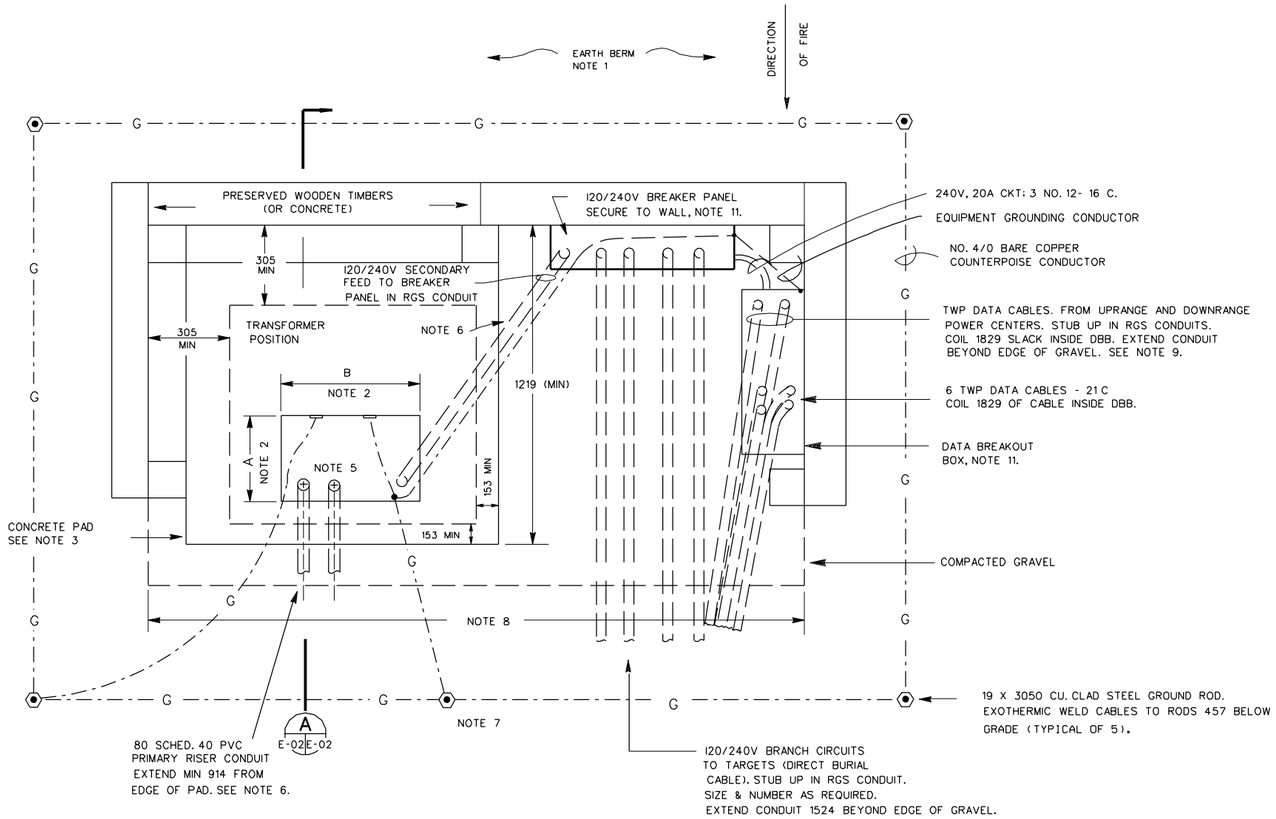
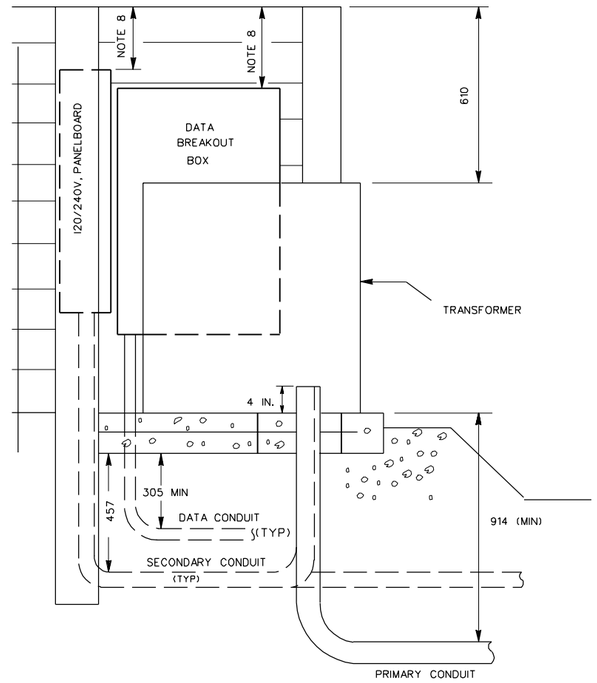


DOWNRANGE POWER CENTER PLAN

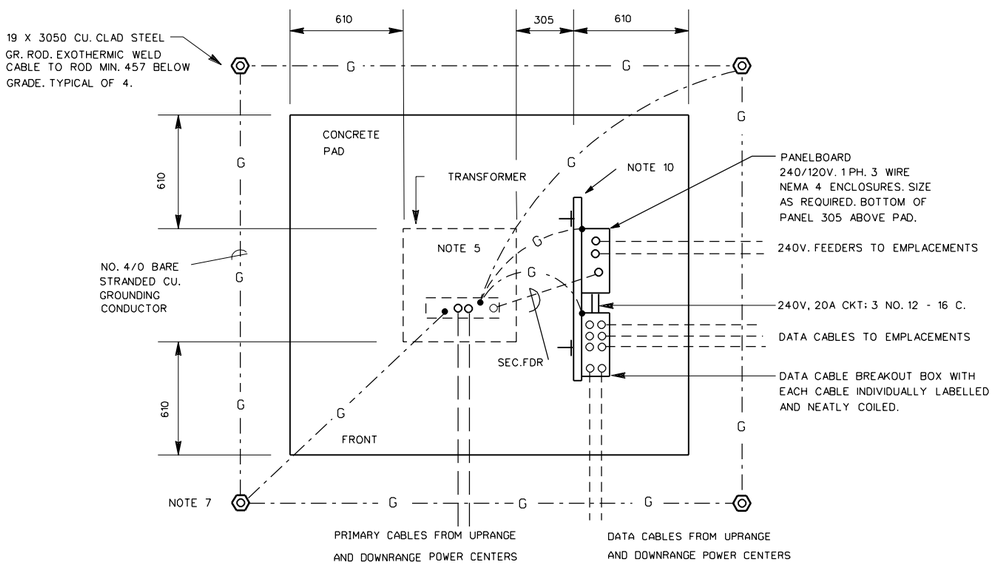
N.T.S (OPTION 1)



DOWNRANGE POWER CENTER SECTION A

N.T.S. NOTE: NOT ALL CONDUITS AND EMPLACEMENT DETAILS ARE INCLUDED IN THIS DEPICTION.

E-02 E-02



DOWNRANGE POWER CENTER PLAN

N.T.S (OPTION 2) (SHOWN WITHOUT PROTECTIVE EMPLACEMENT & BERM)

NOTES:

1. PROVIDE BERM FOR PROTECTION ON UPRANGE SIDE OF POWER CENTER.
2. DIMENSIONS A & B ARE EQUIPMENT SPECIFIC AND SHALL BE OBTAINED BY THE CONTRACTOR AT THE TIME OF PROCUREMENT. CONTRACTOR TO VERIFY PAD AND EMPLACEMENT DIMENSIONS ADEQUATE FOR PLACEMENT OF TRANSFORMER.
3. TRANSFORMER PAD SHALL BE 200-THICK CONCRETE WITH WELDED WIRE FABRIC, 6 x 6 - W2.9 x W2.9. CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STENGTH OF 21 MPA IN 28 DAYS. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185. PAD SHALL BE CONSTRUCTED OVER 300 OF COMPACTED FREE DRAINAGE MATERIAL. TOP OF PAD SHALL BE A MINIMUM OF 100 ABOVE FINISH GRADE. EDGES OF PAD SHALL HAVE A 20 CHAMFER.
4. ALL EXPOSED CONDUIT TO BE RGS STEEL. SCHEDULE 40 PVC MAY BE USED WHERE CONDUIT RUNS ARE UNDERGROUND OR NOT PHYSICALLY EXPOSED.
5. GROUND TRANSFORMER CASE, SURGE ARRESTERS, NEUTRAL, EQUIPMENT GROUNDING CONDUCTORS, AND PRIMARY AND SECONDARY CABLE SHIELDS. SEE ANSI C2 & NFPA 70.
6. LOCATION OF CONDUIT FOR PRIMARY AND SECONDARY IS TRANSFORMER CONFIGURATION DEPENDENT. CONTRACTOR SHALL ARRANGE CONDUIT TO CONFORM TO THE CONFIGURATION REQUIRED BY THE TRANSFORMER APPROVED. (AS SHOWN FOR MAX. PROFILE. REVERSE FOR LOW PROFILE TRANSFORMERS.)
7. SEPARATION OF TRANSFORMER ENCLOSURE AND SURGE ARRESTER GROUNDING CONDUCTORS FROM GROUNDED CIRCUIT CONDUCTORS SHALL MEET ANSI C2 REQUIREMENTS
8. DIMENSIONS TO BE DETERMINED BY DESIGNER DURING SITE ADAPTATION.
9. THE DESIGNER SHALL SIZE CONDUITS AND DATA CABLE AS REQUIRED FOR SPECIFIED RANGE.
10. PROVIDE A FRAME OF GALVANIZED STEEL. VERTICAL SUPPORTS SHALL BE WT6X11. HORIZONTAL FRAME SUPPORT SHALL BE C3X4.1 CHANNEL. CONTINUOUS BEAD WELD ALL JOINTS BEFORE GALVANIZING. WELD VERTICAL SUPPORT TEES TO 200 X 200 X 12 STEEL BASE PLATE. ANCHOR TO PAD WITH 114 DIA. ANCHOR BOLTS PER PLATE.
11. WHERE CONRETE WALLS ARE PROVIDED INSTEAD OF TIMBER, PANELS SHALL BE MOUNTED ON 1 5/8 " SQUARE, SLOTTED CHANNEL.

US Army Corps of Engineers

Symbol	Description	Date	Approved	Symbol	Description	Date	Approved

Designed by: N/A
Dwn by: JTP
Ckd by: MLR
Reviewed by: WLS
Submitted by: RNM
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U.S. ARMY ENGINEERING AND SUPPORT CENTER, HUNTSVILLE
HUNTSVILLE, ALABAMA

FORCE XXI/FORCE MODERNIZATION PROGRAM
STANDARD DESIGN

DOWNRANGE POWER CENTER

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E-02
Sheet of