

SECTION 14

LIGHTING STANDARDS

14.1 INTRODUCTION

The lighting standards are intended to ensure proper illumination is achieved across the community. Lighting is one of the many characteristics for which the Property will be known. Rather than provide a uniform blanket of nighttime illumination across the Property, the goal is to create character with illumination varying across the community and emphasizing the individual character of the neighborhoods and districts after dark. Neighborhoods will vary from charming, mutely lit rural neighborhoods to vibrant, energizing, entertainment districts. A single approach will not successfully create the desired diversity. As further described in Section 4.1.C, these Lighting General Development Standards apply to and control development on the Property. Refer to **Exhibit 14.1 – Lighting Character – LUG OS, CS, V, D, C, R, GU** for the lighting character depicted for active mixed-use or urban environments.

Lighting within the Property will comply with Chapter 3-12: Outdoor Lighting Requirements of the 2016 Prescott City Code, except that:

- A. In order to encourage a mixed of uses and efficient use of land, Lighting Trespass standards (3-12-8) may consider the subdivision (parcel) boundary as the “property line” of concern to light trespass. Individual, internal property lines may be disregarded.
- B. Signage Lighting installed to illuminate outdoor signage shall comply with Section 15 – Sign Standards.
- C. A Comprehensive Lighting Plan may be submitted for a district or individual site per Section 14.2 – District Comprehensive Lighting Plans and 14.3 – Individual Comprehensive Lighting Plans of this Master Plan. Such comprehensive lighting plans are anticipated to include some or all of the elements described in Section 14.4 – Comprehensive Lighting Plan Guidelines.

14.2 DISTRICT COMPREHENSIVE LIGHTING PLANS

Comprehensive lighting plans may be submitted to the City to refine the lighting requirements and locations as a tool to define districts as described below.

- A. To express the lifestyle early in the life of the community, to define community districts in ways that form the foundation of cohesive quality design and to provide vertical expressions of the future built forms on the Property, community wide lighting in temporary and permanent forms will be necessary early in the development of the community. These are likely to include but shall not be limited to:
1. Lighting of community, district and individual site banners, signs and accents at key corners.
 2. Lighting at entrances.
 3. Lighting of screen walls and fences with urban graphic displays of the urban lifestyle, events and future development.
- B. The unique land use characteristics and architectural styles of the Property clearly represent a variation from conventional development. To integrate community lighting into the design of the streetscape, neighborhood and districts within the Property, a District Comprehensive Lighting Plan may be submitted with or following a site plan or subdivision plat submission. The community lighting shall be approved by a District Comprehensive Lighting Plan not the Master Comprehensive Lighting Plan. The District Comprehensive Lighting Plan may be approved by the Community Development Director or Board of Adjustment. A Master Comprehensive Lighting Plan (this section) shall be required before a District Comprehensive Lighting Plan may be approved. The District Comprehensive Lighting Plan must relate to, complement, or enhance the character of the LUG as described in the Master Plan. The District Comprehensive Lighting Plans may be phased providing general information about the lighting type, location, size, height and orientation of some or all of the following:
- Contractor lighting
 - Development lighting
 - Subdivision or site plan lighting
 - Subdivision or site plan entry lighting
 - Subdivision or site plan amenity lighting
 - Refinements to the lighting permitted by LUG by the Master Plan
- C. If lighting type, size, height, location, orientation, color, and materials are not submitted with the District Comprehensive Lighting Plan, amendments to the District Comprehensive Lighting Plan which include this information for phases or groups of lighting must be approved by the Community Development Director or Board of Adjustments before individual lighting permits may be issued.
- D. District Comprehensive Lighting Plans containing elements which exceed the permitted height, illumination level, color, spill, trespass, glare, type, and hours of operation of lights specified in City Code may be approved by the Community Development Director or Board of Adjustments because of the unique urban land use characteristics and architectural styles of the community.

14.3 INDIVIDUAL COMPREHENSIVE LIGHTING PLANS

Comprehensive lighting plans may be submitted to the City to refine the lighting requirements and locations as a tool to define individual sites as described below.

- A. The unique land use characteristics and architectural styles of community clearly represent a cohesive plan for development. This variation and an anticipated high level of customization in some areas due to the urban and rural context, suggest that many properties will choose to submit individual comprehensive lighting plans at or after the site plan or subdivision plat process. This option provides convenience and efficiency for residents and tenants as well as the ability to create custom, highly specialized designs for specialty users.
- B. The purpose of an individual comprehensive lighting plan is to provide for the establishment of lighting criteria that are tailored to a specific development or location, and which may vary from specific provisions. The intent is to provide for flexible lighting criteria that promote superior lighting design through architectural and landscape integration of the site, buildings and signs.
- C. An Individual Comprehensive Lighting Plan may be submitted at or after the site plan or subdivision plat process. A site plan or subdivision plat must be approved before an Individual Comprehensive Lighting Plan for the property may be approved by the Community Development Director or Board of Adjustments. Neither a Master Comprehensive Lighting Plan nor a District Comprehensive Lighting Plan shall be required before an Individual Comprehensive Lighting Plan may be approved. Lighting shall be consistent and compatible with the design themes and development character expressed by the Master Plan. An Individual Comprehensive Lighting Plan may include some or all of the following for all proposed lighting either permanent or temporary:
 - Light type
 - Size (relative or absolute)
 - Height
 - Location (geographic, on object, by type, by LUG)
 - Orientation
 - Color (variance, hue, compatibility with architecture)
 - Lighting (external, internal, types, intensity, color, motion)
 - Materials
- D. A phased Individual Comprehensive Sign Plan may include only the light type, location, size, height and orientation of all proposed signs, however amendments to the Individual Comprehensive Lighting Plan providing all of required information for each phase or group of signs must be approved by the Community Development Director or Board of Adjustments before individual sign permits may be issued.
- E. Individual Comprehensive Lighting Plans containing elements which exceed the permitted standards may be approved by the Community Development Director Administrator / Board of Adjustments because of the unique land use characteristics and architectural styles of the community.

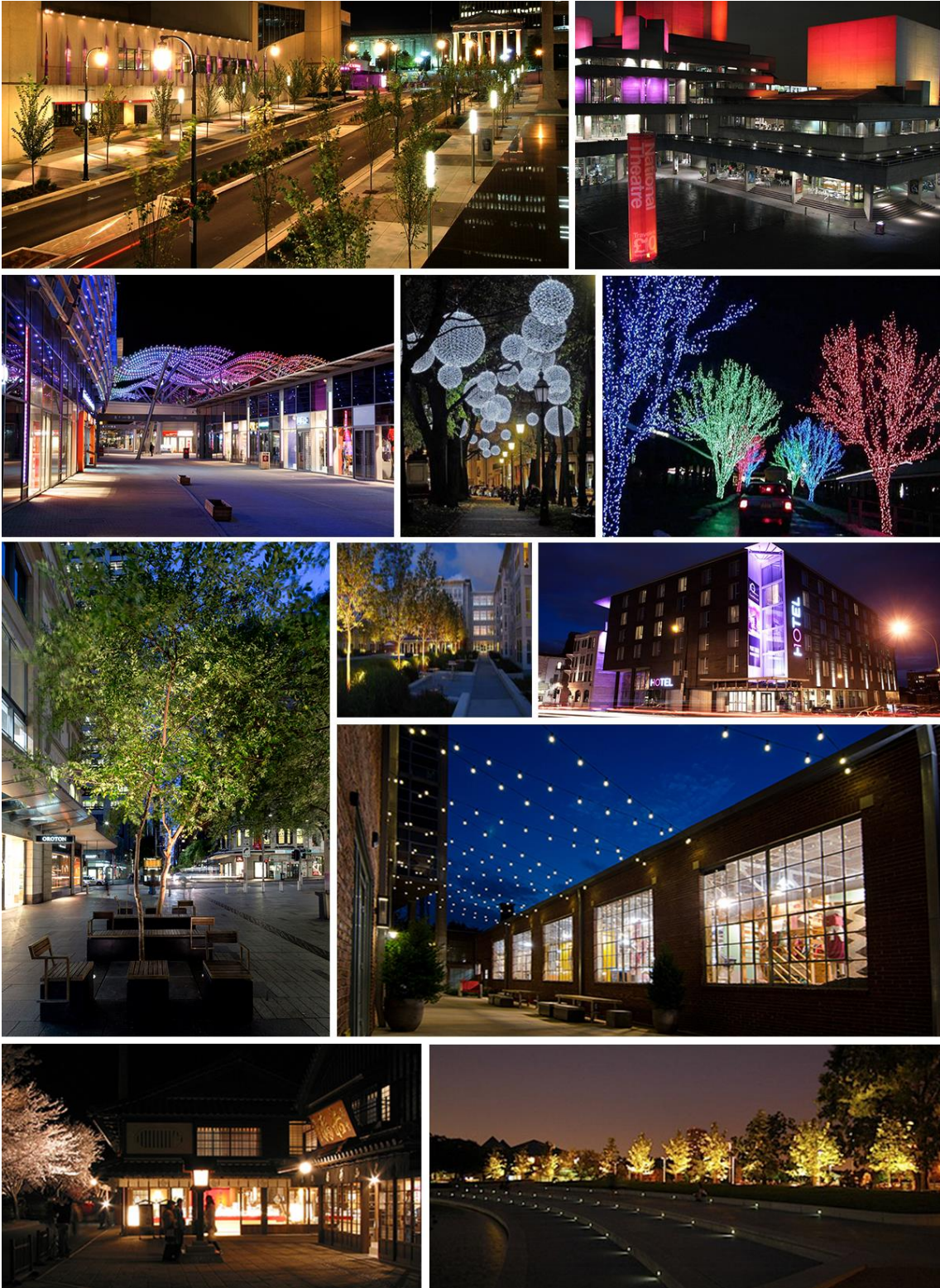
14.4 COMPREHENSIVE LIGHTING PLAN GUIDELINES

Comprehensive lighting plans may include some or all of the following elements depending on site conditions, urban character of the setting, and the location within the overall vision as outlined in this Master Plan.

The vision for lighting within the Property includes:

- Allowance of alternative light details for district, neighborhood and private streets while not compromising light levels
- Allowance of up-lighting of buildings and landscape that promote pedestrian movement and quality light design –visual accents, focal points of interest and ambient, reflective light
- Provide appropriate light level intensities for each LUG, including allowance of higher light levels within the more urban LUGs and less intense lighting within the less intense LUGs
- Varied intensity and methods to complement each LUG
- Vibrant, colorful and powerful lighting to add to the energy of the core in LUGs GU and R
- Ambient subtle lighting within LUG E and around the perimeter of uses in a rural setting
- Custom fixtures permitted to complement the character of the area and sized appropriately for the setting
- Wide variety of bulb types permitted for color and energy efficiency
 - Various mountings permitted (i.e. pole, wire strung, building mounted)
 - Lighting of landscape and buildings as well as general area lighting (i.e. up-lighting, wraps and outlines, down-lighting, wall wash)
- Artistic lighting for dramatic effect
- Lighting for recreation uses for night-time play

Exhibit 14.1 – Lighting Character – LUG OS, CS, V, D, C, R, GU



Note: photos are intended to be representative of the character and quality of the types of lighting within the Property and are not intended to express specific design details, colors or materials.

- A. Some areas of the Property may be unlit or have reduced lighting levels.
- B. General area lighting may be created not only by direct illumination but also by the use of reflected light used to illuminate buildings, walls, artwork, landscape and hardscape.
- C. Thematic poles and fixtures may be used that complement the architecture, landscape or district design and height may vary depending on context. More detail about thematic character for street furniture may be provided and approved as part of the site plan or subdivision plat process.
- D. Murals may be illuminated as artwork.
- E. Flags, pennants, or insignia of any nation, state, county, city, or other political unit, or any church or religious organization may be lighted from ground or pole mounted fixtures per Illuminating Engineering Society ("IES") recommendations.
- F. All exterior walkways, parks, parking lots, sales areas, or similar facilities which are intended to be occupied by the public during hours of darkness shall be provided with appropriate levels of illumination per recommended guidelines by IES standards for the use intended, during hours of normal occupation.
- G. For light spillage, the light level at the boundary of the Property, measured thirty-six (36) inches above ground level, shall be not more than 0.5 foot candles (5 Lux) above ambient light level where adjacent to residential areas and no more than an average maintained one foot candle (10.8 Lux) adjacent to all other uses. Where the Property is adjacent to a public street, the property line may be considered to be the centerline of the street. Light spillage between parcels internal to the Property shall not be restricted.
- H. Visibility of fixtures or the lamps contained within them shall not be restricted except at the boundary of the Property.
- I. Fixtures used to illuminate buildings or structures may be exempt from any maximum wattage for mounting height requirements.
- J. A limitation to the hours of operation on illumination is encouraged, but may vary or be waived depending on the neighborhood and context.
- K. A limitation to the hours of operation on illumination for outdoor advertising in the LUGs C, R or GU may be unlimited except as may be specified as a condition of approval.
- L. For landscape and architectural features, energy efficient alternatives with equivalent lumen output to 150W (or less) incandescent fixtures may be permitted to be unshielded where used for illumination of landscape, hardscape, structures or architectural elements.
- M. For indirect area lighting, indirect lighting fixtures that direct light upwards onto a reflector for down-lighting applications may be permitted where fixtures are specifically designed with cutoff optics to minimize light pollution.
- N. Outdoor lighting fixtures utilizing Light Emitting Diodes (LED), Electro-luminescence, fiber optics and other similar technologies may be permitted to be unshielded where the fixture lumen output is equal to or less than a 150W incandescent fixture. Higher lumen fixtures should be shielded where used for general area illumination.

- O. For architectural façade illumination, lighting fixtures may be permitted to illuminate architectural facades and building elements by means of unshielded, up-lighting techniques where photometric analysis indicates that no more than ten percent (10%) of the light output of the fixture is directed into the night sky. Up-lights should incorporate louvers or be located to minimize glare to pedestrian and vehicle traffic.
- P. The lighting of tensile fabric or similar structures may be permitted. Such lighting may be up-lighting, and may use the canopy, fabric or structure to achieve the shielding requirements.
- Q. Cable mounted lighting strung over streets, patios, paths or other outdoor areas for ambient effect may be permitted. Lighting strung over public rights-of-way requires approval by the Community Development Director.
- R. Glass tubes filled with neon, argon or krypton, or similar equivalent (e.g. LED-neon, fiber-optic), without shielding or filtering are anticipated in various LUGs throughout the community, and may be approved as signage or building elevations as determined during site plan review. Review shall be based upon the following criteria:
 - 1. Constitutes a design component of the overall building architecture; and
 - 2. Is integrated into the primary physical elements of the building or development and is harmonious with the architectural style of the structure(s); and
 - 3. Is compatible with the land use and architecture of adjacent developments.
 - 4. Any approval by the Community Development Director for exposed building illumination requires:
 - a. If any component of the lighting becomes nonfunctional, neither the entire lighting system nor any portion thereof may be illuminated until the entire lighting system is repaired. If the system remains nonfunctional and non-illuminated for more than thirty (30) consecutive days, the approval by the Community Development Director may be revoked by direction of the Superintendent of Building Inspections after forty-eight (48) hour prior notice. The revocation of the approval may be appealed to the City Council.
 - b. The illumination complies with the outdoor light control/provisions of the City Code, as amended by this Master Plan, and as evidenced by submittal of complete design plans and specifications.
- S. Parking Lot Lighting Guidelines
 - 1. Maximum light standards height should be appropriate to the surrounding context.
 - 2. Acceptable light sources used to illuminate parking areas include High Pressure Sodium (HPS), Light Emitting Diode (LED) or other appropriate light source including new technology. Other light sources may be used for outdoor retail and recreational uses occurring in a parking lot.
 - 3. Off-street parking luminaries, landscape lighting and security lighting may remain lighted after close of public use or business hours.
 - 4. Where appropriate, house-side shielding may be provided and is encouraged on light standards adjacent to residential development.

5. Building mounted lights should be placed at appropriate heights and, where appropriate, incorporated into the building architecture.
6. Lighting in covered parking areas may be up-lighting and may use the canopy to achieve the shielding requirements.
7. A parking lot lighting system should be designed to provide lighting appropriate to the context, pedestrian use and building entrance per Illuminating Engineering Society ("IES") recommendations.

T. Open Space Lighting

1. Active recreation and sports fields may be constructed in various forms. The Master Plan Administrator will have the exclusive right to determine the appropriate location(s), programming and sports field lighting requirements, subject to the following conditions:
 - a. Sports field lights shall be located at a minimum of the mounting height distance from single-family residential homes;
 - b. Sports field lighting systems shall be designed to minimize glare and spillover where possible;
 - c. Sports field lighting may be mounted on adjacent structures;
 - d. Sports field light poles may be used to co-locate telecommunication towers;
 - e. Sports field lighting shall not be permitted in restricted areas as described in Section 14.3 - Airport Flight Path Lighting
2. Passive recreation areas shall be illuminated if intended for nighttime use;
3. Retention areas and/or open space not intended for nighttime use shall not require illumination.