



## City of South Portland STREET LIGHTING POLICY

### INTRODUCTION

The purpose of this policy is to establish standards for the placement of streetlights within the public right-of-way in the City of South Portland, when requested by residents. This policy intends to promote the public health, safety, and welfare of the City by providing lighting that appropriately and adequately illuminates public right-of-ways by:

- Providing streetlighting levels that protect the safety, security, and nighttime-use and enjoyment in public right-of-ways by the public;
- Providing adequate streetlighting level that will promote pedestrian nighttime use in areas with high crime rates;
- Reducing light pollution and glare caused by street lighting;
- Promoting energy efficiency and conservation; and
- Enhancing the aesthetics of the built environment.

Property owners may request the installation of a new streetlight provided that it is on an existing utility pole, or may request to have their streetlight dimmed or turned off. The City will not remove lights altogether upon request. City staff in the Public Works Department will evaluate all requests according to the standards found in this policy.

### PROTOCOL

**For adding a streetlight:** the property owner is required to submit a completed request form and neighbor notification form to Public Works. All neighbors on the street within 200 feet of the proposed light must be notified of the request and sign the Neighbor Notification Form. If the requestor has made three (3) attempts to contact a neighbor but has been unable to reach them, the requestor may leave a note on the neighbor's door, and indicate this on the notification form. The note must include the date, the nature and location of the request, Public Works' contact information, and must also let the neighbor know they have ten (10) days to contact the City if they wish to support or oppose the request. City staff are required to sign off on the action<sup>1</sup>. If the request conforms to the standards laid out in this policy, and all required departments approve the request, and at least 75% of neighbors support the request, the Public Works

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<sup>1</sup> Any request to add or turn off a streetlight must be approved by Public Works, the Fire department, Police Department, and Transit department.

Department will carry out the request subject to available funding. In the event the request is approved by City staff, but there is a conflict between neighbors, the City Council may evaluate the request for adding a light and direct the Public Works Department to carry out their recommendation.

**For turning off a streetlight:** the property owner is required to submit a completed request form and neighbor notification form to Public Works. All neighbors on the street within 200 feet of the proposed light must be notified of the request and sign the Neighbor Notification Form. If the requestor has made three (3) attempts to contact a neighbor but has been unable to reach them, the requestor may leave a note on the neighbor's door, and indicate this on the notification form. The note must include the date, the nature and location of the request, Public Works' contact information, and must also let the neighbor know they have ten (10) days to contact the City if they wish to support or oppose the request. City departments listed in the footnote above are required to sign off on the action if the streetlight in question is on a collector or arterial road. If the request conforms to the standards laid out in this policy, and all required departments approve the request, and at least 75% of neighbors support the request, the Public Works Department will carry out the request. In the event of a conflict between neighbors or City staff concerns, the light will remain on, and the property owner may go through the process to request that it be dimmed.

**For dimming a streetlight:** the property owner is only required to submit a completed request form to Public Works. City departments listed in the footnote above will be required to sign off on the action if the streetlight in question is on a collector or arterial road.

## **REQUESTS FOR NEW LIGHTS**

Because adding streetlights requested by residents may not be feasible in all locations, the goal of this policy is to provide guidance to City staff and the City Council in determining where there is already an adequate level of lighting appropriate to the types and level-of-use, and where new lights may need to be added as requested to minimize the potential conflict between vehicle and pedestrian use. The proper location of street lighting will provide sufficient visibility, increased safety, and improved security for pedestrians and vehicles while maximizing energy efficiency and minimizing expenditure.

Lighting levels for roadway streetlights aimed at promoting efficient traffic movement is generally based on Illuminating Engineering Society of North America (IES) recommendations contained in IES publication RP-8-00 Roadway Lighting. These are the recommendations that were followed, where possible, in the design of the City's LED streetlighting system. IES guidelines are based on geometric, operational, and environmental factors and suggest average roadway luminance and uniformity ratios to reduce traffic accidents.

Although the IES standards are desirable to attain for roadways with high traffic volumes, the

IES standard does not easily translate to residential and rural roadway lighting applications where promoting traffic flow and traffic speed are not the primary concern. The standards recommended by the IES would be best applied to South Portland on roadways where traffic flow, speed, and potential pedestrian conflicts are of primary concern such as arterial and collector roadways.

Taking these standards into consideration and incorporating more localized guidelines<sup>2</sup> for siting streetlights on smaller streets and in residential areas, this policy recommends following the standards below when deciding whether or not to add new lights.

## **SPACING STANDARDS**

Where a streetlight should be added depends in large measure on the need or justification for the request relative to providing adequate and appropriate street lighting for pedestrians and the travelling public. Providing the right amount of light in the right places is a factor of road hierarchy (local, collector, or arterial), posted speed limit and design speed, spacing along the street, height of the fixture, horizontal distance from the road, and type of LED fixture.

Taking into account these considerations, streetlight placement within public right-of-ways should conform to the following standards as feasible given utility pole spacing and light pole spacing:

For **principal and minor arterials** streetlights may be located at all roadway intersections and mid-block locations at a spacing interval of approximately 220 feet as feasible given existing utility pole and light pole spacing or as required by the lighting technology that is used.

For **all other roadways (local or collector)** street lighting may be provided at intersections, cul-de-sacs, dead ends, and at mid-block locations as listed below:

Street segments less than 300 feet in length may only be lit at roadway intersections and dead ends.

Street segments less than 1,000 feet in length may have streetlights located at all roadway intersections and mid-block locations at a spacing interval of approximately 220 feet as feasible given existing utility pole and light pole spacing.

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<sup>2</sup> "Street Lighting Policy," City of Lewiston. // "American National Standard Practice for Roadway Lighting," Illuminating Engineering Society of North America. // "Promoting Quality Outdoor Lighting in Your Community," Maine State Planning Office, Lighting Technical Assistance Bulletin. // "Roadway Lighting: Design Guide," American Association of State Highway and Transportation Officials.

Street segments greater than 1,000 feet in length may have streetlights located at a spacing interval of approximately 440 feet as feasible given existing utility pole and light pole spacing.

Street segments greater than 2,000 feet in length may have streetlights located at a spacing interval of approximately 660 feet as feasible given existing utility pole and light pole spacing.

For **situational applications** additional street lighting may be provided at the discretion of City staff and/or the City Council with guidance from City staff in the following situations:

At the bottom of steep hills, corners with an angle less than 120 degrees, highway entrances and exits, at-grade railroad crossings, bridges, schools, mid-block and T-intersection crosswalk locations, and transit stops.

At locations and areas of high vehicle-to-vehicle and vehicle-to-pedestrian accidents, and areas where crime is a documented problem. Such areas shall be identified in partnership with the Police Department.

**Streetscape lighting** may be used to light roadways where sidewalks are present and highlight building facades and public areas as determined by the City Council.

**Existing City streetlights** should be considered grandfathered and should remain in place. This policy pertains to the addition or turning off of streetlights moving forward, which will be at the discretion of City staff following these guidelines or the City Council in the case of conflicting support or opposition to a request.

## **AUTHORITY**

The Director of Public Works shall be responsible for all matters relating to streetlights and utilities of the City and shall coordinate and control the activities related to the operations and maintenance of all street lights.

## **INSTALLATION**

These streetlighting standards apply to all streetlights located within public right-of-ways. Streetlighting improvements as approved by City staff and/or the City Council shall be:

- Subject to available funding.
- Made during routine maintenance and capital improvements by the City or its

contractors.

- Made when new public streets are constructed.
- Made when new development is proposed that impacts the streetscape.
- Mounted on existing or future utility poles or light poles.
- Installed at a height based on guidelines provided by the IES Roadway Standard as necessary based on the roadway type: highway to alley.
- Optimized to minimize energy usage by choosing lighting configurations which maximize efficiency for intersection lighting, and use LED lighting, networked lighting systems, timed and light sensing lighting, or other future technologies as financially prudent.
- Chosen to match uniformity, lumen output, and color of other streetlights along roadway segments and long major arterials.

## **EFFECTIVE DATE**

TBD

## **DEFINITIONS**

Arterial Roadway – A public roadway shown on the most recent functional classification map generated by the Maine Department of Transportation, further classified as a major or minor arterial, providing longer through travel between major trip generators (large cities, recreational areas, etc.)

Alley – A public roadway providing access to the service entrances of buildings primarily used by service vehicles, where through traffic is usually discouraged, and carrying a low volume of traffic.

Collector Roadway – A public roadway shown on the most recent functional classification map generated by the Maine Department of Transportation as a collector street which collects traffic from local roads and also connects smaller cities and town with each other and to the arterials.

Local Roadway – A public roadway shown on the most recent functional classification map generated by the Maine Department of Transportation as a local street providing direct access within identifiable neighborhoods and lands, where through traffic is usually discouraged, and carrying a low volume of traffic.

Light pole – A pole owned by the City, located in the public right-of-way used to mount

ornamental lighting or an overhead streetlight.

**Luminaire** – A complete lighting unit consisting of a lamp or lamps together with the parts designed to distribute the light, position, and protect the lamp and connect the lamp to the power supply.

**Streetscape Lighting** – Lighting mounted on stand-alone light poles, within the public right-of-way, typically no more than ten to 15 feet in height, used to illuminate sidewalks, building facades, and in some instances the roadway.

**Public Right-of-Way** – A strip of land acquired by deed, reservation, dedication, forced dedication, prescription, or condemnation and intended to be occupied or occupied by a roadway, crosswalk, railroad, electric transmission line, oil or gas pipeline, water line, sanitary or storm sewer other similar use.

**Roadway** – For the purposes of this policy, any portion of a public right-of-way that is paved or graveled and used for vehicle and pedestrian travel.

**Semi-cutoff** – A luminaire where less than 5 percent of the lamp lumens occur at or above the horizontal plane and no more than 20 percent of the lamp lumens occur above 80 degrees above the vertical plane (nadir).

**Streetlight** – Any light operated and maintained by the City that is used for the purpose of lighting a roadway within a public right-of-way mounted on a utility pole or light pole that directs light to the roadway.

**Spacing** – The distance between successive luminaires measured along the centerline of the roadway.

**Street Segment** – a section of roadway typically broken by a roadway intersection or sharp corner.

**Utility pole** – A pole owned and maintained by a utility company used to support power lines, telephone lines, cable lines, etc.