STATEWIDE ALTERNATE METHOD
NO. 08-02

Equipment Grounding Conductors
Underground Splicing for Traffic Signal Installations

Building Codes Division
Department of Consumer and Business Services

Statewide Alternate Methods are approved by the division administrator in consultation with the appropriate advisory board. The advisory board's review includes technical and scientific facts of the proposed alternate method. In addition:

- *Building officials shall approve the use of any material, design or method of construction addressed in a statewide alternate method;*
- *The decision to use a statewide alternate method is at the discretion of the applicant; and*
- *Statewide alternate methods do not limit the authority of the building official to consider other proposed alternate methods encompassing the same subject matter.*

Code reference: 2023 Oregon Electrical Specialty Code (OESC)—Section 110.3(B)

Date(s): Issued—June 30, 2008
Last updated—October 2023

Subject: To allow the splicing of multiple grounding conductors using crimp-type connectors

Background:

Methods of splicing equipment grounding conductors with connectors listed for use in underground installations are very limited. Split bolt mechanical connectors are listed but difficult to use and not always effective.

Discussion:

Exothermic connections are not required to be listed but this method is very expensive and the quality of the splice can be adversely affected by weather and environmental conditions.

Barrel type crimping connectors are listed for very specific combinations of wire types and sizes, and do not always meet the exact configuration desired.

Conclusion:

This alternate method ruling applies only to copper equipment grounding conductors used for traffic signals and street lighting. A copper only barrel type connector shall be carefully selected for the proper size. The use of a proper die-less crimping tool is required. Inspectors shall verify the effectiveness of the connection by checking the crimp for loose conductors.

Contact:

Visit the division website to contact a building code specialist.