

Steel Streetlight Poles, Ornamental, Chief Seattle



1. Scope

This standard covers the requirements for Chief Seattle ornamental steel streetlight poles.

This standard applies to the following Seattle City Light (SCL) stock numbers:

Stock No.	Description	Color
569518	18 ft, 12 sided	Railroad Green
569530	26 ft, 12 sided	Railroad Green
569531	31 ft, 12 sided	Railroad Green

2. Application

The steel streetlight poles specified in this standard are used in the following City of Seattle established lighting districts: Pioneer Square, Central Business District, Westlake Avenue and Mercer Corridor.

Steel streetlight poles are used with Chief Seattle decorative collars and bases (see SCL 5780.33 and 5780.44).

Stock No. 569518 is used with 3- ball globe fixtures (see SCL 5721.17).

Stock Nos. 569530 and 569531 are used with either 6-ft or 8-ft Aladdin arm assemblies (see SCL 5755.05).

3. Industry Standards

Steel streetlight poles shall meet the applicable requirements of the latest revision of the following industry standards:

AASHTO; Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals

ASTM A 153; Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware

ASTM A 307; Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength

ASTM B 117; Standard Practice for Operating Salt Spray Apparatus

ASTM D 2247; Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity.

ASTM B26-12; Standard Specification for Aluminum Alloy Sand Castings

ASTM 123; Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products

ASTM F2329; Standard Specification for Zinc Coating, Hot-Dip, Requirements for Application to Carbon and Alloy Steel Bolts, Screws, Washers, Nuts, and Special Threaded Fasteners

ASTM F1554; Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength

ASTM A563; Standard Specification for Carbon and Alloy Steel Nuts

ASTM F436; Standard Specification for Hardened Steel Washers Inch and Metric Dimensions

ASTM A1011; Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength

ASTM A572; Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel

ASTM A500; Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes

4. Requirements

4.1 General

Steel streetlight poles shall conform to the details shown in Valmont drawing DB01175, Revision H, dated 01/21/20.

Manufacturer (Valmont) shall inform Seattle City Light (SCL) in writing of all updates to their drawing.

Steel streetlight poles shall be designed and fabricated to conform to the requirements of AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals.

Steel streetlight poles shall consist of a tapered, galvanized steel shaft welded to a steel base and a pole top plate.

4.2 Shaft

The shaft shall have the following attributes:

- High-strength steel tubing of one-piece construction
- Fluted design: 12 curved sections as shown in Figure 4.2.
- Made of ASTM A1011 Grade 50 steel
- Wall thickness: Gauge 10
- Tapered: 0.17in/ft
- Physical properties as shown in Table 4.2

Figure 4.2. Cross Section of Fluted Design

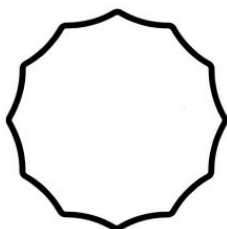


Table 4.2. Pole Shaft Physical Properties

Stock No.	569518	569530	569531
Pole-top diameter, outside (in) nominal	6-13/6	5-3/8	4-1/2
Base diameter, outside (in) nominal	9-7/8	9-7/8	9-7/8
Wall thickness, gauge	10	10	10
Pole length (ft) nominal	18	26-1/2	31-1/2
Weight (lb) nominal	336	408	445

4.3 Grounding

A tapped grounding pad equipped with a 1/2"-13 x 1" long hex bolt and washer shall be provided and located on the interior of the pole opposite the handhole or directly adjacent to the handhole.

4.4 Handholes

Oval, size, nominal	5-3/16-in W x 7-9/16" H
Finish/color	Match pole finish/color
Location	Centered 17-in above base

Handholes shall be reinforced to result in no loss of shaft strength.

Handhole covers shall include a gasket and be painted to match the pole color. Handhole covers shall be attached with stainless steel screws, an EPDM rubber gasket, and flat washers.

Handhole covers shall be weatherproof.

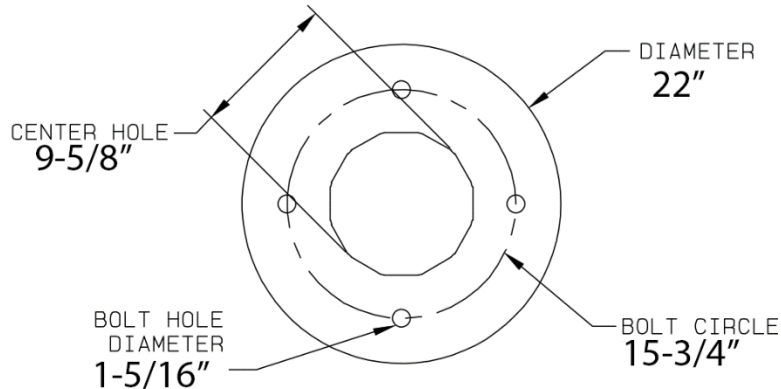
4.5 Anchor Base Plate

Base plates shall be welded to the pole shaft.

Base plates shall be sized to accommodate four, 1-inch anchor bolts spaced 90 degrees apart on a 15-3/4-inch bolt circle as shown in Figure 4.5.

Base plates shall be 1-inch thick.

Figure 4.5. Anchor Base Plate Details



4.6 Pole Finish

The finish shall be polyester powder-coated "Sherwin Williams DGS2-40003, Railroad Green color" and AAMA 2604 compliant.

4.7 Pole Top Plates

Pole top plates shall be welded to the pole shaft.

The top plate shall have attributes and dimensions as shown in Figure 4.7 and Table 4.7.

Figure 4.7. Pole Top Plate Dimensions

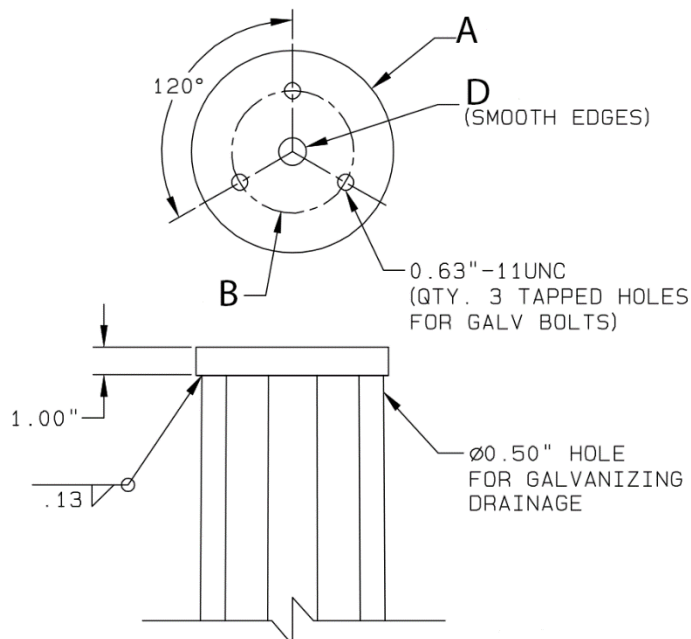


Table 4.7. Pole Top Plate Dimensions

Stock No.	569518	569530	569531
Pole top plate outside diameter (in), nominal (A)	7-1/4	6	5-3/16
Bolt circle, (in), nominal (B)	4-3/8	2	2
Center hole, (in), nominal (D)	1	5/8	5/8

4.8 Festoons

Rectangular size, minimum	3-in (W) x 5-in (H)
Finish/color	Match pole finish/color
Location	Centered 15 ft above base

Festoons shall be reinforced to result in no loss of shaft strength.

Festoon covers shall include a gasket and be painted to match the pole color. Festoon covers shall be attached with galvanized steel screws, an EPDM rubber gasket, and flat washers.

Festoon covers shall be weatherproof.

4.9 Anchor Bolts

Poles includes four, 1-inch-diameter, bent, anchor bolt assemblies (see SCL 5756.03).

5. Packaging

Steel streetlight poles shall be protected with a spiral wrapping of heavy waterproof paper for protection during shipping, outside storage, and installation. A rip cord shall be provided for easy removal of wrapping.

Anchor bolts, nuts, and washers shall be shipped assembled.

Each steel pole and anchor bolt package shall be legibly marked with the following information:

- Manufacturer identification
- Product description
- SCL stock number
- Quantity
- SCL purchase order number

6. Issuance

Stock Unit: EA

7. Approved Manufacturers

Stock No.	Description	Valmont
569518	18 ft, 12-sided, steel pole	J310543 - 569518
569530	26 ft, 12-sided, steel pole	J328025 - 569530
569531	31 ft, 12-sided, steel pole	J326105 - 569531

8. References

AAMA 2604, Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coating on Aluminum Extrusions and Panels, 2005 (2020 latest revision)

SCL Material Standard 5724.15, Globe Fixtures

SCL Material Standard 5755.05, Arm, Aladdin, Decorative, Assembly

SCL Material Standard 5756.03, Bolts, Anchors, Bent, Galvanized, Assemblies

SCL Material Standard 5780.33, Cast Aluminum Streetlight Base and Collar Assemblies

SCL Material Standard 5780.44, Cast Bronze Streetlight Bases and Collar Assemblies

9. Sources

Borek, Tom, SCL Streetlight Engineer and subject matter expert for 5756.22

Wang, Quan; SCL Standards Engineer, originator, and subject matter expert for 5756.22.

Valmont, "SCL Decorative Street Light Pole Seattle City Light Stock #569518, 569530 & 569531", Drawing Number DB01175, Revision H, January 21, 2020

SCL Stock Catalog page 57-2, March 6, 2017