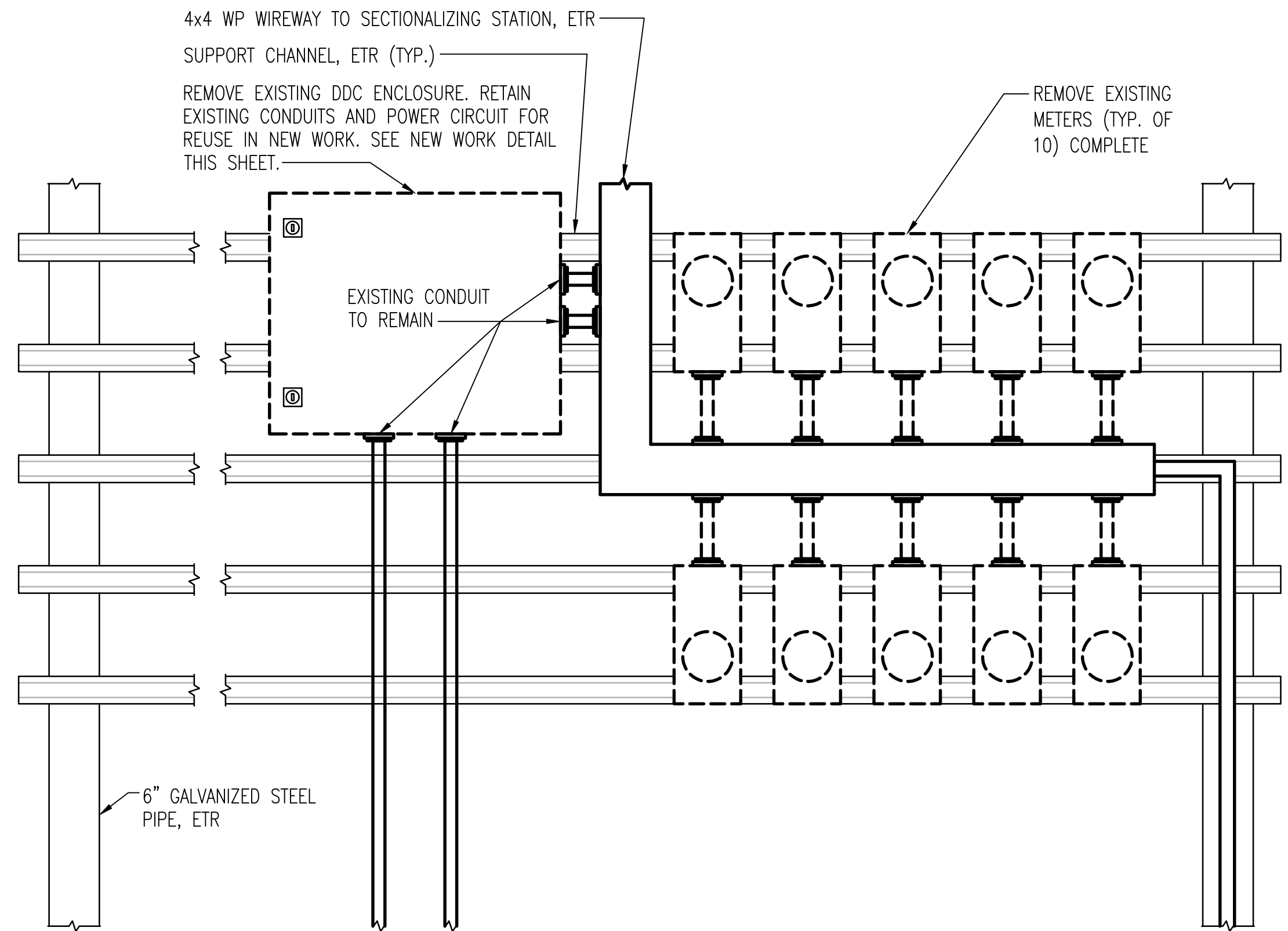


NOTES THIS SHEET

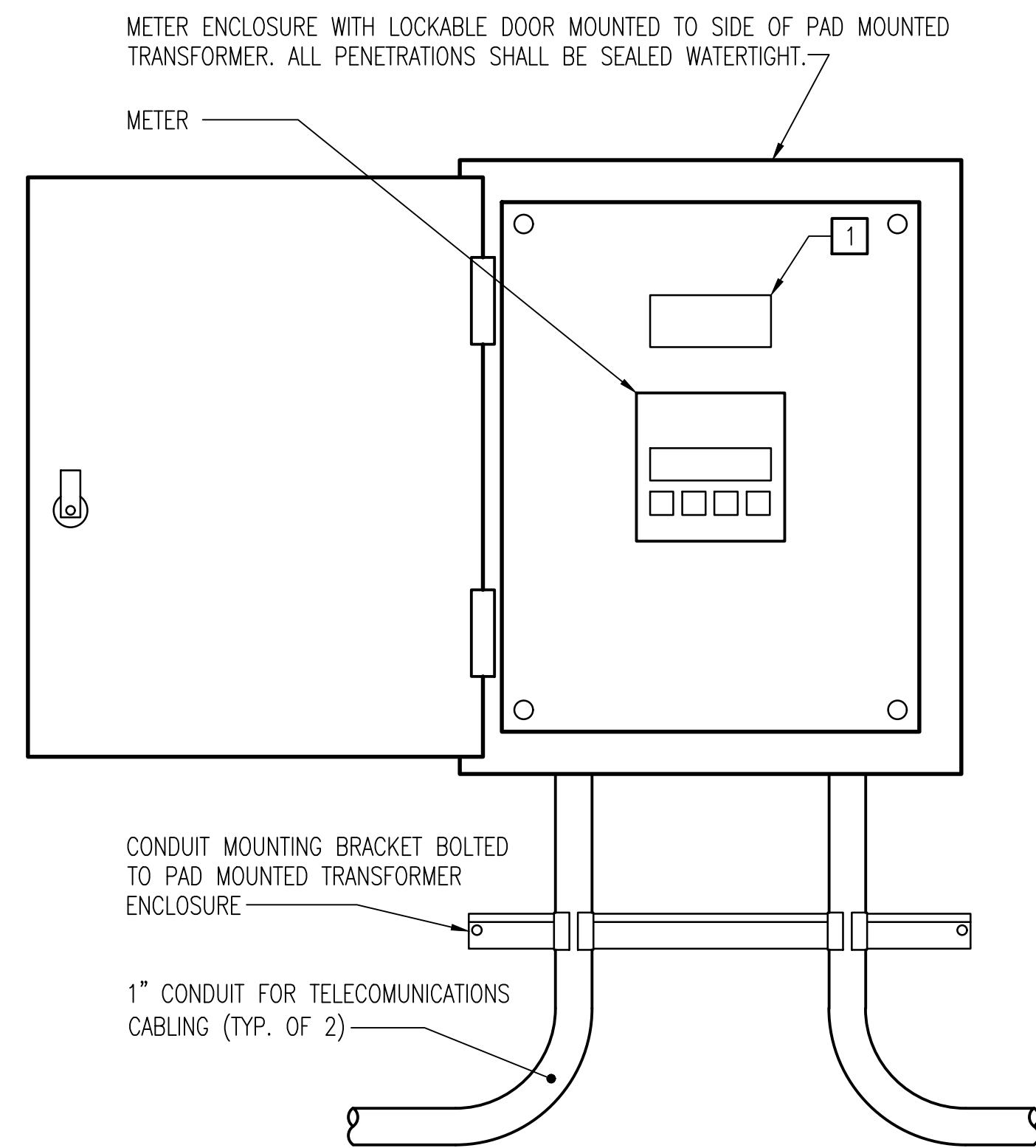
1 PROVIDE PLASTIC LABEL FOR METER INDICATING METER TAG, CT RATIO, PT RATIO, FED FROM, FEEDING TO, AND NAE/NCE NUMBER. REFER TO SPECIFICATIONS' LABEL REQUIREMENTS.



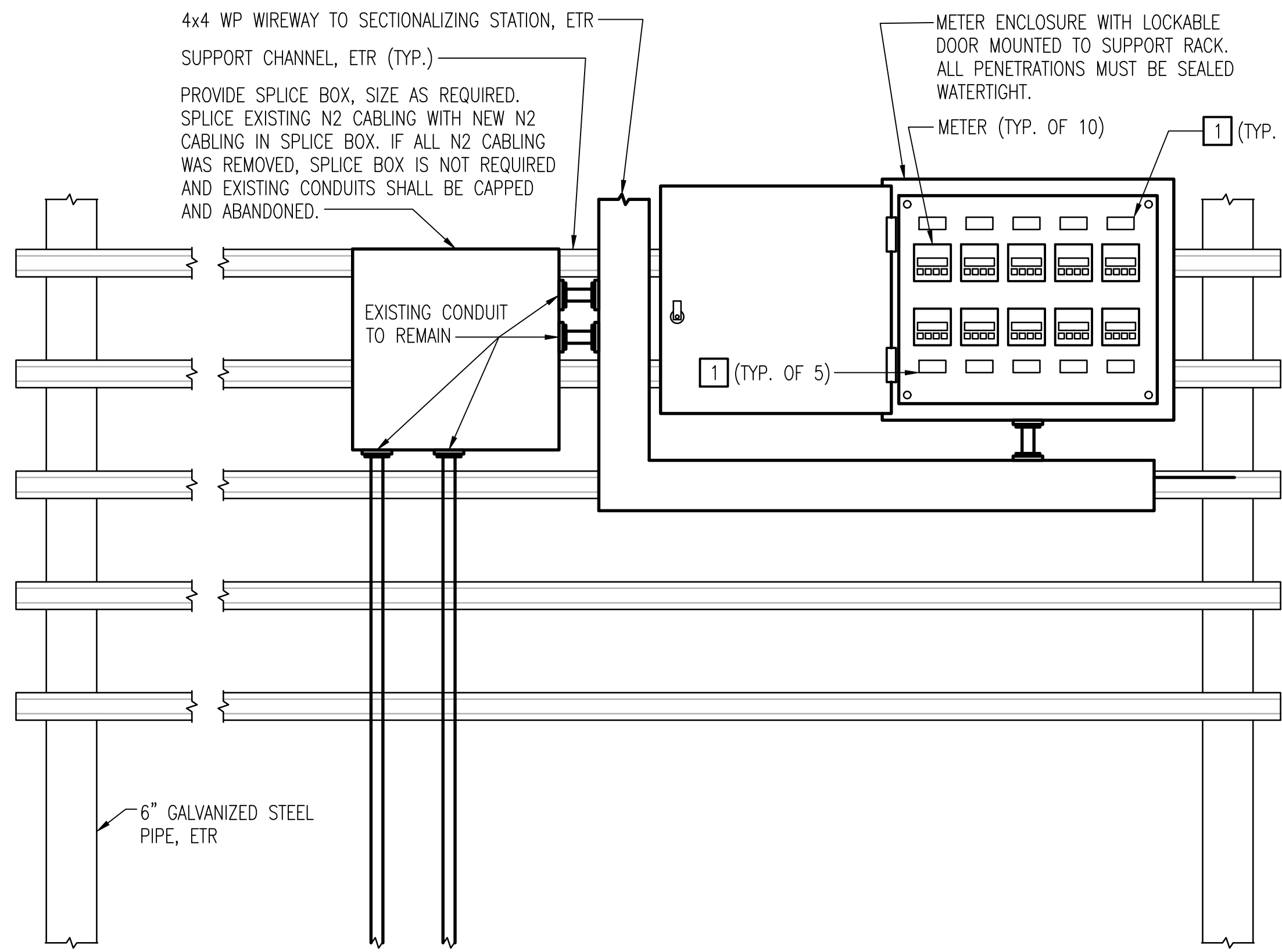
C1 METER MOUNTED TO SUPPORT RACK DETAIL
SCALE: NO SCALE



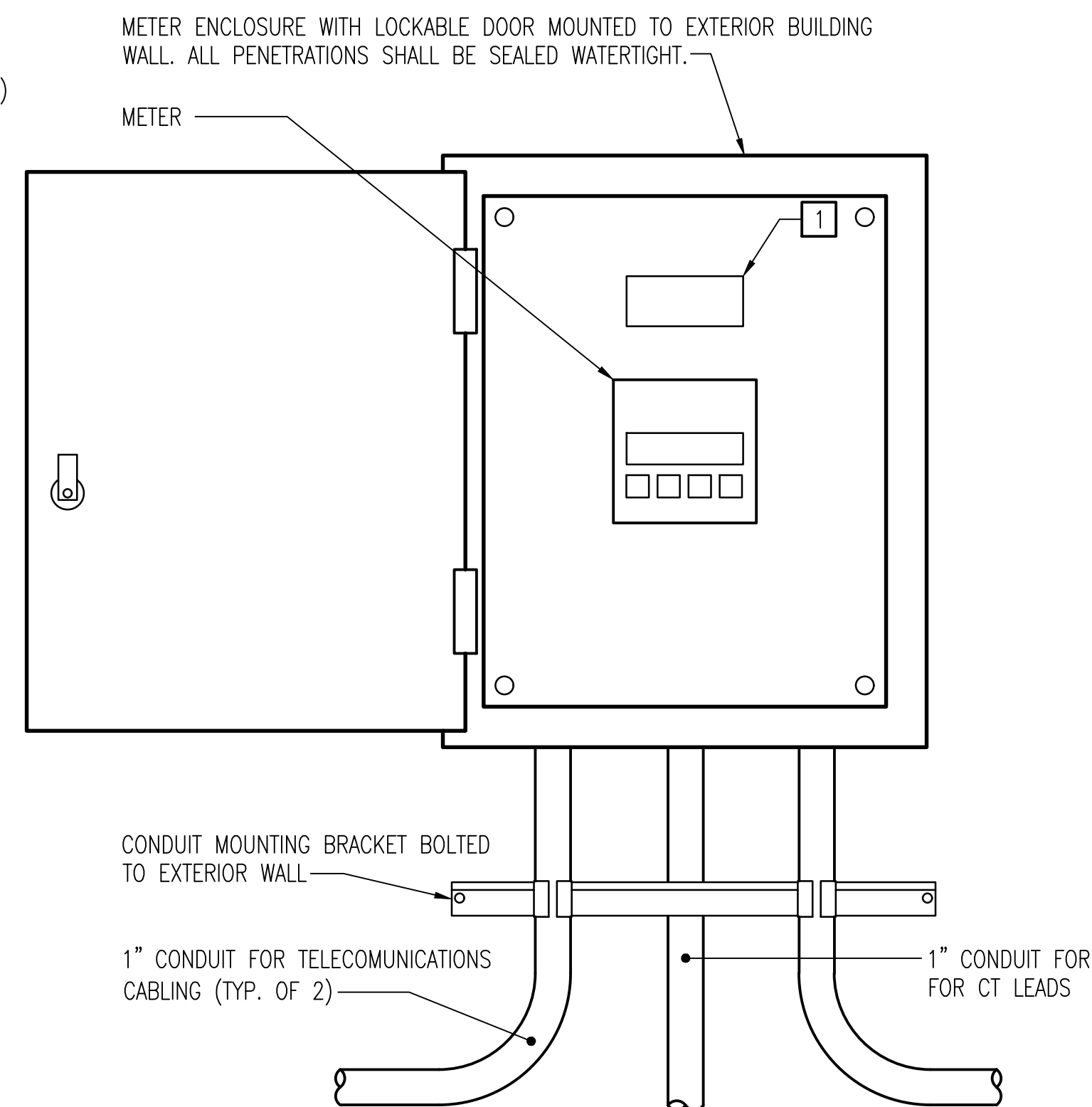
C2 SECTIONALIZING STATION METER SUPPORT DETAIL - DEMOLITION
SCALE: NO SCALE



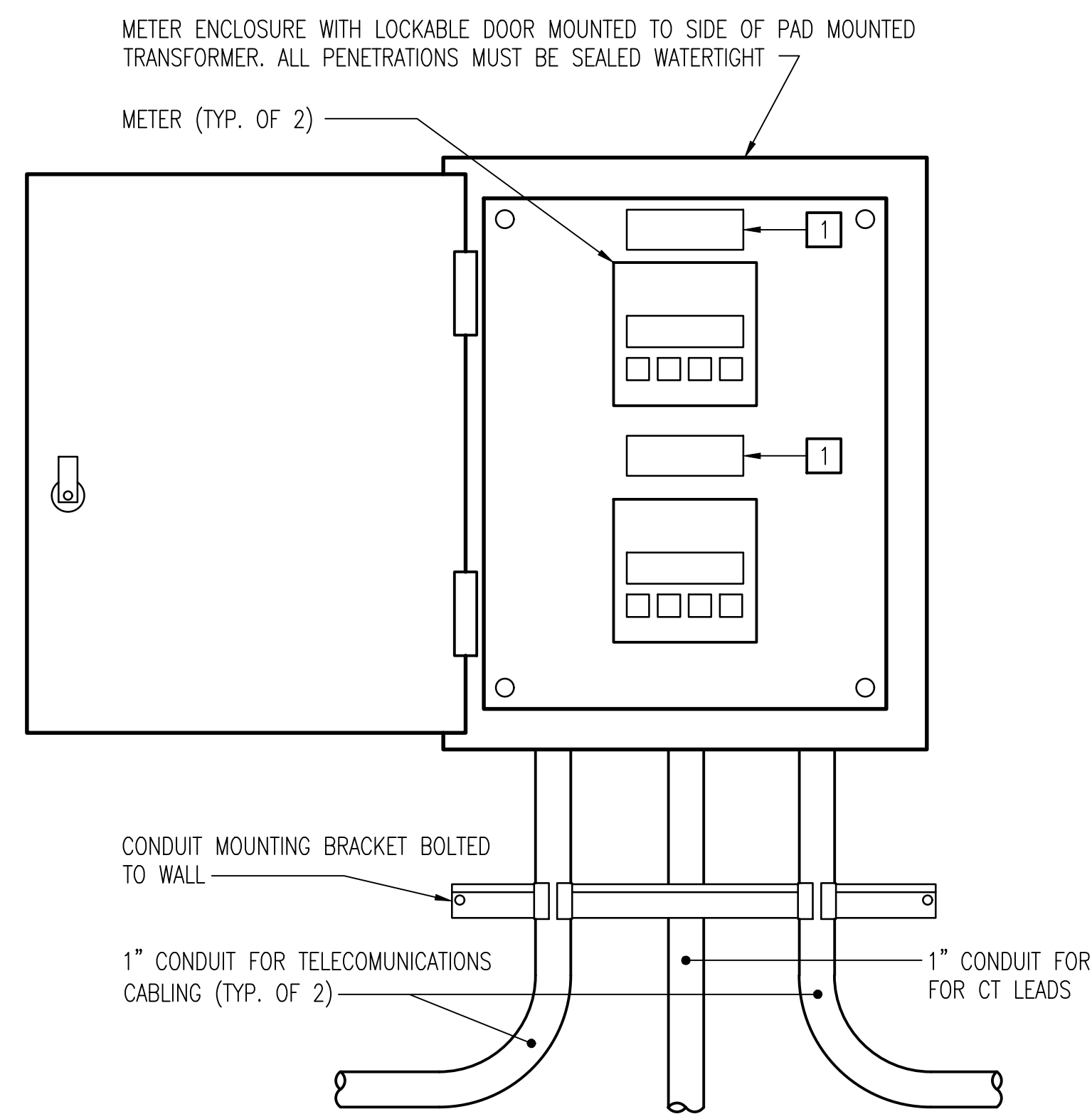
C4 METER MOUNTED TO TRANSFORMER DETAIL
SCALE: NO SCALE



A1 SECTIONALIZING STATION METER SUPPORT DETAIL - NEW WORK
SCALE: NO SCALE



A3 METER MOUNTED TO EXTERIOR WALL DETAIL
SCALE: NO SCALE



A4 METER MOUNTED TO INTERIOR WALL DETAIL
SCALE: NO SCALE

D

C

B

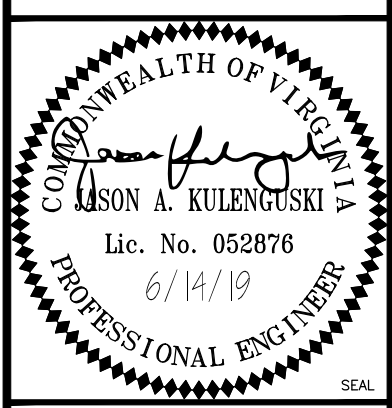
A

D

C

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A



APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO

DES JAK | DRW MTF | CHK JEB

SCALE: AS NOTED

PROJECT NO.: XK32984

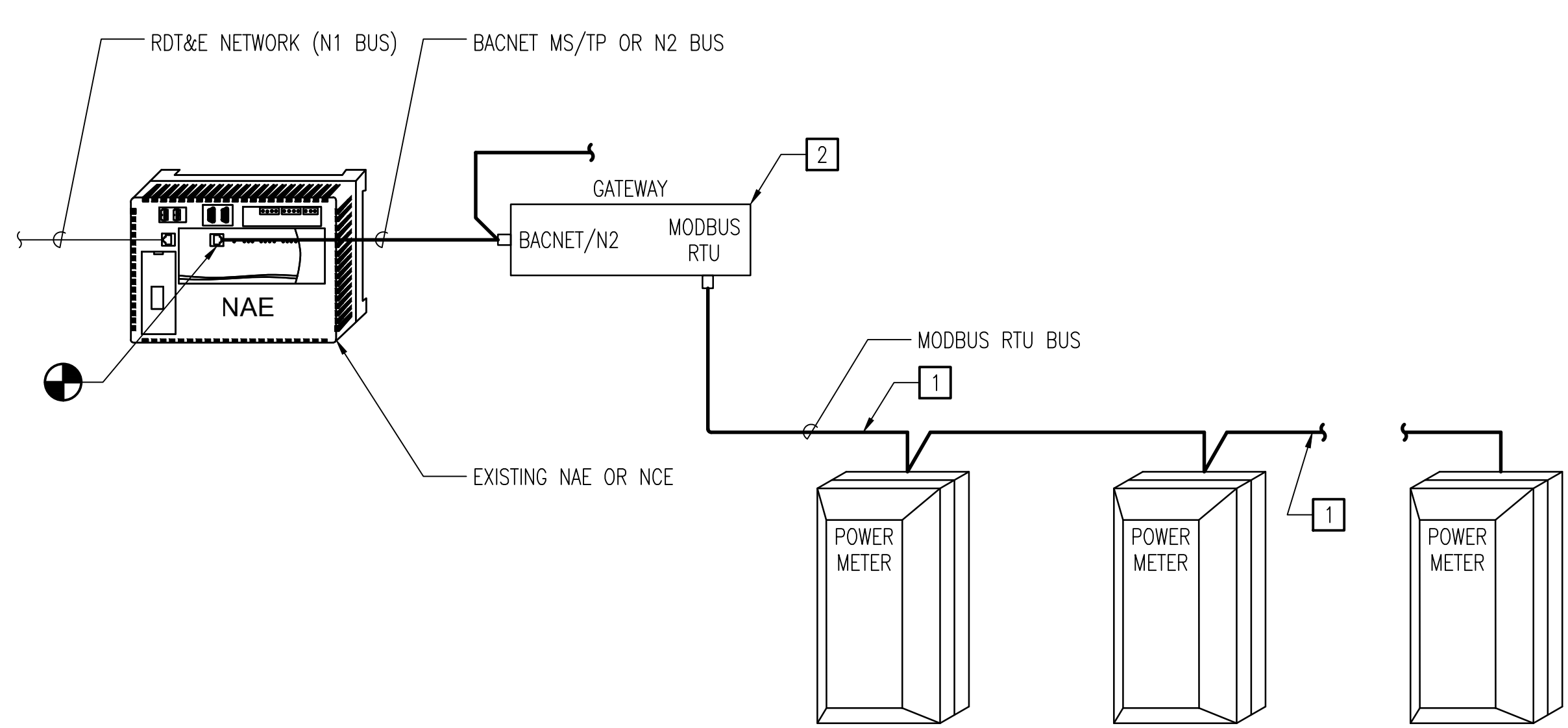
MAXIMO WORK ORDER NO. 6861567

NAVFAC DRAWING NO. 12782920

SHEET 11 OF 14

E-501

DRAWING REVISION: 10 MAY 2014

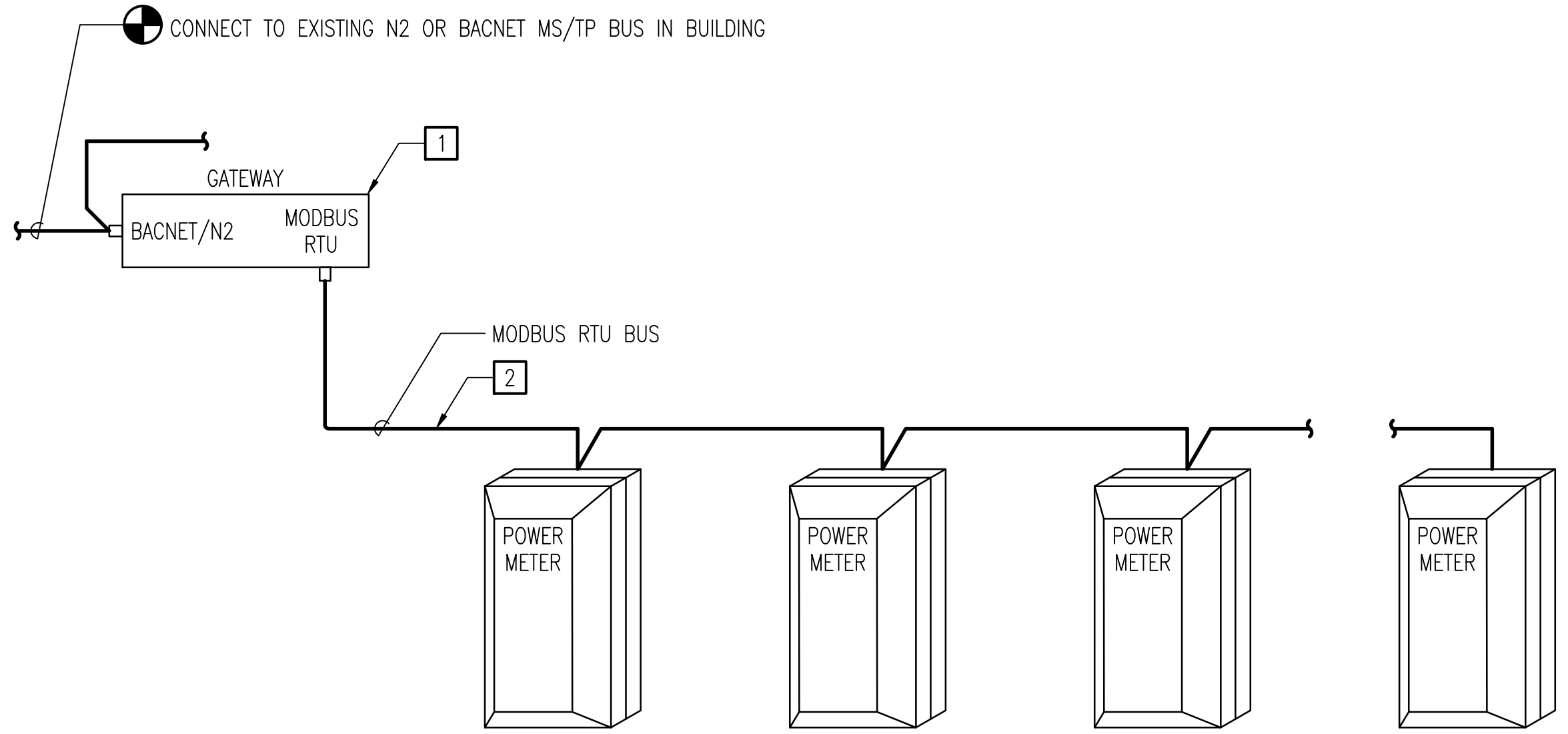


PMS/DDC SYSTEM ARCHITECTURE 'A'

NOT TO SCALE

NOTES

- 1 RS-485 CABLING IN EXISTING OR NEW CONDUIT. SEE SITE PLANS.
- 2 UNLESS GATEWAY IS NOTED AS EXISTING TO BE REUSED, PROVIDE GATEWAY AT NAE. PROVIDE GATEWAY FOR EACH COMMUNICATION TRUNK. MOUNT IN NEMA 1 OR NEMA 4X ENCLOSURE. SEE SPECIFICATIONS.

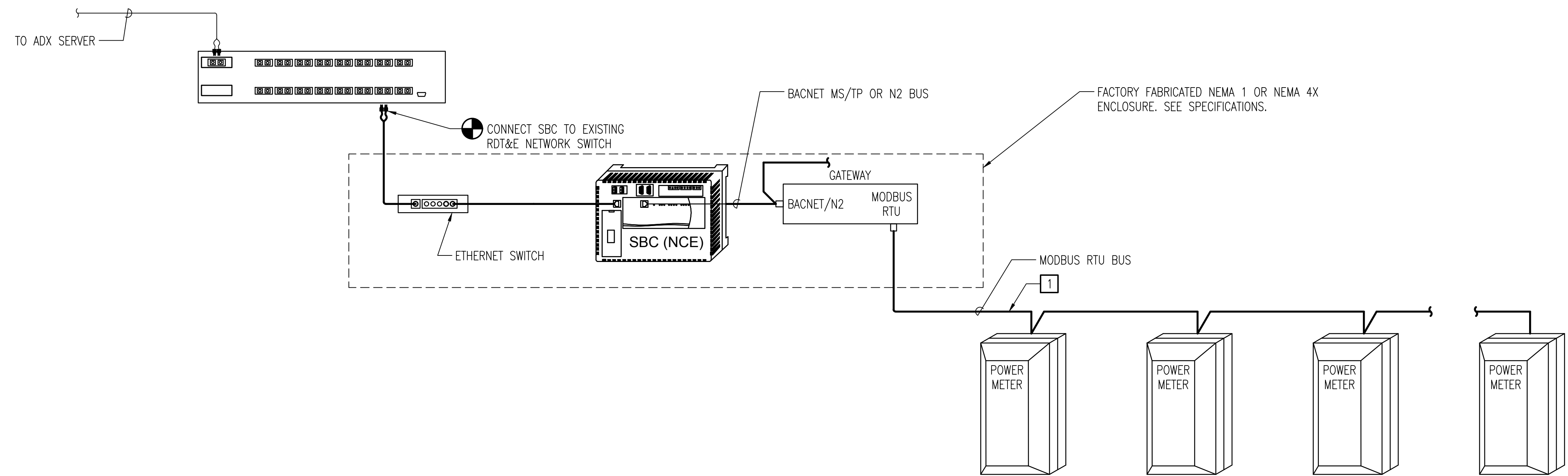


PMS/DDC SYSTEM ARCHITECTURE 'B'

NOT TO SCALE

NOTES

- 1 PROVIDE GATEWAY AT NAE UNLESS ALTERNATE LOCATION IS NOTED ELSEWHERE OR UNLESS EXISTING GATEWAY IS NOTED TO BE REUSED. MOUNT IN NEMA 1 OR NEMA 4X ENCLOSURE. SEE SPECIFICATIONS.
- 2 RS-485 CABLING IN EXISTING OR NEW CONDUIT. SEE SITE PLAN.



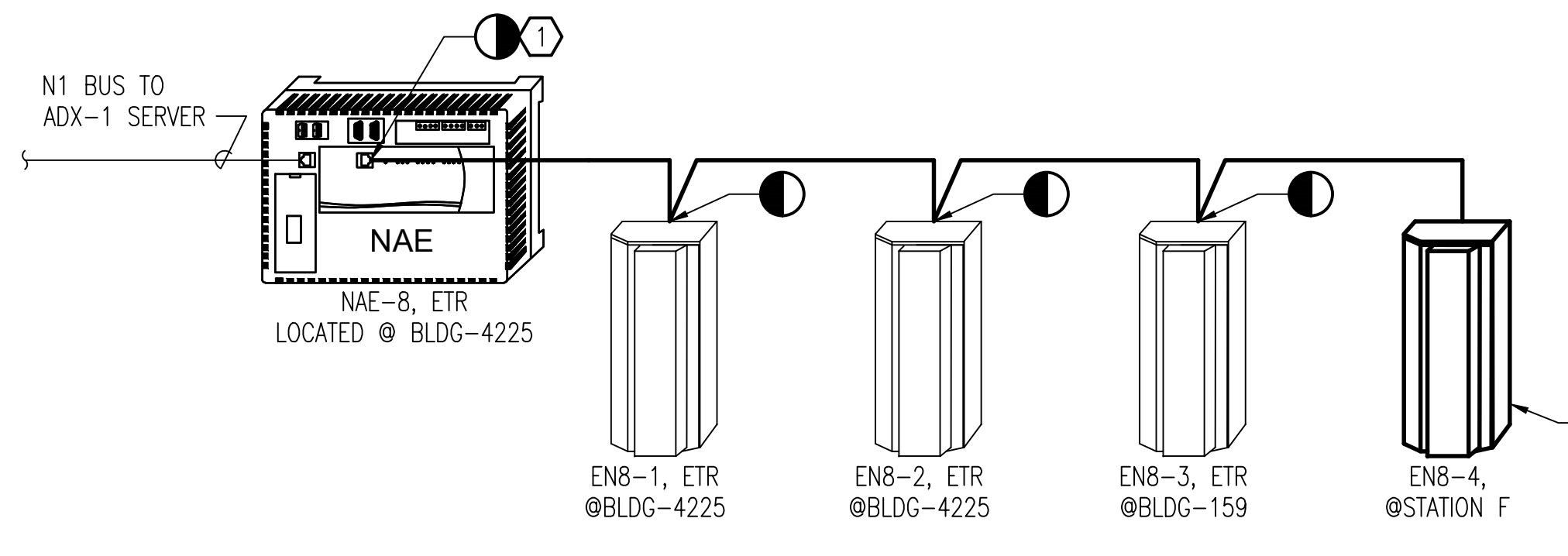
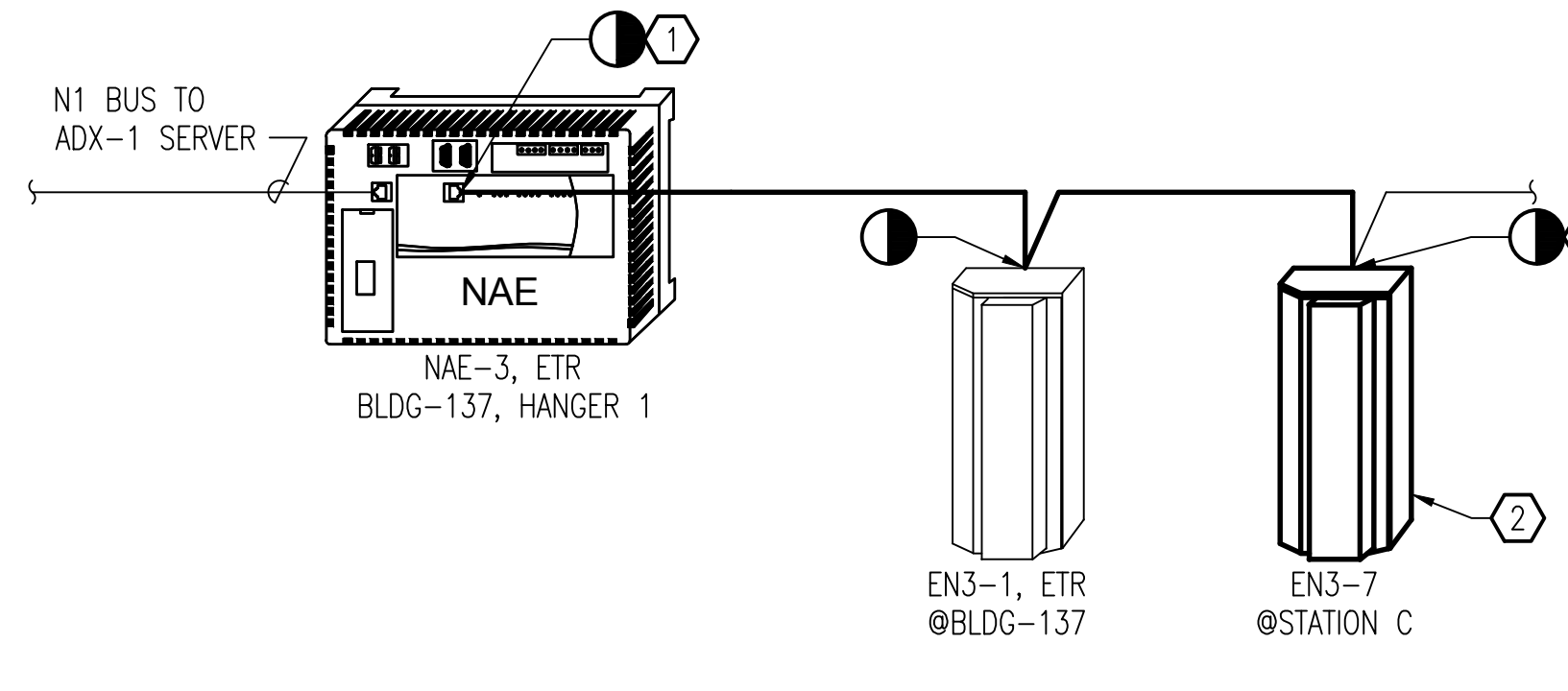
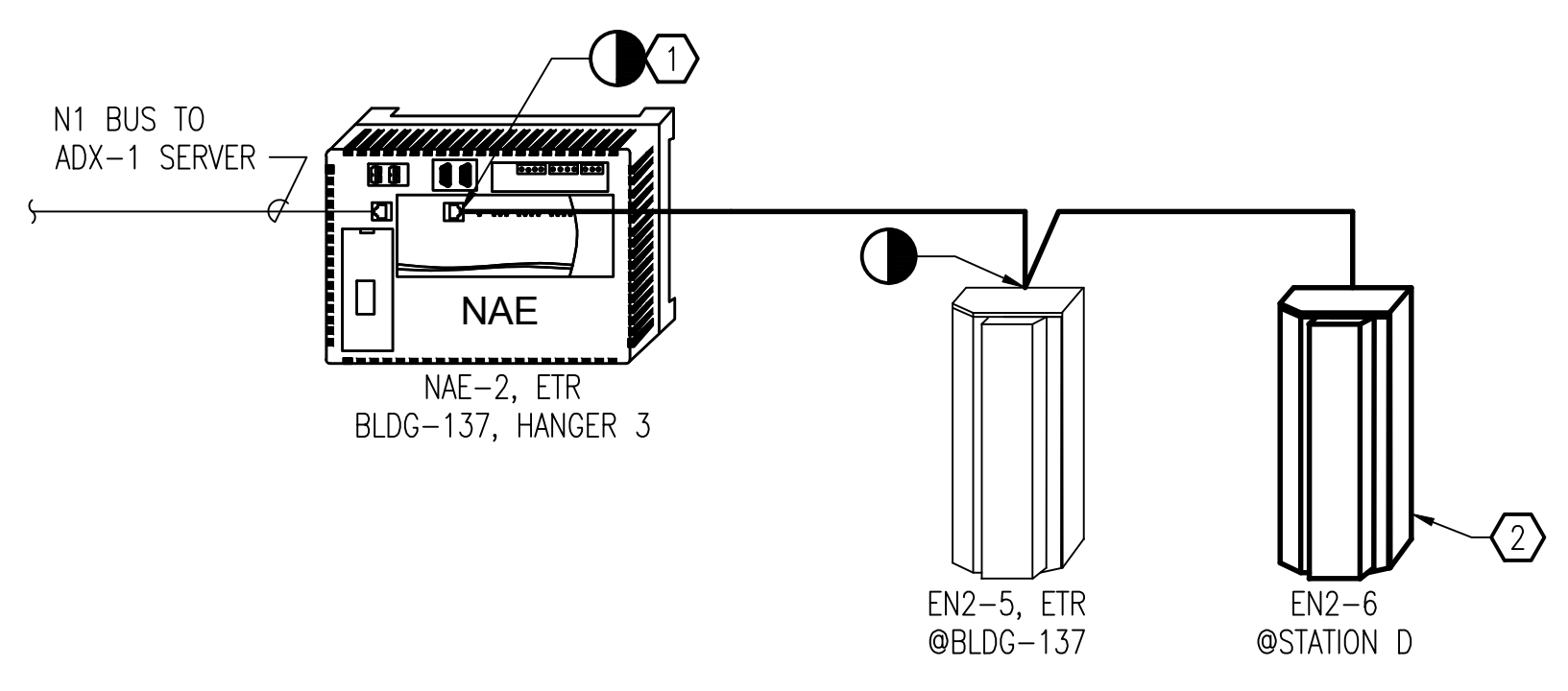
PMS/DDC SYSTEM ARCHITECTURE 'C'

NOT TO SCALE

NOTES

- 1 RS-485 CABLING IN EXISTING OR NEW CONDUIT. SEE SITE PLANS.

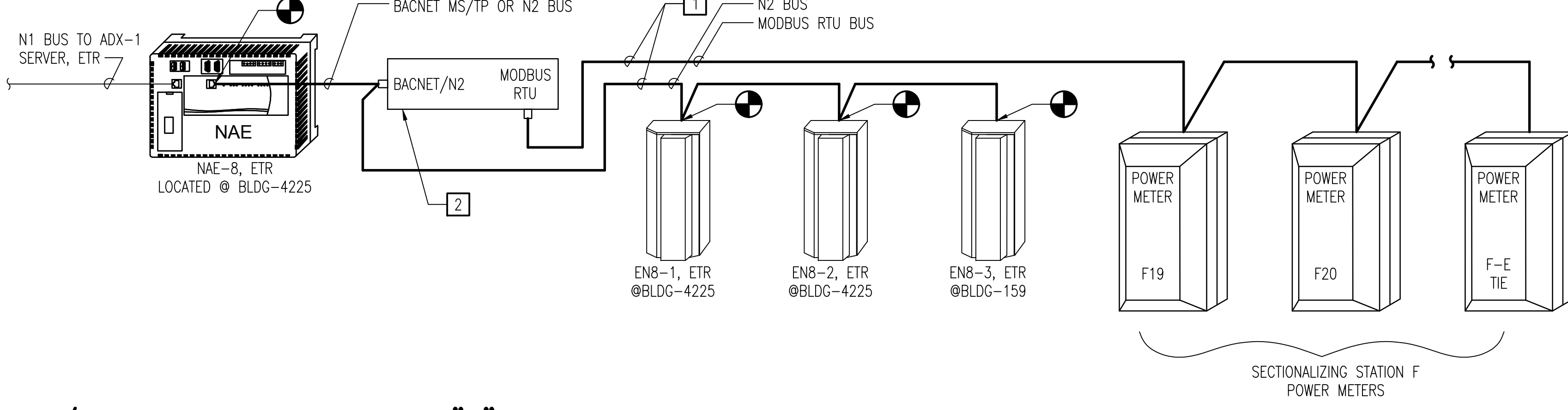
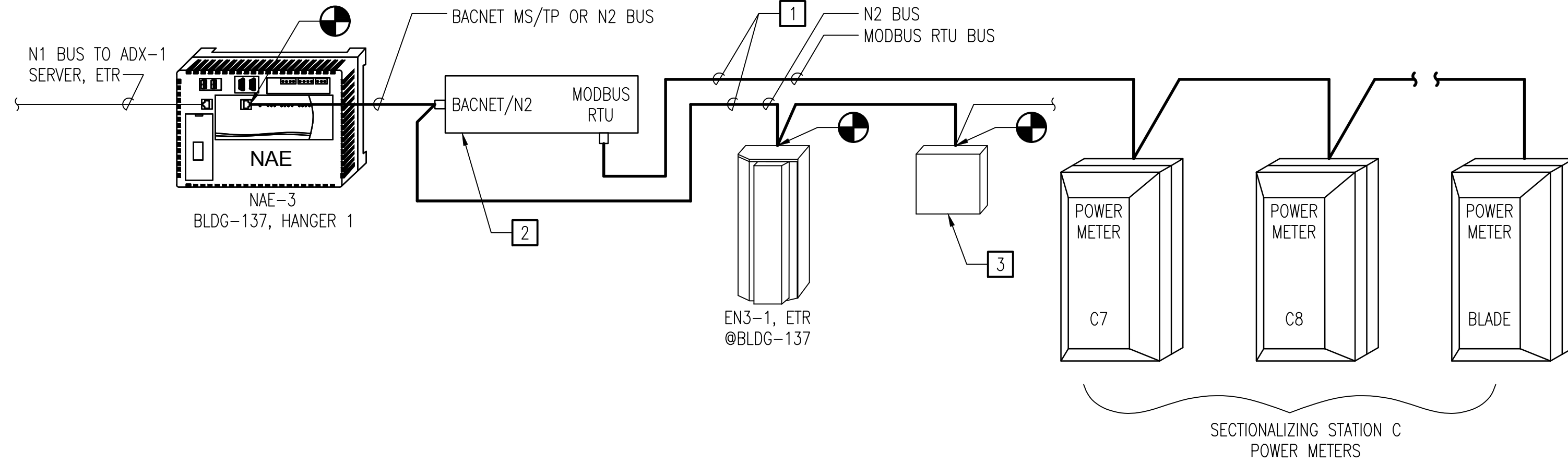
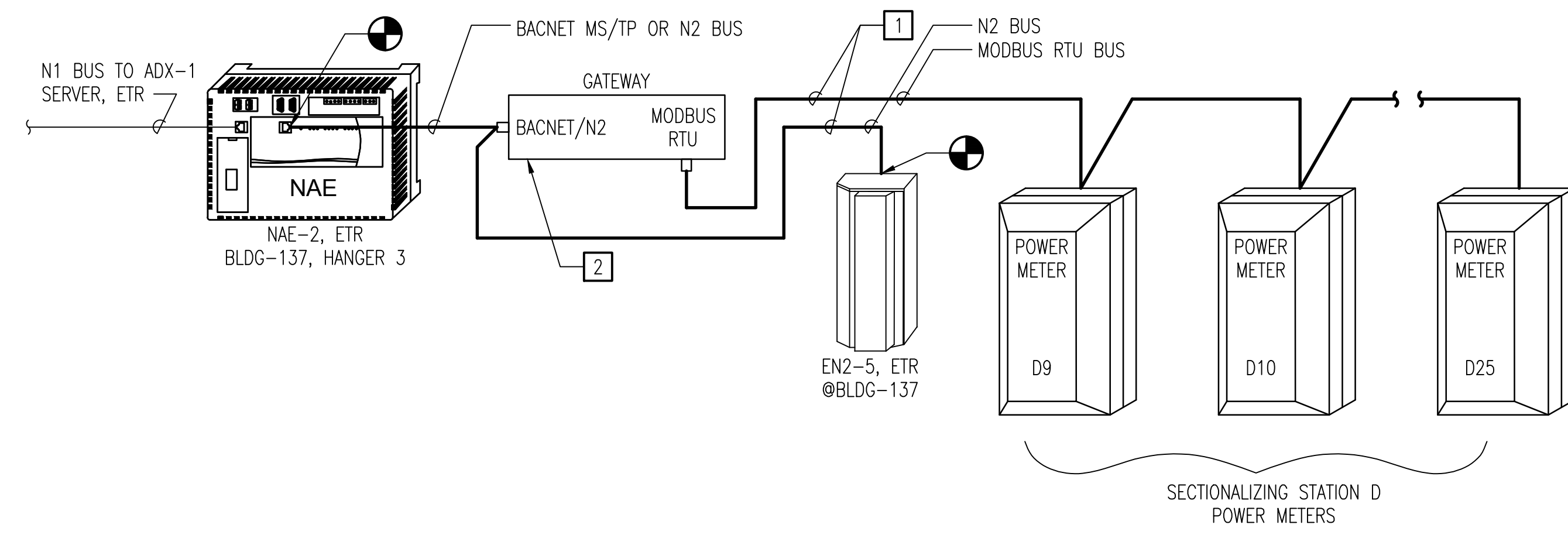
APPROVED	DATE	APP
FOR COMMANDER NAVFAC		
ACTIVITY		
SATISFACTORY TO		
BES JAK	DRW MTF	CHK JEB
U.S. MARINE CORPS AIR STATION CHERRY POINT, NORTH CAROLINA REPAIR POWER MONITORING SYSTEM AT FRC EAST DDC SYSTEM ARCHITECTURE		
SCALE: AS NOTED		
PROJECT NO.: XK32984		
MAXIMO WORK ORDER NO. 6861567		
NAVFAC DRAWING NO. 12782921		
SHEET 12 OF 14		
E-701		
DRAWING REVISION: 10 MAY 2014		



PMS/DDC SYSTEM ARCHITECTURE "D" - DEMOLITION
NOT TO SCALE

DEMOLITION NOTES

- 1 REMOVE PORTION OF N2 BUS TO EXTENTS INDICATED.
- 2 REMOVE N2 DEVICE, ENCLOSURE, AND ASSOCIATED APPURTENANCES.



PMS/DDC SYSTEM ARCHITECTURE "D" - NEW WORK
NOT TO SCALE

NEW WORK NOTES

- 1 PROVIDE COMMUNICATION CABLING (N2 AND MODBUS RTU BUSES) INSIDE EXISTING CONDUIT.
- 2 PROVIDE GATEWAY AT NAE. MOUNT IN NEMA 1 OR NEMA 4X ENCLOSURE. SEE SPECIFICATIONS.
- 3 SPLICE BOX. SEE DETAIL A1 ON SHEET E-501.



NOT TO SCALE



NOT TO SCALE

- 1 PROVIDE RS-485 CABLING AND 1" CONDUIT TO EACH METER.
- 2 PROVIDE RS-485 CABLING AND 1" CONDUIT. CONNECT TO BACNET MS/TP BUS AT NAE-6.

DRAWFORM REVISION: 10 MAY 2014
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