10. MUNICIPAL STREET LIGHTING STANDARDS

10.1. APPLICABILITY:

Street lighting on city streets and public rights-of-way not subject to decorative street lighting shall follow the General Standards under 10.2 of this section.

In addition to the General Standards for lighting applicable throughout the city, the City of Portland has established special street lighting standards for decorative lighting in the following areas and according to the tables and figures in this section:

- Downtown (includes portions of Cumberland Avenue)
- Old Port
- Peninsula - Eastern Waterfront and Bayside
- Waterfront - Commercial/Thames Street
- Off-Peninsula/Forest Avenue
- Historic Landscape Districts (including Baxter Boulevard, the Eastern and Western Promenades, Lincoln Park, and Deering Oaks Park)
- Trails and pathways (including Eastern Promenade Trail, Fore River Trail, and Bayside Trail).

Decorative street lighting specifications include but are not limited to fixture type, pole and base type, pole height to top of fixture, pole spacing, and color. Please refer to Section 10.4 Standards for Decorative Lighting and Figure X-4 for the map of Portland’s decorative lighting locations.

Developments subject to Level II and Level III site plan review that are on an existing or proposed street that is not currently illuminated with street lighting meeting City standards shall install the requisite type and number of street lights along all frontages.

Where lighting is being installed in the public way as part of a private development, developers are responsible for purchasing and installing all street lighting, including light poles, brackets, slip fitters, bases and all electrical wiring and conduit. The new street lighting shall be connected to an existing metered service, unless otherwise directed by the City. Once installed and operational, and upon acceptance by the City, street lighting located in the City right of way shall become the property of the City of Portland.
10.2. GENERAL STANDARDS:

Location: For areas not designated with decorative lighting, street lighting may be placed on only one side of the street within the furnishing zone. However, when deemed necessary for traffic safety, the Reviewing Authority may require some street lights to be placed the opposite side of a street.

Specification: For areas not designated with decorative lighting, the City of Portland has adopted the following typical street light pole and fixture standards:

- **Residential (Local/Minor) Street** [see Figure X-1]
  a) The standard pole height is a minimum 14’, not to exceed 15’ and shall be black aluminum. Poles shall be mounted on reinforced concrete pole bases with at least 2” but no more than 4” reveal above grade, with 4 bolts per pole. Street light pole base design, mounting bolt pattern, bolt spacing, and bolt size shall be approved by the Department of Public Works.
  b) Light levels and pole spacing shall be in accordance with the table in section 10.2.1
  c) Streetlights shall be full cutoff, using LEDs at a 3000 Kelvin color temperature, and shall seek to match uniformity, lumen output, and color of existing streetlights along the roadway, where applicable.

- **Commercial/Industrial (Arterial/Collector) Road** [see Figures X-2A to X-2G]
  a) The standard pole height shall be either 20’ or 30’ according to the table in section 10.2.1 and shall be a grey.
  b) Poles selection and finish:
     - Within .5 mi. of shoreline shall use Beacon RSA-B-SHO-S AA-10 Cobra [Figure X-2F]
     - More than .5 mi. away from shoreline shall use Hubbell RTA Upsweep Style [Figure X-2G]
  c) Poles shall be mounted on reinforced concrete pole bases with at least 2” but no more than 4” reveal above grade, with 4 bolts per pole.
  d) Light levels, pole spacing shall be in accordance with the tables in 10.2.1.
  e) Streetlights shall be full cutoff, using cost-effective and innovative technologies and shall seek to match uniformity, lumen output, and color of existing streetlights along the roadway, where applicable.
10.2.1 Lighting Design – Standard street lighting design shall conform to the following table:

<table>
<thead>
<tr>
<th>STREET CLASSIFICATION</th>
<th>COMMERCIAL/INDUSTRIAL</th>
<th>RESIDENTIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arterial</td>
<td>2.0</td>
<td>160’ (30’ pole)</td>
</tr>
<tr>
<td>Collector</td>
<td>1.2</td>
<td>130’ (30’ pole)</td>
</tr>
<tr>
<td>Local/Minor</td>
<td>0.9</td>
<td>130’ (30’ pole)</td>
</tr>
</tbody>
</table>

**STANDARD COBRAHEAD**

*Figures X-2A through X-2G*

<table>
<thead>
<tr>
<th>Location</th>
<th>Fixture Type</th>
<th>Fixture Height</th>
<th>Spacing + Layout</th>
<th>Color</th>
</tr>
</thead>
</table>
| One-lane Roadways: Without parking    | COBRAHEAD A  | 20’            | One side: 65’ – 70’  
                      with low traffic            |              |                             |
                                           |              |                | Alt. sides: 125’ – 135’    | Grey (Manufacturer’s Specification) |
| One-lane Roadways: With on-street     | COBRAHEAD A  | 30’            | One side: 70’ – 80’  
                      parking with low traffic         |              |                             |
                                           |              |                | Alt. sides: 120’ – 130’    |                                              |
| Two-lane Roadways: With on-street     | COBRAHEAD B  | 20’            | One side: 75’ – 80’  
                      parking with medium traffic      |              |                             |
                                           |              |                | Alt. sides: 145’ – 155’    |                                              |
| Two-lane Roadways: With on-street     | COBRAHEAD B  | 30’            | One side: 80’ – 90’  
                      parking with low traffic         |              |                             |
                                           |              |                | Alt. sides: 175’ – 185’    |                                              |
| Two-lane Roadways: With on-street     | COBRAHEAD C  | 20’            | One side: 90’ – 100’  
                      parking with medium traffic      |              |                             |
                                           |              |                | Alt. sides: 180’ – 190’    |                                              |
| Two-lane Roadways: With on-street     | COBRAHEAD C  | 30’            | One side: 100’ – 110’  
                      parking with medium traffic      |              |                             |
                                           |              |                | Alt. sides: 200’ – 210’    |                                              |
| Two or more lane Roadways: With      | COBRAHEAD D  | 20’            | One side: 95’ – 105’  
                      on-street with high/medium traffic |              |                             |
                                           |              |                | Alt. sides: 195’ – 210’    |                                              |
| Two or more lane Roadways: With      | COBRAHEAD D  | 30’            | One side: 115’ – 125’  
                      on-street parking with high traffic|              |                             |
                                           |              |                | Alt. sides: 245’ – 255’    |                                              |
|                                       | COBRAHEAD E  | 20’            | One side: 100’ – 110’  
                                           |              |                             |
                                           |              |                | Alt. sides: 200’ – 215’    |                                              |
|                                       | COBRAHEAD E  | 30’            | One side: 115’ – 130’  
                                           |              |                             |
                                           |              |                | Alt. sides: 240’ – 255’    |                                              |
10.2.2. New Metered Services for Light Fixtures

- New light fixtures shall:
  a) Not to be tied to the existing power utility leased lighting system.
  b) Be provided with a NEMA 7-pin receptacle for future connection to the City of Portland lighting control system. Coordinate with the City of Portland for final connection and control testing.
  c) Be specified with a color temperature of 3000K.

- The developer is to provide a new metered electrical service in an APX outdoor rated enclosure (see section 10.3.1 for unit specification), preventing any new fixtures from being directly connected to the power utility.

- The developer will be required to:
  a) Provide an astronomical timeclock inside the electrical enclosure (see section 10.3.1 for unit specification) to control light fixtures or
  b) Provide a standard photocell for each fixture, to be used until lighting control module is installed.

10.3. ACCESSORIES & BOLLARDS:

10.3.1. Cabinets – The city standard cabinet specifications are as follows:

<table>
<thead>
<tr>
<th>Location</th>
<th>Fixture Type</th>
<th>Fixture Height</th>
<th>Layout</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Right-of-way</td>
<td>APX Enclosures, Inc.</td>
<td>Per Manufacturer’s Specification</td>
<td>Mounted on the back side of sidewalk with door facing street, meter facing building street wall.</td>
<td>Grey/Silver or Clear Coat (Manufacturer’s Specification)</td>
</tr>
<tr>
<td></td>
<td>Cabinet APX NEMA 3R Pedestal Enclosure APXPE401615</td>
<td></td>
<td>If site constraints require box to be mounted within sidewalk furnishing zone, then door should face building/private property and meter should be mounted opposite side of travel direction.</td>
<td></td>
</tr>
</tbody>
</table>

- Cabinet base can be stand-alone type other than above, provided it is not in a sidewalk or on the edge of a plowed pathway, street, or parking lot. Circuits may also be wired into existing traffic signal boxes or other light circuit boxes. This will be determined on a case-by-case basis.
• Additional specifications for multiuse box with external power for festivals and special events (not required – determined by Department of Public Works):
  Square D power panel QO816L100DF/S or QO112L125G with cover QO16US
  Circuits required:
  1= 125/250V 50 Amp NEMA 14-50 Receptacle
  1= 125/250V 30 Amp NEMA 14-30 Receptacle
  2= 125V 20A Standard Receptacle

10.3.2 Wiring & Electrical
• 2” inch conduit (minimum) underground in light pole bases and cabinet base.
• Each light fused individually at base Fuse holder type is a (Buchanan 65 kit Cat # 65U)
• Regular outlet on each pole just below the fixture to be fused at the bottom of the pole base with the same fuse kit as listed above.
• Any single photo cell control for all lights shall be in the cabinet, rated for the circuit. This may require an all-purpose contactor.
• Wire size and circuit size shall be calculated by the design engineer and inspected by the city inspector to make sure it is correct. This would be done on a case by case basis because not all circuits, lights and systems are the same.

10.3.3 Bollards
This section includes standards for typical lighted bollards. Non-lighted bollards appear in Section 1. Transportation Systems and Street Design Standards.

Location: Bollards may be used in areas such as underpasses and similar conditions where height is restricted for pedestrian lighting. Spacing and number to be determined by Department of Public Works. Locations must be approved by Department of Public Works and the Planning Authority. The City may approve additional bollard types for streetscape or special projects such as parks or as use for security bollards; any additional bollard selection must be of equivalent structural strength as approved bollards.

Specification:
• Bollards shall be mounted on reinforced concrete bases with at least 2” but no more than 4” reveal above grade, with 4 bolts per pole.
• The City of Portland has adopted the following typical lighted bollard standards:
10.4. **STANDARDS FOR DECORATIVE LIGHTING:**

*Locations, Specifications, and Finish:*

- Figure X-4 identifies the decorative street light locations. The following tables and Figures X-5 through X-12 illustrate the requirements for **fixture type, height, layout, and finish for each decorative light fixture**, according to street.
- All light poles shall be mounted on reinforced concrete pole bases with at least 2” but no more than 4” reveal above grade, with 4 bolts per pole.

<table>
<thead>
<tr>
<th>LIGHTED BOLLARD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixure – Figure X-3</strong></td>
</tr>
<tr>
<td><strong>Location (including but not limited to)</strong></td>
</tr>
<tr>
<td>Underpasses: Park Avenue, St. James Street, St. John Street, Forest Avenue, Preble Street, Franklin Street, Commercial Street, Harborview Park, Tukey’s Bridge, Veranda Street</td>
</tr>
<tr>
<td>Waterfront Piers</td>
</tr>
</tbody>
</table>
DECORATIVE LIGHT – Downtown

Map - Figures X-5A, X-5D
Fixtures – Figures X-5B, X-5C, X-5E, X-5F
The Technical Manual supersedes the previously adopted City of Portland Downtown Sidewalk and Street Lighting Plan (1994); that plan may be used for reference or clarification of the standards in this manual.

<table>
<thead>
<tr>
<th>Location</th>
<th>Fixture Type</th>
<th>Fixture Height</th>
<th>Spacing + Layout</th>
<th>Color</th>
</tr>
</thead>
</table>
| Oak Street, Casco Street, Brown Street, Chestnut Street, Shepley Street | PEDESTRIAN 1 – Single or Double Arm [Figure X-5B] | 12’ 6” | One side: 60’ – 80’  
Alt. sides: 100’ – 175’  
Single-arm fixture placed in furnishing zone with luminaire oriented over sidewalk. Double-arm fixture placed with bracket arms parallel to sidewalk. If sidewalk space is limited, Planning Authority may approve lights within private property or attached to building. | Dark Green – Tiger Drylac RAL 6012 |
| Center Street: Congress to Free St | PEDESTRIAN 2 [Figure X-5C] | 25’ 0” | One side: 90’ – 100’  
Alt. sides: 175’ – 225’  
Double-arm fixture placed with bracket arms parallel to sidewalk. | Dark Green – Tiger Drylac RAL 6012 |
| Cross Street: Free to Spring St | STREET – Single or Double Arm [Figure X-5E] | 30’ 0” | One side: 90’ – 100’  
Alt. sides: 175’ – 225’  
Double-arm fixture used in median conditions with luminaire overhanging street. | Dark Green – Tiger Drylac RAL 6012 |
| Monument Square and Monument Way: Pedestrian ways | STREET/PED COMBO [Figure X-5F] | 30’ 0” | One side: 90’ – 100’  
Alt. sides: 175’ – 225’ | Dark Green – Tiger Drylac RAL 6012 |
| Congress Street: St. John to Franklin St | STREET/PED COMBO [Figure X-5F] | 30’ 0” | One side: 90’ – 100’  
Alt. sides: 175’ – 225’ | Dark Green – Tiger Drylac RAL 6012 |
| Cumberland Avenue: High to Franklin St | STREET/PED COMBO [Figure X-5F] | 30’ 0” | One side: 90’ – 100’  
Alt. sides: 175’ – 225’ | Dark Green – Tiger Drylac RAL 6012 |
| Spring Street: High to Temple/Union St | STREET/PED COMBO [Figure X-5F] | 30’ 0” | One side: 90’ – 100’  
Alt. sides: 175’ – 225’ | Dark Green – Tiger Drylac RAL 6012 |
| Free Street: Between High St and Temple St | STREET/PED COMBO [Figure X-5F] | 30’ 0” | One side: 90’ – 100’  
Alt. sides: 175’ – 225’ | Dark Green – Tiger Drylac RAL 6012 |
| Temple Street: Congress to Spring/Middle St | STREET/PED COMBO [Figure X-5F] | 30’ 0” | One side: 90’ – 100’  
Alt. sides: 175’ – 225’ | Dark Green – Tiger Drylac RAL 6012 |
| Myrtle, Chestnut, Elm and Preble Streets: Congress to Cumberland Ave | STREET/PED COMBO [Figure X-5F] | 30’ 0” | One side: 90’ – 100’  
Alt. sides: 175’ – 225’ | Dark Green – Tiger Drylac RAL 6012 |
| Federal Street: Congress to Temple St |

Note: Figures X-5A, X-5B, X-5C, X-5D, X-5E, X-5F are referenced for location and fixture details.
<table>
<thead>
<tr>
<th>Location</th>
<th>Fixture Type</th>
<th>Fixture Height</th>
<th>Spacing + Layout</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchange Street: Congress to Fore St</td>
<td>STREET [Figure X-6B]</td>
<td>14’ 3”</td>
<td>Alt. sides: 60’- 80’</td>
<td>Black (Manufacturer’s Specification)</td>
</tr>
<tr>
<td>Fore Street: Center to Franklin Ave</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Streets between Spring/Middle to Commercial Street: Center Street,</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cotton Street, Cross Street, Union Street, Dana Street, Patton Court,</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moulton Street, Market Street, Silver Street, Pearl Street, Custom</td>
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<td></td>
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</tr>
<tr>
<td>House Street, Portland Square, Milk Street, Wharf Street, Gold Street</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Federal Street W, Middle Street, Newbury Street W: Temple/Union to</td>
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</tr>
<tr>
<td>Franklin St</td>
<td></td>
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<tr>
<td>Church Street</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Parks: Tommy’s, Post Office Park</td>
<td></td>
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</tr>
</tbody>
</table>
### DECORATIVE LIGHT – Peninsula

**Map - Figures X-7A, X-7C**  
**Fixtures – Figures X-7B, X-7D, X-7E**

<table>
<thead>
<tr>
<th>Location</th>
<th>Fixture Type</th>
<th>Fixture Height</th>
<th>Spacing + Layout</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilmot Street, Chapel Street, Stone Street, and Cedar Street</td>
<td>MEDIUM STREET (Figure X-7B)</td>
<td>19’ 3”</td>
<td>One side: 80’ – 100’</td>
<td>Black (Manufacturer’s Specification)</td>
</tr>
<tr>
<td>Alder St, Hanover St, Parris St, Brattle St, Mechanic St</td>
<td></td>
<td></td>
<td>Use Type 2 IES distribution.</td>
<td></td>
</tr>
<tr>
<td>Mountfort St, Hancock St, Hampshire St, Newbury St E, Federal St E</td>
<td></td>
<td></td>
<td>Fixture placed in furnishing zone overhang towards the street; where fixture conflicts with overhead utilities, may be placed on back of sidewalk with light overhanging sidewalk.</td>
<td></td>
</tr>
<tr>
<td>Preble Street and Elm Street: Cumberland Ave to Marginal Way</td>
<td></td>
<td></td>
<td>Where street lighting is provided by existing cobrahead fixtures, decorative fixtures are not needed on that side of street. If a project includes placing utilities underground, street/pedestrian lighting provided by decorative fixtures.</td>
<td></td>
</tr>
<tr>
<td>Pearl St, Chestnut St, Myrtle St: Cumberland Ave to Marginal Way</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxford Street W, Lancaster Street, Kennebec Street, Somerset Street</td>
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<td></td>
</tr>
<tr>
<td>Portland Street</td>
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<tr>
<td>Anderson St: Everett to Plowman St</td>
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<tr>
<td>Fox Street</td>
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<tr>
<td>Washington Ave: Congress to I-295</td>
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<tr>
<td>India Street</td>
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<tr>
<td>Middle Street: Franklin to Hancock St</td>
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<tr>
<td>Fore Street: Franklin to Waterville St</td>
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<td></td>
</tr>
<tr>
<td>Marginal Way</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forest Avenue: Cumberland Ave to Park/Portland St</td>
<td>LARGE STREET (Figure X-7D)</td>
<td>24’ 3”</td>
<td>One side: 90’ – 110’</td>
<td>Black (Manufacturer’s Specification)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Alt. sides: 175’ – 225’</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* No streets shall use PEDESTRIAN scale light unless site conditions such as sidewalk width or overhead utilities prevent installation of MEDIUM STREET fixture (Figure X-7D)</td>
<td>PEDESTRIAN (Figure X-7E)</td>
<td>14’ 6”</td>
<td>One side: 60’ – 80’</td>
<td>Black (Manufacturer’s Specification)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Alt. sides: 100’ – 175’</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fixture shall be oriented to overhang sidewalk.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fixture placed in furnishing zone unless space is limited. Placement on back of sidewalk or private property overhanging sidewalk may be accommodated where space is a constraint.</td>
<td></td>
</tr>
</tbody>
</table>
### DECORATIVE LIGHT – Trails, Waterfront

**Map - Figure X-8A**  
**Fixture – Figure X-8B**

**Trails** - This fixture appropriate for any city trail installation. Standard lighted bollard may also be used in appropriate circumstances.  
**Bayside Trail** - This fixture should only be used on the Bayside Trail if replacing six or more of the existing fixtures.  
**Waterfront – Commercial/Thames Street**, this fixture is suitable to supplement standard cobrahead lighting.

<table>
<thead>
<tr>
<th>Location</th>
<th>Fixture Type</th>
<th>Fixture Height</th>
<th>Spacing + Layout</th>
<th>Color</th>
</tr>
</thead>
</table>
| **Fore River Trail:** Casco Bay Bridge to US-1; Harborview Park trail path | TRAIL – Single Arm | 18’ 4” | One side: 90’ – 125’  
Alt. sides: 175’ – 225’ | Black (Manufacturer’s Specification) |
| **Commercial Street:** Fore River Parkway to India St | TRAIL – Single Arm | 18’ 4” | Supplemental pedestrian lighting as-needed.  
One side: 90’ – 125’  
Alt. sides: 175’ – 225’ | Black (Manufacturer’s Specification) |
| **Thames Street:** India St to Eastern Promenade Trail | TRAIL – Single Arm | 18’ 4” | One side: 90’ – 125’  
Alt. sides: 175’ – 225’ | Black (Manufacturer’s Specification) |
| **Eastern Promenade Trail** | TRAIL – Single or Double Arm | 18’ 4” | One side: 90’ – 125’  
Alt. sides: 175’ – 225’  
Single arm fixture oriented to overhang trail; Double arm fixture for medians or similar. | Black (Manufacturer’s Specification) |

### DECORATIVE LIGHT – Off-Peninsula

**Map - Figure X-9A**  
**Fixture – Figure X-9B**

*In addition to the specific locations indicated below, this fixture is suitable for off-peninsula, commercial corridors to supplement standard cobrahead lighting.*

<table>
<thead>
<tr>
<th>Location</th>
<th>Fixture Type</th>
<th>Fixture Height</th>
<th>Spacing + Layout</th>
<th>Color</th>
</tr>
</thead>
</table>
| **Forest Avenue:** Marginal Way to Woodlawn Ave | PEDESTRIAN – Single or Double Arm | 18’ 6” | One side: 60’-80’  
Alt. sides: 100’ - 175’  
Placement on back of sidewalk with single arm fixture oriented to overhang sidewalk; Where site constraints require placement in furnishing zone, use double arm fixture parallel to sidewalk. | Graphite (Manufacturer’s Specification) |
### DECORATIVE LIGHT – Historic Landscape Street

**Map - Figure X-10A**  
**Fixture – Figure X-10B**  
*Fixture placement should comply with adopted master plans.*

<table>
<thead>
<tr>
<th>Location</th>
<th>Fixture Type</th>
<th>Fixture Height</th>
<th>Spacing + Layout</th>
<th>Color</th>
</tr>
</thead>
</table>
| Eastern Promenade (park side of street only): North St to Vesper St | STREET – with shield | 21’ 0” | One side: 90’ – 100’  
Alt sides: 175’ – 225’ | Black (Manufacturer’s Specification) |
| Western Promenade (park side of street only): Bramhall to Vaughan St | STREET – without shield | 21’ 0” | One side: 90’ – 100’  
Park side of street only | Black (Manufacturer’s Specification) |
| Baxter Boulevard (both sides of street): Forest Ave to Bates St | STREET – without shield | 21’ 0” | One side: 90’ – 100’  
Alt. sides: 175’ – 225’ | Black (Manufacturer’s Specification) |
| Deering Oaks Park (Abutting Streets, park side only): Deering Ave, Park Ave, Forest Ave | STREET – without shield | 21’ 0” | One side: 90’ – 100’  
Alt. sides: 175’ – 225’ | Black (Manufacturer’s Specification) |
| Deering Oaks Park (within park): High Street, State Street | STREET – without shield | 21’ 0” | One side: 90’ – 100’  
Alt. sides: 175’ – 225’ | Black (Manufacturer’s Specification) |

### DECORATIVE LIGHT – Historic Landscape Pedestrian

**Map - Figure X-11A**  
**Fixture - Figures X-11B**  
*Fixture placement should comply with adopted master plans.*

<table>
<thead>
<tr>
<th>Location</th>
<th>Fixture Type</th>
<th>Fixture Height</th>
<th>Spacing + Layout</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Promenade: Pedestrian paths</td>
<td>Pedestrian</td>
<td>14’ 6”</td>
<td>One side: 60’ – 80’</td>
<td>Black (Manufacturer’s Specification)</td>
</tr>
<tr>
<td>Western Promenade: Pedestrian paths</td>
<td>Pedestrian</td>
<td>14’ 6”</td>
<td>One side: 60’ – 80’</td>
<td>Black (Manufacturer’s Specification)</td>
</tr>
<tr>
<td>Deering Oaks Park (Interior): Pedestrian paths, High and State streets</td>
<td>Pedestrian</td>
<td>14’ 6”</td>
<td>Use existing light locations or refer to the Deering Oaks Master Plan (2003) for revised locations</td>
<td>Black (Manufacturer’s Specification)</td>
</tr>
</tbody>
</table>

### DECORATIVE LIGHT – Deering Oaks Bridge

**Fixture –Figure X-12**  
*Fixture placement should comply with adopted master plans.*

<table>
<thead>
<tr>
<th>Location</th>
<th>Fixture Type</th>
<th>Fixture Height</th>
<th>Spacing + Layout</th>
<th>Color</th>
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</thead>
<tbody>
<tr>
<td>Deering Oaks Park (Bridge)</td>
<td>Bridge Light</td>
<td>6’ 0” (match existing)</td>
<td>Match existing</td>
<td>Match existing</td>
</tr>
</tbody>
</table>
10.5. City of Portland versus Construction Contractor Responsibilities:

For projects where the construction contractor is required by the City to provide new street lighting, the new street lighting shall be connected to an existing metered service, unless otherwise directed by the City (see Section 10.2.2 for new metered services for lighting). The responsibilities of the construction contractor are as follows:

Construction Contractor Responsibilities:

a) The construction contractor shall furnish and install as part of the construction scope: Street lighting luminaires, street lighting poles, bracket arms, pole accessories, and decorative base enclosures all as stipulated by the City according to the City standards for the given project location.

b) Concrete foundation bases for new street lighting poles. Poles shall be mounted on reinforced concrete pole bases with at least 2” but no more than 4” reveal above grade, with 4 bolts per pole. The installation of the foundation bases shall be coordinated with sidewalk details and requirements as stipulated by the City of Portland Department of Public Works.

c) Underground conduit and wire between street lighting pole foundation bases. In addition, underground conduit and wire shall be provided to an electrical service panelboard and meter, as well as to an existing service connection.

d) Wiring to be installed within each street lighting pole and shall be extended at the pole top (or bracket arm), with connection to the street lighting luminaire(s).

e) Upon completion of the erection of the street lighting fixtures, including the installation of all lighting poles and conduit/wire, the construction contractor shall notify the City that the system is ready for operation. THE LUMINAIREs SHALL BE ENERGIZED PRIOR TO THE CONSTRUCTION CONTRACTOR’S REQUEST FOR A CITY CERTIFICATE OF OCCUPANCY.

f) It shall be the construction contractor’s responsibility to pay all costs associated with the provision of required street lighting including costs associated with street lighting luminaires, street lighting poles, brackets, bases, conduit and wire, panelboards, and metering equipment.
City of Portland Responsibilities:

a) To approve the proposed point of connection for electrical service for new municipal street lighting where a new metered service is provided.

b) Connection of the construction contractor’s secondary service conductors at an existing service point, where a new service is provided.

c) To review and approve the location of the street light fixtures within the public right-of-way.

10.6. Reserved.

10.7. Submission Requirements:

A lighting plan shall be provided which shall show the quantity and location of all existing and proposed street lights. This shall be incorporated into the site plan or presented on an individual lighting plan. Descriptive information including engineering detail drawings depicting the entire proposed fixture (luminaire, bracket arm, slip fitter) along with the proposed finish shall be included on the individual lighting plan.
LUMINAIRE
GE Evolve LED Post Top Town & Country (EPTT)
Die-case aluminum housing with acrylic refractor in white opal.
Pole-mounted, secondary surge protection
Voltage (120 through 277V)
Asymmetric HO, 56 watt
LED 3000K color temperature

LIGHTING POLE
Aluminum, smooth tapered pole with 5/32” thickness (.156”).
EPA rating from 4.6 to 6.9 (using 110mph wind speed ratings from AAHTO).
Maximum weight capacity = 75-100 lbs.
Base bolt pattern: 10” diagonal.

DIMENSIONS
Pole Height = 15’ max.
Pole Diameter = 6” base tapered to 3”

FINISH
Black (standard)

APPLICATION
Standard sidewalk lighting for residential streets not specified for decorative lighting.
Spacing: According to Section 10.2.1
Fixture placed in furnishing zone unless space is limited. Placement on back of sidewalk or private property near sidewalk may be accommodated where space is a constraint.
LUMINAIRE
Cree RSW series LED streetlight  
Small, horizontal tenon  
Optics IES Type III Medium, 2,756 lumens  
23 watts  
Universal voltage (120-227V)  
7-pin photocell receptacle  
LED 3000K color temperature

LIGHTING POLE
Mount to existing pole or according to Section 10.2.1

DIMENSIONS
Pole Height = 20’ or 30’

FINISH
Grey: GY (standard)

APPLICATION
Standard street lighting for streets not specified for decorative lighting.

Fixture placed in furnishing zone unless space is limited. Placement on back of sidewalk or private property overhanging sidewalk may be accommodated where space is a constraint.
Street & Sidewalk Lighting
STANDARD - COBRAHEAD B

LUMINAIRE
Cree RSW series LED streetlight
Model: RSWS-A-HT-3ME-5L-30K7-UL-GY-N-X1
Small, horizontal tenon
Optics IES Type III Medium, 3,617 lumens
30 watts
Universal voltage (120-277V)
7-pin photocell receptacle
LED 3000K color temperature

LIGHTING POLE
Mount to existing pole or according to Section 10.2.1

DIMENSIONS
Pole Height = 20' or 30'

FINISH
Grey: GY (standard)

APPLICATION
Standard street lighting for streets not specified for decorative lighting.
Fixture placed in furnishing zone unless space is limited. Placement on back of sidewalk or private property overhanging sidewalk may be accommodated where space is a constraint.

Weight*
8.45 lbs (3.8kg)

*RSW-SSLSS Accessory: add 4.4 lbs. (10.3kg)
Street & Sidewalk Lighting
STANDARD - COBRAHEAD C

LUMINAIRE
Cree RSW series LED streetlight
Model: RSWM-A-HT-3ME-9L-30K7-UL-GY-N-X1
Medium, horizontal tenon
Optics IES Type III Medium, 6,500 lumens
50 watts
Universal voltage (120-227V)
7-pin photocell receptacle
LED 3000K color temperature

LIGHTING POLE
Mount to existing pole or according to Section 10.2.1

DIMENSIONS
Pole Height = 20’ or 30’

FINISH
Grey: GY (standard)

APPLICATION
Standard street lighting for streets not specified for decorative lighting.
Fixture placed in furnishing zone unless space is limited. Placement on back of sidewalk or private property overhanging sidewalk may be accommodated where space is a constraint.
Street & Sidewalk Lighting
STANDARD - COBRAHEAD D

**LUMINAIRE**
Cree RSW series LED streetlight

- Medium, horizontal tenon
- Optics IES Type III Medium, 8,975 lumens
- 75 watts
- Universal voltage (120-227V)
- 7-pin photocell receptacle
- LED 3000K color temperature

**LAMP**
Vertical mounted, LED 3000K color temperature

**LIGHTING POLE**
Mount to existing pole or according to Section 10.2.1

**DIMENSIONS**
Pole Height = 20’ or 30’

**FINISH**
Grey: GY (standard)

**APPLICATION**
Standard street lighting for streets not specified for decorative lighting.

- Fixture placed in furnishing zone unless space is limited. Placement on back of sidewalk or private property overhanging sidewalk may be accommodated where space is a constraint.

**Weight**
13.8 lbs (6.3kg)

*RSW-81.5M Accessory: add 0.4 lbs. (0.2kg)
Street & Sidewalk Lighting
STANDARD - COBRAHEAD E

LUMINAIRE
Cree RSW series LED streetlight
Model: RSWM-A-HT-3ME-9L-30K7-UL-GY-N
Medium horizontal tenon
Optics IES Type III Medium, 9,325 lumens
83 watts
Universal voltage (120-227V)
7-pin photocell receptacle
LED 3000K color temperature

LIGHTING POLE
Mount to existing pole or according to Section 10.2.1

DIMENSIONS
Pole Height = 20' or 30'

FINISH
Grey: GY (standard)

APPLICATION
Standard street lighting for streets not specified for decorative lighting.
Fixture placed in furnishing zone unless space is limited. Placement on back of sidewalk or private property overhanging sidewalk may be accommodated where space is a constraint.

Date: March, 2019
City of Portland
Technical Manual

Revised Date:

CITY OF PORTLAND, MAINE TECHNICAL MANUAL
MUNICIPAL STREET LIGHTING STANDARDS SECTION 10

Figure: X-2E
Street & Sidewalk Lighting
STANDARD - COBRAHEAD POLE

**APPLICATIONS**
- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location.
- **POLE CAPS**: Cap or cloutie flush available for side mounted luminaires. Open top or turrets provided for post top mounted luminaires.
- **NUTS**: Fourteen mm hard nut frame. Mounting provisions for grounding. Top located behind cover.
- **ANCHOR BELTS**: Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554).
- Galvanized hardware with two washers and two nuts per bolt for leveling.

**DIMENSIONS**
- Pole Height = 20’ or 30’ (according to Section 10.2.1)

**FINISH**
- Grey: GYS Grey Smooth (standard)
- Thermoset polyester powder coat paint finish with nominal 3.0 mil thickness.
- Corrosion-resistant polyester powder-coat electrostatically applied meeting AAMA 2604 performance specification.

**APPLICATION**
- Standard street lighting for streets not specified for decorative lighting.
- To be used within .5 mi. of shoreline and where existing poles are not available for mounting cobrahead fixture.
- Spacing: According to Section 10.2.1
- Follow established pattern and orientation - typically single arm overhanging towards street.
- Fixture placed in furnishing zone unless space is limited. Placement on back of sidewalk or private property overhanging sidewalk may be accommodated where space is a constraint.
Street & Sidewalk Lighting
STANDARD - COBRAHEAD POLE

LIGHTING POLE (see Section 10.2)
Hubbell FTA Series - Upsweep Style
Model: RTA

Standard aluminum, smooth tapered pole.

DIMENSIONS
Pole Height = 20’ or 30’ (according to Section 10.2.1)

FINISH
Grey (standard)

APPLICATION
Standard street lighting for streets not specified for decorative lighting.

To be used further than .5 mi. from shoreline and where existing poles are not available for mounting cobrahead fixture.

Spacing: According to Section 10.2.1

Follow established pattern and orientation - typically single arm overhanging towards street.

Fixture placed in furnishing zone unless space is limited. Placement on back of sidewalk or private property overhanging sidewalk may be accommodated where space is a constraint.
Street & Sidewalk Lighting
BOLLARD

Freeport Series
Cast Iron Lighted Bollard

LUMINAIRE
Holophane Freeport Series Cast Iron Lighted Bollard
Model: BOL-FP45-13-LCI/BL-M70-II

Bollard shall be cast iron construction with a classic octagonal design.

The bollard shall be provided with an optical assembly including a glass refractor, and an octagonal top.
Borosilicate glass refractor with IES Type II distribution.

Bollard shall be made from a one-piece casting; the top shall be attached to the bollard with four tamper resistant set screws.

LAMP
Light source shall be 70 watt Metal Halide. When bollard is made available in LED, light source must be LED option. 3000K color temperature.

DIMENSIONS
Height = 3'-9" or manufacturer’s specification
Base Diameter = 13" octaflute base
Top Diameter = 10" octagonal top

MATERIALS
ASTM-A48 Class 30 cast iron
Refractor: Borosilicate glass with IES Type II dist.
Hardware: Exposed hardware shall be tamper resistant stainless steel. Anchor bolts to be completely hot dip galvanized.

FINISH
Black: CI/BL = Cast Iron/Black (standard)

APPLICATION
Sidewalk lighting where height is limited - underpasses, parks, piers
Can be used as a security bollard.
Spacing: To be determined by Department of Public Works per specific project

Date: March, 2019
CITY OF PORTLAND, MAINE TECHNICAL MANUAL
MUNICIPAL STREET LIGHTING STANDARDS SECTION 10
Figure: X-3

Revised Date:
MAP: DECORATIVE LIGHTING AREAS
The Technical Manual supersedes the previously adopted City of Portland Downtown Sidewalk and Street Lighting Plan (1994); that plan may be used for reference or clarification of the standards in this manual.
Street & Sidewalk Lighting

DECORATIVE LIGHT - DOWNTOWN

LUMINAIRE
Holophane Esplanade LED II
Model: ESL2-P20S-30K-AS-CMC-TG3-S-P7-NL2X2-BHDF13-200CMC

Cast aluminum housing with stainless steel hardware. Dropped refractor shall be thermal resistant borosilicate glass. Internal reflector and prismatic diffuser shall provide an IES Type IV distribution pattern. Luminaire shall include an integral ballast with modular wiring connectors and multi-voltage taps. Provide an internal receptacle type photocell control. LED 3000K color temperature

BRACKET ARM
Holophane Portland Series (custom)
Model: PD42CA-RAL6012

Portland Series steel crossarm with a post-top fitting for a 3-1/2” by 8” tenon.

SLIP FITTER
Holophane
Model: WLLF200SCA-RAL6012
2-3/8” O.D. with swivel cast fitter.

LIGHTING POLE AND BASE
Holophane North Yorkshire Cast Steel
Model NY-S-13-FTB-P13-ABG-RAL6012

Cast steel pole, smooth 5” diameter shaft with integrated base rated for a 90mph wind load with a 1.3 gust factor. Provide four hot-dipped galvanized steel L-type anchor bolts. Lighting pole shall be hot dip galvanized prior to powder coat paint.

DIMENSIONS
Overall Height = 12’ 6”
Bracket Arm Length = 3’ 6”
Base Diameter = 17”

FINISH
Dark Green: RAL-6012 (custom)

APPLICATION
Sidewalk lighting or pedestrian lighting areas

Spacing:
One side: 60’ - 80’on center
Alternating sides: 100’ - 175’ on center

Single-arm fixture placed in furnishing zone with luminaire oriented over sidewalk. Double-arm fixture placed with bracket arms parallel to sidewalk. If sidewalk space is limited, Planning Authority may approve lights within private property or attached to building.

Date: March, 2019
Revised Date: DOWNTOWN PED 1
Street & Sidewalk Lighting
DECORATIVE LIGHT - DOWNTOWN

LUMINAIRE
Holophane Esplanade LED II
Model:
ESL2-P20S-30K-AS-CMC-TG3-S-P7-NL2X2-BHDF13-200CMC

Cast aluminum housing with stainless steel hardware.
Dropped refractor shall be thermal resistant borosilicate glass. Internal reflector and prismatic diffuser shall provide an IES Type IV distribution pattern. Luminaire shall include an integral ballast with modular wiring connectors and multi-volatage taps. Provide an internal receptacle type photocell control. LED 3000K color temperature.

BRACKET ARM
Holophane Portland Series steel dual crossarm (custom)
Model: PD69-CA-RAL6012

SLIP FITTER
Holophane
Model: WLLF200S-CA-RAL6012
2-3/8" O.D. with swivel cast fitter

LIGHTING POLE
Holophane
Model: PM-18-CSB-CA-RAL6012

Tapered steel pole smooth shaft rated for a 90mph wind load with a 1.3 gust factor. Provide four hot-dipped galvanized steel L-type anchor bolts. Lighting pole shall be hot dip galvanized prior to powder coat paint.

DECORATIVE BASE
Holophane
Model: PM18CSB-CA-RAL6012
Decorative clamshell cast aluminum base. Hardware shall be stainless steel.

DIMENSIONS
Overall Height = 25' 0"
Bracket Arm Length = 2' 10 1/2"
Base Diameter = 18"

FINISH
Dark Green: RAL-6012 (custom)

APPLICATION
Sidewalk lighting or pedestrian lighting areas
Suggested layout:
One side: 90' - 100’ on center
Alternating sides: 175’ - 225’ on center

Double-arm fixture placed with bracket arms parallel to sidewalk. If sidewalk space is limited, Planning Authority may approve lights within private property or attached to building.
The Technical Manual supersedes the previously adopted City of Portland Downtown Sidewalk and Street Lighting Plan (1994); that plan may be used for reference or clarification of the standards in this manual.
Street & Sidewalk Lighting
DECORATIVE LIGHT - DOWNTOWN

LUMINAIRE
Holophane Esplanade LED II
Model: ESL2-P20S-30K-AS-CMC-TG3-S-P7-NL2X2-BHDF13-200CMC
Cast aluminum housing with stainless steel hardware. Dropped refractor shall be thermal resistant borosilicate glass. Internal reflector and prismatic diffuser shall provide an IES Type IV distribution pattern. Luminaire shall include an integral ballast with modular wiring connectors and multi-voltage taps. Provide an internal receptacle type photocell control. LED 3000K color temperature.

BRACKET ARM
Holophane Portland Series steel crossarm (custom)
Model: PD42-CA-RAL6012
Steel crossarm with a post-top fitting for a 3 1/2" by 8" tenon

SLIP FITTER
Holophane
Model: WLLF200S-CA-RAL6012

LIGHTING POLE
Holophane
Model: PM-18-CSB-CA-RAL6012
Tapered steel pole smooth shaft rated for a 90mph wind load with a 1.3 gust factor. Provide four hot-dipped galvanized steel L-type anchor bolts. Lighting pole shall be hot dip galvanized prior to powder coat paint.

DECORATIVE BASE
Holophane
Model: PM18CSB-CA-RAL6012
Decorative clamshell cast aluminum base. Hardware shall be stainless steel.

DIMENSIONS
Overall Height = 30' 0"
Bracket Arm Length = 3' 6"
Base Diameter = 18"

FINISH
Dark Green: RAL-6012 (custom)

APPLICATION
Street lighting
Spacing:
One side: 90' - 100' on center
Alternating sides: 175' - 225' on center

Single-arm fixture placed in furnishing zone with luminaire oriented over sidewalk. Double-arm fixture placed with bracket arms parallel to sidewalk or in medians. If sidewalk space is limited, Planning Authority may approve lights within private property or attached to building.
LUMINAIRE
Holophane Esplanade LED II
Model:
ESL2-P20S-30K-AS-CMC-TG3-S-P7-NL2X2-BHDF13-200CMC
Cast aluminum housing with stainless steel hardware. Dropped refractor shall be thermal resistant borosilicate glass. Internal reflector and prismatic diffuser shall provide an IES Type IV distribution pattern. Luminaire shall include an integral ballast with modular wiring connectors and multi-voltage taps. Provide an internal receptacle type photocell control. LED 3000K color temperature

BRACKET ARM
Holophane Portland Series steel (custom)
Top Bracket Arm: Steel crossarm with a post-top fitting for a 3 1/2" by 6" tenon
Model: PD42-CA-RAL6012
Lower Bracket Arm: Steel dual crossarm
Model: PD69-CA-RAL6012

SLIP FITTER
Holophane
Model: WLLF200S-CA-RAL6012

LIGHTING POLE
Holophane
Model: PM-18-CSB-CA-RAL6012
Tapered steel pole smooth shaft rated for a 90mph wind load with a 1.3 gust factor. Provide four hot-dipped galvanized steel L-type anchor bolts. Lighting pole shall be hot dip galvanized prior to powder coat paint.

DECORATIVE BASE
Holophane
Model: PM18CSB-CA-RAL6012
Decorative clamshell cast aluminum base. Hardware shall be stainless steel.

DIMENSIONS
Overall Height = 30’ 0”
Upper Bracket Arm Length = 3’ 6”
Lower Bracket Arm Length = 2’ 10 1/2”
Base Diameter = 18”

FINISH
Dark Green: RAL-6012 (custom)

APPLICATION
Street/pedestrian lighting combination.
Spacing:
One side: 90’ - 100’ on center
Alternating sides: 175’ - 225’ on center
Double-arm bracket arms parallel to sidewalk.
**LUMINAIRE**
Holophane Washington Postlite II LED - Acrylic
Model: WAUE2-P20-30K-AS-BK-3-BK-6-P7-F-PCLL
Cast aluminium housing with stainless steel hardware.
Thermal resistant acorn borosilicate glass refractor with IES Type asymmetric Type IV distribution.
Luminaire shall include decorative ribs, solid band, and spike finial, with internal twist-lock receptacle type photocell control. LED 3000K

**LAMP**
IES Type asymmetric Type IV distribution
LED 3000K color temperature

**LIGHTING POLE**
Holophane North Yorkshire - Aluminum pole and base
Model: NYA-11-FTJ-17-P07-ABG-BK-R126A
Tapered, fluted cast aluminum pole shaft rated for a 90mph wind load with a 1.3 gust factor.
Provide four hot-dipped galvanized steel L-type anchor bolts. Provide GFI rated duplex receptacle outlet.
Lighting pole shall be hot dipped galvanized prior powder coat paint.

**DIMENSIONS**
Overall Height = 14’ 3”
Pole Height = 10’ 7”
Taper = 5.5” to 3.5”
Base Diameter = 17”

**FINISH**
Black (standard)

**APPLICATION**
Street/Sidewalk lighting for two-way streets with parking on both sides.
Spacing: 60’ - 80’ on center (staggered pattern both sides of street)
Street & Sidewalk Lighting

DECORATIVE LIGHT - PENINSULA

LUMINAIRE
Holophane Esplanade LED II
Model: ESL2-P20S-30K-AS-CMC-TG3-S-P7-NL2X2-BHDF13-200CMC
or Spring City Columbia Series
Model: ALMCLU-LE080/EVX/X2-30-CR3-GR14-LACLB-FED-CU
Pendant mount, cast aluminum housing with stainless steel hardware. Dropped refractor shall be thermal resistant borosilicate glass. Internal reflector and prismatic diffuser shall provide an IES Type IV distribution pattern. LED 3000K color temperature.

BRACKET ARM
Holophane OUC Roadway Arm
Model: OUC 6063-T6
or Spring City Columbia Arm
Model: AARCLA-1S-51-53-TN2.38/7.00-CU
Aluminum crossarm with a post-top fitting for a 3 1/2” by 8’ tenon. Single Arm 45” Oriented 180 degrees.

SLIP FITTER
Holophane Boston Harbor Series
Model: BHLF-200-SCA/AS
2 3/8” O.D. with swivel cast fitter.

LIGHTING POLE
Holophane
Model: CM17CSB-CA-RAL6012
or Spring City Cambridge Series
Model: SSHSM-G11-7.00-15.00-TN3.50/8.00-CU
Smooth, tapered steel pole smooth shaft rated for a 90mph wind load with a 1.3 gust factor. Provide four hot-dipped galvanized steel L-type anchor bolts. Lighting pole shall be hot dip galvanized prior to powdercoat paint.

DECORATIVE BASE
Holophane Cambridge Series
Model: CM17CSB
or Spring City Cambridge Series
Model: DWBCMB-17-CU
Decorative clamshell cast aluminum base. Hardware shall be stainless steel.

DIMENSIONS
Overall Height = 19’ 3”
Pole Height = 15’ 0”
Base Diameter = 17” to 18”

FINISH
Black (standard)

APPLICATION
Street/sidewalk lighting. Decorative fixture not needed on same side of street as existing cobrahead fixtures.
Spacing: 80’ - 100’ on center
Place in furnishing zone overhang towards street; where fixture conflicts with overhead utilities, may be placed on back of sidewalk.
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<th>CITY OF PORTLAND, MAINE TECHNICAL MANUAL</th>
<th>MUNICIPAL STREET LIGHTING STANDARDS SECTION 10</th>
<th>Figure:</th>
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<td>March, 2019</td>
<td>MAP: Decorative Light - PENINSULA LARGE STREET</td>
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<td>X-7C</td>
</tr>
<tr>
<td>Revised Date:</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Street & Sidewalk Lighting
DECORATIVE LIGHT - PENINSULA

LUMINAIRE
Holophane Esplanade LED II
Model: ESL2-P20S-30K-AS-CMC-TG3-S-P7-NL2X2-BHDF13-200CMC
or Spring City Columbia Series
Model: ALMCLU-LE080/EVX/2-30-CR3-GR14-LACLB-FED-CU
Pendant mount, cast aluminum housing with stainless steel hardware. Dropped refractor shall be thermal resistant borosilicate glass. Internal reflector and prismatic diffuser shall provide an IES Type IV distribution pattern. LED 3000K color temperature.

BRACKET ARM
Holophane OUC Roadway Arm
Model: OUC 6063-T6
or Spring City Columbia Arm
Model: AARCLA-1S-51-53-TN2.38/7.00-CU
Aluminum crossarm with a post-top fitting for a 3 1/2" by 8" tenon. Single Arm 45" Oriented 180 degrees.

SLIP FITTER
Holophane Boston Harbor Series
Model: BHLF-200-SCA/AS
2 3/8" O.D. with swivel cast fitter.

LIGHTING POLE
Holophane
Model: CM17CSB-CA-RAL6012
or Spring City Cambridge Series
Model: SSHSM-G11-7.00-15.00-TN3.50/8.00-CU
Smooth, tapered steel pole smooth shaft rated for a 90mph wind load with a 1.3 gust factor. Provide four hot-dipped galvanized steel L-type anchor bolts. Lighting pole shall be hot dip galvanized prior to powdercoat paint.

DECORATIVE BASE
Holophane Cambridge Series
Model: CM17CSB
or Spring City Cambridge Series
Model: DWBCMB-17-CU
Decorative clamshell cast aluminum base. Hardware shall be stainless steel.

DIMENSIONS
Overall Height = 24' 3"
Pole Height = 20' 0"
Bracket Arm = 3' 9"
Base Diameter = 18"

FINISH
Black (standard)

APPLICATION
Street/Sidewalk light. Spacing: One side: 90’ - 110’ o.c. Alt. sides: 175’ - 225’ on center
Place in furnishing zone overhang towards street; where fixture conflicts with overhead utilities, may be placed on back of sidewalk.

Date: March, 2019

CITY OF PORTLAND, MAINE
TECHNICAL MANUAL
MUNICIPAL STREET LIGHTING STANDARDS
SECTION 10

PENINSULA LARGE STREET

Figure: X-7D
Street & Sidewalk Lighting
DECORATIVE LIGHT - PENINSULA

*Waiver required: This fixture to be implemented in special circumstances only. See 10.4 STANDARDS FOR DECORATIVE LIGHTING.

**LUMINAIRE**
Holophane Esplanade LED II
Model: ESPL2-P20-30L-AS-S-B-4-SS-P7
IES Type IV Distribution
Pendant mount, quick lock stem mount
Auto-sensing 50/60 hz (120-225V), 38 watts
LED 3000K color temperature.

**BRACKET ARM**
Holophane OUC Roadway Arm
Model: OUC 45/1-CA-BK
Aluminum crossarm with a post-top fitting for a 3 1/2" by 8" tenon.
Single Arm 45” Oriented 180 degrees.

**SLIP FITTER**
Holophane Boston Harbor Decorative Arm Fitter
Model: WLLF200S-CA-RAL6012
2 3/8” O.D. with swivel cast fitter.

**LIGHTING POLE AND BASE**
Holophane Rockford Harbor Aluminum Pole
Model: RHA-10-S5J-18-P15-ABG-BK
Pole is aluminum, smooth 5” diameter, .25 wall
Assembly meets wind load of 90 mph.

**DIMENSIONS**
Overall Height = 14’ 6”
Pole Height = 10’ 0”
Pole Diameter = 5”
Base Diameter = 18”
Arm = 45”

**FINISH**
Black (standard)

**APPLICATION**
Sidewalk lighting only when MEDIUM STREET fixture cannot be accommodated.

Spacing:
One side: 60’ - 80’ on center
Alternating sides: 100’ - 175’ on center
Fixture shall be oriented to overhang sidewalk.

Place in furnishing zone unless space is limited.
Placement on back of sidewalk or private property overhanging sidewalk may be accommodated where space is a constraint.
Trails - This fixture appropriate for any city trail installation. Standard lighted bollard may also be used in appropriate circumstances.

Bayside Trail - This fixture should only be used on the Bayside Trail if replacing six or more of the existing features.

Waterfront - Commercial/ Thames Street, this fixture is suitable to supplement standard cobrahead lighting.
Street & Sidewalk Lighting
DECORATIVE LIGHT - TRAIL/WATERFRONT

LUMINAIRE
Holophane GlasWerks LED Hallbrook Series
Model: GELB-050-3K-AS-4-B-3-P7E-DM
Pendant mount
IES Type IV Distribution
Thermal resistant prismatic glass lens held in a formed aluminum door frame.
50 watts
Universal Voltage (120-277V)
Dimming driver with 7-pin photocontrol receptacle
LED 3000K color temperature

BRACKET ARM
Aluminum crossarm with a post-top fitting for a 2-3/8” by 6” tenon.

SLIP FITTER
Holophane Glasswerks Slip Fitter
Model SG20/1-BK
2-3/8” O.D. with swivel cast fitter.

LIGHTING POLE
Holophane
Model: RTA1850E-PL-ND-BK-4
Aluminum pole shaft rated for a 90 mph wind load with a 1.3 gust factor.
Provide four hot-dipped galvanized steel L-type anchor bolts. Lighting pole shall be hot dipped galvanized prior to powder coat paint.

DIMENSIONS
Overall Height = 18’ 4”
Bracket Arm = 1’ 6”

FINISH
Black (standard) - polyester powder coat

APPLICATION
Trails: Appropriate for any city trail installation.
Waterfront (Commercial/Thames St): Supplemental pedestrian lighting to standard cobrahead lighting.
Spacing:
One side: 90’ - 125’ on center
Alternating sides: 175’ - 225’ ft on center
Follow established pattern. Single arm oriented over trail or street; Double-arm used in medians or similar.
In addition to the specific locations indicated below, this fixture is suitable for off-peninsula, commercial corridors to supplement standard cobrahead lighting.
Street & Sidewalk Lighting
DECORATIVE LIGHT - OFF-PENINSULA

LUMINAIRE
Holophane Hallbrook Ext GalsWerks LED Bowl Glass
Model: GELB-050-3K-AS-H-3
IES Type III Distribution
Pendant mounting (1.5 NPT). Dropped refractor shall be thermal resistant borosilicate glass held in a formed aluminum door frame. Asymmetric bowl glass.
Auto-sensing voltage (120-277V)
50 watt, LED 3000K color temperature

BRACKET ARM
Holophane Bishops Crook Arm
Model : 1-BC-90R-15F-XX (for single arm 90 degree)
Tenon mounted, using a 1 1/2” NPT fitting for luminaire mounting. Arm shall be 1 1/2” sch. 80 aluminum pipe (6061-T6 alloy). Mounting hub for the arm shall be 3” sch. 40 x 10” long aluminum pipe (6061-T6 alloy). All hardward shall be stainless steel. The arm shall be heat-treated to a T6 condition after fabriction.

LIGHTING POLE + BASE
Holophane Princeton Aluminum Pole, Smooth Base
Model: PSA-14-F4J-18-P09-ABG-GH
One-piece construction, aluminum pole (heavy wall cast aluminum ASTM 356), smooth shaft 4” dia. rated for a 90mph wind load with a 1.3 gust factor with integral 18” hexagonal smooth base. All hardware shall be tamper resistant stainless steel. Provide four hot-dipped galvanized steel L-type anchor bolts. Lighting pole shall be hot dip galvanized prior to powder coat paint.

DIMENSIONS
Overall Height = 18’ 6”
Pole Height = 14’ 0”
Pole Diameter = 4”
Base Diameter = 18”

FINISH
Graphite (Standard) - powder coat paint finish

APPLICATION
Sidewalk lighting to supplement standard lighting off-peninsula.

Spacing:
One side: 60’ - 80’ on center
Alternating sides: 100’ - 175’ on center

Fixture orientation should be consistent with established pattern. In some cases, a double-arm bracket parallel to the street may be appropriate.
Fixture placed in furnishing zone unless space is limited. Placement on back of sidewalk or private property overhanging sidewalk may be accommodated where space is a constraint.
Fixture placement should comply with adopted master plans.
LUMINAIRE
Holophane Espalanade LED II
Model:
ESL2-P20S-30K-AS-CMC-TG3-S-P7-NL2X2-BHDF13-200CMC
or Spring City Columbia Series
Model: LMCLU-LE080/EVX2-30-CR3-GR14-LACLB-FED-CU

With Shield: Deering Oaks Park
Without Shield: All other locations

LED Auto-sensing 39 watt
Voltage (120 - 277V)
IES Type V Distribution
LED 3000K color temperature

BRACKET ARM
King Luminaire/StressCrete: Scroll Arm with Decorative Scroll
Model: KA30-T

Single arm with finials and decorative scroll.
Slip fitter 2 3/8” O.D. to accommodate various leveling devices. At pole, to accept 2 3/8” O.D. x 2 3/4” Long tenon.

LIGHTING POLE
King Luminaire/StressCrete: The Talisman - Concrete Model: KTH20
The American Series - The Talisman, 8-fluted concrete
Footing details, tenon size, options per specific project

DIMENSIONS
Overall Height = 21’0”
Pole Height = 20’ 0”
Pole Base Flare = 18”
Bracket Arm Length = 6’ 0”

FINISH
Luminaire: Black (standard)
Pole: Eclipse Black, acrylic coating (standard)

APPLICATION
Decorative street lighting for historic landscapes.

Spacing:
One side: 90’ - 100’ on center
Alt. sides: 175’ - 225’ on center

Fixture locations must comply with adopted Historic Master Plans.
Fixture placement should comply with adopted master plans.
Street & Sidewalk Lighting
DECORATIVE - HISTORIC LANDSCAPE PED

LUMINAIRE
Holophane GranVille II LED

Prismatic Style: Glass Classic
Housing Size: Utility
No Trim or finial, Modern Housing
Slip fitter accommodates 2-7/8” to 3-1/8” dia. tenon

LED Auto-sensing 39 watt
Voltage (120 - 277V)
IES Type V Distribution
LED 3000K color temperature

LIGHTING POLE
King Luminaire/StressCrete: The Talisman - Concrete
Model: KT-12-E-11-DB-140 30/30-A

The American Series - The Talisman, 8-fluted concrete
Talisman Non-Flared Top 12’
Footing details, tenon size, options per specific project

DIMENSIONS
Overall Height = 14’ 6”
Pole Height = 12’ 0”

FINISH
Luminaire: Black (standard)
Pole: Eclipse Black, acrylic coating (standard)

APPLICATION
Decorative pedestrian lighting for historic landscapes.

Spacing: 60’ - 80’ on center

In some instances, the fixture will replace existing fixtures.

Fixture locations must comply with adopted Historic Master Plans.
LUMINAIRE
Match existing and according to historic resources.

LAMP
LED 3000K color temperature

LIGHTING POLE
Match existing and according to historic resources.

DIMENSIONS
Match existing and as shown in image.

FINISH
Black: Match existing and according to historic resources.

APPLICATION
Match existing location and installation.