

## **SECTION 16530**

### **RESIDENTIAL STREET LIGHTING**

#### **PART 1 GENERAL**

##### **1.01 SECTION INCLUDES**

- A. Exterior lighting and accessories.
- B. Poles.

##### **1.02 RELATED SECTIONS**

- A. Section 03310 – Concrete work.

##### **1.03 REFERENCES**

- A. ANSI C78.379 – Electric Lamps – High-Intensity Discharge Reflector Lamps – Classification of Beam Patterns.
- B. IES RP-8 – Recommended Practices for Roadway Lighting.
- C. NFPA 70-National Electrical Code.

##### **1.04 SUBMITTALS FOR REVIEW**

- A. Shop drawings: Indicate dimensions and components for each luminaire.
- B. Product Data: Provide dimensions, ratings, manufacturer, type, model and performance data.
- C. Test Reports: Indicate measured illumination levels.
- D. Submit manufacturer's installation instructions.

##### **1.05 COORDINATION**

- A. Coordinate with electrical contractor.
- B. Coordination with City and Heber Light & Power to verify location and connection of fixtures.
- C. Receive approval by Civil Engineer for pole foundation.
- D. Furnish bolt templates and pole mounting accessories to installer / contractor of pole foundations.

#### **PART 2 APPROVED PRODUCTS**

##### **2.01 MANUFACTURES**

- A. Holophane – Washington Full Cutoff LED Post Top
- B. Philips Lumec – Metroscape Full Cutoff LED Post Top

## 2.02 FIXTURE REQUIREMENTS

- A. Model: Holophane – WFCL2 – Verify exact model number with City before ordering.  
Philips – MPTR-C – Verify exact model number with City before ordering.
- B. LED Performance Package: 80W to 100W Dimmable
- C. Color Temperature: 3000 K CCT
- D. Voltage: Auto-Sensing Voltage (120-227)
- E. Housing/Trim/Covers: Modern Style – Swing Open Design, No Trim, Full Cover
- F. Finish, Trim and/or Final Finish: Black
- G. Optics: Asymmetric Lunar Optic - IES Type III
- H. Finial: Standard
- I. Prewired Leads: 25 feet prewired leads
- J. Photocontrol: Long Life DTL Twistlock Photocontrol For Solid-State
- K. Receptacle: Dimming Receptacle – 7 PIN
- L. Mounting Condition: Concrete base with J bolts.
- M. Pole: As required in this schedule.

## 2.03 POLES

- A. Pole: Salem Aluminum Pole (SMA 14 F4J 13 P07 ABG BK)
- B. Height: 14 feet
- C. Shaft Style: F4J 4 inch diameter Fluted, 0.25 wall
- D. Material: Aluminum or Concrete, non-direct burial type
- E. Color/Finish: Powder Coat Paint Finish, Black
- F. Shape: Fluted or smooth with 3'-8.5" high decorative bottom piece
- G. Base: 13 inch Square Base, Base Weight 60, Base EPA 3.7880625
- H. Anchor Bolt: AB-26-4
- I. Loading Capacity Ratings:
  - 1. 100 Pounds.
  - 2. Steady Wind: 90 MPH minimum.

## 2.04 CONDUIT

- A. One inch PVC scheduled 90 electrical (gray) conduit.

## PART 3 EXECUTION

### 3.01 INSTALLATION

- A. Provide concrete bases for lighting poles at intersections and cul-de-sac's or as shown on the plans. All concrete shall be a minimum of 4 foot below finished grade.
- B. Install poles plumb. Provide shims and double nuts to adjust to plumb.
- C. Install all components according to manufacturer recommendations.
- D. Install conduit and secondary boxes according to Heber Light and Power specifications.

### 3.02 FIELD QUALITY CONTROL

- A. Operate each light after installation and connection. Inspect for proper connections and operation.
- B. Test photo-electric for cell operation.

### 3.03 ADJUSTING

- A. Adjust light to provide illumination levels and distribution as directed.
- B. Adjust photo-electric cell to operate correctly.

### 3.04 CLEANING

- A. Clean electrical parts to remove conductive and deleterious materials.
- B. Remove dirt and debris from enclosure.
- C. Clean photo-cell surface as recommended by the manufacturer.
- D. Clean finish and touch up damage.

### 3.05 PROTECTION OF FINISHED WORK

- A. Re-lamp lights which have failed Final Completion.

### 3.06 LIGHTING LOCATION

- A. 60 and 66 foot Right-of-Way
  - 1. Location: In planter strip or if combination sidewalk, 1 one foot behind sidewalk.
  - 2. Spacing: At each intersection, cul-de-sac, and other critical point as determined by the City Engineer. 300' minimum to 325' maximum.
- B. 72 foot Right- of -Way
  - 1. Location: In planter strip or one foot behind sidewalk as indicated by drawings, and other critical point as determined by the City Engineer.
  - 2. Spacing: At each intersection, cul-de-sac, and other critical points as determined by the City Engineer.

END OF SECTION