

CITY OF ALAMEDA ORDINANCE NO. _____

New Series

AMENDING CHAPTER XXX OF THE ALAMEDA MUNICIPAL CODE (DEVELOPMENT REGULATIONS) TO ADD BIRD-SAFE BUILDING STANDARDS AND OUTDOOR LIGHTING REGULATIONS.

BE IT ORDAINED by the City Council of the City of Alameda:

Findings.

In enacting this Section, the City Council finds as follows:

- 1. The amendment maintains the integrity of the General Plan.** The proposed amendment to the Zoning Ordinance is consistent with the goals and policies of the Alameda General Plan. The amendment would add new bird-safe building standards in order to reduce bird deaths resulting from collisions with windows and other transparent glass features. The standards are consistent with a guiding policy of the Conservation Element of the General Plan, that of preserving the city's natural resources. The proposed text amendment for outdoor lighting regulations are also consistent with policies of the General Plan to protect public health, safety, and welfare of Alamedans by setting maximum standards outdoor lighting to prevent excessive up-light, glare and light pollution.
- 2. The amendment will support the general welfare of the community.** The birds that migrate through and live in Alameda are a valuable part of the natural environment and setting. As recognized in the Conservation Element, there is an important interdependent relationship between human and other living communities. By protecting bird life, the proposed regulations will support the general welfare for the Alameda community. By regulating outdoor lighting to prevent light pollution and glare, the proposed outdoor lighting regulations will also enhance the general welfare of the community.
- 3. The amendments are equitable.** The proposed amendment is equitable in that it applies citywide, requiring bird-safe window treatment for projects that meet the size thresholds and outdoor lighting to meet specific citywide standards.
- 4. The amendments are exempt from the California Environmental Quality Act.** The proposed amendments are categorically exempt from the requirements of the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Section 15307, Actions by Regulatory Agencies for Protection of Natural Resources, which exempts actions taken to assure the maintenance, restoration, or enhancement of a

natural resources including wildlife preservation activities. Moreover, each as a separate and independent basis, this proposal is exempt from CEQA pursuant to CEQA Guidelines Sections 15305, Minor Alterations to Land Use Limitations, 15183 (projects consistent with General Plan and Zoning) and 15061(b)(3) (general rule, where there is certainty the proposal has no significant effect on the environment).

Section 1. Section 30-5.16 (Performance Standards for New Buildings and Uses) shall be amended as follows (unchanged text in plain Arial font; additions in single-underline Arial font; deletions in ~~strike through Arial font~~):

~~30-5.16 – Performance Standards for New Buildings and Uses.~~

a. Purpose and Applicability.

1. Purpose. The purpose of this section is to establish performance standards for uses of land and buildings in all districts, in order to ensure that other properties, as well as persons in the community, are provided protection against any adverse conditions that might be created as a result of such uses.
2. Applicability. The performance standards apply to all new and existing land uses, including permanent and temporary uses, in all zoning districts, unless otherwise specified. Existing uses shall not be altered or modified to conflict with, or further conflict with, these standards.
3. General Conditions. The performance standards are general requirements and shall not be construed to prevent the Planning Director, Planning Board, or City Council from imposing, as part of project approval, specific conditions that may be more restrictive in order to meet the intent of these regulations.

b. Bird-Safe Buildings. This section shall be known as the Bird-Safe Building Ordinance.

1. Purpose. The purpose of this section is to reduce bird mortality from windows or other specific building features known to increase the risk of bird collisions.
2. Applicability. The bird-safe building standards apply to the following types of projects when such projects require a building permit.
 - (a) New Construction. New buildings with two (2) or more stories, and one or more façades in which glass constitutes fifty percent (50%) or more of the area of the individual façade. The bird-safe glazing requirement must be met on any window with an area of twelve (12) square feet or more located on such façade.
 - (b) Window Replacement. On buildings with two (2) or more stories, and one or more facades in which glass constitutes fifty percent (50%) or more of the

area of the individual façade, replacement of any window or other rigid transparent material with an area of twelve (12) square feet or more. The requirement does not apply on existing windows that are not proposed to be replaced.

(c) New or Replaced Glass Structures. Any structure that has transparent glass walls twenty-four (24) square feet or more in size, including but not limited to freestanding glass walls, wind barriers, skywalks, balconies, greenhouses, and rooftop appurtenances.

3. Exemptions. The bird-safe building standards shall not apply to the following:

(a) Historic Structures. The replacement of existing glass on historic structures. However, the standards shall apply to new exterior additions to historic structures, and new construction on the site of historic structures, that are differentiated from the historic structures, if determined by the Planning Director to be consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

(b) Glazing on Commercial Storefronts. The ground floor of commercial storefronts directly fronting a public street, alley, or sidewalk.

4. Standards.

(a) Bird-Safe Glazing Requirement. At least ninety percent (90%) of the glazing on any building façade or freestanding glass structure shall include features that enable birds to perceive the glass as a solid object. The requirement can be satisfied by using one or more of the following treatments to be determined by the Planning Director as part of an application for a building permit:

(i) External screens installed permanently over glass windows such that the windows do not appear reflective.

(ii) Light-colored blinds or curtains.

(iii) Opaque glass, translucent glass, or opaque or translucent window film.

(iv) Paned glass with mullions on the exterior of the glass.

(v) Glass covered with patterns (e.g., dots, stripes, images, abstract patterns, lettering). Such patterns may be etched, fritted, stenciled, silk-screened, applied to the glass on films or decals, or another method of permanently incorporating the patterns into or onto the glass. Elements of the patterns must be at least one-eighth (1/8) inch tall and separated no more than two (2) inches vertically, at least one-quarter (1/4) inch wide and separated by no more than four (4) inches horizontally, or both (the "two-by-four rule").

(vi) Ultraviolet (UV)-pattern reflective glass, laminated glass with a patterned UV-reflective coating, or UV-absorbing and UV-reflecting film that is permanently applied to the glass. Where patterns are used, they shall meet the two-by-four rule.

(vii) Other glazing treatments providing an equivalent level of bird safety and approved by the Planning Director as part of building plan review.

(b) Alternative Compliance. As an alternative to meeting subsection 4(a), Bird-Safe Glazing Requirement, an applicant may propose building and fenestration designs and/or operational measures that will minimize bird collisions and achieve an equivalent level of bird safety. The applicant shall submit a bird collision reduction plan along with the application for design review or other discretionary permit required for the project. The bird collision reduction plan shall be prepared by a qualified biologist. Design and operational solutions may include but need not be limited to the following techniques, singularly or in combination:

(i) Layering and recessing glazed surfaces.

(ii) Angled or faceted glazing that minimizes reflectivity and transparency.

(iii) Louvres.

(iv) Overhangs and awnings.

(v) Glass block.

(vi) Bird netting.

(vii) Decorative grilles that allow birds to perceive the grilles, together with the glass behind them, as solid.

(viii) Glass embedded with photovoltaic cells.

(ix) Placement of landscaping in such a way as to minimize bird collisions.

c. *Outdoor Lighting.* This section shall be known as the Alameda Dark Skies Ordinance.

1. Purpose. The standards of the Alameda Dark Skies Ordinance are intended to:

(a) Allow adequate illumination for safety, security, utility, and the enjoyment of outdoor areas.

(b) Prevent excessive light and glare on public roadways and private properties.

- (c) Minimize artificial outdoor light that can have a detrimental effect on human health, the environment, astronomical research, amateur astronomy, and enjoyment of the night sky.
 - (d) Minimize light that can be attractive, disorienting, and hazardous to migrating and local birds.
2. Definitions. The following definitions are specific to the interpretation of this section. Additional definitions applicable to the zoning ordinance as a whole are listed in Section 30-2, Definitions.
- (a) Bird Migration Season. Bird migration season shall mean February 15 to May 31 and August 1 to November 30.
 - (b) Candela. The standard unit of luminous intensity in the International System of Units. In contrast to lumens, which measure the total light energy emitted by a particular light source, a candela represents a value of light intensity from any point in a single direction from the light source.
 - (c) Foot-candle. A unit of measure in the International System of Units for quantifying the intensity of light falling on an object. One foot-candle is equal to one lumen uniformly distributed over an area of one square foot. In contrast with lumens, which measure the light energy radiated by a particular light source, foot-candles measure the brightness of light at the illuminated object.
 - (d) Glare. The effect produced by a light source within the visual field that is sufficiently brighter than the level to which the eyes are adapted, so as to cause annoyance, discomfort or loss of visual performance and ability.
 - (e) Kelvin. The temperature scale utilized in illumination science to describe the hue/color of the light. A lower value such as 2,700 Kelvin is associated with a “warm” colored light source such as incandescent, while a higher value such as 5,000 Kelvin is associated with a “cool” colored light source.
 - (f) Light Fixture (Luminaire). A complete lighting unit consisting of a lamp or lamps, and ballast(s), where applicable, together with the parts designed to distribute the light, position and protect the lamps and ballasts, and connect the lamps to the power supply.
 - (g) Light Trespass. Light emitted by a luminaire that shines beyond the property on which the luminaire is installed.

- (h) Lumen. A unit of measure in the International System of Units for quantifying the amount and rate of light energy emitted by a particular light source. A lumen is equal to the amount of light given out through a solid angle by a source of one candela intensity radiating equally in all directions.
 - (i) Shielded Fixture. Light fixtures that are shielded or constructed so that light rays emitted by the lamp are projected below the horizontal plane passing through the lowest point on the fixture from which light is emitted.
 - (j) Uplighting. The placement and orientation of lights such that beams of light are directed upward.
3. Applicability. Unless otherwise expressly stated, the standards of this Subsection (c), Outdoor Lighting, apply to any project that requires a building permit or electrical permit for:
- (a) New exterior lighting, including lighting fixtures attached to buildings, structures, poles, or self-supporting structures; or
 - (b) Additions or replacements of existing exterior light fixtures, including upgrades and replacements of damaged or destroyed fixtures.
4. Exemptions. The following types of lighting are exempt from the requirements of this Subsection (c), Outdoor Lighting:
- (a) Emergency Lighting. Temporary emergency lighting used by law enforcement or emergency services personnel, a public utility, or in conjunction with any other emergency service.
 - (b) Construction Lighting. Temporary lighting used for the construction or repair of roadways, utilities, and other public infrastructure.
 - (c) Airport Lighting. Lighting for public and private airports and any other uses that are regulated by the Federal Aviation Administration.
 - (d) Lighting Required by Building Codes or Other Regulations. Lighting for communication towers, exit signs, stairs/ramps, points of ingress/egress to buildings, and all other illumination required by building codes, OSHA standards, and other permitting requirements from state or federal agencies.
 - (e) Signs. Signs and sign lighting. (See Section 30-6.6, Illumination of Signs, for sign lighting standards.)

- (f) Athletic Field Lights. Athletic field lights used within a school campus or public or private park, provided, however, that athletic field lights shall be selected and installed so as to minimize glare and light trespass outside the playing area. Athletic field lights shall be turned off no later than 11:00 p.m. or where an event requires extended time, no later than 30 minutes after conclusion of the event.
- (g) Neon, Argon, and Krypton. All fixtures illuminated solely by neon, argon, or krypton.
- (h) Fossil Fuel Light. All outdoor light fixtures producing light directly through the combustion of fossil fuels, such as kerosene lanterns, and gas lamps.
- (i) Water Features. Lighting used in or for the purpose of lighting swimming pools, hot tubs, decorative fountains, and other water features.
- (j) Flag Lighting. Lighting used to illuminate a properly displayed United States flag and/or the State of California flag.
- (k) Holiday Displays. Seasonal and holiday lighting.
- (l) Temporary Lighting. Temporary lighting allowed under a Special Events Permit or Film/Photography Permit.

5. Prohibitions. The following types of lighting are prohibited:

- (a) Searchlights. The operation of searchlights, unless allowed on a temporary basis under a Special Event Permit outside of bird migration season or operated by law enforcement or emergency services personnel.
- (b) Aerial Lasers. The use of aerial lasers or any similar high-intensity light for outdoor advertising or entertainment when projected upward, unless allowed on a temporary basis as part of a Special Event Permit outside of bird migration season.
- (c) Mercury Vapor. The installation of new mercury vapor fixtures.
- (d) Other very intense lighting having a light source exceeding two hundred thousand (200,000) initial luminaire lumens or an intensity in any direction of more than two million (2,000,000) candelas.

6. Standards. Exterior lighting shall be consistent with these standards.

(a) Shielding. All exterior lighting fixtures shall be fully shielded, and lighting shall be directed downward, with the following exceptions:

- (i) Low-voltage Landscape Lighting. Low-voltage landscape lighting such as that used to illuminate fountains, shrubbery, trees, and walkways, may be unshielded provided that it uses no more than sixty (60) watts, or twelve (12) watt equivalent LED, and emits no more than seven hundred fifty (750) lumens per fixture.
- (ii) Architecture and Public Art. Uplighting may be used to highlight special architectural features, historic structures, public art and monuments, and similar objects of interest. Lamps used for such uplighting shall use less than one hundred (100) watts, or twenty (20) watt equivalent LED, and emit less than one thousand six hundred (1,600) lumens per fixture.
- (iii) Historic Lighting Fixtures. Lighting fixtures that are historic or that exhibit a historical period appearance, as determined by the Planning Director, need not be fully shielded.

(b) Light Trespass. Exterior lighting shall be directed downward and away from property lines to prevent excessive glare beyond the subject property. No light, combination of lights, or activity shall cast light exceeding one (1) foot-candle onto an adjacent or nearby property, with the illumination level measured at the property line between the lot on which the light is located and the adjacent lot, at the point nearest to the light source.

(c) Correlated Color Temperature for Light-Emitting Diode (LED) Lighting. All LED light sources shall have a maintained correlated color temperature of less than or equal to three thousand (3,000) Kelvins.

(d) Security Lighting. Adequate lighting shall be provided to protect persons and property and to allow for the proper functioning of surveillance equipment.

- (i) Security lighting shall consist of shielded fixtures that are directed downward. Floodlights shall not be permitted.
- (ii) Vertical features, such as walls of a building, may be illuminated for security to a height of eight (8) feet above grade.
- (iii) Security lights intended to illuminate a perimeter, such as a fence line, are allowed only if regulated by a programmable motion detection

system and compliant with the light trespass limitations in Subsection (b).

- (iv) Security lighting fixtures that utilize one hundred (100) or more watts, or twenty (20) watt equivalent LED, or emit one thousand six hundred (1,600) or more lumens shall be controlled by a programmable motion-sensor device, except where continuous lighting is required by the California Building Standards Code.

(e) Parking Lot Lighting. Parking lot lighting shall be consistent with the standards of Section 30-7.17, Illumination of Parking Areas.

(f) Service Station Canopies. Service station canopies are subject to the following standards.

- (i) Lighting fixtures in the ceiling of canopies shall be fully recessed in the canopy.
- (ii) Light fixtures shall not be mounted on the top or fascia of such canopies.
- (iii) The fascia of such canopies shall not be illuminated, except for approved signage.

(g) Street and Park Lighting. Lighting installed within a public or private right-of-way or easement for the purpose of illuminating streets or roadways and lighting in City parks shall be in accordance to lighting standards of the Public Works Department and Alameda Recreation and Parks Departments, except all LED lighting shall have a maintained correlated color temperature of less than or equal to three thousand (3,000) Kelvins.

7. Code Compliance. All exterior lighting shall be consistent with all applicable parts of the California Building Standards Code. In the case of any conflict between the standards of this section and the California Building Standards Code, the latter shall prevail.

ad. Wood Burning Fireplaces and Stoves. To reduce greenhouse gas emissions and minimize air quality impacts, wood-burning stoves and fireplaces are prohibited in new residential construction.

be. Vibrations. No vibration shall be permitted which is discernible without instruments at any property line.

- ef. *Glare or Heat.* No heat or direct or sky-reflected glare, whether from floodlights, or high-temperature processes such as combustion or welding or otherwise, shall emanate from any use so as to be visible or discernible from the property line. Legal signs are exempted from this provision.
- eg. *Fissionable or Radioactive Material.* No activity shall be permitted which utilizes, produces, removes or reprocesses fissionable or radioactive material unless a license, permit or other authority is secured from the state or federal agency exercising control. In all matters relative to such activities, it shall be the responsibility of the user to ascertain and identify the responsible agencies and notify the Community Development Department as to the agencies involved and the status of the required permits.
- eh. *Maintenance.* Each person, company or corporation utilizing a lot shall at all times maintain such lot in good order. This shall include repair and maintenance of all structures, fences, signs, walks, driveways, landscaping, necessary to preserve property values and public health, welfare, and safety.
- ~~f. *Exterior Lighting.* Onsite exterior lighting shall be diffused and/or concealed in order to prevent illumination of adjoining properties or the creation of objectionable visual impacts on other properties or streets.~~