



DISTRIBUTION CONSTRUCTION STANDARD
EUGENE WATER & ELECTRIC BOARD - EUGENE, OREGON

TYPICAL TRENCH DETAIL SETBACK TRANSFORMER WITH TRENCH IN P.U.E.

Approved Jul 01, 2015

GC5-2.1000

REV 10

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1.0 CONSTRUCTION NOTES:

TRENCHING REQUIREMENTS:

1.1 EWEB Standard GC5-2.1000 is the minimum requirements for a "Typical Trench Detail, Setback Transformer with Trench in P.U.E" City, County or State permitting requirements supersede this standard.

It is the Contractor/Developer's responsibility to ensure substructure facilities are installed and the trench is backfilled and surface is rebuilt per the permitting authorities' Standards of Construction requirements:

1.1a City of Eugene @ <http://www.eugene-or.gov/index.aspx?nid=184> (See Permits & R/W Use – Utility & R/W Permit Manual).

1.1b Lane County @ http://apps.lanecounty.org/pw_plan/ (See link to ODOT Standard Drawings).

1.1c Oregon Department of Transportation (ODOT) @ http://www.oregon.gov/ODOT/HWY/ENGSERVICES/pages/roadway_drawings.aspx

1.2 The edge of the trench shall be a minimum of 12" from the property pin.

1.3 If a person is required to enter a trench 60" or deeper, it shall be shored, benched, or sloped to prevent movement of earth that may endanger life or property.

1.4 Bottom of the trench shall be level and free of rocks, stone, debris, and rubbish which may damage conduits. If the bottom of the trench is not level, use ¾" minus crushed rock (Class B) to fill in the voids to provide a level bed for the conduits.

1.5 Once electric and communication conduit has been installed, backfill as shown.

1.6 Compaction shall be accomplished using mechanical vibrators or impact tampers. Wheel rolling by a truck or backhoe shall not be acceptable. (See Construction note 1.1)

1.7 If requested by the gas company, EWEB or Contractor/Developer shall install a 4" PVC sleeve below EWEB's secondary box as shown. A wood stake shall be installed at each end of the 4" PVC sleeve. Stakes shall extend vertically from the ends of the sleeve to a minimum of 12" above grade, with the above grade portion painted yellow.

1.8 Vault base and secondary box base to be set 2" above the surrounding final grade.

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CONDUIT REQUIREMENTS:

- 1.9 Electric conduits are to be located at the bottom of the trench on the property side with the telephone and television on the street side.
- 1.10 The customer shall notify EWEB at least two working days prior to backfilling, EWEB will inspect all customer-installed substructure and open trench.
- 1.11 Each conduit run between substructures shall be one size of conduit continuously, with all conduit edges chamfered and free from sharp edges. All conduits shall be bonded together with approved PVC cement.
- 1.12 All conduits shall be cleaned and tested and determined to be free from obstruction with the use of an appropriately sized mandrel after backfilling has occurred. In the event that a mandrel cannot be successfully pulled through the completed conduit system, it will be the customer's responsibility to locate and repair the conduit. (Refer to EWEB Standard GC5-2.3600)
- 1.13 A suitable pulling string, capable of a 285 lb pull shall be installed in the conduit system. The string shall be blown in after the conduit has been installed to avoid bonding the string to the conduit as the PVC cement dries.
- 1.14 Heating of PVC elbows or conduit for field bending is NOT allowed. All sweeps shall be made using manufactured elbows.

2.0 DESIGN NOTES:

- 2.1 It is the responsibility of the design tech to coordinate with the appropriate governing permitting authority to determine the specific trenching and surface restoration requirements.
- 2.2 See Construction note 1.1.

3.0 REFERENCE STANDARDS:

- A Refer to EC5-2.0900 for 3' 6" X 3' 2" Fiberglass padmount transformer vault – curb sidewalk.
- B Refer to EC5-3.0500 for Grounding detail.
- C Refer to GC5-2.3600 for Mandreling and cleaning of conduit.