

SINGLE PHASE UNDERGROUND PRIMARY DESIGN

1. Minimum conduit size is 3" for single phase and 4" for three phase.
2. Customer must dig ditch a minimum of 48" deep. Customer is also responsible for backfill.
3. Conduit must be a minimum of schedule 40 under ground and schedule 80 wherever it is above ground. Elbows must be long radius rigid schedule 40.
4. Customer must install all conduit, ground sleeves and transformer pads. TVEC provides ground sleeves and single phase transformer pads.
5. Standoff brackets must be installed at pole. (TVEC furnishes-customer installs first bracket.)
6. A minimum 1/4" rope must be installed in the conduit by customer. Customer needs to ensure the string/rope moves freely in conduit.
7. No other utilities (water, gas, telephone) may be within 12" of electrical conduit. Electrical conduit must be the deepest utility if ditch is to be joint use.
8. The conduit and ditch must be inspected by TVEC prior to any back filling.
9. An electrical warning tape must be installed in ditch by customer 12" above the electrical conduit.
10. No more than 360 degrees of turns are allowed in conduit.
11. Distances over 400' will require installation of ground sleeve and junction box. TVEC personnel will specify locations.
12. All single phase transformer installations must be installed in conjunction with a single phase junction box except at deadends and where approved by TVEC.
13. All three phase transformer pads and special installation single phase pads must be poured concrete. (See Engineering Department for pad details.)
14. Conduit for primary conductors entering three phase transformer pads must be stubbed up near the front of the pad opening and approximately in the center of the primary side.
15. Any special installations, requiring large secondary cabinet sizes or special equipment must be approved by TVEC and customer will pay additional costs.

