

10-4-22: LIGHTING REGULATIONS:

- A.Purpose: The purpose of this section is to regulate the use of outdoor artificial illuminating devices emitting undesirable light rays into the night sky, or onto private properties which have a detrimental effect on the rural mountain environment. Standards for controlling lighting and glare are set forth to reduce the annoyance and inconvenience to property owners and traffic hazards to motorists. These standards are intended to allow reasonable enjoyment of adjacent and nearby property by their owners and occupants, while requiring adequate levels of lighting of parking areas.
- B.Conformance Required: All outdoor artificial illuminating devices shall be installed in conformance with these regulations.
- C.Approved Materials And Methods Of Installation: The standards provided herein are intended to prevent the use of any materials or method of installation not specifically prescribed hereunder. Alternatives will be considered by the director, who may approve such alternatives if they are found to generally comply with the intent of the regulations herein.
1. High pressure sodium is the lamp source that will be utilized throughout the Snyderville Basin for all roadway, pathway, area and building facade illumination. Sport facility lighting is the only application where a metal halide lamp source may be used, subject to the limitations herein.
 2. Any materials or methods of installation not specifically prescribed herein will be evaluated by the director, as permitted above, for approval. Approval shall be based on providing equivalence to the applicable standards herein and otherwise complying with the intent of these regulations.
 3. No floodlighting shall be permitted.
- D.Nonconforming Lighting Schemes:
1. Any development permit that invokes an amendment to an approved SPA plan, a significant change to an approved site plan, or a certificate of occupancy shall specify and require that any nonconforming area lighting located within the boundaries of the development site authorized in the original permit shall be brought into conformance with these regulations.
 2. Nonconforming area lighting may be maintained. However, any change to fixtures and poles, beyond simple replacement of expired parts, shall require that the lighting be brought into conformance with the provisions of these regulations.
- E.Violation And Enforcement: It shall be unlawful to install or operate an outdoor light fixture in violation of these regulations. Enforcement of any violation of these regulations shall be pursuant to the provisions of this title.
- F.Specific Requirements For Lighting Applications And Fixtures:
1. Area Lighting: The following shall apply to area lighting applications such as, but not limited to, parking lots:

a. Wall Mounted Area Lighting:

- (1) All wall mounted or building mounted fixtures shall not be mounted above twelve feet (12'), as measured from grade directly below the light fixture to the top of the fixture or a horizontal plane being lit by the fixture. The exception shall be those instances where there is second story access directly from the outdoors.
- (2) The fixture shall house a high pressure sodium lamp that shall not exceed one hundred fifty (150) watts.
- (3) The fixture shall be a "full cutoff" variety, where no more than ten percent (10%) of the total lumen output of the fixture will come out at ninety degrees (90°) above the horizontal plane of the fixture from nadir.
- (4) The fixture must shield the lamp in such a way that there will be total cutoff when viewed from sixty feet (60') or more from the light source.
- (5) All light must be directed downward. The washing of the side of the building shall be minimized to the maximum extent possible.
- (6) Timers and motion sensor devices shall be used wherever practical to minimize light pollution within the Snyderville Basin.

b. Pole Top Area Symmetrical Lighting:

- (1) Pole top mounted symmetrical distribution fixtures shall not be mounted more than sixteen feet (16') above grade, as measured to the top of the fixture or a horizontal plane being lit by the fixture. More fixtures mounted at lower heights is preferred to fewer fixtures mounted high in the air.
- (2) The fixture shall house a high pressure sodium lamp, with no more than four hundred (400) watts per pole.
- (3) These fixtures shall be used in interior parking/site installations only, and a full cutoff variety shall be used. No more than ten percent (10%) of the total lumen output of the fixture will come out at ninety degrees (90°) above the horizontal plane of the fixture from nadir.
- (4) The fixtures shall be appropriately spaced so that the foot-candles produced on the ground shall not exceed the following:

Average foot-candles = 2.15 to 3

Maximum foot-candles = 9 or less

Minimum foot-candles = 1.15 or more

Max/min foot-candles = 7.85 or less

(5) These fixtures shall shield the lamp in such a way that there will be total cutoff when viewed from seventy feet (70') or more from the light source.

(6) Timers and motion sensor devices shall be used wherever practical to minimize light pollution within the Snyderville Basin.

c. Pole Top Area Asymmetrical Lighting:

(1) Pole top mounted asymmetrical distribution fixtures shall not be mounted more than sixteen feet (16') above grade, as measured to the top of the fixture or a horizontal plane being lit by the fixture.

(2) The fixture shall house a high pressure sodium lamp, with no more than four hundred (400) watts per pole.

(3) These fixtures shall be used in interior parking/site installations only, and a full cutoff variety shall be used. No more than ten percent (10%) of the total lumen output of the fixture will come out at ninety degrees (90°) above the horizontal plane of the fixture from nadir.

(4) The fixtures shall be appropriately spaced so that the foot-candles produced on the ground shall not exceed the following:

Average foot-candles = 2.15 to 3

Maximum foot-candles = 9 or less

Minimum foot-candles = 1.15 or more

Max/min foot-candles = 7.85 or less

(5) These fixtures shall shield the lamp in such a way that there will be total cutoff when viewed from seventy feet (70') or more from the light source.

d. Area Lighting; Maximum Levels:

(1) The maximum point shall not exceed fifteen (15) foot-candles within the circulation area being lit.

(2) The average light level shall not exceed four (4) foot-candles within the circulation area being lit.

(3) No more than one foot-candle will be allowed outside of twenty feet (20') beyond the circulation area being lit.

(4) No more than 0.01 foot-candles shall be allowed to spill beyond the property line of the property within which the area

lighting is provided.

e. Walkway/Pathway Symmetrical Lighting:

(1) All pathway pole top symmetric distribution fixtures shall not be mounted more than ten feet (10') above grade directly below the fixture, as measured to the top of the fixture or a horizontal plane being lit by the fixture.

(2) The fixture shall house a high pressure sodium lamp, not to exceed one hundred fifty (150) watts per pole. These fixtures can be used down a pathway, at an intersection of the pathway, or at the termination of a pathway. A full cutoff variety shall be used. No more than ten percent (10%) of the total lumen output of the fixture shall be emitted at ninety degrees (90°) above the horizontal plane of the fixture from nadir.

(3) The fixtures shall be appropriately spaced so that the foot-candles produced on the ground shall not exceed the following:

Average foot-candles = 1.35 to 2

Maximum foot-candles = 5 or less

Minimum foot-candles = 0.55 or more

Max/min foot-candles = 8.5 or less

(4) These fixtures shall shield the lamp in such a way that there will be total cutoff when viewed from seventy feet (70') or more from the light source.

f. Walkway/Pathway Asymmetrical Lighting:

(1) All pathway pole top asymmetric distribution fixtures shall not be mounted more than ten feet (10') above grade directly below the fixture, as measured to the top of the fixture or a horizontal plane being lit by the fixture.

(2) The fixture shall house a high pressure sodium lamp, not to exceed more than one hundred (100) watts per pole. These fixtures can be used down a pathway, at an intersection of the pathway, or at the termination of a pathway. A full cutoff variety shall be used. No more than ten percent (10%) of the total lumen output of the fixture will come out at ninety degrees (90°) above the horizontal plane of the fixture from nadir.

(3) The fixture should have a die-cast aluminum housing, and shall be a type III distribution pattern.

(4) These fixtures shall be located an appropriate distance from property boundary in order to ensure light does not inappropriately spill onto adjacent properties. The applicant shall provide a lighting plan to ensure appropriate placement.

(5) The fixtures shall be appropriately spaced so that the foot-candles produced on the ground shall not exceed the following:

Average foot-candles = 2

Maximum foot-candles = 10 or less

Maximum foot-candles outside of 20 feet of the area being lit = 1 or less

Maximum foot-candles beyond the property line = 0.05 or less; 0.01 or less when the adjacent property is residential.

(6) These fixtures shall shield the lamp in such a way as so there will be total cutoff when viewed from fifty feet (50') or more from the light source.

g. Walkway Lighting; Maximum Levels:

(1) The maximum point shall not exceed ten (10) foot-candles within the circulation area being lit.

(2) The average light level shall not exceed two (2) foot-candles within the circulation area being lit.

(3) No more than one foot-candle will be allowed outside of twenty feet (20') beyond the circulation area being lit.

(4) No more than 0.05 foot-candles shall be allowed to spill beyond the property line of the property within which the area lighting is provided, or no more than 0.01 foot-candles when the adjacent property is residential.

h. Roadway Lighting:

(1) Roadway pole fixtures shall not exceed twenty five feet (25') in height.

(2) The fixture should house a high pressure sodium lamp, not to exceed one hundred fifty (150) watts/pole. A full cutoff variety shall be used. No more than ten percent (10%) of the total lumen output of the fixture shall be omitted ninety degrees (90°) above the horizontal plane of the fixture from nadir.

(3) The fixture should have photometrics so that when used on a fifty foot (50') wide road, and placed on opposing one hundred foot (100') spacings, mounted on a twenty five foot (25') pole with a type III distribution, and one hundred fifty (150) watt high pressure sodium lamp, the following foot-candles should be produced on the roadway:

Average foot-candles = 1.23 or more

Maintained minimum = 0.16 or more

Max/min uniformity = 30 or less

(4) At forty feet (40') away from the pole, the roadway should not have less than 0.1 horizontal foot-candles minimum maintained at any point on the road, and one vertical foot-candle as measured from ground level to six feet (6') above grade in the middle of the road.

(5) The fixture should have a die-cast aluminum housing, and shall be a type II, III or IV distribution pattern.

(6) Decorative roadway pole mounted fixtures:

(A) Shall not be mounted above fourteen feet (14') above grade.

(B) Shall house a high pressure sodium lamp, with no more than one hundred fifty (150) watts/pole.

(C) Decorative roadway application fixtures shall utilize highly refractive globes, which have a minimum of eighty five (85) horizontal and three hundred forty five (345) vertical prisms, to evenly direct the light and evenly diffuse the light source. The fixture should have the ability to have internal light directing reflectors which can be field installed after fixture installation to accommodate customization of the lighting output and/or to redirect unwanted light to the traffic area. (Ord. 323, 3-9-1998)

(D) The fixture should have photometrics so that when used on a forty foot (40') wide road, and placed on opposing one hundred twenty five foot (125') spacings, mounted on a fourteen foot (14') pole with a type III distribution, and one hundred fifty (150) watt high pressure sodium lamp, the following foot-candles should be produced on the roadway: (Ord. 323, 3-9-1998; amd. 2004 Code)

Average foot-candles = 1 or more

Maintained minimum = 0.4 or more

Max/min uniformity = 4.45 or less

(E) The roadway should not have less that 0.1 horizontal foot-candles minimum maintained at any point on the road, and 1.5 vertical foot-candles as measured from ground level to six feet (6') above grade at forty feet (40') away from the pole in the middle of the road.

i. Building Canopy/Soffit Lighting:

(1) If lighting an area with fixtures mounted on a canopy, or off of a soffit of a building, the fixture cannot be mounted above twenty feet (20'), as measured from the top of the fixture to the adjacent grade or the horizontal plane being lit by the fixture. Such lighting shall be minimized to the extent possible.

(2) The fixture should house a high pressure sodium lamp, of no more than one hundred fifty (150) watts.

- (3) The fixtures must be a cutoff variety, whereas no more than ten percent (10%) of the total lumen output of the fixture will come out at ninety degrees (90°) above the horizontal plane of the fixture from nadir.
- (4) Canopy/soffit mounted fixtures should be mounted a minimum distance of seventy feet (70') from the circulation area, or other critical light cutoff boundaries.
- (5) The fixture must shield the lamp in such a way so that if a person is standing seventy feet (70') away from the fixture, there will be total visual cutoff of the lamp.
- (6) The maximum point should not exceed twenty (20) foot-candles within the circulation area being lit.
- (7) The average light level should not exceed ten (10) foot-candles within the circulation area being lit.
- (8) No more than one foot-candle will be allowed outside of twenty feet (20') around the circulation area being lit.
- (9) No more than 0.05 foot-candles will be allowed outside the property lines of the property being lit.
- (10) No more than 0.01 foot-candles should be allowed to spill on any residential property as a result of another party lighting their own property.
- (11) The only exception to above maximums would be in the case of a gas station canopy, whereas the maximum point should not exceed sixty (60) foot-candles, and the average light level should not exceed thirty (30) foot-candles within the boundaries of underneath the canopy. All other restrictions apply.

j. Sports Lighting Applications:

- (1) Sports lighting fixtures should not be mounted above seventy feet (70'), as measured from the top of the fixture to the adjacent grade or the horizontal plane being lit by the fixture.
- (2) The fixture should house a lamp that should not exceed one thousand five hundred (1,500) watts.
- (3) The fixture should be a IES cutoff variety, whereas when aimed at a point that is at a distance of two (2) times their mounted height, the candlepower per one thousand (1,000) lamp lumens does not numerically exceed twenty five (25) (2.5 percent) at an angle of ninety degrees (90°) above nadir (horizontal), and one hundred (100) (10 percent) at a vertical angle of eighty degrees (80°) above nadir. This applies to any lateral angle around the luminaire. The fixture should have a redirecting reflector which reflects high angle rays back into the beam achieving high beam utilization. It should be made of die-cast aluminum, and the lamp should be able to be changed without removal or dismantling of the fixture lens. The ballast should be totally encapsulated in a solid polyester resin compound.
- (4) Lighting for sports fields should be shut off no later than eleven o'clock (11:00) P.M.

(5) Specific application of sport lighting may be modified by the director.

k. Building Facade Lighting: Any proposal for building facade lighting must be approved by the director. As a general rule it will not be allowed. It may be considered if the following apply:

(1) The building surface being lit is not in the line of sight of any residential living unit.

(2) The average vertical foot-candles on the surface being lit does not exceed the average horizontal foot-candles of the adjoining circulation areas by more than three (3) times, and the maximum point does not exceed twenty (20) foot-candles.

(3) The facade lighting shall be turned off by ten o'clock (10:00) P.M. each night, and not turned on until dusk the following day.

l. Applications:

(1) Any person applying for a building or electrical permit to install outdoor lighting fixtures shall as part of said application submit evidence that the proposed work will comply with this section.

(2) The application shall contain, but not be limited to, the following:

(A) Plans indicating the location on the premises, and the type of illuminating devices, fixtures, lamp supports, and other devices. This description may include, but is not limited to, manufacturers' specifications and drawings, including sections where required.

(B) Description of the illuminating devices, fixtures, lamp supports, and other devices. This description may include, but is not limited to, manufacturers' specifications and drawings, including sections where required.

(C) Photometry data such as that furnished by manufacturers, or similar, showing the angle of cutoff of light emissions for the proposed luminaire.

(D) Computer generated point to point calculation on a scaled site plan indicating conformance with this section.

(E) Such other information as the community development director may determine is necessary to ensure compliance with this section.

m. Exemptions:

(1) Lighting necessary for construction or emergencies is exempt from the provisions herein, provided said lighting is temporary and is discontinued immediately upon completion of the construction work or abatement of the emergency necessitating said lighting.

(2) Fossil fuel light produced directly or indirectly by the combustion of natural gas or other utility type fossil fuels is exempt.
(Ord. 323, 3-9-1998)