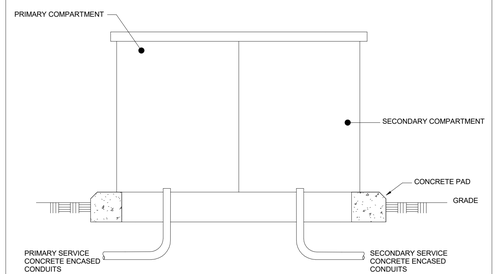


NOTES:

1. AIR ENTRAINED CONCRETE - 4000 PSI AFTER 28 DAYS, MAX AGGREGATE 3/4".
2. STEEL FLOAT FINISH.
3. REINFORCEMENT: TYPE A-305 NEW BILLET STOCK A.S.T.M. GRADE 60.
4. ALL REINFORCING SHALL BE #4 BAR 12" O.C. EACH WAY. WIRE TIE ALL CROSSINGS.
5. IF THE ANTICIPATED FORECAST TEMPERATURE IS 35 DEGREES OR LESS, THE PAD SHALL BE INSULATED WITH EITHER BLANKETS OR POLY AND STRAW FOR A MINIMUM OF 3 DAYS.
6. ALL MEMBRANE CURING COMPOUND, MEETING A.S.T.M. C-309, AT MANUFACTURERS PRESCRIBED RATE AFTER REMOVAL OF FORMS.
7. EDGE TROWEL WITH CHAMFERED OUTSIDE EDGES.
8. A SAFE OPERATING CLEARANCE OF A MINIMUM OF 10'-0" (UNOBSTRUCTED) IS REQUIRED IN FRONT OF THE EQUIPMENT DOOR. THE DOOR(S) CAN FACE ANY DIRECTION EXCEPT TOWARDS THE BUILDING.
9. IF NECESSARY, ELECTRICAL CONTRACTOR MAY REMOVE TOP LIP OF FIBERGLASS GROUND SLEEVE IN THE LOW VOLTAGE SECTION.
10. PRIMARY CONDUIT (WHERE REQUIRED) IS PROVIDED BY CONTRACTOR AND INSTALLED BY CONTRACTOR.

K CONCRETE PAD WITH CONDUIT PENETRATION — NTS

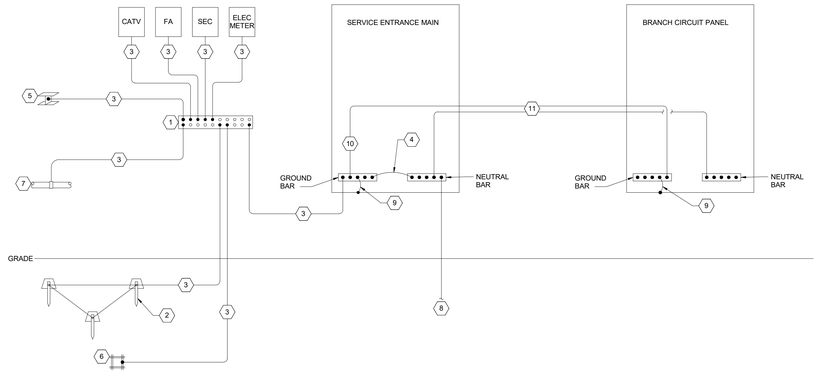
GENERATOR SYSTEM REQUIREMENTS:

NFPA 110 LEVEL	1
NFPA 110 TYPE	10
NFPA CLASS	96 (HRS)
GENERATOR SET MODEL	350REOZJC
KW @ 130C RISE	350 KW
KVA @ 0.8 PF	438 KVA
VOLTAGE	208/120 VOLTS, 3 PHASE, 60HZ
PEAK MOTOR STARTING KVA @ 35% MAXIMUM INSTANTANEOUS VOLTAGE DIP	1314 KVA
ALTERNATOR	4M4019
FREQUENCY REGULATION	±0.25%
CONTROLLER MODEL	APM603
MUFFLER	CRITICAL GRADE MUFFLER
ENCLOSURE	LEVEL 2 ACOUSTIC ENCLOSURE
ENGINE HP@ 1800 RPM	401 kWm
FREQUENCY / SPEED REGULATION	ISOCHRONOUS
CIRCUIT BREAKER #1 AMPS	1200A
CIRCUIT BREAKER #2 AMPS	N/A
SHUNT TRIP	NO
GFI INDICATION	YES
MANUFACTURER/MODEL TANK	HIGHLAND TANK PETRO HOPPER HT-1032
TANK SIZE (GAL)	1,000
FUEL TYPE	DIESEL
ATS MODEL ATS-L-LS	KBP-DCVA-0150S
AMPERAGE	150A
VOLTAGE	208 /120 VOLTS, 3 PHASE, 60HZ
NEMA TYPE ENCLOSURE	TYPE 1
SERVICE ENTRANCE RATED	NO
INTEGRAL CIRCUIT BREAKER	NO
ACCESSORIES	(6) PROGRAMMABLE INPUT/OUTPUT
ATS MODEL ATS-L-EQ	KBP-DCVA-1000S
AMPERAGE	1000A
VOLTAGE	208 /120 VOLTS, 3 PHASE, 60HZ
NEMA TYPE ENCLOSURE	TYPE 1
SERVICE ENTRANCE RATED	NO
INTEGRAL CIRCUIT BREAKER	NO
ACCESSORIES	(6) PROGRAMMABLE INPUT/OUTPUT
ATS MODEL ATS-L-DP	KBP-DCVA-0400S
AMPERAGE	400A
VOLTAGE	208 /120 VOLTS, 3 PHASE, 60HZ
NEMA TYPE ENCLOSURE	TYPE 1
SERVICE ENTRANCE RATED	NO
INTEGRAL CIRCUIT BREAKER	NO
ACCESSORIES	(6) PROGRAMMABLE INPUT/OUTPUT

*EQUIPMENT LISTED IS MANUFACTURED BY KOHLER, INC. OF KOHLER, WISCONSIN, FOR THE PURPOSE OF ESTABLISHING A MINIMUM STANDARD. SUBSTITUTIONS BY GENERAC, CUMMINS/ONAN OR CATEPILLAR AND ALL EQUIPMENT FURNISHED SHALL BE EQUAL IN EVERY RESPECT TO KOHLER, INCLUDING QUALITY, SPECIFICATIONS, OPERATION, AND FUNCTION TO BE CONSIDERED. THE EQUIPMENT SPACING, ELECTRICAL WIRING, EQUIPMENT MECHANICAL, FUEL AND EXHAUST COMPONENTS, HAVE ALL BEEN SIZED AND DESIGNED AROUND KOHLER EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHANGE IN BUILDING WORK MADE NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF ANY EQUIPMENT OTHER THAN KOHLER WITH OUT ADDITIONAL COST TO THE VA.

NOTE: CONTRACTOR TO OBTAIN ALL REQUIRED PERMITTING AND REGISTRATION FOR GENERATOR AND FUEL TANK AS REQUIRED BY THE LOCAL, STATE, AND GOVERNMENT AGENCIES (NYSDEC, USEPA).

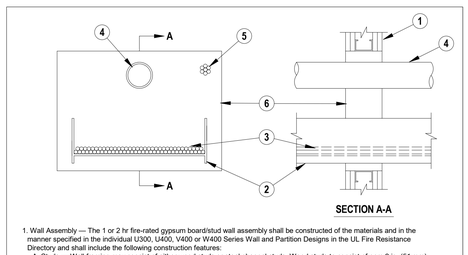
H GENERATOR SYSTEM REQUIREMENTS — NTS



A GROUNDING DETAIL — N.T.S.

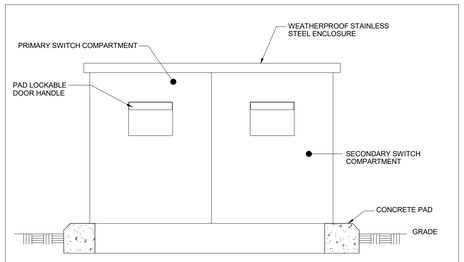
X GROUNDING DETAIL KEYNOTES

1. GROUND BUS BAR LOCATED IN MAIN ELECTRICAL ROOM OR WITHIN SERVICE ENTRANCE MAIN. 0.25" X 4" X 12" WITH 18 HOLES MINIMUM FOR EXTERNAL INSTALLATION.
2. GROUNDING TRIAD, 3-3/4" X 10'-0" COPPERCLAD GROUND RODS DRIVEN INTO GROUND AT LEAST 1 ROD'S LENGTH APART. PROVIDE WITH INSPECTION TEST WELL.
3. COPPER GROUNDING ELECTRODE CONDUCTOR SIZED PER NEC TABLE 250.66. MINIMUM SIZE #8.
4. SERVICE ENTRANCE MAIN BONDING JUMPER SIZED PER NEC TABLE 250.66. NEUTRAL SHALL ONLY BE BONDED AT SERVICE ENTRANCE, ALL OTHER NEUTRALS SHALL BE CONSIDERED FLOATING.
5. CONNECTIONS TO BUILDING STEEL SHALL BE BY EXOTHERMIC WELD.
6. CONNECTIONS TO REBAR ENCASED IN CONCRETE SHALL BE BY EXOTHERMIC WELD.
7. BOND METALLIC COLD WATER PIPE WITHIN 5' - 0" OF ENTERING BUILDING. CONNECTION SHALL BE MADE WITH NON-CORROSIVE MATERIAL GROUNDING ELECTRODE CLAMP.
8. SERVICE ENTRANCE NEUTRAL CONDUCTOR.
9. ALL EQUIPMENT ENCLOSURES AND METAL RACEWAYS SHALL BE GROUNDED WITH AN EQUIPMENT GROUNDING CONDUCTOR SIZED PER NEC TABLE 250.122.
10. EQUIPMENT GROUNDING CONDUCTOR SIZED PER NEC TABLE 250.122.
11. NEUTRAL CONDUCTOR WITH INSULATED EQUIPMENT GROUNDING CONDUCTOR TO BRANCH CIRCUIT PANELS/EQUIPMENT.

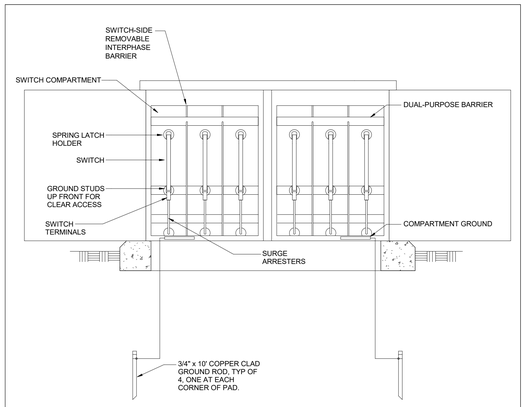


1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 in. (51 mm) by 4 in. (102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. Additional studs installed to completely frame the opening.
   B. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (1219 mm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design. Max area of opening is 352 sq in. (2271 sq cm) with max dimension of 22 in. (559 mm) wide.
   The hourly F and FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Cable Tray* — Max 18 in. (457 mm) wide by max 6 in. (152 mm) deep open-ladder or solid-back cable tray with channel-shaped side rails formed of 0.065 in. (1.65 mm) thick aluminum or 0.060 in. (1.52 mm) thick steel and with 1-1/2 in. (38 mm) wide by 1 in. (25 mm) channel shape rungs spaced 9 in. (229 mm) OC or a 0.029 in. (0.74 mm) thick steel solid back, respectively. One cable tray to be installed in the opening. The max annular space between the cable tray and the periphery of the opening shall be min 1 in. (25 mm) to max 7 in. (178 mm) Cable tray to be rigidly supported on both sides of floor or wall assembly.
3. Cables — Aggregate cross-sectional area of cables in cable tray to be max 30 percent of the cross-sectional area of the cable tray. Any combination of the following types and sizes of copper conductor cables may be used:
   A. 7/C No. 12 AWG with polyvinyl chloride (PVC) insulation and PVC jacket.
   B. 100 pair - No. 24 AWG cable with PVC insulation and jacket.
   C. 1/C, 750 kcmil (or smaller) with PVC insulation and jacket.
4. Through-Penetrants — One or more pipe or tube to be installed within the opening. The total number of through-penetrants is dependent on the size of the opening and types and sizes of the penetrants. Any combination of the penetrants described below may be used provided that the following parameters relative to the annular spaces and the spacings between the pipes are maintained. The space between the pipe or tube and the periphery of the opening shall be min 1-1/2 in. (38 mm) to max 9-1/4 in. (235 mm). Pipe or tube to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of non-metallic or metallic pipes, or tubes may be used:
   A. Polyvinyl Chloride (PVC) Pipe — Max 3 in. (76 mm) diam Schedule 40 solid core PVC pipe (or smaller) for use in closed (process or supply) or vented (drain, waste or vent) piping system.
   B. Steel Pipe — Nom 6 in. (152 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.
   C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or 6 in. (152 mm) diam steel conduit.
   D. Copper Pipe — Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.
   E. Copper Tube — Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tube.
4A. Pipe Covering — (Not Shown) Nom 1-1/2 in. (38 mm) thick hollow cylindrical heavy density (min 3.5 pcf) (56kg/m3) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. See Pipe and Equipment Covering and Materials (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 may be used.
5. Cables — Max 1-1/2 in. (38 mm) diam tight bundle of cables installed within the opening and rigidly supported on both surfaces of wall. The space between the cables and periphery of the opening shall range from 1-3/16 in. (30.2 mm) min to a max of 1-1/2 in. (38 mm). Any combination of the following types and sizes of cables may be used:
   A. 7/C No. 12 AWG with polyvinyl chloride (PVC) insulation and jacket.
   B. 25 pair — No. 24 AWG cable with PVC insulation and jacket.
   C. Type R GU/59 coaxial cable with PVC outer jacket.
   D. 24 fiber optic cable with PVC sub unit and outer jacket.
6. Firestop System — The firestop system shall consist of the following:
   A. Fill, Void or Cavity Material* — Fire Blocks For walls incorporating max 3-5/8 in. (92 mm) steel studs or max 2 (51 mm) by 4 in. (102 mm) wood studs, fire block installed with 5 in. (127 mm) dimension projecting through and centered in opening. For walls constructed of larger steel or wood studs, fire block installed with long dimension passing through and centered in opening. Blocks may or may not be cut flush with both surfaces of wall. When multiple layers of gypsum board are used, blocks may be recessed 1/2 in. (13 mm) from surface of wall. Blocks to be firmly packed in opening. Either one or a combination of the block types specified below may be used.
   B. Fill, Void or Cavity Material* — Sealant or Putty - Fill material to be forced into interstices of cables, between cables and cable trays, around each penetrant and where obvious voids are observed to max extent possible on both surfaces of the penetration.

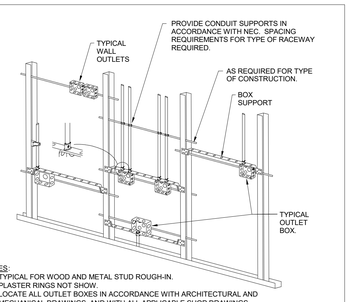
L PENETRATIONS THROUGH RATED WALLS — NTS



I SECTIONAL SWITCHGEAR BLOCK ENCLOSURE (EXTERIOR) — NTS



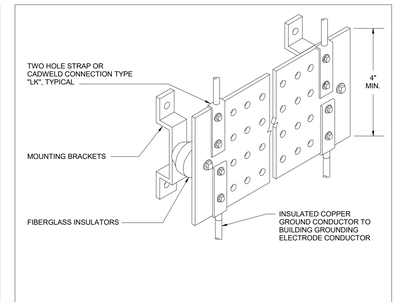
J SECTIONAL SWITCHGEAR BLOCK ENCLOSURE (INTERIOR) — NTS



NOTES:

1. TYPICAL FOR WOOD AND METAL STUD ROUGH-IN.
2. PLASTER RINGS NOT SHOW.
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS, AND WITH ALL APPLICABLE SHOP DRAWINGS.
4. IN ACCORDANCE WITH UBC 4304 OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE MUST BE SEPARATED BY A MIN. OF 24" HORIZONTAL DISTANCE.
5. TOENAILING OF OUTLET BOXES DIRECTLY TO THE STUDS WILL NOT BE ACCEPTED.
6. OUTLETS SHOWN TOGETHER ON PLAN SHALL BE INSTALLED TOGETHER.

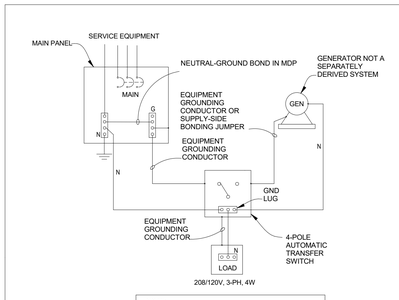
D TYPICAL ROUGH-IN — NTS



NOTES:

1. PREDRILLED BOLT HOLE SIZE AND SPACING AS REQUIRED FOR INDICATED TERMINATIONS .
2. PROVIDE LENGTH SUFFICIENT FOR ALL INDICATED TERMINATIONS AND 20% SPARE MOUNTING SPACE. CONNECTIONS SHALL UTILIZE TWO HOLE COMPRESSIONS CONNECTOR.
3. GROUND BAR SHALL BE MOUNTED MINIMUM 2" OFF WALL AND 12" AFF.
4. FIBERGLASS INSULATORS SHALL HAVE A MINIMUM DIELECTRIC STRENGTH OF 15kV.

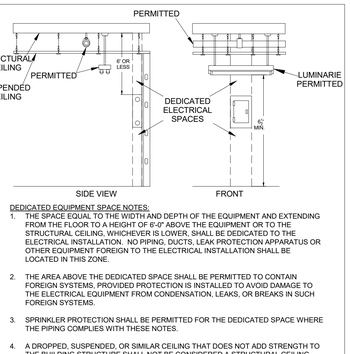
C GROUND BUS DETAIL — NTS



NOTE:

1. TRANSFER SWITCH CONTACTS SHALL BE OF THE OPEN TYPE AND SHALL BE ACCESSIBLE FOR INSPECTION AND REPLACEMENT.

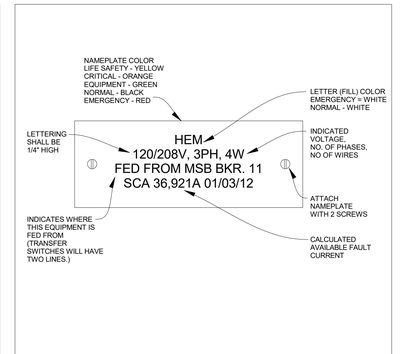
B GENERATOR GROUNDING AND NEUTRAL DETAIL — N.T.S.



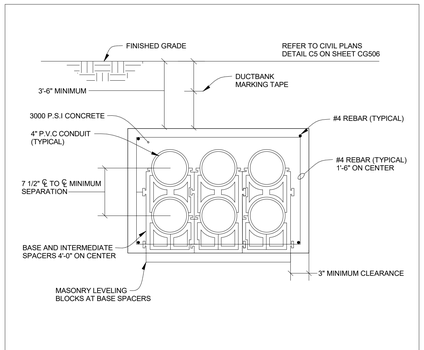
DEDICATED EQUIPMENT SPACE NOTES:

1. THE SPACE EQUAL TO THE WIDTH AND DEPTH OF THE EQUIPMENT AND EXTENDING FROM THE FLOOR TO A HEIGHT OF 6'-0" ABOVE THE EQUIPMENT OR TO THE STRUCTURAL CEILING, WHICHEVER IS LOWER, SHALL BE DEDICATED TO THE ELECTRICAL INSTALLATION. NO PIPING, DUCTS, LEAK PROTECTION APPARATUS OR OTHER EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION SHALL BE LOCATED IN THIS ZONE.
2. THE AREA ABOVE THE DEDICATED SPACE SHALL BE PERMITTED TO CONTAIN FOREIGN SYSTEMS, PROVIDED PROTECTION IS INSTALLED TO AVOID DAMAGE TO THE ELECTRICAL EQUIPMENT FROM CONDENSATION, LEAKS, OR BREAKS IN SUCH FOREIGN SYSTEMS.
3. SPRINKLER PROTECTION SHALL BE PERMITTED FOR THE DEDICATED SPACE WHERE THE PIPING COMPLIES WITH THESE NOTES.
4. A DROPPED, SUSPENDED, OR SIMILAR CEILING THAT DOES NOT ADD STRENGTH TO THE BUILDING STRUCTURE SHALL NOT BE CONSIDERED A STRUCTURAL CEILING.

G DEDICATED ELECTRICAL SPACES — NTS



F ELECTRICAL EQUIPMENT NAMEPLATE — NTS



E 6-WAY DUCTBANK 4" CONDUIT DETAIL — NTS

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05/09/2022

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	ELECTRICAL DETAILS
Phase	ISSUED FOR CONSTRUCTION
Project Title	NEW COMMUNITY LIVING CENTER
Project Number	620-334
Building Number	CLC
Approved:	
Location	2094 Albany Post Road, Montrose, NY 10548
Issue Date	05/09/2022
Checked	DK
Drawn	SC
Drawing Number	E-501

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