



COMMUNITY DEVELOPMENT DEPARTMENT

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PLANNING COMMISSION STAFF REPORT

Meeting: October 28, 2019

Subject

Study Session related to Dark Sky Policies and/or standards.

Recommended Action

Provide direction to Staff on potential policies and/or standards for lighting regulations.

Discussion

Background

The development of a Dark Sky Policy and/or standards was included in the City Council's FY2019-2020 work program with a goal of adopting standards by Winter 2020. According to the Illuminating and Engineering Society (IES) and International Dark Sky Association (DSA), the issue of light pollution was first recognized as a growing concern during the 1970s when astronomers identified night sky degradation due to increased lighting that accompanied growth and development. As a result, the "dark sky" movement was developed and the DSA was formed to help preserve and protect the nighttime environment through environmentally responsible outdoor lighting.

Dark Sky regulations have the intent, among others, to:

- Permit reasonable outdoor lighting for nighttime safety, utility, security and enjoyment while preserving the ambience of night;
- Prevent light pollution and intrusion;
- Curtail and reverse any degradation of the nighttime visual environment and the night sky;
- Provide a Bird-safe environment for migrating birds;
- Minimize glare and obtrusive light by limiting outdoor lighting that is misdirected, excessive or unnecessary; and,
- Help protect the natural environment from damaging effects of night lighting

The City currently regulates outdoor lighting through development standards within the Cupertino Municipal Code (CMC). Chapter 19.60: General Commercial and Chapter

19.124: Parking Regulations include regulations for new lighting fixtures at any new site construction or building improvements within General Commercial (CG) zoning districts, including parking lots, sidewalks and other areas accessible to pedestrians and automobiles. The City's ordinance requires that exterior lighting be white type light that is either metal halide or a comparable color corrected light unless otherwise approved as part of a development plan. To minimize the impact of lighting glare, light fixtures must be oriented and designed to preclude any light and direct glare to adjacent residential properties. Lighting glare may not be visible above three feet from public right-of-way. It is also required that lighting be designed to illuminate with a uniform and adequate intensity in compliance with the standards identified in the Municipal Code. The Municipal Code allows for critical areas (stairways, ramps, and main walkways) to have a higher level of illumination than other areas. See CMC Table 19.060.060.E.

In addition to CG zoned properties and parking lots, the Municipal Code identifies specific lighting standards for properties zoned Residential Hillside (RHS) due to the environmentally sensitive setting in which these properties are located. CMC Table 19.040.060.H.3 requires that all outdoor lights be directed to meet the particular need. Motion-activated security lights may not exceed 100 watts and must be shielded to avoid all off-site intrusion. In addition, the Municipal Code prohibits high-intensity lighting of tennis courts and other recreational uses.

These requirements do not address lighting placed in other types of residential uses (single family, multi-family, duplex etc.), mixed-uses, or other non-residential buildings (office, industrial, quasi-public).

Analysis

Many cities have ordinances like Cupertino's pertaining to development standards that regulate lighting, but some cities have Dark Sky ordinances that go above and beyond traditional development standards. A comparison matrix of the different types of regulation in different California communities is attached as Attachment 1. The following is a discussion about the different aspects of lighting that ordinances, Dark Sky ordinances included, regulate.

Applicability

In general, lighting standards are applicable in all zones and for all uses. In all cases, outdoor lighting for new development is required to meet the adopted standards. In some jurisdictions, an exception allows outdoor lighting in existing development to continue its nonconformity with the Dark Sky Ordinance. Other cities require that a development must comply whenever a permit (building, electrical, or planning) is requested. Some cities require that all developments conform with the new lighting standards by a particular date.

Fixture Type

There are multiple light fixtures regulations that can be required as best practices for Dark Sky implementation (see Attachment 1). Generally, most cities require that outdoor illumination be shielded and directed downward. This is to help prevent light intrusion into adjacent properties and to ensure that the lighting fixture is illuminating the appropriate area. Additionally, cities have developed height standards for new lighting depending on the use of the lighting. For instance, lighting at entrances to buildings may be limited to a maximum fixture height of eight feet, pedestrian lighting (walkways) may be limited to a height between three to five feet, and parking lot lighting may be limited to between 15-20 feet, depending on the intensity of the use.

Lighting Controls

Lighting controls is another aspect identified in Dark Sky ordinances. Light controls allow for lights to be illuminated for a certain amount time and turned off after or by a certain time period. Examples of this include motion sensor lights, photo-cells, and timers.

Prohibited Lights

Cities also prohibit certain types of lights. In general, lighting that has the potential for greater light and glare onto adjacent properties and uses is prohibited. Prohibited lighting types include up-lighting, lights for game courts (tennis, basketball, etc.), aerial lasers, flood lights, search lights, lighting with no on/off switch or ability to be controlled, lights that exceed 1,125 lumens, strings of exposed light bulbs, flashing lights, lights that project above the horizontal plane, and high intensity discharge lighting (mercury vapor, high and low pressure sodium, and metal halide).

Exceptions

Jurisdictions allow exceptions for certain types of lighting. A common light exception is for display of holiday lights. While some jurisdictions do not specify a time period, some jurisdictions specify the time period in which holiday lights can be displayed (i.e., November 15 – January 15). Other exceptions include permitted lighting for signs, temporary construction lighting, accent lighting (architectural features, statues, art, etc.), and lighting of public rights-of-way.

Lighting Requiring a Hearing

Some cities provide a process to approve lighting that is normally considered to be unnecessary. An example of this is requiring illumination that would typically be discouraged (e.g., lighting for landscaping) to go through design review involving a public meeting. Some jurisdictions allow for any deviation of lighting within residential zones to be approved administratively at a staff level, but require a meeting before a

higher approval body (e.g., Design Review Committee or Planning Commission) for any deviation in other zones.

Next Steps

With direction received from the Planning Commission at the October 28, 2019 meeting, staff will develop a draft regulatory program for a Dark Sky Ordinance and identify required Municipal Code amendments. Outreach will be conducted with the community and various departments and agencies. Once prepared, staff will present the draft ordinance to the Planning Commission for review and recommendation to the City Council for its consideration and final adoption.

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Attachments:

1 – Comparison of Cities Matrix

2 – Examples of Acceptable and Unacceptable Lighting Fixtures for the Dark Sky Association