Aluminum Streetlight Pole Assemblies, Pedestrian, 5th Avenue

1. Scope

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

This standard applies to Seattle City Light (SCL) Stock No. 573720.

2. Application

Pedestrian aluminum streetlight pole assemblies specified in this standard are used primarily along 5th Avenue.

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 No. 014465. See SCL 5724.15.

3. Industry Standards

Pole assemblies 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

4. Requirements

4.1 General

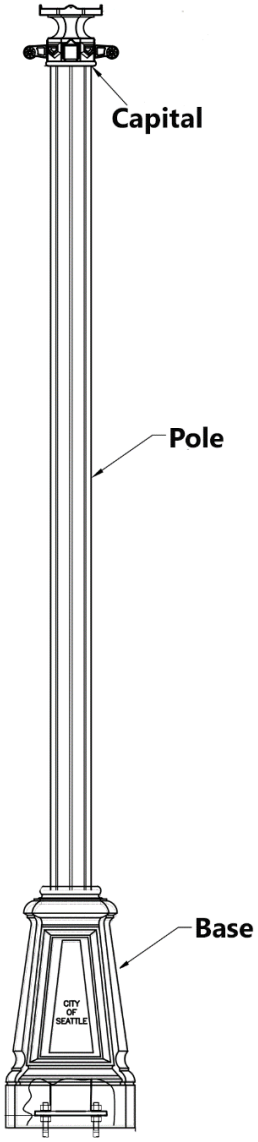
Pole assemblies shall be designed and fabricated to conform to the requirements of AASHTO standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals.

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 “Sherwin Williams DGS-4003, Railroad Green” and AAMA 2604 compliant.

5th Avenue pole assemblies shall conform to the details shown in Visco drawing, “City of Seattle 5th Avenue Base (SCL STOCK #573720),” dated 02/01/2021.

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 tapped grounding pad equipped with either a 1/4-20 x 1/2 inch or 3/8-16 x 1-inch stainless-steel screw shall be provided and located on the interior of the pole opposite the handhole or directly adjacent to the handhole.

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 x 3/4-inch flat, Allen-head stainless steel screws. The aluminum cover shall be weatherproof.

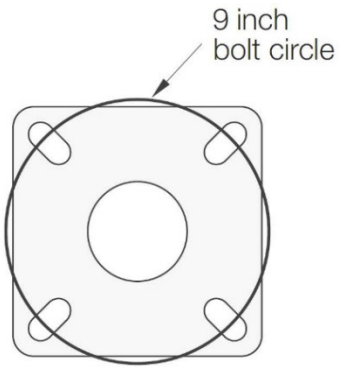
4.5 Anchor Base Plate

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.

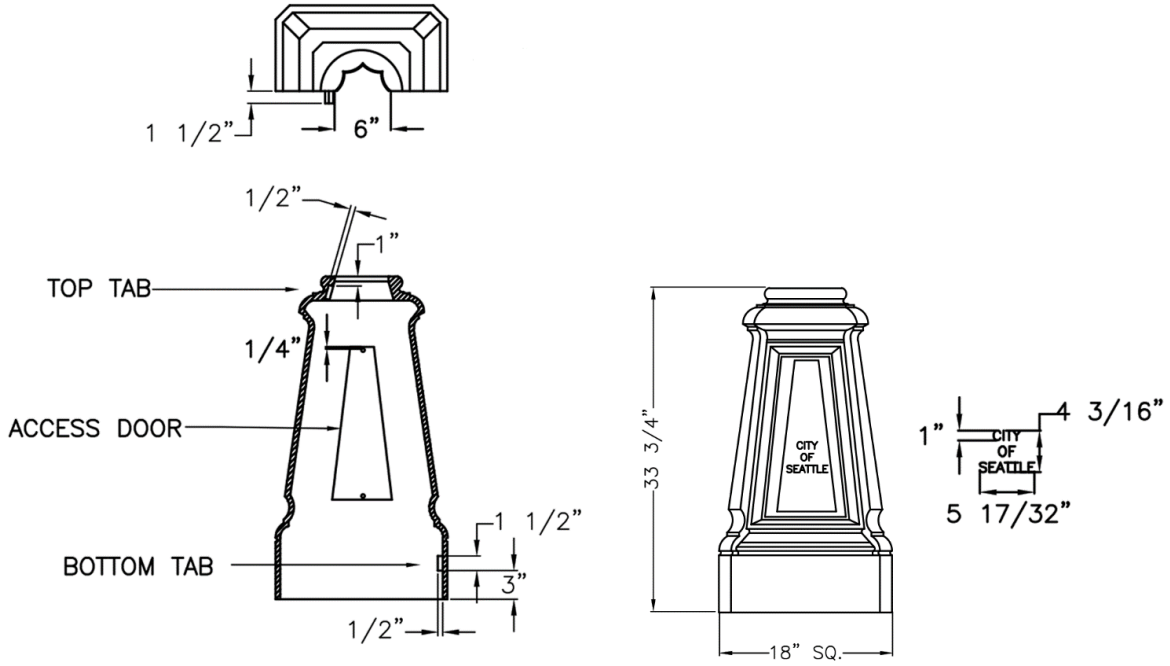
Base assembly casting halves and access door shall be assembled by the supplier and secured with 1/4-20 x 3/4-inch flat, Allen head stainless steel screws.

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

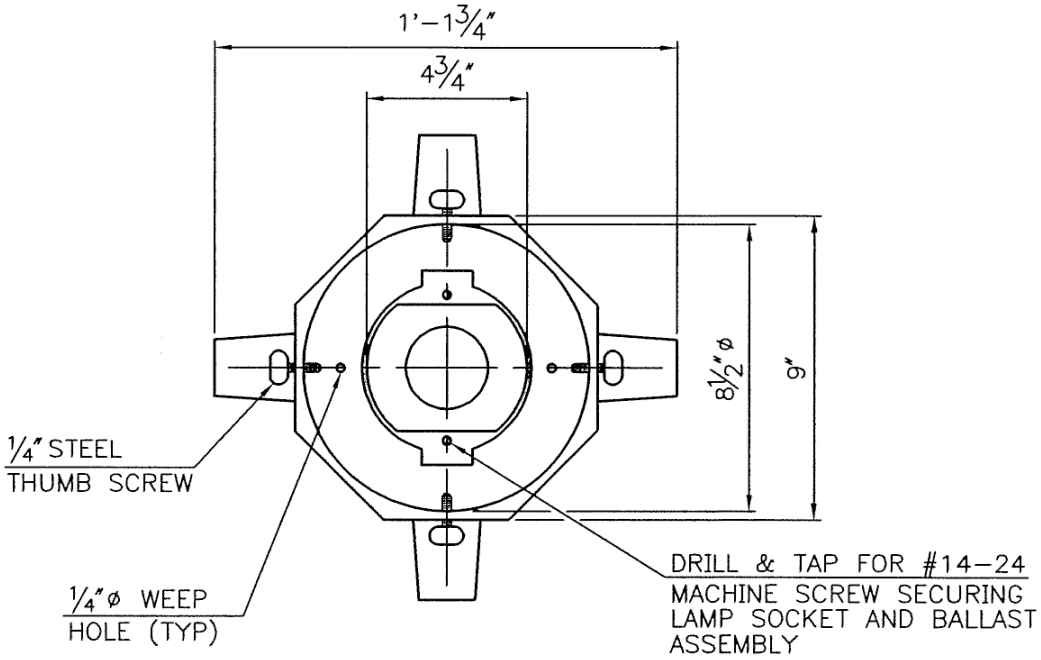


Figure 4.7b. Capital, Elevation View

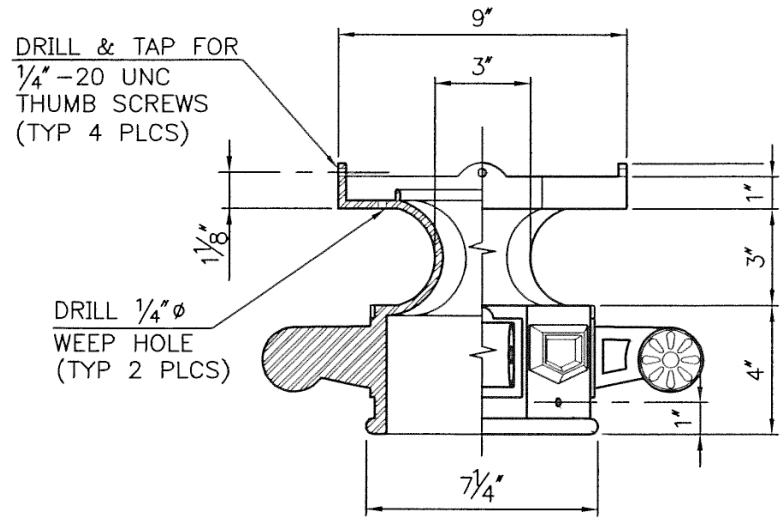
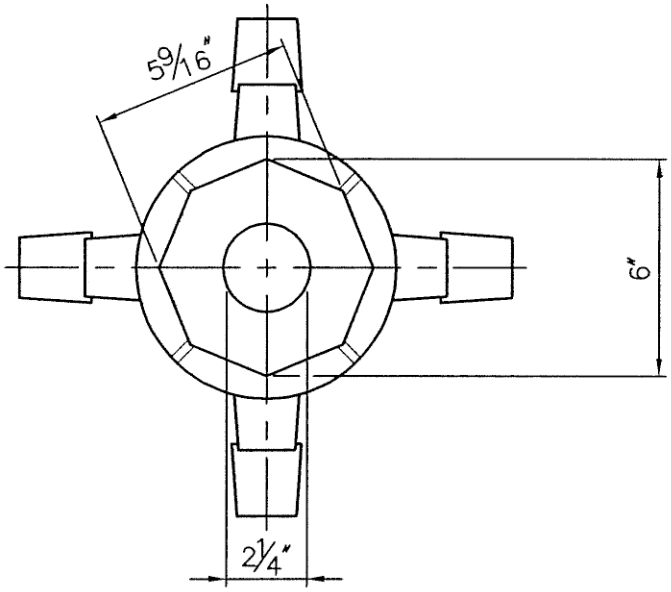


Figure 4.7c. Capital, Bottom View



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

Manufacturer	Catalog Part No.
Visco	VI-X-OF/12'6-3/4"-SC-AB-RRG

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 5778.20; “Footing, Precast Concrete for Residential Streetlight Poles”

Visco drawing, “City of Seattle 5th Avenue Base (SCL Stock #573720),” February 1, 2021

9. Sources

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

SCL Stock Catalog page 57-11, August 19, 2014

Wang, Quan; SCL Standards Engineer, originator, and subject matter expert for 5721.40