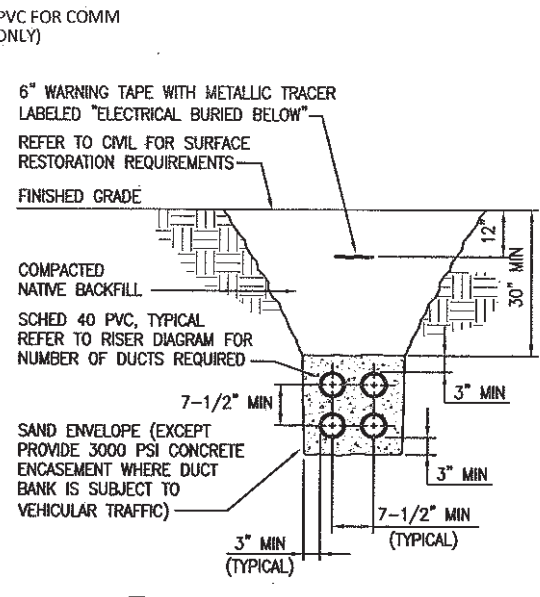
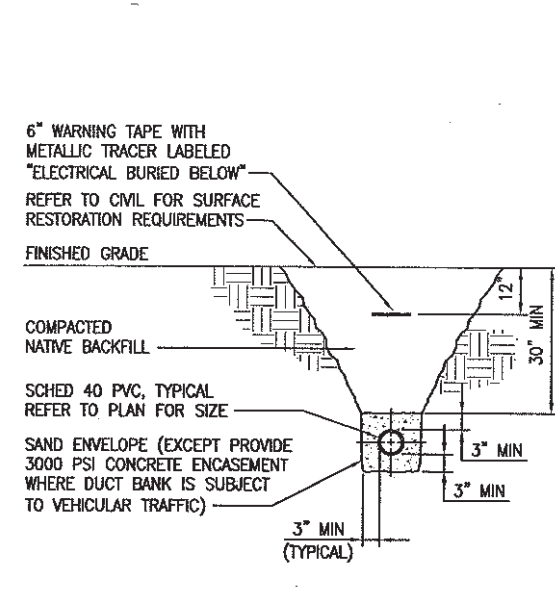


1 TYPICAL DETAIL
MEDIUM-VOLTAGE POWER TRENCH
SCALE: NONE



2 TYPICAL DETAIL
600V DISTRIBUTION POWER TRENCH
SCALE: NONE



3 TYPICAL DETAIL
BRANCH CIRCUIT POWER TRENCH
SCALE: NONE

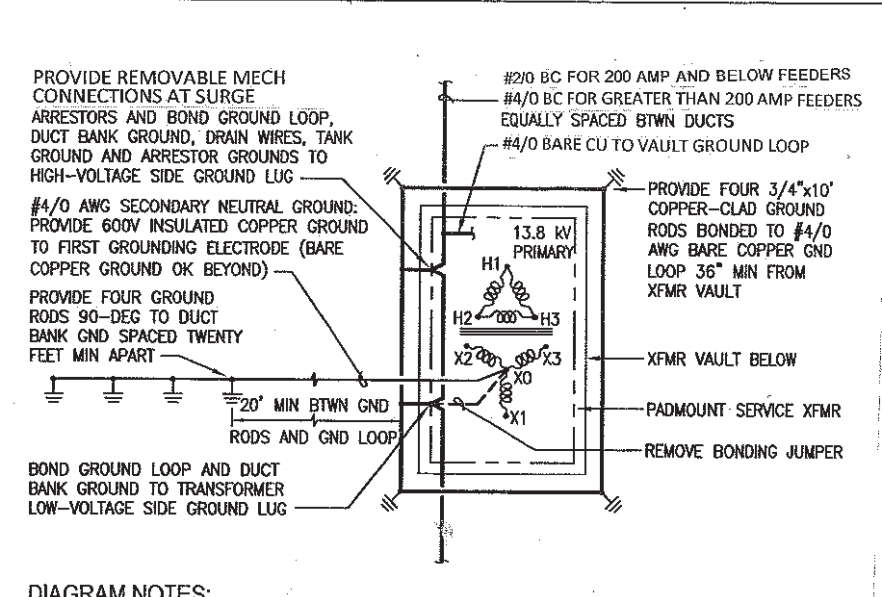


DIAGRAM NOTES:

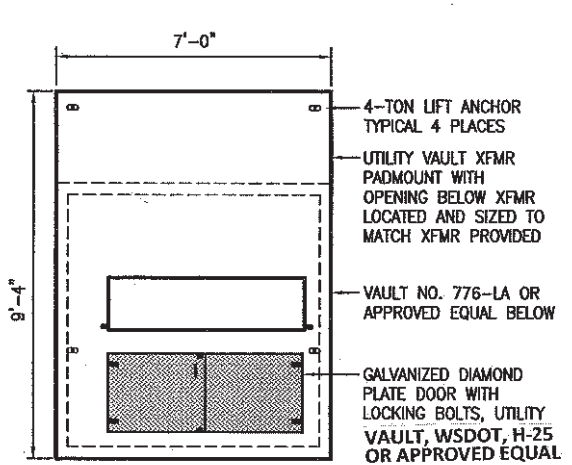
- 600V INSULATED CABLE SHALL BE INSTALLED FROM THE NEUTRAL CONNECTION AT THE TRANSFORMER SECONDARY TO THE NEAREST SECONDARY GROUNDING ELECTRODE, A MINIMUM OF 20 FEET FROM THE EQUIPMENT GROUNDING CONDUCTOR OR ELECTRODES PER NESC (IEEE C2-2007) RULE 097 D.1. REFER TO NESC 2007 RULE 096 D FOR MINIMUM GROUNDING RESISTANCE REQUIREMENT FOR LESS THAN 25 OHMS. UTILIZE LOW RESISTANCE CARBON-BASED BACKFILL MATERIALS AS REQUIRED TO ACHIEVE THE MAXIMUM RESISTANCE VALUES.
- PROVIDE #4 AWG FOR SURGE ARRESTORS AND #6 FOR CABLE SHIELD GROUNDS, BRACKET GROUNDS AND VAULT LIDS.
- USE SLEEVE TO PROTECT THE HEAD OF GROUND RODS WHILE DRIVING THEM INTO THE GROUND.

TYPICAL DIAGRAM

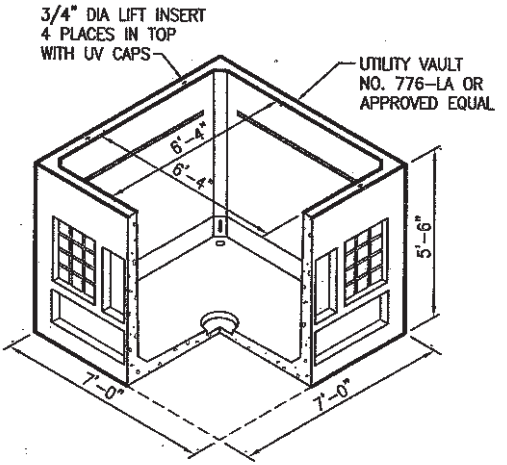
PADMOUNT TRANSFORMER GROUNDING
(PHASE CONDUCTORS ARE NOT SHOWN FOR CLARITY)
SCALE: NONE

GENERAL NOTES:

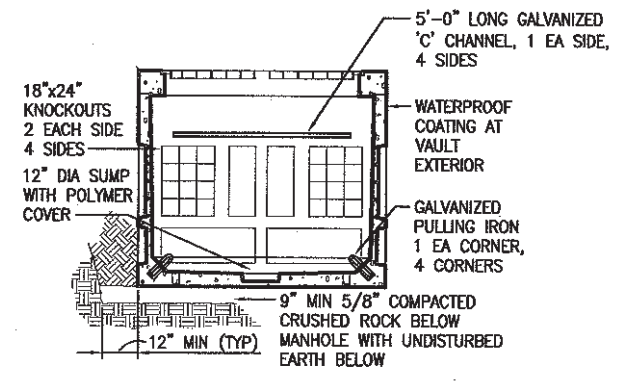
- COORDINATE UNDERGROUND DISTRIBUTION SYSTEM INSTALLATION WITH JOINT BASE LEWIS MCHORD PUBLIC WORKS, EXTERIOR ELECTRIC SHOP, MR. JOHN YEAGER AT 253.966.3232 AND MR. RON COTTRILL AT 253.967.5840.
- MEET ALL OSHA/WISHA SAFETY STANDARDS FOR TRENCHING, INCLUDING STABLE SLOPE AND/OR SHORING REQUIREMENTS.
- CROWN DUCT BANK AT MIDDLE OF RUN AND SLOPE TOWARDS MANHOLES AT 4-INCHES PER 100-FOOT MINIMUM.
- PROVIDE A MINIMUM OF ONE SPARE DUCT WITH 200-POUND TENSILE STRENGTH PULL ROPE IN DUCT BANK. VERIFY DUCT INTEGRITY WITH 12" MANDREL PULL.
- LOOP CONDUCTORS 360-DEGREES, SECURE TO RACK-MOUNTED INSULATORS ON EACH WALL AND PROVIDE FIRE PROTECTIVE TAPE ON ALL PRIMARY CONDUCTORS WITHIN THE MANHOLE.
- PROVIDE VAULT IDENTIFICATION PER PUBLIC WORKS REQUIREMENTS. LABEL ALL CABLES WITH CONDUCTOR SIZE, CIRCUIT NUMBER, CIRCUIT VOLTAGE, CABLE DESTINATION AND PHASE IDENTIFICATION.
- SUMP DRAIN SHALL BE KNOCKED OUT IN BOTTOM OF VAULTS.
- ARRANGE DUCTS SO THAT THEY ENTER THE VAULT AT THE LOWEST POINT AND SEAL ALL VAULT PENETRATIONS.
- SOIL RESISTIVITY AT JBLM IS EXTREMELY HIGH, REQUIRING ADDITIONAL MEASURES TO BE TAKEN IN THE GROUNDING SYSTEM DESIGN. SUBMIT DESIGN DRAWINGS AND CALCULATIONS BASED ON SOIL RESISTIVITY DATA AND INCLUDE MEASURES SUCH AS COUNTERPOISE SYSTEMS, BURIED PLATES AND LOW RESISTANCE CARBON-BASED BACKFILL MATERIALS TO ACHIEVE THE 10-OHM MAXIMUM RESISTANCE REQUIRED BY I3A FOR EARTH ELECTRODE SUBSYSTEMS. AT A MINIMUM, SITE GROUNDING AT BUILDINGS SHALL CONSIST OF A COUNTERPOISE GRID SYSTEM COMPOSED OF 3/4-INCH X 10-FOOT MINIMUM COPPER CLAD STEEL GROUND RODS INTERCONNECTED BY STRANDED BARE #4/0 COPPER WIRE. MAKE CONNECTIONS USING EXOTHERMIC WELDS BELOW GRADE FOR CONNECTIONS TO ELECTRICAL PANELS, TELECOMMUNICATIONS SYSTEMS GROUNDS, BUILDING STEEL AND STATIC GROUND POINTS. EXPOSED GROUND CONNECTIONS SHALL BE IRREVERSIBLE CRIMP TYPE. GROUNDING AND BONDING SHALL COMPLY WITH ARTICLE 250, NFPA 70.



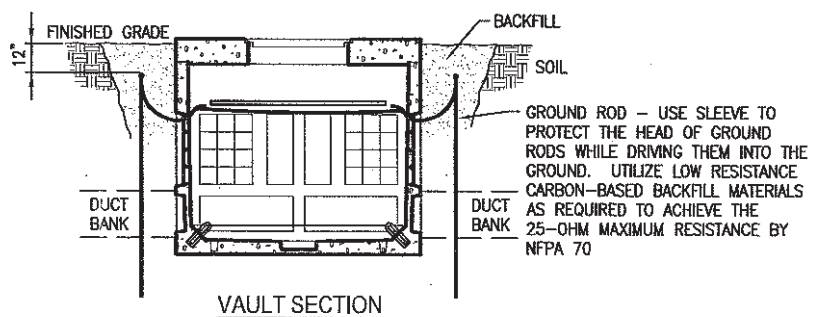
PADMOUNT PLAN VIEW



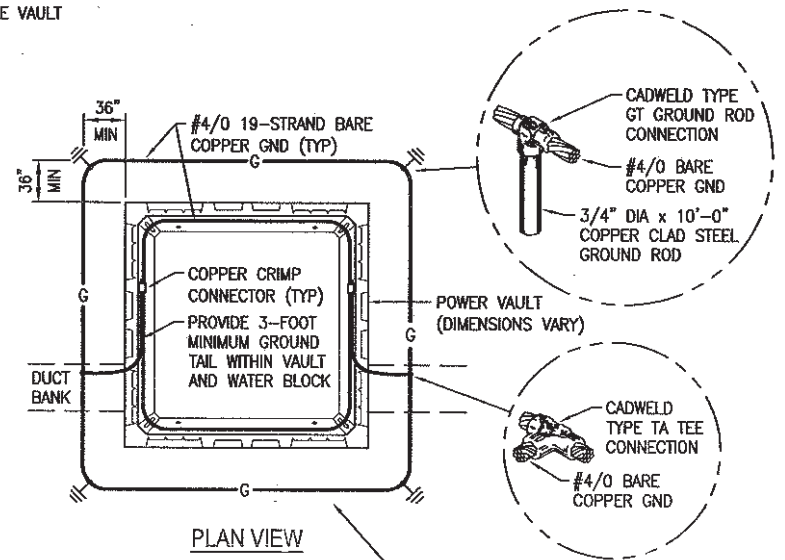
4 TYPICAL DETAIL
XFMR PADMOUNT WITH ACCESSIBLE VAULT FOR BUILDING SERVICE
SCALE: NONE



LONGITUDINAL SECTION



VAULT SECTION



PLAN VIEW

5 TYPICAL DETAIL
ALL VAULT GROUNDING INCLUDING XFMR, JUNCTION, SWITCH & PULL THRU VAULTS
SCALE: NONE

LOW POINT BETWEEN GROUND RODS SHALL BE A CATENARY WITH LOW POINT @ 36"

UNDERGROUND SERVICE TRANSFORMER PAD GROUND LOOP & POWER VAULT DETAILS

