

City of Blanco
Outdoor Lighting Ordinance

Adopted October 9, 2018

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City of Blanco Ordinance No: 2019-005
Unified Development Code
Adopted July 9, 2019

(Note: this extract is not an official document)

Section 5.12 Outdoor Lighting Ordinance.

- (1) This Section shall be known as the “Outdoor Lighting Ordinance.”
- (2) Purpose: A dark night sky is a natural asset and an important element of Blanco's appeal as a pleasant, rural community in which to live, do business, and visit. The ability to view celestial objects and the ability to live free from objectionable forms of outdoor lighting have profound social, ecological, aesthetic, economic, and health benefits for the citizens of Blanco and the surrounding area. It is the City’s policy to protect and preserve the night sky for the benefit of its current and future citizens, businesses, organizations, and visitors. The outdoor lighting regulations established in this Ordinance have been adopted in order to:
 - (a) Help preserve the rural character within the City’s jurisdiction by minimizing the growth of urban sky glow and encouraging the abatement thereof;
 - (b) Ensure outdoor lighting within the City’s jurisdiction does not unduly interfere with the reasonable use and enjoyment of private and public property by minimizing annoying light trespass as defined herein;
 - (c) Encourage the use of outdoor lighting which will preserve the natural environment, minimize glare, increase nighttime safety and security, and conserve energy.
- (3) Background: Blanco’s first Outdoor Lighting Ordinance came into effect on February 14, 2006. All outdoor lighting existing in the City Limits at that time was “grandfathered” into perpetuity, i.e., was allowed to remain in place until it was modified or replaced in which case it would have to conform to the Ordinance as enacted. All outdoor lighting fixtures installed on or after February 14, 2006, with minimal exceptions, had to comply with the Outdoor Lighting Ordinance. In the interim period few, if any, “grandfathered” fixtures were ever voluntarily brought into compliance.
- (4) Jurisdiction and Scope: This Section applies to outdoor lighting on all properties within the City Limits and, in accordance with Texas Local Government Code 216.902, to the lighting of all signage within the Extraterritorial Jurisdiction (ETJ) of the City of Blanco. Nothing herein shall be construed as preventing or limiting the City from applying this article to the ETJ through agreements with property owners, or as a term affixed to a conditional approval (such as a variance).
- (5) Definitions: Words and phrases used in this Article shall have the meanings as set forth

in this section. Words and phrases not defined herein shall be attributed their common, ordinary meaning unless the context clearly requires otherwise. The word “shall” denotes a mandatory statement. Headings and captions are for reference purposes only.

Accent Lighting: Lighting used to emphasize or draw attention to a special object or building.

Amortization: The process of allocating the cost of an asset over a period of time.

Barn Light-style Fixture: Fixtures, usually with a mercury vapor lamp, that have a round, plastic, translucent lens that refracts and scatters the light, often allowing the source of the light to be seen off premises to constitute light trespass and light emissions to escape above the horizontal plane to pollute the night sky.

B-U-G Rating: A luminaire classification system with ratings for backlight (B), uplight (U), and glare (G)

Bulb: A light emitting device containing a light source.

Canopy: A covered, unconditioned structure with at least one side open for vehicular and/or pedestrian access. (An unconditioned structure is one that may be open to the elements and has no heat or air conditioning.)

Correlated Color Temperature (CCT): A measure in degrees Kelvin (°K) of light’s warmth or coolness. Lamps with a CCT of less than 3,000 degrees Kelvin are yellowish or pinkish and considered “warm.” Lamps with a CCT greater than 4,000 degrees Kelvin are bluish–white and considered “cool.” The American Medical Association has recommended that outdoor lighting be 3,000 degrees Kelvin or less, preferably 2,700 degrees or less. The U.S. Federal Trade Commission (FTC) requires that all new lighting with a medium screw base (typical of household lighting) sold in the U.S. must indicate on the packaging the Kelvin temperature of the light produced by the lighting element. The U.S. Department of Energy (DOE) encourages voluntary labeling for other types of lighting. In the absence of labeling, CCT information may be obtained from the manufacturer.

Diffuser: A translucent enclosure which surrounds or covers a light source and through which can be seen no semblance of the image of the light source.

Drop Lens or Sag Lens Fixture: A fixture, typically seen on older streetlights or parking lot lights, where the lens extends below the lowest opaque part of the fixture such that light is scattered above the horizontal plane.

Electronic Pricing Sign: A display, typically seen at service stations, consisting of LEDs or other light emitters that indicate the current price of a product.

Extraterritorial Jurisdiction (ETJ): The unincorporated area that is contiguous to the corporate boundaries of the municipality and, in the case of a municipality with fewer than 5,000 inhabitants, is located within one-half mile of those boundaries.

Festoon or Bistro-type String Lights: Low-output lamps consisting of small individual bulbs, often globular in shape, on a string; may have bulbs of clear or colored glass; the filament may or may not be visible.

Fixture: An outdoor lighting assembly containing one or more lamps and including any lenses, reflectors, and/or shields designed to direct the light onto a surface or at a point in space. (see also “Luminaire”)

Fully-Shielded Fixtures: Fixtures, as installed, that are designed or shielded in such a manner that all light rays emitted by the fixture, either directly from the lamps or indirectly from the fixture, are projected below a horizontal plane running through the lowest point on the fixture where the light is emitted.

Floodlight: A fixture and/or illuminating element designed to emit light over a broad area.

Glare: Light, entering the eye directly from the source of an illumination or indirectly from reflective surfaces, that causes a person of average sensibilities visual discomfort or reduced visibility. Excessive glare can be a negative safety factor, particularly for older people and the visually impaired.

Gooseneck Fixture: A lighting fixture of many styles, typically with a long, curved metal tube connecting the illuminating element with the building or other structure and supporting a deep enclosure in which the illuminating element can be mounted such that no part of the element extends beyond the bottom of the enclosure. Gooseneck fixtures are somewhat nostalgic and reminiscent of times past. The City of Blanco encourages the use of gooseneck outdoor lighting fixtures as they are both night sky-friendly and support the City’s efforts to retain its rural, small town ambiance.

Grandfathering Provision: A provision of the ordinance that exempts from the ordinance lighting fixtures in place and operating on the date of adoption of the ordinance.

Grandfathering with Sunset Provision: A provision of the ordinance that establishes a time limit for grandfathering exemptions after which the fixtures must be in compliance with the ordinance.

Incandescent Bulb: A traditional source of illumination consisting of a transparent or translucent glass housing containing a wire filament that emits light when heated by electricity.

Initial Lumens: The manufacturer-specified number of lumens of light generated by a lamp at the beginning of its service lifetime, not accounting for losses associated with lamp age.

Lamp: A light-emitting device or structure containing a light source. This includes but is not limited to a bulb, a tube, or an LED array.

LED: Light Emitting Diode.

Lighting: Any source of light that does not include natural light emitted from celestial objects, fire, or other natural forms of illumination. The term includes any type of lighting, fixed or movable, designed or used for outdoor illumination of

buildings or homes, including lighting for billboards, streetlights, canopies, gasoline station islands, searchlights used for advertising purposes, externally or internally illuminated on- or off-premises advertising signs, and area-type lighting. The term includes luminous elements or lighting attached to structures, poles, the earth, or any other location.

Light Pollution: Any adverse effect of artificial light including, but not limited to sky glow, light trespass, and glare. Light pollution washes out starlight in the night sky, disrupts ecosystems, wastes energy, compromises citizen safety and security, and is documented to have adverse effects on human health.

Light String: Any number of bulbs, LEDs, or other light emitter connected with wire in a linear or two-dimensional array, not contained within the structure of a fixture, used for either illumination or decoration, and supported in any manner. (see also “Rope Lights”)

Light Trespass: Light that falls beyond the property that it is intended to illuminate. If the source of the illumination, usually a light bulb, is visible beyond the property boundary, light trespass has occurred. The City of Blanco considers light trespass to be a nuisance in the legal sense of the term.

Logo: A representation or symbol adopted by a business, organization, or individual intended to promote instant public recognition.

Low Voltage Lighting: Landscape lighting that typically use luminaries having a rated initial lumen output of 540 lumens or less.

Lumen: The unit of measurement (often abbreviated “lm”) used to quantify the amount of light produced by a bulb or emitted from a fixture (as distinct from “watt,” a measure of power consumption). A “lumen” is to light as a “gallon” is to gasoline, i.e., it is a measure of quantity. An incandescent bulb typically produces 10-17 lumens per watt; a Compact Florescent Light (CFL) bulb typically produces 40-70 lumens per watt. Light Emitting Diode (LED) fixtures typically produce far more lumens per watt. The U.S. Federal Trade Commission (FTC) requires that all new lighting with a medium screw base (typical of household lighting) sold in the U.S. must indicate on the packaging the number of lumens produced by the lighting element. The U.S. Department of Energy (DOE) encourages voluntary labeling for other types of lighting. In the absence of labeling, lumen information may be obtained from the manufacturer.

Lumens per Net Acre: The total number of initial lumens produced by all lamps utilized in outdoor lighting on a property divided by the number of net acres or parts of a net acre with outdoor illumination on the property.

Luminaire: The complete lighting unit (fixture), consisting of a lamp, or lamp and ballast(s) (when applicable), together with the parts designed to distribute the light (reflector, lens, diffuser), to position and protect the lamps, and to connect the lamps to the power supply.

Motion Sensor: An electronic device to control outdoor lighting such that lights are operating only when a moving object is or recently has been present.

Net Acre: A piece of land measured in acres exclusive of rights-of-way, waterways, drainage areas, or other non-developable areas.

Nonconforming Lighting: Outdoor lighting fixtures that do not conform to the requirements of this Article after the date of its adoption.

Nuisance: Any condition that substantially interferes with the use and enjoyment of property by causing unreasonable discomfort or annoyance to persons of ordinary sensibilities.

Outdoor Lighting: Temporary or permanent lighting that is installed, located, or used in such a manner as to cause light rays to shine outdoors. Except as exempted herein, non-residential lighting fixtures that are installed indoors that cause light to shine outdoors are considered outdoor lighting for the purposes of this article.

Rebuttable Presumption: A presumption that is taken to be true unless someone comes forward to contest it and prove otherwise.

Refractive Lens Cover: A plastic or glass cover on an outdoor lighting fixture that scatters light away from the fixture.

Reverse Channel Signage: Signage consisting of opaque letters and/or symbols typically mounted several inches in front of an opaque surface such as a wall and illuminated by LEDs, bulbs or other light emitters embedded within the letters or symbols themselves such that the letters and symbols stand out in front of the reflected light.

Rope Lights: Any number of bulbs, LEDs, or other light emitters connected with wire in a linear or two-dimensional array, wholly enclosed in plastic covering and used for either illumination or decoration. (see also “Light Strings”)

Sconce: A type of light fixture, usually decorative, that is attached to a wall in such a way that it uses only the wall for support,

Sky Glow: The brightening of the nighttime sky that results from scattering and reflection of artificial light by moisture and dust particles in the atmosphere. Sky glow is caused by light escaping above the horizontal plane to the detriment of the night sky.

Specular Reflector: A reflector that has a mirror-like surface that reflects an image (no matter how imperfect or distorted) of a light source.

Spotlight: A fixture designed to light only a small, well-defined area.

Uplighting: Lighting that is directed in such a manner as to project light rays above the horizontal plane running through the lowest point of the fixture where light is emitted.

Wall Pack Fixtures: Fixtures of a variety of styles that commonly are attached to the exterior wall of a building or other structure and flood an area with light.

(6) Applicability:

(a) Applicability within the City Limits. In accordance with the authority granted the City under Texas Local Government Code Sections 51.012, 217.002, and 217.022, all outdoor lighting fixtures installed on private and public property within the City Limits shall be required to comply with this Article with exceptions as noted herein.

i. “Grandfathering with Sunset” provision within the City Limits.

1. Grandfathering for Non-Residential Outdoor Lighting. All existing outdoor lighting that is legally installed and operating on non-residential property but is not in conformance with this Article on the date of its adoption shall be brought into conformance with this Article within twenty-four (24) months from the date of its adoption except as follows.

a. Amortization Extension. Owners of non-residential outdoor lighting fixtures to include internally and externally illuminated outdoor signage, upon request, shall have up to ten years from the date the fixture or sign was placed into service to come into compliance provided the fixture was compliant with existing City ordinances when it was installed and the date the fixture or sign was put into service can be documented via receipts, date stamped photographs, etc. or, at the prerogative of the City Code Officer, corroborative written statements, in which case the maximum effective date for non-compliance shall be the date the fixture or sign was put into service plus ten (10) years.

b. Amortization extension shall be on a per fixture or per sign basis with the following requirements:

i) The fixture or sign must be documented to cost at least \$250 when originally purchased, and

ii) The fixture cannot be brought into compliance by changing the bulb or lighting element or installing shielding

c. However, notwithstanding any amortization extension, whenever bulbs or other lighting elements require replacement in the fixture or sign, during the amortization period the replacement bulbs or lighting elements shall comply with all other provisions of this ordinance, e.g., replacement bulbs or lighting elements shall have a Correlated Color Temperature not to exceed 3000 degrees Kelvin.

d. Blanco ISD. Outdoor lighting installed and operating on tracks, playing fields, and tennis courts owned or operated by the Blanco Independent School District (BISD) as of the date of adoption of this Article are exempt from its provisions.

e. Development Applications. All existing outdoor lighting

located on a subject property that is part of an application for a special use permit, subdivision approval, or a building permit for improvements totaling at least fifty percent (50%) of the total value of the current structure shall be brought into compliance with this article before final inspection, issuance of a certificate of occupancy, or final plat recordation, whichever is applicable. All existing outdoor lighting located on a subject property that is part of an application for other permits issued by the city, such as a site development permit, a sign permit for an externally or internally-illuminated outdoor sign, the initial food establishment permit, and an on-site sewage facility permit, shall be brought into compliance with this article within 90 days from the date such permit is issued. A property owner may apply for a variance for nonconforming lighting on the subject property.

2. Grandfathering for Residential Outdoor Lighting. All existing outdoor lighting that was legally installed and operating on residential property but is not in compliance with this Article on the date of its adoption shall be brought into conformance with this Article within twenty-four (24) months from the date of its adoption.

a. Amortization Extension. Property owners may request an amortization extension of up to ten (10) years from the date a fixture was installed provided that the fixture was compliant with existing City ordinances at the time it was installed, and that date of installation can be substantiated via documents, date stamped photographs, etc. or, at the prerogative of the City Code Officer, corroborative written statements in which case the maximum effective date for non-compliance shall be the date the fixture was installed plus ten (10) year.

b. Amortization extension shall be on a per fixture basis with the following requirements:

i) The fixture must be documented to cost at least \$100 when originally purchased, and

ii) The fixture cannot be brought into compliance by changing the bulb or lighting element or installing shielding.

c. However, notwithstanding any amortization extension, whenever bulbs or other lighting elements require replacement in the fixture or sign, the replacement bulbs or lighting elements shall comply with all other provisions of this ordinance, e.g., replacement bulbs or lighting elements shall have a Correlated Color Temperature not to exceed 3000 degrees Kelvin.

ii. Change of Ownership. Notwithstanding any other provision of this Article, all existing outdoor lighting on non-residential property in the City Limits that is legally installed and operating but is not in conformance with this Article on the date of its adoption and subsequently has a change of legal ownership as

recorded by Blanco County taxing authorities shall be brought into conformance with this Article within twelve (12) months from the date of the change of ownership.

iii. Resumption of Use after Abandonment. If a property within the City Limits with nonconforming outdoor lighting is abandoned or otherwise taken out of service for a period of six (6) months or more, a rebuttable presumption is made that the owner of the property intends to abandon it. All lighting on said property shall be brought into compliance with this Article before any further use of the property may occur.

iv. Destruction. If more than fifty percent (50%) of the total appraised value of a structure (as determined by the Blanco County Appraisal District) is destroyed by fire, wind storm, flood, or other calamity or intentionally destroyed by the owner of the property, any remaining nonconforming outdoor lighting fixtures on or associated with the structure shall be removed if the structure is to be rebuilt and replaced by new fixtures that are in conformity with the provisions of this Article.

v. Fixture Updates. The replacement, repair, renovation, or relocation of an existing lighting fixture or modification of a nonconforming fixture on residential and non-residential properties in the City Limits after the date of adoption of this Article shall be subject to the provisions of this Article. Merely changing a light bulb or other light emitting device inside the fixture shall not be considered a fixture update.

vi. Residential Addition or Remodel. Nothing herein shall be construed to terminate a residential property's permitted nonconforming status as a result of an addition or remodel. Fixtures on such additions or remodels, however, shall be in compliance with the provisions of this Article.

viii. Building and Signage Permits. In order to ensure compliance with this Section, a description of all outdoor lighting fixtures and their planned locations, to include specification sheets and an attestation by the builder and/or owner that all outdoor lighting fixtures on the property will be in compliance with the requirements of this Section, shall be included with the applications for all building and signage permits for projects in the City Limits. Specification sheets for outdoor lighting fixtures for both residential and non-residential properties shall include, at a minimum: the manufacturer, model number, and number of lumens produced by each fixture, and the Kelvin temperature of the light produced. Additionally, notation shall be included of the total number of lumens produced by all outdoor lighting fixtures on the property, the size of the property, and the calculated number of lumens per net acre.

(b) Applicability within the City's Extraterritorial Jurisdiction (ETJ).

i. Voluntary compliance with the requirements of this Article is encouraged for improvements and developments within the City's ETJ in order to preclude light trespass from the ETJ into the City Limits, to prevent light pollution and skyglow above the City, and to preserve the rural and historic character of the City and its environs.

ii. Nothing herein shall be construed as preventing or limiting the City from applying this article to the ETJ through agreements with property owners, or as a term affixed to a conditional approval (such as a variance).

iii. Signage in the ETJ. In accordance with the authority granted the City under Texas Local Government Code Sections 216.902 (a), Regulation of Outdoor Signs in Municipality's Extraterritorial Jurisdiction, compliance with the requirements of this Article in the ETJ is mandatory in regard to lighting of signage.

iv. "Grandfathering with Sunset" provisions for Non-Residential Outdoor Lighting of Signage in the ETJ. All existing outdoor lighting of signage that is legally installed and operating on non-residential property in the ETJ but is not in compliance with this Article on the date of its adoption shall be brought into conformance with this Article within twenty-four (24) months from the date of its adoption except as follows.

1. Amortization Extension for Signage. Owners of illuminated outdoor signage in the ETJ shall have up to ten (10) years from the date the illumination was installed to come into compliance provided:

a. The illumination was in compliance with existing City ordinances on the date it was installed.

b. The sign cannot be brought into compliance by changing the bulbs or lighting elements or installing shielding, and

c. The date the sign was put into service can be documented via receipts, time stamped photographs, etc. or, at the prerogative of the City Code Officer, corroborative written statements, in which case the maximum effective date for non-compliance shall be the date the sign was put into service plus ten (10) years.

2. However, notwithstanding any amortization extension, whenever bulbs or other lighting elements require replacement in the sign, the replacement bulbs or lighting elements shall comply with all other provisions of this ordinance, e.g., replacement bulbs or lighting elements shall have a Correlated Color Temperature not to exceed 3000 degrees Kelvin.

v. Signage Permits in the ETJ. In order to ensure compliance with this Article, a description of all external and internal lighting of signage in the ETJ, to include specification sheets and an attestation by the builder and/or owner that lighting of the sign will be in compliance with the requirements of this Article, shall be included with the applications for all signage permits in the ETJ. Specification sheets for signage lighting shall include, at a minimum: the manufacturer, model number, and number of lumens produced by each fixture, and the Kelvin temperature of the light produced.

(c) Annexation. By the authority granted the City under Texas Local Government Code Section 43.002 (c) (4), all outdoor lighting that is not in conformance with this Article on property in the City's ETJ that is subsequently brought into the City Limits

after the effective date of this ordinance shall be brought into conformance with this Article within two (2) years of the effective date of the annexation. Nothing in this subsection may be construed as to allow light trespass or any other form of nuisance from outdoor lighting. A new purchaser of property may request a two (2)-year extension to come into compliance if the property is purchased within two (2) years of the enactment of this Article. This subsection shall apply to all non-residential and residential properties annexed into the city limits per the terms of this subsection.

(d) Extension of the ETJ. If, in accordance with the Texas Local Government Code Section 44.022(a), the City expands its ETJ as the result of annexation or, in accordance with the Texas Local Government Code Section 44.022(b), the ETJ is expanded through the voluntary request of property owners in the ETJ after the effective date of this Article, all applicable provisions of this Article shall apply to the new area of the expanded ETJ upon the effective date of the expansion of the ETJ.

(7) General Standards

(a) Lighting Design. Outdoor lighting shall be designed to provide the minimum lighting necessary to ensure adequate safety, visibility, and comfort, and not create or cause objectionable glare or light trespass as viewed from other properties and/or from public rights-of-way.

(b) Shielding Requirement. Except as otherwise specified in this Article, outdoor lighting, regardless of lumen output, shall be fully shielded and/or aimed downward so as to minimize glare and prevent light pollution. All outdoor lighting fixtures shall be full cut-off fixtures. No outdoor lighting fixture shall permit light to shine above the horizontal plane to pollute the night sky or off the property on which it is installed.

(c) Light Trespass. Except as otherwise specified in this Article, light trespass beyond property boundaries shall be deemed a nuisance and in non-compliance with the requirements of this Article.

i. General. The source of the light (the bulb, light emitting diode, or any other light emitting device), a refractive or non-refractive lens cover, or reflector shall not be visible in a direct line of sight from any other property or public right of way.

ii. Porchlights and Sconces. Residential porchlights and wall sconces may be unshielded and light from such fixture may be visible from beyond the property line provided the fixture has a medium to dark toned, semi-opaque diffuser installed to reduce glare or the fixture has a flat-bottomed LED light emitter or other flat-bottomed light source that prevents light from shining off the property or upward into the night sky. In no case shall the bulb, other luminous element, reflective surface, or lens cover be visible from off the property.

(d). Color Temperature. All outdoor lighting, regardless of type, except as exempted herein, shall have a Correlated Color Temperature (CCT) not to exceed 3000 degrees Kelvin as recommended by the American Medical Association in order to minimize the adverse effects on human health of bluish-white light at higher CCTs. A CCT of 2700 degrees Kelvin or lower (yellowish, warm light) is preferred for all lighting.

(e) Lumen Caps.

i. Non-residential Property. To prevent over-lighting, total outdoor light output on any non-residential property shall not exceed 100,000 initial lumens per net acre in any contiguous illuminated area. This lumen per net acre limitation is an upper limit, not a design goal. Illumination design should be at the lowest levels that meet the reasonable requirements of the task. Governmental-owned streetlights used for illumination of public rights-of-way and lights that are installed indoors but shine outside the building are exempted from the lumen cap requirement.

ii. Residential Property. Total outdoor light output (excluding governmental-owned streetlights used for illumination of public rights-of-way) on any residential property shall not exceed 25,000 lumens per net acre in any contiguous illuminated area.

iii. Substantiation of Lumens per Net Acre Calculations. The owner of the property or his or her designated agent shall be responsible for calculating the total number of lumens per net acre on the property and for informing the City of the methodology used in the calculations. The City shall determine if the calculations are reasonable. In the event of disagreement, the owner of the property may hire a professional lighting consultant to substantiate the actual number of lumens per net acre. The City must agree that the individual or firm hired is, indeed, capable of making a professional evaluation.

(f) Outdoor Recreational Facilities. Lighting for playing fields, playing courts, swimming pools, skateboard parks, rodeo arenas, and similar recreational facilities, whether public or private, are exempt from the lumens per net acre limit. However, all such facilities whether public or private shall comply with the requirements of State of Texas Health and Safety Code in regard to design and shielding requirements for outdoor lighting on any facility constructed in whole or in part with State funds which, in general, requires full cut-off fixtures.

(g) Lighting Curfews. All outdoor lighting is encouraged to be turned off when no one is present to use the light. Curfews for signage, outdoor recreational facilities, and streetlights are specified in the respective sub-sections of this Article.

(8) Specific Standards

(a) Illumination of Signage.

i. Externally-illuminated Signage.

1. All lighting of externally-illuminated outdoor signs shall be shielded so as to minimize glare for passing motorists, bicyclists, or pedestrians.

2. All lighting of externally-illuminated outdoor signs (whether free standing or building mounted, on-premise or off-premise) shall be directed downward toward the sign. Any signage that currently contains non-conforming lighting shall bring their lighting into compliance within ten (10) years from the date of installation or any time that the sign is improved or repaired where the lighting is removed during the improvement or repair.

ii. Internally-illuminated Signage.

1. Background and Letters. Because it is impossible to fully shield most internally-illuminated outdoor signs, such signs (whether free standing or building-mounted, on-premise or off-premise) shall be constructed with an opaque background and translucent letters and symbols or with a dark colored background and lighter letters and symbols in order to minimize the amount of unshielded light released off the property or into the night sky.

a. No more than 33% of such signage (primarily lettering) may be white or other light color.

b. Internally-illuminated signs with predominantly white or other light-colored backgrounds are specifically prohibited.

c. Reverse channel signage consisting of opaque letters and symbols, typically mounted several inches in front of an opaque surface such as a wall and illuminated by bulbs or other light emitters embedded within the letters or symbols themselves such that the letters and symbols stand out in front of the reflected light are permissible and encouraged.

2. Logos. Non-conforming internally-illuminated signs that are part of a registered logo for a business or organization with operations in the City of Blanco and at least one other location are allowed provided there is not another version of the logo sign that would, if installed, be compliant with the other provisions of this Article.

a. Bulbs, LEDs, or other light emitters within signs so exempted shall be the lowest intensity needed for the sign to be recognizable for up to one-half mile from its location. The total lumens emitted from the logo sign shall count against the allowed lumens per net acre cap for the property.

b. A company's decision to change a conforming logo that is installed on the company's facility or signage to one that is non-conforming shall not be sufficient justification to change the displayed logo.

3. Changeable Copy Signs. Unshielded, internally-illuminated signs with changeable copy requiring manual change at the physical location of the sign are allowed provided such signs otherwise conform to the City's signage ordinance.

a. Such signs may have an off-white or other light-colored background such that the changeable letters or symbols are clearly visible, but the use of a white background is specifically prohibited.

b. Such signs shall use the minimum amount of light necessary to

ensure the changeable letters or symbols are clearly readable from a distance of one hundred (100) feet.

c. The total lumens emitted from the sign shall count against the allowed lumens per net acre cap for the property.

4. Electronic Changeable Copy Signs. Non-governmental electronic changeable copy or changeable image signs or displays that are similar in design to large televisions or computer monitors are specifically prohibited except as further noted in this Article.

5. Electronic Pricing Signs. Unshielded electronic signs at service stations within the City Limits displaying fuel prices are allowed providing such signs otherwise conform to the City's signage ordinance. New unshielded electronic pricing signs in the City's ETJ are prohibited until such time as all other outdoor lighting on the property is brought into compliance with this Article.

6. Open for Business Signs. Unshielded electronic or neon signs displaying messages such as "Open" are allowed on the premise of the business provided such signs otherwise conform to the City's signage ordinance.

7. Internally-illuminated Panels. Internally-illuminated panels such as are commonly seen on the sides of service station canopies, for purposes of this Article, shall be considered signage. Such panels shall be allowed and may be unshielded provided the intensity of the illumination does not cause glare for motorists, bicyclists, or pedestrians. Panels shall not be of a color that is white, off-white, pale yellow, or other pale, light hued color. The total lumens emitted by the panels shall count against the allowed lumens per net acre cap for the property.

iii. Lighting Curfew for Signage. Illumination of all on-premise outdoor advertising signage, both externally and internally-illuminated, shall be turned off by the later of closing time or 10:00 pm, provided, however, that such signs may be turned back on prior to sunrise, but no more than one hour prior to opening.

iv. Neon Lighting. Because it is virtually impossible to shield, the City discourages the use of neon lighting or lighting produced by other gases in similar tubes or lighting that is similar in effect such as LEDs in an elongated plastic tube or covering. However, such lighting is permitted provided it otherwise conforms to the City's signage ordinance.

1. Neon lighting or its equivalent in colors of white, pale yellow, or similar pale, light hued color is prohibited.

2. All fixtures using neon lighting or its equivalent shall be of an intensity that will minimize glare for motorists, bicyclists, or pedestrians; and, to the greatest extent possible, shall be mounted in such a way as to limit light from trespassing off the property or from escaping above the horizontal plane to pollute the night sky.

3. The lumens produced by neon lighting shall count towards the total lumen cap for the property.

(b) Canopies.

i. Light Trespass. Because of their common proximity to public rights-of-way, lighting of canopies typical of service stations and drive-through facilities may produce light emissions that trespasses onto public rights-of-way provided that no light is allowed to escape above the horizontal plane to pollute the night sky and that glare for motorists, bicyclists, and pedestrians is minimized. Light trespass onto private property is prohibited.

ii. Design. It is strongly encouraged that all such canopy lighting fixtures be embedded within the canopy itself with no need of further shielding.

iii. Intensity. Canopy lighting shall be of an intensity that provides safe and efficient use of the facility but shall not be so bright as to cause glare to the extent that it is a safety hazard for passing motorists, bicyclists, or pedestrians.

iv. Correlated Color Temperature. All canopy lighting shall have a Correlated Color Temperature of 3000 degrees Kelvin or less.

v. Over-lighting. Over-lighting of canopy areas for purposes of advertising is specifically prohibited.

(c) Streetlights.

i. Design. New streetlights installed on City rights-of-way or Texas Department of Transportation rights-of-way in the city limits shall be full cut-off fixtures and designed, mounted, and/or shielded so as to direct the light onto the public right-of-way and not onto private property or onto the property of Blanco State Park.

ii. Adaptive Controls. New City-owned street lighting installed after the effective date of this Article, other than streetlights at the intersection of roadways, to the greatest extent possible, shall utilize adaptive controls such as half-night photocells or timers to turn the streetlights off halfway between dusk and dawn or timers that reduce or eliminate light emitted after a set time. Emerging technology such as passive infrared sensors that permit streetlights to be off except when movement is detected in the area is encouraged.

iii. Correlated Color Temperature. To the extent government-owned streetlights are repaired or replaced with LED or other light emitting elements, the light produced by the LEDs or other element shall not exceed 3,000 degrees Kelvin.

iv. Repair and Replacement. Notwithstanding other provisions of this Article, existing City-owned streetlights or streetlights owned by other entities but installed on City rights-of-way or Texas Department of Transportation rights-of-way in the city limits shall be brought into compliance in the normal course of streetlight repair and replacement.

(d) New City-owned Outdoor Lighting. After the effective date of this Article the City may install new publicly-owned outdoor lighting, to include street lighting and lighting on other public property and rights-of-way, only upon the determination of the Mayor or the Mayor's designated representative that a clear public safety danger or danger to City workers exists in the area to be lit and that the hazard can only be effectively mitigated through the use of outdoor lighting.

(e) Outdoor Recreation.

i. Design and Shielding. Lighting for all playing fields, playing courts, swimming pools, skateboard parks, rodeo arenas, and similar recreational facilities, installed or replaced on public or private property after the effective date of this Article shall be in compliance with the requirements of the State of Texas Health and Safety Code in regard to design and shielding requirements for outdoor lighting on any facility constructed in whole or in part constructed with State funds. Such lighting shall utilize full cut-off fixtures and be aimed directly at the playing surface in such a manner as to minimize glare, limit light trespass off the property, and prevent light from being emitted above the horizontal plane to pollute the night sky.

ii. Correlated Color Temperature. Lighting of outdoor recreational facilities owned or operated by a governmental entity or a non-profit association or organization are exempt from Correlated Color Temperature requirements. However, the City encourages such lighting to be 3,000 degrees Kelvin or less if at all consistent with the requirements of the recreational facility.

iii. Lighting Curfew. Lighting for outdoor recreational facilities on public or private property is prohibited after 10:00 p.m. unless such lighting is needed to complete a specific activity or event, organized by a City-recognized entity, already in progress that began before 9:00 p.m.

(f) Accent Lighting. Lighting used to emphasize features or draw attention to a structure is allowed. However, it is preferred that accent lighting be directed downward onto the structure and not upward toward the sky or adjacent properties.

i. Direct light emissions, not to exceed approximately ten percent (10%) of total light emissions for each fixture, may extend above the roofline or beyond a building's edge provided no more than 1800 lumens are directed at any one side the structure.

ii. All accent lighting shall be shielded so as to curtail glare for passing motorists, bicyclists, or pedestrians and prevent light trespass off property.

(g) Landscape and Foliage Lighting. Lights shining downward are preferred to those shining upwards. Lighting on landscaping or foliage shall be shielded so as to curtail glare for passing motorists, bicyclists, or pedestrians and prevent light trespass off property.

(h) String Lights and Rope Lights. The year-round use of string lights or rope lights for illumination or decoration is discouraged but not prohibited.

i. Clear or colored string lights or rope lights or other similar illumination

displays are permitted provided the intensity is such as to preclude excessive glare for motorists, bicyclists, pedestrians, or neighbors.

ii. Festoon or bistro-type string lights, either clear or colored, used as outdoor illumination or decoration may be unshielded provided they comply with the following requirements:

1. The lights shall produce not more than 125 lumens per bulb nor produce more than 125 lumens per linear foot of line or square foot of space.
2. The lights shall have a Correlated Color Temperature of not more than 2700 degrees Kelvin (a warm, yellowish light).
3. Festoon or bistro-type string lights shall not be located within three (3) feet of a reflective surface such as a light colored or reflective metal wall.
4. Unshielded festoon or bistro-type string lights that are illuminated for more than two (2) nights in any given month shall not be visible from any residential property within fifty (50) feet of the installed lights without the written approval of neighbors residing within the fifty (50) foot area. Such approvals shall be signed, dated, and filed with the City's Code Officer. Approvals become null and void if the signatory ceases to reside at the property or withdraws the approval.

(i) Flagpoles. The City encourages the custom of displaying and lighting patriotic or commemorative flags on stationary flagstaffs or as may otherwise be mounted.

i. While downward lighting is preferred, upward lighting of flagpoles with a height equal to or less than 20 feet above the ground level is permitted provided only a single spotlight is used per flagpole whose maximum initial lumen output does not exceed seventy-five (75) lumens per foot of height of the flagpole as measured from the spotlight to the top of the pole. Spotlights shall be shielded or have diffusers installed so as to limit light trespass off the property and minimize glare for passing motorists, bicyclists, and pedestrians.

ii. Flagpoles with a height greater than 20 feet above ground level shall be illuminated from above and shall utilize one or more light fixtures, not to exceed 800 initial lumens in total, attached to the top of the flagpole or mounted above the top of the flagpole on a structure within 15 feet of the flagpole. Downward shining lights shall be shielded or have diffusers installed so as to limit light trespass off the property and minimize glare for passing motorists, bicyclists, and pedestrians. Flagpoles currently using non-conforming lighting may continue the use of such lighting so long as the use of the lighting at the flagpole is continuous. If the flagpole is repaired or replaced in a way that requires removal or replacement of the lighting, the lighting shall be brought into compliance.

iii. If a flag of the United States is displayed during the hours of darkness, it should be illuminated as recommended in the Federal Flag Code.

iv. Upward lighting of up to three (3) flagpoles per property, irrespective of the type of flag, is permitted provided a shielded spotlight is used for each.

(j) Public Monuments and Statuary. While downward lighting is preferred, upward lighting of publicly-accessible monuments and statuary is permitted provided shielded spotlights are used so as to limit light trespass off the property and minimize glare for passing motorists, bicyclists, and pedestrians.

(k) Motion Sensors. The City encourages the use of motion-activated outdoor lighting as a way to reduce light pollution, save energy, and alert neighbors and public safety authorities of activity in the area of the sensor. However, notwithstanding the fact that most motion sensor-controlled fixtures can be adjusted to remain on for a limited period of time, all fixtures controlled by motion sensors shall comply with the provisions of this Article.

(9) Public Safety and Actionable Nuisances: Notwithstanding any other provisions of this Article, the City may require the modification, removal, or limited operation of outdoor lighting fixtures found to be a public safety hazard or a public or private nuisance according to the following criteria:

(a) Criteria for Finding Outdoor Illumination to be a Public Safety Hazard:

- i. Light trespass and glare is sufficiently intense or contrasts excessively with surrounding illumination, regardless of the intensity of the surrounding illumination, in a manner to cause impairment of visual performance or to distract from or impair the safe operation of a vehicle; or
- ii. Light trespass or glare exists that impairs a person's visual performance or ability to avoid obstacles in his or her path.

(b) Criteria for Finding Outdoor Illumination to be a Public Nuisance Affecting the Community as a Whole:

- i. Light escapes above the horizontal plane to pollute the night sky enjoyed by all citizens or visitors; or
- ii. Glare onto public rights-of-way or public spaces such as parks is of sufficient intensity as to be annoying to or impair the visual acuity of a person of average sensibilities using the right-of-way.

(c) Criteria for Finding Outdoor Illumination to be a Private Nuisance Affecting an Individual Citizen or Property Owner:

- i. Light trespass or glare exists that deprives an owner or occupant of usual and reasonable use and enjoyment of a private property; or
- i. Light trespass or glare exists that causes visual discomfort or impairment of visual performance in a manner that deprives any citizen of average sensibilities from the safe use of a private property.

(10) Other Prohibitions: The following are specifically prohibited except as further noted:

(a) Mercury Vapor Fixtures. The installation of any mercury vapor, mercury arc, or mercury discharge fixture or lamp of any size or kind for use as outdoor lighting is prohibited.

(b) Barn Lights. The installation of any fixture with a translucent refracting lens typical of old style “barn light” fixtures for use as outdoor lighting is prohibited unless the fixture includes a full opaque shield instead of the standard translucent refracting lens and otherwise complies with the shielding requirements of this Article. The standard refracting lens is allowed only if it is painted or otherwise rendered substantially opaque.

(c) Wall Packs. The installation of any wall pack style fixture for use as outdoor lighting is prohibited unless the fixture complies with the shielding requirements of this Article, i.e., is a full cut-off fixture, shielded as necessary such that illumination is confined to the property on which the fixture is located.

(d) Drop Lenses. The installation of any publicly-owned or privately-owned streetlight, area light, or other fixture with an unshielded drop lens or sag lens is prohibited.

(e) Searchlights and Lasers. The operation of searchlights or aerial laser lights used for advertising purposes is prohibited.

(11) Exemptions: In addition to the exceptions specified elsewhere in this Article, the following are exempt from the provisions of this Article except as further noted:

(a) Traffic Lighting. Publicly maintained traffic control devices.

(b) Emergency Lighting. Temporary emergency lighting (fire, police, repair crews).

(c) TxDOT Lighting. Lighting fixtures and illumination requirements imposed by the Texas Department of Transportation (TxDOT) within TxDOT’s right of way.

(d) Vehicle Lighting. Lighting required by law to be installed on motor vehicles.

(e) Construction Lighting. Temporary construction lighting provided workers are present and actively engaged in the construction project and the lights are positioned so they do not shine in the eyes of passing motorists, bicyclists, or pedestrians so as to create a safety hazard.

(f) Navigation Lighting. Navigation lights such as aircraft warning beacons on water towers, electrical and wireless transmission towers, etc. However, notwithstanding terms as may be set forth in licensing agreements with the owners/operators of such lights, a white or light colored, flashing strobe light that is visible after sunset shall be deemed non-compliant unless required by state or federal government regulation.

(g) Swimming Pool Lighting. Underwater lights such as are commonly installed in swimming pools or other water features are exempt.

(h) Performance Lighting. Temporary lighting for outdoor theatrical or musical productions, outdoor movies, or on-the-scene nighttime television broadcasts such as television news are exempt.

(i) Fossil Fuel Lighting. Outdoor lighting for which light is produced directly by the combustion of fossil fuels such as outdoor fire pits and ornamental items such as “tiki lamps” are exempt.

(j) City-owned Water and Wastewater Treatment Facilities. Outdoor lighting at the City’s water treatment plant and wastewater treatment plant that is installed and functioning on the date of adoption of this Article is exempt. Non-conforming lighting shall be used only when City workers are present. All fixtures replaced during the normal course of maintenance or in conjunction with renovations or replacement of the facilities shall be fully compliant with the provisions of this Article.

(12) Materials and Methods of Installation: This Article is not intended to prohibit the use of any design, material, or method of prescribed installation not specifically proscribed by this Article, provided such alternative meets the legislative intent of this Article.

(13) Compliance with Building Code. All lighting installations commenced in accordance with this Article must be in compliance with the International Building Code, as adopted by the City Council.

(14) Violations and Penalties

(a) General penalties provided in Section 8.3, Penalties of the City of Blanco Unified Development Code (UDC), as of the effective date of this Article and as may be further amended in the future, shall apply to violations hereof.

(b) The City shall also have the right to bring a civil action to enforce the provisions of this Article and to seek remedies as allowed by law, including, but not limited to the following:

i. Injunctive relief,

ii. Monetary damages, and

iii. Other relief as directed by a court with jurisdiction over the matter.

(15) Administrative Guidance.

(a) Submission of Plans and Evidence of Compliance. All building permit applications must include an outdoor lighting plan which includes the following information:

i. The location of all existing and proposed light fixtures (may be included on site plan).

ii. A lumen calculation sheet to determine lumens per net acre. It must include the square footage of the total area to be illuminated, the light fixture catalog descriptions or ordering number, lamp types (i.e., incandescent, low pressure sodium, compact fluorescent, LED, etc.), the Kelvin rating for the lamp, the B-U-G rating for the selected fixture (if available); the number of fixtures or lamps (use the same unit corresponding to the unit used to determine how many lumens are produced), fixture or lamp initial lumens, the location from the edge of a canopy (if applicable), and mounting height of all existing and proposed

lamps.

iii. Manufacturer's specification sheets for all existing and proposed light fixtures.

iv. Elevations with notes where light fixtures are to be installed indoors which may be seen from the exterior.

v. Site plan with specific measurements in feet for the area to be illuminated. A scale notation is not sufficient.

vi. Acknowledgement that the applicant has received notification of the provisions of this Article.

(b) The City Code Officer or other individual designated by the Mayor shall review all building permits to ensure compliance with this Article.

(c) Verification that a residential or non-residential building project requiring a building permit application has complied with the provisions of this Article shall occur during the final electrical inspection by the City's designated Building Inspector and verified by the City's Code Officer or other individual designated by the Mayor.

(d) Upon receipt of residential building permit applications, city staff shall provide the homebuilder and/or applicant with educational materials about this Article including a copy of this Article. The City's submission of educational materials shall be prima facie evidence that the applicant has received notification of the provisions of this article.

(e) For the first 60 days after the enactment of this Article, residential building permit applicants may postpone the submission of the plans and evidence of compliance defined in this section for a maximum of 30 business days after the submission of their building permit application.

(16) Enforcement.

(a) City Code Officer.

i. Interpretation and enforcement of the provisions of this Article shall rest with the City's Code Officer or other individual as may be designated by the Mayor who is authorized to exercise reasonable judgement in its enforcement consistent with achieving the overall purposes of this Article.

ii. In considering possible violations of this Article for residential properties, the Code Officer or other individual designated by the Mayor shall act only upon receipt of a complaint.

iii. The City's Code Officer or other individual designated by the Mayor is authorized to grant amortization extensions for residential and non-residential lighting in the City Limits and for lighting of signage in the City's ETJ in accordance with the provisions of this Article.

iv. Appeals of Code Officer decisions or those made by another individual designated by the Mayor may be made to the Mayor. Further appeals may be

made to the City Council, which shall be the final authority.

(b) Collaboration. Extrajudicial enforcement of this ordinance is preferred. Collaboration with the owners of noncompliant outdoor lighting is encouraged to rectify violations and obviate the need for citations and other actions by the City.

(17) Special Use Permits. The Mayor is authorized to direct the issue of a temporary Special Use Permit waiving provisions of this Article within the parameters specified below.

(a) Applicants for such permits shall provide written justification substantiating how compliance with specific provisions of this Article would be detrimental to the full intended use of a facility or area and specifying the exact provisions of the Article requested to be waived and the period of time for which the Special Use Permit is required. For example, festivals, carnivals, or fairs might be good candidates for issuance of a Special Use Permit.

(b) The duration of a Special Use Permit for outdoor lighting shall not exceed 15 contiguous calendar days.

(c) No single entity shall be granted more than one (1) Special Use Permit for outdoor lighting per year.

(d) Applications for a Special Use Permit for outdoor lighting shall be initiated with the City's Code Officer who shall submit the application to the Mayor along with the Code Officer's comments and/or recommendation.

(18) Guidance and Education. The City Administrator or City Secretary is authorized to promulgate and keep current one or more interpretive documents to aid citizens, business owners, builders, and electricians in the interpretation of and compliance with this Article. Such interpretive documents shall be educational only and shall not constitute regulations, amendments, or exceptions to the provisions of this Article. All such documents shall be made available free of charge to requesters. To the extent possible, such documents shall be posted on the City's web page. The City shall undertake other measures as required to educate citizens and other interested parties about the requirements of this ordinance.

(19) Variances. Requests for variances from the provisions of this Article may be made through the City's Planning and Zoning Commission to the Mayor and City Council.

(a) All such requests shall be fully documented and include a specific justification as to why the request for variance is unique and why approval of the variance would not set a precedent for other such requests.

(b) Applicants requesting a variance must demonstrate undue hardship caused by unique circumstances of the property making it impossible to literally comply with the standards of this Article. Financial concerns alone do not comprise a hardship under this Article.

(c) In considering requests for variance, the Planning and Zoning Commission and the Mayor and City Council shall consider the following criteria:

i. The degree to which compliance with this Article will cause undue hardship for the applicant; and

- ii. The degree to which the requested variance will result in a non-compliant fixture; and
- iii. The amount of time the requested variance will be in effect before the fixture comes into compliance with this Article; and
- iv. The degree to which approval of the variance would set a precedent for other such requests; and
- v. The effect the variance might have on efforts by the City to attain and/or retain recognition as a Dark Sky Community or other similar designations.