

Directional Drilling Conduit Systems, HDPE



1. Scope

This standard covers the requirements for HDPE continuous conduit systems for directional drilling construction projects.

HDPE continuous conduit systems are not stocked or installed by Seattle City Light (SCL). These conduit systems are acquired and installed by contractors.

PVC directional drilling conduit systems are outside the scope of this standard. See SCL 7017.05.

This standard applies to both the non-stock conduit and the coupler used with the HDPE continuous conduit, SCL Stock No. 015156.

2. Application

Directional drilling is an underground excavation method used to install pipe, conduit, and cable. The method uses a surface-launched drill rig with a steerable excavation system. The drill head steers the pilot bore.

The HDPE couplers are used when connecting HDPE continuous conduit to any other conduit.

The conduit systems cited in this standard have been reviewed and approved by SCL for use on our system.

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3. Industry Standards

HDPE conduit shall meet the applicable requirements of the latest revision of the following industry standards:

UL 651A, High Density Polyethylene (HDPE) Conduit

4. Requirements

4.1 Conduit

HDPE continuous conduit shall meet the following requirements:

Attribute	Value
Size	4 inches
Length of conduit per reel	550 to 1000 feet
Material	High-density polyethylene (HDPE) resin suitable for underground installation and directional drilling applications
Wall type	Schedule 80
Color	Red
Reel (for transport of the conduit) size	96–114 inches in diameter, 46 inches wide
Reel material	Steel

4.2 Coupler

The coupler shall meet the following requirements:

- Manufactured from high-density polyethylene (HDPE) resin suitable for underground installation and directional drilling applications
- Designed to work with PVC, HDPE, FRE, and steel conduit
- Include two stainless steel band clamps

5. Marking

The conduit and couplers shall be marked according to the requirements of UL 651A. The outer surface of the conduit shall be marked with the following minimum information:

- Trade size
- Schedule number or equivalent information
- Manufacturer name or symbol
- Date (or period) of manufacture

Each reel shall be legibly marked with the following information:

- Manufacturer identification
- Product description
- SCL stock number
- Quantity contained

6. Testing

Conduit test data that establishes compliance with the requirements of UL 651A and this standard shall be provided upon request.

7. Packaging

HDPE continuous conduit shall be packaged on steel reels to prevent damage during shipping, handling, and storage.

HDPE couplers shall be packaged to prevent damage during shipping, handling, and storage.

8. Issuance

Coupler Stock Unit: EA

9. Approved Manufacturers

Stock No.	Description	Size (in)	Manufacturer and Model	Part No.
None	Conduit	4	Dura-Line, Smoothwall	n/a
015156	Coupler	4	Dura-Line, Shur-Lock II	20000245

10. References

SCL Material Standard 7017.05; Directional Drilling Conduit Systems, PVC

11. Sources

Lu, Curtis; SCL Standards Engineer and originator of 7017.07

Telahun, Senait; SCL Principal Electrical Power Systems Engineer and subject matter expert for 7017.07

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