

# Development Application Guideline Terms of Reference – Lighting



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## Description

A lighting study or lighting plan is a document intended to demonstrate the lighting and illumination properties of a proposed development and their impacts on adjacent properties and surrounding uses. The lighting study or plan should establish the location, height, and type of lighting fixtures to be installed on the site and on the site's buildings. As part of the lighting study or plan, a photometric plot plan should also be included to illustrate the illumination levels and light fixture locations on the site. This Terms of Reference document is intended to be applied in conjunction with all other applicable guidelines, such as the City of Kingston's Site Plan Control Guideline and the City of Kingston's Subdivision Development Guideline and Technical Standards.

## Rationale

Appropriate design of outdoor lighting is important in order to reduce the impacts of light on adjacent properties, sensitive environmental features, and lower the overall contribution to light pollution. The selection of proper siting and type of light fixture creates a safer space for pedestrians, reduces energy costs and demand, protects flora and fauna from the negative effects of artificial light, and also lowers human health risks from sleep disruption caused by excessive artificial lighting.

The City of Kingston's Official Plan outlines policies for the reduction of light impacts, such as:

### 3.4.18. Site Plan Control

Through site plan control review and associated agreements, new Commercial developments, expansions, redevelopments or mixed use buildings will be required to:

- b. minimize potential impacts on, or nuisance to nearby sensitive uses in terms of lighting, litter, noise, odours or commercial deliveries.

## When Required

A lighting plan or study should be included as part of a Site Plan Control application. Depending on the complexity of the proposal, a separate lighting study may be necessary or a lighting plan may be included in a site plan for simpler applications.

## Applicable Legislation

Section 41 of the Planning Act outlines policies for site plan control and the approval of plans or drawings, which may include lighting plans:

**(4) Approval of plans or drawings.**—No person shall undertake any development in an area designated under subsection (2) unless the council of the municipality or, where a referral has been made under subsection (12), the Municipal Board has approved one or both, as the council may determine, of the following:

1. Plans showing the location of all buildings and structures to be erected and showing the location of all facilities and works to be provided in conjunction therewith and of all facilities and works required under clause (7)(a) including facilities designed to have regard for accessibility for persons with disabilities.

**(7) Conditions to approval of plans.**—As a condition to the approval of the plans and drawings referred to in subsection (4), a municipality may require the owner of the land to,

(a) provide to the satisfaction of and at no expense to the municipality any or all of the following:

5. Facilities for the lighting, including floodlighting, of the land or of any buildings or structures thereon.

## Qualified Persons

A lighting study or plan and photometric plot plan should be completed by a qualified professional engineer, professional planner, registered architect or registered landscape architect with experience in exterior lighting plans.

## Required Contents

For a lighting plan, the following requirements can be included on a site plan or landscape plan:

1. Location of all existing and proposed exterior light fixtures. Fixtures are to be located no closer to the property line than four times the mounting height of the fixture. Likewise, fixtures shall not exceed the height of adjacent structures.
2. Identification of the mounting height for all existing and proposed fixtures.
3. Outline of the site areas and/or building elements intended to be illuminated.

4. Confirmation that the lighting fixtures, electrical conduit, and areas to be illuminated do not conflict with existing or proposed vegetation
5. Notations that all exterior lighting fixtures direct illumination downward and are dark sky compliant to reduce light pollution, sky glare, and light trespass onto neighbouring properties.
6. Manufacturer's data demonstrating the specifications for all proposed lighting fixtures, including the photometric data, designation as IESNA "full cut-off" fixtures, and other descriptive information related to the fixtures.

**Full Cut-Off Fixtures:** These fixtures are independently certified by the manufacturers, and do not allow light to be emitted above the fixture. The fixture reduces glare by limiting the light output to less than 10% at and below 10 degrees below the horizontal zoning standard.

The following requirements should be included on a photometric plot plan, indicating the projected hours of use:

1. All illumination levels provided in lux.
2. Demonstration of illumination levels at 0.0 lux measured at all property lines.
3. Readings that extend 6.0m beyond the property lines of the subject site.
4. Type and number of complete electric light units (luminaire), including the "cut off characteristics", indicating manufacturer and model number(s).
5. Lamp source type (bulb type, LED preferred), lumen output, and wattage.
6. Mounting height with distance noted to the nearest property line for each luminaire.
7. Types of timing devices used to control the hours set for illumination, as well as the proposed hours when each fixture will be operated.
8. Total Lumens for each fixture, and total square footage of areas to be illuminated indicating candela levels at grade.

## **Submission Requirements**

All development applications and accompanying studies and reports should be submitted through the City of Kingston's **DASH Development and Services Hub** which can be accessed online at: [City of Kingston DASH](#)

## **Additional Information**

For additional information, please contact the City of Kingston Planning, Building and Licensing Services Department at:

1211 John Counter Boulevard, Kingston  
613-546-4291 ext. 3180  
[planning@cityofkingston.ca](mailto:planning@cityofkingston.ca)

The City of Kingston's Site Plan Control Guideline can be found here: [Site Plan Control Guideline](#)