Transformer/Capacitor Pad Underground 30

Approved Precast Concrete Pad is preferred

Customer Provided and Installed Equipment Pad

Transformer Installations
30, 75KVA

Use: 30, 75 KVA Transformer or Capacitor

Approximate weight 3,200 lbs

Transformer Installations
30, 150 KVA THRU 2500 KVA

Use: 30, 150 KVA THRU 2500 KVA Transformers

Approximate weight 5,600 lbs

NOTE 11
Install (6) 3/8" x 1 - 1/4" in length zinc plated or equivalent steel inserts as detailed

See SR-241 for the Capacitor Civil Installation Requirements
NOTES:

1. All rebar shall be No. 4 and shall be placed so that it does not extend into the primary and secondary duct opening. All concrete and reinforcement shall meet specifications contained in SR-205. The pad surface shall be level and troweled smooth. All edges must be chamfered.

2. Place primary ducts as far to the left and to the rear of the primary area as possible and secondary duct(s) as far to the right and to the rear of the secondary area as possible (as viewed from the front of the pad). All ducts to be cut off 2 inches above the top of the pad. Unless otherwise specified, primary ducts shall be 4 inches and shall enter transformer pad with a 36° x 90° radius PVC sweep. This primary duct run shall be a minimum of 36 inches deep and shall be encased with a 3 inch minimum/5 inch maximum concrete cap for a minimum distance of 10 ft., measured horizontally from the top of the sweep. Concrete encasement required only on vertical sweeps if duct run is more than 150 feet in length or any length with a combination of 270° (or more) of bends, check with the Field Technician or the Area Designer. Secondary duct(s) shall be PVC no larger than 4 inches.

3. Install a #6 Cu. conductor for Telco bonding from the center front primary and secondary duct opening to a point 12 inches in front of pad and in line with right edge, 12 inches below final grade. Leave at least 2 ft. of #6 conductor above top of pad.

4. Leave at least 5 ft. of service cable extending above pad if the transformer is not in place. If the transformer is in place, leave a length of service cable which will extend to the top of the transformer. Each service (every neutral conductor) is to be identified with an address tag at the transformer location. Example, DYMO aluminum embossing strip or other approved method. Identify parallel conductors to assure proper connection, 1 ft. above top of pad. Service conductors are to be no greater than 600kcmil.

5. Transformers on pads exposed to vehicular traffic shall have protective barrier installed in accordance with SR-230.

6. The rear edge and the sides of the transformer pad shall be no closer than 3 ft. to any building, wall, fence, or other above grade installation, and no structure of any kind shall overhang the pad and/or easement.

7. Customer/Contractor to provide and install a 5/8" x 8'-0" copper coated ground rod 2 inches below the top of the pad, and with 1/2 inch of mortar slurry mix in the pad opening. Driven ground rod to be within 6 inches of final grade (NESC 094B2). Note: Ground rods are Not Permitted to be cut under any circumstance. If soil conditions prohibit driving the ground rod per the SR, contact TEP's design department.

8. The transformer pad may be formed and poured in place (form and rebar inspection required) according to the above, or it may be purchased as a precast concrete pad (preferred) if it meets the above specifications and has been approved by the Company. Currently approved pads are:
   - Hayden Cat. #P-6-56 (Figure 1); Hayden Cat. #P-8-758 (Figure 2)
   - Precast Cat. #SR-233-1 (Figure 1); Precast Cat. #SR-233-2 (Figure 2)
   - Oldcastle Precast Cat. #SR233-1 (Figure 1); Oldcastle Precast Cat #SR-233-2 (Figure 2)
   - Inland Cat. #233-1 (Figure 1); Inland Cat. #233-2 (Figure 2)
   - Jensen Cat. #233-A (Figure 1); Jensen Cat. # 233-B (Figure 2)

9. See SR-208 for site preparation for equipment pads on sloping grades and for screen wall enclosures.

10. Place primary ducts as far to the left and to the front of the primary area as possible (as viewed from the front of the pad). All ducts to be cut off 2 inches above the top of the pad. Unless otherwise specified, primary ducts shall be 4 inches and shall enter transformer pad with a 36° x 90° radius PVC sweep. See SR-241 for the Capacitor Civil Installation.

11. Figure 2 pads are to have (6) zinc plated or equivalent steel inserts that are 3/8" x 1 1/4" in length installed by the approved manufactures as detailed on page 1.