

# **DARK SKIES ORDINANCE**

## **Chapter 17.62 OUTDOOR LIGHTING ON PUBLIC AND PRIVATE PROPERTY**

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### **17.62.010 Purpose.**

The purpose of this chapter is to provide regulations that preserve and enhance the view of the dark sky; promote health, safety, security, and productivity; and help protect natural resources. The provisions of this chapter are intended to control glare and light trespass. It is the intent of this chapter to provide standards for appropriate lighting practices and systems that will enable people to see essential detail in order that they may undertake their activities at night, facilitate safety and security of persons and property, and curtail the degradation of the nighttime visual environment.

### **17.62.020 Definitions.**

The following terms have the following definitions for purposes of this chapter:

A. "Accent lighting" means any luminaire that emphasizes a particular object or draws attention to a particular area for aesthetic purposes.

B. "Cut-off angle" (of a luminaire) means the angle, measured from the lowest point between a vertical line from the center of the lamp extended to the ground and the first line of sight at which the bare source is not visible.

C. "Fixture" (also called a "luminaire") means a complete lighting unit including the lamps, together with the parts required to distribute the light, to position and protect the lamps, and to connect the lamps to the power supply.

D. "Foot-candle" means a measure of illuminance or a measure of how bright a light appears to the eye. One foot-candle is equal to

one lumen/ft<sup>2</sup>. As an example, a typical 60-watt incandescent lamp (840 lumens) produces an illuminance of 0.1 foot-candles at a distance of about 25 feet.

E. "Lamp" means the light-producing source installed in the socket portion of a luminaire.

F. "Light pollution" means general sky glow caused by the scattering of artificial light in the atmosphere and resulting in decreased ability to see the natural night sky.

G. "Light trespass" means any light emitted by an outdoor luminaire that shines directly beyond the property on which the luminaire is installed, or indirectly shines beyond the property on which the luminaire is installed at a brightness (illuminance) that exceeds 0.1 foot-candles at the property line. This term includes light extending above a commercial building from a sky light.

H. "Luminaire". See definition for "fixture."

I. "Outdoor lighting fixture" means a luminaire outside of an enclosed building or structure or any luminaire directed such that it primarily illuminates outdoor areas.

J. "Shielding" means that no light rays are emitted by a fixture above the horizontal plane running through the lowest point of the fixture.

K. "Spotlight" means any lamp that incorporates a reflector or a refractor to concentrate the light output into a directed beam in a particular direction.

#### **17.62.030 Applicability.**

A. All outdoor lighting fixtures installed on private and public property shall comply with this chapter. This chapter does not apply to interior lighting; provided, that if it is determined by the administrator that any interior lighting emitting light outside of the building or structure in which it is located creates a light trespass, the interior lighting shall be subject to the requirements of this chapter. Types of outdoor lighting to which this chapter applies include, but are not limited to, lighting for:

1. Building and structures including, but not limited to, overhangs and canopies;
2. Parking lot lighting;
3. Landscape lighting;
4. Lighting on docks and piers;
5. Street lighting.

B. The city's Departments of Planning & Building and Public Works shall administer and enforce this chapter.

C. In the event of a conflict between the requirements of this chapter and any other requirement of the City of Chelan Municipal Code, the more restrictive requirement shall apply.

#### **17.62.040 Exemptions.**

The following are exempt from the provisions of this chapter:

- A. Traffic control signals and devices;
- B. Street lights installed prior to the effective date of the ordinance codified in this chapter; provided, that when a street light fixture becomes inoperable, any replacement street light fixture shall be subject to the provisions of this chapter;
- C. Temporary emergency lighting (i.e., fire, police, repair workers) or warning lights;
- D. Moving vehicle lights;
- E. Navigation lights (i.e., radio/television towers, docks, piers, buoys) or any other lights where state or federal statute or other provision of the City of Chelan Municipal Code requires lighting that cannot comply with this chapter. In such situations, lighting shall be shielded to the maximum extent possible, and lumens shall be minimized to the maximum extent possible, while still complying with state or federal statute;
- F. Public sports and recreational facilities;
- G. Seasonal decorations do not have to be shielded; provided, that they do not have a brightness of more than 0.1 foot-candles at the property line on which they are installed;
- H. Outdoor lighting approved by the director for temporary or periodic events (e.g., fairs, nighttime construction);

#### **17.62.050 General standards.**

The following general standards shall apply to all nonexempt outdoor lighting fixtures and accent lighting:

- A. All light trespass is prohibited.
- B. Outdoor lighting fixtures and accent lighting must be shielded and aimed downward, and shall be installed at the minimum height necessary. Examples of acceptable and unacceptable light pollution control shielding are shown in Figures 1 through 4. The shield must mask the direct horizontal surface of the light source. The light must be aimed to insure that the illumination is only pointing downward onto the ground surface, with no escaping direct light permitted to contribute to light pollution by shining upward into the sky.
- C. All outdoor lighting fixtures and accent lighting shall be designed, installed, located and maintained such that light trespass is essentially nonexistent (see Figure 3).
- D. Outdoor lighting fixtures and accent lighting shall not directly illuminate public waterways, unless it is a navigational light subject to state or federal regulations.

E. Accent lighting shall be directed downward onto the illuminated object or area and not toward the sky or onto adjacent properties (see Figure 4). Direct light emissions of such accent lighting shall not be visible above the roof line or beyond the building, structure, or object edge.

F. Spotlighting on landscaping and foliage shall be limited to 150 watts incandescent (2,220 lumens output).

**17.62.060 Prohibited.**

A. The following fixtures (luminaires) are prohibited:

1. Searchlights for any purpose other than temporary emergency lighting or as allowed by a special event license;
2. Laser lights or any similar high-intensity light for outdoor use or entertainment, when projected above the horizontal plane;
3. Quartz lamps;
4. Mercury vapor lamps.

B. The city reserves the right to further restrict outdoor lighting including, but not limited to, pole height, and level of illumination, when it is deemed to be in the best public interest consistent with the purpose of this chapter.

**17.62.070 Submittals.**

All building permit applications which include the installation of outdoor lighting fixtures shall demonstrate compliance with the requirements of this chapter by indicating the location and type of lighting used on the site plan submitted with the building permit application.

**17.62.080 Penalties for violation.**

Any violation of the provisions of this chapter shall constitute a nuisance, which shall be subject to the processes and penalties relating to nuisances, set out in Chapter 8.26.

**17.62.090 Figures of acceptable shielding and direction of outdoor light fixtures.**

The following four figures illustrate acceptable and unacceptable outdoor lighting fixtures in the city:

Figure 1: Wall-Mounted Lights

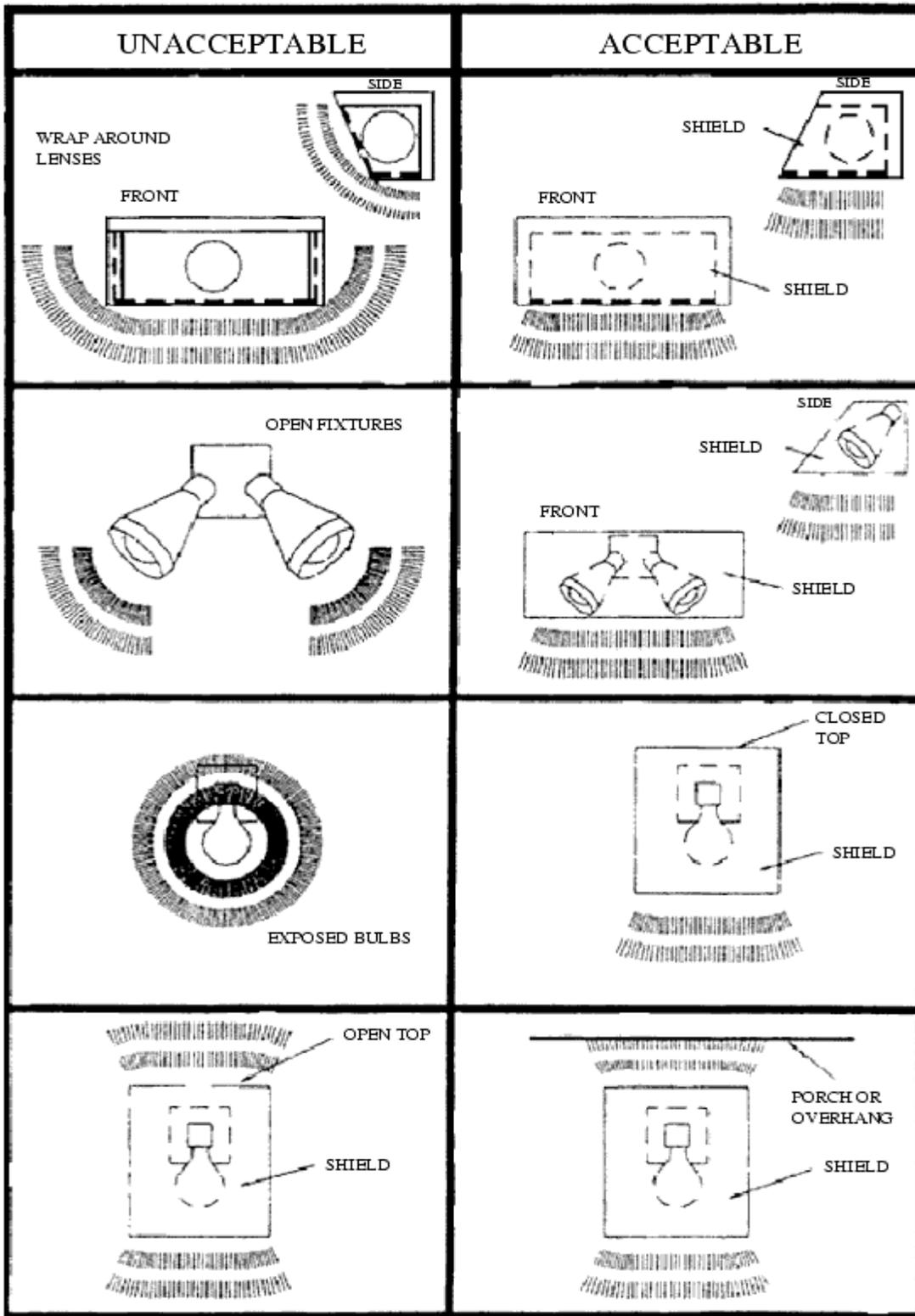


Figure 2: Freestanding Outdoor Lighting Fixtures

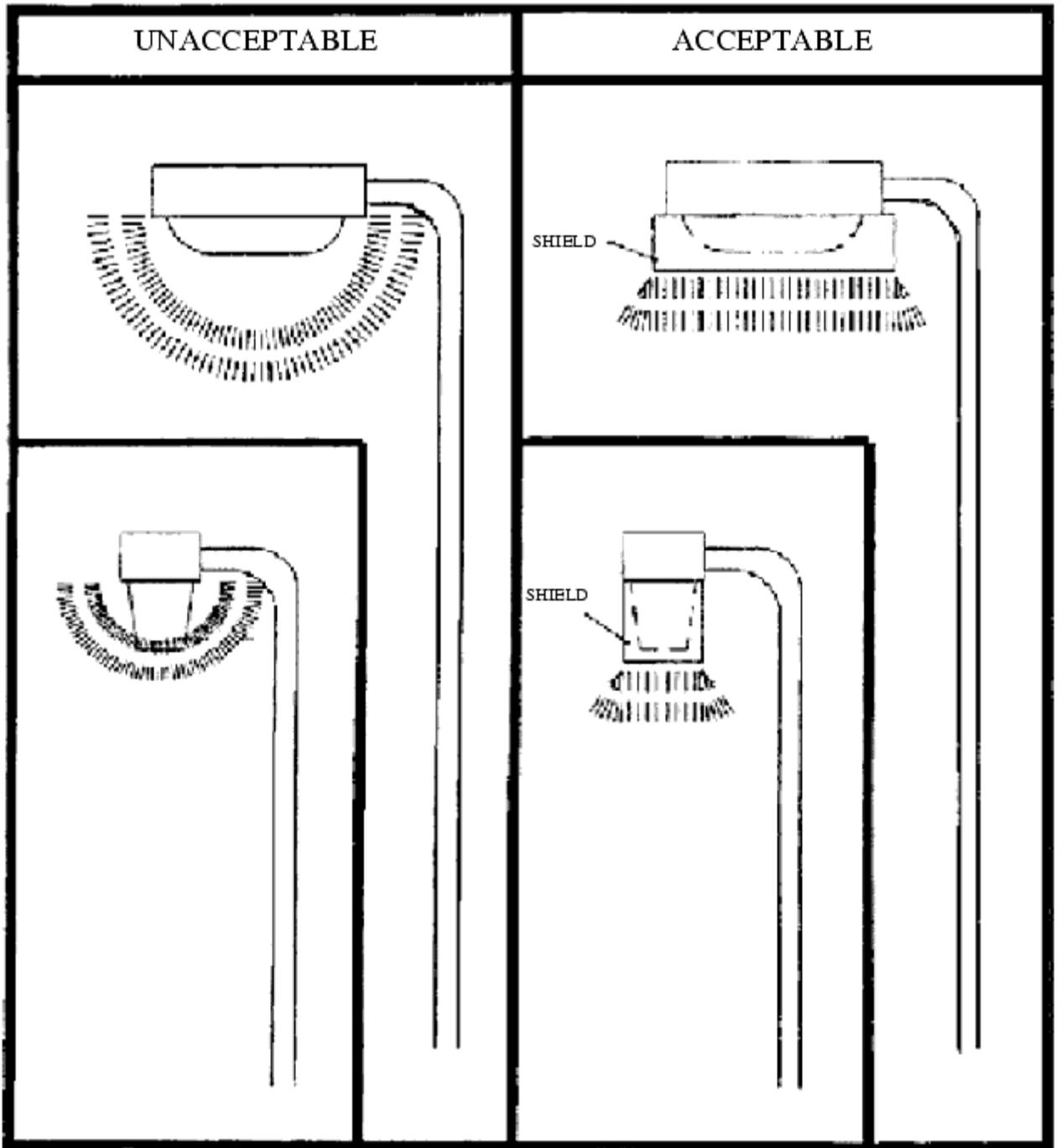


Figure 3: Outdoor Lighting Fixtures – Street and Lot Light Cut-Off at Property Line

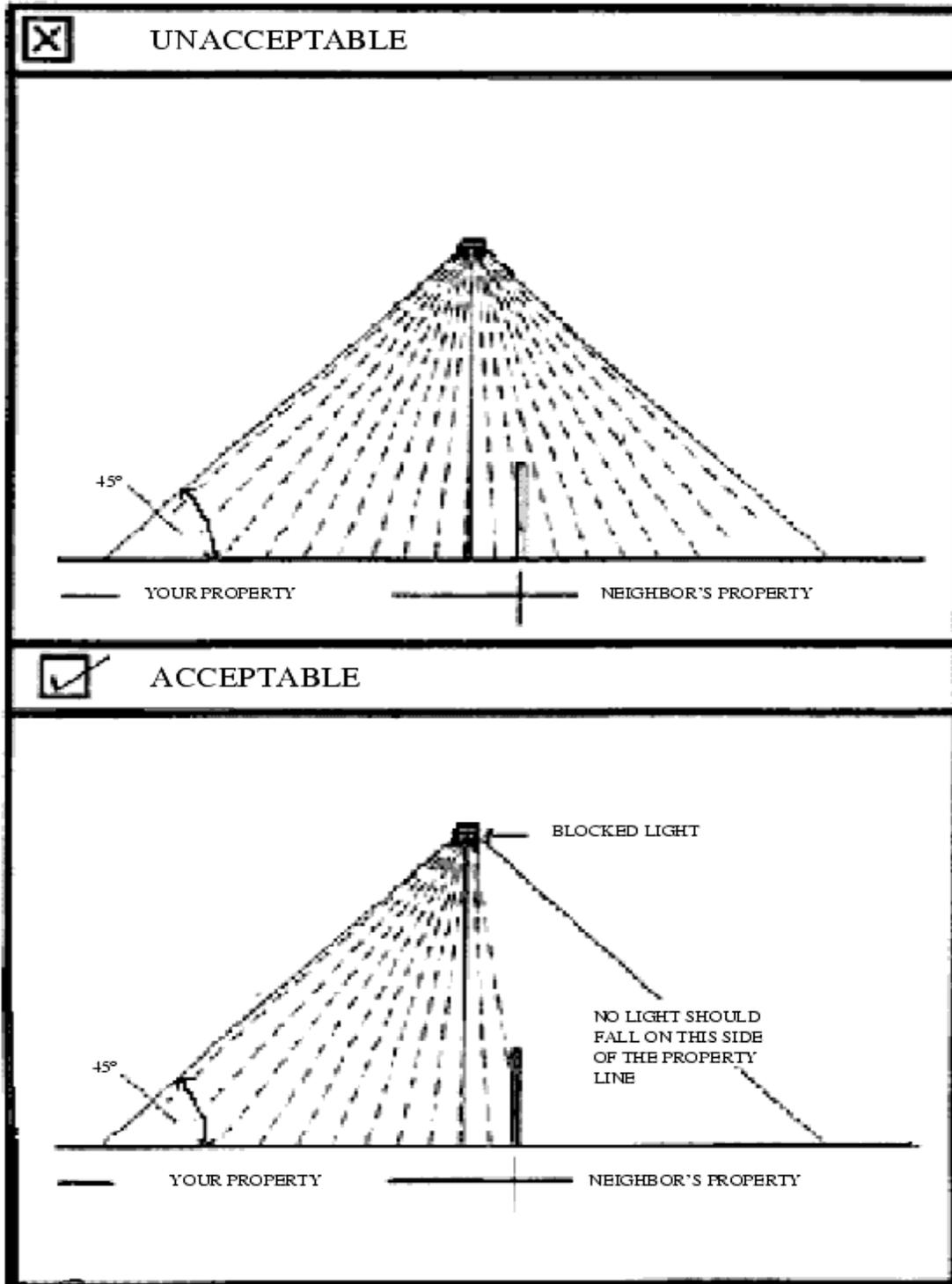


Figure 4: Accent Lighting

