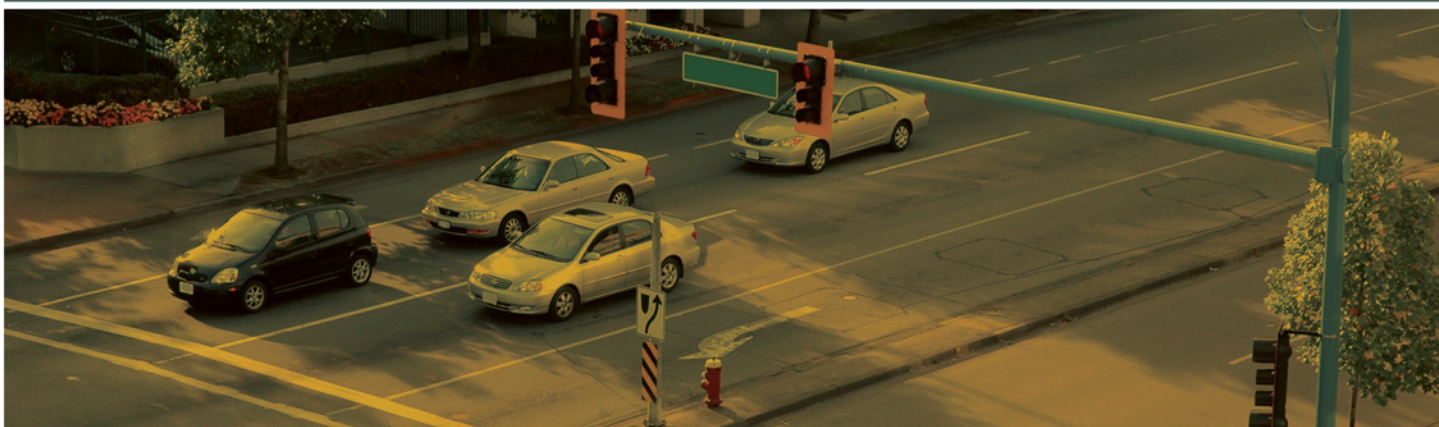




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Barrie Waterfront Developments

TRANSPORTATION DEMAND MANAGEMENT STUDY

Barrie Waterfront Developments Inc.

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Issue	Date	Description
1	April 29, 2019	Final Report
2	February 14, 2020	SPA - Pre-Consultation Submission
3	June 23, 2020	SPA - First Submission

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Executive Summary

Tatham Engineering Limited was retained by Barrie Waterfront Developments Inc. to complete a Transportation Demand Management (TDM) and Parking Study in support of the proposed mixed-use development, located at 39-67 Dunlop Street West & 35-37 Mary Street within the City of Barrie. A TDM and Parking Study is required by the City of Barrie as per the Pre-Consultation Site Plan Review dated November 22, 2018 completed by City staff.

Development Details

The development is proposed to include two condominium towers with 572 residential units, 4 hotel units and 1,547 m² (16,617 ft²) of commercial/retail space. Access to the development will be provided via Mary Street and Maple Avenue. The development will be constructed in two phases, with Phase 1 consisting of the West Tower (32-storey tower, 290 units) and Phase 2 the East Tower (32-storey tower, 282 units).

Transportation Demand Management

Transportation Demand Management (TDM) is the use of policies, infrastructure, services and marketing and education programs to influence or encourage a behavioural shift in people with respect to how they travel, with the specific intent of reducing single occupancy vehicle trips and ultimately, the reliance on the private automobile.

This report has discussed the benefits and objectives of Transportation Demand Management, identified potential TDM opportunities and developed a framework for implementation of a progressive TDM program at the subject site. The TDM plan includes an appointed TDM Coordinator, marketing and education packages, transit incentives, a communication strategy, community outreach and an ongoing TDM monitoring program.



1 Introduction

Tatham Engineering Limited was retained by Barrie Waterfront Developments Inc. to complete a Transportation Demand Management (TDM) and Parking Study in support of the proposed mixed-use development, located at 39-67 Dunlop Street West & 35-37 Mary Street within the City of Barrie. The location of the subject site and the immediate area road network are illustrated in Figure 1.

The purpose of this study is to address the requirements of the City of Barrie with respect to potential transportation demand management measures and to further review and establish the parking requirements associated with the development.



2 Proposed Development

2.1 SITE LOCATION

The subject site is located at 39-67 Dunlop Street West & 35-37 Mary Street in the City of Barrie (as per Figure 1). The property is bounded by Mary Street to the west, Dunlop Street to the north, Maple Avenue to the east and the Barrie Transit Terminal to the south. Access to the site will be provided via two full moves access points – one on Mary Street and one on Maple Avenue.

The subject property has an overall area of approximately 4,348 m² (46,804 ft²).

2.2 DEVELOPMENT DETAILS

2.2.1 Phases 1 & 2

The proposed development will consist of two mixed-use (residential/commercial) condominium towers with the following characteristics:

- West Tower – 32-storey tower consisting of 290 condominium units and 696 m² (7,496 ft²) of commercial space; and
- East Tower – 32-storey tower consisting of 282 condominium units and 847 m² (9,121 ft²) of commercial space.

In terms of residential unit type, the overall development will consist of 312 one-bedroom units, 208 two-bedroom units and 52 three-bedroom units, for a total of 572 units. A breakdown of the residential unit type by tower is provided in Table 1.

Table 1: Residential Unit Type

UNIT TYPE	WEST TOWER	EAST TOWER	TOTAL
One Bedroom	160	152	312
Two Bedroom	108	100	208
Three Bedroom	22	30	52
Total	290	282	572

The development will be constructed in two phases, with Phase 1 consisting of the West Tower and Phase 2 the East Tower. A site plan is provided in Figure 2.



3 Transportation Demand Management

3.1 TRANSPORTATION DEMAND MANAGEMENT (TDM)

Transportation Demand Management (TDM) is the use of policies, infrastructure, services and marketing and education programs to influence or encourage a behavioural shift in people with respect to how they travel. More specifically, TDM aims to reduce single occupancy vehicle trips and ultimately, the reliance on the private automobile by promoting alternative travel options. It is noted that the City requires that a TDM program or plan be developed and implemented in support of the noted development. The transportation demand management requirements and recommendations are included below.

3.2 TDM OPPORTUNITIES

3.2.1 Public Transit

In terms of public transit, the study area is primarily served by Barrie Transit (BT) and GO Transit (GO), in addition to Greyhound and Ontario Northland bus routes. With the Downtown Transit Terminal located directly adjacent to the subject site, 9 of the 11 routes Barrie Transit offers are within 100 metres. The Allandale Waterfront station is located 2.0 kilometres south of the subject site providing GO Train routes on platforms 6/7.

While Barrie Transit is the primary service provider for the local area, GO Transit, Greyhound and Ontario Northland services provide wider connections to regions outside of the City.

The following routes provide service to the immediate area (as also evident in Figure 3):

- BT Route 100 (Georgian Express);
- BT Route 1A/1B (Georgian Mall/Welham);
- BT Route 2A/2B (Dunlop/Park Place);
- BT Route 3A/3B (Georgian Drive/Painswick);
- BT Route 4A/4B (East Bayfield/South GO);
- BT Route 5A/5B (Blake/Edgehill);
- BT Route 6A/6B (Letitia/College);
- BT Route 7A/7B (Bell Farm/Bear Creek);
- BT Route 8A/8B NB/SB (RVH/Yonge & Crosstown/Essa);
- BT Route 90A/90B (Angus Borden/Peacekeepers Way);
- GO Bus Route 68 (Barrie – Newmarket); and



- GO Train (Barrie Line).

A brief description of each route is provided below.

BT Route 100 (Georgian Express)

BT Route 100 is a north-south route which offers service between the Downtown Transit Terminal and Georgian College with extended service to Kozlov Centre in the afternoon. The route travels along Blake Street, Johnson Street, Georgian Drive, St. Vincent Street and Livingstone Street. Service operates on a 40-minute headway during peak periods, with frequency reduced during the off-peak periods and weekends. BT Route 100 operates exclusively on weekdays.

BT Route 1A/1B (Georgian Mall/Welham)

BT Route 1A/1B is a north-south route which offers service between Georgian Mall and Park Place. The route travels along Bayfield Street, Bradford Street, Essa Road, Little Avenue, Huronia Road, Big Bay Point Road and Welham Road. Service operates on a 30-minute headway during peak periods, with frequency reduced during the off-peak periods and weekends. BT Route 1A/1B operates 7 days a week.

BT Route 2A/2B (Dunlop/Park Place)

BT Route 2A/2B is a north-south route which offers service between Barrie South GO, Park Place, Downtown Transit Terminal and RVH. The route travels along Mapleview Drive, Bayview Drive, Innisfil Street, Johnson Street and Duckworth Street. Service operates on a 30-minute headway during peak periods, with frequency reduced during the off-peak periods and weekends. BT Route 2A/2B operates 7 days a week.

BT Route 3A/3B (Georgian Drive/Painswick)

BT Route 3A/3B is a north-south route which offers service between Georgian Mall and Park Place. The route travels along Bayfield Street, Bradford Street, Essa Road, Little Avenue, Huronia Road, Big Bay Point Road and Welham Road. Service operates on a 30-minute headway during peak periods, with frequency reduced during the off-peak periods and weekends. BT Route 3A/3B operates 7 days a week.

BT Route 4A/4B (East Bayfield/South Go)

BT Route 4A/4B is a north-south route which offers service between Georgian Mall and Barrie South GO station. The route travels along several city roads, most prominently Bayfield Street, Bradford Street, Hurst Drive, Big Bay Point Road and Mapleview Drive. Service operates on a 35-minute headway during peak periods, with frequency reduced during the off-peak periods and weekends. BT Route 4A/4B operates 7 days a week.



BT Route 5A/5B (Blake/Edgehill)

BT Route 5A/5B is an east-west route which offers service between Miller Drive and Penetanguishene Road. The route travels along several city roads, most prominently Edgehill Drive, Wellington Street, Simcoe Street, Blake Street and Penetanguishene Road. Service operates on a 30-minute headway during peak periods, with frequency reduced during the off-peak periods and weekends. BT Route 5A/5B operates 7 days a week.

BT Route 6A/6B (Letitia/College)

BT Route 6A/6B is a north-south and east-west route which offers service between the Downtown Transit Terminal, Livingstone Street and Georgian College. The route travels along several city roads, most prominently Dunlop Street, Leacock Drive, Livingstone Street, Duckworth Street and Wellington Street. Service operates on a 30-minute headway during peak periods, with frequency reduced during the off-peak periods and weekends. BT Route 6A/6B operates 7 days a week.

BT Route 7A/7B (Bell Farm/Bear Creek)

BT Route 7A/7B provides north-south route which offers service between Georgian College and Park Place. The route travels along several city roads including Bayfield Street, Bradford Street, Tiffin Street, Ardagh Road, Essa Road and Maplevue Drive. Service operates on a 30-minute headway during peak periods, with frequency reduced during the off-peak periods and weekends. BT Route 7A/7B operates 7 days a week.

BT Route 8A South/8B North (Yonge/Park Place)

BT Route 8A South/8B North provides north-south service between Livingstone/Bayfield and Barrie South GO station and east-west service between Livingstone/Bayfield and Georgian College in the north end of the city and Park Place and Barrie South GO station in the city's south end. Service operates on a 30-minute headway during peak periods, with frequency reduced during the off-peak periods and weekends. BT Route 8A South/8B North operates 7 days a week.

BT Route 90A/90B (Angus Borden/Peacekeepers Way)

BT Route 90A/90B provides service between the City of Barrie and community of Angus / Canadian Forces Base Borden. The east-west service travels along Tiffin Street, County Road 90 and several roads within the community of Angus. Currently, Route 90A and 90B provide 5 departure times between 05:30 and 18:00, respectively. BT Route 90A/90B operates 5 days a week (excluding weekends).



GO Bus Route 68 (Barrie-Newmarket)

GO Transit Route 68 is an express bus service with limited stops operating between the Barrie Transit Terminal and the Newmarket GO Bus Terminal. The Newmarket. Service operates hourly between 04:09 and 21:55 during weekdays with reduced operating times during weekends. Newmarket Go Terminal provides connections to further GO Transit services with the ultimate termination being Union Station (in the City of Toronto).

GO Train (Barrie Line)

GO Train Barrie Line provides service between the Allandale Waterfront Go station and Union Stations with limited (10 stops) along the route. Service operates between 04:26 and 22:40 with varying headway (15-30 minutes) during peak hours.

3.2.2 Pedestrian & Multi-Use Infrastructure

The subject site will be served by existing sidewalks to the west, north and east along Mary Street, Dunlop Street and Maple Avenue. As per the Pre-consultation Application Plans, the development will include a north-south pedestrian arcade between the two towers, allowing pedestrians direct access to Dunlop Street.

Approximately 130 metres south of the subject site, a connection to the City's Waterfront Trail is available on the south side of Simcoe Street. The Waterfront Trail is considered a major active transportation pathway, providing a two-lane bicycle path and sidewalk around the City's waterfront, extending from Dunlop Street East (just south of its intersection with Mulcaster Street) to the intersection of Lakeshore Drive with Minet's Point Road. At its east limit, the Waterfront Trail provides connection to the Barrie North Shore Trail, a 3.0 km accessible multi-use recreational trail running the entire length of the City's north shore of Kempenfelt Bay.

In addition to the existing active transportation infrastructure, *The City of Barrie Transportation Master Plan*¹ shows various active transportation improvements in the study area. Pedestrian and transportation upgrades in the downtown and surrounding area are to continue to be a priority for the City.

With respect to the existing and proposed pedestrian and multi-use facilities, the site is considered to be well connected to the local transportation network.

3.3 TDM PROGRAM

A TDM program has been developed which provides a framework for implementation of specific TDM measures. The details of such are described below.

¹ *The City of Barrie Transportation Master Plan Final Report*, WSP. June 2019.



3.3.1 TDM Coordinator

The TDM Coordinator will be required to implement and manage the TDM program on an ongoing basis. The responsibilities of the TDM Coordinator include the following:

- champion of the TDM program;
- liaise with the City to tailor and deliver a TDM program that meets the needs of the site;
- liaise with local transit providers in order to gather and disseminate transit service information (i.e. fare structures, schedules and maps) to the future residents to ensure that commuters are educated regarding transit options; and
- act as the TDM point of contact for residents.

The TDM Coordinator is the promoter, educator and facilitator for the TDM program. It is expected that the developer will assume the responsibilities of the TDM Coordinator, or transfer such responsibilities to the property manager.

3.3.2 Marketing & Education

A site specific TDM marketing and education package will be prepared and distributed to all new residents of the development. The TDM package should include the following information:

- introduction to TDM objectives, goals and benefits;
- a travel survey;
- maps of cycling routes/sidewalk network in the City of Barrie;
- bicycle safety information;
- school travel planning initiatives;
- transit schedules for local services (i.e. Barrie Transit, GO Transit); and
- carpool/rideshare information and registration forms.

The marketing and education package will be organized in conjunction with City staff to ensure consistency with the TDM programs being delivered to other residential developments of similar size within the City.

3.3.3 Transit Initiatives

Encouraging the use of the available transit services serving the site is crucial to the overall success of the TDM program. In order to increase the likelihood that a commuter will try transit, it is important to remove or lessen the barriers or hurdles that currently prevent commuters from making the switch. The TDM plan will include the distribution of prepaid Barrie Transit ride cards for the new residents of the site to use on local transit services. The intent of the prepaid card is



to provide a financial incentive to encourage commuters to try public transit, with the ultimate goal of a more permanent shift to transit use by commuters. The value of the prepaid transit cards will be determined in coordination with City staff.

Given the vicinity of the subject site to the Allandale Waterfront GO Station and the available connection route from the Downtown Transit Station, additional consideration should be given to an initial investment in prepaid PRESTO cards for residents planning to commute using GO Transit to the southern employment regions (i.e. Vaughan, Markham, Toronto, etc.).

In addition to the noted transit incentives, real-time transit display boards will be provided in the lobby area as a means of providing continuous transit information to residents and visitors.

3.3.4 Communication Strategy

It is the responsibility of the developer (or the TDM coordinator appointed by the developer) to liaise with the City and transit providers to ensure the efficient and effective delivery of the TDM information packages and prepaid transit cards to the residents of the development. Given the size of the development, extensive information sessions should be held where TDM details can be presented and resident questions answered.

3.3.5 Outreach Programs

The TDM coordinator will remain a point of contact with the City to support future outreach programs, whether site specific or as part of wider TDM initiatives spearheaded by the City. It is understood that the initiation and cost of any future outreach programs is not the responsibility of the developer.

3.3.6 Other Support Measures

In addition to the above, other measures to be implemented in support of the TDM plan include:

- provision of long and short-term bicycle parking; and
- designated car-share spaces (predicated on attracting a car share provider to the area).

3.3.7 TDM Monitoring Program

Program monitoring is an essential component for all TDM plans. A TDM program must be periodically measured and evaluated with respect to the overall effectiveness of the program and its individual components. The intent of program monitoring is to ensure that the TDM program remains relevant to the needs of the residents and commuters and properly reflects any changes to the available transportation services and infrastructure in the area. In this respect, a TDM program must be dynamic. The monitoring of the program informs the process of change.



The most common method of monitoring a TDM program is through administration of a travel or commuter survey to residents of the site. A commuter survey is an electronic or paper-based tool used for gathering important information regarding travel habits and attitudes of the residents. As previously noted, an initial survey must be conducted in order to establish a benchmark with respect to existing travel behaviour. Going forward, the survey should be administered annually or biannually, and results compared to previous survey results in order to identify any successes or short comings of the TDM program and/or wider TDM initiatives spearheaded by the City. The travel survey should be provided by, or developed in conjunction with, City staff. The developer/TDM coordinator will support the ongoing monitoring efforts of the City.

It is noted that the developer is also targeting a reduction in parking demand for the development, of which the TDM program is a key component. Ongoing monitoring of the residential parking demand will be conducted as a means of measuring the impact of TDM initiatives. Additional discussion on the parking reduction target is provided in Chapters 4 and 5.

3.4 TDM SUMMARY

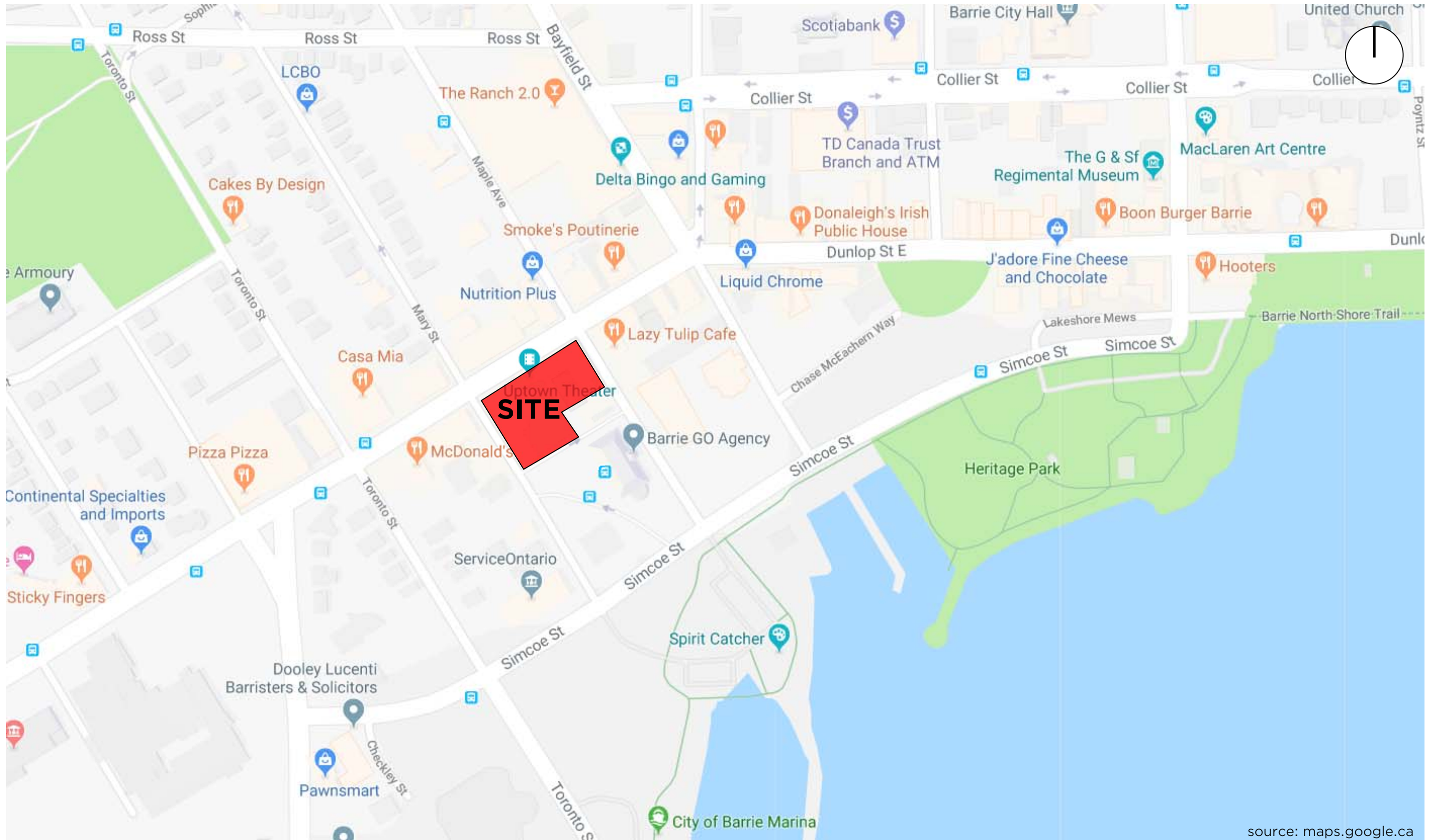
The TDM plan for the proposed development includes a marketing and education package that is distributed to new residents of the condominium development on an ongoing basis. The package should include a travel survey, preloaded transit cards, cycling maps, transit maps and schedules, safety tips and other information regarding programs supporting alternative modes of transportation. The TDM Coordinator for the site will support ongoing outreach and monitoring programs initiated by the City.



4 Summary

This report has discussed the benefits and objectives of Transportation Demand Management, identified potential TDM opportunities and developed a framework for implementation of a TDM program at the subject site. The TDM plan includes marketing and education, transit incentives, a communication strategy, outreach and monitoring. The TMD plan also inventories the existing/proposed infrastructure and services in the study area and further discusses features of the site plan that otherwise support/promote TDM initiatives.

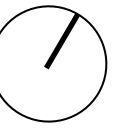
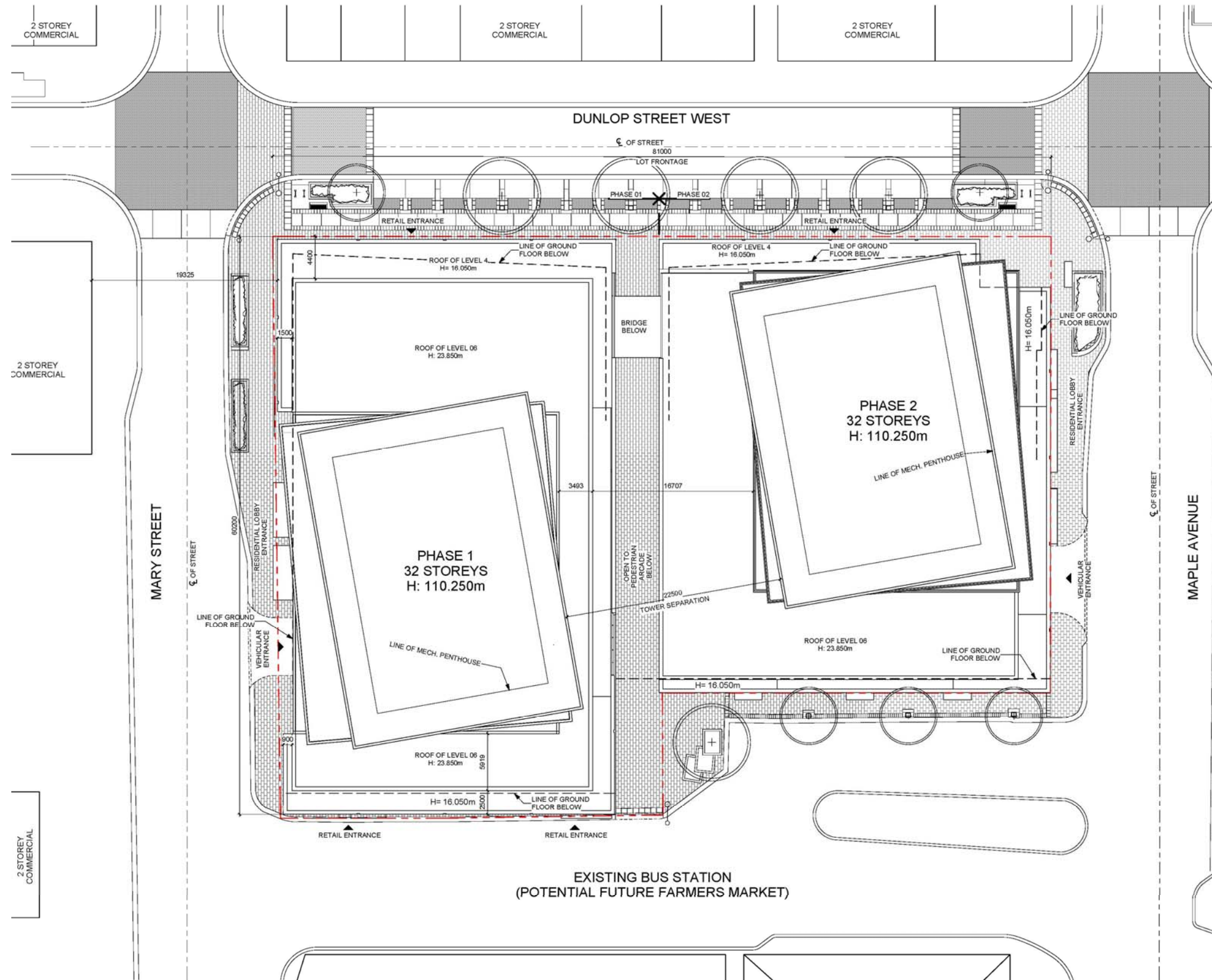




BARRIE WATERFRONT DEVELOPMENTS

Figure 1: Site Location

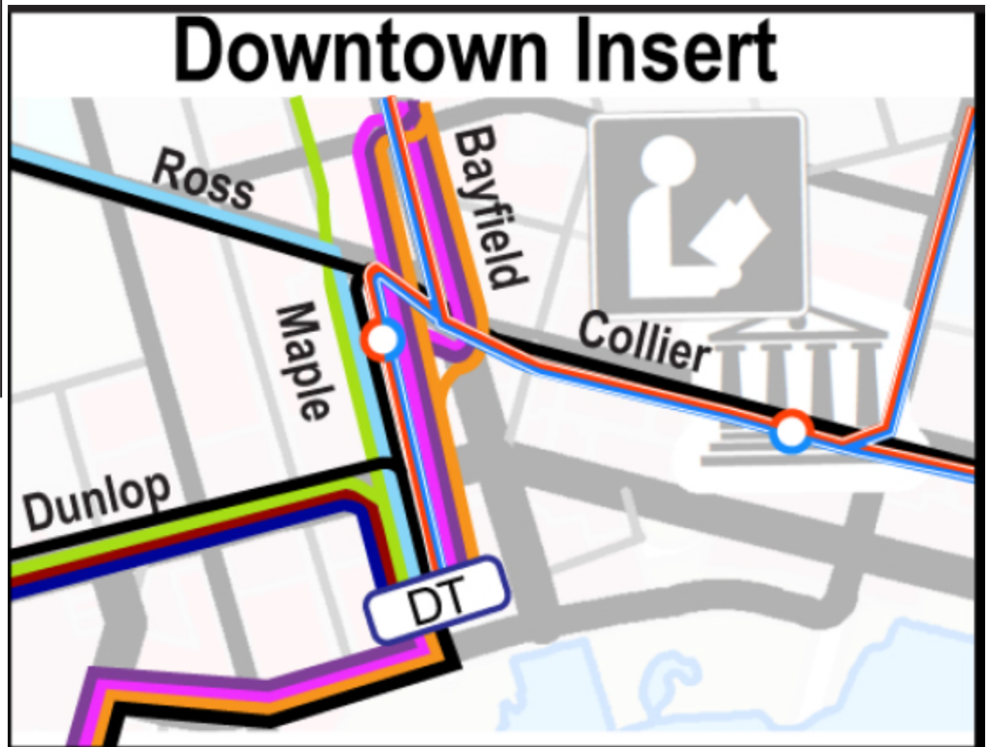
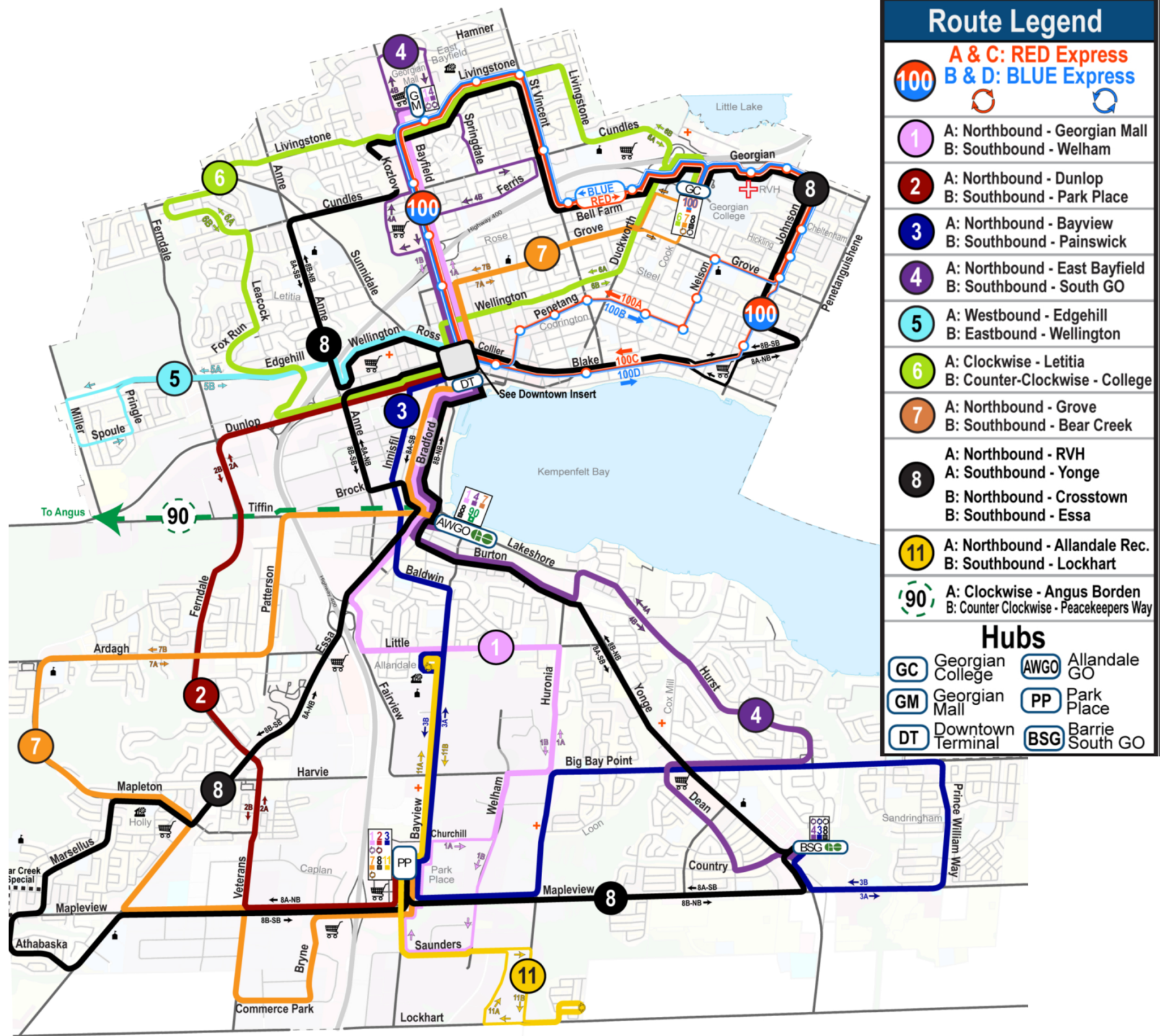
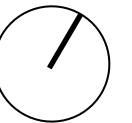




BARRIE WATERFRONT DEVELOPMENTS

Figure 2: Site Plan





source: myridebarrie.ca

BARRIE WATERFRONT DEVELOPMENTS

Figure 3: Barrie Transit System Map

