

The Mayor and Council of the Town of Townsend

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Sponsored by: Councilman Matthew Chapman
Introduction on: August 9th, 2023

ORDINANCE 2023-001

AN ORDINANCE TO PROVIDE FOR THE QUALITY OF OUTDOOR NIGHT LIGHTING TO CONSERVE ENERGY, REDUCE LIGHT POLLUTION, AND IMPROVE SAFETY BY LIGHT DIRECTION.



Mayor
Scott Lobdell

Councilman
Joshua Mertz, PhD

Councilman
Joseph Bangura, PhD

Councilman
Matthew Chapman

Councilman
Marcus Suhr

Town Manager
Antonina Tantillo, MPA

WHEREAS, there are concerns within the Town of Townsend regarding light pollution onto properties; and

NOW THEREFORE, BE IT ENACTED BY THE COUNCIL OF THE TOWN OF TOWNSEND (a majority of the members elected thereto concurring therein), that the following is enacted as follows:

Section 1. Amend Chapter 24 of the Townsend Municipal Code by adding a new section to read as follows:

Section 24.38. Light Pollution

a. Purpose:

1. The purpose of this Act is to regulate outdoor lighting so as to:
 - a. Permit reasonable uses of outdoor lighting for night-time safety, utility, security, productivity, enjoyment, and commerce.
 - b. Minimize adverse offsite impacts including light trespass, and obtrusive light.
 - c. Help protect the natural environment from the adverse effects of night lighting which threatens wildlife by disrupting biological rhythms and otherwise interfering with behaviors of nocturnal animals.
 - d. Conserve energy and resources to the greatest extent possible.
 - e. To decrease the expense of lighting.
 - f. Curtail light pollution and improve the nighttime environment for astronomy.

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- g. Improve the travel conditions for persons and vehicles on public ways by reducing glare.
- h. To improve the aesthetics of the Town of Townsend in general while providing adequate night-time safety, utility, and security.

b. Definitions:

1. The following words, terms and phrases, when used in this section shall have the meaning ascribed to them except where the context clearly indicates a different meaning:
 - a. Canopy structure: Any overhead protective structure which is constructed in such a manner as to allow pedestrians/vehicles to pass under.
 - b. Fixture: The assembly that holds a lamp and may include an assembly housing, a mounting bracket or pole socket, a lamp holder, a ballast, a reflector or mirror, and a refractor or lens
 - c. Foot-candle: A unit of illumination produced on a surface, all points of which are one foot from a uniform point source of one candle.
 - d. Glare: Direct light emitted by luminaries that cause reduced vision or momentary blindness.
 - e. Luminance: The level of light measured at a surface.
 - f. Lamp: The component of a luminary that produces the light.
 - g. Light direct: Light emitted directly by a lamp, off a reflector, or through a refractor of luminaries.
 - h. Light emitting surface: Any part of a fixture (lamp, diffusers) which emits light rays.
 - i. Light pollution: unwanted light in public places and general sky glow caused by the scattering of artificial light in the atmosphere, much of which is caused by poorly designed luminaries.
 - j. Light shield: Any attachment which interrupts and blocks the path of light emitted from a luminaries or fixture.
 - k. Light trespass: Light emitted by luminaries that shines beyond the boundaries of the property on which the luminaries are located.
 - l. Lumen: A unit of measurement of luminous flux.
 - m. Luminaries: The complete lighting system, including the lamp and the fixture.
 - n. Luminaries' full cutoff: A luminaries that allows no direct light emissions above a horizontal plane through the luminaries' lowest light-emitting part.
 - o. Luminaries permanent outdoor: Any fixed luminaries or system of luminaries that is outdoors and this is intended to be used for seven (7) days or longer.

- p. Outdoor light fixtures: Outdoor artificial illuminating devices, installed or portable, used for floodlighting, general illumination, or advertisement.
- q. Roadway lighting: Permanent outdoor luminaries that are specifically intended to illuminate roadways for automotive vehicles.
- r. Efficacy - A measure of how much light a light source produces for the energy put into it.
- s. CCT - Correlated Color Temperature; color temperature defines the color appearance of a white LED. CCT is defined in degrees Kelvin;-
 - 1. A warm light is approximately 2,700 K-
 - 2. Moving to neutral white at approximately 4,000 K-
 - 3. Cool white at 5,000 K or more

c. General Requirements:

- 1. Conformance with all applicable codes: All outdoor lighting shall be installed in conformance with the provisions of this Ordinance, applicable Electrical and Energy Codes, and applicable sections of the Building Code.
- 2. Applicability: Except as described below as exemptions, all outdoor lighting installed after the date of effect of this Ordinance shall comply with these requirements. This includes, but is not limited to, new lighting, replacement lighting, or any other lighting whether attached to structures, poles, the earth, or any other location, including lighting installed by any third party.
- 3. Exemptions: The following is not regulated by this Ordinance:
 - a. Lighting within public right-of-way or easement for the principal purpose of illuminating streets or roads. No exemption shall apply to any lighting within the public right of way or easement when the purpose of the lighting is to illuminate areas outside the public right-of-way or easement.
 - b. Lighting for public monuments and statuary.
 - c. Lighting solely for signs, temporary lighting for theatrical, television, performance areas and construction sites.
 - d. Underwater lighting in swimming pools and other water features
 - e. Temporary lighting and seasonal lighting.
 - f. Lighting that is only used in emergency conditions.
 - g. Low voltage landscape controlled by an automatic device that is set to turn the lights off at one hour after the site is closed to the public or at a time established by the authority.
 - h. Lighting specified or identified in a specific use permit.
 - i. Lighting required by federal or state laws or regulations.

- j. If no lighting recommendation or regulation applies, the minimum luminance adequate for the intended purpose is used, giving full consideration to safety, energy conservation, glare, and minimizing light trespass.
- k. For roadway lighting, a determination is made that the purpose of the lighting installation or replacement cannot be achieved by installation of reflectorized roadway markers, lines, warnings or informational signs, or other passive means.
- l. Adequate consideration has been given to conserving energy and minimizing glare, light pollution, and light trespass.

d. Standards:

1. Applicable to all zoning districts:

- a. All outdoor lighting must comply with these standards. 4.c, 4.f., and 4.h. must be in compliance within 60 days from the date of passage.
- b. All lights which illuminate an outdoor area shall be shielded in such a way as to direct all light toward the Earth's surface and away from reflective surfaces.
- c. All lights are required to utilize light shields.
- d. Light Trespass: Light fixtures or lamps shall be shielded/shaded in such a manner as to direct incident rays away from all adjacent property.
- e. Light pollution and trespass shall not exceed 0.05-foot candles.
- f. All lights shall utilize shut-off controls.
- g. Lights on poles shall not be taller than the building whose area they illuminate nor taller than fifteen (15) feet whichever is shorter.
- h. Any facilities which may require floodlighting may not arrange the light in such a way that it will shine towards roadways, towards forests and wildlife habitat preservation areas, onto adjacent residential property or residential use property or into the night sky.
- i. Except as stated elsewhere in these regulations, light levels will be limited to those published as recommendations by the Illuminating Engineering Society of North America.
- j. All street lighting shall have no light emitted above 90 degrees.
- k. All lighting designs shall be conducted in accordance with the Illuminating Engineering Society of America's recommended practices for Lighting for Exterior Environments and Parking lots.

2. For commercial, business, industrial and natural resource zones and any roadway adjacent to residential zones:

- a. Any light fixture must be placed in such a manner that no light emitting surface is visible from any residential area or public/private roadway, walkway, trail or other public way when viewed at ground level.
- b. Any Canopy structure used at a business location must have recessed lights with diffusers which do not extend below the surface of the canopy.
- c. Any luminaries on a pole, stand or mounted on a building must have a shield, an adjustable reflector and non-protruding diffusers.
- d. Installation and operation cost: The cost of installing and operating approved roadway lighting on any Town of Townsend public road shall be through a financial method approved by the Town of Townsend Town Council. The costs of all other lighting systems shall be borne by the developer/property owner.

e. Penalties:

Every person in violation of any provision of this Ordinance shall be punished in the following manner:

- 1st offense: A warning by written violation letter.
- Each additional offense: Fine in accordance with the Administration Fees and Fines under Fees in the Townsend Municipal Code with a penalty of \$50 - \$500.

Section 2. Effective Date.

The provisions of this Ordinance are hereby ordered to take effect sixty (60) days following publication on the Town of Townsend website upon vote of passage.

Adopted by at least a majority of the Council members of the Town of Townsend on this 20 day of September, 2023.

Introduction 08/09/2023

Public Hearing 09/06/2023

Final Reading 09/20/2023

Adoption 09/20/2023

Signed By



Scott Lobdell

Mayor

Town of Townsend, Delaware