Mary Hennen

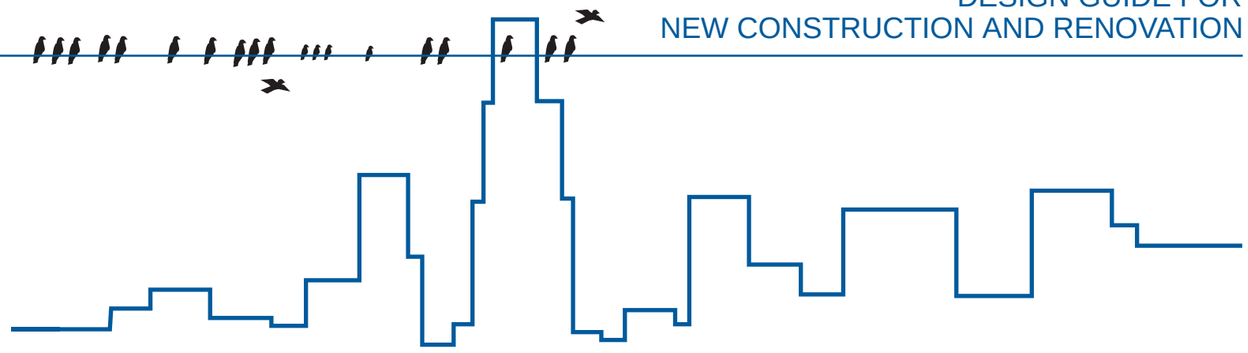
The Peregrine Falcon, the City of Chicago's Official Bird, thanks you for protecting birds.

A typical skyscraper kills between 200 and 1000 birds per year from collisions.[1]

A typical (non-skyscraper) building, including residential, kills between 1 and 10 birds per year from collisions.[2]

BIRD-SAFE BUILDING

DESIGN GUIDE FOR NEW CONSTRUCTION AND RENOVATION



DESIGN TO PROTECT

Richard M. Daley, Mayor

Chicago Department of Environment
Chicago Department of Planning and Development

Birds and Buildings Forum

1. Stotz, Doug, Ph.D. Personal Communication. September 2007.
2. Klem, D., Jr. Ph.D. Collisions between birds and windows: mortality and prevention. Journal of Field Ornithology 61(1): 120-128. 1990.

Produced 8/06
Revised 10/07

Printed on recycled paper using soy-based inks

Bird photographs by Jerry Kumery, except where noted

Barn Swallow

Black-throated Blue Warbler

Canada Warbler

Chickadee

Eastern Bluebird

Flycatcher

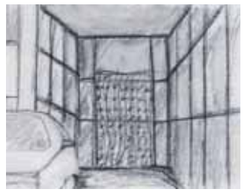
Prothonotary Warbler

Snow Bunting

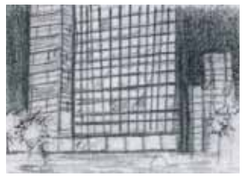
THE FACTS

Birds do not understand that reflections are false.

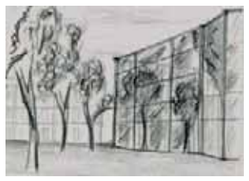
Birds do not understand that glass is a solid barrier.



Birds are easily trapped in niches, courtyards and other recessed areas.



Birds are attracted to light and try to fly into lit spaces.



Birds are attracted to vegetation indoors or reflected in buildings.

Drawings by Joanne Frisch

RESOURCES

Chicago's Bird Agenda (www.cityofchicago.org/Environment; see Publications)
Lights Out Chicago (www.lightsout.audubon.org)
Bird-Friendly Development Guidelines, City of Toronto (www.toronto.ca/lightsout/)
Bird-Safe Building Guidelines, NYC Audubon (www.nycaudubon.org)
Reducing Bird Collisions with Existing Buildings (www.cityofchicago.org/Environment; see Publications)

DESIGN GUIDE FOR BIRD-SAFE BUILDINGS

NEW CONSTRUCTION AND RENOVATION

A bird-safe building can be a cutting-edge design, meet LEED standards and protect important species.

SITE STRATEGY/ LANDSCAPE

- Analyze surroundings to identify location and angle of birds' approach to the building; modify glass on this approach façade
- Plant trees and other vegetation so that they are not reflected on building surfaces
- If trees and other vegetation are desired close to the building, plant them immediately adjacent to the exterior glass walls, (no more than three feet from the glass) to obscure reflections
- In small exterior courtyards and recessed areas, define the building's edge clearly with opaque materials and non-reflective glass
- Aviod walkways constructed of clear glass

COMPOSITION

- Create visible details that birds will recognize
- Aviod flat reflective openings larger than two inches wide or four inches tall
- Include visible structural details such as columns, balconies and lintels in building façades
- Angle glass toward ground or sky so that the reflection is not in a direct line of site (optimum angle: 40 degrees)

MATERIALS

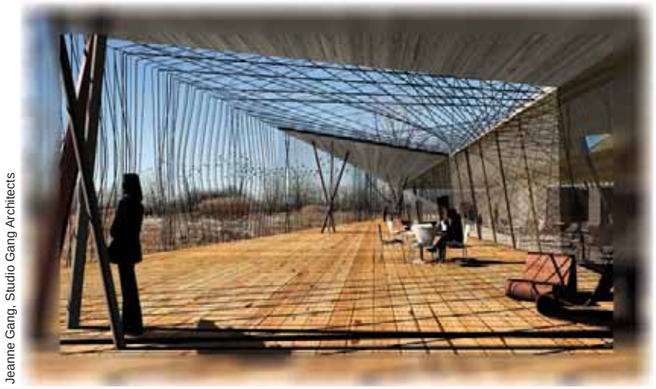
- Select bird-safe glass, or glass that is transparent to humans but not to birds
- Use fritted glass, window film, decals, decorative paint and grills to minimize clear window area
- Specify non-reflective glass
- Attach external screens to operable windows

EXTERIOR

- Design façades with elements that are visually interesting and create a physical barrier, e.g. vines or sun shades
- Use awnings to cast shadows and mute reflection

INTERIOR / LIGHTING

- Integrate design elements in a way that mutes reflections or make the space appear solid, such as blinds, drapes hung close to glass, perforated shades or artwork installed close to glass
- Select pattern and material of window coverings to create a visible barrier for birds
- Interrupt views through parallel glass façades with objects such as sculptures and furniture
- Avoid decorative lighting; for necessary outdoor lighting, avoid "up-lighting" by directing light toward the ground
- Install motion sensors on interior lights to ensure they are not left on overnight



Jeanne Gang, Studio Gang Architects

Visible structural details, no reflected vegetation, angled glass

Angled glass

Visible structural details

Visible structural details

External grill

Fritted glass

Awnings

Vines

Interior artwork

OBJECTIVES: CREATE VISUAL SIGNALS · MINIMIZE REFLECTIVITY · MINIMIZE LIGHT AT NIGHT