ORDINANCE NO. 17-230

CITY OF WOODCREEK, TEXAS

AMENDMENT TO CHAPTER 156 OF THE CODE OF ORDINANCES

ZONING ORDINANCE – DARK SKIES ORDINANCE

AN**ORDINANCE AMENDING** THE CITY OF WOODCREEK CODE OF ORDINANCES AT TITLE XV ("LAND USAGE"), CHAPTER 156 ("ZONING"), SECTION 156.009 ("DEFINITIONS") DELETING SECTION 156.026 LIGHTING"); **ESTABLISHING NEW** ("OUTDOOR **SECTIONS** 156.042.01-.156.042.12 TO **ESTABLISH** OUTDOOR LIGHTING REQUIREMENTS, DEFINING TERMS, PROVIDING PENALTIES, PROVIDING FOR NOTICE AND ABATEMENT, AND PROVIDING FOR ENACTMENT, REPEALER, SEVERABILITY, CODIFICATION, AND EFFECTIVE DATE, AND FINDING PROPER NOTICE AND MEETING.

- WHEREAS, pursuant to Texas Local Government Code Chapter 211, the City Council of the City of Woodcreek ("City Council") has general authority to adopt the regulations herein relating to the City's Zoning Ordinance; and
- WHEREAS, the City Council of the City of Woodcreek ("City Council") is aware that outdoor lighting is necessary for the safety and welfare of the public and for the safe and effective conduct of business and that a business might desire to use various forms and types of lights to attract the attention of customers and that public events may require illumination for night-time activity and that residents may wish to install or maintain lights to provide for security; and
- **WHEREAS**, the City Council has adopted Vision 2020 that addresses the residents' feedback and suggestions concerning future improvements to the city's existing street light infrastructure; and
- WHEREAS, the City Council finds that the neighboring communities of Wimberley and Dripping Springs have both expressed commitment to reducing light pollution in an effort to preserve the integrity of the natural environment, including a dark sky at night; and

- WHEREAS, the City Council has observed that these attributes are diminished by lighting of urban intensity and finds that such lighting creates glare and sky glow and contrasts unreasonably with the moderate illumination considered suitable for a small town the size of Woodcreek; and
- **WHEREAS**, the City Council finds that its citizens have the right to property free from unwanted illumination; and
- WHEREAS, the City Council has observed a variety of outdoor lighting situations and has determined which uses of lighting and reasonable lighting intensity levels are consistent with the preservation of these attributes while affording sufficient light for security and safety.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Woodcreek:

1. FINDINGS OF FACT

The foregoing recitals are incorporated into this Ordinance by reference as findings of fact as if expressly set forth herein.

2. ENACTMENT

Chapter 156 ("Zoning") of the Code of Ordinances of the City of Woodcreek is amended to reflect the amended Sections 156.009, deleted 156.026 and the new Sections 156.042.01-.12 so as to read in accordance with *Attachment A*, which is attached hereto and incorporated into this Ordinance for all intents and purposes.

3. REPEALER

All ordinances, resolutions, or parts thereof, that are in conflict or inconsistent with any provision of this Ordinance are hereby repealed to the extent of such conflict, and the provisions of this Ordinance shall be and remain controlling as to the matters regulated, herein.

4. SEVERABILITY

Should any of the clauses, sentences, paragraphs, sections or parts of this Ordinance be deemed invalid, unconstitutional, or unenforceable by a court of law or administrative agency with jurisdiction over the matter, such action shall not be construed to affect any other valid portion of this Ordinance.

5. CODIFICATION

The City Secretary is hereby authorized and directed to record and publish the language of Chapter 91, as amended by this Ordinance, in the City's Code of Ordinances.

6. EFFECTIVE DATE

This Ordinance shall be effective immediately upon its passage and the publication of caption of this ordinance.

7. PROPER NOTICE & MEETING

It is hereby officially found and determined that the meeting at which this Ordinance was passed was attended by a quorum of the City Council, was open to the public, and that public notice of the time, place and purpose of said meeting was given as required by the Open Meetings Act, Texas Government Code, Chapter 551.

PASSED & APPROVED this, the 14th day of June, 2017, by a vote of $\frac{\cancel{4}}{\cancel{4}}$ (ayes) to $\underline{\cancel{O}}$ (nays) and $\underline{\cancel{O}}$ (abstentions) of the City Council of Woodcreek, Texas.

CITY OF WOODCREEK:

Eric C. Eskelund

ATTEST:

Brenton Lewis, City Manager

APPROVED AS TO FORM:

The Law Office of Roger Gordon

Attachment "A"

City of Woodcreek

CODE OF ORDINANCES

TITLE XV: LAND USAGE

CHAPTER 156: ZONING

General Provisions

§ 156.009 DEFINITIONS (only new additions to Definitions shown)

For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning. Words used in the present tense include the future tense. Words used in the plural number include the singular, and words in the singular include the plural. The word "shall" is always mandatory. The word "herein" means in this chapter. The word "regulations" means the provisions of any applicable ordinance, rule, regulation or policy. The word "person" means any human being or legal entity and includes a corporation, a partnership and an incorporated or unincorporated association. The words "used or occupied", as applied to any land or building, shall be construed to include the words intended, arranged or designed to be used or occupied. Any definition not expressly prescribed herein shall, until such time as defined by ordinance, be construed in accordance with customary usage in municipal planning and engineering practices.

BULB. A light-emitting device or structure containing a light source. This includes but is not limited to a lamp.

CORRELATED COLOR TEMPERATURE. The specification of the color appearance of light emitting by a lamp, relating its color to the color of light from a reference blackbody source when heated to a particular temperature, measure in degrees Kelvin (K).

which there can be seen no semblance of an image of the light source. To provide a sufficiently wide distribution of light, a lens meeting this definition shall have a minimum cross-section, as seen from any angle, of not less than 0.125 square inch per lumen of enclosed light source emission.

Ordinance No. 17-230 Amending Chapter 156 of the Code of Ordinances ("Zoning – Outdoor Lighting") *AS ADOPTED* **EFFICACY.** As an engineering term, the emission of light by a light source expressed in lumens per watt. In the absence of manufacturers' ratings, or at the discretion of the city, the EFFICACY and light emission of lamps shall be calculated as follows:

- (1) Common tungsten incandescent: 12 lumens per watt;
- (2) Halogen incandescent: 18 lumens per watt;
- (3) Metal halide: 82 lumens per watt;
- (4) High pressure sodium: 82 lumens per watt;
- (5) Fluorescent tubes: 75 lumens per watt; and
- (6) LED: 50-150 lumens per watt

FIXTURE. An outdoor lighting assembly containing 1 or more lamps and including any lenses, reflectors, and shields designed to direct the light in a defined manner.

FOOT CANDLE. As an engineering term, a unit of light intensity equal to 1 lumen per square foot, which applies to the brightness of light on a surface or at a point in space.

FULL HORIZONTAL CUT-OFF FIXTURE. A fixture that confines the light entirely below a horizontal plane running through the lowest of: the lowest point from which light is emitted, or the lowest part of any lens, or the lowest point of any specular reflector.

GLARE. The effect of light shining directly in the eyes such as occurs when there is a line of sight to the light source.

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 a structure containing a light source. This includes but is not limited to a bulb.

LIGHT SOURCE. Any device or element which emits light.

LIGHT STRING. The number of bulbs connected with wire in a linear or 2-dimensional array, not contained in the structure of a fixture, used either for illumination or decoration, and supported in any manner.

LIGHT TRESPASS. Any horizontal or vertical illumination on a property from light sources on another property that exceeds 0.1 footcandles on a residential or unzoned district or 0.5 footcandles on a non-residential district. The measurement shall be made4 feet above the ground at a point 4 feet inside the property line.

LIGHTING INSTALLATION. All outdoor lighting fixtures and light sources on a property.

LINE OF SIGHT. As it applies to the visibility of a light source, a straight unobstructed line from any point on a property 4 feet or more above the ground to a light source on another property.

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Amending Chapter 156 of the Code of Ordinances

LUMEN. As an engineering term, a unit of light flux, which applies to the amount of light emitted by a lamp.

LUMENS PER ACRE. The total number of initial lumens produced by all lamps utilized in outdoor lighting on a property divided by the number of acres, or part of an acre, with outdoor illumination on the property.

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

City of Woodcreek

CODE OF ORDINANCES

TITLE XV: LAND USAGE

CHAPTER 156: ZONING

General Requirements and Limitations

§ 156.026 OUTDOOR LIGHTING.

- (A) Lights shall be shielded to prevent light being emitted from fixtures designed or installed as to cause light to fall on neighboring property, motor vehicle drivers' eyes or upward, illuminating the sky.
- (B) Property owners with existing lighting which is not adequately shielded have six months from the date this chapter becomes effective to provide adequate shielding.

City of Woodcreek

CODE OF ORDINANCES

TITLE XV: LAND USAGE

CHAPTER 156: ZONING

General Requirements and Limitations

§ 156.042.01 DARK SKIES COMPLIANCE REQUIRED.

All new outdoor lighting fixtures and installations in the city shall conform to the following provisions.

§ 156.042.02 DEFINITIONS.

For the purpose of this subchapter, the definitions of Section 156.009 shall apply unless the context clearly indicates or requires a different meaning.

§ 156.042.03 SHIELDING, SPECTRUM AND CURFEWS.

- (A) Any fixture installed in the city, including municipally-owned street lights, having a total light emission in excess of 1,500 lumens shall be shielded in a manner that:
 - (1) Confines the light so that it falls entirely on a wall or sign, or confines the light entirely below a horizontal plane at the level of the lowest of: the lowest point of the fixture at which light is emitted, the lowest part of any lens, or the lowest point of any specular reflector; and;
 - (2) Prevents a line of sight from any point off the property on which the fixture is situated to a light source, its surrounding non-diffusing lens, or a specular reflector within or incidental to the fixture.
- (B) No property in the city shall have fixtures that are not included in, or do not conform to division (A), which collectively have total light emission exceeding 7,200 initial lumens.
- (C) No fixture may be installed employing a lamp whose correlated color temperature exceeds 3000 Kelvins.
- (D) New street lighting installed after the effective date, other than fixtures at the intersection of roadways, shall utilize half-night photocells or timers to turn off the lights halfway between dusk and dawn.

Ordinance No. 17-230 Amending Chapter 156 of the Code of Ordinances ("Zoning – Outdoor Lighting") *AS ADOPTED*

§ 156.042.04 SITE LUMEN LIMITS/ZONING CATEGORIES.

- (A) The total outdoor light output (excluding municipally-owned streetlights used for illumination of public rights-of-way and outdoor recreation facilities) in both shielded and unshielded fixtures on any nonresidential property in districts SF-1 through SF-6, TH/C, DU-1, 4PLX, MF-1, MF-1A, MF-2, RR, PUD, MH-1, and unzoned tracts where a residence exists shall not exceed 20,000 initial lumens per net acre, or 40,000 initial lumens per net acre in other districts and unzoned tracts, in any contiguous illuminated area. These lumen per net acre values are upper limits and not design goals; design goals should be the lowest levels that meet the requirements of the task.
- (B) Total outdoor light output (excluding municipally-owned streetlights used for illumination of public rights-of-way and outdoor recreation facilities) in unshielded fixtures on any nonresidential property in districts SF-1 through SF-6, TH/C, DU-1, 4PLX, MF-1, MF-1A, MF-2, RR, PUD, MH-1, and unzoned tracts where a residence exists shall not exceed 6,000 initial lumens per net acre, or initial 15,000 lumens per net acre in other districts and unzoned tracts, in any contiguous illuminated areas.

§ 156.042.05 REDIRECTION AND REMOVAL OF ADJUSTABLE FIXTURES AND BULBS.

- (A) Redirection. Any fixture existing on the effective date of this subchapter which does not conform to Section 156.042.03 of this code and which can be re-directed or re-aimed shall be re-directed or re-aimed in a manner that reduces the degree of non-compliance so it fully conforms with Section 156.042.03.
- (B) Removal. A light string that does not conform to Section 156.042.03 shall be removed, or the number of bulbs reduced sufficiently to comply with Section 156.042.03.

§ 156.042.06 ILLUMINATION.

- (A) Limitation per fixture. The maximum illumination on any outdoor surface or object, including signs, from all fixtures or light sources, whether installed before or after the effective date of this subchapter, including lighting of externally illuminated and internally illuminated signs, shall not exceed:
 - (1) Six footcandles in districts SF-1 through SF-6, TH/C, DU-1, 4PLX, MF-1, MF-1A, MF-2, RR, PUD, MH-1, and unzoned tracts where a residence exists;
 - (2) Eighteen footcandles in other districts and unzoned tracts where a business exists and is open; or

(3) Three footcandles in other districts and unzoned tracts where a business is closed or does not exist:

(B) Measurement.

- (1) On any surface, except signs, the maximum illumination shall be measured at the point of highest illumination but no closer than six feet from the center of the nearest fixture.
- (2) On any surface of an externally illuminated sign, the maximum illumination shall be measured at the center of the sign.
- (3) On any surface of an internally illuminated sign, the maximum illumination shall be measured at the point of highest illumination.
- (4) On any surface illuminated by an internally illuminated sign, the maximum illumination shall be measured at the point of highest illumination, but no closer than six feet from the center of the sign.
- (C) Re-lamping. Any fixtures existing on the effective date of this subchapter which do not conform to this section, which require lamp replacement and which will support lamps of lower emission, shall be re-lamped with lower-emission lamps in order to:
 - (1) Achieve compliance with this section; or
 - (2) Approach compliance with this section to the greatest possible degree.

§ 156.042.07 PROHIBITED LIGHTING FORMS.

The installation or replacement of a mercury arc or mercury discharge lamp of any size or kind is strictly prohibited.

§ 156.042.08 REMOVAL OF NON-CONFORMING FIXTURES.

Any change of use of a property, or renovations or additions to the structures on a property constituting more than 20% of the previous calendar year's appraised value shall result in the removal or replacement of any non-conforming fixtures on those structures.

§ 156.042.09 REPLACEMENT OF FIXTURES; CONFORMANCE REQUIRED.

Any fixture that is replaced, whether or not it conforms to this subchapter, shall be replaced only with a fixture that conforms to all provisions of this subchapter.

§ 156.042.10 PUBLIC SAFETY AND PUBLIC NUISANCE.

- (A) The City may install new public outdoor lighting, including street lighting and lighting on other public property and rights-of-way, after the effective date only upon the determination of the City Manager that a clear public safety threat exists in the space to be lit, and that the hazard can only be effectively mitigated through the use of outdoor lighting.
- (B) Not withstanding the provisions of § 156.042.09, the city may require the modification or removal or limited operation of lighting fixtures found to be a public hazard or public nuisance according to the following criteria:
 - (1) Criteria for finding illumination to be a public hazard:
 - (a) Light trespass or glare which is sufficiently intense or contrasts excessively with surrounding illumination, regardless of the intensity of surrounding illumination, in a manner to cause impairment of visual performance or to distract from or impair the safe operation of a vehicle; or
 - (b) Light trespass or glare that impairs a person's visual performance or ability to avoid obstacles in his or her path; or
 - (2) Criteria for finding illumination to be a public nuisance:
 - (a) Light trespass or glare that deprives an owner or occupant of usual and reasonable use and enjoyment of a property; or
 - (b) A high frequency or duration of periods when light trespass or glare is sufficient to interrupt or interfere with usual and reasonable use and enjoyment of a property; or
 - (c) Light trespass or glare that causes visual discomfort or impairment of visual performance in a manner that deprives any citizen of the city from the usual and reasonable enjoyment of a property.
- (C) Benefit to the general public welfare may be found to mitigate a finding of a public nuisance but may not be found to mitigate a finding of a public hazard.

§ 156.042.11 EXCEPTIONS.

The City may grant an exception to some of the provisions of this subchapter for certain fixtures if the city finds the exception to be in the interest of public health, safety, and welfare and under the following conditions.

- (A) For the illumination of city streets, parking lots, areas of public activity, and yard security, a non-conforming fixture which is granted an exception may be installed and the fixture and its light shall be exempts from the provisions of §§ 156.04.03, 156.042.06(A)(3) and 156.042.08 of this code except as set forth below it:
 - (1) No alternate lighting design or location using fully conforming fixtures is reasonable applicable to the physical conditions of the site, and the asserted need for a non-conforming fixture is not solely for the purpose of achieving an illumination level in excess of the provisions of § 156.042.06(A)(3) of this code;
 - (2) A fully conforming fixture with or without auxiliary shielding is unavailable from manufacturers of fixtures or is unavailable for mounting on a pole of the public electric utility;
 - (3) The fixture has a full horizontal cut-off design, and has total light emission not exceeding 8,500 intial lumens;
 - (4) A fixture is mounted no higher than:
 - (a) Sixteen feet above the ground when mounted on a privately owned pole;
 - (b) The lowest point consistent with public electric utility requirements when mounted on a pole which is the property of the public electric utility.
 - (5) No excepted fixture is located closer to another such fixture on one or separate properties than a distance equal to three times the average mounting height of the fixtures, nor closer to property lines of adjoining or facing residential property than a distance equal to two times the height of the fixture above the ground;
 - (6) No more than one excepted fixture is located on a residential property;
 - (7) No more than two excepted fixtures are located on a non-residential property for security purposes where there is no night-time public activity;
 - (8) The maximum illumination due to all fixtures on the ground or any other surface does not exceed six footcandles; and
 - (9) The light from all excepted fixtures conforms to the provisions of §146.042.03(A)(2) and §146.042.03(C) of this code so far as it affects any adjoining residential property.
 - (10) The lighting illuminates the State of Texas flag and/or United States flag, provided that:

- (a) Flagpoles illuminated from below are limited to a height of 30 feet above ground level, and are illuminated with a single spot-type fixture whose maximum initial output is 75 lumens per foot of height, measured from the light fixture to the top of the flagpole. The fixture must be mounted so that the lens is perpendicular to the flagpole.
- (b) Flags posted on flagpoles are raised and lowered in a manner consistent with customary etiquette calling fir display only between sunrise and sunset.
- (c) Flagpoles illuminated from above utilize a single light fixture, not to exceed 800 initial lumens, attached to the top of the flagpole or a fixture mounted above the top of the flagpole on a structure within fifteen feet of the flagpole.
- (11)Decorative light strings displayed during seasonal hiliday period from November 1 to January 15 of the following calendar year are exempt from the provisions of this subchapter.

§ 156.042.12 APPLICABILITY; ADMINISTRATION & ENFORCEMENT

- (A) All lighting installations or additions to lighting installations made after the original effective date of this subchapter shall conform to this subchapter and shall be subject to inspection by the Woodcreek City Manager or his designee.
- (B) An outdoor lighting plan shall be included as part of the documentation for a permit application. The outdoor lighting plan shall show the bulb type and electric power of all proposed and existing outdoor bulbs and fixtures in the lighting installation, and provide sufficient detail with respect to location, height, and aiming and shielding of the fixtures to demonstrate that the proposed lighting installation complies with this subchapter.
- (C) If the City Manager or his designee finds that an outdoor lighting fixture does not comply with this subchapter, the owner shall be notified and shall be allowed thirty (30) days from the date of receipt of notification to remedy the non-compliance or to demonstrate that a violation does not exist.