

MONTGOMERY COUNTY, MARYLAND
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING AND OPERATIONS

MAY 2010

BETHESDA LANTERN LUMINAIRE

1) PURPOSE

The purpose of these specifications is to prescribe the minimum requirements for the design, manufacture, fabrication, finishing and delivery of Bethesda Lantern luminaire. The Bethesda Lantern luminaires are intended for use in urban streetscape areas. Any manufacturer, distributor or vendor who submits a bid shall agree to comply with these specifications and attached drawings.

2) DESCRIPTION

This luminaire shall be an outdoor decorative post top fixture, cylindrical in shape with and overall height of 45.75 inches and a maximum width of 19.25 inches at top and bottom (see attached drawings). All exterior and structural parts shall be cast of aluminum alloy. Exterior castings shall be cast in one piece, have a smooth surface finish, and be free of mold lines. All components shall fit together snugly so as to provide weather-proof joints in the luminaire top. Weep holes shall be drilled in the casting around the top floral crown and in the cable trim molding around the base of the acrylic cylindrical lens. All visible metal components shall have raised surface decorations or ribs, as shown on the attached drawings, that are molded integrally with the base piece. Likewise, the hinges between the top and main body as well as between the ballast cover and the base shall be cast integrally with the piece or bolted through the base piece. All metal parts shall be corrosion-proof. The luminaire shall come ready for quick and easy field assembly or fully assembled and shall include the following components:

- a) Lamp;
- b) Button type photoelectric cell installed on the ballast cover;
- c) All necessary hardware and fasteners to assemble and secure on a 2 7/8 inch nominal diameter cast iron or aluminum tenon.

The luminaire must be able to accommodate lamps and ballast for High Pressure Sodium Vapor (HPSV) from 150 watt to 250 watt.

SPECIFICATIONS FOR STREETLIGHT HARDWARE

3) LENS

The lens shall consist of a seamless clear acrylic extrusion, not subject to deterioration by natural, HPSV light. The lens shall be 16 inches in diameter and 0.25 inches thick with continuous neoprene waterproof gaskets at both top and bottom. The gaskets shall fit into grooves molded into both top and bottom or over retaining rings molded inside the top and bottom plates.

4) TOP FLORAL CROWN

Refer to the attached drawings.

5) INTERIOR SUPPORT COLUMNS

The interior support columns shall consist of six (6) in number, 0.75 inch in diameter with ribbed surfaces. Plain circular rings shall be visible at both top and bottom.

6) INTERIOR ORNAMENT

The interior ornament shall be four pieces consisting of a ribbed, molded support column, a molded clear glass shade, a brass finished cup supporting the shade, and a conical brass colored center reflector, as per the attached drawings.

7) BALLAST COVER

The ballast cover shall be either hinged and removable or attached to the ballast carrier or frame. The cover shall be fastened by two (2) quarter-turn captive fasteners.

8) BALLAST

The ballast shall be an auto regulator type, 120 volt supply for 150 watt HPSV. The ballast shall be fastened by two captive fasteners and have polarized quick disconnect electrical connections. Ballast carrier shall be capable of accommodating up to 250 watt HPSV ballast.

9) HINGED LUMINAIRE TOP

The hinged luminaire top shall consist of the reflector/lamp assembly and all exterior components visible in plain view above the lens. The hinge must have a minimum of five (5) lugs and be semi-concealed. The top shall be fully removable and have two (2) captive quarter turn fasteners. The top must have an attached, removable brace to support the top when open.

10) REFLECTOR ASSEMBLY

The reflector assembly shall be interchangeable between a "GARDCO long throw" or a type III medium cutoff. Reflectors shall have polarized quick-disconnect connections. The reflector shall be positively retained in the top with captive fasteners. Reflective surfaces must be "ALGLAS" or equivalent aluminum. The reflector must be rotatable to 360 degrees.

11) LAMP

The lamp shall be 150 watt or 250 watt High Pressure Sodium Vapor (HPSV). Refer to ANSI Code 555SC-150.

12) PHOTOCELL

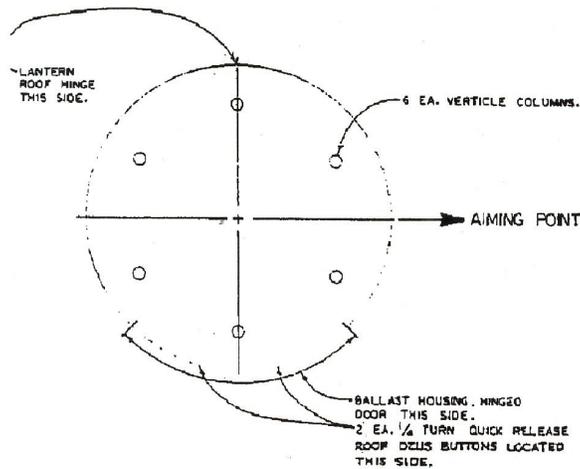
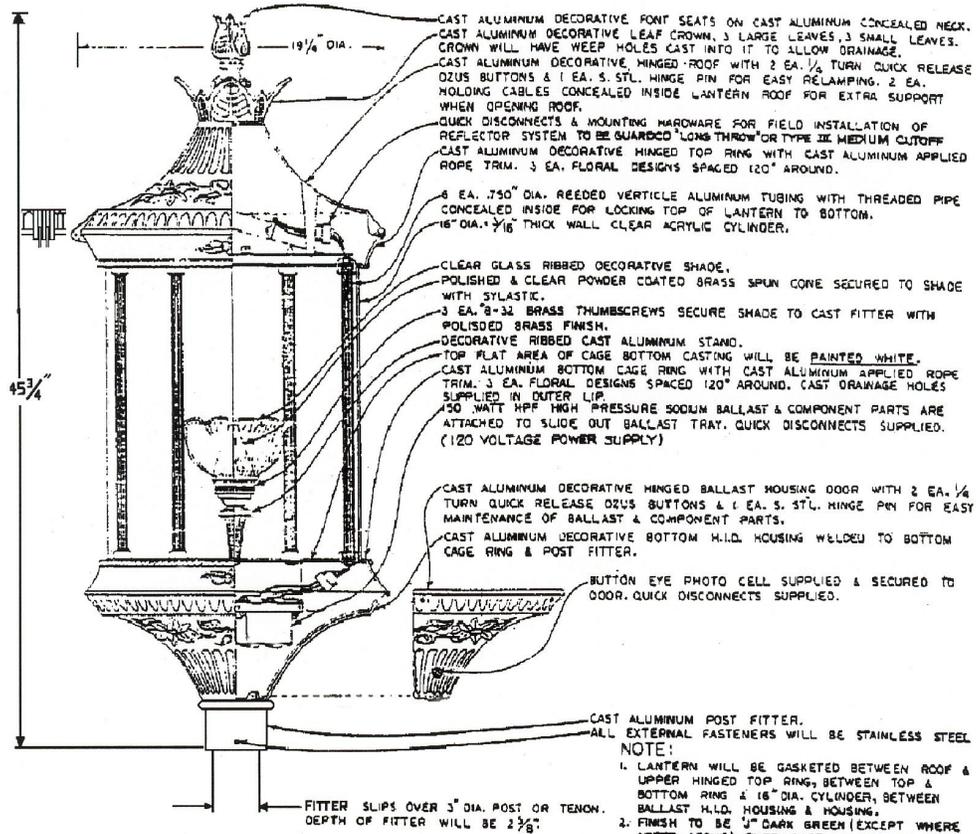
The photocell shall be a "Button" type: 3,000 tork or equal, mounted on the ballast cover.

13) EXTERIOR FINISH

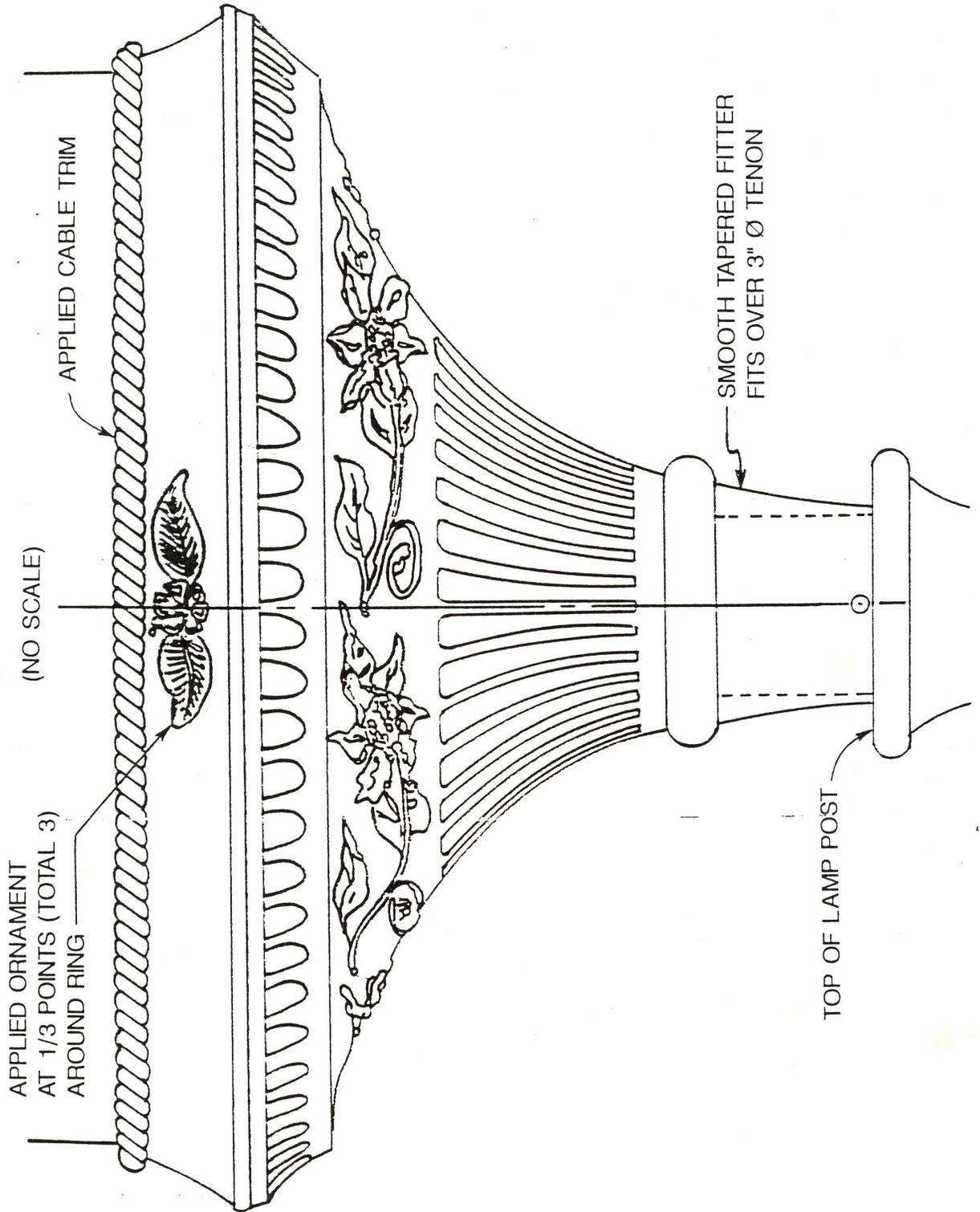
The exterior finish shall be "Federal Green" Federal Standard 595B Color # 14036 or equal electrostatically-applied thermoset polyester powder coat with the following exceptions:

1. The surround of the lamp's reflector shall be painted white.
2. The interior ornament's support cup and reflecting cone shall have a brass-toned electrostatically applied polyester powder coat.

SPECIFICATIONS FOR STREETLIGHT HARDWARE



CASTING PATTERN
BETHESDA LANTERN
ELEVATION OF BOTTOM



SPECIFICATIONS FOR STREETLIGHT HARDWARE

CASTING PATTERN
TYPICAL HEX SEQUENT
BETHESDA LANTERN
(NO SCALE)

