



Section A-A

Pad, Concrete for 45 Through 1000 kVA Three Phase Pad Mounted Transformers

1. Concrete pad shall be 8" thick and reinforced with two layers of 6" x 6" No. 4 wire mesh or equivalent reinforcing. ½" rebar shall be spaced as shown on attached sheet. Concrete shall have a minimum strength of 3500 PSI after 28 days. No joints are acceptable in the pad. The top surface shall be level, smooth, and edged on all top sides. The pad surface shall be 3" above final grade. The wire mesh shall have a minimum concrete cover of 2" from all sides or edges.
2. One (1) – ½" diameter reinforcing rod bent to extend around the perimeter of the pad and 4" from the sides. No break in the reinforcing rod is allowed in the front half of the pad.
3. Section of boxed out opening for primary cable conduits. Unless otherwise specified by a Linn County REC representative two (2) four inch diameter steel 48 inch radius "sweep L" conduits are to be supplied and installed so that the ends extend out from the front edge of the pad.
4. Section of boxed out opening for secondary cable conduits. All secondary conduit shall be contained in the secondary opening. Conduit shall not project above the surface of the pad. All conduits will exit out the front or side of the pad and exit no further towards the back of the pad than the openings for the conduit. A 1 inch electrical rated PVC conduit will be run from this section of the pad and exit out the front of the pad 12 inches below final grade.
5. Four (4) – 6" diameter (minimum) footings shall be 48" deep into undisturbed earth. Each footing shall have one ½" diameter reinforcing rod extended to within 3" of the bottom of the footing with an additional 6" bend into the concrete pad.
6. Four (4) – 6' long steel pipes filled with concrete shall be set in three feet of concrete on all applications. Each pipe shall be 6" in diameter or larger and be in place prior to the transformer being set. These protective pipes are required unless specifically eliminated by a Linn County REC representative. Additional or longer pipes or barriers may be required if the transformer pad is located near an area of heavy vehicular traffic. Other containment barriers may be required if the transformer is located in an area of heavy pedestrian traffic or close to a building.
7. Any area under the concrete pad where earth is disturbed shall be backfilled with clean dirt having no rocks or debris and shall be tamped. Sand backfill is not acceptable.
8. The contractor shall notify Linn County REC at least 24 hours in advance of pouring concrete to make arrangements for inspecting the pad. Phone: 319-377-1587 or 1-800-332-5420.
9. A minimum of ten (10) feet must be maintained on all sides of the transformer to allow for safe working conditions and free air circulation around the transformer. Walls on more than 2 sides of the transformer are not allowed within 25 feet of pad. If fencing is installed around the transformer provisions for a Linn County REC padlock for access without intervention from property owner shall be provided. Fencing will be chain link with no barriers to impeded air flow.
10. Contact Linn County REC prior to construction for pad location and orientation.
11. Additional conduit may be specified by Linn County REC where the primary wire will cross under poured concrete or asphalt of any kind or in areas where the wire may become inaccessible after installation. All conduit shall be installed to a depth of 30" – 48" below final grade to the top of the conduit. All PVC conduit shall be electrical rated. Sewer conduit and drainage tile are not acceptable alternatives to electrical rated PVC. Steel conduit, steel sweeps, fiberduct, or fusion pipe may be used if agreed upon or specified by a Linn County REC representative. Size of the conduit will be specified by Linn County REC. This conduit will be installed at no expense to Linn County REC.