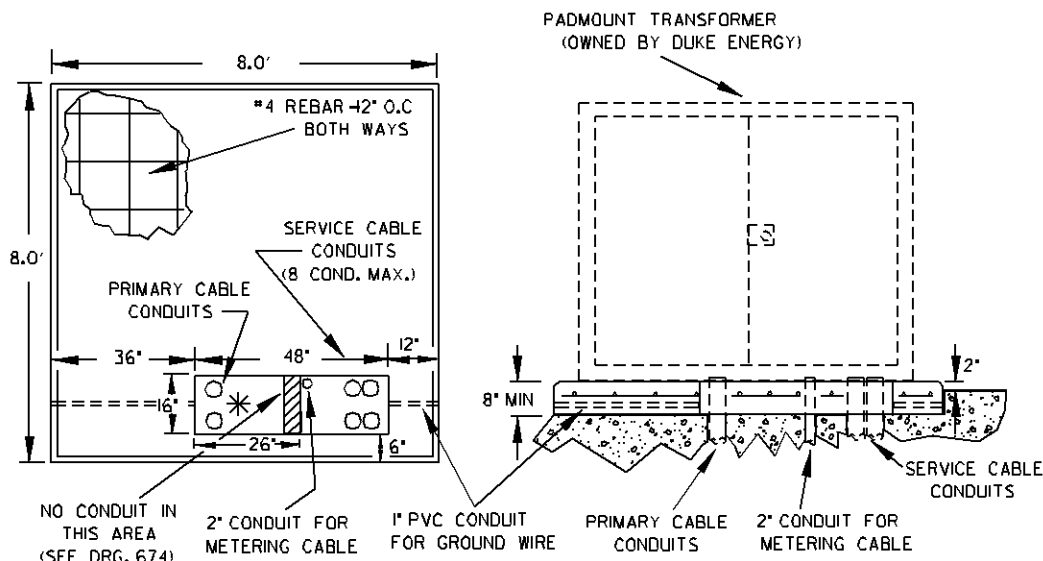


Installation Requirements For Three Phase Padmount Transformer Foundations For Commercial Or Industrial Customers



* THIS AREA MUST NOT BE POURED SOLID WITH CONCRETE

INSTALLATION REQUIREMENTS:

1. ACCEPTANCE: THE COMPANY RESERVES THE RIGHT TO REFUSE SERVICE TO NEW INSTALLATIONS THAT DO NOT MEET DUKE ENERGY REQUIREMENTS AND MAY ELECT TO REMOVE EXISTING SERVICE CABLES IF THE CUSTOMER FAILS TO PROVIDE ADEQUATE MAINTENANCE TO CUSTOMER OWNED FACILITIES.
2. LOCATION: DUKE ENERGY SHALL BE RESPONSIBLE FOR DETERMINING THE FINAL LOCATION FOR THE TRANSFORMER PAD. THE CUSTOMER SHALL PROVIDE A LEVEL LOCATION FOR A PADMOUNTED TRANSFORMER INSTALLATION AS DIRECTED BY THE COMPANY. THE TRANSFORMER MUST BE LOCATED ADJACENT TO AND WITHIN 10 FEET OF A DRIVEWAY OR OTHER AREA ACCESSIBLE TO DUKE ENERGY CONSTRUCTION AND MAINTENANCE EQUIPMENT. NO PART OF THE TRANSFORMER (OR TRANSFORMER PAD) MAY BE WITHIN 10 FEET FROM ANY COMBUSTIBLE WALL, WINDOW, OR VENTILATION OPENING AND 20 FEET FROM ANY DOORWAY IN A BUILDING. THERE MUST BE AT LEAST OF 3 FEET OF CLEARANCE BETWEEN CUSTOMER EQUIPMENT OR LANDSCAPING AND THE SIDE OF THE TRANSFORMER (OR TRANSFORMER PAD) AND 10 FEET OF CLEARANCE TO THE FRONT OF THE TRANSFORMER (OR TRANSFORMER PAD) SEE DUKE ENERGY STD. 99134.
3. DESIGN: THE CUSTOMER IS RESPONSIBLE FOR CONSTRUCTING A TRANSFORMER PAD IN ACCORDANCE WITH DUKE ENERGY REQUIREMENTS SUITABLE FOR THE LARGEST TRANSFORMER THAT MAY BE REQUIRED. THE CUSTOMER SHOULD CONSIDER FROST ACTION, DRAINAGE AND LOCAL SOIL CONDITIONS WHEN DEVELOPING THE STRUCTURAL DESIGN OF THE TRANSFORMER PAD. SPECIFIC REQUIREMENTS INCLUDE:
 - THE TRANSFORMER PAD SHALL BE A MINIMUM OF 8 INCHES THICK. THE TOP SURFACE SHALL BE A MINIMUM OF 2 INCHES ABOVE THE SURROUNDING GRADE. REINFORCING STEEL IS REQUIRED AND SHALL BE AT LEAST #4 BARS OR LARGER. REINFORCING BARS SHALL BE INSTALLED A MINIMUM OF 6 INCHES AND A MAXIMUM 12 INCHES O.C. BOTH WAYS.
 - THE TRANSFORMER PAD SHALL BE INSTALLED ON A BED OF GRANULAR FILL MATERIALS THAT HAS BEEN COMPACTED PRIOR TO POURING CONCRETE.
 - THE SURFACE OF THE TRANSFORMER PAD SHALL BE FLAT, SMOOTH AND LEVEL WITHIN 1 INCH IN ALL DIRECTIONS.
 - THE EDGE OF THE TRANSFORMER PAD SHALL HAVE A 1 INCH BEVEL FORMED INTO THE TOP EDGE.
 - A 1" ID PVC CONDUIT SHALL BE INSTALLED IN THE CONCRETE AS SHOWN IN THE SKETCH FOR THE INSTALLATION OF GROUNDING CONDUCTORS (BY DUKE ENERGY) FOR ADJACENT COMMUNICATIONS EQUIPMENT (REQUIRED BY THE NESC).
4. MATERIALS & LABOR: THE CUSTOMER SHALL PROVIDE ALL MATERIALS AND EXCAVATION LABOR NECESSARY TO INSTALL THE TRANSFORMER PAD. THIS INCLUDES: EXCAVATION, BACKFILLING, INSTALLATION OF CONDUIT AND CONDUIT ACCESSORIES, BUILDING FORMS, POURING AND FINISHING CONCRETE, ETC.
5. CONDUIT: THE CUSTOMER SHALL INSTALL, OWN AND MAINTAIN THE CONDUITS ENTERING THE TRANSFORMER PAD. IT SHALL BE INSTALLED IN ACCORD WITH DUKE ENERGY STANDARDS. THE CONDUIT SHALL BE MADE FROM POLYVINYL CHLORIDE (PVC) AND SUITABLE FOR USE WITH UNDERGROUND ELECTRIC DISTRIBUTION CABLES RATED AT 90°C. ALL CONDUITS SHALL HAVE A UL LISTING AND A SCHEDULE 40 (SCH. 40) RATING CLEARLY PRINTED ON THE EXTERIOR SURFACE. FOR PRIMARY JACKETED CONCENTRIC NEUTRAL PRIMARY CABLES, THE MINIMUM INSIDE DIAMETER OF THE CONDUIT SHALL BE 5 INCHES. DUKE ENERGY MAY REQUIRE LARGER SIZES. ALL CONDUITS MUST HAVE A PULL STRING INSTALLED AND BE CAPPED TO PREVENT DEBRIS FROM GETTING INTO THE CONDUIT.
6. THE MAXIMUM NUMBER OF CONDUITS ENTERING INTO THE SECONDARY AREA OF THE PAD OPENING SHALL BE 12 (4" DIA.) UNLESS SPECIFICALLY APPROVED BY A DUKE ENERGY CUSTOMER PROJECTS COORDINATOR.