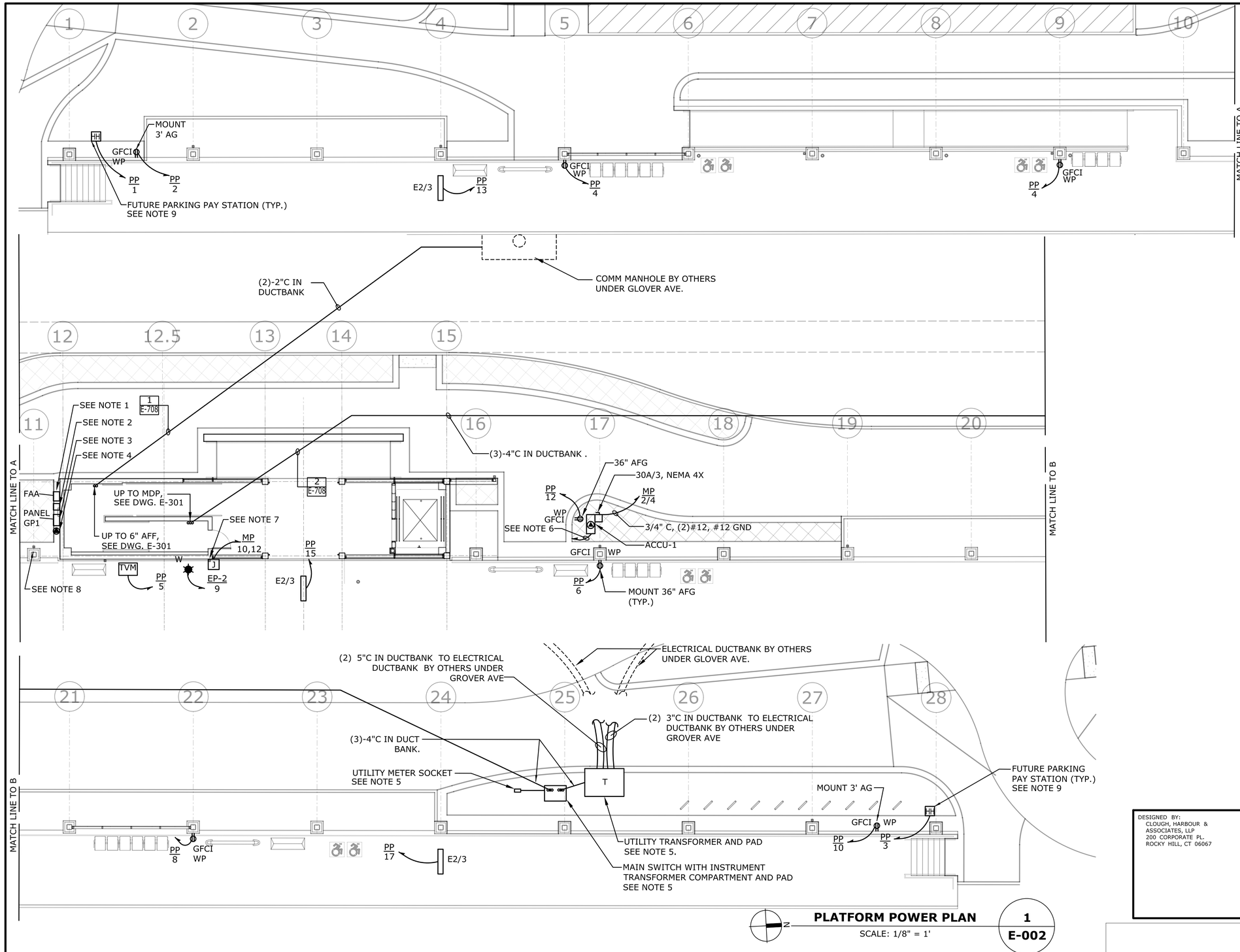

PLATFORM POWER PLAN

SCALE: 1/8" = 1'

1 / E-002

NOTES

1. FLUSH MOUNT FAA AND MOUNT 5' AFG.
2. KNOX BOX.
3. FLUSH MOUNT PANEL GP1 AND MOUNT 5'-6'' AFF TO TOP OF PANEL.
4. FLUSH MOUNT GENERATOR NEMA L21-60R RECEPTACLE AND MOUNT 5' AFG. PROVIDE WITH WEATHER-PROOF AND LOCKABLE COVER PLATE.
5. SEE DWG. E-706 FOR UTILITY AND SERVICE EQUIPMENT DETAILS. SEE ~~E-009 AND~~ E-601 FOR SERVICE ENTRANCE RACEWAY AND CONDUCTORS.
6. PROVIDE A HARDWIRED CONNECTION BETWEEN ACCU-1 AND THE AC-1 UNIT. PROVIDE 3/4"C WITH 3#12, #12G FOR POWER AND A 3/4"C WITH 3#14 FOR CONTROL. SEE DWG. E-101 FOR LOCATION OF AC-1.
7. PROVIDE AN ELECTRICAL CONNECTION TO PIPING HEAT TRACE. PROVIDE HEAT TRACE SYSTEM WHICH INCLUDES THE FOLLOWING: 208V, 1-PH, SELF-REGULATING HEATING CABLE 5W/FT RAYCHEM PART #5XL2-CR OR APPROVED EQUAL; CABLE LENGTH AS REQUIRED FOR THE EXPOSED PIPING; ABOVE INSULATION END SEAL KIT, RAYCHEM PART #RAYLLIC-PC OR APPROVED EQUAL; POWER CONNECTION KIT WITH BOX, RAYCHEM #C910-485 OR APPROVED EQUAL; TEMP. SENSOR RAYCHEM #RTD-200; GLASS TAPE(180FT/ROLL) PART #GT-66 OR APPROVED EQUAL; "ELECTRIC TRACED" WARNING LABEL, #C77203-000; PIPE STRAP 1-3'' CHEMELEX #C77212; SMALL PIPE ADAPTERS, E90515-000; CABLE STRIPPING TOOL, P000001126. COORDINATE WITH PLUMBING CONTRACTOR FOR EXACT LENGTH AND LOCATION OF PIPING. COORDINATE EXACT CABLE OUTPUT AND NUMBER OF PASSES WITH VENDOR. ELECTRICAL CONTRACTOR SHALL PROVIDE ASSOCIATED CONTROL PANEL/DRY CONTACT FOR INTERFACE WITH BUILDING MANAGEMENT SYSTEM, TO PROVIDE A TROUBLE SIGNAL. PROVIDE ALL ASSOCIATED ACCESSORIES FOR COMPLETE FUNCTIONAL INSTALLATION. HEAT TRACE SHALL EXTEND FROM ROOF DRAIN TO 3'-0'' INSIDE CONDITIONED SPACE OR TO 3'-0'' ON DOWN TURN AT UNCONDITIONED SPACE. LOCATE JUNCTION BOX FOR TRANSITION FROM POWER CABLE TO HEAT TRACE CABLE WITHIN BASEMENT SNOW MELT EQUIPMENT ROOM. PROVIDE FIRE SEALANT WHERE HEAT TRACE CABLE PENETRATES BASEMENT WALL TO UNDER THE PLATFORM. CONTRACTOR SHALL CONSOLIDATE HEAT TRACE CONTROLLER AND BMS POINTS TO REDUCE SERVICE POINTS AND ACCESS PANELS.
8. ROUTE CONDUIT FROM UNDER THE PLATFORM TO UNDER THE CANOPY UP THIS COLUMN.
9. PROVIDE 11"Wx18"Lx18.5"D FLUSH GRADE MOUNTED HANDHOLE WITH TIER 22 COVER ENGRAVED WITH "ELECTRIC". TERMINATE CIRCUIT CONDUCTORS WITH SUBMERSIBLE CONNECTORS IN HANDHOLE FOR FUTURE CONNECTION. PROPERLY CAP BRANCH CIRCUITS IN HANDHOLES WITH LISTED MATERIALS.

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STATE OF CONNECTICUT — BRIAN P. MCKENNA — No. 21640 — LICENSED PROFESSIONAL ENGINEER

Brian P. McKenna
2020.06.02
16:53:52-04'00'

ADDENDUM NO. 1

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
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1	06.02.20	REVISED NOTE TO REMOVE SHEET REFERENCE	07.25.A1

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 6/2/2020

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SCALE AS NOTED

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Filename: ...\FD_MSH_ELC_0302_0014_E-002.dgn

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CLOUGH, HARBOUR & ASSOCIATES, LLP
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ROCKY HILL, CT 06067

PROJECT TITLE:
MERRITT 7 RAILROAD STATION IMPROVEMENTS

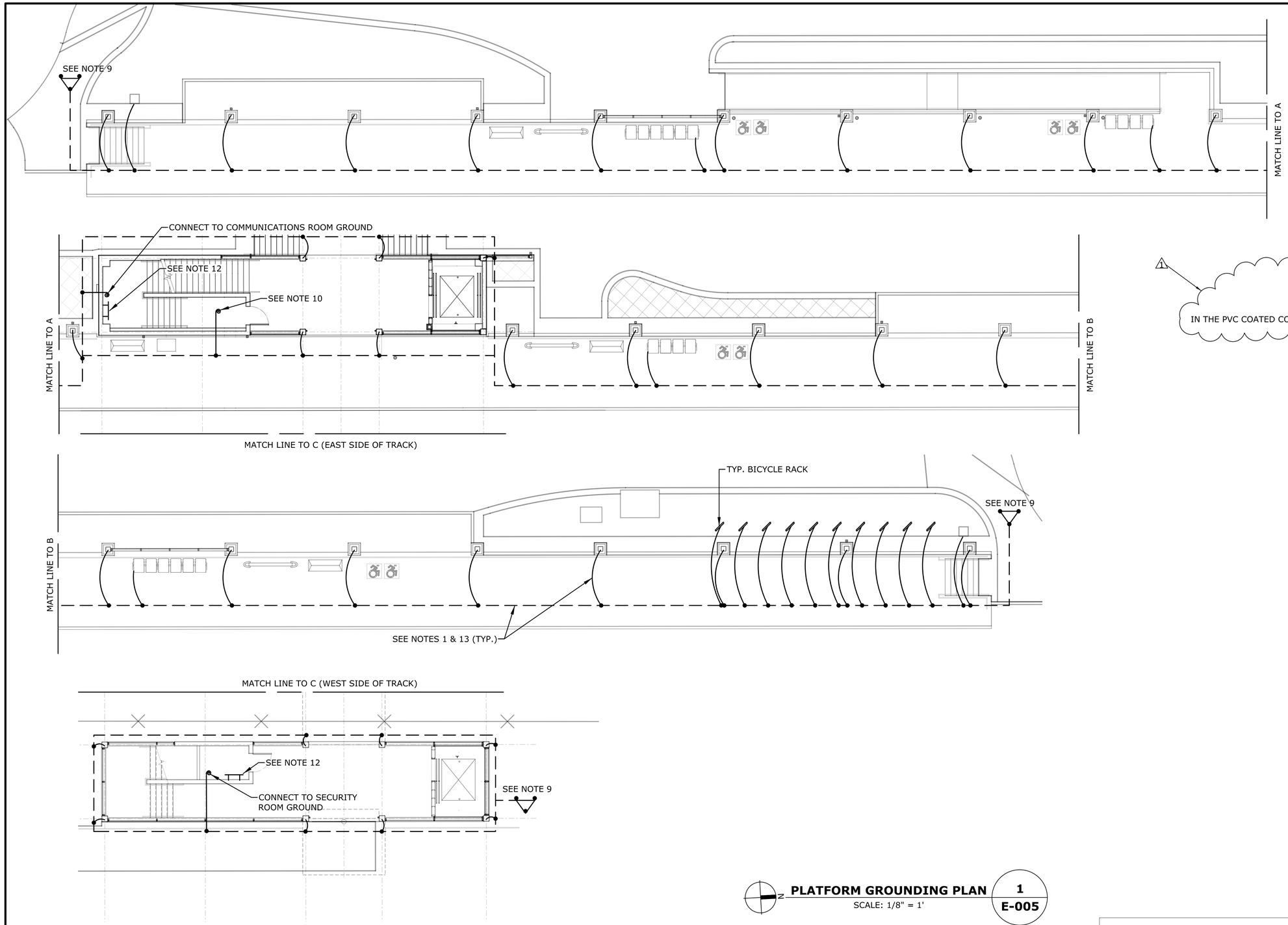
TOWN: **NORWALK**

DRAWING TITLE: **PLATFORM POWER PLAN**

PROJECT NO. **302-0014**

DRAWING NO. **E-002**

SHEET NO. **07.25.A1**



NOTES

1. 4/0 COPPERWELD MESSENGER WIRE SHALL BE CONNECTED TO UNDERSIDE OF CONCRETE PLATFORM A MINIMUM OF 12" FROM THE EDGE. THIS CONDUCTOR IS TO BE CAD WELDED TO THE GROUND RODS AT BOTH ENDS OF THE PLATFORM. GROUND WIRING SHALL BE INSTALLED WITHIN PVC COATED RMC 1"C.
2. #4 WIRE WITH ONE HOLE CONNECTOR LUGS AND $\frac{1}{4}$" SELF TAPPING BOLTS TO BE CONNECTED TO ALL METALLIC PERMANENTLY MOUNTED FIXTURES ON PASSENGER PLATFORM SUCH AS BENCHES, RAILINGS, LIGHT STANCHIONS AND STRUCTURAL STEEL ACCESSIBLE TO THE PASSENGERS. (OPTION ACCESS LIGHT POST THROUGH BOTTOM OF PLATFORM THROUGH FIXTURE HAND HOLE.)
3. BOND ACROSS ALL EXPANSION JOINTS ON ANY STRUCTURAL STEEL WITH 4/0 COPPER STRAND AND SERVICE POST CONNECTORS.
4. USE TWO HOLE STRAPS WITH 1/4" SELF TAPPING MASONARY BOLTS, OR HILTI SYSTEM CONNECTORS TO ATTACH 4/0 COPPER CONDUCTOR TO BOTTOM SIDE OF CONCRETE PLATFORM AT 2' SPACING.
5. CONNECT #4 CONDUCTOR TO 4/0 CONDUCTOR WITH SUITABLE PARALLEL CLAMP OR SPLIT BOLT.
6. RUN 4/0 CONDUCTOR INSIDE OF STRUCTURE COLUMN SECURING TO ANGLE EVERY TEN FEET WITH PARALLEL GROOVE CLAMPS.
7. CONTRACTORS TO VERIFY THAT RESISTANCE IS NOT GREATER THAN 5 OHMS. AT FINAL INSTALLATION AND PROVIDE TEST REPORTS.
8. GROUND CABLE AROUND BUILDING TO BE BURIED 30" BELOW GRADE.
9. CONTRACTOR TO VERIFY THAT SPACING BETWEEN RODS IS 6FT PER MNR STANDARD, PROVIDE INSPECTION PITS FOR RODS AT EACH END.
10. CONNECT TO PANELBOARD GROUND BAR.
11. PAINT BLACK ALL EXPOSED GROUND WIRING.
12. PROVIDE COPPER GROUND BAR 6" AFF FOR COMMUNICATION AND SECURITY SYSTEM RACKS.
13. GROUNDING & BONDING SYSTEM CONDUCTORS FOR THE PLATFORMS SHALL BE CONCEALED IN PVC COATED RMC 1" C. GROUNDING & BONDING SYSTEM SHALL BE INSPECTED BY MNR.

1 IN THE PVC COATED CONDUIT

PLATFORM GROUNDING PLAN 1 / E-005

SCALE: 1/8" = 1'

ADDENDUM NO. 1

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
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1	06.02.20	REVISED NOTE 4	07.28.A1

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PROJECT TITLE:

MERRITT 7 RAILROAD STATION IMPROVEMENTS

TOWN: **NORWALK**

DRAWING TITLE: **PLATFORM GROUNDING PLAN**

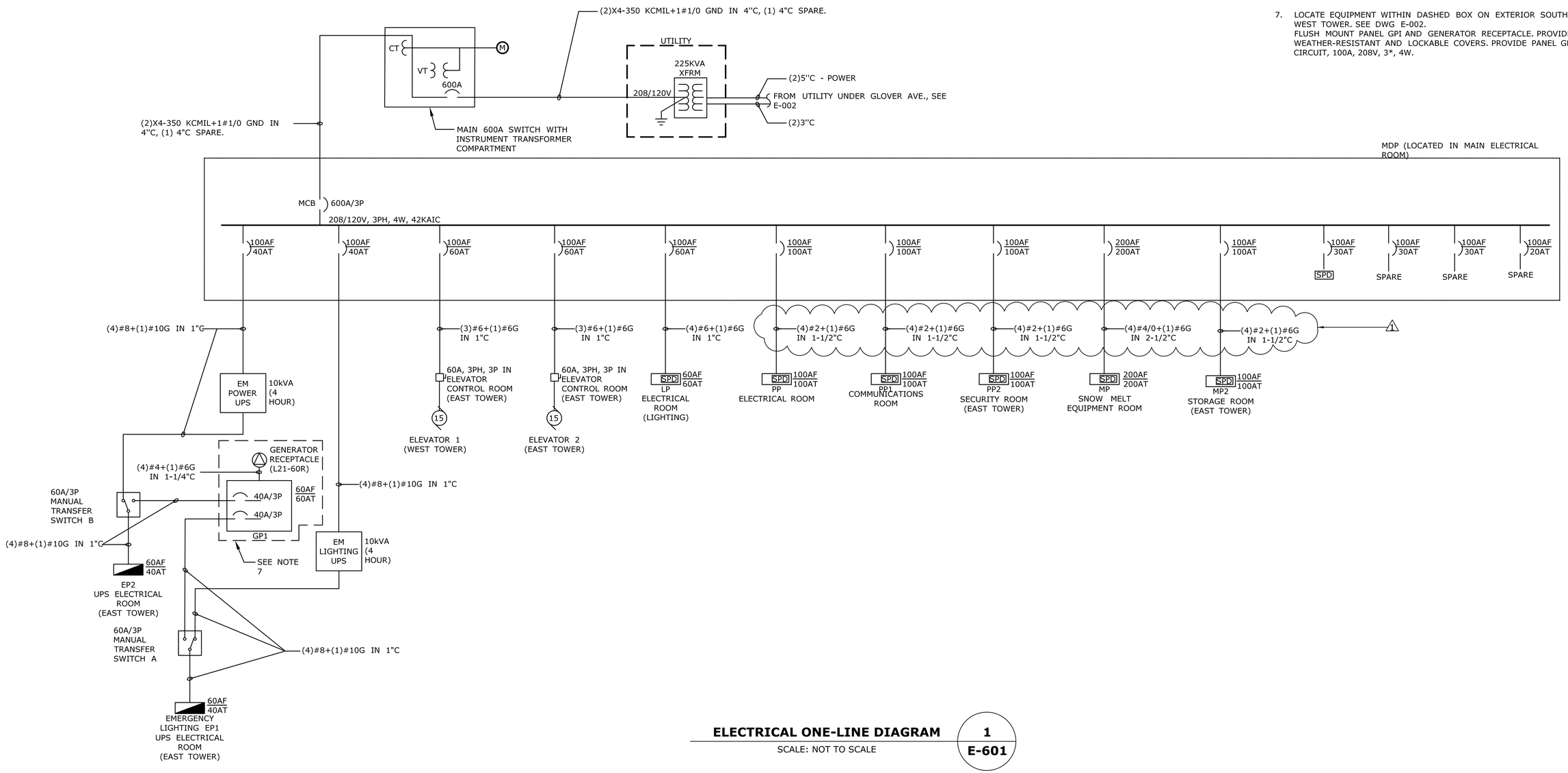
PROJECT NO. **302-0014**

DRAWING NO. **E-005**

SHEET NO. **07.28.A1**

NOTES

1. SEE DRAWING E-801 AND E-802 FOR PANEL SCHEDULES.
2. CONTRACTOR SHALL PROVIDE SHORT CIRCUIT CALCULATIONS AND ARC FLASH STUDY AFTER EQUIPMENT HAS BEEN SELECTED.
3. CONTRACTOR SHALL PROVIDE CONDUITS FOR UTILITY CABLES, UTILITY WILL PROVIDE TRANSFORMER, SWITCH AND CABLES.
4. SEE E-706 FOR METER AND CT CABINET ARRANGEMENT.
5. THE MDP INCLUDES A SERVICE ENTRANCE DISCONNECT. PROVIDE MAIN BONDING JUMPER AT MDP BETWEEN THE EQUIPMENT GROUNDING BAR AND NEUTRAL BUS.
6. CONNECT MDP TO GROUND BAR
7. LOCATE EQUIPMENT WITHIN DASHED BOX ON EXTERIOR SOUTH WALL OF WEST TOWER. SEE DWG E-002.
   FLUSH MOUNT PANEL GPI AND GENERATOR RECEPTACLE. PROVIDE WEATHER-RESISTANT AND LOCKABLE COVERS. PROVIDE PANEL GP1, 12 CIRCUIT, 100A, 208V, 3*, 4W.



ELECTRICAL ONE-LINE DIAGRAM 1 / E-601

SCALE: NOT TO SCALE

ADDENDUM NO. 1

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
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-	-	-	-
1	06.02.20	REVISED NUMBER OF CONDUCTORS	07.48.A1

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PROJECT TITLE:

MERRITT 7 RAILROAD STATION IMPROVEMENTS

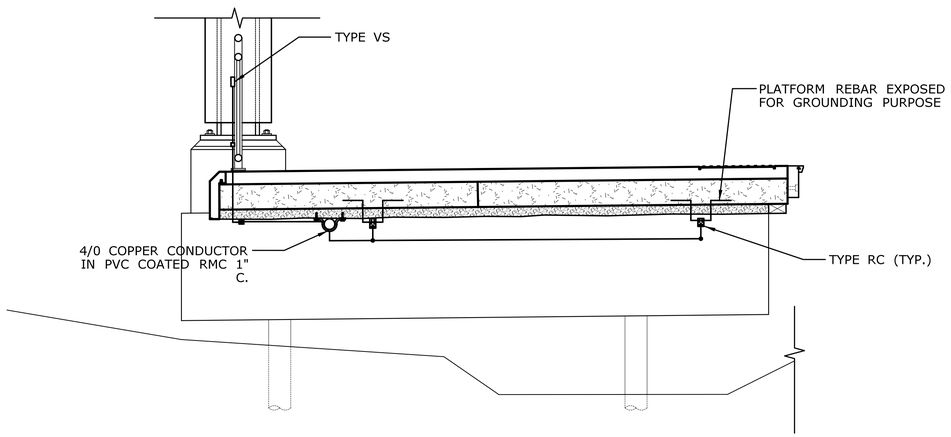
TOWN: **NORWALK**

DRAWING TITLE: **ELECTRICAL ONE-LINE DIAGRAM**

PROJECT NO. **302-0014**

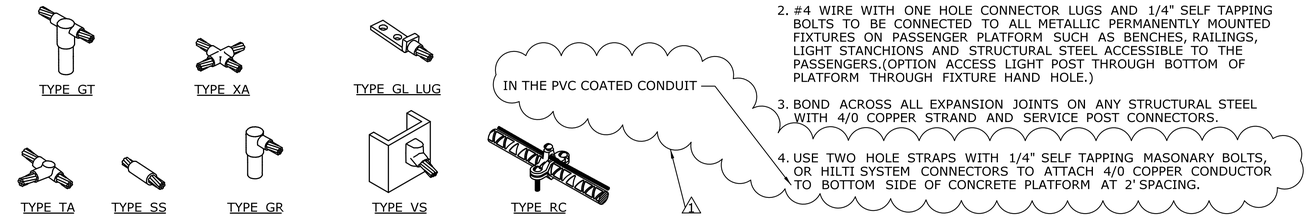
DRAWING NO. **E-601**

SHEET NO. **07.48.A1**



CONNECTION AT BASE OF STEEL COLUMN

NOT TO SCALE



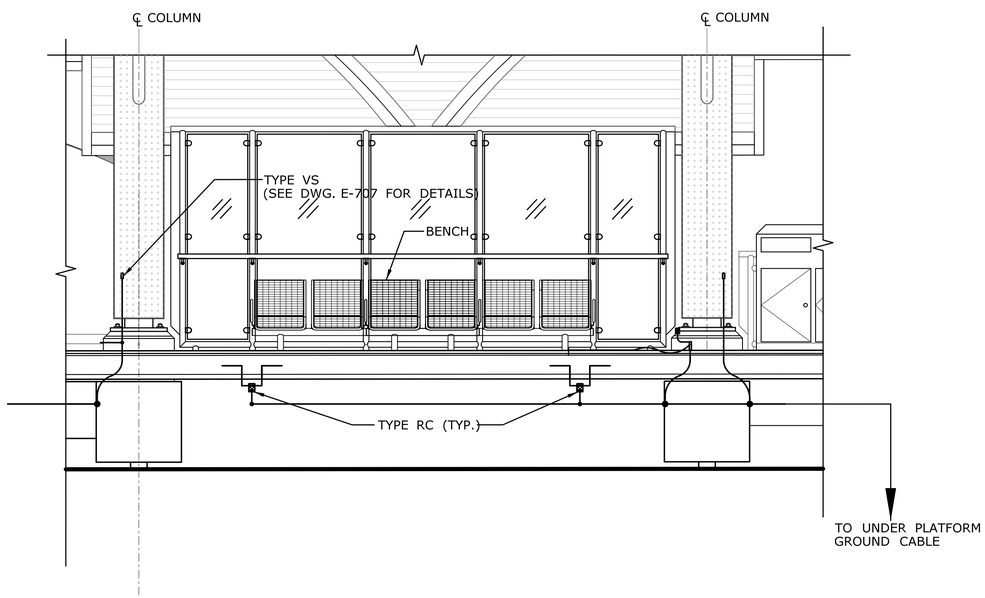
CADWELD BILL OF MATERIALS		
TYPE	CATALOG#	DESCRIPTION
TA	TAC-2Q2Q, WELD METAL #150	HORIZONTAL TEE
VS	VSC-2Q, WELD METAL #115	VERTICAL STEEL CONNECTION
SS	SSC-2Q, WELD METAL #90	IN-LINE SPLICE CONNECTION
GT	GTC-182Q, WELD METAL #115	CABLE TO GROUND ROD
RC	#RC100	REBAR CLAMP

CADWELD DETAILS

NOT TO SCALE

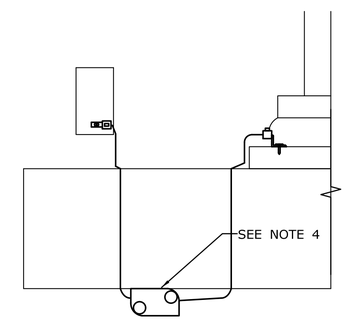
NOTES

1. 4/0 COPPERWELD MESSENGER WIRE SHALL BE CONNECTED TO UNDERSIDE OF CONCRETE PLATFORM A MINIMUM OF 12" FROM THE EDGE. THIS CONDUCTOR IS TO BE CAD WELDED TO THE GROUND RODS AT BOTH ENDS OF THE PLATFORM. GROUND WIRING SHALL BE INSTALLED WITHIN PVC COATED RMC 1"C.
2. #4 WIRE WITH ONE HOLE CONNECTOR LUGS AND 1/4" SELF TAPPING BOLTS TO BE CONNECTED TO ALL METALLIC PERMANENTLY MOUNTED FIXTURES ON PASSENGER PLATFORM SUCH AS BENCHES, RAILINGS, LIGHT STANCHIONS AND STRUCTURAL STEEL ACCESSIBLE TO THE PASSENGERS.(OPTION ACCESS LIGHT POST THROUGH BOTTOM OF PLATFORM THROUGH FIXTURE HAND HOLE.)
3. BOND ACROSS ALL EXPANSION JOINTS ON ANY STRUCTURAL STEEL WITH 4/0 COPPER STRAND AND SERVICE POST CONNECTORS.
4. USE TWO HOLE STRAPS WITH 1/4" SELF TAPPING MASONARY BOLTS, OR HILTI SYSTEM CONNECTORS TO ATTACH 4/0 COPPER CONDUCTOR TO BOTTOM SIDE OF CONCRETE PLATFORM AT 2' SPACING.
5. CONNECT #4 CONDUCTOR TO 4/0 CONDUCTOR WITH SUITABLE PARALLEL CLAMP OR SPLIT BOLT.
6. CONTRACTOR TO VERIFY THAT RESISTANCE IS NOT GREATER THAN 5 OHMS. AT FINAL INSTALLATION AND PROVIDE TEST REPORTS.
7. GROUND CABLE AROUND BUILDING TO BE BURIED 30" BELOW GRADE
8. COORDINATE ALL GROUNDING WORK WITH STRUCTURAL AND ARCHITECTURAL.
9. GROUNDING & BONDING SYSTEM CONDUCTORS FOR THE PLATFORMS SHALL BE CONCEALED IN PVC COATED RMC 1" C. GROUNDING & BONDING SYSTEM SHALL BE INSPECTED BY MNR.



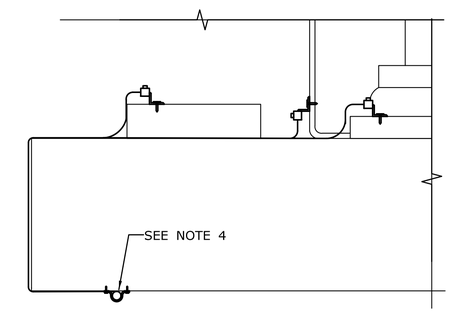
GROUND AT BENCH (TYP.) SHELTER

NOT TO SCALE



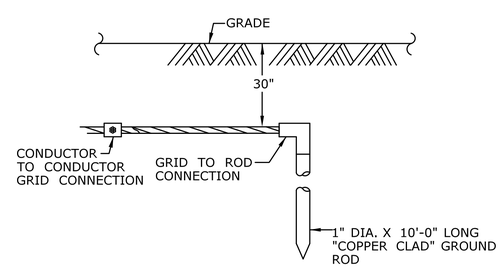
SPLIT-BOLT CONNECTION

NOT TO SCALE



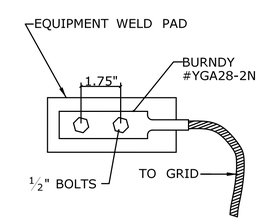
CONNECTION UNDER PLATFORM

NOT TO SCALE



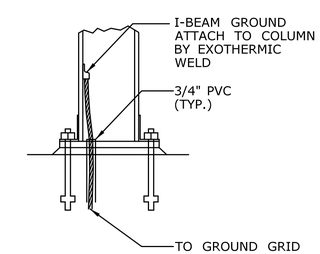
GROUNDING ROD DETAIL

NOT TO SCALE



TYP. EQUIPMENT GROUND PAD

NOT TO SCALE



TYP. COLUMN WELD GROUNDING DETAIL

NOT TO SCALE

ADDENDUM NO. 1

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PROJECT TITLE:

MERRITT 7 RAILROAD STATION IMPROVEMENTS

TOWN: **NORWALK**

DRAWING TITLE: **ELECTRICAL GROUNDING DETAILS**

PROJECT NO. **302-0014**

DRAWING NO. **E-701**

SHEET NO. **07.49.A1**