



thirsty

THURSDAY

Quench your thirst for knowledge!

Bird-Friendly Legislation



Nick Resetar
Roetzel & Andress
Safety, Structural & Fire Code Consultant

MARK YOUR CALENDAR FOR THESE
OTHER **UPCOMING EVENTS**

NGA Glass Conference: Isle of Palms (Charleston)
Feb 5-8, 2024 | Isle of Palms, SC

Building Envelope Contractors (BEC) Conference
Mar 3-5, 2024 | Nashville, TN

GPAD | Glass Processing Automation Days
Mar 5-6, 2024 | Nashville, TN





Wild Dunes Resort | Isle of Palms, SC
February 5-8, 2024

All Glass, Only Glass
glass.org/nga-glass-conference-IOP-2024

REGISTER NOW





Bird-Friendly Legislation

Nick Resetar, Roetzel & Andress
NGA Code Consultant

Why do we need to protect the birds?



Nearly 1 billion birds are injured or killed by collisions with reflective building surfaces annually in the United States.

Why do we need to protect the birds?

“Every U.S. home kills approximately 2 birds per year due to glass strikes.”

- American Bird Conservancy

Collisions often occur:

- Where vegetation is behind glass
- At glass walkways and building corners
- Where birds can see through the glass to habitat on the other side



Why do we need to protect the birds?



Collisions are more pronounced in:

- small buildings
- low-rise residences

Bird collisions are especially prominent during spring and fall migration seasons.

Why do we need to protect the birds?

Birds serve as

- insect and pest control
- pollinators
- seed dispersers
- nutrient cyclers



A lone blackpoll warbler killed in a building collision translates into:

- nearly 2 acres of degraded boreal forest
- thousands of insects not eaten
- countless seeds not dispersed
- a lack of food for wildlife higher on the food chain.

Why do we need to protect the birds?



Bird watching is a \$107 BILLION industry in the U.S. through tourism income, equipment sales, guidebooks, and employment.

“The fastest growing outdoor activity in America.”





Why do we need to protect the birds?

Like glass in classrooms and healthcare facilities, birds offer significant mental and physical health benefits.

Seeing birds provides

- positive impacts of nature experience on cognitive functioning
- emotional well-being
- physical activity related to hiking and bird watching

Why do we need to protect the birds?

Bird collisions are unpleasant and disturbing.

People often report feeling saddened and alarmed by witnessing birds collide with glass.





Why do we need to protect the birds?

When you meet with customers, tell them about these facts.

Incorporating bird-friendly design from the beginning is the most cost-effective approach.



What is the
federal
government
doing about it?

The Migratory Bird Treaty Act of 1918

What is the federal government doing about it?

Bird-Safe Buildings Act

- First introduced in the House of Representatives in 2011
- If enacted, would require the GSA to utilize bird-friendly materials in the construction and retrofitting of its properties.
 - Specifically, the BSBA would require:
 - 90% of the exposed façade,
 - from ground level to 40 feet,
 - to be designed and/or comprised of materials to prevent bird collisions,
 - including secondary facades, screens, shutters, or bird-friendly glazing.

What is the federal government doing about it?

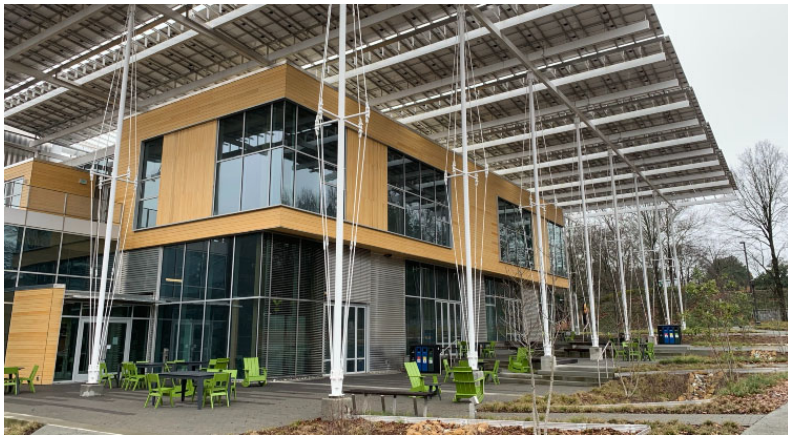
Bird-Safe Buildings Act

- Introduced again on June 1, 2023 by Rep. Morgan Griffith (R-VA-9)
- Co-sponsors:
 - Rep. Mike Quigley (D-IL-5)
 - Rep. Betty McCollum (D-MN-4)
 - Rep. Sean Casten (D-IL-6)
 - Rep. Janice Schakowsky (D-IL-9)
- Bipartisan support
- Referred to the House Transportation and Infrastructure Subcommittee on Economic Development, Public Buildings, and Emergency Management

What is the federal government doing about it?

Bird-Safe Buildings Act (BSBA)

- Urge your elected representatives to get the BSBA out of committee and to the House floor for a vote.
- The BSBA was found to be cost neutral by the Congressional Budget Office.



When the Kendeda Building in Atlanta was constructed with bird-friendly glazing, the added cost was \$32,000, less than 1/5th of a percent of the total construction cost.

<https://livingbuilding.kendedafund.org/2019/04/26/kendeda-buildings-bird-safe-glass-shockingly-huge-issue/>

What is the federal government doing about it?

- Migratory Bird Program

- In 2021, nationwide Bird Safe Building Survey to identify its highest risk buildings.
- More than 2,300 USFW buildings have been surveyed for collision risks.
- Retrofitted USFW buildings in Massachusetts, New Mexico, and Mississippi.
- Workshop at the Patuxent Research Refuge in Maryland to train employees on retrofitting buildings with bird safe materials.



What is the federal government doing about it?



Northern Great Lakes
Visitor Center in
Ashland, Wisconsin



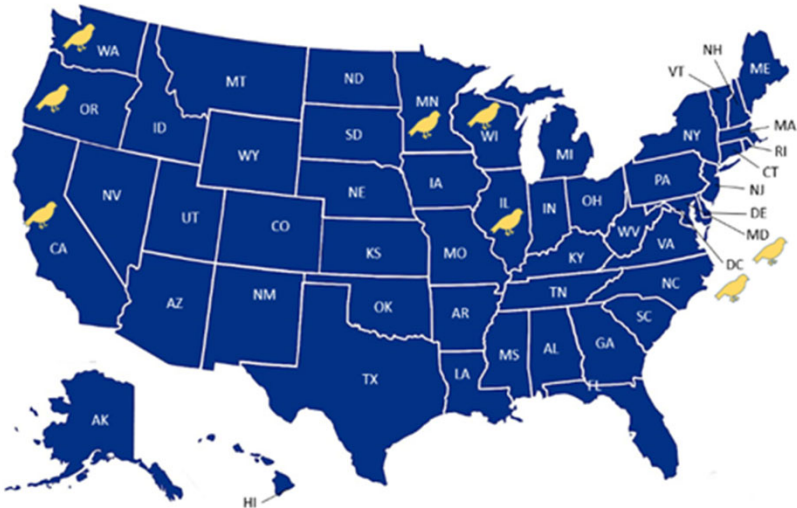
Zion National Park
Photo: nps.gov

Cabins at Tongass
National Forest in
Alaska
Photos: fws.gov



Everglades National Park
Ernest F. Coe Visitor Center
Photo: nps.gov

What are the States doing about it?



- California:
 - Voluntary Green Building Standards Code of 2010,
 - 2019 Bill AB 454, strengthens the Migratory Bird Treaty Act of 1918.
- Minnesota:
 - Mandatory Bird-Safe Glazing regulations following LEED's Reducing Bird Collisions Program
- Michigan:
 - Safe Passage Great Lakes Initiative includes bird-friendly requirements.
- Maryland:
 - 2023 Sustainable Buildings Act requires newly built, acquired, or renovated state-funded buildings to adhere to bird-friendly window requirements.

What are Cities doing about it?

- New York City
 - 2019 INT 1482 requires all new construction and major alterations to utilize bird-friendly glazing in all buildings.
 - Local Law 15 from INT 1482 in effect Jan. 2021
- Madison, Wisconsin
 - 2020 city ordinance requires bird-friendly glass for new buildings larger than 10,000 square feet, sky bridges, and ground level glass features such as sound walls and glass screens.
- Washington, D.C.
 - 2022 Migratory Local Wildlife Protection Act requires new construction or alterations involving the replacement of exterior glazing to incorporate bird-friendly glazing up to 100 feet. This law goes into effect in 2024.
- San Francisco
 - In 2011, passed the first mandatory bird-friendly laws for its buildings.
- Evanston, IL
 - 2022 mandatory bird-friendly laws for its buildings



New York City's Javits Center, which was renovated with bird friendly glass in 2015, has reduced collisions by 90%.

Photo: Jacob K Javits Convention Center

What are Cities doing about it?

Proposed mandatory legislation for bird safe building practices:

- Detroit, MI
- Oakland, CA
- San Jose, CA
- Richmond, CA
- Alameda, CA
- Mountain View, CA
- Portland, OR
- Los Angeles, CA
- Highland Park, IL

“The common expectation within the glass and building communities is that the number of cities adopting bird deterrence legislation will rapidly increase in the next couple of years and shift from voluntary guidelines to mandatory standards.”

What is Canada doing about it?



CSA A460:19 to establish best practices for deterring bird collisions

- Specific measures to make new and existing structures safe for birds
- Lists numerous requirements for glazing, integrated structures and building design.

Ontario:

- Environmental Protection Act multiple strategies for reducing bird collisions.

Toronto:

- 2007 voluntary Bird Friendly Development Guidelines,
- 2009 became mandatory under the Toronto Green Standard.

Voluntary bird-friendly guidelines:

Calgary, AL
Vancouver, BC
Mississauga, ON
University of British Columbia, BC (its own municipality)
Vaughan, ON
Ottawa, ON

Currently drafting/reviewing bird-friendly regulations:

Waterloo, ON
Surrey, BC
Whitby, ON
Saskatoon, SK
Fort Erie, ON
Halifax, NS
Richmond Hill, ON
London, ON

What is NGA doing about it?



NGA *Best Practices for Bird-Friendly Design Guide*

- Referenced in GSA P100 facilities guide
- Advocate to reference NGA Design Guide in new bird-friendly ordinances

NGA Advocacy One-Pager for Legislators *Saving Birds with Effective Glass Solutions*

- Advocate for bird-friendly glazing in your own community by downloading NGA's one-pager *Saving Birds with Effective Glazing Solutions* and sharing it with local legislators or other parties.

AIA presentation for architects *Key Strategies of Bird-Friendly Glazing*

Glass Magazine

- Article: *Legislation to reduce bird collisions passes the US House of Representatives*
- Article: *Let's write a new story about bird-glass collisions*
- Article: *5 Decorative Glass Trends to Watch*
- Blog: *Migrating Toward bird-friendly buildings*

NGA's GANA Glazing Manual- new section on Bird-Friendly Glazing

NGA Thirsty Thursday on-demand recording- *Bird-Friendly Building Design – Canadian Standard Update CSA A460:19*

NGA Members-Only Codes & Standards Help Center – FAQs on Bird-Friendly Glazing

The document is a one-page advocacy guide titled "Saving Birds with Effective Glass Solutions" from the National Glass Association (NGA) and Glass Association of North America (GANA). It is structured as follows:

- Header:** NGA NATIONAL GLASS ASSOCIATION with GANA | ADVOCACY
- Section: The request:**
 - Reintroduce and pass Federal Bird Safe Buildings Act, H.R. 3781, 118th Congress (2023-2024), (H.R. 1986 and S. 791 of 117th Congress 2021-2022) to support the implementation of bird-friendly design strategies.
 - Reference NGA's Best Practice for Bird Friendly Glazing Design Guide in bird-friendly glazing legislation.
- Section: The issue:**

Clear and reflective surfaces in the built environment can be invisible threats to birds.

Clear surfaces may create perceived flythrough conditions. Birds may perceive images reflected in the glass such as vegetation to be real and may fly into the glass thinking they are trees or sky.
- Section: The strategy:**

Interrupting reflections by creating visual markers or patterns on the glass at a specific spacing and geometry can significantly reduce bird collisions. Architects are specifying this type of glass, termed *Bird-Friendly Glass*, as high as the mature tree canopy for the region/site.

Bird-Friendly glazing can reduce the number of birds colliding with the building, as documented in many examples.
- Figure:** A horizontal bar chart comparing "Current Building" (100,000,000) and "Manufacturing Estimated" (100,000,000). Below it, a bar chart shows "Glass Surface Area" (1,000,000,000 sq ft) and "Manufacturing Estimated" (1,000,000,000 sq ft). A small image of a bird is also present.
- Text:** Annual estimated bird mortality from selected anthropogenic causes in the U.S. Source: USFWS for use in this report.
- Text:** Mandatory and voluntary ordinances to prevent bird-window collisions at government and/or commercial buildings have been adopted by several states, municipalities, and institutions. Currently, the codes are regionally implemented and don't require consistency.
- Image:** A map of the United States with yellow arrows pointing to various states, indicating where bird-friendly glazing ordinances are implemented.
- Text:** NGA's Best Practice for Bird Friendly Glazing Design Guide is referenced in GSA P-100 Facilities Standard. Other standards and legislation should also reference this guide for consistency in implementation as high as the mature tree canopy for the region/site.
- Text:** Manufacturing and installation of bird-friendly window products are skilled trades, creating jobs.
- Footnote:** 1. Oregon Zoo Education Center- zero collisions since installation in 2017. 2. Sewanee College, PA- one collision since installation in 2017. 3. Iavits Center in NY- 90% reduction in collisions since installation in 2023. 4. National Aeronautics, PA- zero collisions since installation in 2020.
- Footer:** National Glass Association (NGA) combined with the Glass Association of North America (GANA) in 2018 to create the largest trade association serving our industry. We develop standards, create technical resources, and promote and advocate for glass in the built environment. Learn more at glass.org/about/nga/advocacy. For further information on bird-friendly glass please feel free to contact NGA Technical Staff at nga@technical@glass.org.

A large, thick tree trunk is covered with numerous small, wooden birdhouses of various sizes and orientations. The birdhouses are attached to the bark of the tree, some hanging from branches and others mounted directly on the trunk. The background is filled with lush green foliage, suggesting a forest or park setting.

Bird-Friendly Glazing is the Future. Are you ready?

A prominent conservation recently noted:

"I'd be willing to bet that 20 years from now, bird-friendly glass will be on every building everywhere."

Additional NGA Resources



*Bird-Friendly Glazing
Design Guide*



*Bird-Friendly Glass
Design Strategies GTP*



*Bird-Friendly Glazing
in Construction
Advocacy Priority
Issue One-Pager*

Browse glass.org/store for additional tools

thirsty

THURSDAY

Quench your thirst for knowledge!

Bird-Friendly Legislation



Nick Resetar
Roetzel & Andress
Safety, Structural & Fire Code Consultant
nresetar@ralaw.com

MARK YOUR CALENDAR FOR THESE
OTHER **UPCOMING EVENTS**

NGA Glass Conference: Isle of Palms (Charleston)
Feb 5-8, 2024 | Isle of Palms, SC

Building Envelope Contractors (BEC) Conference
Mar 3-5, 2024 | Nashville, TN

GPAD | Glass Processing Automation Days
Mar 5-6, 2024 | Nashville, TN