



MARKHAM
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Bird Friendly Guidelines

Development Services Committee
February 4, 2014

Bird Friendly Guidelines

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Process

- March 2013 – Consultant was Retained
- October 2013 - DSC received the draft Bird Friendly Guidelines and recommendations to move forward with industry and staff consultation
- Consultations with stakeholders included:
 - Ontario Association of Architects (OAA)
 - Building Owners and Managers Association (BOMA)
 - Building Industry and Land Development Association (BILD)
- Consultation with staff included:
 - Sustainability Office
 - Community Services (Asset Management)
 - Planning, Urban Design & Legal

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Sections of Report

1. Introduction and Policy Framework
2. Birds in Markham
3. Bird-Window Collisions
4. Treatments
5. Implementation and Recommendations

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Introduction and Policy Framework

- Bird strikes on buildings are the second largest cause of avian mortality;
- FLAP Canada has documented over 45,000 collisions in GTA;
- Bird strikes in Markham primarily occur during the day by migratory birds;
- Building owners have a responsibility under the various Provincial legislations;
- Implications to Markham (existing and new);
- A priority in Markham's Sustainability Plan (2011) and Markham's new Official Plan (adopted, 2013); and,
- Guidelines will act as a resource to the development community.

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Birds in Markham

- A high concentration of migratory and resident birds in Markham susceptible to bird-window collisions.
- Bird strikes are likely to occur in all areas of the City including areas removed from significant natural heritage areas. As such, the study recommends the application of bird friendly treatments City-wide.

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Bird-Window Collisions

- Reflectivity of glass
- Transparency of glass/passage effect
- Overall design/size of glass
- Building height
- Proximity to natural features
- Design traps
- Orientation and siting /reflective vegetation
- Lighting

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Treatments

Primary Treatments

- Treat 85% of contiguous glass larger than 2m² in area from finished grade to 16m with a primary treatment.

Examples:

- External semi-transparent stripes, dots or other patterns.
- Applying external blinds, shades, netting.

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2 x 4 Rule

The minimum standard for visual marker spacing should not exceed 5cm horizontally or 10cm vertically.

5cm
(2 in.)

10cm
(4 in.)

Spacing for horizontal and vertical appliqué strips.

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Treatments

Secondary Treatments

- For the 15% remaining glass surface without primary treatment, a secondary treatment is recommended for all areas of contiguous glass greater than 2m².

Examples:

- Closer-spaced window mullions, internal blinds and shades, ultraviolet patterns with greater than 20-40% reflectivity, tinting and angling of glass.
- Judicious placement of vegetation so that it does not reflect in the glass.

Configuration of Treatments

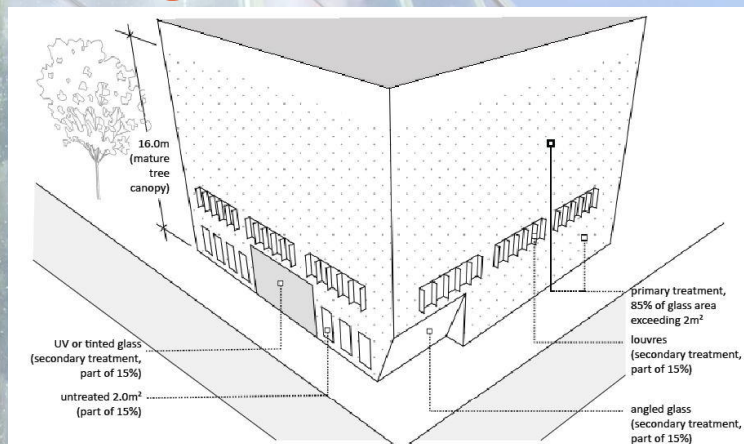
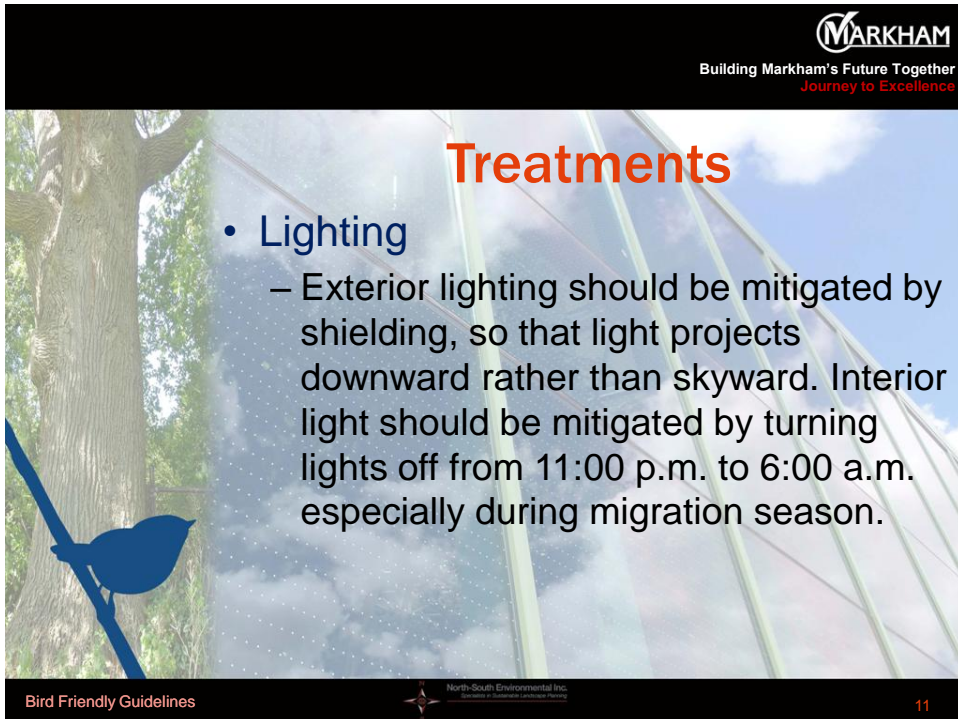



Figure 4-2: Depiction of application for Primary and Secondary Treatments
 Graphic by Wallman Architects



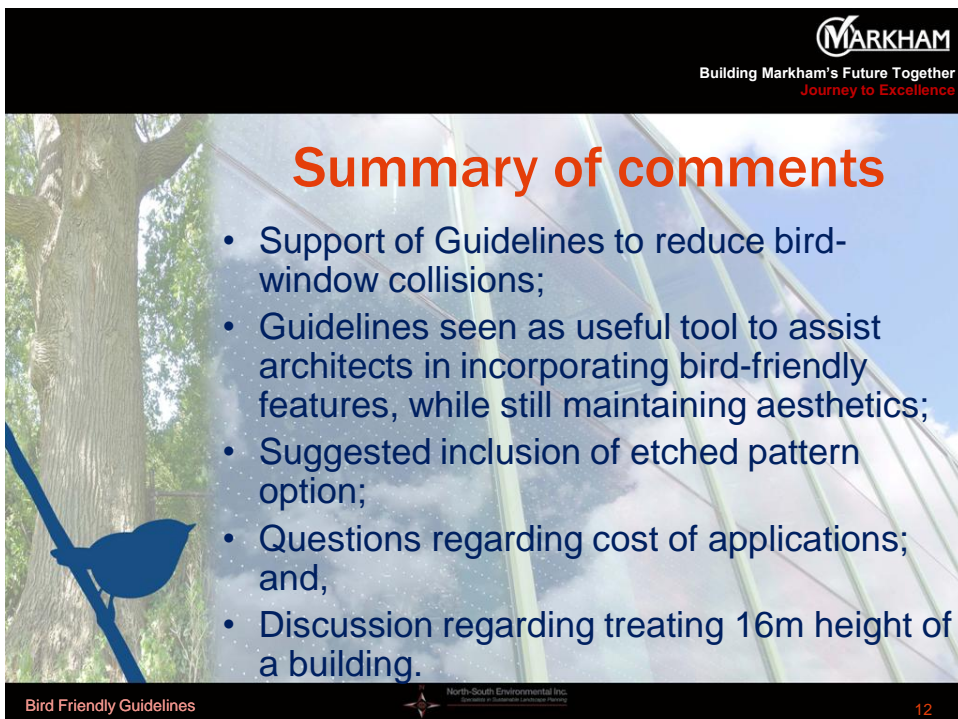
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Treatments

- Lighting
 - Exterior lighting should be mitigated by shielding, so that light projects downward rather than skyward. Interior light should be mitigated by turning lights off from 11:00 p.m. to 6:00 a.m. especially during migration season.

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Summary of comments

- Support of Guidelines to reduce bird-window collisions;
- Guidelines seen as useful tool to assist architects in incorporating bird-friendly features, while still maintaining aesthetics;
- Suggested inclusion of etched pattern option;
- Questions regarding cost of applications; and,
- Discussion regarding treating 16m height of a building.

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Staff Recommendations

- Ensure access and availability of Guidelines;
- Incorporate bird friendly treatments into the Site Plan Approval process;
- Continue to be proactive in both the retrofit of existing municipal buildings and the design of new municipal buildings;
- Prepare an education and outreach program; and,
- Review and update the Bird Friendly Guidelines periodically.

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Implementation - Next Steps

- Update Site Plan Approval process to include the BFG Specifications Checklist.
- Support the development of a Education and Outreach program as needed.

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THANK YOU – QUESTIONS?

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