



City of Yamhill
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Planning Commission Packet

June 17, 2024

6:30 pm

STAFF MEMORANDUM

TO: Yamhill Planning Commission
FROM: Walt Wendolowski, Contract City Planner
SUBJECT: Exterior Lighting Regulations
DATE: June 10, 2024

I. BACKGROUND

At the April 2024 meeting, the Commission discussed the issue of lighting regulations, directing staff to return with draft language with the intent of amending Title 10. The Commission reviewed this material at their May 20, 2024, meeting and identified several areas requiring refinement. This memorandum reviews proposed changes to the previous document.

II. DISCUSSION

As previously noted, the regulations will create a new chapter: Chapter 10.66 Dark Skies Lighting Standards. Exhibit "A" includes the revised material with the deleted language ~~stricken~~ and new language underlined. The following includes the original summation of the document and highlights the proposed revisions.

- (A) Purpose. The purpose statement is all inclusive and cover the concerns outlined by the Commission.

Revisions: The Chapter is not titled Exterior Lighting Standards.

- (B) Guiding Principles. This section "backs-up" the purpose statement by providing guidelines for establishing the standards in this Chapter. As noted, these are not criteria but provide a basis for why the City chooses to adopt the lighting standards. These guidelines are consistent with the Commission's discussion.

Revisions: Minor grammatical change – removed the term "sky glow."

- (C) Definitions. This is the definition section. It is suggested these definitions also be placed in Chapter 10.08 (Definitions). For the record, staff is continuing to look for figures or diagrams that may apply to the regulations.

Revisions: Revised effective date to January 1, 2025.

- (D) Applicability. Unless otherwise exempted, the standards in this Chapter are applicable to all new lighting. Existing nonconforming lighting must conform to the requirements within two-years from the effective date of September 1, 2024.

Revisions: No changes to this section.

(E) **General Requirements.** This section includes general requirements that apply to all lighting.

(1) **Fully Shielded.** All light fixtures shall be fully shielded, designed, and installed to prevent light trespass and glare.

(2) **Maximum Brightness.** This item limits the brightness for any one lamp. It is further organized based on the type of use and limits the total lumen requirements for an entire property. There is a logic to these requirements but may be a bit of overkill for residential uses. The Commission may wish to simply limit the maximum lumens of any lamp to 1,000 lumens.

Revisions: Brightness limited to 1,000 per lamp for residential uses and 1,500 lumens per lamp for non-residential uses. The property totals were eliminated.

(3) **Non-Residential Requirements.** These pertain to lighting canopies and eaves, and outdoor display/sales areas. This may address some of the lighting issues raised during the last year or so.

Revisions: Revised language in item (3)(b) for clarity. Subsequent items (except for Publicly Owned Lighting) were renumbered to place all non-residential general standards under one heading, and where applicable, numerical references revised.

(4) **Parking Lot Lighting.** Parking lot lighting shall be downcast, fully shielded, with strict limits on light trespass.

(5) **Lighting Curfew.** This section places a curfew on business lighting. Essentially, when the business closes, the lights go out. One hour is added to open or close a business and regulations do not apply to 24-hour operations or provisions for security lighting.

(6) **Security Lighting.** Security lighting must be shielded and turned off after five minutes.

(7) **Color.** The Correlated Color Temperature (CCT) shall not exceed 3,000 Kelvins.

(8) **Publicly Owned Lighting.** Publicly owned lighting essentially must conform to the requirements for businesses, including streetlights located in the public right-of-way.

(F) **Signage.** The illuminated surface area of an individual sign cannot exceed 200 square feet, and lighting must be downcast and fully shielded.

Revisions: External sign illumination limited to 50 square feet per sign. Note that Chapter 10.64 allows internal illumination which has less of an impact – these provisions apply to external lighting.

- (G) Prohibitions. The use of lasers, searchlights, upward pointing lights, blinking/flashing lights, and external neon lights are prohibited. Exemptions are provided for lighting the U.S. flag at night and emergency situations. Neon lighting is limited to trim.

Revisions: This prohibition was extended to lights located within a building and visible from a public street.

- (H) Exemptions. Existing lights are exempt but must eventually conform. This section includes provisions on string lights. The Commission may wish to consider whether the string light rules are necessary. Decorative lighting and lighting for special events is exempt, as are lighting the U.S. flag, athletic fields (with limits), temporary lighting, and lighting needed for emergencies.

Revisions: String lights are limited to 100 lumens per light. Note that most of these lights are associated with commercial uses and turned off after business hours.

If string lights are allowed, need to amend Chapter 10.64 (Signs) to eliminate prohibition on “festoon lighting,” a term for string lights.

Expanded item (8) Temporary Lighting to require turning-off the lights within one hour of the end of operations.

- (I) Existing Nonconforming Lighting. Existing outdoor light fixtures are exempt but must conform within two years of the effective date. Conformance also applies to replacement lights and these requirements may be placed as a condition of approval.
- (J) Lighting Plan Required. Finally, development, including building permits, will require a lighting plan. It is important for the Commission to consider how these regulations will be implemented and staff training will likely be needed.

Staff will proceed with the creation of final draft regulations based on the Commission’s discussion and guidance.

Exhibit A

10.66 ~~Dark Skies~~ Exterior Lighting Standards

- (A) Purpose. The purpose of these lighting standards are to conserve energy to the greatest extent possible; promoting traffic and pedestrian safety; minimizing glare, light trespass, obtrusive lighting, and light pollution, ~~and sky glow~~; and preserving the dark sky of the natural nighttime environment. Further, it is the intent of this code to control the obtrusive aspects of excessive and careless outdoor lighting while preserving, protecting, and enhancing the lawful nighttime use and enjoyment of all property; to preserve the quality of life for residents; and to aid property owners and occupants in bringing nonconforming lighting into compliance with this code.
- (B) Guiding Principles. The standards in this Chapter are based on the following guiding principles and are not mandatory approval criteria:
- (1) Useful. Only use light when needed. All light should have a clear purpose, with consideration about how light will impact neighbors, wildlife, and their habitats.
 - (2) Targeted. Target light fixtures so that light falls only where required. Shielding and careful aiming of the light beam to target its direction downward should be employed to prevent spill beyond immediate lighting needs.
 - (3) Low Level. Lights should be no brighter than necessary, using the lowest light level possible. Consider reflective surfaces that will amplify light and direct light into the sky or neighboring properties.
 - (4) Controlled. Provide lighting only when needed. Controls such as timers or motion detectors should be employed to ensure that light is available when needed, dimmed when possible, and turned off when not needed.
 - (5) Color. Prefer the use of warmer color lights where possible.
- (C) Definitions.
- ANSI**. American National Standards Institute.
- Bulb**. The component of the fixture that produces light.
- Canopy**. A covered structure open to the elements, with at least one side open for pedestrian and/or vehicular access.
- Correlated Color Temperature (CCT)**. A specification of the color appearance of the light emitted by a lamp, relating its color to the color of light from a reference source when heated to a particular temperature, measured in kelvins (K).
- Dark Skies Lighting Standards**. The provisions of this Chapter 10.66.
- Downcast**. Directing the light only down toward the ground and in which the fixture shield is parallel with the level ground (see Figure 1).
- Effective Date**. ~~September 1, 2024~~ January 1, 2025.
- Fixture**. The complete lighting assembly that houses the lamp or lamps together with everything required to control and distribute the light output. The terms "fixture" and "luminaire" are interchangeable.

Foot-candle. A measurement of light intensity. One foot-candle has sufficient light to saturate a surface having an area of one square foot with one lumen of light.

Fully shielded. A light fixture that allows no direct emission of light above a horizontal plane passing through the lowest light-emitting part of the light fixture (see Figure 1).

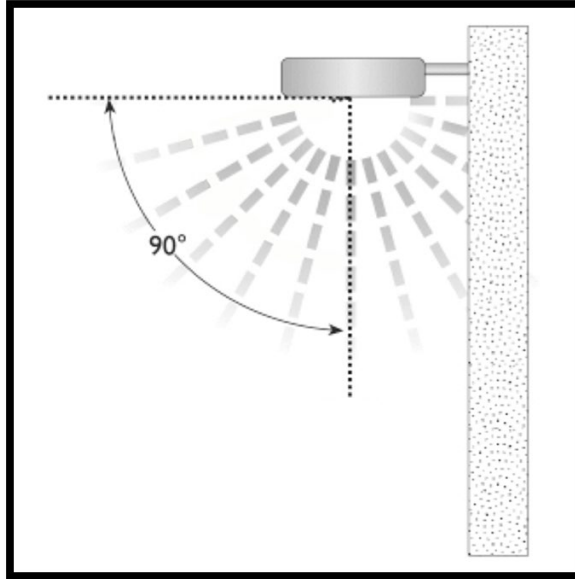


Figure 1.

Glare. Stray unshielded light in the field of view that is brighter than the level to which the eyes are adapted, and may result in: (a) nuisance or annoyance such as light shining into a window; (b) discomfort causing squinting of the eyes; (c) disabling vision by reducing the ability of the eyes to see into shadows; and (d) reduced visual acuity.

IES. Illuminating Engineering Society.

Illuminance. Describes the amount of light falling onto or illuminating a given surface.

Kelvin. A measurement unit (abbreviated “K”) used to describe the correlated color temperature of a light source. This specification gives a description of the “warmth” or “coolness” of a light source. typically ranges from 2,000K (warm) to 5,000K (cool).

Lamp. The specific component of a light fixture that emits light.

Laser Source. Any lamp employing light amplification by stimulating emission of radiation to produce highly monochromatic and coherent light.

Light Trespass. A condition in which light emitted directly by a light fixture shine beyond the property lines of the property containing the fixture. This means that a person standing on any other property sees the light-emitting source directly. Light trespass does not include indirect reflection or scattering of light from mounting hardware or any other surfaces.

Light Fixture. A device that includes the lamp, the ballast or driver, internal wiring, reflectors, lens, and any additional components required to deliver light. It does not include the pole or other mounting surface.

Low Lumen. Describes a light fixture whose total light output does not exceed 300 lumens.

Lumen: The International System of Units (SI) measure of luminous flux equal to the amount of light emitted per second into a unit solid angle of one steradian from a uniform source of one candela. the international unit of measurement is used to quantify the amount of light produced by a lamp or emitted from a fixture. For the purposes of this code, measurements in lumens shall refer to "initial lamp lumens" as rated by the manufacturer when the lamp is new, as listed on the packaging.

Luminance: The amount of light that passes through, emitted, or reflected from a particular area, and that falls within a given solid angle.

Motion Sensor. A device that detects physical movement within the sensor's local environment, activates a light, and uses a timer to turn off the light.

Net acre. The portion of any property that is developed, consisting of structures and/or hardscape. The net acreage of a property is the gross acreage of that parcel less any acres that are considered undeveloped.

Outdoor Lighting. Temporary or permanent lighting equipment installed outside the building envelope, whether attached to poles, building structures, the earth, or any other location. For this Chapter, indoor fixtures that are intended to light something outdoors are considered outdoor lighting.

Replacement. The installation of a new lighting fixture or luminaire in place of a pre-existing fixture. Replacement does not mean the changing of light bulbs or lamps with same or lower output. All replacements must comply or continue to comply with this chapter.

Seasonal Lighting. means temporary lighting installed and operated in connection with holidays, traditions, or local festivals.

Searchlight. An apparatus that combines an extremely bright source with a mirrored parabolic reflector to project a powerful beam of light of approximately parallel rays in a particular direction, constructed so that it can be swiveled, and often used to draw the attention of the public to a place or event.

String Lights. Electric lights on a wire, string, or cable and used as decoration or for outdoor lighting.

Street Lighting. Permanent outdoor lighting owned and maintained by a municipality or other public agency or private enterprise and specifically intended to illuminate streets and highways for automotive vehicles and may also incidentally light sidewalks and adjacent private property.

Temporary Lighting. Lighting intended for uses which by their nature are of limited duration, such as civic events or construction projects.

Uplighting. Any lighting directed in such a manner as to shine light above the horizontal plane.

- (D) Applicability. The lighting standards in this Chapter are applicable to all new lighting. Existing nonconforming lighting must conform to the requirements in subsection (I). These standards are in addition to applicable provisions of the Building Code and Electrical Code, and other provisions of Title 10 including Chapter 10.64 (Signs).

- (E) General Requirements. All non-exempt outdoor lighting fixtures shall meet the following requirements:
- (1) Fully Shielded. Unless subject to an exception, all light fixtures shall be fully shielded and otherwise designed and installed to prevent light trespass and glare. Uplighting is prohibited.
 - (2) Maximum Brightness. Except as noted in (d) below, the maximum lumens of any lamp shall not exceed 1,000 lumens. The following additional requirements apply based on type of use:
 - ~~(a) Single Family Residential. The entire property may not exceed 4,000 lumens in total or 6,000 lumens in total if the property contains an accessory dwelling.~~
 - ~~(b) Duplex and Triplex. The entire property shall not exceed 6,000 lumens in total for a duplex or 8,000 lumens for a triplex.~~
 - ~~(c) Multi-Family Residential. The entire property may not exceed 20,000 lumens per net acre.~~
 - ~~(d) Mixed Use and Non-Residential. No individual light fixture may exceed 1,500 lumens and the entire property may not exceed 25,000 lumens for the initial net acre plus 2,000 lumens for each additional net acre.~~
 - (a) Residential. The maximum lumens of any lamp shall not exceed 1,000 lumens.
 - (b) Mixed Use and Non-Residential. No individual light fixture may exceed 1,500 lumens.
 - (3) Non-Residential Requirements.
 - (a) Canopy and Eave Lighting. Lighting levels under eaves and canopies shall be adequate to facilitate the activities taking place in such locations.
 - (i) Lighting fixtures mounted on canopies and/or eaves shall be designed, constructed, or installed so the lens cover is recessed from the bottom surface (ceiling) of the canopy or shielded by the fixture or the edge of the canopy/eave.
 - (ii) Lights shall not be mounted on the top or sides (facias) of the canopy/eave and the sides (facias) of the canopy/eave shall not be illuminated.
 - ~~(b) Exterior Display and Sales Areas. Lighting levels on exterior display and/or sales areas shall be adequate to facilitate the activities taking place in these locations. The site plan shall designate areas considered display/sales areas and areas used as parking. Lighting levels on areas used for exterior display and/or sales areas shall be subject to the following:~~
 - ~~(i) Lighting fixtures shall be full cut-off fixtures.~~
 - ~~(ii) Fixtures shall be mounted no more than 20 feet above grade.~~
 - ~~(iii) Fixtures shall not create glare on adjacent streets, highways, or properties, and shall not create light trespass on nearby and abutting properties.~~

- (iv) Exterior display/sales areas shall be illuminated only when the establishment is open for business unless motion sensing devices are installed.
 - (4)(c) Parking Lot Lighting. Parking lot lighting shall be downcast, fully shielded and shall not exceed a threshold of allowable light trespass of 0.1 foot-candle at the property line.
 - (5)(d) Lighting Curfew. In all non-residential zones all exterior lighting, including signs, shall be extinguished either by 10 P.M.; or within one (1) hour of the close of normal business hours; or at the conclusion of usual operations, whichever occurs later. The use of such lighting may resume one (1) hour before sunrise (or opening of business for the property, whichever is earlier) of the following day. Businesses whose normal operating hours are twenty-four (24) hours per day are exempt from this provision.
 - (6)(e) Security Lighting
 - (i) All security lighting fixtures shall be fully shielded, comply with lighting standards, and be directed only onto the designated area, and not illuminate other areas.
 - (ii) Sensor activated security lights shall automatically turn off within five minutes after being activated if no additional motion, light, or infrared radiation is detected.
 - (iii) Residential security lights shall not be installed or attached to public utility or streetlight poles.
 - (7)(f) Color. The Correlated Color Temperature (CCT) shall not exceed 3,000 Kelvins.
 - (8)(4) Publicly Owned Lighting. Publicly owned lighting (including streetlights located in the public right-of-way) shall be fully shielded, complying with the color limits in subsection (E)(6) of this section. All outdoor light fixtures on property or buildings owned and operated by the City of Yamhill must be fully shielded, unless exempt under subsection (H) of this section, and adaptive controls and curfews must be employed.
- (F) Signage. ~~Notwithstanding provisions in Chapter 10.64 (Signs), the illuminated surface area of an individual sign cannot exceed 200 square feet, and lighting must be downcast and fully shielded.~~ Unless otherwise permitted in Chapter 10.64 (Signs), all lighting must be downcast and fully shielded. The external illuminated surface area of any one sign shall not exceed 50 square feet.
- (G) Prohibitions.
- (1) Laser Source Light. The use of laser source light or any similar high intensity light for outdoor advertising or entertainment.
 - (2) Searchlights and Strobe Lights. The use of searchlights or strobe lights for purposes other than public safety or emergencies.
 - (3) Upward-pointing light fixtures. All light fixtures must be downcast including illumination of signs, landscaping, flags (except the U.S. and state flags, if flown on the same flagpole), and other items.

- (4) Blinking and Flashing Lights. Any lighting that is flashing, blinking, rotating, chasing, or rapidly changing in color or intensity, except for traffic control fixtures, those used for public safety or emergencies, and seasonal holiday lights. This prohibition applies to lights located within a building and visible from an adjacent public street.
 - (5) Externally Affixed Neon Lighting. Externally affixed neon lighting, except as a trim element that surrounds windows, doors, or building edges when located on building façades that face street frontages. Such lighting must not include flashing, intermittent or rotating lights.
- (H) Exemptions. Notwithstanding anything herein to the contrary, the following forms of lighting are exempt from the standards in this Chapter.
- (1) Existing Nonconforming. Nonconforming lighting, subject to subsection (I) of this section.
 - (2) String Lights. These lights are subject to the following standards:
 - (a) All installations of string lighting shall employ lamps that do not flash or flicker and whose individual output does not exceed ~~fifty (50)~~ 100 lumens.
 - (b) String lights shall consist only of white light sources with a CCT not to exceed three thousand (3,000) Kelvin.
 - (c) String lights are exempt from the downcast and full shielding requirements of subsection (E) of this section.
 - (d) The above limitations do not apply to holiday lighting.
 - (3) Decorative Lighting. Holiday lighting shall only be allowed ~~for no more than the period between November 4~~ October 15 and ~~February~~ January 15, provided such lighting does not create glare on adjacent streets or adjacent or nearby properties.
 - (4) Special Events. Events that require the use of temporary outdoor light fixtures are exempt if the exemption does not exceed five (5) days for a particular property in any calendar year; however, permanent installations special event venues must conform to these standards.
 - (5) Flags. Lighting for U.S. flags properly displayed (consistent with the U.S. Flag Code).
 - (6) Government Authority. Lighting under the authority of the Oregon Department of Transportation or required by Federal or State laws or regulations.
 - (7) Athletic Fields. Athletic field lighting meeting the following conditions:
 - (a) Field lighting provided exclusively for illumination of the surface of play and viewing stands and not for any other applications.
 - (b) Illuminance levels must be adjustable based on the task (e.g., active play vs. field maintenance).
 - (c) Lights must be extinguished by 10:00 pm local time or one hour after the end of play, whichever is later.
 - (d) Timers must be installed to prevent lights being left on accidentally overnight.

- (8) Temporary Lighting. Lighting for theatrical, television, performance areas, and construction sites. Except for permitted security lighting, lighting for theatrical, television, performance areas, and construction sites shall be turned-off within one hour after the end of operations.
 - (9) Emergencies. Lighting only used under emergency conditions.
 - (10) Landscaping. Low voltage landscape lighting not exceeding 200 lumens per fixture and aimed so that glare is not visible from adjacent properties.
- (I) Existing Nonconforming Lighting. Outdoor light fixtures lawfully installed and operable prior to the Effective Date are exempt from all such requirements, except as follows:
- (1) Compliance. All lighting must conform to the requirements of this Chapter within two (2) years after the Effective Date.
 - (1) Replacement. Any replacement or modification to nonconforming outdoor lighting must comply with these standards.
 - (2) Condition of Approval. All nonconforming outdoor lighting must comply with the requirements in this Chapter as a condition of land use approval involving a Conditional Use or Development Review.
- (J) Lighting Plan Required. All applications involving the construction of new buildings, expansion of existing structures, or building permits must include lighting plans showing location, type, height, color temperature, lumen output and amount of all proposed and existing light fixtures, along with light fixture cut sheets from the manufacturer. The applicant must provide enough information to demonstrate compliance with these standards. The City may request any additional information necessary or appropriate to evaluate compliance with these standards.