# Aluminum Streetlight Pole Assemblies, Pedestrian, 5th Avenue



# 1. Scope

This standard covers the requirements for 5<sup>th</sup> Avenue, pedestrian, aluminum streetlight pole assemblies.

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

Stock No.	Description
573720	Complete welded assembly (minus globe), Railroad Green color
015077	Complete welded assembly (minus globe), Red-Brown color

# 2. Application

Pedestrian aluminum streetlight pole assemblies specified in this standard are used along 5<sup>th</sup> Avenue within the Central Business District as well as in other Seattle historic districts.

Pole assemblies are installed onto 4-bolt, 9-inch bolt-circle streetlight pole foundations, SCL Stock No. 568025. See SCL 5778.20.

Complete streetlight assembly requires one 20-inch, LED globe luminaire, Stock Nos. 014465 or 014941. See SCL 5724.15.

Standard Coordinator Laura Vanderpool



Standards Engineering Supervisor Brett Hanson

Bret Hanson

Division Director Bob Risch

### 3. Industry Standards

Pole assemblies shall meet the applicable requirements of the latest revision of the following industry standards:

**AAMA 2604;** Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels

**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

### 4. Requirements

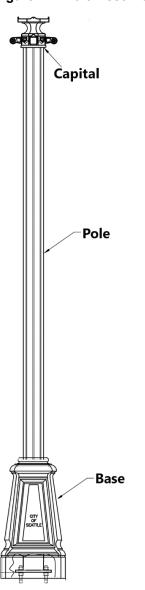
#### 4.1 General

Pole assemblies shall be designed and fabricated to conform to the requirements of AASHTO standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals.

Poles assemblies shall consist of an aluminum capital welded to an aluminum shaft and a cast aluminum decorative base. The supplier shall assemble the pieces as shown in Figure 4.1. A quantity-one stock number shall consist of one assembly.

Pole assemblies shall be factory powder-coated with either Sherwin Williams DGS2-40003, Railroad Green or RAL 8012, Red-Brown.

5<sup>th</sup> Avenue pole assemblies shall conform to the details shown in Visco drawings, "City of Seattle 5<sup>th</sup> Avenue Base (SCL Stock No. 573720)," dated 12/12/2024, and "City of Seattle 5<sup>th</sup> Avenue Base (SCL Stock No. 015077)," dated 12/12/2024.



# Figure 4.1. Pole Assembly

# 4.2 Shaft

Material	High-strength, corrosion-resistant 6063 -T4 aluminum alloy	
Cross section	Fluted, 8 curved sections	
Mounting height	13'	
Pole-top diameter, outside	5-7/8" ± 1/16"	
Base diameter, outside	5-7/8" ± 1/16"	
Wall thickness	3/16"	
Pole length, nominal	12'6-3/4"	
Taper	None	
Weight, nominal	75 lb	

# 4.3 Grounding

A 3/8-inch hole equipped with a  $3/8-16 \times 1$ -inch stainless-steel screw shall be provided and located in the bottom edge of the reinforced handhole opening.

### 4.4 Handhole

Size, min	3" W x 5" H
Finish/color	Match pole finish/color
Location	Centered 17" above base

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

The handhole cover shall be painted to match the pole color and attached with  $1/4-20 \times 3/4$ -inch flat, Allen-head stainless steel screws. The aluminum cover shall be weatherproof.

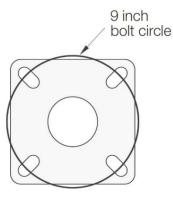
#### 4.5 Anchor Base Plate

Base plates shall be welded to the pole shaft; fixed, not hinged.

Base plates shall be sized to accommodate four, 3/4-inch anchor bolts spaced 90 degrees apart on a 9-inch bolt circle.

Base plates shall be 1-inch thick.

#### Figure 4.5. Anchor Base Plate, Detail



#### 4.6 Decorative Base Assembly

Base assembly shall be cast aluminum alloy grade A356.

Design and dimensions as shown to Figure 4.6

Each base assembly shall be composed of two casting halves and one access door.

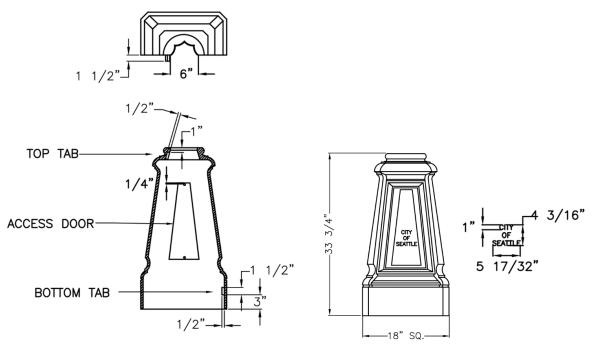
Base assembly casting halves and access door shall be assembled by the supplier and secured with  $1/4-20 \times 3/4$ -inch flat, Allen head stainless steel screws.

Total weight, nominal shall be 100 lb.

Access door shall be:

- Centered approximately 19-5/8 inches from the bottom of base assembly
- 15-1/4 inches in height
- Labeled as shown in Figure 4.6

### Figure 4.6. Base Assembly



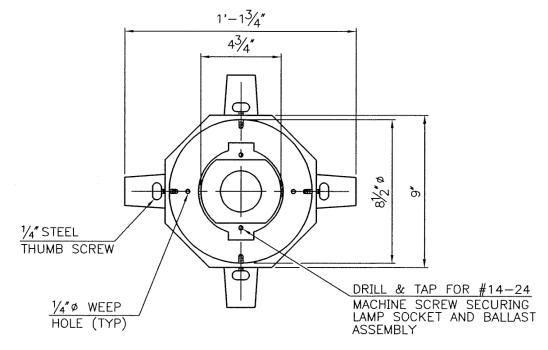
### 4.7 Capital

Pole assemblies shall have a 4-scroll capital welded onto the top of the pole that is designed to support globe luminaires.

Capital shall be cast aluminum alloy grade A356.

Capital design and dimensions shall be as shown in figures 4.7a through 4.7c.

# Figure 4.7a. Capital, Top View



# Figure 4.7b. Capital, Elevation View

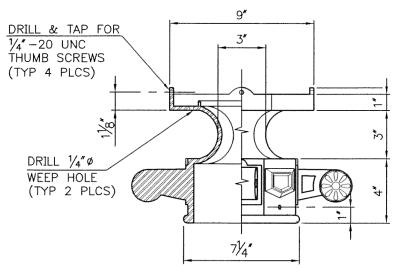
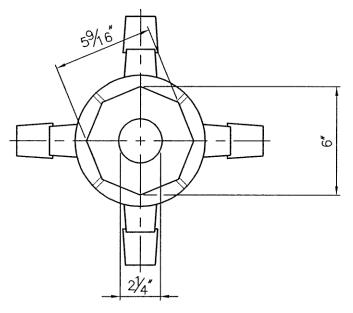


Figure 4.7c. Capital, Bottom View



## 5. Packaging

Pole assemblies 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.

Each pole assembly 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.	Manufacturer	Catalog Part No.
573720	Visco	VI-X-OF/12-6.75-SC-AB-RRG
015077	Visco	VI-X-OF/12-6.75-SC-AB-R/B

#### 8. References

SCL Material Standard 5724.15; "Globe Fixtures"

**SCL Material Standard 5778.20**; "Footing, Precast Concrete for Residential Streetlight Poles"

Visco drawing, "City of Seattle 5<sup>th</sup> Avenue Base (SCL Stock No. 573720)," December 12, 2024

Visco drawing, "City of Seattle 5<sup>th</sup> Avenue Base (SCL Stock No. 015077)," December 12, 2024

### 9. Sources

Borek, Tom, SCL Streetlight Engineer and subject matter expert for 5721.40

Wang, Quan; SCL Standards Engineer and originator of 5721.40