

TRANSPORTATION THAT WORKS

Barrie Rapid Network

A Proposal for Faster, More Frequent Public Transit

| Independent proposal for public discussion

Georgy Kapustin

Candidate for Barrie City Council, Ward 10

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Executive Summary

Barrie residents should not need to wait an hour for a bus or spend up to two hours travelling across their city.

We deserve public transit that is frequent, direct and dependable enough for work, school, health care, shopping and everyday life. I am Georgy Kapustin, candidate for Barrie City Council in Ward 10, and I am proposing the Barrie Rapid Network, a citywide network designed to provide faster connections between neighbourhoods and the destinations residents use most.

The proposal advances two commitments in my Transportation That Works priority:

- **Establish direct rapid bus routes**
- **Connect transit to daily destinations**

My Peak Hour Transit Promise

During weekday peak hours, the proposed service standard is:

- Rapid routes at least every **10 minutes**
- Loop service at least every **20 minutes in each direction**
- Connector routes at least every **20 minutes**

During the rest of operating hours, Rapid routes would run at least every 20 minutes, and other routes at least every 30 minutes. These standards would make transfers more predictable, reduce waiting and give residents greater confidence that transit will be available when they need it.

The network would connect residential areas with employment districts, schools, health-care services, shopping areas, recreation facilities and other important destinations. It is intended to make cross-city trips more direct while strengthening local connections across Barrie.

This is my proposal for public discussion. It is not a City-approved operating plan. If elected, I will ask Council to undertake an operational feasibility study, consult residents and transit workers, confirm routes and costs, and prepare a funded implementation plan before service changes are approved.

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Why Barrie Needs a Better Transit Network

Barrie Transit already provides service seven days a week.² The City's 2026 budget describes approximately 190,000 annual transit vehicle in-service hours and frequencies of 30 minutes during peak periods.³ Current timetables also show a weekend gap: service that runs every 30 minutes on weekdays and Saturdays can run only every 60 minutes on Sundays.⁴ That is an important foundation, but residents need service that makes everyday trips across the city easier to plan.

What affects the trip	Why it matters
Scheduled waiting	Where service runs every 30 minutes on weekdays and Saturdays and every 60 minutes on Sundays, arriving just after a bus leaves can add almost half an hour or nearly an hour to a trip.
Transfers	A missed connection can add another scheduled interval and make arrival times difficult to predict.
Indirect routes	Routes serving many neighbourhoods may provide useful local access while making longer journeys less direct.

Directness also matters. A route that serves many neighbourhoods and destinations may provide useful local access while taking a long path across the city. Barrie needs direct routes for major cross-city trips, supported by local routes that connect neighbourhoods and employment areas with the main network. Giving each type of service a clear role can shorten some journeys and make the network easier to understand.

Frequency has a major effect on the total time and uncertainty of a transit trip. When a bus is scheduled every 30 minutes on a weekday or Saturday, arriving just after it leaves can mean waiting almost half an hour. With 60-minute Sunday service, the same situation can mean waiting almost an hour. When a trip requires a transfer, a missed connection can add another scheduled interval. More frequent service reduces these penalties and makes transit easier to use without planning every part of a journey around the timetable.

I have seen the consequences of those service gaps firsthand as an Uber driver in Barrie. Many residents use ride-hailing for routine trips to work, school and other daily activities, and in my experience, roughly three out of four rides carry only one passenger. When transit is not frequent or direct enough to be practical, residents are more likely to make these trips in private cars or ride-hailing vehicles, adding pressure to already-busy roads.

For Barrie, useful transit means practical connections to both GO stations, Park Place, schools, employment areas and the rest of Barrie. Across the city, residents also need dependable access to Downtown, RVH, Georgian College and other daily destinations.

That is why I am proposing a network of Rapid, Loop and Connector Lines.

Introducing the Barrie Rapid Network

The proposed network separates three jobs that are difficult to perform well on one long route. Rapid Lines carry the largest cross-town flows. Loop Lines circulate in both directions so riders do not have to ride most of a loop to reach a nearby destination. Connector Lines link neighbourhoods and employment areas to the main network.

Route type	Map treatment	Network role	Scheduled frequency
Rapid Lines	Solid thick lines	Direct cross-town routes	Every 10-20 minutes
Loop Lines	Dotted lines	Bidirectional circular routes	Every 20-30 minutes per direction
Connector Lines	Dashed lines	Neighbourhood and employment connections	Every 20-30 minutes

How the design works

The three Rapid Lines form the main grid. They cross at important transfer points so a rider can make one simple connection instead of following a circuitous route across the city. Rapid service is frequent enough that riders generally should not need to consult a timetable during the day.

The Loop Lines fill the spaces between the main corridors. Each loop runs clockwise and counterclockwise. That makes the shorter direction available in both directions and creates repeated connections to the Rapid Lines.

The Connector Lines reach places where a cross-town route would lose too much time if it diverted. All three Connector Lines serve residential areas, schools, factories and other employment areas and connect them to the main network.

What the map does and does not decide

The map shows the proposed network concept, route categories and key connection points. Exact stop locations, turning movements, terminal space, road suitability, accessibility work and final running times would need to be confirmed through an operational feasibility study and public consultation. Existing route geometry and published schedules inform the concept, but they do not determine the final network.⁶

The Proposed Network Map

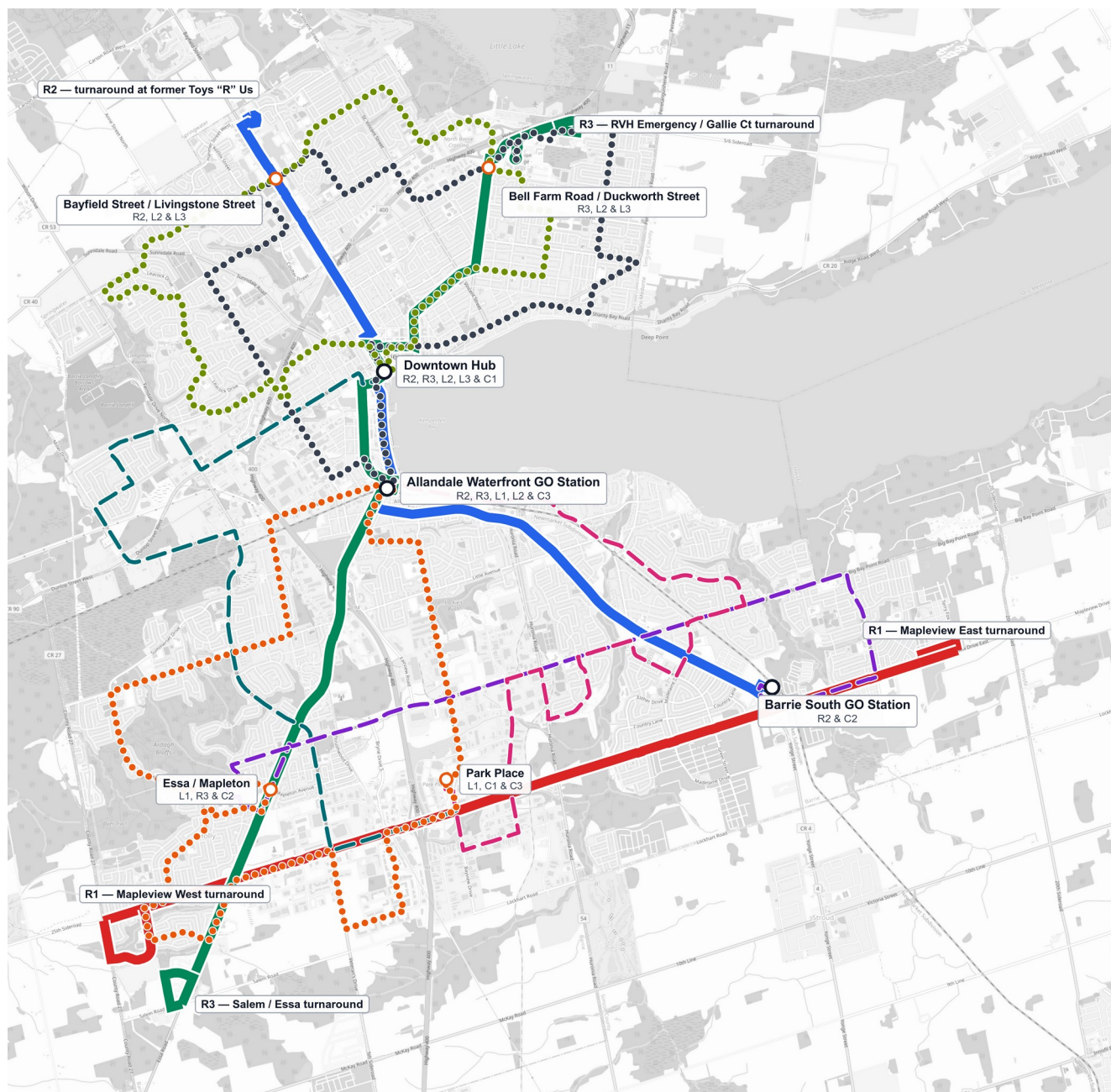


Figure 1. Barrie Rapid Network concept

Street map © OpenStreetMap contributors. Existing Barrie Transit GTFS route geometry was used as a reference.

Map legend

Rapid Lines	Loop Lines	Connector Lines
R1 Mapleview Crosstown R2 Barrie South GO Station–Downtown–Bayfield R3 Essa–Downtown–Georgian College–RVH	L1 Southwest Loop L2 Allandale–North Loop L3 Downtown North Loop	C1 West Barrie Connector C2 Barrie South GO Station–Big Bay–Harvie Connector C3 Allandale–Hurst–Southeast Connector

○ Major connection ○ Minor connection

The Proposed Routes

The network includes nine routes. Their names identify the main corridors and destinations they serve, while the map shows the proposed alignments.

Rapid Lines

Route code	Route name	Role and connections
R1	Mapleview Crosstown	An east-west spine along the Mapleview corridor, linking southwest Barrie, the south side of Park Place, the South GO connection area and east-end growth areas. Buses would serve Park Place from Mapleview Drive rather than diverting through its internal road network.
R2	Barrie South GO Station–Downtown–Bayfield	A direct line from Barrie South GO Station through Allandale Waterfront GO Station and Downtown to Bayfield Street and north Barrie.
R3	Essa–Downtown–Georgian College–RVH	A north-south line connecting the Essa corridor, Allandale Waterfront GO Station, Downtown, Georgian College and RVH.

Loop Lines

Route code	Route name	Role and connections
L1	Southwest Loop	Two-way circulation through southwest neighbourhoods, Park Place and the Essa-Mapleview area, with repeated links to R1 and R3.
L2	Allandale–North Loop	A larger two-way loop connecting Allandale, west and north Barrie, the Georgian College-RVH district and Downtown.
L3	Downtown North Loop	A more compact two-way loop serving Downtown and north-central neighbourhoods, including links across the Bayfield and Georgian corridors.

Connector Lines

All three Connector Lines serve residential areas, schools, factories and other employment areas and connect those destinations to the Rapid and Loop network.

Route code	Route name	Role and connections
C1	West Barrie Connector	A west Barrie connection along Dunlop Street, linking neighbourhoods and employment areas with R1, R3 and the Downtown Hub.
C2	Barrie South GO Station–Big Bay–Harvie Connector	A southern east-west connection linking Barrie South GO Station, Big Bay Point Road, Harvie Road and the Essa corridor.
C3	Allandale–Hurst–Southeast Connector	A southeast connection from Allandale through the Hurst corridor to growing residential areas and major transfer points.

My Peak Hour Transit Promise

Weekday peaks: Rapid Lines every 10 minutes. Loop Lines every 20 minutes in each direction. Connector Lines every 20 minutes.

At other times: Rapid Lines at least every 20 minutes. Loop and Connector Lines at least every 30 minutes during operating hours.

This is the standard I would ask Council to protect in the service plan and budget. It means no scheduled hourly routes and no scheduled interval longer than 30 minutes during the adopted operating hours.

Proposed Frequency by Service Period

The table shows the proposed frequency for each service period. All figures are scheduled headways in minutes.

Service	Weekday peak	Weekday daytime	Evening	Saturday	Sunday
Rapid Lines	10	15	20	15-20	20
Loop Lines	20 each direction	30 each direction	30 each direction	30 each direction	30 each direction
Connector Lines	20	30	30	30	30

Weekend service is part of the proposal, not a later add-on.

How the service promise would work

- Clock-face schedules, so a 30-minute route leaves at the same minutes past each hour.
- Published first and last trips, with a clear operating span set through the feasibility study.
- Simple public reporting on delivered service, missed trips, reliability and crowding.

How transfers would be planned

High-frequency Rapid Lines create the base. Loop and Connector schedules should then be set around repeating meeting times at Downtown, Allandale, South GO, Park Place and the Georgian College-RVH area. A timed connection cannot prevent every missed transfer, but it can make a 30-minute line usable with a 10- or 15-minute spine.

A scheduled-service commitment

The promise governs the timetable. Traffic, collisions, weather, construction and mechanical problems can affect actual arrivals. The City must still manage on-time performance and service delivery, but no responsible proposal can guarantee that every bus will reach every stop at the exact published minute.

Recovery time at terminals should be built into schedules, and transit-signal priority should help buses stay on time. When disruptions occur, riders should receive accurate information and service should be restored quickly.

Why frequency changes the trip

A 10-minute Rapid Line reduces the penalty for missing a bus and makes transfers easier to use. A 30-minute ceiling on every Loop and Connector Line sets a minimum level of freedom: riders may still plan around the schedule, but they are not left facing a routine one-hour gap.

What still requires operating analysis

The feasibility study must set service spans, running times by time of day, recovery time, operator work, terminal capacity, stop spacing and seasonal adjustments. If measured running times differ from the planning cycles in this proposal, the fleet and timetable must be updated while preserving the proposed frequency standards shown in the table.

What the Proposal Requires

The proposed peak schedule requires 67 buses in service. Applying a 20 percent spare allowance raises the planning fleet to 81 buses.

The peak requirement follows one transparent calculation: required buses equal cycle time divided by scheduled headway, rounded up. A cycle includes the full round trip and planned terminal recovery. For a bidirectional loop, vehicles per direction are multiplied by two.

Route	Planning distance	Cycle	Peak calculation	Peak buses
R1	15.1 km one way	90 min	90 / 10	9
R2	12.4 km one way	90 min	90 / 10	9
R3	17.2 km one way	120 min	120 / 10	12
L1	24.0 km per circuit	80 min	80 / 20 x 2	8
L2	21.0 km per circuit	80 min	80 / 20 x 2	8
L3	18.5 km per circuit	60 min	60 / 20 x 2	6
C1	14.6 km one way	90 min	90 / 20 = 4.5, round up	5
C2	13.8 km one way	100 min	100 / 20	5
C3	14.4 km one way	100 min	100 / 20	5

Peak and total fleet requirement

$$30 \text{ Rapid} + 22 \text{ Loop} + 15 \text{ Connector} = 67 \text{ peak buses}$$

$$67 \text{ peak buses} + 14 \text{ spares} = 81\text{-bus planning fleet}$$

These are planning values, not a final run cut. The route lengths come from the proposed network. Cycle times were calibrated against current Barrie timetable patterns and then rounded to dispatch-friendly values with recovery. The City would need to validate them using detailed street review and observed travel-time data.⁴

A 20 percent spare allowance on the 67-bus peak requirement is 13.4 buses. Because a fraction of a bus cannot cover service, the allowance rounds up to 14 spares. Spares cover maintenance, inspections, breakdowns, road calls, collision repairs, cleaning, winter failures, tires and brakes, and charging or equipment downtime.

A spare bus is a physical replacement vehicle. Schedule recovery is time built into a bus cycle to absorb routine delay. Operator breaks are part of labour scheduling. They are different requirements and should not be counted as substitutes for one another.

Fleet scale in context

Indicator	Population	Bus fleet	Buses per 100,000	Residents per bus
Barrie current	167,176	46	27.5	3,634
Toronto current	3,273,119	2,124	64.9	1,541
Barrie with proposed 81-bus fleet	167,176	81	48.5	2,064

On this indicator, Toronto has about 2.36 times as many buses per resident as Barrie. An 81-bus Barrie fleet would raise local availability to about 48.5 buses per 100,000 current residents, still below Toronto's 64.9.¹⁰

This comparison is only an indicator of fleet scale. Toronto differs sharply in density, congestion, ridership, service hours and rail coverage. It does not prove that Barrie should copy Toronto's network or spending.

My Commitment as a Councillor

If elected, I will bring this proposal to Council as a starting point for a better transit plan. I will ask for the work needed to turn the proposed network into a service that can be operated safely, affordably and reliably.

A Partnership with Ontario

Barrie cannot deliver this network through route changes alone. The planning fleet gap is approximately 35 buses: the 81-bus planning requirement minus the City's reported 46-bus fixed-route fleet. The final acquisition plan would also need to account for vehicle condition, planned retirements, propulsion choice and delivery lead times.²

The City lists a 2025 population of about 167,176. For this proposal, I use a conservative planning scenario of 185,000 to 190,000 residents by 2031. It is a scenario for testing service scale, not an official forecast.¹

Recent demographic estimates are preliminary and population conditions can change. At 185,000 to 190,000 residents, 81 buses would equal roughly 43.8 to 42.6 buses per 100,000 residents. The central fleet requirement does not depend on reaching a particular population number; it is driven mainly by route length, scheduled frequency, service hours and the spare allowance.⁹

I would ask Ontario to enter a multi-year transit partnership with Barrie. The request should connect vehicles, facilities and service so new buses can actually operate when they arrive.

Partnership need	What the partnership would support
Additional buses	Capital support to close the estimated net fleet gap, subject to the City's fleet and retirement review.
Garage and charging	Expanded storage and maintenance capacity, charging or fuelling equipment, power upgrades and resilient winter operations.
Operating hours	A predictable multi-year contribution toward the additional vehicle-hours and staffing required for frequent seven-day service.
Transit-signal priority	Joint work on priority treatments that reduce delay on Rapid corridors and protect scheduled cycle times.
Better stops	Accessible pads, shelters, lighting, crossings, passenger information and safe connections at transfer points.

I am not assigning a precise dollar cost before the City confirms specifications, procurement timing, facility needs, labour assumptions and available federal programs. The feasibility study and staged capital and operating plan should determine the funding request.

Actions I Would Take at Council

1. **Bring the proposal to Council** and request a public staff report on the Barrie Rapid Network concept.
2. **Request an operational feasibility study** covering running times, stops, terminals, fleet, facilities, workforce, accessibility and implementation options.
3. **Use the completed capital and operating plan** to seek provincial and federal support.
4. **Consult riders and transit workers** including people who depend on evening and weekend service, operators, maintenance staff and accessibility users.
5. **Protect the peak-hour promise** by scheduling Rapid Lines every 10 minutes, Loop Lines every 20 minutes in each direction and all three Connector Lines every 20 minutes during weekday peaks. At all other times, Rapid Lines would run at least every 20 minutes and every Loop and Connector Line at least every 30 minutes during operating hours.
6. **Publish performance results** including scheduled and delivered trips, on-time performance, cancellations, crowding, transfer reliability and rider feedback.
7. **Adjust routes using evidence** while keeping the network simple and maintaining the public frequency promise.

Technical Notes

1. **Network status.** This is an independent proposal. Alignments, stops, terminals and schedules have not been approved by the City of Barrie.
2. **Map basis.** The proposal map uses OpenStreetMap as its base and Barrie Transit GTFS as a reference for existing routes. Proposed alignments are conceptual; exact stops and operating arrangements remain to be confirmed.
3. **Distances.** Rapid and Connector distances are one-way planning measurements. Loop distances are full circuits. Exact in-service and deadhead distances require operational mapping.
4. **Cycle times.** For Rapid and Connector Lines, a cycle includes the outbound and return trips plus planned terminal recovery. For each Loop direction, it includes one full circuit plus planned terminal recovery.
5. **Schedule calibration.** The cycle times are preliminary planning assumptions based on proposed route lengths, general comparisons with current Barrie timetables, and allowances for stops, traffic and terminal recovery. They are not the result of a route-by-route operating model or observed travel-time study.
6. **Vehicle arithmetic.** Required buses equal cycle minutes divided by scheduled headway minutes, rounded up. Loop calculations are performed per direction and multiplied by two.
7. **Peak total.** The 67-bus result is the sum of the scheduled peak vehicle requirement for all nine proposed routes. It includes five C1 buses because the 90-minute cycle divided by a 20-minute weekday peak headway equals 4.5 and must be rounded up. It excludes specialized transit and Transit ON Demand vehicles.
8. **Spare allowance.** The 20 percent allowance is a planning assumption applied to the peak fleet. Twenty percent of 67 is 13.4, which rounds up to 14 whole buses. The feasibility study should replace this assumption with an asset-management target based on fleet age, propulsion, reliability and maintenance practices.
9. **Service hours.** The frequency promise applies during the operating span ultimately established through the service plan. The feasibility study must set first and last trips and estimate annual vehicle-hours and operator requirements.
10. **Population scenario.** The 185,000 to 190,000 range is a planning scenario used in this proposal, not an official City of Barrie or Statistics Canada forecast.
11. **Comparison dates.** Barrie uses the City's 2025 population and reported 2026 conventional (fixed-route) fleet. Toronto uses the latest cited City population estimate for 2024 and the TTC's 2025 in-service bus fleet. The comparison shows relative scale, not same-year service levels or service quality.

Rounding note: displayed per-capita indicators are rounded to one decimal place and residents-per-bus figures to the nearest whole resident. Source access date for all online material is September 14, 2026.

Endnotes and Official Sources

Primary sources are listed below so readers can check the population, fleet, timetable and comparison figures. The arithmetic can be reproduced from the stated planning assumptions. The cycle-time assumptions still require operational validation.

1. City of Barrie. Growth Management, Barrie's Population. 2025 figure shown as 167,176. [Official source](#) The page attributes the figure to Statistics Canada and City of Barrie data.
2. City of Barrie. 2026 Operating Budget, Access Barrie - Transit and Parking Strategy. 2026, pp. 42-43. [Official source](#) Reports 46 conventional buses, including two electric buses, and seven-day service.
3. City of Barrie. 2026 Business Plan and Budget, Budget and Financial Overview. 2026, p. 21. [Official source](#) Reports 190,000 transit vehicle in-service hours and 30-minute peak frequencies.
4. City of Barrie. Route 8B Brochure. effective May 1, 2026. [Official source](#) Used with Routes 100/101 and 400 for general comparison with current corridor running times and weekend headways.
5. City of Barrie. Routes 100 and 101 Brochure and Route 400 Brochure. effective May 1, 2026. [Official source](#) Current schedule package includes both brochures.
6. City of Barrie. Barrie GTFS and Barrie Transit Bus Service. current online data and service information. [Official source](#) The City identifies GTFS as the source for downloadable scheduled and real-time transit data.
7. Toronto Transit Commission. 2025 Operating Statistics, Conventional System. 2025. [Official source](#) Reports an in-service bus fleet of 2,124.
8. City of Toronto. 2024 Annual Financial Report. 2025 publication, p. 110. [Official source](#) Reports a 2024 population estimate of 3,273,119, sourced by City Planning from Statistics Canada's annual demographic estimate.
9. Statistics Canada. Table 17-10-0155-01, Population estimates, July 1, by census subdivision, 2021 boundaries. released January 14, 2026. [Official source](#) The accompanying 2025 release describes subprovincial figures as preliminary postcensal estimates.
10. Barrie Rapid Network proposal. Proposal calculations. September 2026. $46 / 167,176 \times 100,000 = 27.5$; $2,124 / 3,273,119 \times 100,000 = 64.9$; $64.9 / 27.5 = 2.36$; $81 / 167,176 \times 100,000 = 48.5$; $81 / 185,000 \times 100,000 = 43.8$; $81 / 190,000 \times 100,000 = 42.6$. Inputs are cited in notes 1, 2, 7 and 8.

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