

CALIFORNIA BUILDING STANDARDS COMMISSION

August 20, 2019
GREEN BUILDING
WORKSHOP
Agenda Item 8

DRAFT EXPRESS TERMS CALIFORNIA GREEN BUILDING STANDARDS CODE, (CALGreen), PART 11, CALIFORNIA BUILDING STANDARDS CODE, TITLE 24, CALIFORNIA CODE OF REGULATIONS

LEGEND FOR EXPRESS TERMS

1. New California amendments: All such language appears (begin underline) underlined. (end underline)
2. Repealed text: All such language appears in (begin strikeout) ~~strikeout~~. (end strikeout)

A5.107 Bird-friendly building design (Voluntary Measures)

- **Statement of specific purpose, problem, rationale and benefits:**

CBSC received a petition to include Bird Friendly Design as a voluntary measure in the 2019 Intervening Code Cycle Rulemaking. The subject petition for voluntary bird-friendly building design standards relies on CBCS's authority under *Health and Safety Code 18931(f)* and is proposed for non-residential buildings across California and can be adopted by local governments. CBSC reviewed, and determined that the petition met the criteria for a petition as shown in Title 24, Part 1, *California Administrative Code*, Article 3, Section 1-315. Thus, CBSC has agreed to address the petition in the 2019 Intervening Code Cycle.

The problem the petition sets out to address is the large number of bird deaths caused by collisions with buildings. Many varieties of birds are at risk. In general, it is the smaller species that fly at lower altitudes that are in most danger of collisions in California. Material alternatives to vision glass for the treatment of building areas posing the greatest risk for collision should be considered in bird friendly guidelines along with other bird friendly materials which could be incorporated into local model ordinances.

CBSC proposes to add Section A5.107 Bird-friendly building design, and adopt the following amendments that address "bird-friendly" standards for planning and design of buildings that specifically reduce the number of bird deaths caused by collisions with buildings. CBSC is proposing concepts and alternative materials to vision glazing and other building features for designers and developers to use when designing buildings to reduce bird collision. By identifying and incorporating "bird friendly" strategies for designers and developers, the number of birds killed by collision with buildings will likely be reduced.

(Begin underline) **A5.107 Bird-friendly building design.** Building design elements and features considered “bird-friendly” shall comply with Sections A5.107.1 through A5.107.3.

A5.107.1 Glazing. No more than 10% of building facades to a height of 40 feet (12 m) or to that of the average height of local tree canopy, whichever is higher; and no more than 40% of facades above that shall be see-through glazing, reflective glazing or acrylic glass unless:

A. It is glazing that meets the energy requirements of the current California Energy Code and can include, but is not limited to, the following:

1. Etched or fritted glass with patterns of elements on the exterior having minimum dimensions of 3/8" diameter for dots or 1/8" width for stripes in a density of 2 inches (5.1 cm) maximum horizontally or 4 inches (10.2 cm) maximum vertically (the 2x4 rule).

Note: If the frit is on the interior of the glass, it can be effective if visible on a non-reflective exterior surface.

2. Interior or exterior glazing films with a pattern visible from the outside conforming to the 2x4 rule;
3. Laminated glass with 2x4 patterns, patterned UV coating or use of contrasting patterned UV-absorbing and UV reflective films; or
4. Glass block or channel glass; or

B. It is protected by exterior features that may include, but not be limited to:

1. Grilles or screens with openings no more than 2 inches (5.1 cm) maximum horizontally or 4 inches (10 cm) maximum vertically (the 2x4 rule) installed on the exterior side of glass.
2. Netting with 2x2 maximum openings.
3. Sunshades or louvers with 3 dimensional elements spaced a maximum vertical or horizontal 9"; or
4. Interior blinds with 2x4 patterns visible from the exterior during the day and shielding interior lighting at night, included as part of the construction contract.

A5.107.2 Special conditions. Vegetated roofs, site structures, comers and passageways, and facades of atria and courtyards shall comply with the following:

1. Railings and facades adjacent to vegetated roofs shall meet the standards in A5.107.1 (A) or (B) treated to a height of 1 unit per 4 units of perpendicular length of green roof.

2. Auxiliary buildings such as pavilions or gazebos and facades of atria or courtyards with water features or plants shall meet the standards of A5.107.1 (A) or (B); and
3. There shall be no see-through passageways and comers exposed to sky or habitat on the other side.

A5.107.3 Nighttime conditions. Nighttime building lighting at the top of the building, interiors of all floors, lobby and atria shall be controlled as follows:

- A. Lighting is extinguished between March 15 and May 31 and between August 15 and October 31 from midnight to dawn.
- B. Time-switch control devices or occupancy sensors are installed complying with the current *California Energy Code*, that can be programmed to turn off lights during those time frames.

Exception: Emergency lighting and lighting required for nighttime security.

A5.107.3.1 Systems or operation and maintenance manual. Include written recommendations that lighting is extinguished pursuant to Section A5.107.3 and janitorial services to the building are scheduled between sunrise and sunset.
(end underline)