



Staff Report for Committee of the Whole Meeting

Date of Meeting: May 15, 2024

Report Number: SRPBS.24.018

Department: Planning and Building Services

Division: Policy Planning

Subject: **SRPBS.24.018 – Bird-Safe Design Standards
Recommendations Report**

Purpose:

The purpose of this report is to request endorsement of the proposed Richmond Hill Bird-Safe Design Standards (April 2024) for new private and public development; and receive direction from Council to explore the retrofitting of City buildings with bird-safe treatments where needed.

Recommendation(s):

- a) That Staff Report SRPBS.24.018 be received;
- b) That the proposed Bird-Safe Design Standards (April 2024) be endorsed as mandatory requirements for new private and public development and become effective as of May 22, 2024;
- c) That staff be directed to develop a Bird-safe Retrofit Assessment Program to evaluate and prioritize existing City-owned buildings and determine budgetary needs for bird-safe design retrofits, and report back to Council;
- d) That the capital budget to pilot bird-safe design retrofits at the Richmond Hill Public Library Central Branch be submitted for consideration through the 2025 Capital budget prioritization process; and
- e) That staff be directed to review and update the Bird-Safe Design Standards to address new best practices, as needed.

Contact Person:

Diana Shermet, Natural Environment Coordinator, phone number 905-771-5521

Ruth Rendon, Manager of Sustainability, phone number 905-771-2420

Maria Flores, Director of Policy Planning, phone number 905-771-5438

Page 2

Report Approval:

Submitted by: Gus Galanis, Acting Commissioner of Planning and Building Services

Approved by: Darlene Joslin, City Manager

All reports are electronically reviewed and/or approved by the Division Director, Treasurer (as required), City Solicitor (as required), Commissioner, and City Manager. Details of the reports approval are attached.

Background:

In keeping with Council-approved policy direction to explore bird-friendly initiatives and support Richmond Hill's "Bird-Friendly City" certification, this report outlines an approach for the City to help reduce the number of bird fatalities in our urban areas.

Bird-window collisions with glass is one of the most significant sources of human-caused mortality for birds. According to Birds Canada, bird-window strikes claim approximately 25 million birds per year in Canada alone. Birds play an essential role in healthy ecosystems and resilient communities; they act as biohazard and pest control, seed dispersers, pollinators, nutrient cyclers, are an essential part of the food web, and provide enjoyment opportunities for community members. However, their populations have declined by more than 25% in the past 50 years.

Within the Greater Toronto and Hamilton Area (GTHA) many municipalities have demonstrated leadership in bird-safe design:

- York Region implements bird-friendly strategies at high-risk regional facilities;
- The Cities of Toronto, Markham, Vaughan and Guelph all have mandatory bird friendly design requirements for site plan applications;
- The Canadian Standard Association (CSA) developed bird-friendly design standards (CSA A460), with support from leading experts at Fatal Light Awareness Program (FLAP) and Birds Canada.

Currently, the City encourages bird-safe design through the Official Plan (OPA 18.3) policy 3.2.3.21 and the Sustainability Metrics Program (SMP IB-18). As a result of this direction being voluntary, the City has not received many site plan applications that incorporate the use of bird-safe design treatments in their building design. According to FLAP, over 90% of bird-window collisions occur at low to mid-rise buildings. The City of Richmond Hill can reduce this threat by making bird-safe design standards mandatory for new public and private developments.

The purpose of this staff report is to request endorsement of the proposed Richmond Hill Bird-Safe Design Standards (April 2024) as mandatory standards for new private and public development; and receive direction from Council to explore the retrofitting of City buildings with bird-safe treatments where needed.

Page 3

Mandatory Bird-Safe Design for Private Development

To foster more sustainable communities, the Cities of Richmond Hill, Brampton, Vaughan and Markham collaboratively offer the Sustainability Metrics Program (SMP), which are green development standards used to quantify and evaluate the sustainability performance of new developments and promote sustainable design targets that go beyond provincial and municipal requirements. The SMP includes a voluntary bird-friendly metric (IB-18), which will be updated to align with the City's Bird-Safe Design Standards.

Within the GTHA, several municipalities have led the path in making bird-safe design treatments mandatory for site-plan applications, including SMP partners Vaughan and Markham. To ensure the development industry is aware of the changes to the SMP, staff engaged the Building Industry and Land Development Association (BILD) on the updated design standards.

The City's proposed Bird-Safe Design Standards employ guidance from the CSA first edition of CSA A460, Bird-friendly building design standard. As such, the Richmond Hill design standards follow the most up to date, science-based standards, providing specifications on treatment area, treatment types and visual markers. Additional guidance is provided, as appendices, to mitigate threats to birds through the following: Lighting; Design Considerations and Ineffective Treatments; and Landscape Treatments.

Refer to **Attachment 1: Bird-Safe Design Standards** for more details.

The proposed Richmond Hill Bird-Safe Design Standards will be implemented through the site plan application process for Industrial, Commercial, Institutional (ICI), mid-rise and high-rise development and verified through the SMP. At this time, applicants will continue to be awarded points towards their application for completing the mandatory SMP IB-18. In addition, updates will be made to Urban Design submission requirements and Bird-Safe design treatments will be made a requirement of a complete application. Landscape design and lighting will continue to be reviewed by technical staff.

Mandatory Bird-Safe for New City-owned Buildings

To demonstrate the City as a leader committed to establishing sustainable and resilient communities, the bird-safe design standards will be incorporated into the design of new City-owned buildings as the City is subject to the SMP through the site-plan application process.

As future City-building construction opportunities arise, bird-safe design standards will be implemented through the master planning process. The bird-safe design standards will form part of the City's Design and Construction Guidelines, which will allow them to be included in the scope of work for the detailed design and construction of new

Page 4

facilities. A precedent has already been established with the construction of the Oak Ridges Library which included bird-safe design treatments.

Research by the Fatal Light Awareness Program (FLAP) Canada estimates that bird-safe glazing for new building constructions may result in an increase to the cost of window contracts by 1 to 10%; low-rise buildings may see a 5 to 10% increase in window contracts, while multi-unit high rise buildings could have an approximately 1% increase. As a result, there will be budgetary implications at the time of design and construction, though it will be more cost efficient to include bird-safe design at the onset of the project versus considering more costly retrofits post-construction.

Developing a Bird-Safe Retrofit Assessment Program

As the City begins incorporating bird-safe design into new facilities, the City has the opportunity to show the community that Richmond Hill is a leader in environmental and sustainable design through retrofitting high-priority existing City-owned buildings. Presently, the City owns approximately 67 buildings across Richmond Hill.

An internal Sustainable City Building Policy Working Group has been established to identify opportunities to incorporate sustainable design into new City-buildings and upgrades to existing buildings. As such, through this working group it was recommended that the City develop a Bird-Safe Retrofit Assessment Program to assess and prioritize existing City-owned buildings and, as necessary, determine budgetary needs for future retrofits to be requested as part of the capital budget process. The City's Sustainable City Building Policy Working Group will identify and align priorities for future retrofits and future capital requests will be submitted by Sustainability in consultation with Facilities Management, Energy and Waste, and Richmond Hill Public Library staff (as necessary).

The assessment, prioritization and costing of retrofits to existing buildings is anticipated to take between 10 to 18 months. Full implementation of priority retrofits would likely take place over the course of ten plus years, as capital requests are submitted and approved, based on need and funding priorities.

Retrofit of Central Branch Public Library

The Richmond Hill Public Libraries (RHPL) are a cornerstone of Richmond Hill and a gathering place for the community. The RHPL Central Branch has been identified as a priority location for a bird-safe retrofit pilot project. Each year library staff observe and clean up bird carcasses from window collisions during the migratory season. As the RHPL Central Branch is a community hub, this location provides the opportunity to showcase Council's commitment to the protection of birds, as per the City's Bird Friendly City certification.

Given that the RHPL Central Branch is a well-used and highly visible facility in the community, this retrofit will be an opportunity to engage residents, business owners and

Page 5

the broader community on how they can participate in bird conservation and mitigate existing threats to birds.

It is recommended that staff be directed to submit a 2025 Capital Budget request to undertake a bird-safe retrofit of the RHPL Central Branch, including a threat-audit assessment to identify high risk areas of the building façade to retrofit.

Advancing other Corporate Objectives

In addition to supporting bird populations and ecological sustainability, making the Richmond Hill Bird-Safe Design Standards mandatory will support other corporate objectives, including:

- The City's Bird Friendly City certification (entry level) – in order to achieve a higher status, the City must have bird-safe design standards as mandatory design requirements;
- The Environment Strategy 2022 – (Action 8.3) provides direction on creating bird-friendly policies;
- The City's Bee City certification and Mayor's Monarch Pledge – many birds perform an important function as pollinators and as part of the broader food web.

Financial/Staffing/Other Implications:

There are no direct financial, staffing or other implications resulting from the recommendations contained in this report, however, financial implications from potential retrofit projects and new facilities will be identified in future reports, as noted below:

- The implementation process for mandatory Bird-Safe Design Standards for private buildings will be incorporated into existing workflow processes and will not have any direct financial implications;
- The inclusion of bird-safe treatments into the design of new City-owned buildings will have budgetary implications at the time of detailed design and construction and will be incorporated into the final budgets of future facilities;
- The creation of the proposed Bird-Safe Retrofit Assessment Program will not have financial implications as this program will be incorporated into existing workplans. However, the bird-safe retrofits of identified priority buildings will have financial implications and will be proposed in future staff reports or capital budget requests, as needed;
- The proposed RHPL Central Branch retrofit has financial implications and is estimated to cost between \$135,000-\$185,000 (after tax) and will be requested through the 2025 Capital budget prioritization process:
 - Quotes were received for the product and installation of bird-safe film ranging from \$105,000 to \$145,000 (excluding tax),
 - If required, contracting design is estimated at \$9,500 to \$12,500 for the implementation of this work,

Page 6

- If required, an audit of the facades can be completed for \$2100 (excluding tax).

Relationship to Strategic Plan:

The implementation of Bird-Safe Design Standards and the exploration of retrofitting priority City buildings is aligned with two of the three pillars in the Richmond Hill's 2024-2027 Strategic Plan: Pillar 1 – Growing a livable, sustainable community and Pillar 3 – Strengthening our Foundations. These design standards will ensure environmentally sustainable practices are being incorporated into City work and throughout new buildings in the broader community, while helping to safeguard bird populations for future generations to enjoy. The design standards are evidence based, and research supports that integrating bird-safe design can reduce mortality of birds, particularly through the migratory breeding bird windows.

Climate Change Considerations:

Bird populations are declining around the world. And while many factors contribute — this staff report specifically addresses bird-window collisions — it is increasingly clear that climate change is an important driver behind this worrying trend. The bird-safe design standards outlined in this report present a mitigation strategy to lessen bird mortality as it relates to the built environment. Many areas in Richmond Hill are built along natural flyways that birds frequent during migration and buildings without preventive measures in place pose a huge threat to these birds. Incorporating bird-safe design into building design will save many birds from fatal bird-window strikes. By combatting non-climate threats to birds, we can help strengthen bird populations, giving birds the added protection they need as climatic pressures increase.

In addition, the premise of bird-safe design is about reducing reflectivity and increasing opaqueness of building materials, which provide additional climate change mitigation benefits by potentially reducing a building's energy needs and subsequent greenhouse gas emissions.

Conclusion:

Richmond Hill has a strong history of environmental protection and stewardship; the Bird-Safe Design Standards build and expand on this legacy. Birds provide many benefits to the natural environment and to humans. With many birds facing population declines due to habitat loss and urban expansion pressures, it is vital that cities play a role in ensuring their safe passage during migratory breeding seasons. This staff report and the attached "Richmond Hill Bird-Safe Design Standards" will aid in reducing the threat new buildings play in bird mortality and identifies opportunities to retrofit priority City buildings to showcase Richmond Hill as a leader in sustainable design.

Page 7

Attachments:

The following attached documents may include scanned images of appendixes, maps and photographs. All attachments have been reviewed and made accessible. If you require an alternative format please call the contact person listed in this document.

- Attachment 1: Richmond Hill Bird-Safe Design Standards

Page 8

Report Approval Details

Document Title:	SRPBS.24.018 - Bird-Safe Design Standards Recommendations Report.docx
Attachments:	- SRPBS.24.018 - Attachment 1 - DG04_BIRD SAFE DESIGN STANDARDS_FINAL AODA.pdf
Final Approval Date:	Apr 22, 2024

This report and all of its attachments were approved and signed as outlined below:

Maria Flores - Apr 22, 2024 - 1:57 PM

Gigi Li - Apr 22, 2024 - 2:30 PM

Gus Galanis - Apr 22, 2024 - 2:31 PM

Darlene Joslin - Apr 22, 2024 - 3:46 PM