

Committee of the Whole (1) Report

DATE: Tuesday, May 3, 2022

WARD(S): ALL

TITLE: SUSTAINABILITY METRICS PROGRAM UPDATE FILE 22.23.3

FROM: Haiqing Xu, Deputy City Manager, Planning & Growth Management

ACTION: DECISION

Purpose

To provide Council with an update on the Sustainability Metrics Program and to seek endorsement to require minimum Sustainability Metrics threshold scores and mandatory bird-safe design standards (Metric IB-18 Bird-Safe Design standards) for public and private buildings.

Report Highlights

- Staff from the Cities of Vaughan, Brampton, Richmond Hill, and Markham (the partner municipalities) confirmed final changes to the Sustainability Metrics Program in collaboration with the Building Industry and Land Development Association.
- The partner municipalities retained the consultant Sustainability Solutions Group to update the Sustainability Metrics threshold scores.
- Bird-safe design standards were developed using best management practices identified from several bird-friendly/bird-safe guidelines and in consultation with the Fatal Light Awareness Program Canada.
- Integrating mandatory bird-safe design standards (treatments) into the site plan application approval process is necessary to reduce bird-window collisions.
- Retrofitting existing City-owned buildings and educating the public on bird-safe design standards would allow Vaughan to lead by example.

Recommendations

1. That the minimum updated Sustainability Metrics threshold scores be endorsed as a requirement for all new private development;
2. That the Sustainability Metric IB-18 Bird-Safe Design standards, implemented through the Vaughan Official Plan and site plan application approval process, be endorsed as a requirement for all new private and City-owned developments;
3. That staff be directed to review and update the bird-safe design standards as needed to address new best practices;
4. That staff be directed to retrofit existing City-owned buildings with bird-safe design treatments subject to assessing budgetary requirements and need; and
5. That staff be directed to prepare an education and outreach program to encourage the retrofit of existing private buildings in the community to increase sustainability performance, including bird-safe design treatments.

Background

The Sustainability Performance Metrics Program began as a collaboration between the Cities of Vaughan, Brampton, and Richmond Hill

The Sustainability Performance Metrics (SPM) Program was developed in 2013 as a partnership between the Cities of Vaughan, Brampton, and Richmond Hill ('the partner municipalities'). The SPM Program testing stage was approved by Council in 2015; Full implementation of the SPM Program and accompanying threshold scores were approved by Council in 2018. The municipal partners were joined by the City of Markham in 2020.

The SPM Program implements a specific objective of Green Directions Vaughan (GDV) 2019 Objective 2.3 "to create a City with a sustainable built form that is compact, resilient and designed to promote citizen health", implements actions of the Municipal Energy Plan 2016 and recognizes the need for sustainable design in complete communities.

Richmond Hill retained the consultant Morrison Hershfield to update the Sustainability Performance Metrics Program

In November 2018, Richmond Hill led the SPM Update and Incentives Project in collaboration with the partner municipalities to streamline, clarify, and update the SPM Program to reflect new Provincial and Regional Policy, sustainable best practices, and stakeholder feedback. In March 2021, Vaughan Council endorsed the updated SPM Program in principle, allowing staff to make further updates as needed.

Vaughan Council directed staff to confirm final changes to the 2021 updated Program with the Building Industry and Land Development Association

Following Council's endorsement of the 2021 updated SPM Program, a working group consisting of seven staff from the partner municipalities, and five members of the Building Industry and Land Development Association (BILD) – York and Peel Chapters was formed. Between February and May of 2021, eight Working Group sessions were held to discuss BILD's feedback on the updated metrics and confirm final changes. Changes made to the metrics included elements of clarification as well as changes to metric standards and point allocations. The Sustainability Metrics Guidebook, included as Attachment 1, was updated to reflect these changes. The Sustainability Performance Metrics Program was renamed to the Sustainability Metrics Program ('the Program').

Bird-safe design standards are captured within the Program's suite of metrics, and highlight the importance of protecting vulnerable bird populations by reducing bird-window collisions

Environment Canada ranks bird-window collisions as one of the highest human-related causes of bird deaths in Canada. Second only to cat predation, it is estimated that bird-window collisions result in approximately 25 million bird deaths annually.

Bird-friendly/bird-safe design treatments have been included in the suite of metrics since the adoption of the Program in 2014. According to the York Region Bird-Friendly Strategy Report 2018, "many local municipalities of York Region have implemented official plan policy or design guidelines that address bird-friendly strategies to a varying degree". The Cities of Ottawa (2020), Markham (2014), Toronto (2017), Vancouver (2015), and Calgary (2011) have approved policies and guidelines to implement bird-safe design treatments.

According to York Region's Bird-Friendly Strategy Report, 2018, the City of Markham's Bird-Friendly Guidelines, 2014, implemented through site plan approval process, is considered best practice at the local municipal level. As per Markham's Bird-Friendly Guidelines, "the most effective documented solutions to prevent bird-window collisions are to make the glass visible to birds by reducing reflection and transparency. It has been determined that contiguous unbroken glass surfaces present hazards to birds if larger than 2m² in area."

The City-wide Urban Design Guidelines, 2018 were updated to include bird-friendly standards to align with metrics included in the original suite. These standards, now titled IB-18 Bird-Safe Design were subsequently refined in the 2021/2022 update of the Program and are discussed later in the report.

Vaughan’s current threshold scores were endorsed by Council in May 2018 with expectations to encourage high-quality and sustainable development

Currently, all site plan (excluding minor applications), draft plan of subdivision, and block plan applications are required to submit a completed Excel Scoring Tool identifying the overall application score, and a sustainability summary letter forming part of a complete development application.

The following Council-endorsed expectations for threshold scores (outlined in Table 1) came into effect for applicable development applications deemed complete after October 1, 2018:

- All applicable development applications outside of the Vaughan Metropolitan Centre are expected to meet or exceed the Bronze threshold score.
- All applicable development applications within the Vaughan Metropolitan Centre are expected to meet or exceed the Silver threshold score.

Table 1: 2018 Council Endorsed Sustainability Metrics threshold scores

Performance Level	Site Plan	Draft Plan of Subdivision	Block Plan
Bronze	31 to 45 points	21 to 30 points	31 to 40 points
Silver	46 to 60 points	31 to 40 points	41 to 50 points
Gold	61 or More points	41 or more points	51 or more points

The update of the Program allowed the comprehensive review of relationships between the partner municipalities’ existing threshold scores, types of development (e.g. residential, mixed-used, commercial etc.), and the impact of industry standards prior to recommending updated threshold scores through this report.

Sustainability Solutions Group was retained to update the threshold scores and provide Program recommendations to address climate change mitigation and adaptation

The City of Brampton, in collaboration with the partner municipalities, retained Sustainability Solutions Group (SSG) to evaluate and update the threshold scores through a consistent approach applied across all partner municipalities. SSG presented the following methodologies:

- Universal: considers the context-specific nature of development and specifies “Good” level metrics as the baseline. The Diffusion of Innovation model is then applied to develop the Bronze, Silver, and Gold threshold scores.

- Percentage Improvement: uses the median sustainability score of applications from each municipality based on the updated metrics to determine the baseline.
- Benchmarking: uses the average score of sample development applications from each municipality to calculate the baseline.
- External Standard: establishes the baseline based on a third-party green standard (such as Leadership in Energy and Environmental Design).

In addition to these methodologies, the following approaches to integrating climate change performance with the Program were identified:

- Minimum Performance
- Climate Grade
- Project Greenhouse Gas Emissions
- Climate Ranking

These approaches, alongside the methodologies are detailed in Attachment 2 of this report.

The approach to update the threshold scores using the Universal methodology option was selected through consultation with members of the development industry and other stakeholders

The following workshops were held with key stakeholders from BILD – York and Peel Chapters, the development industry, municipalities, York and Peel Region, and non-profit organizations who participated in engagement activities:

- October 29, 2021 Workshop: threshold development methodologies, including approaches to integrate climate change considerations, were presented for feedback. Participants ranked each element and participated in a multi-criteria analysis that measured the level of support.
- December 7, 2021 Workshop: SSG presented the recommended Universal Threshold methodology and the Minimum Climate Performance approach that incorporated participant feedback from the first workshop. The proposed approach for development in intensification areas was also presented for feedback.

At the request of BILD, an additional meeting with the working group was held on January 6, 2022 to discuss recommendations presented at the workshops. Feedback from BILD expressed a desire for program incentives, overall coordination between City staff, and sufficient time for program transition. Continuous education for public evaluators and private applicants was said to be important for a successful program transition.

Previous Reports/Authority

The February 8, 2022, communication entitled “Climate Emergency Declaration Update” can be accessed via the link below:

<https://pub-vaughan.escribemeetings.com/FileStream.ashx?DocumentId=94635>

The March 8, 2021, report entitled “Sustainability Metrics Program Update (File 22.24.3)” can be accessed via the link below:

<https://pub-vaughan.escribemeetings.com/filestream.ashx?DocumentId=62577>

The May 23, 2018, report entitled “Final Report on the Testing Stage of the Sustainability Performance Metrics Program File No. 22.24.3” can be accessed via the link below:

https://www.vaughan.ca/council/minutes_agendas/AgendaItems/CW_0508_18_13.pdf

Analysis and Options

Two sets of threshold scores were developed: Proposed Threshold Scores and Enhanced Threshold Scores

Through stakeholder engagement, members of the building industry stated some metrics were more context-specific than others, limiting the availability of some points for certain applications. An example is metric IB-5 Cultural Heritage Conservation, where points are awarded for conserving on-site cultural heritage and archeological resources; however, if the site has no cultural heritage or archeological resources, these points are not available to the applicant. In addition, the partner municipalities heard feedback that metrics related to interior design, including those considering energy efficiency, were more challenging to address as compared with other metrics.

In response to this feedback, two sets of threshold scores were created. The Proposed Threshold Scores, shown in Table 2, adjusted for points allocated to metrics that are more context-specific and metrics related to interior design. The Enhanced Threshold Scores, depicted in Table 3, only adjusted for points allocated to the more context-specific metrics.

Table 2: Proposed Sustainability Threshold Scores (Pathway 1)

Performance Level	Site Plan	Draft Plan of Subdivision	Block Plan
Bronze	41 to 61 points	27 to 40 points	14 to 20 points
Silver	62 to 75 points	41 to 49 points	21 to 25 points
Gold	76 to 241 points	50 to 194 points	26 to 76 points

Table 3: Enhanced Sustainability Threshold Scores (Pathway 2)

Performance Level	Site Plan	Draft Plan of Subdivision	Block Plan
Bronze	55 to 81 points	44 to 65 points	14 to 20 points
Silver	82 to 101 points	66 to 80 points	21 to 25 points
Gold	102 to 241 points	81 to 194 points	26 to 76 points

The two sets of threshold scores were developed with the recommendation that the partner municipalities implement the Proposed threshold scores first, then implement to the higher Enhanced threshold scores at a later point in time. This would ease the transition to higher threshold scores for the development community and allow development proponents time to assess and implement new sustainable technologies. The dual approach to the threshold scores is a pathway for new development to support the City’s sustainability performance goals related to the Climate Adaptation and Resilience Framework being developed as part of the Official Plan Review.

Richmond Hill and Brampton have minimum threshold score requirements, and Markham, Ottawa, Toronto, and Whitby have sustainability performance requirements

Setting a minimum performance level elevates the standard for design excellence, and follows suite with many Greater Toronto Area (GTA) and Ontario municipalities:

- Richmond Hill and Brampton: have required minimum threshold scores for applicable development applications since 2015 and 2018 respectively.
- Markham: requires all new buildings in new community areas and Regional Centres and Corridors in Markham be constructed to Leadership in Energy and Environmental Design - Silver or equivalent.
- Ottawa, Toronto, and Whitby require, at a minimum, all new site and subdivision applications meet the tier 1 performance level in their respective green development standards.

All referenced sustainability performance programs, and the Sustainability Metrics Program, were updated between 2019 to 2022 collaboratively through inter-municipal

coordination. This coordinated review allowed municipalities to align their programs to contribute to a level playing field for development industry members working across the GTA and Ontario.

Vaughan needs minimum threshold scores requirements to successfully implement the 2021 updated Program

Leadership and innovation occur in the development industry when sustainable technologies are identified, integrated, and evaluated. Setting minimum performance levels in a practical manner that shows material improvement is important to successfully introduce new technologies that gain momentum throughout society.

This said, staff recommend all new block plan, draft plan of subdivision, and site plan applications (excluding minor applications) located within Intensification Areas be required to meet the proposed Silver threshold scores and applications located elsewhere in the City be required to meet the proposed Bronze threshold scores.

There are fifty-two metrics in the Program that support a variety of sustainable benefits and co-benefits. The climate change performance approaches, listed on page 5 of this report and detailed in Attachment 2, highlight and the reinforce metrics most closely related to carbon reduction. Staff will continue to monitor uptake of the Program, assess the feasibility of the climate change performance approaches, and seek Council approval to implement these approaches at a later date.

Staff initiated the process of building an online, user-friendly Sustainability Assessment Tool and is examining incentives to support the Program

Vaughan's new Sustainability Assessment Tool (SAT), targeted for completion in Q1 2023, will support the implementation of the updated Program and replace the current Microsoft Excel Scoring Tool ('Excel Tool'). In comparison to the Excel Tool, the SAT will increase user-friendliness, clarity, accessibility, and functionality; all of which have been requested by the development industry. The SAT will be aligned with the webtools developed by the partner municipalities within similar timeframes. Staff will support and educate applicants and staff through the transition to the updated Program. The Excel Tool and will remain accessible for applicants with development applications subject to the original suite of metrics. City staff will formally launch the new metrics and associated thresholds after completion of the SAT tool in Q1 2023, with ample notice given to the building industry.

On June 4, 2019, Mayor and Members of Council unanimously passed a Climate Emergency Declaration for Vaughan that made actions and incentives related to the Program a priority. Work to consider a multi-pronged approach to providing financial

and non-financial incentives began is part of the 2021 Program update and is ongoing. The incentive plan and an update on the SAT will be brought to Council by Q1 2023.

Bird-Friendly/Bird-Safe Design Standards

Building owners have a responsibility through Vaughan's environmental stewardship to undertake reasonable measures to protect birds from harm

Vaughan is currently pursuing certification as a Bird-Friendly City with Nature Canada. Bird-Friendly City requirements state a municipality must demonstrate it is taking measures to reduce bird-window collisions by developing and implementing bird-friendly design standards that conform with the Canadian Standards Association Bird-Friendly Building Design standard for new construction (CSA A460:19).

For Vaughan to lead by example, staff recommend existing public buildings be retrofit with bird-safe design treatments identified in Attachment 3 subject to a budgetary assessment for need of retrofit. Not all buildings will need to be retrofitted with bird safe strategies as it is dependent on the amount of exposed glass on a building's façade. It is recommended Council direct staff from the Policy Planning and Special Programs department to prepare an education and outreach program, with support from the Corporate and Strategic Communications department, to encourage the retrofit of existing buildings in the community to increase sustainability performance. These encouraged retrofits would include the application of bird-safe design treatments.

It is imperative all new private and public development be required to meet Bird-Safe Design standards to reduce bird-window collisions

According to Fatal Light Awareness Program Canada data, an estimated one to ten birds die in window collisions per structure every year in Vaughan. These include any structure with windows that are low, mid, or high-rise structures. This results in approximately one million annual bird-deaths in the City. To protect birds, Vaughan must require bird-safe standards for all new development. For new private development applications, these standards would be implemented through the site plan application approval process and updates to the Vaughan Official Plan. It will also be implemented through the building permit process managed by Buildings Standard department.

As the City of Vaughan continues to grow, so does the need for sustainable building design and energy performance in pursuit of creating a low-carbon community. Identification and alignment of implementation tools will help the community be more healthy and complete. Staff will continue to explore through the monitoring of the

Program opportunities for continuous improvement of the individual metrics as they apply to new development.

Financial Impact

The ongoing partnership between Vaughan, Richmond Hill, Brampton, and Markham allows for continued cost-sharing benefits and opportunities to receive grant funding through the Federation of Canadian Municipalities, as well as non-profits such as the Toronto Atmospheric Fund.

Policy Planning and Special Programs department has an allocated budget of \$46,350.00 for the development of the Program Sustainability Assessment Tool, the online webtool through Account PL-9574-19.

There are no costs to the City of Vaughan as a result of the Program being implemented by the development community.

Facilities Management staff will assess the financial impacts associated with the retrofitting of existing public facilities with bird-safe design treatments through Facilities Management 2023 Capital Program.

Broader Regional Impacts/Considerations

Vaughan and its partner municipalities remain leaders in green development standards

Vaughan, alongside its partner municipalities, has supported and will continue to support other municipalities in the development of their own Green Development Standards (GDS) to provide for further consistency across the Greater Toronto Area and Ontario. Vaughan and its partner municipalities have also supported the non-profit organization Clean Air Partnership in the development of a 2020 GDS toolkit available to all municipalities. In addition, York Region has initiated an effort to support municipalities in developing GDS and has consulted with Vaughan staff.

York Region Council has committed to ensure the protection of a healthy natural heritage system that is rich in native diversity

On June 28, 2018, York Region committed to apply bird-safe design strategies to three Regional buildings, transit facilities, and bus shelters. Regional staff has identified implementation of bird-safe strategies through site plan control as a best practice for local implementation.

Conclusion

This report provides Council with an update on the Program and seeks endorsement to require minimum Sustainability Metrics threshold scores for all new private development, and mandatory bird-safe design standards (Metric IB-18 Bird-Safe Design standards) for private and City-owned buildings.

Continued implementation of the Program, supported by the recommendations outlined in this report, will further realize the actions in Council's formal Climate Emergency Declaration, 2019 and the 2018-2022 Term of Council Priorities. Implementation will also support the goals of Green Directions Vaughan, 2019, and the Municipal Energy Plan, 2016 currently under revision.

The Program remains a critical tool to encourage and accelerate the delivery of complete communities that result in long-term economic, environmental, and social benefits for the city. Vaughan continues to demonstrate leadership by taking a comprehensive approach towards supporting a resilient community for generations to come.

For more information, please contact: Ruth Rendon, Senior Environmental Planner of Environmental Sustainability at extension 8104.

Attachments

1. Sustainability Metrics Program Guidebook 2022.
2. Updating the Sustainability Threshold Scores: Final Report 2022.
3. City of Vaughan Bird-Safe Design Standards.

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