IV. San Francisco's Bird-Safe Requirements

It is clear from studies done throughout the U.S. and Canada that certain building and landscape configurations can be especially dangerous to birds. These sites present heightened risks for collisions and necessitate requirements, which are included in Section 139 of the Planning Code, Standards for Bird-Safe Buildings.

NY Bird-Safe Building Guidelines

The following bird-safe measures apply in San Francisco.

Structure and/or siting characteristics that present the greatest risk to birds are called "bird-hazards" and include:

1 Location-related hazards

2 Building feature-related hazards

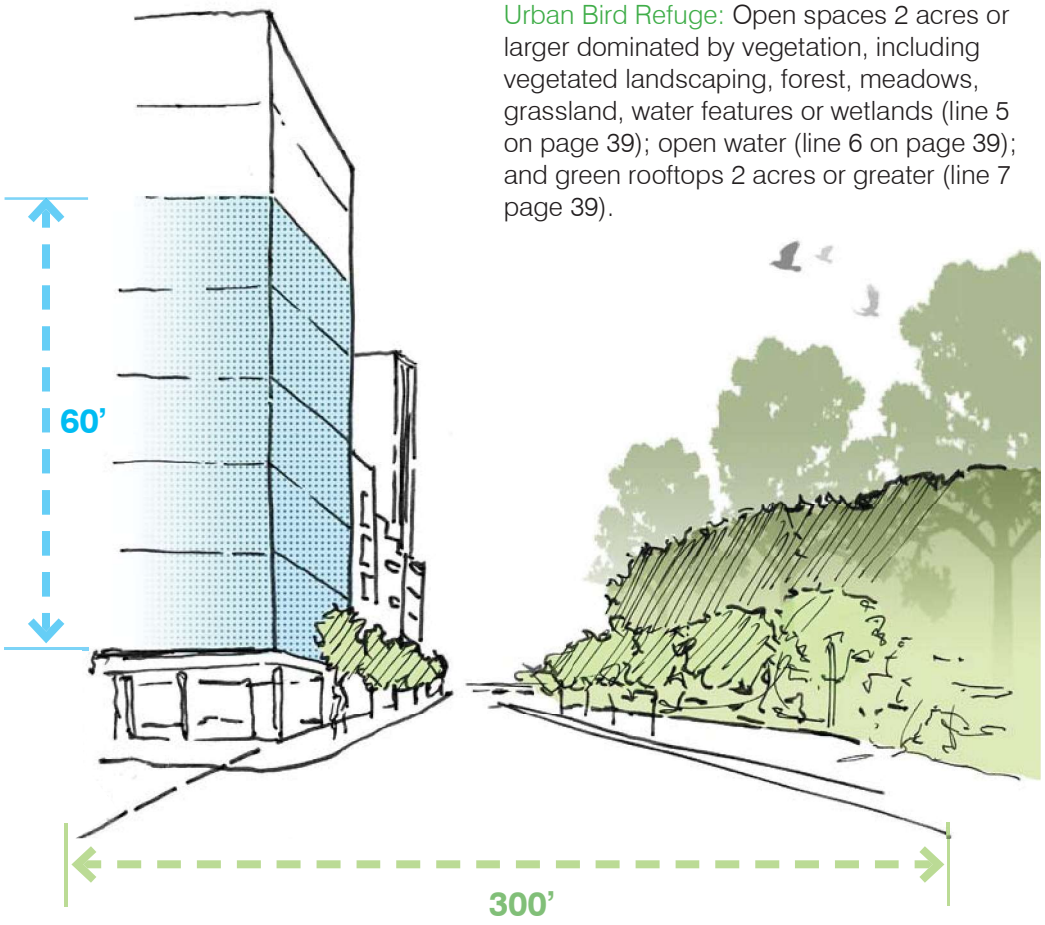
1 Requirements for Location-Related Hazards

What is a “location-related” hazard?

Location-Related Hazard: Buildings located inside of, or within a clear flight path of less than 300 feet from an Urban Bird Refuge (defined below) require treatment when:

- New buildings are constructed;
- Additions are made to existing buildings (Note: only the new construction will require treatment); or
- Existing buildings replace 50% or more of the glazing within the “bird collision zone” on the façade(s) facing the Urban Bird Refuge.

Bird Collision Zone: The portion of buildings most likely to sustain bird strikes. This area begins at grade and extends upwards for 60 feet. This zone also applies to glass façades directly adjacent to large landscaped roofs (two acres or larger) and extending upward 60 feet from the level of the subject roof.



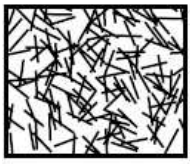
Urban Bird Refuge: Open spaces 2 acres or larger dominated by vegetation, including vegetated landscaping, forest, meadows, grassland, water features or wetlands (line 5 on page 39); open water (line 6 on page 39); and green rooftops 2 acres or greater (line 7 page 39).

What requirements apply to a “location-related” hazard?

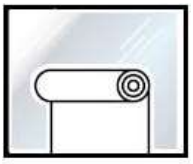
Treatment of Location-Related Hazards. Buildings located inside of or within a clear flight path from an Urban Bird Refuge shall implement the following applicable treatments for façades facing an Urban Bird Refuge.

- Façade Treatments: Bird-Safe Glazing Treatment is required such that the Bird Collision Zone consists of no more than 10% untreated glazing. Building owners are encouraged to concentrate permitted transparent glazing on the ground floor and lobby entrances to enhance visual interest for pedestrians.
- Lighting Design: Minimal lighting shall be used. Lighting shall be shielded. No uplighting shall be used. No event searchlights should be permitted for the property.
- Wind Generators: Sites must not feature horizontal access windmills or vertical access wind generators that do not appear solid.

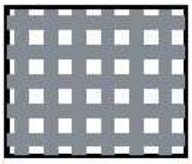
ABOVE: The California Academy of Sciences uses external screens 24 hours per day during spring and fall migration to reduce bird/building collisions.



Solution: Visual Noise



Solution: Use of plastic films, diachroic coatings and tints on facade



Solution: Screen / scrim / fritting

2 Requirements for Feature-Related Hazards

What is a “feature-related” hazard?

Building Feature-Related Hazard: Certain potential bird traps are hazardous enough to necessitate treatment, regardless of building location. A building-specific hazard is a feature that creates hazards for birds in flight unrelated to the location of the building. Building feature-related hazards include free- standing clear glass walls, skywalks, greenhouses on rooftops, and balconies that have unbroken glazed segments 24 square feet and larger in size. (See citywide bird-safe checklist, lines 19-22 on page 39). These features require treatment when:

- New buildings are constructed;
- Additions are made to existing buildings (Note: only the new construction will require treatment).

LEFT: These windows are an example of a feature-related hazard.

What requirements apply to a “featured-related” hazard?

Treatment of Feature-Related Hazards - Regardless of whether the site is located inside or adjacent to an Urban Bird Refuge, 100% of building feature-related hazards shall be treated.

Image courtesy of Lightsoutindy.org

LEFT: A transparent glass skywalk poses a “feature-related” hazard.

LEFT: This skywalk was intentionally treated with fritting by the Indiana Museum to avoid creating a “feature-related” hazard.

RIGHT: The fritting maintains transparency for pedestrians.

Images courtesy of Lightsoutindy.org

The Details: Exceptions and Specifications

Exceptions: Certain exceptions apply to the afore-mentioned controls.

1) Treatment of Historic Buildings. Treatment of replacement glass façades for structures designated as City landmarks or within landmark districts pursuant to Article 10 of the Planning Code, or any building Category I-IV or Category V within a Conservation District pursuant to Article 11 of the Planning Code, shall conform to Secretary of Interior Standards for Rehabilitation of Historic Properties. Reversible treatment methods such as netting, glass films, grates, and screens are recommended. Netting or any other method demonstrated to protect historic buildings from pest species that meets the Specifications for Bird-Safe Glazing Treatment stated above may also be used to fulfill the requirement.

2) Exceptions for Treatment of Location-Related Hazards for Residential Buildings within R-Zoned Districts.

→ *Limited Glass Façade:* Residential buildings less than 45 feet in height within R-Districts that have an exposed façade comprised of less than 50% glass are exempt from new or replacement glazing treatments, but must comply with feature-related and wind generation requirements below.

→ *Substantial Glass Façade:* Residential buildings within R-Districts that are less than 45 feet in height but have a façade with a surface area of more than 50% glass, must provide glazing treatments for location-related hazards such that 95% of all large, unbroken glazed segments that are 24 square feet and larger in size are treated.

3) Other Waivers or Modifications by the Zoning Administrator. The Zoning Administrator may either waive requirements for Location-Related Hazards or Feature-Related Hazards or modify the requirements to allow equivalent Bird-Safe Glazing Treatments based upon the recommendation of a qualified biologist.

Photo courtesy NY Audubon

A New York volunteer examining a window casualty.

Glazing Treatment Specifications: Bird-safe glazing treatment may include fritting, netting, permanent stencils, frosted glass, exterior screens, physical grids placed on the exterior of glazing or UV patterns visible to birds. To qualify as Bird-Safe Glazing Treatment, vertical elements of the window patterns should be at least 1/4 inch wide at a minimum spacing of 4 inches, or have horizontal elements at least 1/8 inch wide at a maximum spacing of 2 inches (*Klem 2009.*)