

**ORDINANCE 2021-4**

**AN ORDINANCE OF THE CITY OF PRESIDIO, TEXAS, TO IMPROVE  
OUTDOOR LIGHTING IN THE CITY OF PRESIDIO, TEXAS.**

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PRESIDIO, TEXAS;

**I. Title, Purpose and Scope**

- (a) This ordinance shall be known and cited as the "Outdoor Lighting Ordinance."
- (b) The purpose of this ordinance is:
  - (1) To provide safer, more efficient and attractive outdoor lighting;
  - (2) To conserve energy;
  - (3) To make our community a better place to live and work and a more inviting place to visit;  
and
  - (4) To preserve the darkness and clarity of the night sky, mindful of the needs of McDonald Observatory.
- (c) This ordinance shall apply within the city, hereinafter referred to as city, and within the surrounding areas where the city asserts powers of extraterritorial jurisdiction.

**Sec. II. Definitions.**

- (a) The following definitions are hereby adopted for the purposes of this article:

**Adaptive Controls** mean mechanical or electronic devices, when used in the context of outdoor lighting systems, intended to actively regulate the switching, duration, and/or intensity of light emitted by the outdoor lighting system. Examples of adaptive controls include timers, dimmers and motion-sensing switches.

**Beam of a Light Fixture** means the spatial distribution of the emitted light.

**Correlated Color Temperature (CCT)** means a measure of the color properties of light emitted by lamps, being equal to the temperature, expressed in Kelvins (K). CCT values are typically provided on lighting manufacturer packaging or data sheets (see Exhibit 5).

**Decorative/Holiday Lighting** means low-intensity string lights, whose luminous output does not exceed fifty (50) lumens per linear foot, and fully-shielded floodlights, whose luminous output does not exceed one thousand (1,000) lumens and which are aimed and oriented in such a way as to not create light trespass onto another property nor into the night sky, operated only during prescribed periods of time during the calendar year.

**Electronic Message Display** means any illuminated sign of an informative or advertising nature, whether on- or off-premise, and operable at night, whose content is made visible to the viewer by means of luminous elements under active electronic control and therefore subject to alteration in order to vary the content of the message. Electronic displays may be either static or dynamic in terms of light color and intensity.

**Existing Light Fixtures** means those outdoor light fixtures already installed at the time this article is adopted.

**Fully Shielded** means an outdoor luminaire constructed so that in its installed position, all of the light emitted from the light fixture is projected below the horizontal plane passing through the lowest light-emitting part of the fixture (see Exhibit 4 for an illustration of a fully shielded luminaire and Exhibit 2 for examples of acceptable and unacceptable light fixtures).

**Glare** means visual discomfort or impairment caused by a bright source of light in a direction near one's line of sight.

**Greenhouse** means any building that is constructed of glass, plastic, or other transparent material in which plants are grown under climate-controlled conditions and includes hoop houses and other similar structures.

**Illuminance** means the intensity of light in a specified direction measured at a specific point.

**Light Source** means a light emitting portion of the luminaire and any diffusing elements and surfaces intended to reflect or refract light emitted from the lamp individually or collectively, for example, a lamp, bulb, lens, highly reflective surface, or frosted glass.

**Light Fixture** means the assembly that holds or contains a lamp or bulb.

**Light Pollution** means the sky glow caused by scattered light emitted upward from unshielded or poorly aimed light fixtures.

**Light Trespass** means light emitted from fixtures designed or installed in a manner that unreasonably causes light to fall on a property other than the one where the light is installed, in a motor vehicle drivers' eyes, or upwards toward the sky. If the light source is visible from another property or the public roadway, the light is creating light trespass. It is expected that the illumination produced by a light source may be viewed from other properties but the light source itself should not be visible from other properties (see Exhibit 6 for educational illustration about light trespass).

**Lumen** means the unit of measurement used to quantify the amount of light produced by a bulb or emitted from a light source. Lumen values are typically provided on lighting manufacturer packaging or data sheets. For the purposes of this article, unless otherwise stated, the lumen output values shall be the initial lumen output ratings as defined by the manufacturer.

**Lumens per Net Acre** means the total outdoor light output, as defined in this article, divided by the number of acres, or part of an acre with outdoor illumination. Undeveloped, non-illuminated portions of the property may not be included in the net acreage calculation.

**Luminaire** means a complete lighting assembly or lighting fixture, consisting of a lamp, housing, optic(s), and other structural elements, but not including any mounting pole or surface.

**Luminance** means the measure of light emitted by or from a surface.

**Nit** means the standard unit of measure of luminance used for internally illuminated signs, digital signs, or electronic message displays.

**Outdoor Lighting** means temporary or permanent lighting that is installed, located, or used in such a manner to cause light rays to shine outdoors.

Nonresidential fixtures that are installed indoors that cause light rays to shine outside are considered outdoor lighting for the intent of this article. (See Exhibit 3 for an illustration of this type of situation.)

Residential fixtures installed indoors generating more than 3,800 lumens (approximately equal to a 300-watt incandescent bulb) that cause light to shine outside are also considered outdoor lighting for the intent of this article.

All of the lighting that illuminates the translucent portion of a greenhouse or solarium, including roofing material, is considered outdoor lighting for the intent of this article.

**Sag-lens or drop-lens** means a clear or prismatic refracting lens that extends below the lowest opaque portion of a light fixture.

**Searchlight** means a light fixture having a narrow beam intended to be seen in the sky.

**Spotlight** means a light fixture having a narrow beam

**Temporary Lighting** means non-permanent lighting installations installed and operated for a duration not to exceed thirty (30) days.

**Total Outdoor Light Output** means the total amount of light, measured in lumens, from all outdoor light fixtures within the illuminated area of a property. The lumen value to be used in the calculation is the lumen value as defined in this article. To compute the total, add the lumen outputs attributed to each light fixture together.

**Wallpack** means a floodlight mounted on the wall of a building or other structure.

### **Sec. III. Existing Outdoor Light Fixtures.**

- (1) All spotlights and floodlight shall be aimed to point straight down.
- (2) For spotlights and floodlights mounted at or near ground level and used to light a building, billboard, or other structure, the axis of illumination shall be adjusted to minimize the amount of light escaping above, below, and to the sides of the illuminated object.
- (3) Wall packs shall be shielded or replaced to comply with the definition of "Fully Shielded".

(b) It shall be the responsibility of the city to publish this article in the newspaper of record and to disseminate the ordinance by other appropriate means; to identify those spotlights, floodlights and wall packs requiring adjustment; and to inform their owners of these provisions.

(1) Any required adjustments shall be completed within six (6) months from the date of the adoption of the lighting ordinance. Any owner who fails to comply with these provisions shall be issued a warning notice. Any owner who further fails to comply after 30 days from the issuance of such warning notice shall be subject to a fine of \$25.00 for each day of noncompliance. It is not the intent of this article to require an additional investment in order to comply with these provisions.

Existing light fixtures, other than spotlights, floodlights and wallpacks, already installed at the time this article is enacted must be brought into compliance with five (5) years from the date of this ordinance.

### **Sec. IV. New light fixtures installed after the adoption of this article, including replacements for existing fixtures.**

#### **Shielding:**

All Outdoor Lighting fixtures installed, replaced, or repaired after the effective date of this article shall be fully shielded except as otherwise specified in this article (see Exhibit 4 for an illustration of a fully shielded luminaire and Exhibit 2 for examples of acceptable and unacceptable light fixtures).

#### **Light Trespass:**

(1) Light trespass is prohibited. No luminaire, except governmental streetlights, shall create conditions of light trespass. Governmental street lights may only create light trespass below it within a distance of four (4) times the mounting height of the fixture.

(2) All outdoor lighting, except governmental streetlights, shall be shielded so that the light source shall not be visible from any other property.

(See Exhibit 6 for educational illustration about light trespass.)

**Color Temperature:**

The Correlated Color Temperature (CCT) of luminaries shall not exceed 2700 Kelvins (see Exhibit 5).

**Lumen Caps:**

The lumen per net acre values are an upper limit and not a design goal; design goals should be the lowest levels that meet the requirement of the task. Lumen per net acre values exclude governmental owned street lights used for illumination of public rights-of-way and outdoor recreation facilities.

(1) Nonresidential Property: Total outdoor light output installed on any nonresidential property shall not exceed 50,000 lumens per net acre in any contiguous illuminated area;

(2) Residential Property: Total outdoor light output installed on any residential property shall not exceed 25,000 lumens per net acre in any contiguous illuminated area.

**Adaptive Controls:**

All outdoor lighting is encouraged to be turned off when no one is present to use the light. Adaptive controls such as timers, motion sensors, and half night photocells can assist in this effort.

**Service Station Canopies:**

All luminaires mounted on or recessed into the lower surface of service station canopies shall be fully shielded and utilize only flat lenses or windows.

**Externally Illuminated Signs:**

Externally illuminated signs shall be lit only from the top of the sign, with fully shielded luminaires designed and installed to prevent light from spilling beyond the physical edges of the sign.

All illuminated signs shall be extinguished at 11:00 p.m. or within one (1) hour of the end of normal business hours, whichever occurs later. All sign illumination must comply with the correlated color temperature (CCT) requirements of this article.

**Internally Illuminated Signs:**

Outdoor internally illuminated signs (whether free standing or building mounted) shall be subject to all the following requirements:

(1) The sign must be constructed with an opaque background and translucent letters and symbols or with a colored background and lighter letters and symbols. (See Exhibit 7 for examples).

(2) The internally illuminated portion of the sign cannot be white, cream, off-white, light tan, yellow or any light color unless it is part of a registered logo that does not have an alternate version with dark tones. Light tone colors such as white, cream, off-white, light tan, yellow or any light color are permitted in the logo only, provided that such colors in the logo shall represent not more than 33% of the total sign area permitted.

(3) The internal illumination, between sunset and sunrise, is to be the lowest intensity needed to allow the sign to be visible for up to 1/2 mile from its installation and shall not exceed 50 nits.

(4) Size limit. The luminous surface area of an individual sign shall not exceed 50 square feet.

(5) Electronic message displays are discouraged and shall comply with outdoor lighting curfews stipulated in this article. Messages appearing on electronic displays shall not be displayed for less than (30) seconds and shall require no longer than 0.25 seconds to transition from one message to another. Moving and/or flashing text or images are prohibited.

#### Sports Lighting:

(1) Lighting at public and private outdoor sports facilities, including but not limited to playing fields, arenas, tracks, and swimming pools, will be shielded to the greatest practical extent to reduce glare, safety hazards, light trespass, and light pollution;

(2) Will provide levels of illuminance that are adjustable according to task, allowing for illuminating levels not to exceed nationally recognized Illuminating Engineering Society of North America (IESNA) standards according to the appropriate class of play, as well as for lower output during other times, such as when field maintenance is being actively performed; and

(3) Shall be provided exclusively for illumination of the surface of play and adjacent viewing stands, and not for any other application, such as lighting a parking lot; and

(4) Must be extinguished by 11:00 p.m. or within one (1) hour of the end of active play. The outdoor sports facility lighting shall be fitted with mechanical or electronic timers to prevent lights from being left on accidentally overnight.

(5) Outdoor sports facility lighting will be exempted from the other regulations of this article if its design and installation, as certified by a professional engineer (PE) licensed in the state of Texas, adheres to the version of the International Dark-Sky Association's Criteria for Community-Friendly Outdoor Sports Lighting operative at the time when the construction permit is submitted to the City for review.

#### Tower Lighting:

No lighting of towers and associated facilities is allowed, except as required by the Federal Aviation Administration or other federal or state agency. Towers requiring white strobe lights during the day will transition to the lowest allowed intensity pulsating red lights at night.

#### Outdoor building or landscaping illumination:

The unshielded outdoor illumination of any building or landscaping, or sign is prohibited. Spotlights less than or equal to 500 lumens may be used, provided such fixtures are shielded and aimed to prevent light from being emitted away from the target of illumination and are rated at 2700K CCT or less.

#### String or Rope Lighting:

String, rope, festoon, bistro, and similar lighting, provided that the emission of no individual lamp exceeds fifty (50) lumens, and no installation of such lighting exceeds, in the aggregate, six thousand (6,000) lumens. These lights must have a CCT at or below 2700 Kelvin.

Outdoor light fixtures with a maximum output of 200 lumens per fixture, regardless of the number of bulbs, may be left unshielded provided the source of the light is not visible from any other property and the fixture conforms to all other stipulations of this article. The output from these fixtures shall not exceed 10% of the lumens per net acre allowed by this article.

#### Flagpoles:

Property owners are encouraged to not illuminate flagpoles at night, but rather to hoist flags after dawn and lower flags before sunset.

(1) Flagpoles with a height greater than 20 feet above ground level shall be illuminated only from above.

(2) Flagpoles with a height equal to or less than twenty (20) feet above ground level may be illuminated from below. If ground-level illumination is used, flagpoles may be illuminated with spotlight type luminaires, utilizing shields to reduce glare, whose maximum combined lumen output is 75 lumens per linear foot of pole height, measured from the level of the luminaire above grade to the top of the flagpole. Luminaires are to be mounted so that their lenses are perpendicular to the flagpole and the beam of light output points directly toward the flag(s).

#### Greenhouse Lighting:

All of the lighting that illuminates the translucent portion of a greenhouse or solarium must be shielded so that no direct light shines outside of the structure (see Exhibit 3).

#### Prohibitions:

The use of the follow types of outdoor lighting are prohibited, except as specifically exempted here or elsewhere in this article.

(1) Sag-lens or drop lens fixtures.

(2) Any luminaire that uses mercury vapor lamps.

(3) Searchlights, skybeams, and similar lighting, except as required by response personnel during emergency conditions.

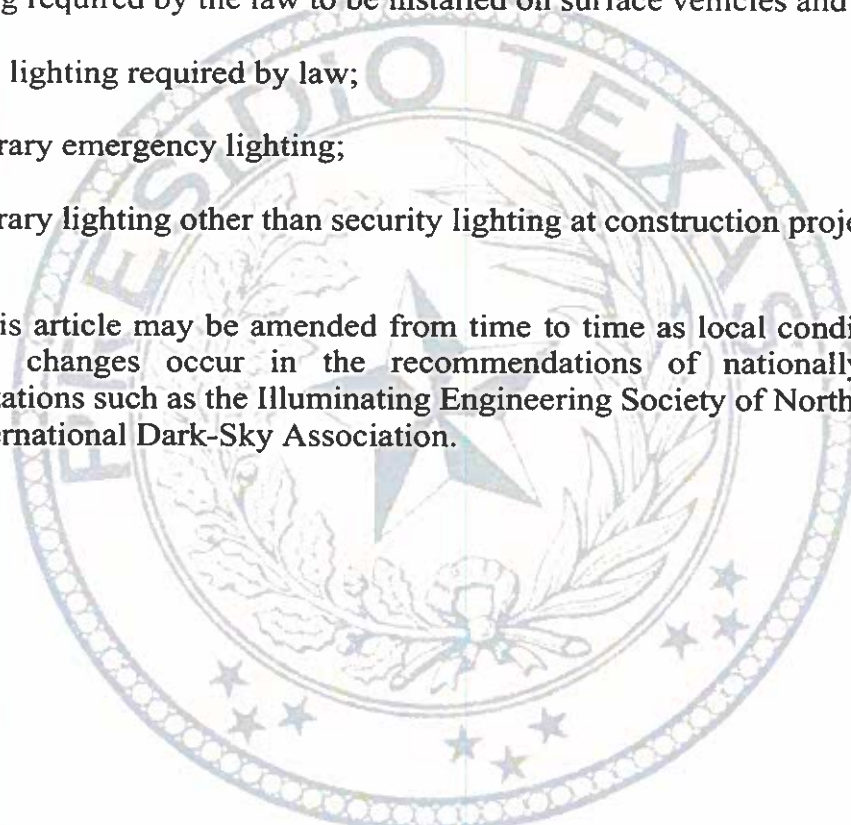
(4) Any light that dynamically varies its output by intermittently fading, flashing, blinking, or rotating. This includes strobe lighting.

**Sec. VII. Exemptions, amendments, and variances**

(a) This article shall not apply to the following:

- (1) Decorative holiday lighting from November 15 through the next January 15,
- (2) Lighting required by the law to be installed on surface vehicles and aircraft;
- (3) Airport lighting required by law;
- (4) Temporary emergency lighting;
- (5) Temporary lighting other than security lighting at construction projects; and

(b) This article may be amended from time to time as local conditions change, and as changes occur in the recommendations of nationally recognized organizations such as the Illuminating Engineering Society of North America and the International Dark-Sky Association.





(c) Nothing in this article shall be construed as limiting the right of any person or entity to pursue legal action against any other person or entity under any applicable law, including the doctrine of light trespass.

(d) The planning and zoning board of the city shall have the power to grant variances in the application of the provisions of this article after review and recommendation by the outdoor lighting advisory group.

**Sec. IX. Notification.**

(a) All building permit applicants shall be notified of the City of Presidio Lighting Ordinance.

**SECOND READING, PASSED, AND APPROVED ON THIS 7<sup>th</sup> DAY OF JUNE, 2021.**

**FIRST READING ON APRIL 14<sup>th</sup>, 2021  
SECOND READING ON JUNE 7<sup>th</sup>, 2021**

**CITY OF PRESIDIO**



**John Ferguson  
Mayor, City of Presidio**

**ATTEST:**



**Brenda Lee Acuña  
City Secretary  
City of Presidio**

