

# **Network Expansion Report**

Bike Share Toronto 2030 Study Network Analysis

November 2025

This page left intentionally blank for pagination.

Mott MacDonald  
Suite 400  
145 Wellington Street West  
Toronto ON M5J 1H8  
Canada

T +1 647 556 3200  
[mottmac.com](http://mottmac.com)

Toronto Parking Authority  
33 Queen Street East  
Toronto, Ontario, M5C 1R5

# **Network Expansion Report**

Bike Share Toronto 2030 Study Network Analysis

November 2025

# Issue and revision record

Revision	Date	Originator	Checker	Approver	Description
0.3	August 8, 2025	Armin Safari	Stephen Tam		Internal Review Version
1	September 11, 2025	Armin Safari Stephen Tam Claire Basinski	Chris Teolis Kate Whitfield	Mike Logan	Draft Release
2	November 10, 2025	Stephen Tam	Chris Teolis Claire Basinski	Mike Logan	Final Release

**Document reference:** 514101471 | Revision 2

This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

This document contains confidential information and proprietary intellectual property. It should not be shown to other parties without consent from us and from the party which commissioned it.

# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	Background and Study Context	2
1.1.1	Laying the Groundwork: The 2022–2025 Growth Plan	2
1.1.2	Current System Overview	2
1.1.3	Purpose and Direction of the 2030 Expansion Plan	2
<b>2</b>	<b>Study Objectives</b>	<b>4</b>
2.1	Objective-Driven Planning Approach	4
2.2	Expansion Objectives	4
2.2.1	Transit Integration	5
2.2.2	Grow Ridership	7
2.2.3	Support Equitable Access	9
2.2.4	Increase Recreational and Tourism Usage	11
2.3	Operational Objectives	13
2.3.1	Capacity-Based Improvements	13
2.4	Electrification Objectives	15
2.4.1	Passive E-bike Charging	15
<b>3</b>	<b>Stakeholder Engagement Summary</b>	<b>16</b>
3.1	Engagement Activities	16
3.1.1	Stakeholder Analysis	16
3.1.2	Stakeholder Engagement Workshops	17
3.2	Key Themes and Feedback	17
3.2.1	Workshop #1	17
3.2.2	Workshop #2	19
<b>4</b>	<b>2030 Network Expansion Plan</b>	<b>20</b>
4.1	Components of the Expansion Plan	20
4.1.1	Consolidated 2030 Network	20
4.1.2	eStation Network	23
<b>5</b>	<b>Implementation Plan</b>	<b>26</b>
5.1	Deployment Strategy (2026–2030)	26
5.1.1	Strategic Objectives and Phasing Principles	26
5.1.2	Phasing Cluster Zones	27
5.1.3	Deployment Strategy Timeline	29
5.1.4	Deployment Timeline	29
5.2	Electrification Strategy	32
5.2.1	Implementation Framework	32

5.3	Operational Strategy	33
5.3.1	Warehouse Role in Supporting Operations	33
5.3.2	Site Evaluation and Next Steps	34
5.4	Other Operational Improvement Opportunities	34
6	Conclusion	36
Appendices		37
A.	Stakeholder Engagement Summary	38

# 1 Introduction

Bike Share Toronto is an integral component of the City's multimodal transportation network, providing a sustainable, flexible, and accessible mobility option for both residents and visitors. As Toronto continues to grow and shift toward active transportation, the demand for a more robust and equitable bike share network is increasing.

This report outlines the data-driven approach informing the growth of the Bike Share Toronto station network, using spatial analysis to guide strategic decisions under the 2030 Network Expansion Plan. Covering the period from 2026 to 2030, the plan is designed to align future investments with City-wide priorities for sustainable mobility. In particular, it supports and complements several major City of Toronto strategies and initiatives aimed at building a more connected, equitable, and low-carbon transportation system:

- **TransformTO Net Zero Strategy:** Bike Share Toronto supports the City's climate goals by enabling low-carbon travel options and reducing reliance on personal vehicles. The expansion of the e-bike fleet and charging infrastructure, along with improved transit integration, directly contributes to the goal of having 75% of trips under 5 km made by walking, cycling, or transit by 2030.
- **10-Year Cycling Network Plan:** The expansion of cycling infrastructure across Toronto—including new and upgraded bikeways—provides the physical foundation for bike share growth. The plan's focus on connectivity, equity, and safety aligns with Bike Share Toronto's goals to serve more communities and meet growing demand.
- **City of Toronto Official Plan:** As the City directs growth toward transit-oriented, mixed-use areas, Bike share can play a key role in supporting short trips and first and last-mile connections. The plan's emphasis on active transportation and compact development reinforces the need for a well-integrated bike share system.
- **Transit Expansion Projects:** Projects such as the Eglinton Crosstown West Extension (ECWE), Ontario Line, Scarborough Subway Extension (SSE), Yonge North Subway Extension (YNSE), and the SmartTrack Stations Program offer new opportunities for bike share integration. Placing stations near transit hubs will improve first and last-mile connectivity, support ridership growth, and enable more seamless, sustainable travel.

To guide future investments, the plan applies an objective-driven framework to identify key opportunities across the bike share system, ranging from strategic network growth and operational enhancements to targeted e-bike infrastructure upgrades. Together, these priorities support a more inclusive, resilient, and future-ready bike share network.

The report includes:

- Spatial analysis maps and data summaries
- Recommendations for network densification and expansion
- A recommended annual implementation schedule (2026–2030)

## 1.1 Background and Study Context

### 1.1.1 Laying the Groundwork: The 2022–2025 Growth Plan

Bike Share Toronto's recent expansion was guided by the 2022–2025 Four Year Growth Plan, which set a bold vision to become the world's leading provider of bike share and last-mile mobility services. The plan aimed to reimagine how Toronto moves by focusing on choice, ease, and speed. Its core goals included expanding the system to all 25 wards by 2024, increasing the fleet to over 1,000 stations and 10,000 bikes (including 2,000 e-bikes), and prioritizing underserved areas—particularly the City's Neighbourhood Improvement Areas (NIAs), where residents face greater barriers to mobility.

The plan emphasized five key objectives: growing ridership, generating revenue, improving accessibility, enhancing transit connectivity, and supporting equitable access. It also recognized that equitable service delivery may require tailored approaches beyond geographic coverage. Operational efficiency and service reliability, such as consistent bike availability and avoiding oversubscribed stations, were identified as essential factors to user satisfaction and system sustainability. These insights, along with a focus on demand-driven planning and stronger integration with public transit, continue to shape the direction of the 2030 Network Expansion Plan.

### 1.1.2 Current System Overview

As of 2025, Bike Share Toronto operates across all 25 wards with 10,000 bikes, 2,000 of which are pedal-assist e-bikes, and over 1,000 stations. While the system is well-established in the downtown core, challenges remain. These include challenges in meeting potential ridership demand, service gaps in outer neighbourhoods, integration with transit, and the need for improved operational efficiency. The growing popularity of e-bikes also presents new opportunities to expand service into areas with longer travel distances or topographic barriers.

### 1.1.3 Purpose and Direction of the 2030 Expansion Plan

The 2030 Network Expansion Plan builds on the foundation of previous planning efforts and responds to the City's evolving mobility needs. It provides a roadmap for the next phase of growth, aligning with broader goals related to equity, climate action, and sustainable infrastructure.

To achieve these goals, the Plan focuses on three key priorities:

- **Targeted Network Expansion** – Prioritizing areas where bike share can deliver the greatest impact, including underserved communities, high-ridership zones, and key recreational and transit corridors.
- **System Optimization** – Enhancing capacity at high-demand stations to ease rebalancing pressures, improve reliability, and elevate the user experience.
- **E-Bike Infrastructure Growth** – Expanding passive charging infrastructure at high-impact locations to support growing e-bike demand and improve operational efficiency.

These priorities support the Toronto Parking Authority's (TPA) vision of a world-class bike share system and help inform investment decisions to support the 2030 Bike Share Toronto Strategy. They also provide the foundation for the strategic objectives and spatial analysis framework outlined in the following sections.

### **1.1.3.1 Guiding Objectives for 2030**

To support the plan's three focus areas; Targeted Network Expansion, System Optimization, and E-Bike Infrastructure Growth, the 2030 Network Expansion Plan is guided by six strategic objectives. These objectives reflect Bike Share Toronto's broader goals for mobility, equity, and sustainability, and provide a structured framework for evaluating expansion opportunities and system investments:

- 1. Support Transit Ridership**
- 2. Support Equitable Access**
- 3. Grow Ridership**
- 4. Increase Recreational and Tourism Usage**
- 5. Improve Operations**
- 6. Increase Passive E-Bike Charging**

## 2 Study Objectives

This section outlines how the strategic objectives of the study were rationalized into spatial and data analysis workflows where were used to inform the shaper and characteristics of the network expansion from 2026 to 2030.

### 2.1 Objective-Driven Planning Approach

The planning process was guided by six strategic objectives:

1. **Support Transit Ridership** – Strengthen integration with local and regional transit and serve as a first and last mile connector.
2. **Support Equitable Access** – Expand service to underserved and equity-priority areas.
3. **Grow Ridership** – Increase usage through strategic station deployment where there is most opportunity to capture ridership.
4. **Increase Recreational and Tourism Usage** – Improve access to recreational amenities such as parks, trails, and waterfronts and connect to tourism points-of-interest.
5. **Improve Operations** – Improve Bike Share infrastructure allocation to reduce operational burdens.
6. **Increase Passive E-Bike Charging** – Expand infrastructure to support the growing e-Bike fleet and to minimize operational impacts related to charging and bike availability.

To structure the analysis and align it with these goals, the objectives were grouped into three analytical lenses:

- **Expansion Objectives (1, 2, 3, 4)**: Used to prioritize geographic areas for network expansion.
- **Operational Objectives (5)**: Used to identify capacity constraints and rebalancing needs within the existing network.
- **Electrification Objectives (6)**: Used to target stations for passive e-bike charging infrastructure.

### 2.2 Expansion Objectives

The expansion objectives played a central role in identifying priority areas for bike share expansion. Each expansion objective was translated into a set of measurable indicators and applied across a uniform hexagonal grid covering the entire City, which is consistent with the previous Four-Year Growth Plan. There are approximately 10,000 individual zones that were evaluated. This approach enabled the ability to compare the outcomes from the previous plan and to refine the strategic objectives. As individual hexagons are scored by each indicator, they can be compared at a City-wide scale, which helped to inform how well each area was aligned with the strategic objectives and informed the priority areas for expansion.

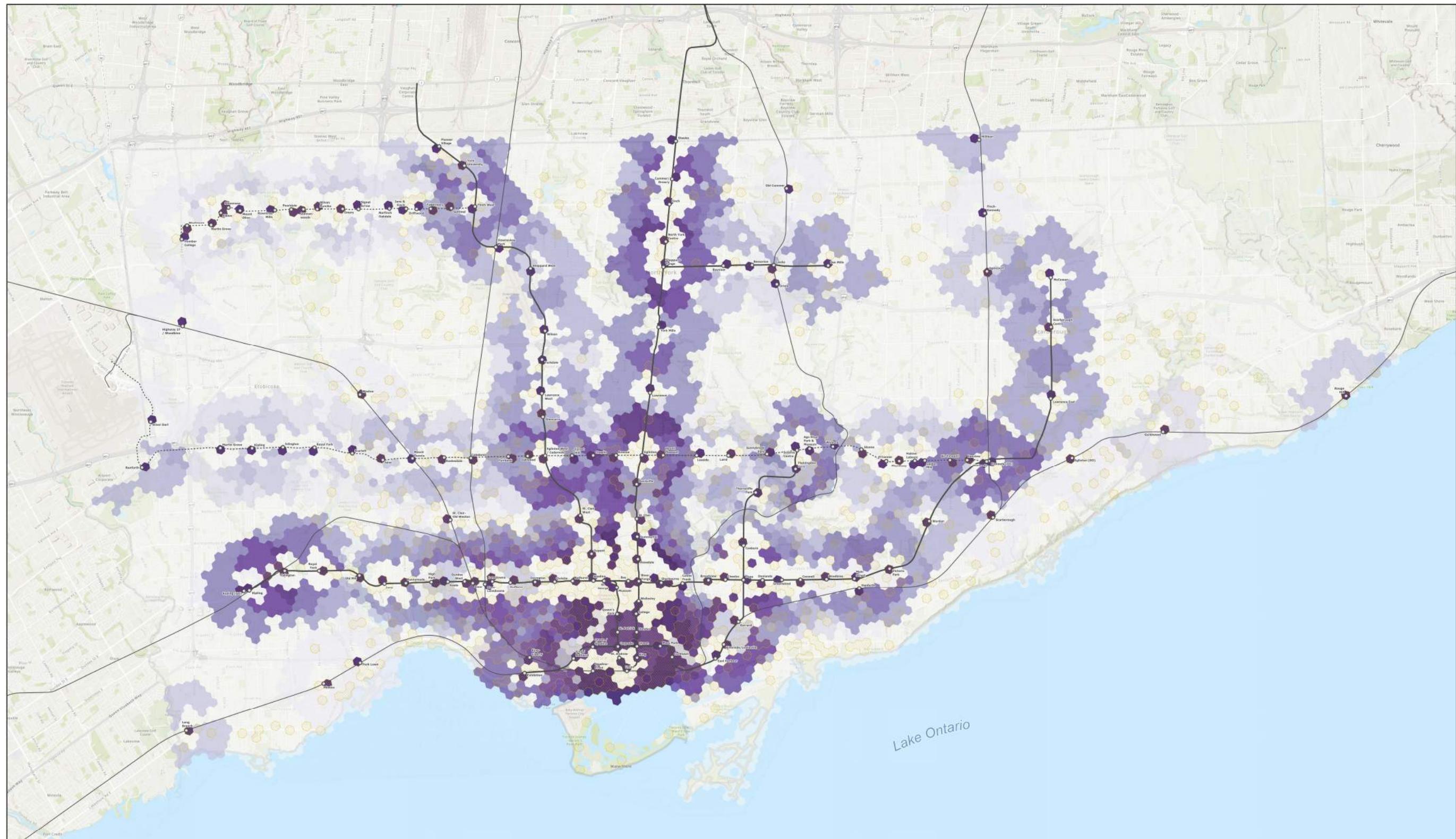
## 2.2.1 Transit Integration

The Transit Integration objective focused on enhancing first and last-mile connectivity by identifying where Bike Share Toronto could most effectively support access to major transit. The aim was to strengthen multimodal travel by making it easier for people to cycle to and from TTC subway and LRT stations, as well as GO Transit hubs—particularly in areas where walking may be less practical and surface transit less efficient.

To support this objective, the analysis mapped out “zones of interest” around each transit station using network-based cycling distances between 800 and 2,000 metres. The lower threshold (800 m) represents the point at which walking is typically more convenient, while the upper threshold (2,000 m) reflects the practical limit for most bike share trips, especially when used as part of a longer journey. These thresholds were informed by research on typical trip lengths within the Bike Share Toronto system.

Each zone was then scored based on projected 2031 transit ridership, with higher scores assigned to areas expected to generate greater demand for integrated bike-transit trips. Locations adjacent to major transit hubs, such as Union Station and key segments of Line 1, received the highest scores due to their central role in the regional network.

By focusing on these zones, the Transit Integration objective positions bike share expansion to complement both existing and emerging transit service demand, helping to close first and last-mile gaps, reduce reliance on private vehicles, and support a more seamless, multimodal transportation system across Toronto.



Toronto Parking Authority  
Bike Share Toronto



Mott MacDonald Canada Ltd  
145 Wellington St. W, Suite 400  
Toronto ON M5J 1H8  
647.556.3200  
mottmac.com

## Bike Share 2030 Study

Strategic Objective: Support Transit Ridership

0 1 2 3 4 km  
Coordinate system: NAD 1983 UTM Zone 17N



- Existing Bike Share Network
- High-Order Transit Station
- Subway
- Regional Rail
- LRT

### Support Transit Ridership Score

1.0 - 1.5	3.0 - 3.5	5.0 - 5.5
1.5 - 2.0	3.5 - 4.0	5.5 - 6.0
2.0 - 2.5	4.0 - 4.5	6.0 - 6.5
2.5 - 3.0	4.5 - 5.0	6.5 - 7.0

### Data Sources:

- City of Toronto Open Data: Regional Municipal Boundary (2019-07-23)
- City of Toronto Open Data: Toronto Centreline (2025-01-31)
- City of Toronto Open Data: Toronto Intersections (2025-02-13)
- Metrolinx Open Data: Frequent Rapid Transit Network Shapefile (2023-05-12)
- University of Toronto Travel Modelling Group: GTA v4 Travel Demand Model (2031 Boarding Counts)
- Base Map Credits: Esri, Esri Canada, Province of Ontario, Natural Resources Canada, Parks Canada, TomTom, Garmin, SafeGraph, GeoTechnologies Inc, METI/NASA, NGA, USGS, USDA, FEMA, EPA, NPS.

Date 2025-07-30
Drawn C Willett
Checked C Teolis
Approved S Tam
Revision 04
Scale at Arch E 1:40,000

## 2.2.2 Grow Ridership

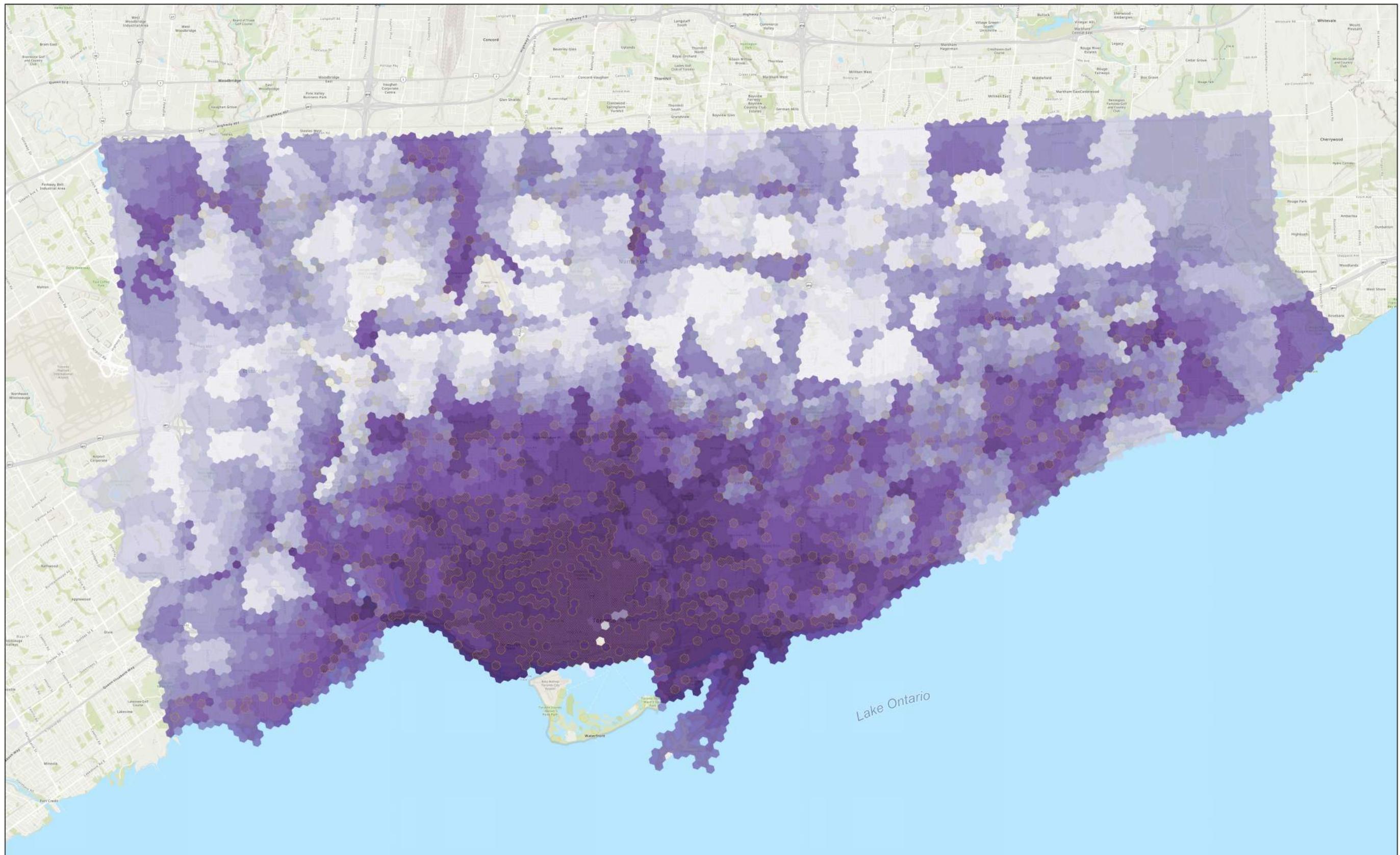
The Grow Ridership objective focused on identifying areas across Toronto where future bike share usage is most likely to increase, based on the characteristics of the people and places that shape travel demand. The goal was to guide network expansion toward locations where demographic, land use, and mobility patterns suggest strong potential for ridership growth.

A regression analysis was developed to evaluate ridership potential across the City to determine predictors of ridership. The model incorporated a range of variables known to influence bike share use, including population and employment density, travel behaviour, and connectivity to the existing bike share network.

A key component of the analysis was the network connectivity score, which measured how well each station is connected to the rest of the system. This score was based on travel distances between stations, weighted by distance travelled bike share riders. Stations with higher scores are more integrated and tend to attract more trips. Beyond connectivity, the regression analysis highlighted other important predictors of ridership. The model suggests factors including residential population and mode share for walking and cycling has a high degree of correlation with ridership. Specific employment sectors, such as retail, arts, food services, and cultural industries also had strong correlation.

The results of the analysis confirmed that the downtown core has the highest potential for ridership growth. This reflects the area's dense mix of residential and employment uses, strong transit access, and access to well-developed cycling infrastructure. The model also identified several other urban centres with higher potential, including North York Centre, Humber Bay, York University, and the University of Toronto Scarborough campus. These areas are characterized by growing populations, major institutions, and increasing demand for sustainable, multimodal travel options.

By focusing on these high-potential areas, the Grow Ridership objective supports the expansion of the bike share network in a way that is responsive to factors that drive ridership.



Toronto Parking Authority  
Bike Share Toronto



Mott MacDonald Canada Ltd  
145 Wellington St. W, Suite 400  
Toronto ON M5J 1H8  
647.556.3200  
mottmac.com

## Bike Share 2030 Study

Strategic Objective: Ridership Growth

0 1 2 3 4 km  
Coordinate system: NAD 1983 UTM Zone 17N



### Ridership Growth Score

0.0 - 0.5	2.0 - 2.5	4.0 - 4.5	6.0 - 6.5
0.5 - 1.0	2.5 - 3.0	4.5 - 5.0	6.5 - 7.0
1.0 - 1.5	3.0 - 3.5	5.0 - 5.5	
1.5 - 2.0	3.5 - 4.0	5.5 - 6.0	

Existing Bike Share Network

### Data Sources:

City of Toronto: Current and Projected Population, Households, Employment Counts, and Mode Share  
City of Toronto Open Data: Green Spaces (2025-02-04)  
City of Toronto Open Data: Regional Municipal Boundary (2019-07-23)  
City of Toronto Open Data: Toronto Centreline (2025-01-31)  
City of Toronto Open Data: Toronto Intersections (2025-02-13)  
City of Toronto Open Data: Zoning By-law (2024-10-15)  
Base Map Credits: Esri, Esri Canada, Province of Ontario, Natural Resources Canada, Parks Canada, TomTom, Garmin, SafeGraph, GeoTechnologies Inc, METI/NASA, NGA, USGS, USDA, FEMA, EPA, NPS.

Date 2025-07-30
Drawn C Willett
Checked C Teolis
Approved S Tam
Revision 03
Scale at Arch E 1:40,000

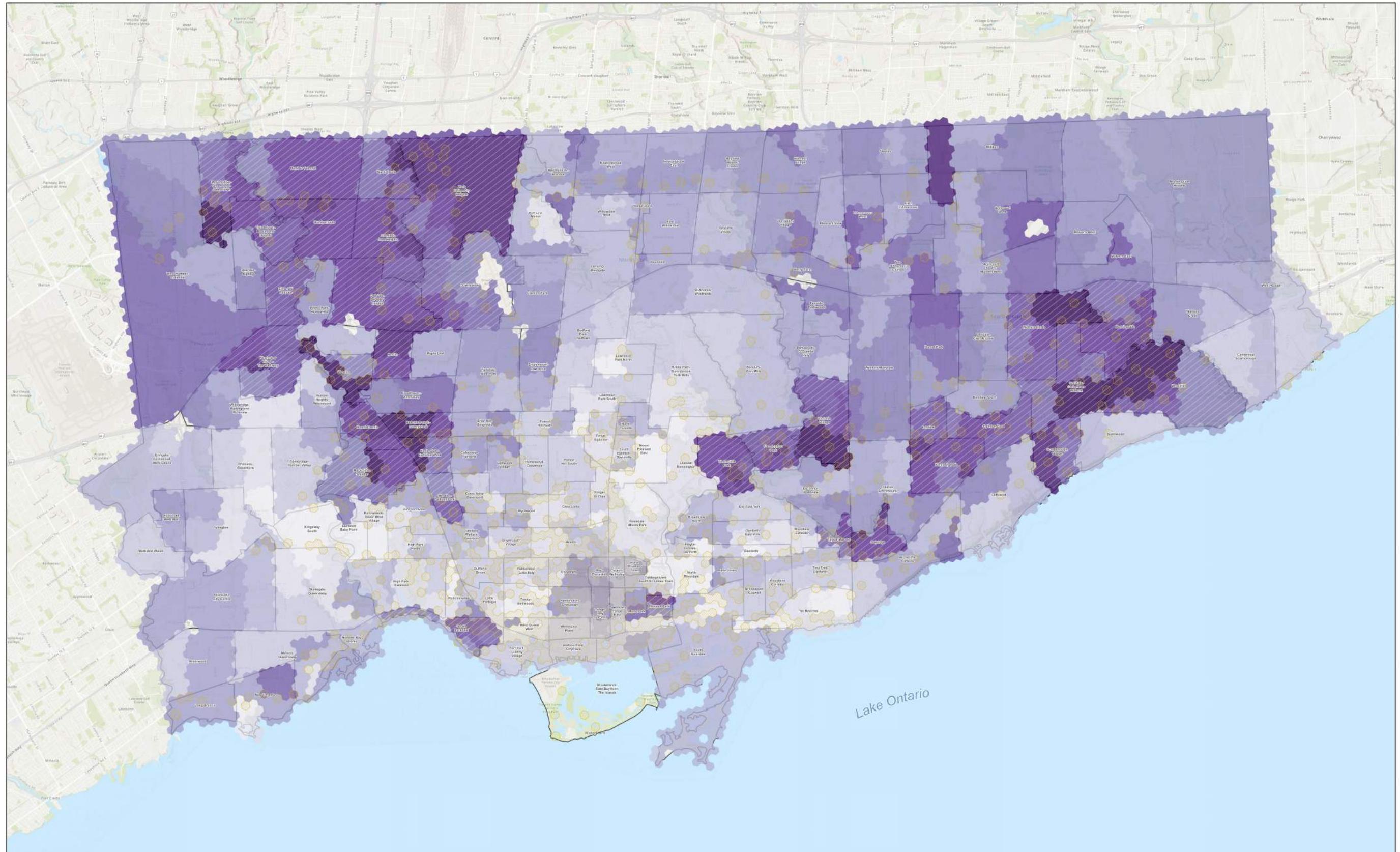
### **2.2.3 Support Equitable Access**

The Support Equitable Access objective focused on identifying areas where expanded bike share access could help address transportation-related disparities and promote more inclusive mobility across Toronto. The goal is to identify communities that have systemic mobility barriers that would benefit from the benefits of bike share.

To support this objective, a composite equity score was developed using three key indicators: a City of Toronto Transportation Equity Index, 2021 Census low-income data (LIM-AT), and Neighbourhood Improvement Area (NIA) boundaries. The analysis inputs primarily rely on income-based indicators. They provide a broad city-wide view of where residents may be underserved by existing mobility infrastructure and where bike share could help fill mobility gaps.

Each hexagon in the City-wide grid was scored based on its relative level of need, with higher scores indicating stronger alignment with equity priorities. This approach allowed the analysis to highlight neighbourhoods where bike share expansion could have the greatest social impact. High-scoring areas included northwest Etobicoke, Thorncliffe Park, Flemingdon Park, and in the neighbourhoods of Golfdale-Cedarbrae-Woburn, West Hill and Scarborough Village within Scarborough with higher proportions of low-income households, newcomers, and racialized populations, and where transportation options are often limited.

By embedding equity into the planning framework, this objective supports network expansion that is not only efficient and demand-responsive, but also socially inclusive—helping reduce transportation-related disparities and improve access to opportunity for all Torontonians.



Toronto Parking Authority  
Bike Share Toronto



Mott MacDonald Canada Ltd  
145 Wellington St. W, Suite 400  
Toronto ON M5J 1H8  
647.556.3200  
mottmac.com

## Bike Share 2030 Study

Strategic Objective: Equity

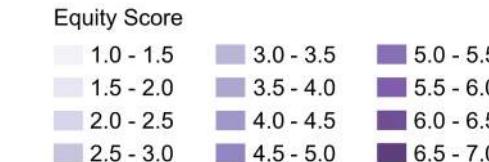
0 1 2 3 4 km  
Coordinate system: NAD 1983 UTM Zone 17N



### Data Sources:

City of Toronto: Transportation Equity Opportunity Zones (2022)  
City of Toronto Open Data: Neighbourhoods (2024-10-15)  
City of Toronto Open Data: Neighbourhood Improvement Areas (2024-10-15)  
Statistics Canada: 2021 Census Tracts (2021)  
Statistics Canada: Table 98-10-0107-01 - Household Low-Income Status By Household Type (2022-07-13)  
Base Map Credits: Esri, Esri Canada, Province of Ontario, Natural Resources Canada, Parks Canada, TomTom, Garmin, SafeGraph, GeoTechnologies Inc, METI/NASA, NGA, USGS, USDA, FEMA, EPA, NPS.

Date 2025-07-30
Drawn C Willett
Checked C Teolis
Approved S Tam
Revision 04
Scale at Arch E 1:40,000



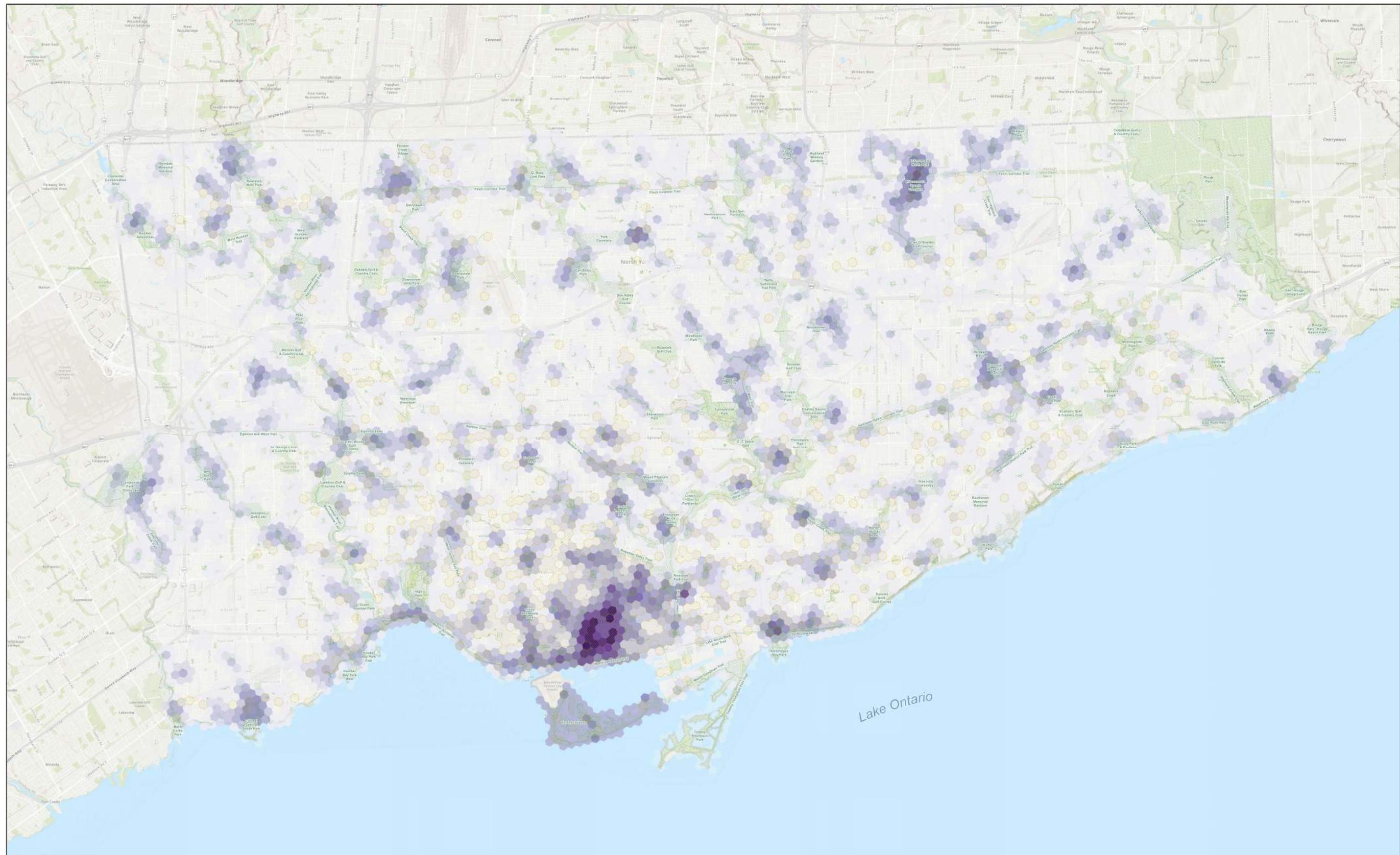
- Existing Bike Share Network
- City of Toronto Neighbourhood
- Neighbourhood Improvement Area (NIA)

#### **2.2.4 Increase Recreational and Tourism Usage**

The Increase Recreational and Tourism Usage objective focused on identifying areas where bike share can support casual riders, visitors, and residents seeking access to Toronto's parks, trails, and cultural destinations. Recognizing that a significant portion of bike share trips are taken by casual riders, this objective aimed to support the continued growth of this segment of ridership. Bike share plays a unique role in enabling spontaneous, flexible travel for leisure and exploration, which connects to recreational and tourism related attractions and destinations. Supporting this type of usage not only enhances quality of life but also contributes to tourism, local economic activity, and broader public health goals.

To support this objective, the analysis evaluated access to a range of recreational and cultural amenities, including parks, trail entrances, community centres, libraries, hotels, and major cultural destinations. Each hexagon was scored based on the number and proximity of these features, with equal weighting applied across recreational and tourism categories. Areas with the highest scores included the downtown core, waterfront corridors, and several civic and trail-connected areas in North York and Scarborough, all of which offer strong potential for casual and visitor-oriented bike share use.

By prioritizing access to the City's parks, recreational facilities and other tourist attractions, the Recreational and Tourism Usage objective advances a bike share network that continues to support the diverse ways people can experience the Toronto's multitude of cultural and natural assets.



Toronto Parking Authority  
Bike Share Toronto



Mott MacDonald Canada Ltd  
145 Wellington St. W, Suite 400  
Toronto ON M5J 1H8  
647.556.3200  
mottmac.com

## Bike Share 2030 Study

Strategic Objective: Increase Recreational Use

0 1 2 3 4 km  
Coordinate system: NAD 1983 UTM Zone 17N



### Data Sources:

City of Toronto Open Data: Cultural Hotspots - Points of Interest (2024-10-15)  
City of Toronto Open Data: Green Spaces (2025-02-04)  
City of Toronto Open Data: Hotels (2019-07-23)  
City of Toronto Open Data: Library Branch General Information (2024-10-15)  
City of Toronto Open Data: Multi-Use Trail Entrances (2019-07-23)  
City of Toronto Open Data: Parks and Recreation Facilities (2025-01-13)  
City of Toronto Open Data: Places of Interest and Toronto Attractions (2025-01-13)  
City of Toronto Open Data: Regional Municipal Boundary (2019-07-23)  
City of Toronto Open Data: StrollTO (2024-10-15)  
City of Toronto Open Data: Toronto Centrelines (2025-01-31)  
City of Toronto Open Data: Wellbeing Youth - Recreation (2024-10-15)  
Base Map Credits: Esri, Esri Canada, Province of Ontario, Natural Resources Canada, Parks Canada, TomTom, Garmin, SafeGraph, GeoTechnologies Inc, METI/NASA, NGA, USGS, USDA, FEMA, EPA, NPS.

© Mott MacDonald 2025  
This document is issued for the party which commissioned it and for specific purposes connected with the captioned project only. It should not be relied upon by any other party or used for any other purpose. We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

Date 2025-07-30
Drawn C Willett
Checked C Teolis
Approved S Tam
Revision 04
Scale at Arch E 1:40,000

## 2.3 Operational Objectives

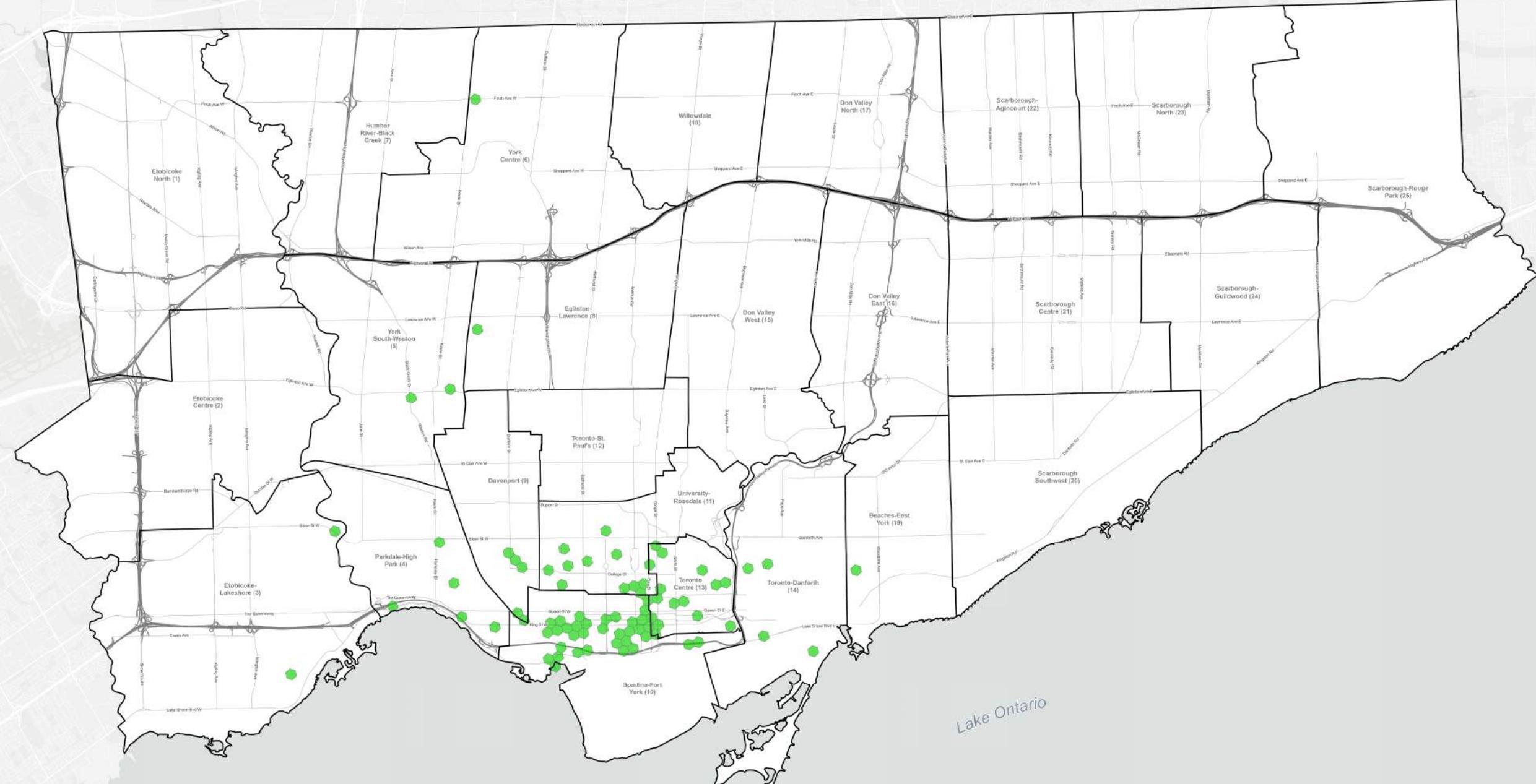
The Operational objectives focused on improving system performance within the existing Bike Share Toronto network. Operational data, including rebalancing activity and station usage patterns, were analyzed to inform how investment in the existing network and densification (i.e. increasing station capacity) could reduce operational burden for Bike Share Toronto and the operator and improve service reliability.

### 2.3.1 Capacity-Based Improvements

The analysis was developed to identify station locations that are impacted by insufficient capacity and where the Bike Share Toronto operator conducts multiple rebalancing activities within a single day. To guide investment decisions, stations were assessed based on their activity levels and operational needs. Each station was assigned a score based on two indicators; the frequency of rebalancing activities and the ratio of pick-up and drop-off activity by the operator. The ratio indicator was also weighted by the volume of bikes at the station. For each indicator, the stations were ranked from highest to lowest scores, and the final score was the maximum of both indicators. This approach helped identify locations where added capacity could provide the greatest operational benefit.

The output of this analysis helps Bike Share Toronto understand the needs of specific stations. While the analysis was conducted at the station level, the final results were aggregated into the hexagon grid used throughout the study, which allows for a better understanding of opportunities to densify the network. Capacity based improvements could be provided by adding more docks at an existing station, adding more docks to a nearby station or adding a new station nearby.

The highest-priority stations are located primarily in the downtown core, where there is a high concentration of stations and where the demand analysis suggests there is the most demand. Adding more capacity within the downtown core and adjacent areas serves a large portion of ridership. The potential impact is three-fold; first is a better user experience for riders, second is the potential reduced need for operational activities freeing up the operator to address other issues in the network, and third is this will enable the core Bike Share Toronto area to be capable to accommodate more bikes as per the Bike Share Toronto 2030 strategy.



Toronto Parking Authority  
Bike Share Toronto

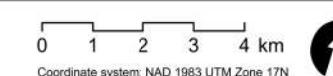


Mott  
MacDonald

Mott MacDonald Canada Ltd  
145 Wellington St. W, Suite 400  
Toronto ON M5J 1H8  
647.556.3200  
mottmac.com

## Bike Share 2030 Study Operations Analysis

- Priority Station Area for Operational Improvements
- Ward Boundary
- Expressway
- Major Arterial



### Data Sources:

City of Toronto Open Data: Toronto Centreline (2025-01-31)  
City of Toronto Open Data: Wards and Elected Councillors (2024-11-21)  
Base Map Credits: Esri, FAO, Garmin, NOAA, TomTom, USGS, OpenStreetMap Contributors, and the GIS User Community.

Date 2025-07-30
Drawn C Willett
Checked C Teolis
Approved S Tam
Revision 01
Scale at Arch E 1:40,000

## 2.4 Electrification Objectives

The Electrification objectives focused on identifying stations that should be replaced by e-bike charging stations so that passive e-bike charging would reduce manual charging demands and improve operational efficiency. The analysis prioritized locations with high demand and long idle times—conditions that support organic charging through typical usage patterns. This approach helps guide targeted investment in charging infrastructure where it can have the greatest impact on system performance and rider experience.

### 2.4.1 Passive E-bike Charging

Investing in e-bike charging capacity improvements is a key strategy to reduce the manual effort required for charging—while also supporting increased e-bike usage across the network.

Currently, when eFit bikes have low charge, they are “locked out” and made unavailable for use until they are manually collected by the operator to be recharged at a central facility and redistributed. As the eFit fleet grows, this practice is unsustainable as the process time intensive and costly, and does not solve eFit availability issues to riders.

The analysis focused on identifying opportunities for organic e-bike charging—locations where charging can occur naturally through typical usage patterns. Stations were evaluated based on demand and idle time, without being limited by the availability of electrical infrastructure. However, site logistics and feasibility will still need to be assessed before implementation.

In discussions with Bike Share Toronto, it was noted that many of the initial “quick win” charging locations have already been implemented, though some do not align well with current demand. The refined analysis revealed that stations in the downtown core consistently offered the most favourable balance between demand and idle time, making them strong candidates for electrification. Outside the core, longer idle durations were more common but often reflected lower demand or suboptimal station placement.

Some high-scoring stations are already electrified or serve as valet locations, suggesting opportunities to enhance existing infrastructure. The scoring framework developed through this analysis supports a phased investment strategy, guiding electrification efforts towards stations with the greatest potential impact on operational efficiency and rider experience.

## 3 Stakeholder Engagement Summary

Bike Share Toronto is committed to ongoing engagement and outreach with stakeholders and community members in efforts for enhanced membership relationships, transparency and operational excellence.

As part of the development of the 2030 Study, an engagement program was identified which focused on internal staff and external stakeholder outreach and participation. Due to ongoing public outreach efforts, it was determined that public engagement would not be included as part of the scope of work; however, efforts were made to work with the other teams undertaking public engagement to generate awareness and understanding of the project.

The following sections have been developed to document the engagement approach and timeline, key themes and feedback and how that feedback was integrated into the outcomes of the project.

### 3.1 Engagement Activities

The engagement strategy focused on the planning, design and facilitation of two workshops with select stakeholders.

An engagement and communications plan was prepared and finalized in the early stages of the project informed by stakeholder analysis.

#### 3.1.1 Stakeholder Analysis

Stakeholder analysis is an internally driven exercise typically undertaken with staff members as an effort to better understand the status of stakeholder relationships as well as opportunities for monitoring, management and enhancement throughout a project process. It aims to maximize involvement through tailored and informed approaches as opposed to focusing on tactic planning. A workshop with Bike Share Toronto staff was facilitated to engage staff as part of the stakeholder analysis process.

The detailed results of the stakeholder analysis have been provided to Bike Share Toronto and are considered an internal resource along with the contact list. However, it is important to note that through this work a comprehensive list of stakeholders was identified and through the analysis there is now a more in-depth understanding of relationship status and future needs and opportunities for involvement.

More specifically, there are a number of other stakeholder groups / audiences that were identified as part of this exercise which were previously not anticipated to be involved but were considered critical to ongoing relationship building. There was a clear difference identified between partnerships and engagement. Groups were identified that Bike Share Toronto wishes to have as partners who were ultimately not invited to participate in the engagement process for this project. Conversely, groups may have been involved in the engagement approach who may not be identified as active partners in the implementation process.

The process was an opportunity for Bike Share Toronto to think about the future of stakeholder partnerships as it relates to the growth strategy and other Bike Share Toronto efforts. Engagement needs to include opportunities to discuss processes, practices and partnership with the goal of continued support for relationship building.

### **3.1.2 Stakeholder Engagement Workshops**

As noted above, the engagement approach included two rounds of outreach and information sharing to inform the 2030 Study. Within each round there were two engagement touchpoint which followed a similar format:

1. Communication via email and information sharing
2. Facilitated workshop session with staff and stakeholders

The workshops included a context setting presentation followed by a facilitated conversation and roundtable discussion. Questions were determined in advance and were used to prompt discussion and input sharing. Facilitation was used to encourage participation from a range of attendees. At each session, the facilitator invited a final “recap” from each attendee including Bike Share Toronto staff to highlight key take-aways, outstanding questions and opportunities for future collaboration. The sessions were well received and included both return as well as new participants.

The information shared and the format of the workshops were determined by specific objectives as determined through consultation with Bike Share Toronto staff and the project team. They included:

#### **Round 1 Workshop**

This workshop aimed to establish an understanding and appreciation of the intent and purpose of the project and to solicit information to inform the confirmation of project vision and priorities as well as challenges, opportunities, considerations and impacts. The workshop provided background context from the previous growth plan and key considerations for the update. The workshop was used to gather input on the vision and priorities as well as strengths, opportunities and potential key considerations for inclusion as part of strategy development.

#### **Round 2 Workshop**

This workshop provided an update on the work completed, engagement and input received and how it was used to form outputs and recommendations and to engage on those recommendations and future impacts to confirm strategy content and to “ready” the organization for future partnerships and implementation impacts. It was an opportunity to provide stakeholders a roadmap for next steps and implementing the plan and 2030 BST Strategy. The workshop was used to gather input and ideas around specific strategy content with a focus on the recommendations but not on the specific financial elements.

## **3.2 Key Themes and Feedback**

A detailed workshop summary was distributed to attendees along with a copy of the presentation following each workshop. A summary of the key themes that emerged through each session are presented in the following sections.

### **3.2.1 Workshop #1**

Approximately 20 people attended Workshop #1 including the following organizations:

- City of Toronto, City Planning
- City of Toronto, City Planning (Waterfront)
- City of Toronto, Transportation Services
- City of Toronto, Transportation Services (Neighbourhood Planning)
- Toronto Catholic District School Board, Planning Services

- Toronto Transit Commission, Strategy & Foresight
- Humber Polytechnic
- George Brown College
- University of Toronto, Planning
- Metrolinx Station Planning
- Waterfront Toronto
- Cycle Toronto

The discussion at Workshop 1 revolved around the following themes:

- Station & E-Bike Installation
- Enhanced partnerships (e.g. schools)
- Process and partner input points
- Leveraging city development pipeline
- Consideration and support of non-traditional riders
- Enhancement of mobility hubs
- Expansion to suburban and non-residential areas
- Enhanced access and transition with transit
- Plan Development & Integration
- Leveraging existing municipal plans
- Strengthening of policy support
- Improved communication and coordination
- Private sector partnership direction
- Extending the OneFare program
- Improved communications and outreach
- Community engagement and outreach

### 3.2.2 Workshop #2

The goal of Workshop #2 – as the final workshop – was to make efforts to facilitate the participation of those who attended as well as those who did not attend workshop #1. Where appropriate, new contacts were identified and updated information was shared. Attendees included some that had participated in Workshop #1 as well as new participants. Generally speaking, the organizational representation was the same as Workshop #1.

A highlight of Workshop #2 was the presentation of some key successes achieved by Bike Share Toronto since the first workshop including:

What we heard at workshop #1	What was done since workshop #1
<b>Youth mobility is an opportunity for lifelong riders and station partnerships with schoolboards</b>	Lowered user age eligibility from 16 to 14 year olds; and 16 year olds can now ride e-bikes
<b>Recreation is an entry point for first-time cyclists and should continue to be a station expansion priority</b>	Launched a system on Toronto Islands
<b>New developments are an opportunity to reserve space and power for new bike share stations but there is not requirement for applicants</b>	BST and City are reviewing existing development application checklists and requirements, such as the Toronto Green Standards, to identify and outline new requirements for BST stations

The discussion at Workshop #2 revolved around the following themes:

- Planning for new stations including responding to opportunity related to growth and development within the various neighbourhoods and communities as well as expansion of other transportation infrastructure and systems. Considerations and comments were provided regarding ways to leverage ongoing efforts related to affordable housing development and the capacity of stations based on the location and demand.
- E-station benefits and risks including the use of park and major trail systems by e-bikes relative to other user safety and the opportunities related to gig workers use of e-bikes and the increased demand that could be realized as the system expands.
- The implementation of e-stations including the site location and size, requirements around the types of materials used and access to power. Clarification was provided on the costs covered by BST versus those borne by the landowner.
- Opportunities to position/promote BST and electrification based on future targets as well as opportunities to leverage work of other partners related to transportation demand management.
- Further considerations related to the future promotion and coordination of BST efforts and partnership opportunities for ongoing communication and collaboration between BST and partners.

## 4 2030 Network Expansion Plan

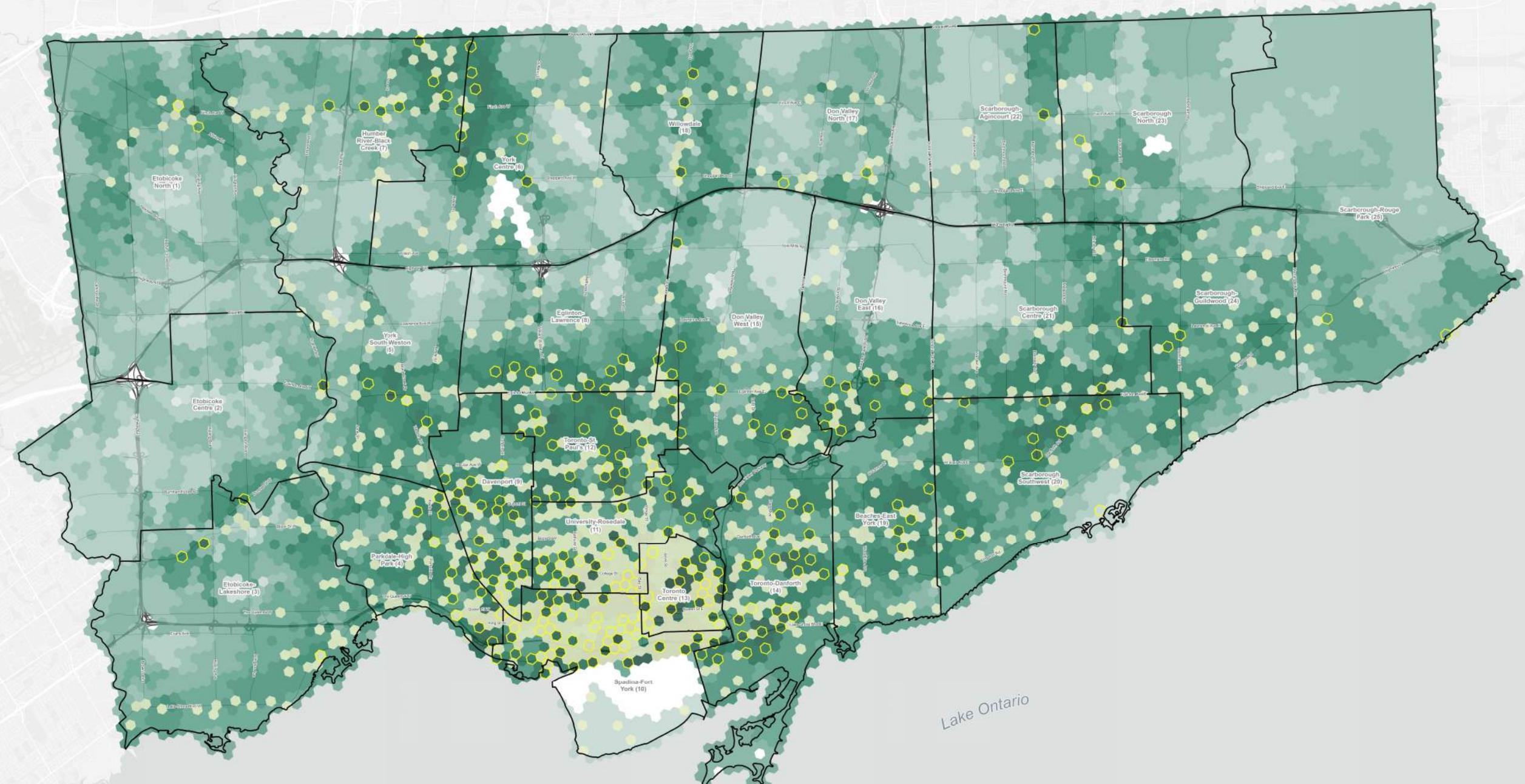
### 4.1 Components of the Expansion Plan

This section presents the recommended network expansion strategy for Bike Share Toronto, including the methodology used to identify priority areas, the structure of the proposed 2030 network, and the rationale behind identified expansion, densification, and system improvements.

#### 4.1.1 Consolidated 2030 Network

The Consolidated 2030 Network represents the long-term vision for the growth of Bike Share Toronto's station network. It outlines the proposed distribution of bike share stations across the City by 2030, using a hexagonal planning grid to support consistent spatial analysis and advance equitable access.

The proposed network includes 257 hexagonal zones, each representing a priority area for new or additional bike share stations. These zones were selected from a base network developed through a structured analytical process, which was then refined through a limited number of strategic adjustments. This distinction is important: while the base network was derived solely from data and scoring criteria, the proposed network incorporates additional refinements to reflect operational realities and implementation feasibility.



Toronto Parking Authority  
Bike Share Toronto



Mott MacDonald Canada Ltd  
145 Wellington St. W, Suite 400  
Toronto ON M5J 1H8  
647.556.3200  
mottmac.com

## Bike Share 2030 Study Proposed Future Bike Share Network

- Existing Bike Share Network
- Proposed Future Station Location
- Ward Boundary
- Expressway
- Major Arterial

0 1 2 3 4 km  
Coordinate system: NAD 1983 UTM Zone 17N



### Data Sources:

City of Toronto Open Data: Toronto Centreline (2025-01-31)  
City of Toronto Open Data: Wards and Elected Councillors (2024-11-21)  
Base Map Credits: Esri, FAO, Garmin, NOAA, TomTom, USGS, OpenStreetMap Contributors, and the GIS User Community.

Composite Score			
0.0 - 0.5	2.5 - 3.0	5.0 - 5.5	
0.5 - 1.0	3.0 - 3.5	5.5 - 6.0	
1.0 - 1.5	3.5 - 4.0	6.0 - 6.5	
1.5 - 2.0	4.0 - 4.5		
2.0 - 2.5	4.5 - 5.0		

© Mott MacDonald 2025  
This document is issued for the party which commissioned it and for specific purposes connected with the captioned project only. It should not be relied upon by any other party or used for any other purpose. We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

Date 2025-07-31
Drawn C Willett
Checked C Teolis
Approved S Tam
Revision 02
Scale at Arch E 1:40,000

The map illustrates how the network is recommended to grow both outward by extending the network and inward through densification. This dual approach supports a balanced evolution of the network, fostering the potential for long-term ridership growth, improved service reliability, and equitable access across all parts of the City.

While the hexagons provide a planning-level view, they are not tied to specific station sites. Instead, they serve as a flexible framework to guide future implementation, subject to site feasibility, infrastructure availability, and community input.

#### 4.1.1.1 Expansion vs. Densification Strategy

This 2030 Network Expansion Plan includes two types of network growth:

- **Expansion** refers to the addition of new stations in areas where no station currently exists. These locations were selected based on their alignment with the four strategic objectives, using a composite scoring framework.
- **Densification** refers to the addition of stations within the existing network footprint. These locations were identified through the operational analysis, where additional capacity could improve service reliability or reduce rebalancing needs.

#### 4.1.1.2 Prioritization Framework and Selection Criteria

The base network of 257 hexagons was developed through a transparent, data-driven process, independent of operational preferences or post-hoc adjustments. This approach anchored the initial recommendations in objective analysis and align them with strategic goals.

The selection process followed three steps:

##### 1. Step 1: Densification Based on Operational Objective

Hexagons within the existing network were prioritized based on the operational objective to improve system performance and reliability (Objective 5: Improve Operations). These areas were selected where limited station capacity contributes to operational strain, particularly where stations experience increased levels of rebalancing activities.

##### 2. Step 2: Expansion Based on Expansion Objective

Once densification areas were identified, the hexagons without existing stations were evaluated using a composite scoring framework. The TPA determined the weighting of the expansion objectives to reflect their relative importance in guiding network growth, with prioritization focused on system growth, equity, multimodal integration, and recreational and tourism usage.

Strategic Objective	Weight
Grow Ridership	40%
Support Transit Ridership	30%
Equal Access	20%
Increase Recreational and Tourism Usage	10%

Expansion hexagons were selected based on their composite scores until the total number of recommended hexagons reached 250.

### 3. Step 3: Geographic Adjustment for Ward Representation

To promote equitable geographic distribution, seven additional hexagons were added across underrepresented wards, ensuring that every ward in Toronto has at least two recommended hexagons. This continues the approach established in the previous Bike Share Toronto Four-year Growth Plan (2022-2025), reinforcing the commitment to expanding bike share service in every ward across the city.

This process produced a base network of hexagons that forms the foundation for the proposed network.

#### 4.1.1.3 Strategic Relocations and Adjustments

After the base network was established, a number of refinements were made to better reflect the current (as of the network development process) implementation plan, infrastructure and stakeholder constraints, and other emerging opportunities. These adjustments were informed by Bike Share Toronto and the TPA, based on their local knowledge and planning considerations. These updates refine the results of the methodology and analysis described in Section 3.1.1.2. The Master 2030 network shown in this report reflects both the analytical base and these targeted adjustments.

The relocation process was collaborative, with Bike Share Toronto and the consultant team working together to review feasibility and to refine the network. The Bike Share Toronto team provided the final decision on where relocated investment should be directed, while still meeting the strategic objectives of the study.

The reasons for relocation generally fell into the following categories:

- **TPA Strategic Direction:** Hexagons were relocated to areas identified by TPA as high priority based on local knowledge, planned infrastructure, anticipated demand, or prior earmarking for 2025 implementation by TPA.
- **Operational Constraints:** Some original hexagons were deemed infeasible due to historical implementation challenges, proximity to existing or other planned stations, or concerns about induced demand near operational facilities.
- **Strategic Enhancements:** Relocations were used to support broader goals such as integration with the Ontario Line, alignment with TransformTO, or improved access to major recreational destinations.

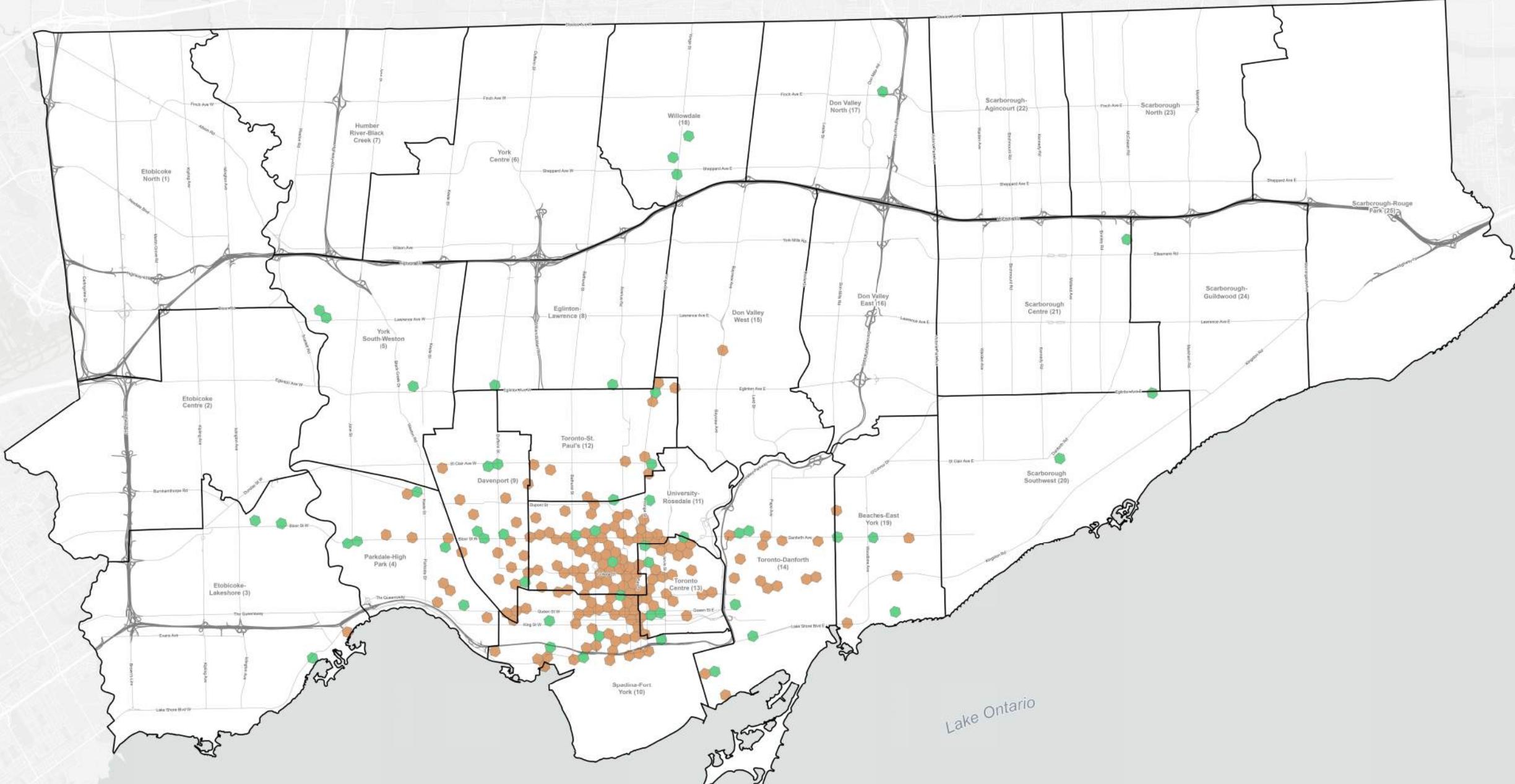
Throughout the adjustment process, efforts were made to keep relocated hexagons aligned with the original composite scoring framework. Where possible, hexagons were moved to areas that scored well as part of the evaluation process. The adjustments reflect the flexible and iterative nature of the planning framework and demonstrate that implementation should be responsive to real-world conditions, stakeholder input, and evolving system needs.

#### 4.1.2 eStation Network

The E-Bike Network was developed to support the electrification objectives in Section 2.4 by highlighting stations that would encourage organic recharging of eFit bikes which reduces the need for manual charging and expands availability of City-wide e-bike access. It is the result of an analysis identifying high-impact locations for future eStations based on e-Bike ridership

patterns and demand, and analysis of idle times to suggest bikes stay stationary for enough time to get an adequate amount of charge while having adequate turnover.

The Station-level analysis was aggregated into a hexagonal planning grid to highlight zones with strong electrification potential, enabling consistent spatial analysis independent of existing infrastructure. Together with the existing eStation network, this forms the comprehensive 2030 eStation network. The eStation network is aspirational, unlike regular solar stations, eStations have higher infrastructure and feasibility requirements to be met. If a certain location is not feasible, the analysis points to other alternative locations that can be considered.



Toronto Parking Authority  
Bike Share Toronto



Mott MacDonald Canada Ltd  
145 Wellington St. W, Suite 400  
Toronto ON M5J 1H8  
647.556.3200  
mottmac.com

## Bike Share 2030 Study Existing & Proposed Future E-Station Network

- Existing E-Station Location
- Proposed Future E-Station Location
- Ward Boundary
- Expressway
- Major Arterial

0 1 2 3 4 km  
Coordinate system: NAD 1983 UTM Zone 17N



### Data Sources:

City of Toronto Open Data: Toronto Centreline (2025-01-31)  
City of Toronto Open Data: Wards and Elected Councillors (2024-11-21)  
Base Map Credits: Esri, FAO, Garmin, NOAA, TomTom, USGS, OpenStreetMap Contributors, and the GIS User Community.

Date	2025-07-30
Drawn	C Willett
Checked	C Teolis
Approved	S Tam
Revision	02
Scale at Arch E	1:40,000

# 5 Implementation Plan

## 5.1 Deployment Strategy (2026–2030)

This section outlines the proposed timeline and sequencing for deploying new Bike Share Toronto stations between 2026 and 2030. The deployment strategy is based on the **2030 Consolidated Network**, which identifies 257 hexagonal zones for expansion and densification. These zones were selected through a structured, data-driven process and refined in collaboration with the TPA.

To support phased implementation, the Consolidated Network was organized into Phasing Cluster Zones—groups of areas defined by geographic, operational, and transit-oriented characteristics. This structure enables a logical and balanced rollout, allowing new stations to be strategically distributed across key areas of the city over the five-year horizon.

While the Consolidated Network defines where stations should be located, the deployment strategy guides when they will be implemented.

### 5.1.1 Strategic Objectives and Phasing Principles

The deployment strategy is designed to guide network evolution in alignment with the four key weighted objectives:

- **Transit Integration**
- **Ridership Growth**
- **Equity and Accessibility**
- **Recreational and Tourism Use**

The strategy is designed around the principle of **building connectivity**. It prioritizes the highest-scoring hexagons within each Phasing Cluster Zone, focusing investment where it will generate the greatest network impact. Each phase builds on the last, beginning with areas experiencing operational strain and key transit corridors like the Eglinton Crosstown LRT, then expanding through a geographically distributed rollout that aligns with future transit infrastructure and supports long-term system growth.

This structured approach supports **balanced, equitable, and scalable** system development, while remaining responsive to both current needs and future opportunities.

### 5.1.2 Phasing Cluster Zones

The Clustering Zones fall into three main categories:

#### 1) Operational Zones

Areas with rebalancing and reliability challenges, identified through analysis as priorities for investment to improve system performance.

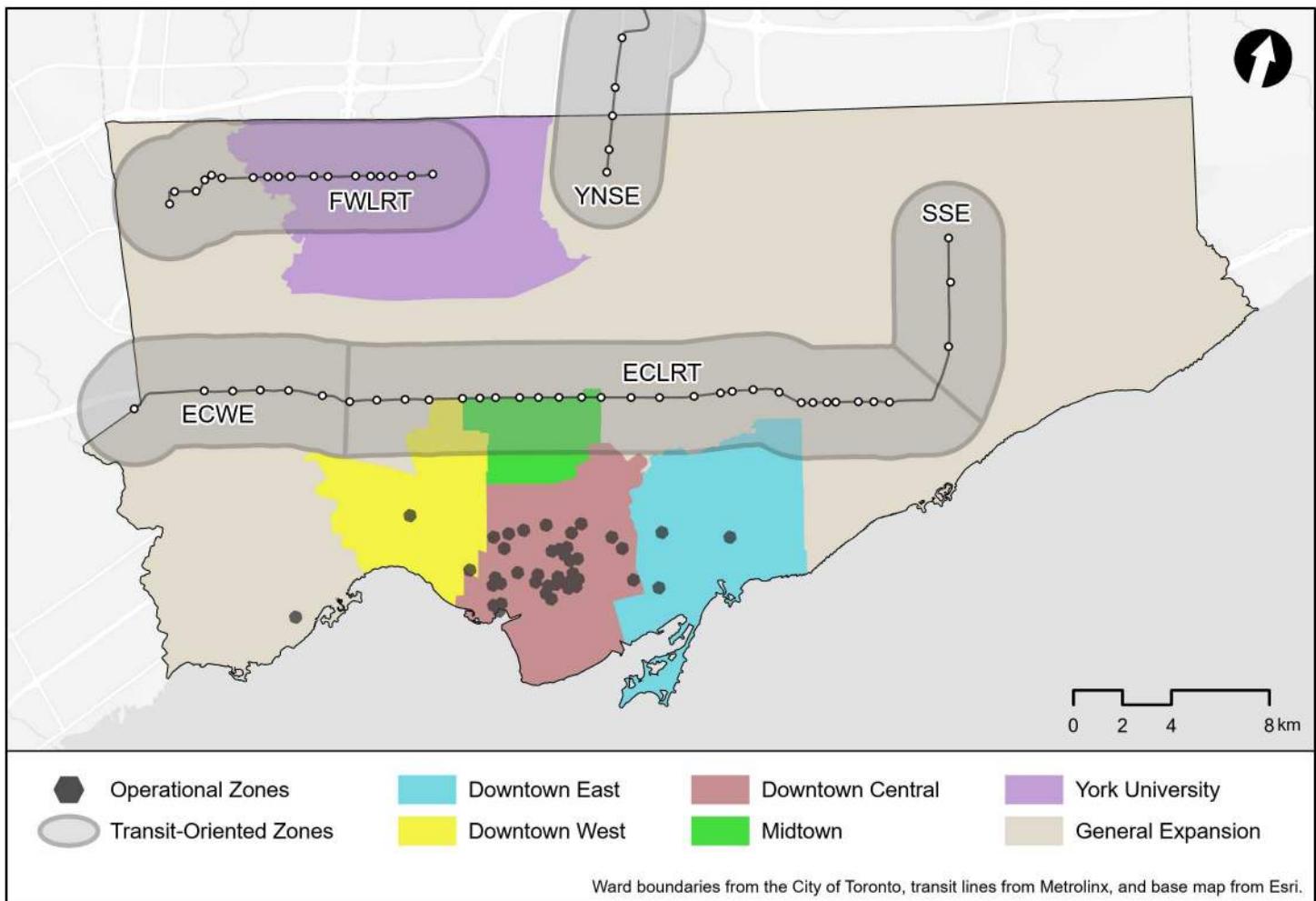
#### 2) Transit-Oriented Zones

Areas within 2 km of major infrastructure projects, including the Eglinton Crosstown LRT (ECLRT), Finch West LRT (FWLRT), Scarborough Subway Extension (SSE), Yonge North Subway Extension (YNSE), and Eglinton Crosstown West Extension (ECWE).

#### 3) Geographic Zones

Groupings of adjacent municipal wards used to manage rollout across the city. These zones provide a practical framework for phased expansion. These zones include:

Geographic Zone	Description
<b>Downtown Central</b>	Covers the urban core, including Spadina–Fort York, University–Rosedale, and Toronto Centre. High-density, mixed-use core with major employment areas, cultural institutions, and strong transit and cycling infrastructure.
<b>Downtown East</b>	Includes Toronto–Danforth and Beaches–East York. Established residential neighbourhoods with vibrant main streets and growing investment in active transportation and transit-oriented development.
<b>Downtown West</b>	Encompasses Parkdale–High Park and Davenport. Diverse, transit-connected communities with dense housing, commercial corridors, and proximity to the downtown core.
<b>Midtown</b>	Includes Toronto–St. Paul's. Centrally located with a mix of residential, institutional, and commercial uses, supported by subway lines and frequent surface transit.
<b>York University</b>	Comprises York Centre and Humber River–Black Creek. Anchored by York University and the Line 1 subway extension, this area supports high student and commuter travel volumes.
<b>General Expansion</b>	Includes all areas outside the zones above. This includes all wards in Etobicoke, Scarborough, and most of North York, supporting infill, suburban growth, and citywide coverage.



### 5.1.3 Deployment Strategy Timeline

Deployment is distributed across five years, beginning in 2026. The strategy prioritizes early implementation, with a larger share of stations scheduled for 2026. The remaining hexagons are distributed incrementally across 2027 to 2030, with the number of stations increasing slightly each year.

Year	Hexagons
2026	63
2027	47
2028	48
2029	49
2030	50

Within each Clustering Zone, high-scoring hexagons are prioritized for earlier deployment to maximize early gains in system usage, access, and operational performance. This deployment strategy reflects a balance between analytical priorities and practical deployment considerations. Where possible, phasing clusters were spread evenly across the timeline. However, some clusters—such as ECWE, SSE, YNSE, and York University—contain limited number of hexagons, which in turn limited the ability to distribute them perfectly evenly. Within these constraints, efforts were made to maintain a balanced and strategic rollout.

As with existing stations in the system, Bike Share Toronto will monitor the performance of new stations over time. Stations may be relocated if they do not meet expected ridership targets or in response to other site-specific considerations or user feedback.

### 5.1.4 Deployment Timeline

The deployment of new Bike Share Toronto stations is phased over five years, beginning in 2026 and concluding in 2030. The timeline reflects a structured rollout across the Phasing Cluster Zones, balancing operational priorities, transit integration, and geographic coverage.

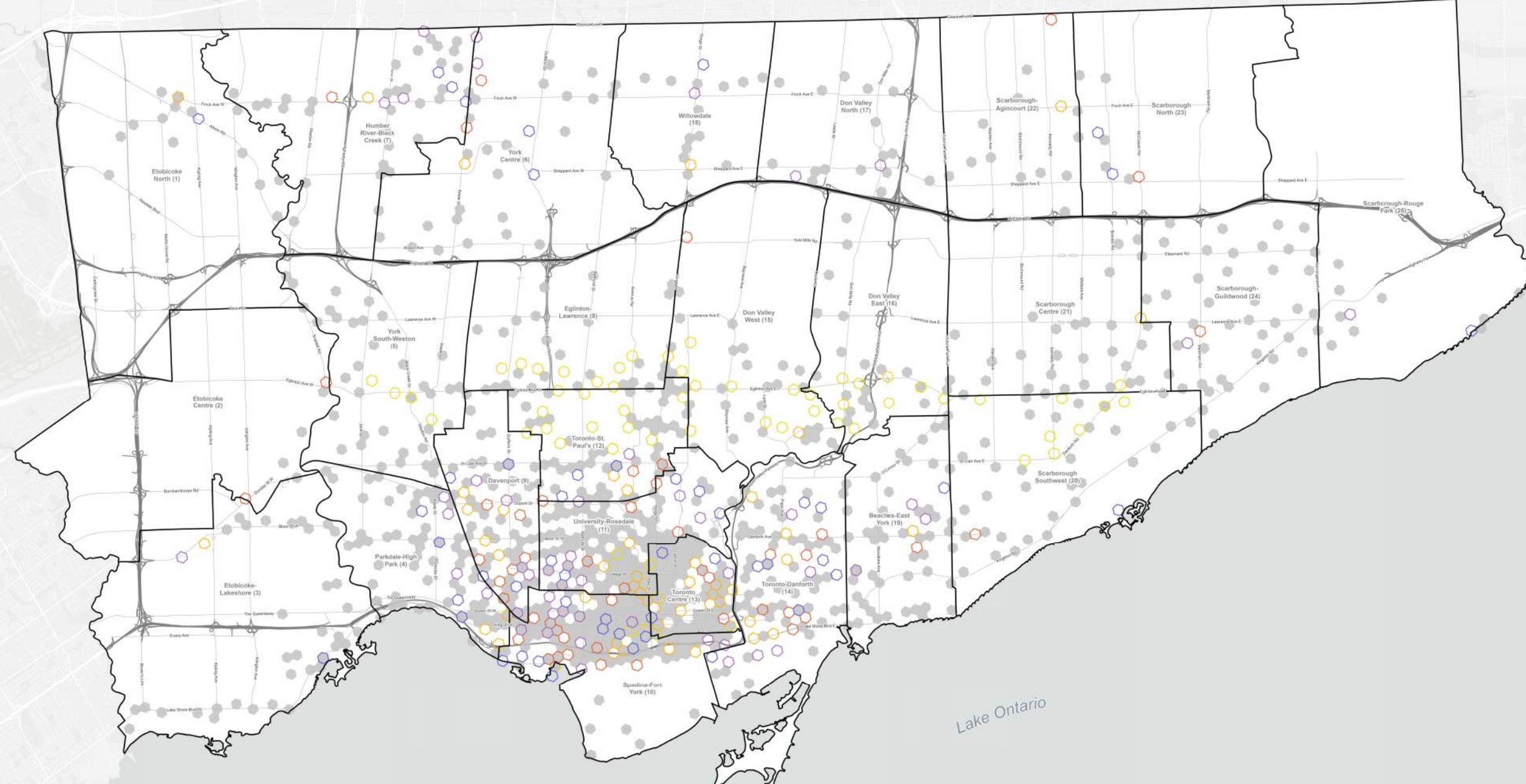
#### 2026: Strategic Launch and Early Impact

Deployment begins in 2026, with a focused investment in high-priority areas. This phase targets priority Operational Stations, where existing demand and system pressure require immediate capacity improvements. In parallel, hexagons are deployed along the Eglinton Crosstown LRT (ECLRT) corridor—a Transit-Oriented Zone—where expansion is timed in advance of the line's opening to support future multimodal connectivity. These deployments establish bike share access in areas of high need and strategic importance from the outset, laying the foundation for future growth.

#### 2027–2030: Balanced and Adaptive Expansion

From 2027 onward, the deployment strategy shifts to a more balanced and adaptive model, with a focus on evenly distributing new stations across all Clustering Zone types—Operational, Transit-Oriented, and Geographic. This includes continued investment along major transit corridors such as FWLRT, SSE, ECWE, and YNSE, as well as expansion into downtown, midtown, and suburban areas.

By 2030, the network achieves full coverage across the Master Network, with bike share access established in every planned cluster and corridor. Phasing should be reviewed on a yearly basis by the Toronto Parking Authority to ensure alignment with system needs and planning priorities.



Toronto Parking Authority  
Bike Share Toronto



Mott MacDonald Canada Ltd  
145 Wellington St. W, Suite 400  
Toronto ON M5J 1H8  
647.556.3200  
mottmac.com

## Bike Share 2030 Study

### Proposed Future Bike Share Network - Phasing

Proposed Future  
Station Location:  
Installation Year

- 2026
- 2027
- 2028
- 2029
- 2030

- Existing Bike Share Network
- Ward Boundary
- Expressway
- Major Arterial

0 1 2 3 4 km  
Coordinate system: NAD 1983 UTM Zone 17N



#### Data Sources:

City of Toronto Open Data: Toronto Centreline (2025-01-31)  
City of Toronto Open Data: Wards and Elected Councillors (2024-11-21)  
Base Map Credits: Esri, FAO, Garmin, NOAA, TomTom, USGS, OpenStreetMap Contributors, and the GIS User Community.

Date	2025-07-30
Drawn	C Willett
Checked	C Teolis
Approved	S Tam
Revision	01
Scale at Arch E	1:40,000

## 5.2 Electrification Strategy

Building on the electrification objectives (Section 2.4) and the eStation Network developed through the analysis (Section 3.1.2), this section outlines how Bike Share Toronto will approach the implementation of e-bike charging infrastructure across the system.

The eStation Network represents the outcome of a data-driven process that identified high-impact hexagonal zones for future charging infrastructure. These zones were selected based on demand and idle time characteristics that support organic charging—where e-bikes can be charged passively while docked, reducing the need for manual collection and centralized charging. While this network provides a strong foundation for prioritization, actual implementation will depend on a range of feasibility factors.

### 5.2.1 Implementation Framework

Bike Share Toronto will prioritize expansion of the electrification network based on both the scoring framework developed through the analysis and the practical feasibility of each site. Key considerations for implementation include:

- **Organic Charging Potential:** Stations with favourable demand and idle time characteristics that support passive charging.
- **Electrical Infrastructure:** Availability of power at or near the station, or the relative ease of tapping into nearby power sources without requiring major upgrades.
- **Site Logistics:** Physical space, permitting, and integration with existing station infrastructure.
- **Stakeholder Coordination:** Engagement with utilities, property owners, and municipal partners.
- **Operational Impact:** Opportunities to reduce manual charging and improve service efficiency.

While many initial “quick win” sites have already been electrified, this strategy supports a phased and data-driven approach to future investments. Bike Share Toronto can leverage the scoring framework developed through the analysis to help guide implementation, targeting infrastructure upgrades where they can deliver the greatest benefit to operations and rider experience.

## 5.3 Operational Strategy

This section outlines the strategic considerations related to the potential relocation or establishment of a new warehouse facility to support Bike Share Toronto operations. It also identifies key factors that should guide future site evaluations for operational improvements.

### 5.3.1 Warehouse Role in Supporting Operations

As part of the broader operational strategy, careful consideration must be given to the future of the warehouse facility. Whether relocating the current site or establishing a new one, the decision involves a complex interplay of factors, including land use compatibility, site availability and connectivity to the network, and the long-term scalability of the chosen location.

The location strategy should remain adaptable to the system's evolving needs. If future growth trends prioritize capturing more peripheral trips, expansion toward the north, east, or west may be advantageous. Alternatively, if the system continues to focus on densification and central-area demand, maintaining a centrally located warehouse may offer greater efficiency.

The warehouse location would have impacts on how Bike Share customers are best served. The 2030 Network Plan has a large focus on serving the downtown core, and a second warehouse within this area could benefit in providing resiliency. Alternatively a warehouse outside of downtown, such as a location in Scarborough or North York could be used to serve periphery areas, and the existing warehouse at Booth Avenue could concentrate on core operations.

Urban land constraints and zoning regulations will continue to influence the range of viable options. As such, it is essential to identify sites that align with both operational requirements and broader municipal planning objectives.

#### 5.3.1.1 Key Considerations for Site Selection

The following considerations should guide Bike Share Toronto in any future evaluation of potential warehouse sites:

- **Facility Capacity:** Any new or upgraded site must be able to accommodate current and projected volumes. This includes space for storing bikes, charging e-bikes, and staging bikes for deployment. In this context, staging refers to the temporary holding and preparation of bikes, particularly e-bikes, prior to their redistribution to high-demand areas.
- **Power Requirements:** With the growing reliance on e-bikes, power requirements for charging infrastructure must be assessed early in the planning process. This is especially important in areas where electrical upgrades may be necessary to support charging operations at scale.
- **Traffic Circulation and Access:** Efficient traffic flow and site access are critical. Poor connectivity can significantly impact the efficiency of fleet movements and service response times.
- **Proximity to High-Need Areas:** The warehouse must be strategically positioned to interface with areas of highest operational need, particularly locations where service gaps or inefficiencies are most pronounced.

### 5.3.2 Site Evaluation and Next Steps

While this report does not include a detailed analysis of specific sites, the considerations outlined above provide a framework for future site selection. As a next step, Bike Share Toronto should apply these criteria to identify and evaluate candidate locations, supported by technical, operational, and financial feasibility assessments.

## 5.4 Other Operational Improvement Opportunities

In addition to core findings, the analysis surfaced several operational improvement opportunities that could enhance the performance, responsiveness, and strategic direction of the bike share program. These opportunities span data collection, customer experience, system modeling, and network expansion. Addressing these areas in future planning or follow-up studies could lead to more informed decision-making and improved service outcomes.

### Monitoring Performance Against Program Objectives

As new stations are deployed under the 2026–2030 plan, Bike Share Toronto should monitor and evaluate how well these stations support the program’s transit, equity, and recreational goals. Monitoring should not be limited to system-wide performance but should specifically assess the effectiveness of newly introduced stations in meeting their intended functions.

- **Transit-oriented stations** near major transit hubs must maintain reliable bike and dock availability to support seamless multimodal connections.
- **Equity-focused stations** in underserved or priority areas should offer dependable access to bikes, helping bridge transportation gaps for communities with limited mobility options.
- **Recreational stations** near parks and leisure destinations should be stocked appropriately to support both spontaneous and planned trips.

Analyzing station-level availability data across these categories can help identify service gaps and inform targeted operational adjustments to better align with program objectives.

### Understanding Customer Experience and Behavior

Operational challenges often stem from limited visibility into user behavior and intent. For example:

- An **empty station** may reflect either low demand or a service gap, depending on whether users attempted to rent bikes.
- A **full station** may disrupt trips if users are unable to dock bikes, but the severity of the issue is unclear without data on attempted returns.

App usage data, such as when and where users open the app, can provide valuable insights into unmet demand and user intent. This is particularly useful for understanding casual riders or those unfamiliar with the system, enabling more responsive and user-centered operations.

### Data Considerations for Future Studies

The analysis was constrained by several data limitations that hindered a comprehensive evaluation of system performance:

- **Customer segmentation data** (e.g., distinguishing casual vs. frequent users) was unavailable but would support more targeted service improvements and refined program objectives.

- **Trip planning behavior**, especially derived from app interactions, could help identify preferred origins and destinations and clarify whether station usage reflects true demand or operational constraints.

Future studies should consider incorporating user account data, conducting rider surveys, or integrating app analytics to fill these gaps and support more nuanced evaluations.

### **Operational Modeling and Rebalancing Strategies**

Current rebalancing strategies typically respond to individual station conditions, which may overlook broader patterns of localized demand. The analysis identified opportunities to improve these operations through more advanced modeling:

- **Station clustering** based on proximity and usage patterns can enable more efficient redistribution by treating groups of stations as operational units. This goes beyond grouping stations by fixed area boundaries.
- **Intent-based modeling**, informed by app activity, can help identify where users are actively seeking bikes or attempting to return them, allowing for more targeted and responsive rebalancing.

These strategies could reduce unnecessary redistribution efforts and improve overall system efficiency.

### **Strategic Expansion and Network Growth**

A key question emerging from the analysis is whether the deployment of new stations leads to increased ridership or simply accommodates existing demand. This has important implications for future network growth strategies:

- Further analysis is needed to evaluate the relative benefits of densification within existing service areas versus expansion into new geographic zones.
- Developing metrics such as net new ridership, origin-destination coverage, and trip generation potential can support more strategic decision-making and help optimize the balance between expanding the network and strengthening existing service areas.

## 6 Conclusion

The Bike Share 2030 Study presents a strategic and objective-driven roadmap to guide Bike Share Toronto's network growth in a way that advances the network through expansion, densification, and electrification. The plan is structured to allocate future investment in alignment with the six core objectives:

- Support Transit Ridership
- Support Equitable Access
- Grow Ridership
- Increase Recreational and Tourism Usage
- Improve Operations
- Increase Passive E-Bike Charging

The plan has been developed through a data-informed spatial analysis and deployment strategy and refined through collaboration with Bike Share Toronto. It identifies 257 hexagons that form the 2030 Bike Share Toronto network, that have potential to continue to grow ridership and manage operational challenges. The 2030 eStation network is reflective of the direction and investment for a growing fleet of eBikes and the need to have a sustainable operating model. The framework that has been used to develop the 2030 network and 2026-2030 phasing strategy is flexible and adaptable.

The following are some key considerations moving forward as Bike Share Toronto adopts and begins to implement this plan:

- This plan does not provide site-specific recommendations for station locations. Site-level investigations are required to confirm exact station placements.
- Should additional opportunities arise beyond the 257 hexagons identified as part of the 2030 Network, Bike Share Toronto will assess them where appropriate, in alignment with the Bike Share 2030 Study.
- This is not the final plan for system expansion. Future planning efforts will continue to guide the long-term growth of the bike share network.
- eStation deployment has elevated site requirements based on infrastructure, operational and stakeholder factors. Feasibility of all locations identified for electrification is subject to site-investigations and stakeholder engagement.

# Appendices

A. Stakeholder Engagement Summary	38
-----------------------------------	----

## A. Stakeholder Engagement Summary

See attached Stakeholder Engagement report.



## BST 2030 Growth Strategy Study

### Workshop #1 | Summary of Input (Detailed)

#### Purpose:

- + Establish an understanding of the intent, purpose, objectives and assumptions related to the project scope of work
- + Provide background and updates on the previous growth strategy and key considerations for the update
- + To gather input on specific topics related to the future of bike share Toronto service provision and operations and to better understand how to integrate bike share efforts into broader mobility systems and processes / practices

**Date:** Thursday, March 6<sup>th</sup>, 2025

**Time:** 9:30 a.m. – 12:00 p.m.

**Location:** 50 Richmond St E (large boardroom)

#### Attendees:

There were over 50 individuals and organizations invited to the workshop. Each individual was given 2 weeks notice with an additional follow-up that occurred 3 days prior to the workshop. Individuals were encouraged to attend and if not available or appropriate, to send an alternate in their place.



Grace Candy	Toronto Parking Authority
Paul Young	City of Toronto, Neighbourhood Projects
Alan Filipuzzi	City of Toronto - City Planning
Anna Vuthirong	City of Toronto - Transportation Services - Neighbourhood Projects
Krishnan Rajasooriar	Toronto Catholic District School Board - Planning Services
Katie Whittmann	City of Toronto - Transportation Services
Sonay De Vellis	City of Toronto - Transportation Services
Lorina Hoxha	City of Toronto - Transportation Services
Joanna Gao	TTC - Strategy & Foresight
Sandra Leutri	Humber Polytechnic
Vicky Boyd	George Brown College
Michal Kuzniar	University Planning, UofT
Wesley C. Da Silva	Toronto Parking Authority
Evan Brazeau	Metrolinx, Stations Planning



Luna Xi	City of Toronto - Transportation Planning
Andrew Au	City of Toronto - Transportation Planning
Omar Shams	City of Toronto - TIU - City Planning
Patrick Meredith-Karam	Waterfront Toronto
Alison Stewart	Cycle Toronto
Wai Ming Lo	City of Toronto - City Planning, Waterfront

### Activities & Input:

The following is a summary of the detailed comments that were provided during the workshop. This is not intended to be a high-level summary of key take-aways but provide all the details and some additional context to help inform future technical stages of the project and overall project communication and recommendations.

#### *Station & E-Bike Installation*

- + Continue to consider how the system can be designed for both current as well as future potential users
- + Consideration of enhanced partnership with School Boards and the use of School Sites for the implementation of stations
- + When using those sites, the target audience may not be school aged children but those working at the schools or parents - see comment above regarding current and future users
- + Considerable input was provided regarding age restrictions related to bike share as well as micromobility. Additional consideration will be required relative to enabling or prohibiting policies for the use of bike share and its impact on future demographics.
- + Significant interest in enhancing the valet program with complementary services for improved convenience
- + Consideration of private properties, with greater enhancement and clarity of process and considerations
- + The city expressed concern regarding the stages of access in the current process specifically as it relates to site planning. There was specific reference to opportunities related to formalizing bike share as a broader TDM strategy.
- + Future consideration regarding the City's development pipeline relative to the prioritization of station locations in future growth areas.
- + Additional considerations referenced:
  - o Payment in lieu of bicycle parking with reserve fund for the bike share - strong example of how station funding / allocation is being supported by the City
  - o Greater clarity and review of site opportunities and limitations relative to land use
  - o Consideration of enhanced clarity and alignment with growth and development within the City and various areas e.g. Etobicoke
  - o TPA has tools to influence the process but unsure of the clarity
  - o Consideration of the port lands with the new island as a destination - park will be reopened by 2030
  - o Enhancements to overall transit connectivity including both new and existing stations based on their frequency of use
  - o Should consider all transit access including inter-regional where possible



- + Greater consideration of locations for “non-traditional” riders to improve overall pathways to mobility e.g. aging communities in Scarborough
- + Overall driver behind finding locations that facilitate local connectivity
- + Desire for greater engagement with partners regarding the locations e.g. UofT and TMU as well as other post secondary education locations
- + Greater clarity around the criteria and prioritization of key criteria e.g. location, convenience, access, etc.
- + Consideration of the potential for bike share to create mobility hubs
- + Greater degree of consideration for land use including potential compatibility and opportunities to maximize access and connectivity
- + Specific reference to consider suburban non-residential e.g. plazas for greater access to employment
- + Consideration of rebalancing incentivizing using user driven efforts for greater value and convenience

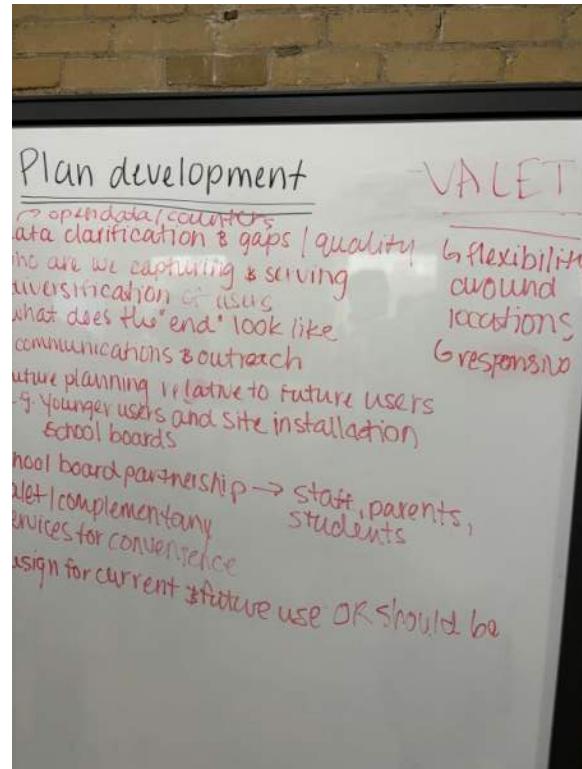
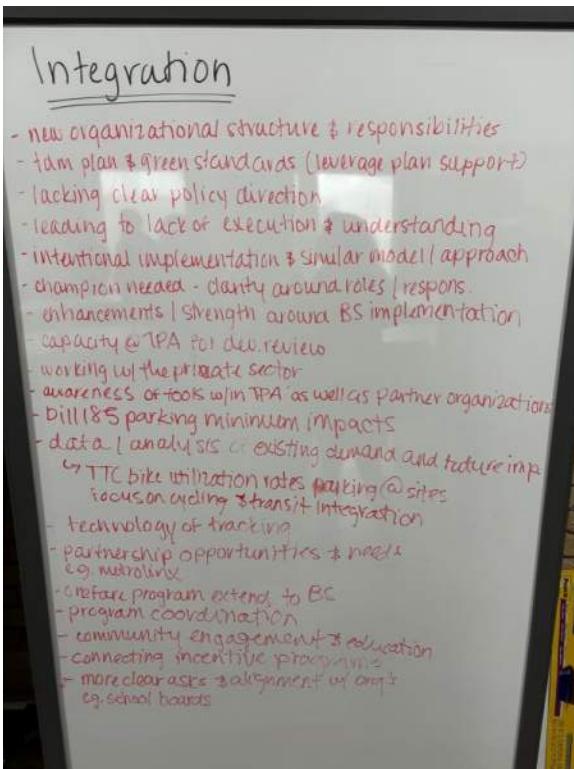
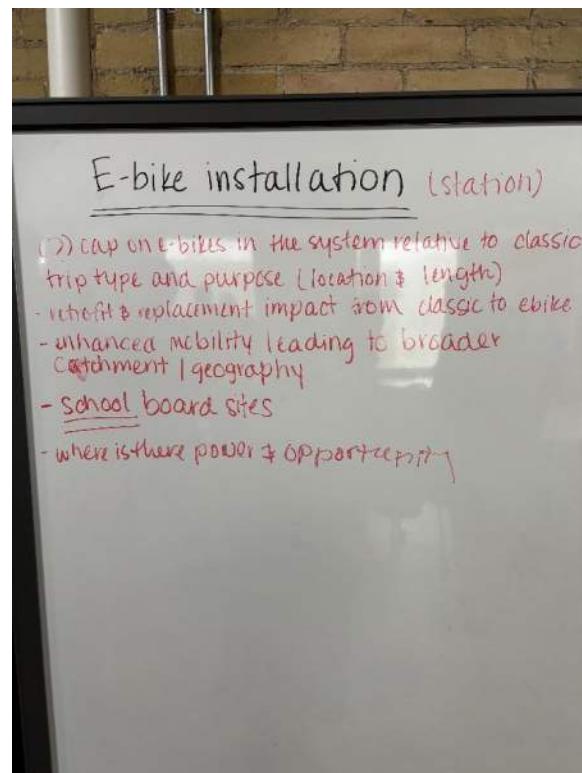
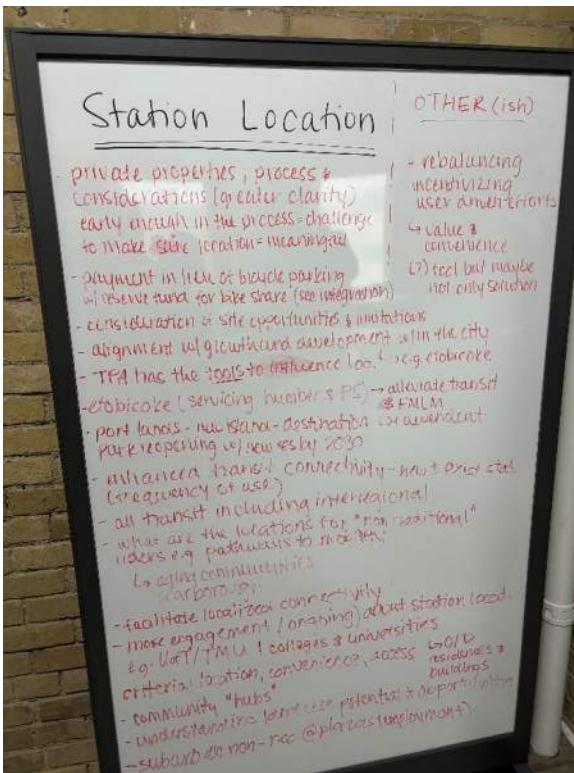
#### *Plan Development & Integration*

- + Leveraging the support of various plans that exist (City of Toronto) including TDM initiatives undertaken by the City and green standards
- + Within the room there was general agreement that there are opportunities to strengthen policies that are either supportive of or enable bike share opportunities
- + Organizational structure changes (specifically the separation of development review from City Planning) at the City which could have an impact on future potential work
- + Lack of direction leads to a lack of execution and understanding
- + Champions are needed within and outside of the organization with a greater degree of clarity around roles and responsibilities
- + Need for enhancement and additional strength around bike share implementation
- + Understanding that capacity can be a challenge e.g. with development reviews
- + Greater understanding and clarity around how to work with the private sector
- + Greater degree of awareness of the tools that have been developed by TPA as well as partner organizations - how they can be used / work together
- + Greater degree of leverage considering the potential impacts of Bill 185 and reduced parking minimums
- + Data and analytics emerge as a key gap
  - o TTC identified a number of key data sources e.g. bike utilization rates and parking at sites
  - o Data clarification and gaps to improve overall quality
  - o Consideration of who we are capturing relative to who we are trying to serve
- + Improved technology is needed for more appropriate tracking
- + Significant partnership opportunities to support future needs e.g. Metrolinx
- + Consideration of extending the OneFare program (implemented by Metrolinx which allows transit riders to only pay once when connecting from TTC and GO Transit, Brampton Transit, Durham Region Transit, MiWay and York Region Transit) to include Bike Share
- + Considering of more effective program coordination
- + Future planning as well as more effective community engagement and education
- + Potential for greater connection or improvement to incentive programs
- + Improved communications and outreach continues to be a request but part of the overarching future efforts of enhanced clarity regarding purpose, future objectives and plans to achieve goals
- + Clearer asks for partnership and greater alignment with land holders e.g. school boards, etc.



- + Consideration of a diversification of users to help with improved communication and more targeted outreach - see comments re: incentives above

### Photos:





## BST 2030 Growth Strategy Study

### Workshop #2 | Summary of Input (Detailed)

#### Purpose:

- + To present key findings from Workshop #1 (March 6<sup>th</sup>)
- + To present on the intent of the project and provide technical updates on future growth/station planning
- + To gather further input on specific topics related to the future of Toronto service provision and operations and to better understand how to integrate bike share efforts into broader mobility systems and processes / practices

**Date:** Monday, July 21<sup>st</sup>, 2025

**Time:** 9:30 a.m. - 12:00 p.m.

**Location:** 50 Richmond St E (large boardroom)

#### Attendees:

Vivian Ho	City of Toronto- Transportation Planning
Patrick Fung	City of Toronto, Transportation Planning
Krishnan Rajasooriar	Toronto Catholic District School Board - Planning Services
Katie Wittmann	City of Toronto - Transportation Services
Sonya De Vellis	City of Toronto - Transportation Services
Annely Zonena	City of Toronto - Parks and Recreation
Joanna Gao	TTC - Strategy & Foresight
Sandra Leutri	Humber Polytechnic
Charissa logna	City of Toronto- Strategic Policy Initiatives
Michal Kuzniar	University Planning, UofT
Tony Yuen	City of Toronto, Transportation Services
Luna Xi	City of Toronto - Transportation Planning
Andrew Au	City of Toronto - Transportation Planning
Samuel Baptiste	City of Toronto - City Planning
Patrick Meredith-Karam	Waterfront Toronto
Katya Zappitelli	Waterfront Toronto



Alison Stewart	Bicycle Mayor of Toronto
Michael Longfield	Cycle Toronto

### Activities & Input:

*Project background and objectives for the 2026-2030 growth plan, conversations on electrification*

- + Bike Share Toronto (BST) presented on the project background and the objectives for the 2026-2030 Growth Plan, particularly noting that where the 2022-2025 Growth Plan was focused on expansion, this new growth plan is focused on better operational service to the network, including electrification of the bike share stations
- + Just as with the previous 2022-2025 Growth Plan, the 2026-2030 Growth Plan will be a high-level planning document that is not meant to provide site-specific recommendations
- + Overall, the 2030 study has the following key objectives for the system:
  - + Universally recognized customer experience
  - + New operational model (bicycle rebalancing, maintenance and quality, app experience)
  - o Revenue diversification (ways to purchase, discount programs)
  - o Expanding strategically through network development plan
  - o Electrification focus
- + In terms of network development, the 2026-2030 Growth Plan is based on three core principles: densification, expansion, and electrification:
- + **Expansion** will be strategic, based on multi-criteria spatial analysis (ridership growth + transit integration + social equity + recreation and tourism)
- + **Densification** will focus on improving system performance to address capacity constraints and rebalancing needs within the existing network.
- + **Electrification** will focus on expanding charging infrastructure to support the growing demand for e-bikes.
- + BST is working on long-term building up an e-bike share system that is self-sustainable through e-bike stations, as opposed to solar charged stations or battery-swapping
- + BST has a goal of 20% of the fleet electrified (which would allow for a sustainable system where bikes could charge during the day). Currently, only 4% of the fleet has electric stations (this has leveraged all current opportunities on TPA land, with minimal future opportunities in TPA carparks).
- + Potential locations for electrification were preliminarily mapped and presented with a high-concentration in the downtown, but mapping is not specific to site-level yet
- + Some existing stations could be adopted to e-stations so moving from 4% to 20% does not necessarily rely on all new stations
- + As BST has currently leveraged most TPA assets (carparks and garages) for e-stations on TPA land and electrification is a top priority, future electrification will require stakeholder engagement
- + Challenges with electrification: finding available power, location of the station (finding space), lack of supportive policies that make bike share a requirement for new developments

*Key takeaways from (and progress since) the previous workshop:*

- + Youth mobility was a key focus heard, especially in making bike share more accessible to school-age children (heard from school boards and secondary schools). BST has now lowered the age for bike share users from 16 to 14. 16-17-year-olds can ride unsupervised.



- Provincial regulations mandate 16-year-old age requirement for e-bikes
- + Since the last workshop, BST has also launched bike share stations on the island, which now accounts for one-half of weekend trips.
- + The previous workshop also brought up a desire for checklist requirements for development applications.

#### *Planning for new stations: guiding growth and responding to opportunity*

- + Locations for new stations are guided by the Growth Plan, but BST conducts an annual review of the areas, and which are actually feasible. As such, planning for new stations is both proactive and reactive
- + For example, opportunities in parks or near transit are always desired. Anything that could be a catalyst for ridership will be explored. The Growth Plan helps manage growth and guide staff, but special opportunities can be explored even if not explicitly 'planned for'
- + The annual planning process is guided by the implementation plan of the Growth Plan and typically begins early in the year (January)
  - Possibility to engage stakeholders during annual review process to ensure opportunities are accounted for (i.e. U of T currently undergoing St. George Campus master Planning process)
- + Higher capacity stations are planned in high-traffic areas (like the Waterfront). BST typically plans for a bigger space so that stations can be expanded as needed. Major events also have valet service to manage overflow at certain stations (like Budweiser Stage). More opportunities for valet can be explored in other high-traffic areas (i.e. added at Island Ferry Terminals)
- + Although most electrification opportunities are currently clustered in the downtown, BST is happy to explore other locations of e-stations and respond to opportunities that arise
- + Affordable housing projects raised as a potential area to explore- would need to engage early
- + As part of the planned and responsive approach, there is a possibility to build out the spine network north of Finch. Some areas are constrained in space to accommodate bike share currently but will be re-explored as conditions change
- + There will be ongoing conversations (one-on-one) with stakeholders as specific locations are explored further
- + As early as stakeholders can engage bike share in a development process, the better

#### *E-station benefits and risks?*

- + The Parks and Recreation department representative flags that they want more biking in parks but are concerned with e-bikes in parks and some major trails due to user-conflicts. Could support using Toronto parks as e-station locations but want to ensure biking stays safe in parklands
- + Possibility to think of gig workers as another benefit of e-bike share as it could help to manage user-conflict and help with equity-index of bike share. Adding more e-bike supply will help gig workers trust e-bikes will be there for them when they arrive at a station

#### *Costs of implementing e-stations*

- + BST covers the costs of installation for stations on partner-land and covers costs of operating. BST stations are typically metered separately and if this is not possible then the license agreement between BST and the partner would outline the agreed upon hydro (electricity) rate to be paid.



- + BST cannot 'pay' partners for land as they are a subsidized service and providing 'rent' payments to one stakeholder sets precedents for others. Conversation arises on how to make BST stations more incentivized for partners. At schoolboards, parents may feel it is a trade off in taking away space for kids to play or other school-based activities/demands

#### *Opportunities to position/promote BST and electrification*

- + Currently BST has a resource package with specifications on e-station design, but conversations arose around the potential to create a sponsorship package that more clearly communicates what BST 'brings to the table' in capital + operating costs. (I.e. telling developers if they 'future proof' by putting in a separate meter for a Bike Share Station it could help reduce parking/bicycle parking requirements as TDM initiative and show how expanding BST infrastructure aligns with their interests)
- + Opportunity to promote to schools due to the lowered age requirements- will need to manage with parents and schoolboards
- + Potential safety elements- BST e-bikes have not had battery fires. Potential to promote to developers
- + Key takeaway: Need to clarify funding sources, meet stakeholders where they are, speak their 'language' to support more e-station partnerships
- + Another opportunity through transit integration: BST currently working with Metrolinx to ensure BST is included in new station development

#### *Further considerations*

- + Temporary infrastructure at major events is not currently considered as part of the strategy. BST has partnerships to manage events and is continuing to monitor major events that could benefit from temporary infrastructure
- + Opportunity to connect BST to PRESTO?
- + Continued concerns on getting more bike share into the wards outside of downtown, make bikeshare more viable
- + Potential for location specific maps (that zoom into core areas of focus) were discussed as a means to further engage with stakeholders.

# BIKE SHARE TORONTO HISTORY

- 2011** – System launched as BIXI Toronto (80 stations and 1 000 iconic bikes)
- 2013** – BIXI Toronto is given to the City of Toronto to manage, rebranded to Bike Share Toronto as a publicly managed system
- 2016** – Toronto Parking Authority becomes the manager of Bike Share Toronto and prepares for large system expansion
- 2017** – Annual ridership exceeds 1 million rides
- 2020** – E-fits are added to the fleet
- 2022** – Four-year Growth Plan is adopted to guide major city-wide system expansion
- 2023** – Tangerine Bank becomes corporate system sponsor
- 2024** – Bike Share Toronto App launches and stations deployed in all 25 wards of Toronto
- 2025** – System expands to 10 000 bikes (2 000 e-fits) and 1 000 stations



# RIDERSHIP GROWTH NO SLOWING DOWN IN SIGHT

8,000,000

7,000,000

6,000,000

5,000,000

4,000,000

3,000,000

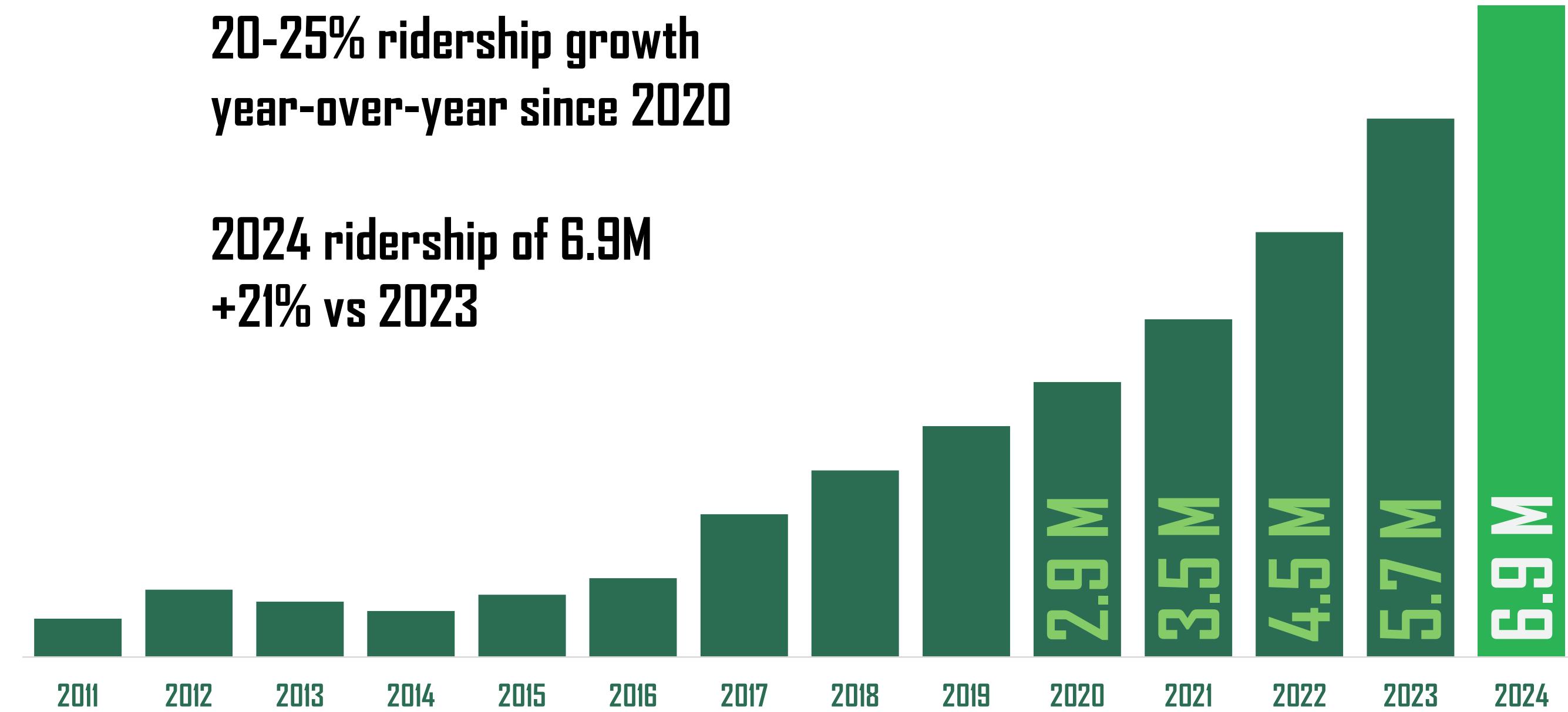
2,000,000

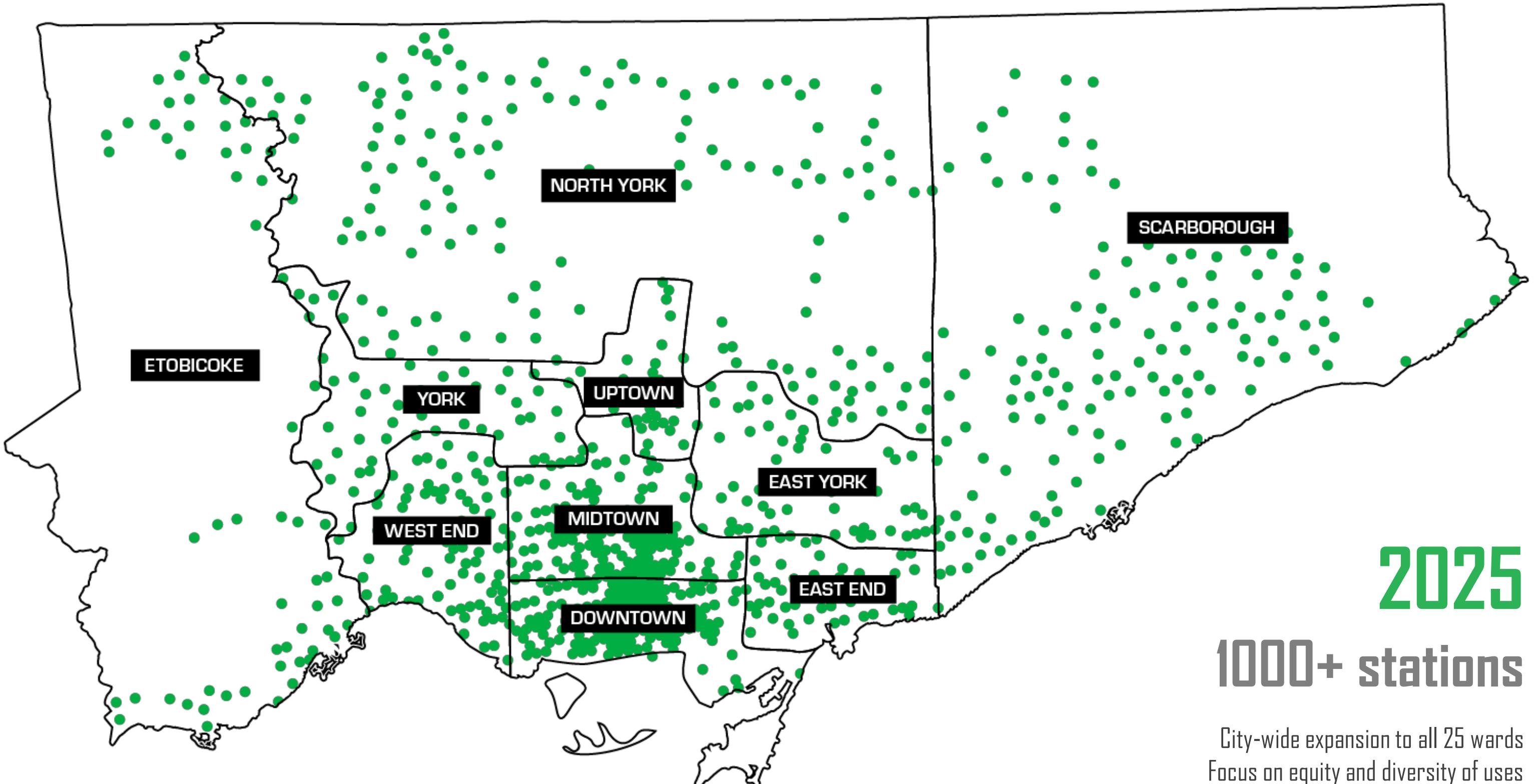
1,000,000

0

**20-25% ridership growth  
year-over-year since 2020**

**2024 ridership of 6.9M  
+21% vs 2023**





**2025**  
**1000+ stations**

City-wide expansion to all 25 wards  
Focus on equity and diversity of uses  
Alignment with short term transit and cycling projects

# GUIDING NETWORK STRATEGY OLD VS NEW



## Bike Share Toronto 2030 Study

### 2022-2025

FOCUS: Network Expansion

OUTCOMES:

- System expansion to 25/25 wards
- Reach 1,000 stations + 10,000 bikes total
- Extend network into suburban communities

### 2026-2030

FOCUS: Ridership/Revenue Growth, Electrification, Operations

OUTCOMES:

- Station deployment plan balancing expansion and densification
- Predictable financial and revenue model to plan effectively
- Greater strategic direction for electrification and operations

# 2030 STUDY KEY SYSTEM OBJECTIVES

1. Create a **universally recognized customer experience** (digitally and at stations) that is seamless, efficient, and hassle-free, fostering widespread adoption of bike share as a transportation option for trips under 5km.
2. Implement a **new operational model** that is optimized to predict ridership patterns and deliver consistent service across the bike share network.
3. Achieve **revenue diversification** to establish a more predictable financial framework.
4. Develop a **2030 Network Development Plan** that outlines the optimal locations to deploy new stations from 2026 to 2030.
5. Manage a **sustainable e-bike fleet** and provide a ratio of classic bikes vs e-bikes that is reflective of demand in the system.



# WORKSHOP #1 TAKEAWAYS AND ACTIONS

Since our first workshop on March 6<sup>th</sup>, we've taken your feedback to inform the program:

Youth mobility is an opportunity for lifelong riders and station partnerships with schoolboards

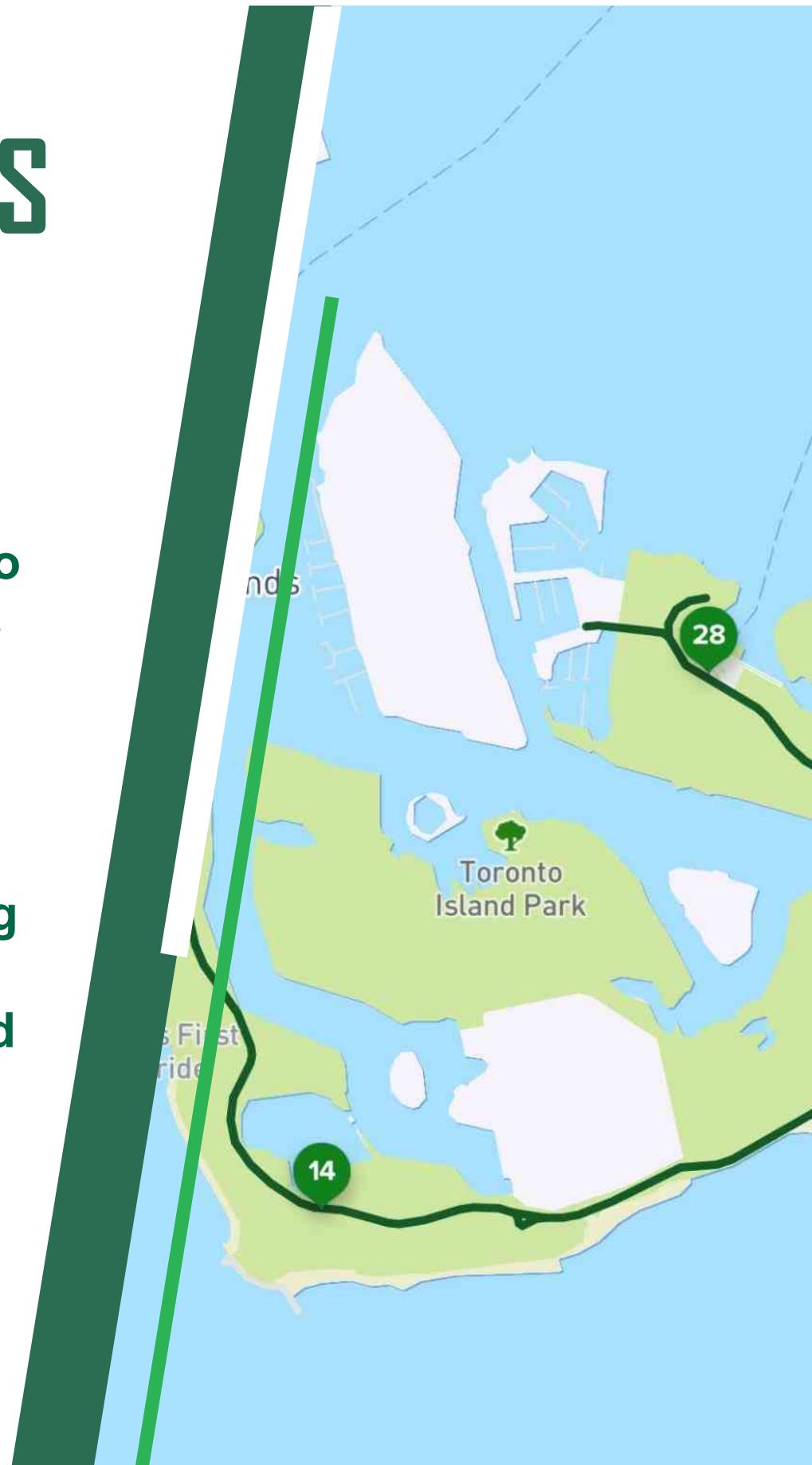
Recreation is an entry point for first-time cyclists and should continue to be a station expansion priority

New developments are an opportunity to reserve space and power for new bike share stations but there is no requirement for applicants.

**Lowered user age eligibility from 16 to 14 y/o**  
16 y/o can now ride e-bikes

Launched a system on the **Toronto Islands**

BST and City are **reviewing existing development application checklists and requirements**, such as TGS, to identify and outline new requirements for BST stations.



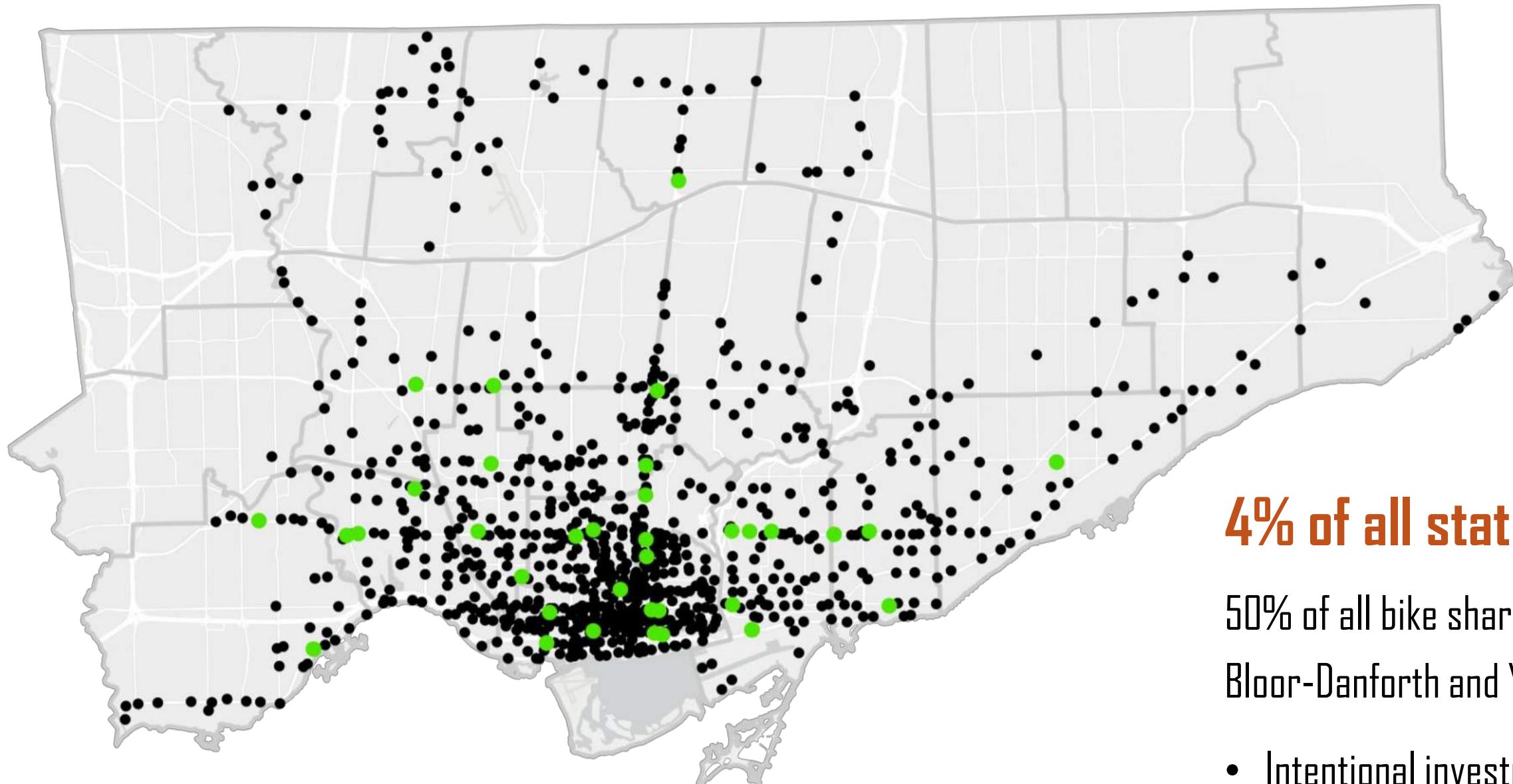
# ELECTRIFICATION BEST PRACTICES

E-bike utilization increases as the % of In-Dock Charging (IDC) increases

City	Utilization (trips/day)	Fleet mix (% of e-bikes)	% IDC as total network
Barcelona	7.9	50%	100%
Quebec	7.5	100%	60%
Montreal	6.7	30%	15%
<b>Toronto</b>	<b>5.0</b>	<b>20%</b>	<b>3%</b>
New York	4.5	35%	<1%
London	2.9	8%	0%

1. If e-bike utilization increased to 7 rides per bike that would result in an incremental 582K rides
2. If e-bike utilization increased to 7 rides per bike that would result in an incremental \$1.3M revenue

# ELECTRIFICATION EXISTING E-STATION COVERAGE



**4% of all stations are electrified**

50% of all bike share trips start or end along  
Bloor-Danforth and Yonge Street

- Intentional investment in electrification along these corridors

# ELECTRIFICATION BARRIERS TO GROWTH

## CHALLENGES

- Finding electrical power
- Location of e-station relative to the supplier of electrical power
- Lack of supportive policies that make BST a requirement
- Lack of visibility which leads to missed opportunities on development applications

## WHAT IS TPA WILLING TO DO?

- Share e-station typical design including a single line diagram, trench detail, grounding detail, and connection details.
- Share existing resources for partners including a Station Reference Guide and CAD files
- Budget for capital construction costs and on-going hydro costs
- Have consultants on retainer to deliver electrical design and provide contract administration for construction

# ELECTRIFICATION PAST SUCCESSES



E-station powered in ROW, co-delivered through TPA on-street EV deployment



E-station powered by CREM property in a Park, delivered in partnership with TS trail entrance upgrade



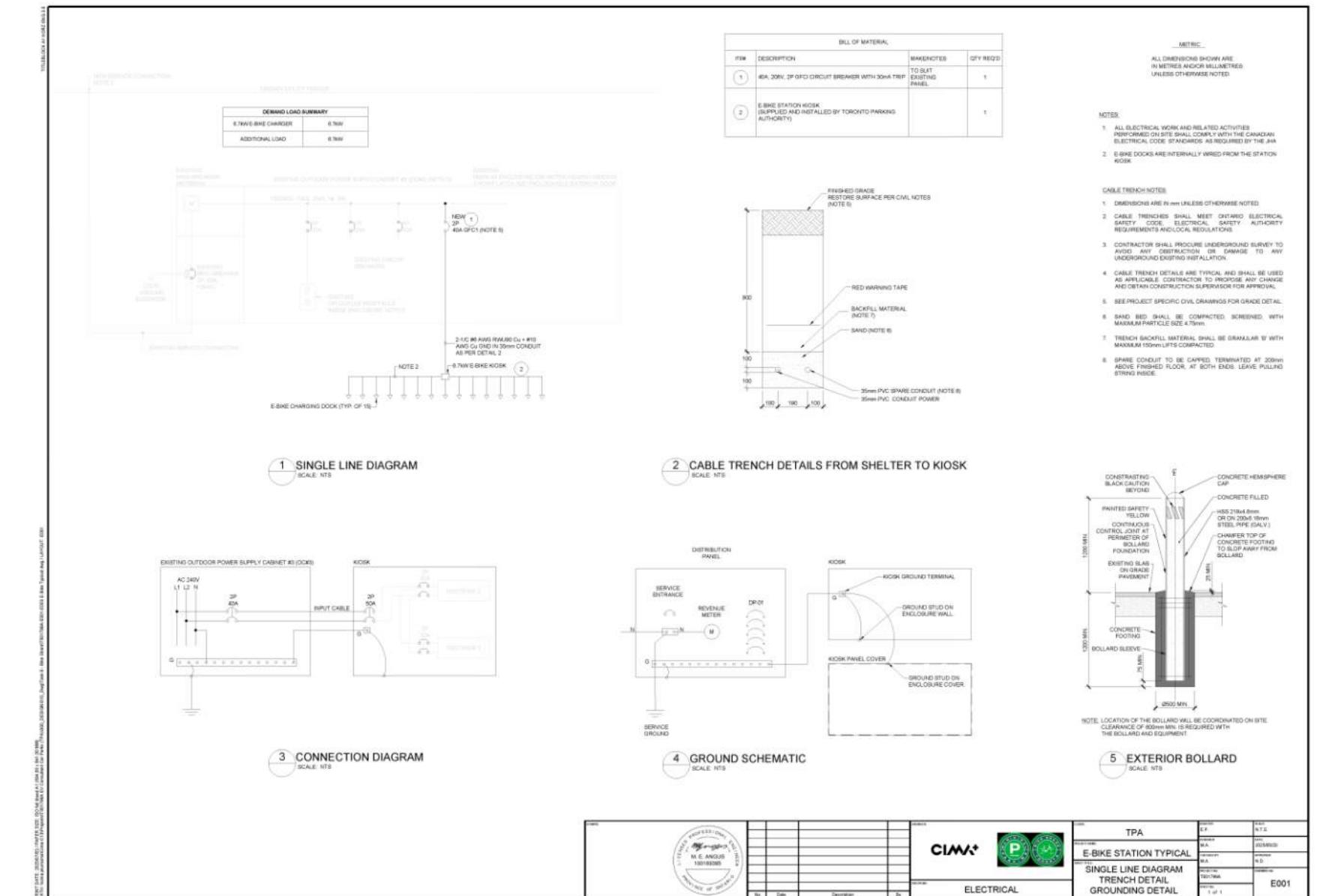
E-station powered by MX GO Station property, first e-station powered via transit facility

# ELECTRIFICATION WHAT WE LOOK FOR ON SITE

**Space on site** – accessible, ground level, public, unobstructed, highly visible, close to entrance/exit/street/pathway, minimum station size

**Surface preference** – level and hard surface

**Source of power** – close to station, reducing length of conduit (minimize voltage drop and trenching)

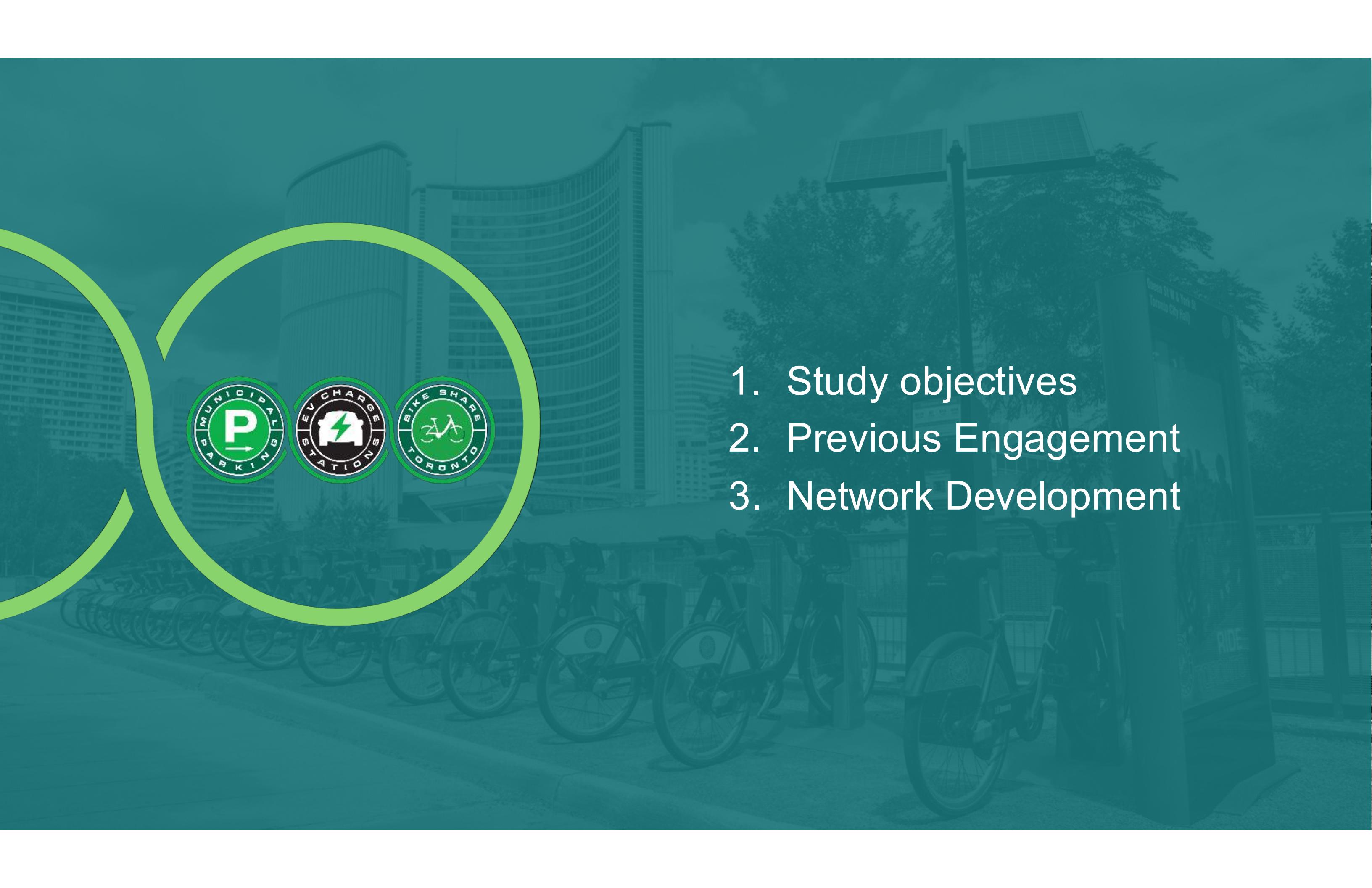




TORONTO PARKING AUTHORITY

# 2030 Bike Share Network

July 21, 2025



1. Study objectives
2. Previous Engagement
3. Network Development

# Study objectives and purpose

Guiding the development of the future 2030 Bike Share network informing investment, planning and operational decisions

- Aligning with broader City policy, goals and objectives
- Developing a network that will drive growth in ridership
- Evaluate opportunities to create a network of eStations to enhance passive charging
- Identify areas with operational challenges with potential for densification in the existing Bike Share network



# What we heard from Workshop #1

## Topic a.

Station and e-station installation

---

- Enhanced partnerships e.g. schools
- Process and partner input points
- Leveraging city development pipeline
- Consideration and support of non-traditional riders
- Enhancement of mobility hubs
- Expansion to suburban and non-residential areas
- Enhanced access and transition with transit

## Topic b.

Plan development and integration

---

- Leveraging existing municipal plans
- Strengthening of policy support
- Improved communication and coordination
- Private sector partnership direction
- Extending the OneFare program
- Improved communications and outreach
- Community engagement and outreach

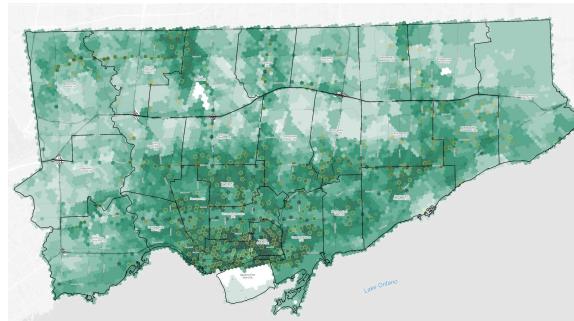


# Study Outcomes

**1.**

BST 2030 Network

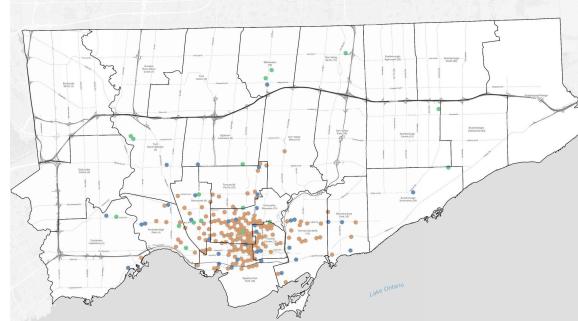
---



**2.**

eStation Network

---



**3.**

Implementation Plan

---

2026-2030 Phasing  
Operational and  
Electrification  
recommendations

The process of  
how the team got  
to the network  
and plan, and the  
implications will  
be documented in  
a Final Report



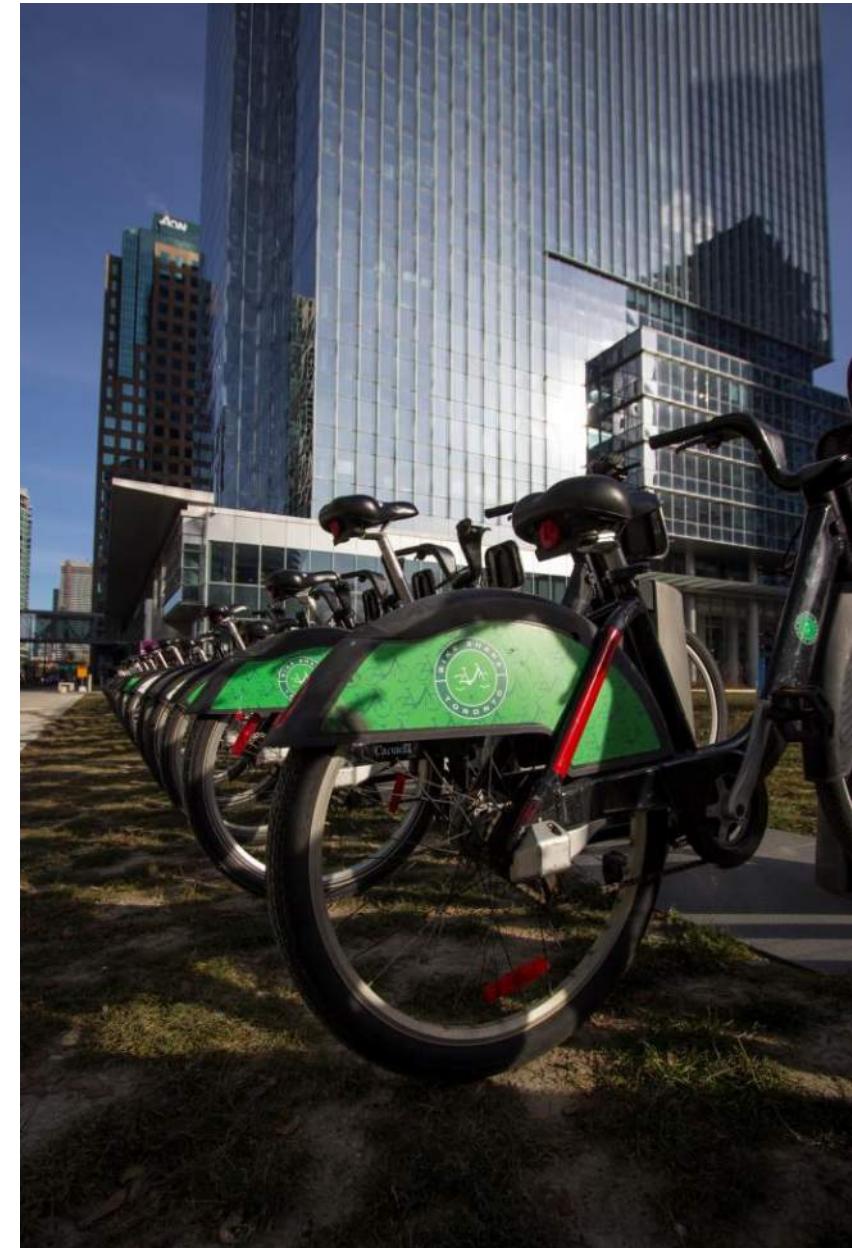
## Network Development

1. Densification
2. Expansion
3. Electrification

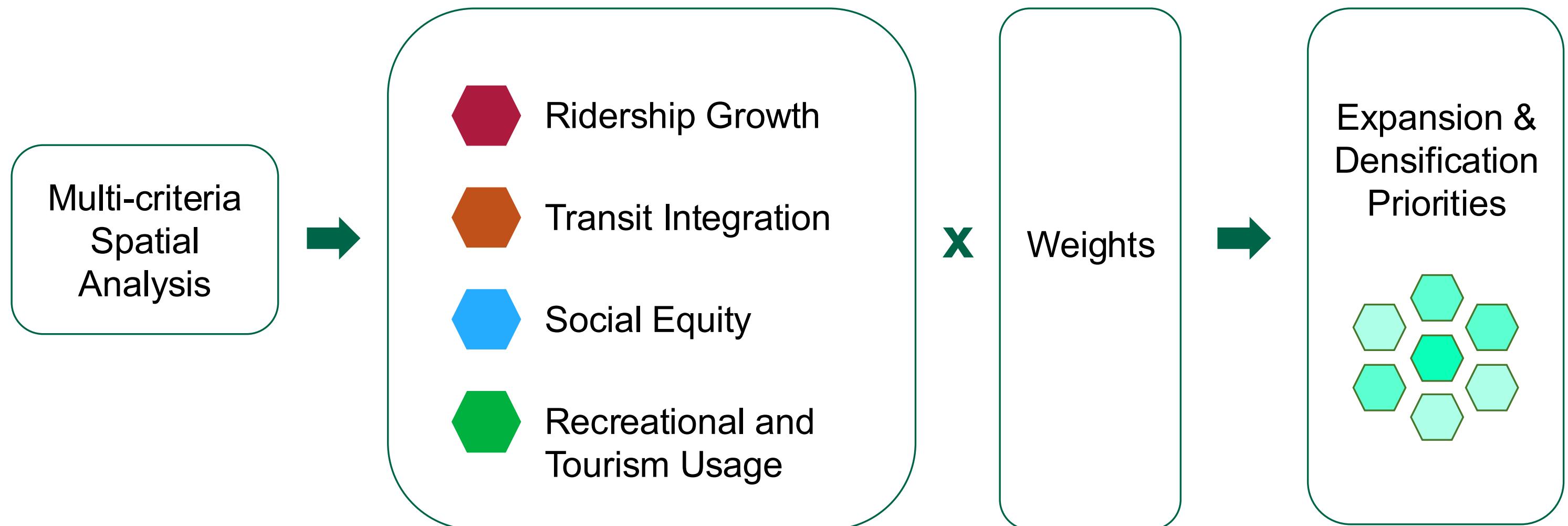


# Densification

- Invest in station improvements to reduce operational expenses and improve customer experiences
- Identify stations where increasing capacity will result in reduced manual rebalancing activities
- Analysis of station empty and station full events as well as rebalancing operations logs



# Expansion Stations





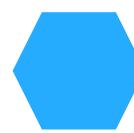
## Ridership Growth Score

Invest in bikeshare capacity improvements in areas with the greatest potential to increase ridership. This demonstrates growth potential and is adjacent to aligning ridership to areas that support transit and recreational ridership.



## Transit Integration Score

Invest in capacity adjacent to GO, LRT, and subway stations to support active travel for the first and last mile.



## Social Equity Score

Invest in capacity to improve fair and inclusive Bike Share access.



## Recreational and Tourism Score

Invest in capacity near indoor and outdoor recreational amenities, including trail networks and the waterfront, along with hotels and tourism points of interest.

# Network Development

Densification and  
operational  
improvements

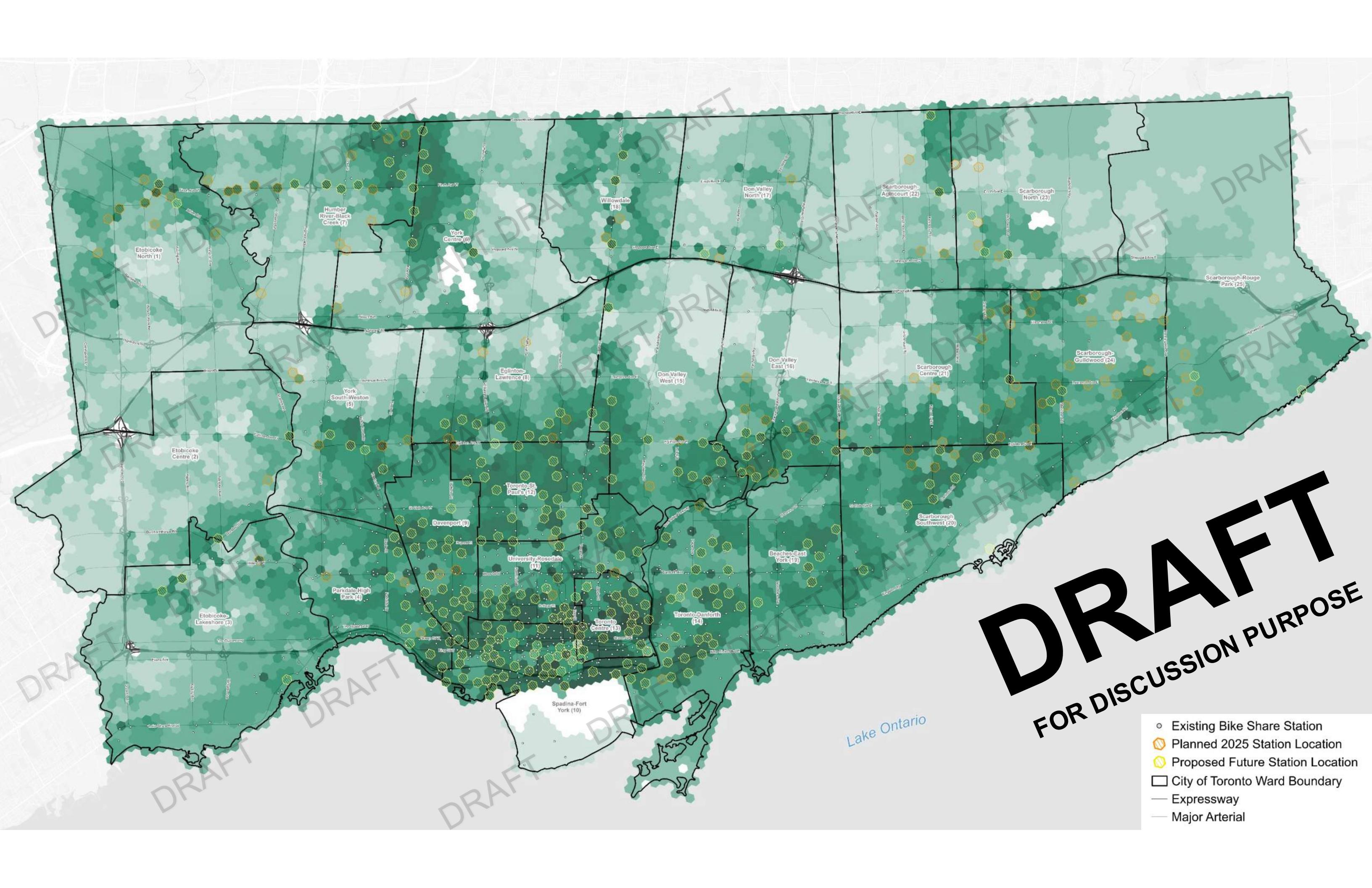


Expansion stations



Strategic network  
improvements

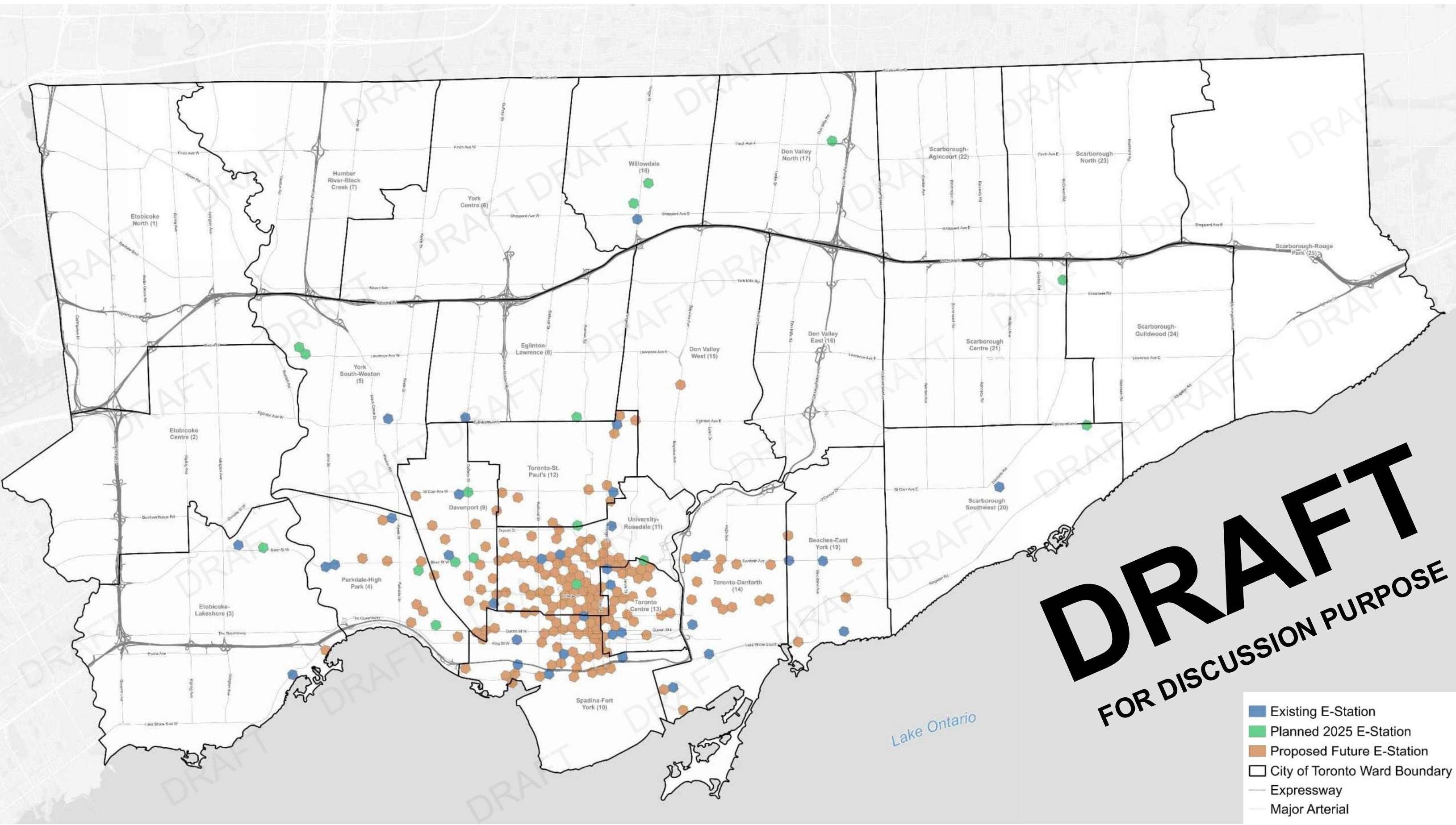




# Station electrification

- Invest in e-bike charging capacity improvements to reduce the manual effort of charging while increasing e-bike usage
- Analysis of eBike usage and where bikes stay stationary for a set period of time
- Reviewed bikes that were stationary for a duration of 1 to 12 hours





# Thank you!

