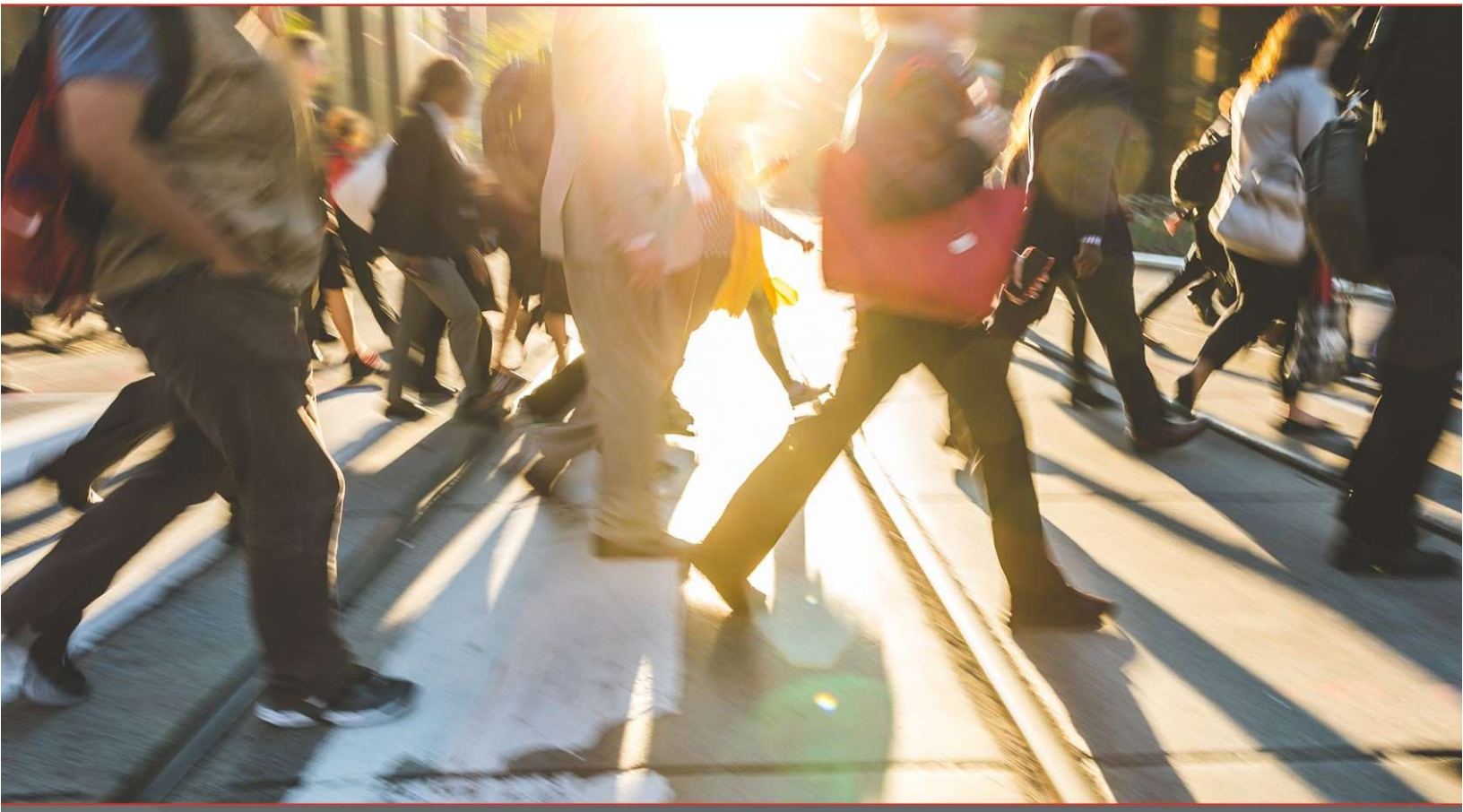
# 2451-2495 DANFORTH AVENUE
# PROPOSED MIXED-USE DEVELOPMENT

Urban Transportation Considerations
City of Toronto



Prepared For: First Capital Realty REIT.

November 8, 2024

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## AUTHORSHIP

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# 1.0 INTRODUCTION

BA Group is retained by First Capital Realty REIT, on behalf of FCHT Holdings (Ontario) Corporation, to provide transportation advisory services for the proposed mixed-use development (the "Proposed Development") located at 2451-2495 Danforth Avenue (herein referred to as the "site") in the City of Toronto. The site is located on the southeast corner of the Danforth Avenue and Westlake Avenue intersection, within the East Danforth neighbourhood of Toronto.

## 1.1 The Existing Site

The site consists of a rectangular shaped plot of land in the southeast corner of the Danforth Avenue and Westlake Avenue intersection. It is bounded by Danforth Avenue to the north, existing low-rise commercial developments to the east, existing 2-storey residential dwelling to the south, and Westlake Avenue to the west. The site is currently occupied by a grocery store that fronts onto Danforth Avenue abutted by surface parking lots on the east and west sides. A sidewalk is currently provided on the south side of Danforth Avenue and east side of Westlake Avenue along the property frontages.

Vehicular access to the site is currently provided via 3 driveways, including:

- An east-west driveway on the site's western property boundary, connecting to Westlake Avenue; and
- two north-south driveway accesses along the northern property boundary connecting to Danforth Avenue.

## 1.2 Area Context

The site is located in the Main Street and Danforth GO Protected Major Transit Station Areas (PMTSAs), as defined within the Province of Ontario Growth Plan. PMTSAs are subject to a density target, given their adjacency to higher order transit.

The site is well-located with respect to higher-order transit services and within proximity of a variety of amenities and services. The site is located approximately 260 metres west of the Danforth GO Station, 190 metres west of the Main Street Subway Station, and 650 metres from the Woodbine Subway Station, at the confluence of several major transit services, as well as frequent bus services routing to / from the Main Street Station and Woodbine Station bus terminals.

Active transportation within the site vicinity is supported via cycle lanes on Danforth Avenue, bikeshare stations, sidewalks on both sides of streets, and zebra pavement marking at intersections to improve pedestrian visibility.

With respect to the site's location adjacent to higher order transit and active transportation infrastructure, the site is well positioned to supported reduced auto mode share.

The site location and plan are illustrated in Figure 1 and Figure 2, respectively.

## 1.3 Proposed Development

An Official Plan Amended (OPA) and Zoning By-law Amendment (ZBA) application is being made to the City of Toronto to permit a mixed-use redevelopment including residential units as well as grocery and retail uses at-grade. Specifically, the proposed development programme includes the construction of two new buildings providing a total of 620 residential units, 2,258m$^2$ of grocery and 939m$^2$ of retail gross floor area (GFA). It is proposed to maintain the general location of the existing site driveway on Westlake Avenue which will provide access to the underground parking, pick-up/drop-off spaces and loading facilities.

The two existing vehicle access from Danforth Avenue are proposed to be removed which will provide an unobstructed pedestrian and cyclist connections along the Danforth Avenue site frontage by eliminating turning movements conflicts.

The following sections provide a description of the development proposal as currently conceived and the transportation-related aspects of the site plan.

The proposed development programme is summarized in Table 1**.** Relevant excerpt plans from the current architectural drawing set are provided in Appendix A**.**

Table 1 Development Programme Summary

| Use | Development Proposal | |
|---|---|---|
| **Residential** | Studio units | 139 units |
| | 1-bedroom units | 266 units |
| | 2-bedroom units | 152 units |
| | 3+ bedroom units | 63 units |
| | **Total units** | **620 units** |
| **Non-Residential** | Grocery | 2,258 $m^2$ |
| | Commercial | 939 $m^2$ |
| | **Total GFA** | **3,197 $m^2$** |
| **Vehicular/Site Plan Elements** | | |
| **Vehicle Parking Spaces** | Residential | 190 spaces |
| | Retail / Visitor | 86 spaces |
| | Car-share | 2 spaces |
| | **Total** | **278 spaces** |
| **Bicycle Parking Spaces** | Short-term | 146 spaces |
| | Long-term | 568 spaces |
| | **Total** | **714 spaces** |
| **Loading Facilities** | 1 Type 'A', 1 Type 'B', Type 'C', and 1 Type 'G' | |

Notes:

1. Based upon site statistics provided by Superkül Architects, dated November 7th, 2024.

## 1.4 Site Plan Elements

**Site Access**

The development proposal includes the removal of two existing accesses connecting to Danforth Avenue with the Westlake access to be retained to accommodate site traffic. Removal of the Danforth Avenue site accesses will better align the site with complete street principals and will contribute to an uninterrupted public realm eliminating vehicular movements across the pedestrian clearway and cycle lane on Danforth Avenue east.

The current development concept plan illustrates 1 site driveway connection to Westlake Avenue, approximately 35 metres south of Danforth Avenue (measured from the centreline of Danforth Avenue to the north curb of the driveway). The driveway will accommodate access to pick-up / drop-off facilities, access to the underground parking garage, and loading areas.

**Vehicular Parking**

A total of 278 parking spaces are provided within a two level below grade parking facility. This includes 190 spaces for residents and 88 spaces for retail and visitor use. The parking facility includes 11 accessible parking spaces located on the P1 and P2 levels adjacent to elevator cores as per City of Toronto Zoning By-law 569-2013.

**Bicycle Parking**

A total of 714 bicycle parking spaces (136 short-term, 568 long-term and 10 publicly accessible bicycle parking spaces) are provided on site. Long-term and short-term bicycle parking spaces are provided on the P1 level.

There are 15 existing Toronto Bike Share spaces located on the west side of the site. These spaces are proposed to be relocated along the Danforth Avenue frontage, in proximity to the grocery store entrance.

**Loading and Servicing**

To support the proposed residential development, 1 Type C and 1 Type G are proposed at-grade. The east building's loading area includes 1 Type G to accommodate waste and refuse pick-up and residential moving activity. The west building will include 1 Type C loading space to support residential moving activity. An additional Type A and Type B are proposed to support the grocery loading demands and are located separate from the residential loading areas.

**Short Term Parking**

Short term parking demand is accommodated on-site. A total of 4 spaces are dedicated for pick-up drop-off (PUDO) activity, 2 for each building at-grade adjacent to residential accesses.

## 1.5 Study Scope

BA Group has undertaken a review of the key transportation-related aspects of the Zoning By-law Amendment (ZBA) being submitted to the City of Toronto to permit the proposed development. Key aspects of the concept development that has been reviewed are as follows.

**Existing Site and Proposed Development**

- A review of the existing site uses and overview of the Proposed Development programme.
- A review of the parking supply provisions of the Proposed Development plans.
- A review of the bicycle parking supply provisions for the Proposed Development plans.
- A review of the loading space provisions for the Proposed Development plans.

- A review of the functionality and appropriateness of the proposed vehicle circulation facilities incorporated into the site plan including loading / garbage collection facility arrangements.

**Transportation Context**

- A review of existing and future transportation context including key municipal road, transit, pedestrian and cycling changes and other non-automobile dependent travel options in the area.

**Transportation Demand Management (TDM)**

- A review of TDM measures to encourage, facilitate and support non-automobile travel to / from the site for residents, visitors, and employees of the site.

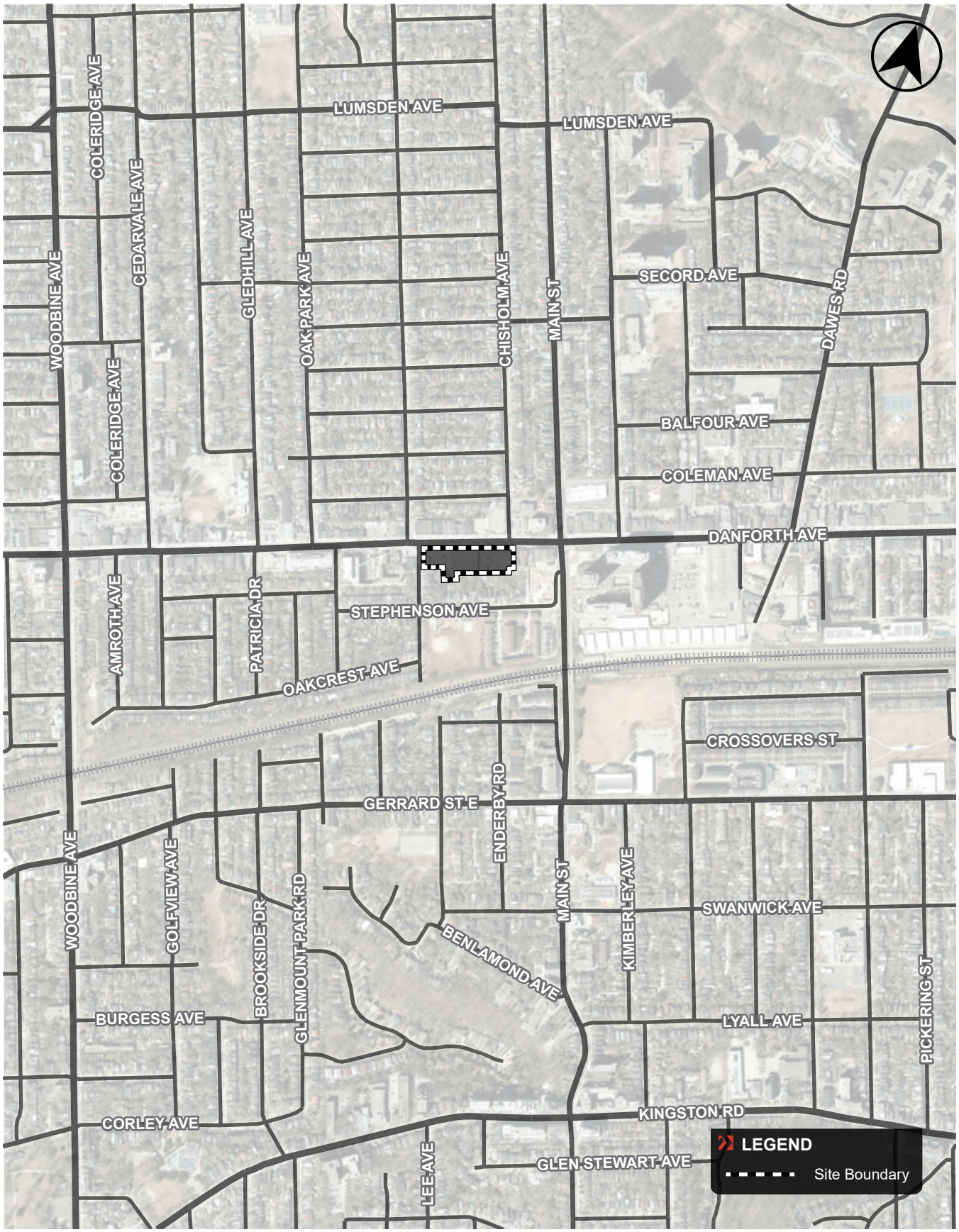
**Travel Demand Forecasting**

- An outline of travel characteristics and travel demand projections for pedestrians, cyclists, transit users, and automobile users of the Proposed Development.
- An assessment of the existing vehicle traffic activity patterns and volumes in the study area during the key weekday morning and afternoon peak periods.
- A comprehensive review of the vehicle traffic changes that may occur in the area in the future with the development of several other area development projects.
- A review of existing vehicle site -related traffic activity levels that will be eliminated as a result of the Proposed Development.
- An assessment of the vehicular traffic and other trip generation characteristics of the Proposed Development.

**Traffic Operations Review**

- A detailed review of the traffic operations at intersections in the area under existing and future traffic conditions including an assessment of the operational impacts of the Proposed Development.

The findings of our report are summarized in the following sections.

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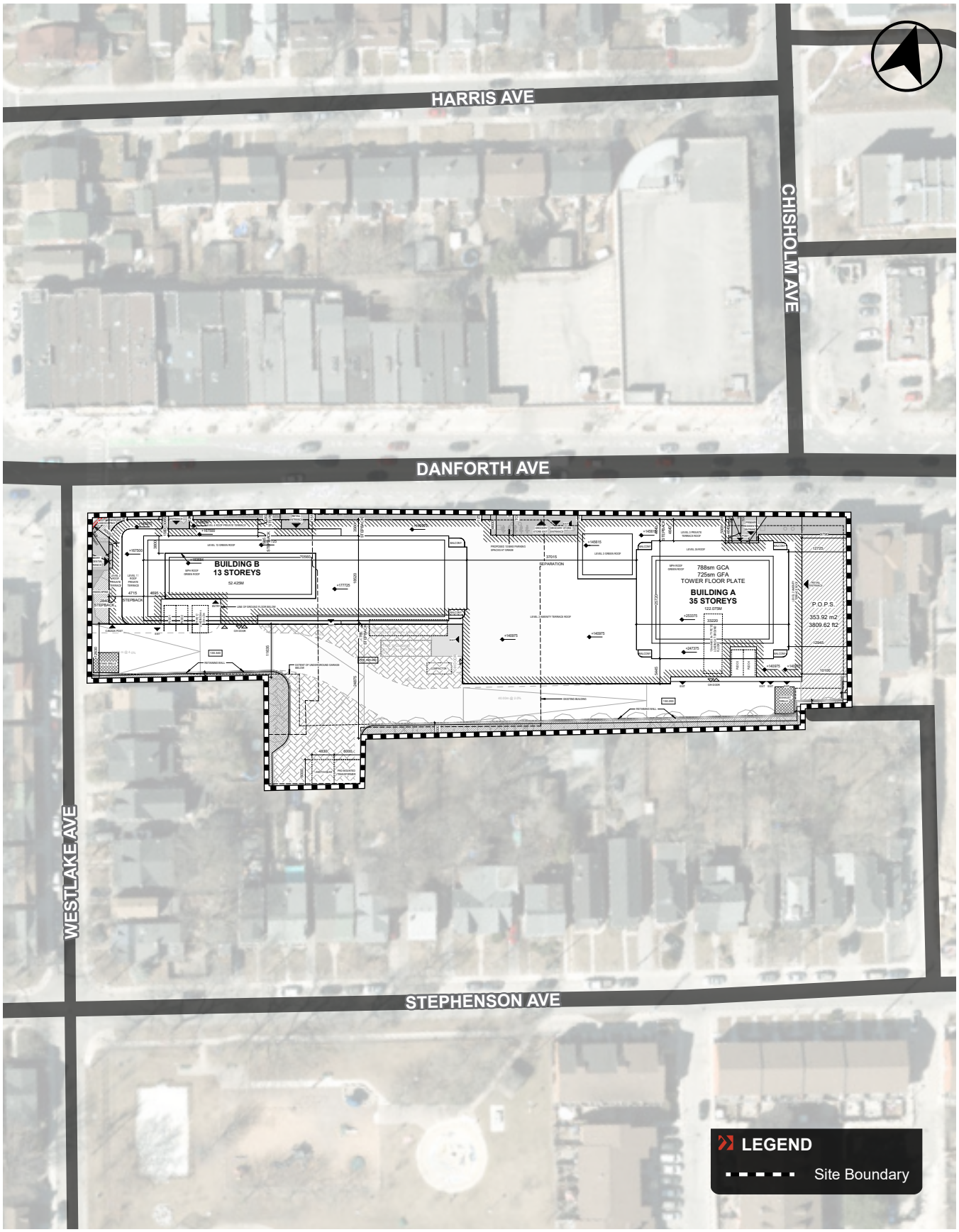
Aerial maps provided courtesy of: Esri, DigitalGlobe, GeoEye, Earthstar Geographies, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, the GIS User Community and/or Google Earth/Maps.

**FIGURE 1 SITE LOCATION**

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Aerial maps provided courtesy of: Esri, DigitalGlobe, GeoEye, Earthstar Geographies, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, the GIS User Community and/or Google Earth/Maps.

**FIGURE 2 SITE PLAN**

# 2.0 PRE-APPLICATION CONSULTATION RESPONSE TO COMMENTS

As part of the Pre-Application Consultation (PAC) (*Pre-App No.: 24 175202 STE 19 PAC)*, City of Toronto staff provided comments dated August 27, 2024, related to the proposed development. The current development programme is generally consistent with what was presented to the city during the Pre-Application Consultation (PAC) process (a modest increase in unit count (41 units) and same commercial GFA). This section outlines the comments received from the City of Toronto and responses to those comments.

## City Comments – Transportation Services

**Comment 1:**

Delineate and identify, on all applicable plans, a 6.0 metre corner rounding at the northwest corner of the site (the southeast corner of Danforth Ave and Westlake Ave), to be conveyed as a Pedestrian Clearway Easement.

**Response:** Noted. See updated architectural plans provided in Appendix A.

**Comment 2:**

Revise the applicable plans to provide/construct a raised cycle track along the Danforth Avenue frontage of the site. The cycle track should be built as per City standard T-603.051, with a cycle track width of 2.4 metres and buffers of 0.6 metres to the north (separation from traffic) and 0.3 metres to the south of the cycle track (separation from the sidewalk).

**Response:** Following the PAC meeting, the project team engaged with City of Toronto staff to coordinate the design of a raised cycle track along the Danforth Avenue site frontage. Given site constraints, it was agreed to provide a 1.8m wide cycle track with a 0.9 metre buffer to the north (separation from traffic) and 0.3 metre buffer to the south. No changes are proposed to the eastbound travel lane.

The proposed cycle track plan is provided in Appendix B.

**Comment 3:**

Provide and maintain electric vehicle (EV) infrastructure in accordance with the requirements of Zoning By-law No. 569-2013, Chapter 200.5.1.10(14). As such, a minimum of 100 percent of resident parking and 25 percent of visitor parking spaces must include an energized outlet capable of providing Level 2 charging or higher.

**Response:** EV infrastructure is provided in accordance with the Zoning By-law requirements. See **Section 4.4** for further details and architectural plans provided in Appendix A.

**Comment 4:**

Identify how pick-up and drop-off (PUDO) activity including ride-share and deliveries will be managed on-site/off-street in the Transportation Impact Study (TIS).

**Response:** Designated pick-up / drop-off spaces are proposed on site, accessed off the site driveway. A total of 4 PUDO spaces are proposed, 2 for each building, located at-grade adjacent to residential accesses. Refer to **Section 7.0** for further information.

**Comment 5:**

Provide and maintain loading spaces in accordance with Site Specific Zoning By-law Chapter 220 of Zoning By-law 569-2013. Provide Vehicle Manoeuvring Diagrams (VMDs), separately in the TIS and/or on the ground floor plan, for the proposed loading spaces, demonstrating vehicles entering and exiting the site in a forward motion. As per the in-force Zoning By-law, the site requires one (1) Type A, one (1) Type B, one (1) Type C and one (1) Type G loading space. As such, the proposal includes one (1) Type A, one (1) Type B, two (2) Type C and one (1) Type G loading space, which satisfies the loading space requirements of the Zoning By-law. Label the dimensions of the proposed loading spaces.

**Response:** The proposed loading supply is consistent with the minimum Zoning By-law requirements for the site and includes 1 Type 'A', 1 Type 'B', 1 Type 'C' and 1 Type 'G' loading space. VMDs are provided in Appendix C and further details on the proposed loading supply is provided in **Section 6.0**

**Comment 6:**

Provide TDM plan in accordance with the policies in the City's Official Plan, Toronto Green Standard (TGS) – Version 4, and Guidelines for the Preparation of Transportation Impact Studies (2013). The applicant shall retain qualified professionals to identify the appropriate travel demand management programs/measures to be implemented on/for the subject site to reduce the single occupancy auto vehicle trips generated by the proposed development. Be advised, that TDM measures exclude parking management strategies, the City's policy/Zoning By-law/TGS Tier 1 requirements and promotional/educational strategies.

**Response:** Noted. A TDM plan is provided in accordance with the City's Official Plan, and Toronto Green Standards (TGS) – Version 4 (see **Section 7.0**).

**Comment 7:**

Demonstrate how the project complies with all transportation-related requirements of the TGS Version 4, Sections AQ 1.1 to 1.2, 2.1 to 2.6, and 3.2. All relevant plans must be clearly labelled with the number, type, dimensions and location of the required infrastructure.

**Response: Sections 4.4** and **9.6** demonstrate the satisfaction of the relevant TGS version 4.0 sections. Refer to updated architectural plans provided in Appendix A.

**Comment 8:**

Parking ramps should be designed in accordance with the following criteria:

a. The maximum slope of a covered or heated ramp is 15 percent;
b. The maximum slope of an outdoor unheated ramp is 10 percent;
c. The minimum width of a clear straight one-way driveway is 3.5 metres;
d. The minimum width of a clear straight two-way driveway is 5.5 metres;
e. The maximum sloped floor for direct access to parking areas is 5 percent;
f. For curved ramp sections, the ramp must be wide enough for two standard passenger cars (P-CAR) to pass each other, as demonstrated using VMDs;
g. For ramp slope changes of 7.5 percent or greater, a transition area with a minimum length of 3.0 metres (measured parallel to the direction of travel on the ramp) must be provided. The slope of the transition area must be half the sum of the first slope of the ramp or driveway and the second slope of the ramp or driveway.

**Response:** Noted. Refer to updated architectural plans provided in Appendix A. Vehicle Manoeuvering Diagrams are provided in Appendix C.

**Comment 9:**

A Transportation Demand Management Strategy is required to demonstrate how the application complies with all transportation-related requirements and the applicable Toronto Green Standard.

**Response:** Noted. A TDM plan in accordance with Toronto Green Standards (TGS) – Version 4 is provided in **Section 7.0.**

# 3.0 TRANSPORTATION CONTEXT

The site is located within the East Danforth neighbourhood of the City of Toronto and is well-connected relative to higher-order transit services, with convenient access to Main Street Subway Station, Woodbine Subway Station and Danforth GO Station.

The site's location provides a multitude of work, recreational, amenity and shopping opportunities within walking distance of the site. The level of convenient pedestrian access and transit accessibility provided within the area offers acceptable non-automobile travel opportunities for residents and residential visitors of the area. This serves to reduce the need for area residents to travel on a regular day-to-day basis using a car and to own a vehicle.

An overview of the transportation context in the vicinity of the site is provided in the following sections.

## 3.1 Area Road Network

### 3.1.1 Existing Area Road Network

The site is well located relative to the roadway connections provided across the City and the Greater Toronto Area (GTA). A detailed description of the area road network and existing on-street parking regulations surrounding the site are provided in detail in Table 2**.**

The existing lane configurations and traffic control are illustrated in Figure 3 and the area road network is illustrated in Figure 5**.**

Table 2 Existing Area Road Context

| Road Type / Name | | Speed Limit | On-street Parking & Regulations | Description |
|---|---|---|---|---|
| Major Arterial | Danforth Avenue | 50 km/ hr | East of Westlake Avenue, parking is permitted from 8:00am to 4:00pm, Monday to Saturday (eastbound), and 8:00am to 6:00pm east of Chisholm Avenue.<br><br>Between Main Street and Chisholm Avenue, parking is permitted from 8:00am to 4:00pm, Monday to Saturday (westbound), and 8:00am to 6:00pm west of Chisholm Avenue. | Danforth Avenue is an east-west City of Toronto road that extends from the Don Valley Parkway in the west (where it becomes Bloor Street) to Cliffside Drive to the east (where it merges with Kingston Road).<br><br>In the vicinity of the site, the roadway has a two-lane cross section with one vehicular lane operating in each direction and auxiliary right and left turn lanes at key intersections. Cycle tracks are provided along both sides of the roadway. The Danforth Avenue and Westlake Avenue intersection is signalized. |
| Minor Arterial | Main Street | 50 km/ hr | No parking or standing permitted at any time. | Main Street is a north-south City of Toronto road that extends from Kingston Road in the south (where it becomes Southwood Drive) to 250 metres north of Lumsden Avenue (where it becomes Hamstead Avenue).<br><br>In the vicinity of the site, the roadway has a four-lane cross section with two lanes operating in each direction with auxiliary left turn lanes at key intersections and streetcar tracks running down the centre lanes. The Danforth Avenue / Main Street intersection is signalized. |

| Road Type / Name | | Speed Limit | On-street Parking & Regulations | Description |
|---|---|---|---|---|
| Local | Westlake Avenue | 40 km/hr | In the vicinity of the site, no parking is permitted on the east side of Westlake Avenue (northbound).<br><br>South of Danforth Avenue, parking is not permitted on the west side of the roadway between 12:01am and 7:00am, except by permit. | Westlake Avenue is a north-south local road that extends from Oakcrest Avenue in the south and transitions to just 90 metres north of Hamstead Avenue (where it becomes Cosburn Avenue).<br><br>In the vicinity of the site, the roadway has a two-lane cross-section, with one travel lane in each direction. |
| | Stephenson Avenue | 30 km/hr | On the north side, parking is permitted for an hour anytime between 8:00am to 6:00pm.<br><br>No Parking is permitted on the south side of the roadway. | Stephenson Avenue is an east-west local road extending from Morton Road in the west to Main Street in the east.<br><br>The roadway has a two-lane cross-section, with one travel lane in each direction. |
| | Chisholm Avenue | 30 km/hr | On the east side, parking is permitted for an hour anytime between 8:00am to 6:00pm. However, parking is not permitted on the east side between 12:01am and 7:00am, except by permit.<br><br>No Parking is permitted on the west side of the roadway. | Chisholm Avenue is a north-south local road extending from Danforth Avenue in the south to Hamstead Avenue in the north.<br><br>The roadway has a two-lane cross-section, with one travel lane in each direction. |
| | Morton Road | 30 km/hr | On either side of the road, parking is permitted for an hour anytime between 8:00am to 6:00pm.<br><br>Parking is not permitted on the either side of the roadway between 12:01am and 7:00am, except by permit. | Morton Road is a north-south local road extending from Oakcrest Avenue in the south to Danforth Avenue in the north.<br><br>The roadway has a two-lane cross-section, with one travel lane in each direction. |

### 3.1.2 Future Area Road Network

As part of the proposed development two existing vehicle access connecting to Danforth Avenue will be closed as the site accesses are consolidated to Westlake Avenue. Removal of the Danforth Avenue site accesses will better align the site with complete street principals and will contribute to an uninterrupted public realm eliminating vehicular movements across the pedestrian clearway and cycle lane on Danforth Avenue east. The future lane configuration and traffic controls are depicted in Figure 4**.**

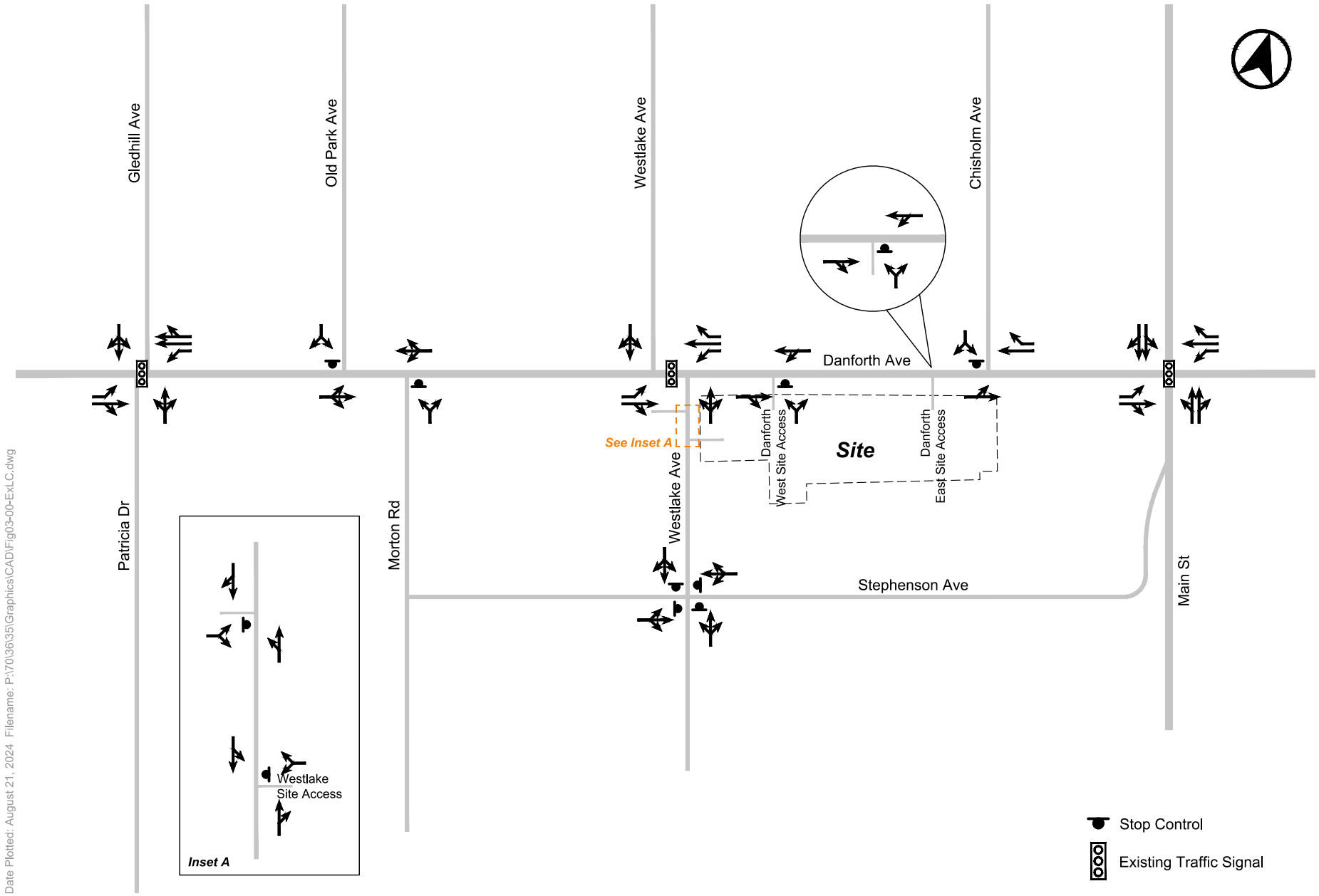


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**FIGURE 3 EXISTING LANE CONFIGURATION AND TRAFFIC CONTROL**

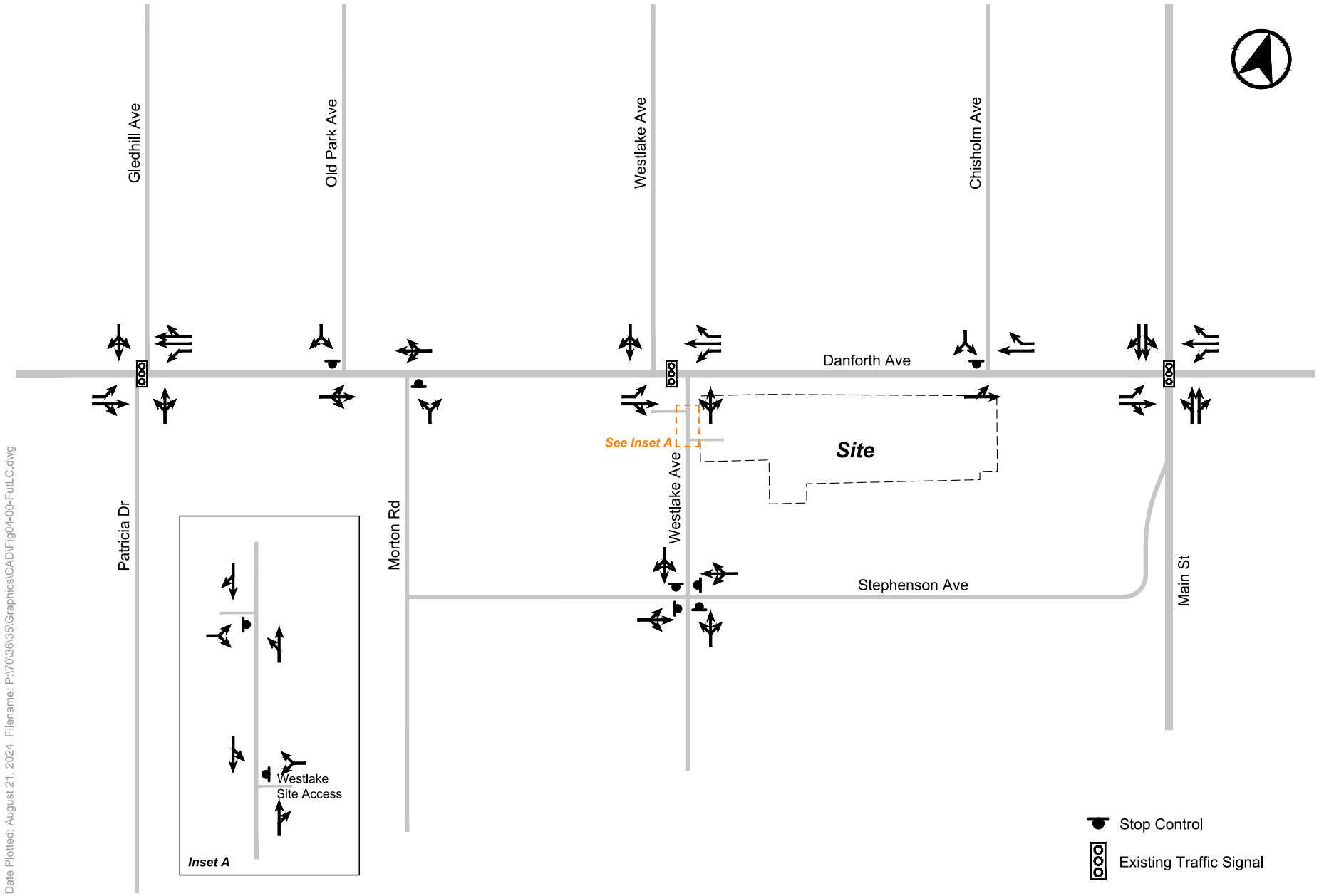


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**FIGURE 4 FUTURE LANE CONFIGURATION AND TRAFFIC CONTROL**

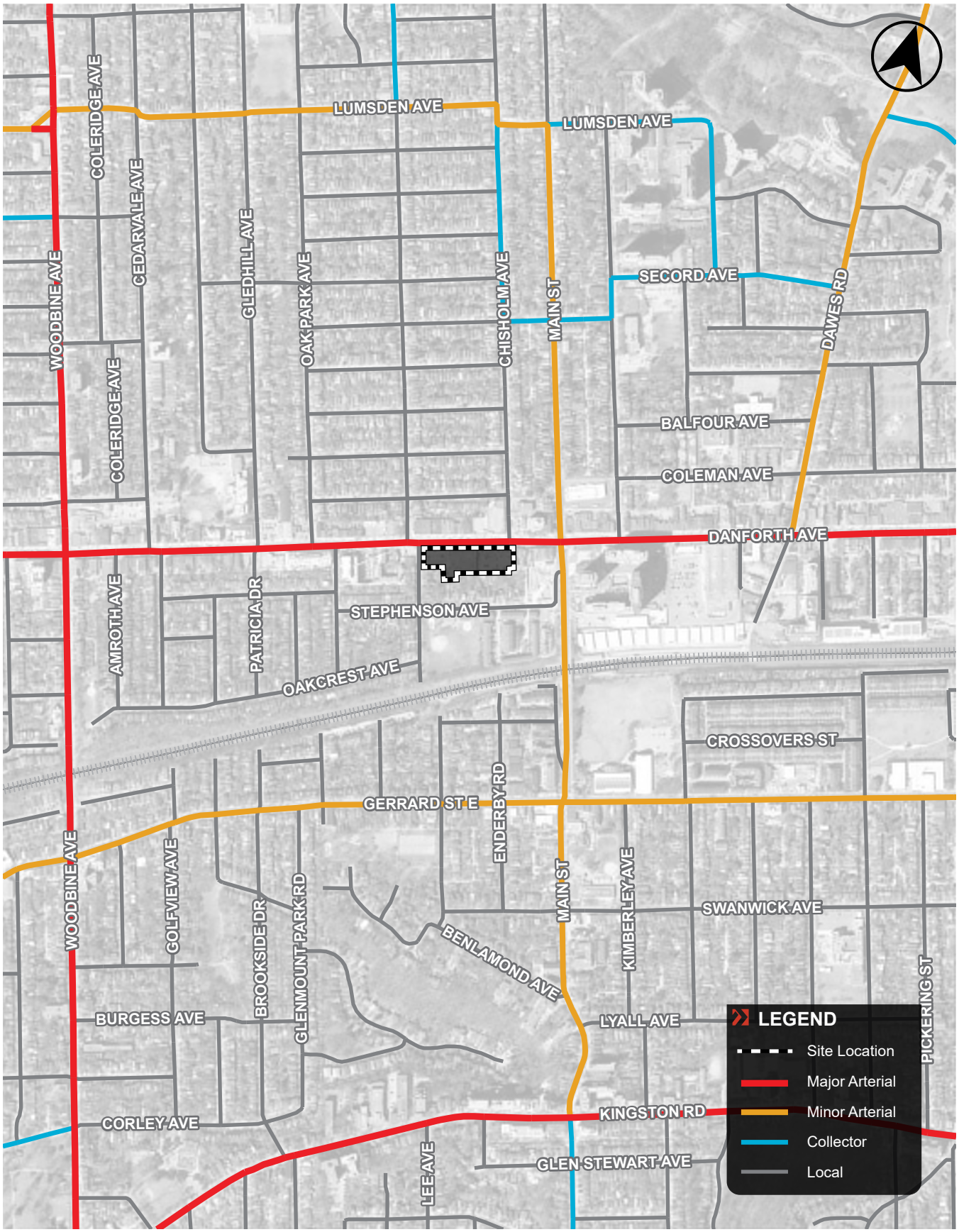


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**FIGURE 5 EXISTING ROAD NETWORK**

## 3.2 Area Transit Network

The site is well served by transit operated by GO Transit and the Toronto Transit Commission (TTC). Most notably, the site is directly adjacent to the Main-Danforth Mobility Hub (located east of the site), which includes the Main Street Subway Station and bus terminal, and the Danforth GO Station.

The nearest TTC bus routes are also conveniently accessible from the site's location, including several routes operating directly adjacent to the site along the Danforth Avenue and Main Street corridors. The nearest bus stops on Main Street are within 120 metres east of the site.

### 3.2.1 Existing Transit Facilities

An overview of the subway and bus services in proximity to the site is summarized in Table 3. The existing transit network is further illustrated in Figure 6.

Table 3 Existing Area Transit Context

| Route | | Headways | Closest Stop | Route Description |
|---|---|---|---|---|
| TTC Subway | Line 2 – Bloor / Danforth | 3 min. weekday peak periods<br><br>(4 – 5 min. off peak) | Main Street Station<br><br>(~ 190 metres / 3 min walk) | The Line 2 subway has a total of 31 stations, generally running in an east west direction. The line operates from Kennedy Road at Eglinton Avenue East, westwards along Danforth Avenue / Bloor Street West to Kipling Avenue.<br><br>Line 2 also connects with the Yonge-University-Spadina Subway (Line 1) at two different stops (Bloor-Yonge and St. George / Spadina). |
| | | | Woodbine Station<br><br>(~ 650 metres / 9 min walk) | |
| TTC Streetcar | 506 - Carlton | 9 – 10 min. weekday peak periods<br><br>(10 min. off peak) | Main Street / Danforth Avenue<br><br>(~ 95 metres / 1 min walk) | The 506 Carlton Streetcar route operates generally in an east-west direction between Main Street Station on the Bloor-Danforth Subway and High Park Loop. This route also serves the College and Queen's Park Stations on the Yonge-University-Spadina Subway.<br><br>This route is part of the 10-Minute Network: route operates every ten minutes or better at all times. |
| TTC Bus | 20 - Cliffside | 15 – 16 min. weekday peak periods<br><br>(20 – 23 min. off peak) | Main Street Station<br><br>(~ 190 metres / 3 min walk) | The 20 Cliffside bus route operates generally in an east-west direction, between Main Street Station and Kennedy Station on Line 2 Bloor-Danforth. |
| | 23 - Dawes | 9 – 10 min. weekday peak periods<br><br>(11 – 16 min. off peak) | Main Street Station<br><br>(~ 190 metres / 3 min walk) | The 23 Dawes bus route operates generally in a north-south direction, between Main Street Station on the Line 2 Bloor-Danforth and the area of Victoria Park Avenue and St. Clair Avenue East. |

| | Route | Headways | Closest Stop | Route Description |
|---|---|---|---|---|
| TTC Bus | 62 - Mortimer | 17 – 20 min. weekday peak periods<br><br>(20 min. off peak) | Main Street Station<br><br>(~ 190 metres / 3 min walk) | The 62 Mortimer bus route operates generally in an east-west direction, between Broadview Station and Main Street Station on Line 2 Bloor-Danforth. |
| | 64 – Main | 9 – 10 min. weekday peak periods<br><br>(11 – 20 min. off-peak) | Main Street / Danforth Avenue<br><br>(~ 95 metres / 1 min walk) | The 64 Main bus route operates generally in a north-south direction, between the area of Queen Street East and Wineva Avenue and Main Street Station on Line 2 Bloor-Danforth. |
| | 87 – Cosburn | 9 – 10 min. weekday peak periods<br><br>(11 – 20 min. off-peak) | Main Street Station<br><br>(~ 190 metres / 3 min walk) | The 87 Cosburn bus route operates generally in an east-west direction, between Broadview Station and Main Street Station on Line 2 Bloor-Danforth. |
| | 91 – Woodbine | 15 – 18 min. weekday peak periods<br><br>(23 – 30 min. off-peak) | Woodbine Station<br><br>(~ 650 metres / 9 min walk) | The 91 Woodbine bus route operates generally in a north-south direction, between Woodbine Station on Line 2 Bloor-Danforth and the area of York Mills Road and Don Valley Parkway.<br><br>Two service branches are operated:<br>The 91C (Woodbine Stn-York Mills) operates at all times, seven days a week.<br>The 91D (Woodbine Stn-York Mills via Railside) operates northbound during the morning peak period, and southbound during the afternoon peak period, from Monday to Friday only. |
| | 92 – Woodbine South | 10 min. weekday peak periods<br><br>(14 – 22 min. off-peak) | Woodbine Station<br><br>(~ 650 metres / 9 min walk) | The 92 Woodbine South bus route operates generally in a north-south direction, between Woodbine Station on the Line 2 Bloor-Danforth Subway and the area of Woodbine Avenue and Lake Shore Boulevard East. |
| | 93 – Parkview Hills | 30 min. weekday peak periods<br><br>(25 – 30 min. off-peak) | Woodbine Station<br><br>(~ 650 metres / 9 min walk) | The 93 Parkview Hills bus route operates generally in a north-south direction, between Woodbine Station on Line 2 Bloor-Danforth and the Parkview Hills area. |
| | 113 – Danforth Road | 15 – 16 min. weekday peak periods<br><br>(20 – 23 min. off-peak) | Main Street Station<br><br>(~ 190 metres / 3 min walk) | The 113 Danforth bus route operates generally in an east-west direction, between Main Street Station and Kennedy Station on the Line 2 Bloor-Danforth Subway. |
| | 135 - Gerrard | 20 – 23 min. weekday peak periods<br><br>(20 min. off-peak) | Main Street / Danforth Avenue<br><br>(~ 95 metres / 1 min walk) | The 135 Gerrard bus route operates generally in an east-west direction, between Main Street Station and Warden Station on the Line 2 Bloor-Danforth Subway. |

| | Route | Headways | Closest Stop | Route Description |
|---|---|---|---|---|
| GO Transit | Lakeshore East GO Line – Danforth GO | 30 min (commuter directions) | Danforth GO Station | Lakeshore East GO line operates between Oshawa GO in Durham Region and Union Station in Toronto, generally in an east-west direction.<br><br>Service along the Lakeshore East Line is provided 7 days a week, typically between morning peak times to late evening times. |

Notes:

1. Headways based on TTC Service Summary from May 12, 2024 to June 22, 2024.

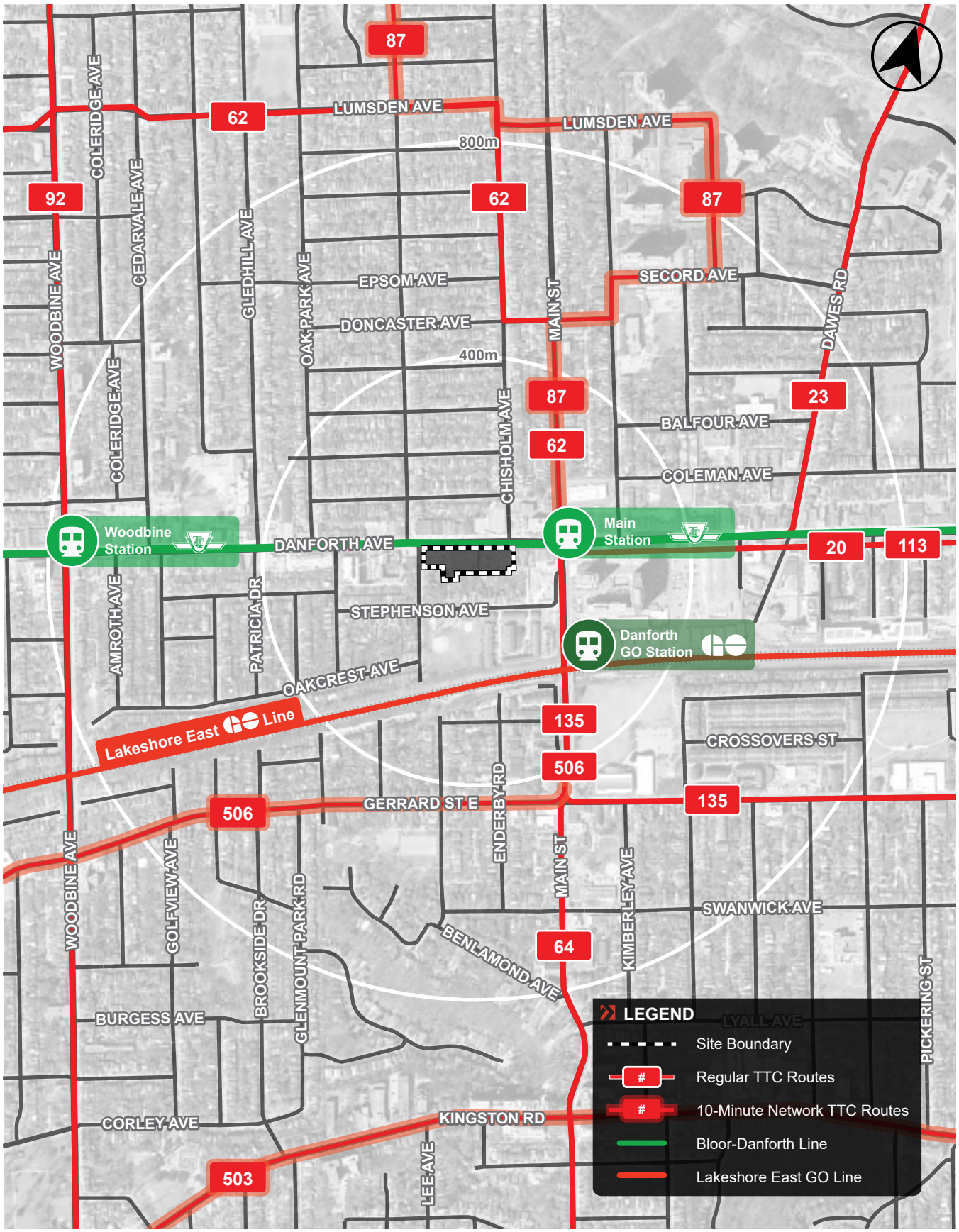


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**FIGURE 6 EXISTING TRANSIT NETWORK**

### 3.2.2 Planned Transit Improvements

While the existing level of transit accessibility afforded to the site today provides convenient connectivity across the City, planned investments in public transit services will further improve the transit options for future residents and visitors of the site and surrounding area.

These include a range of large scale service improvements planned by Metrolinx as part of the GO Expansion Program. A summary of the various area transit improvements is provided in the following sections.

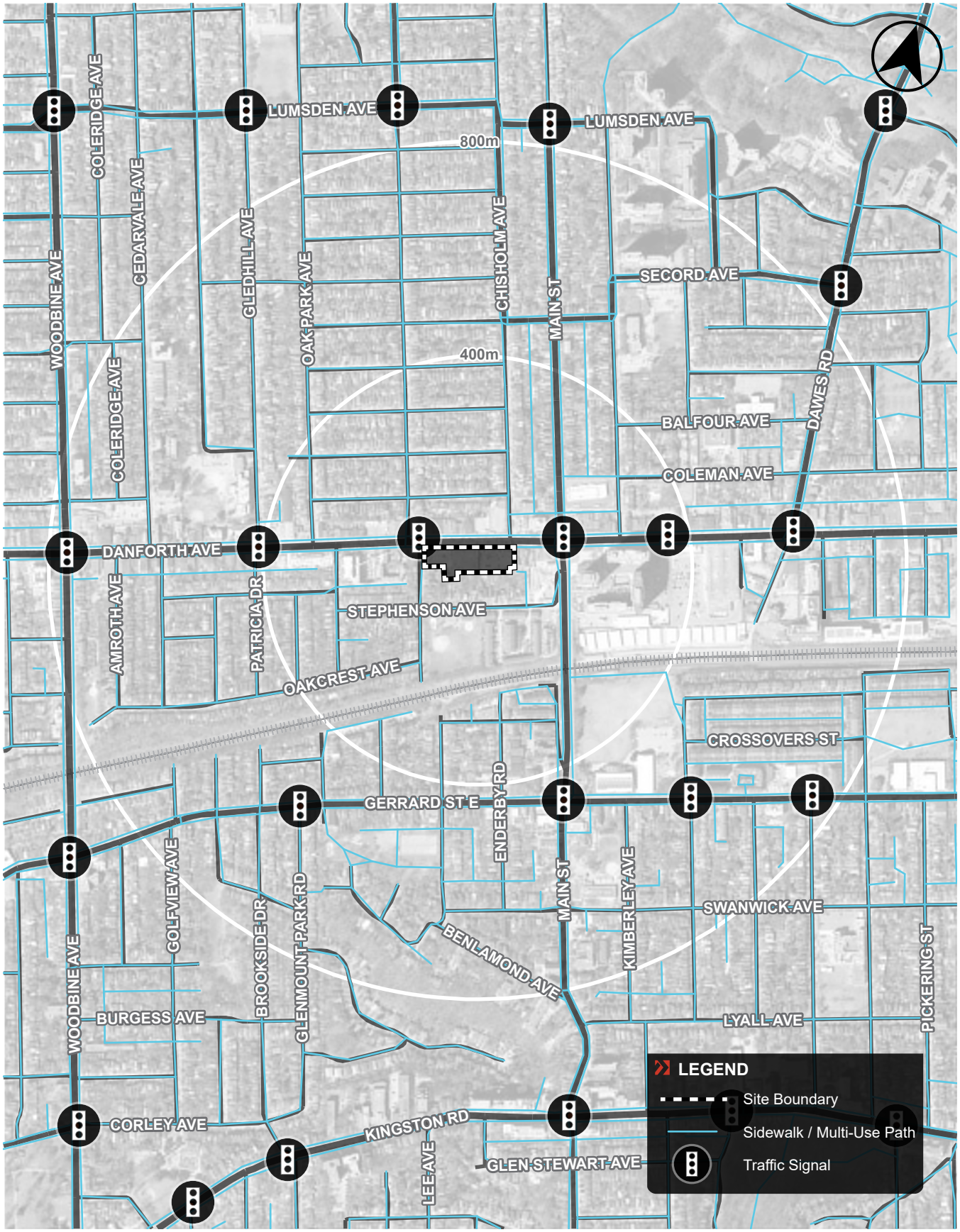
## 3.3 Area Pedestrian Connections

The site is well-situated from a pedestrian perspective, located within walking distance of numerous commercial and retail land uses along the Danforth Avenue corridor.

The intersection of Danforth Avenue / Westlake Avenue, adjacent to the site, is signalized and equipped with pedestrian signal heads, crosswalks with curb ramps, zebra pavement marking and tactile walking surfaces. Within the vicinity of the site, sidewalks are provided along both sides of all major area roads and signalized pedestrian crossings at all major intersections.

Several improvements to the pedestrian realm are proposed as part of the proposed development including widening sidewalks and eliminating curb cuts on Danforth Avenue (all vehicular access is consolidated onto Westlake Avenue).

The area pedestrian network is illustrated in Figure 7**.**

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Aerial maps provided courtesy of: Esri, DigitalGlobe, GeoEye, Earthstar Geographies, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, the GIS User Community and/or Google Earth/Maps.

**FIGURE 7 EXISTING PEDESTRIAN CONTEXT**

## 3.4 Area Cycling Network

The site is located conveniently within one of the most connected areas of the City of Toronto's cycling infrastructure network.

### 3.4.1 Existing Area Cycling Network

Table 4 Existing Area Cycling Infrastructure Network

| Route/ Direction | | Type of Cycling Infrastructure | Description | Image (Source: Google) |
|---|---|---|---|---|
| East-West Connections | Danforth Avenue | Cycle Tracks | The route runs in an east-west direction generally along Bloor Street and Danforth Avenue, extending from Runnymede in the west to Dawes Road in the east. The Danforth cycle tracks were extended from Dawes Road to Victoria Park Avenue in 2022.<br><br>Cycle tracks are physically separated from vehicular traffic for the majority of the route. |  <br>Danforth Avenue (adjacent to the site) facing east |
| | Taylor Creek Trail | Major Multi-Use Trail | Taylor Creek Trail generally runs in an east-west direction through Taylor Creek Park and Coxwell Ravine Park. The route links to numerous bicycle networks including the Lower Don Trail, the Dawes bike lanes, and numerous signed shared roadways and quiet residential streets.<br><br>The trail is separated from vehicular traffic. |  |
| North-South Connections | Main Street | On-Street Shared Cycling Connections | South of Hamstead Avenue, Main Street is a shared roadway running in a general north-south direction along Main Street from Hamstead Avenue in the north to Alfresco Lawn in the south.<br><br>The route links to the Cosburn and Dawes bike lanes to the north via additional signed shared roadway routes, and the Waterfront Trail to the south. There is no designated cycling infrastructure on the road. |  |
| | Woodbine Avenue | Cycle Tracks | The route runs in a north-south direction along Woodbine Avenue, extending from O'Connor Drive in the north to Kingston Road in the south. | |

| Route/ Direction | | Type of Cycling Infrastructure | Description | Image (Source: Google) |
|---|---|---|---|---|
| | Dawes Road | Bike Lanes | The Dawes bike lane extends from Danforth Avenue in the south to Victoria Park Avenue in the north. The lane is indicated by lines marked on the pavement.<br><br>The route links to the Taylor Creek Trail, the Crescent Town Road bike lane and the local area signed shared roadways that generally run in an east-west direction. There are bike lanes on both sides of the road. |  <br>Dawes Road at Danforth Avenue facing north |

### 3.4.2 Planned Cycling Network

#### 3.4.2.1 CITY OF TORONTO CYCLING NETWORK PLAN

In 2016, Toronto City Council adopted a "Ten Year Cycling Network Plan" that outlines the City's planned and proposed investments in cycling infrastructure over the next ten years (2016-2025). The Ten-Year Plan intends to connect gaps within the existing cycling network, expand the network to new areas of the City, and renew existing routes by improving their quality. The ten-year cycling plan is guided by a Near-Term Implementation program which identifies priority projects on a triannual basis. In summer of 2024, City Council adopted the 2024 Cycling Network Plan Update Report (2025 – 2027).

**Near Term Implementation Program**

As part of the 2024 Cycling Network Plan Update Report (2025 – 2027), the City of Toronto has not identified any cycle infrastructure projects within the site vicinity.

**Ten Year Cycling Network Implementation Plan**

The Ten Year Cycling Plan, proposed cycling infrastructure on the north and south sides of Danforth Avenue. Danforth Avenue cycle lanes were completed as a part of the 2019 Cycling Network Plan Update Report. No additional cycle infrastructure projects are proposed within the Ten Year Cycling Network Implementation Plan.

The existing area cycling network in the immediate site vicinity is illustrated in Figure 8**.**

### 3.4.3 Planned Cycling Improvements

As discussed in **Section 2.0,** raised cycle tracks are proposed to replace the existing bike lane along the Danforth Avenue site frontage. This elevated design will provide better separation from traffic and improve the cycling experience.

Functional design plans are depicted in Appendix B.


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Aerial maps provided courtesy of: Esri, DigitalGlobe, GeoEye, Earthstar Geographies, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, the GIS User Community and/or Google Earth/Maps.

**FIGURE 8 EXISTING AND PROPOSED CYCLING CONTEXT**

## 3.5 Area Share Mobility Services

### 3.5.1 Car-Share Facilities

Car sharing across central Toronto provides a low-commitment transportation alternative for automobile use. The success and influence of car-share programs, which were only in their infancy a decade ago, now provide convenient, non-private automobile travel opportunities for thousands of residents, employees, and visitors of the City of Toronto.

There are three primary car sharing companies operating in Toronto – ZipCar, Enterprise CarShare, and Communauto – and each offers their members access to vehicles conveniently located around the City.

There are six car-share spaces on the site today. In addition, there are 11 car-share spaces within an 800-metre radius of the site. It is proposed to maintain 2 car-share spaces on site and relocate them within the below grade parking garage.

The availability of car-share facilities in the site's vicinity will provide an alternative travel resource which residents and visitors of the site can rely on when traveling to and from the site.

### 3.5.2 Bike Share Facilities

Within an 800-metre radius of the site, there are 8 Bike Share Toronto stations which collectively hold up to approximately 136 bicycles. The nearest existing Bike Share Toronto station is located on the western boundary of the site. The existing on-site bike share station will be relocated on-site, along the Danforth Avenue frontage in proximity to the grocery store entrance.

The locations of existing car share vehicles and Toronto Bicycle Share docking stations are illustrated in Figure 9**.**


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Aerial maps provided courtesy of: Esri, DigitalGlobe, GeoEye, Earthstar Geographies, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, the GIS User Community and/or Google Earth/Maps.

**FIGURE 9 AREA CAR-SHARE AND BIKE-SHARE FACILITIES**

# 4.0 VEHICULAR PARKING CONSIDERATIONS

## 4.1 Zoning By-law Requirements

The site is subject to the parking supply requirements for developments specified in City of Toronto Zoning By-law 569-2013, as amended by By-law 89-2022. The site is located in 'Parking Zone A', as defined in By-law 89-2022.

Application of the City of Toronto Zoning By-law 569-2013 (as amended) - Parking Zone A parking standards to the Proposed Development is summarized in Table 5.

Table 5 Zoning By-law 569-2013 'Parking Zone A' Parking Requirements

| Use / Type | Units / GFA[1] | Minimum Rate | | Maximum Parking Permitted | |
|---|---|---|---|---|---|
| | | Rate (Minimum) | Requirement (Minimum) | Rate (Maximum) | Requirement (Maximum) |
| Studio | 139 units | None | 0 spaces | 0.3 spaces / unit | 41 spaces |
| 1-bedroom | 266 units | | 0 spaces | 0.5 spaces / unit | 133 spaces |
| 2-bedroom | 152 units | | 0 spaces | 0.8 spaces / unit | 121 spaces |
| 3-bedroom | 63 units | | 0 spaces | 1.0 spaces / unit | 63 spaces |
| ***Residential Subtotal*** | **620 units** | **0 spaces** | | **358 spaces** | |
| Residential Visitor | 620 units | 2 + 0.01 spaces / unit | 8 spaces | 1.0 space / unit for the first 5 units; and 0.1 spaces / unit for the sixth and subsequent dwelling units | 66 spaces |
| Non-Res. Commercial | 3,197m$^2$ | None | 0 spaces | 3.50 sps / 100 m$^2$ GFA | 111 spaces |
| ***Non-Residential Subtotal*** | | **8 spaces** | | **177 spaces** | |
| **Total** | | | | **535 spaces** | |

Notes:
1. Based upon site statistics provided by Superkül Architects dated November 7th, 2024.
2. Zoning By-law 569-2013 [200.5.1.10 (9)] specifies that if the calculation of the number of required parking spaces results in a number with a fraction, the number is rounded down to the nearest whole number, but there may not be less than one parking space.

Application of the City of Toronto Zoning By-law 569-2013 'Parking Zone A', parking standards, results in a minimum requirement of 8 residential visitor parking spaces, and a maximum supply of 535 parking spaces (358 resident, 66 visitor, and 111 retail).

## 4.2 Accessible Parking Requirements

The City of Toronto Zoning By-law 569-2013 (as amended) requires accessible parking to be provided based on the effective parking space calculations in Zoning By-law 569-2013 (as amended) for Parking Zone A, are summarized in Table 6.

Table 6 Zoning By-law 569-2013 'Parking Zone A' Accessible Parking Requirements

| Land Use | Units / GFA [1] | Effective Parking Rate[2] | Effective Parking Spaces | Accessible Parking Spaces Required[3] |
|---|---|---|---|---|
| Studio | 139 units | 0.3 spaces / unit | 41 spaces | 5 spaces + 1 accessible space / 50 effective parking spaces |
| 1-bedroom | 266 units | 0.5 spaces / unit | 133 spaces | |
| 2-bedroom | 152 units | 0.8 spaces / unit | 121 spaces | |
| 3+ bedroom | 63 units | 1.0 spaces / unit | 63 spaces | |
| **Resident Subtotal** | | | **358 spaces** | |
| Residential Visitor | 620 units | 0.10 spaces / unit | 62 spaces | |
| Retail | 3,197m$^2$ | 1.00 spaces / 100 m$^2$ GFA | 31 spaces | |
| **Non-Resident Subtotal** | | | **93 spaces** | |
| **Total Effective Parking Spaces** | | | **451 spaces** | |
| **Total Accessible Requirement** | | | | **13 spaces** |

Notes:
1. Based upon site statistics provided by Superkül Architects, dated August 29, 2024.
2. Application of "Effective" Parking Rate and Requirement is a procedural requirement, stipulated by By-law 569-2013, intended to calculate the required quantity of parking spaces (see Section 200.15.10.5)
3. As per Section 200.15.10.5 (1) (C) "it states: if the number of effective parking spaces is more than 100 spaces, a minimum of 5 parking spaces plus 1 parking space for every 50 effective parking spaces or part thereof in excess of 100 parking spaces must comply with all regulations for an accessible parking space in Section 200.15"

Application of the effective parking requirement would result in a minimum requirement of 13 accessible parking spaces.

## 4.3 Proposed Parking Supply

Vehicular parking will be provided within a two-level below-grade. A total of 278 parking spaces are proposed across the P1 and P2 level. The 86 retail spaces and visitor spaces will be located on the P1 level along with 2 car-share spaces. The remaining 190 resident parking spaces will be located across the P1 and P2 level. The proposed parking supply includes 13 accessible parking spaces located adjacent to elevator cores.

It is also proposed to relocate 2 of the existing car-share spaces on the site into the below grade parking garage.

The proposed total parking supply of 278 spaces (190 resident, 86 retail / visitor spaces and 2 car-share spaces) are within the parking minimum and maximum rates as prescribed by Zoning By-law 569-2013 and are considered appropriate.

## 4.4 Toronto Green Standard Version 4 Parking Requirements

As of May 1, 2022, all new developments are required to meet Toronto Green Standard (TGS) Version 4 ("TGS Version 4. The Tier 1 performance measures are required throughout the approvals process of the development. The site is subject to the "Mid to High Rise Residential and Non-Residential Version 4" standards as outlined below.

### 4.4.1 AQ 1.1 – Single-Occupant Vehicle Trips

This standard requires that single-occupancy auto vehicle trips generated by the site be reduced by 25 percent through various multi-modal infrastructure strategies and Transportation Demand Management (TDM) measures. This reduction is supported by the provision of a comprehensive list of infrastructure and investments in facilitating and encouraging non-auto transportation options. These measures are identified in Table 11 and **Section 8.3**, herein.

The effectiveness of individual TDM measures can vary upon a number of factors, including the site location, site context and which other TDM measures are being implemented. In the context of the latter, TDM measures should be considered to work together as a cohesive unit. For example, in some cases, the effectiveness of a TDM measure on its own may be limited, but in tandem with additional measures, their effectiveness can be increased. In this respect, it is difficult and inappropriate to assign a projected reduction to single-occupancy vehicles to each TDM measure. Rather, it is more appropriate to estimate how the TDM suite as a whole may affect change to specific transportation modes to and from the site.

The TDM measures adopted for the Proposed Development (as discussed in **Section 8.3**) have been categorized as incentives for alternative transportation modes, such as carpool, transit, bicycle, and walk to achieve the 25% reduction in single-occupancy auto vehicle trips. These measures are expected to work together to encourage positive shifts to alternative transportation modes by providing viable trip alternatives.

### 4.4.2 AQ 1.2 – Electric Vehicle Infrastructure

This standard requires parking spaces to be "EV ready" which refers to provision of an energized outlet capable of supplying level 2 charging or higher in accordance with Zoning By-law 569-2013. AQ 1.2 states that:

- All resident parking spaces provided for dwelling units, excluding visitor parking spaces; and
- 25 percent of resident visitor and non-resident parking spaces.

All resident parking spaces (190 spaces) will be equipped with EV infrastructure. The proposed non-residential parking supply of 88 spaces, requires that a minimum of 22 parking spaces are required to be equipped with energized outlets capable of providing Level 2 charging or higher. The Proposed Development currently illustrates 212 "energized" parking spaces, meeting the TGS Version 4, AQ 1.2 requirements.

# 5.0 BICYCLE PARKING CONSIDERATIONS

## 5.1 Bicycle Parking Requirements

The site is subject to the bicycle parking requirements for Zone 1 as per City of Toronto Zoning By-law 569-2013 as amended by 839-2022 and Toronto Green Standards Version 4 - Tier 1.

Application of the minimum bicycle requirements for Bicycle Zone 1 to the site is summarized in Table 7.

Table 7 Bicycle Parking Requirements (Zoning By-law 569-2013, Bicycle Zone 1)

| Use | Number of Units / GFA[1] | Type of Space | Bicycle Space Requirements | |
|---|---|---|---|---|
| | | | Minimum Bicycle Parking Rate | Spaces Required |
| Resident | 620 units | Short-term space | 0.20 spaces / unit | 124 spaces |
| | | Long-term space | 0.90 spaces / unit | 558 spaces |
| Non-Residential, Retail | 3,197 $m^2$ | Short-term space | 3 + 0.3 spaces / 100 $m^2$ IFA | 13 spaces |
| | | Long-term space | 0.2 spaces / 100 $m^2$ IFA | 7 spaces |
| Toronto Green Standard V.4 – AQ 2.6 Uses within 500m of Transit, Publicly Accessible spaces | | | | 10 spaces |
| **Total** | | | | **712 spaces** |
| *Residential Long-term Spaces with Energized Outlet (120 V)[3]* | | | | **85 spaces** |

Notes:

1. Based on site statistics provided by Superkül Architects, dated November 7th, 2024.
2. As per Section 230.5.1.10(2) of Zoning By-law 569-2013, if "the calculation of the minimum bicycle parking spaces for all uses results in a fraction of a bicycle parking space being required, the number of required bicycle parking spaces must be rounded up to the next whole number."
3. AQ 2.4 of the TGS (Version 4) states to provide at least 15% of the required long-term bicycle parking spaces with an Energized Outlet (120 V) adjacent to the bicycle rack or parking space.

Application of Zoning By-law 569-2013 (as amended by 839-2022) standards to the current proposal would require the provision of a minimum of 712 bicycle parking spaces (including 137 short-term, 565 long-term spaces and 10 publicly accessible spaces). The TGS Version 4, Tier 1 minimum requirements are consistent with the Zoning By-law requirements.

## 5.2 Proposed Bicycle Parking Supply

A total of 714 bicycle parking spaces are provided within the P1 level. The total bicycle parking supply includes 568 long-term parking spaces and 136 short term parking spaces. As per Toronto Green Standards Version 4, an additional 10 publicly accessible short-term bicycle spaces will be provided at-grade. The proposed supply meets and exceeds the minimum bicycle parking requirement, as per Zoning By-law 569-2013.

It is also proposed to relocate the existing Toronto Bike Share spaces (located on the west side of the site) along the Danforth Avenue frontage, in proximity to the grocery store entrance.

A bicycle repair station is proposed within the short-term and long-term bicycle parking facilities.

## 5.3 Toronto Green Standard Version 4 Bicycle Parking Requirements

### 5.3.1 AQ 2.4 – Electric Bicycle Infrastructure

*Residential: At least 15% of the required long-term bicycle parking spaces, or one parking space, whichever is greater, shall include an Energized Outlet (120 V) adjacent to the bicycle rack or parking space.*

The architectural plans note that 84 long-term bicycle parking spaces (15% of 558 spaces) will be provided as electric bicycle parking spaces.

### 5.3.2 AQ 2.6 – Publicly Accessible Bicycle Parking

*For all uses within 500m of transit station entrance, provide at least 10 additional publicly accessible, short-term bicycle parking spaces, at-grade on the site or within the public boulevard in addition to bicycle parking required under AQ 2.1.*

The site is located within approximately 190 metres of the Main Street Subway Station and 260 metres of the Danforth GO Station entrance. As such, the provision of 10 publicly accessible short-term bicycle parking spaces will be required.

The required 10 publicly accessible bicycle parking spaces will be provided along the Danforth Avenue frontage, in proximity to the grocery store entrance.

# 6.0 LOADING CONSIDERATIONS

## 6.1 City of Toronto Zoning By-law 569-2013 Requirements

The City of Toronto Zoning By-law 569-2013 specifies loading requirements is outlined in Table 8.

Table 8 Minimum Loading Requirements – Zoning By-law 569-2013

| Use | Units / GFA[1] | Range | Type of Loading Spaces | | | |
|---|---|---|---|---|---|---|
| | | | Type A | Type B | Type C | Type G |
| Residential | 620 units | 400 dwelling units or more | -- | -- | 1 space | 1 space |
| Grocery | 2,258 $m^2$ | 2,000 to 4,999 $m^2$ | 1 space | 1 space | -- | -- |
| Retail[2] | 939 $m^2$ | 500 to 1,999 $m^2$ | -- | 1 space | -- | -- |
| Total | | | 1 space | 2 spaces | 1 space | 1 space |
| **Total After Sharing[3,4]** | | | **1 space** | **1 space** | **1 space** | **1 space** |

Notes:
1. Based on site statistics provided by Superkül Architects, dated November 7th, 2024.
2. For the purposes of calculating shared loading requirement, it is assumed that the site is zoned as a commercial residential zone (i.e. CR Zone).
3. Section 40.10.90.1 (1): "In the CR zone, if a mixed use building has a minimum of 30 dwelling units, the requirement for a Type "A" loading space or a Type "B" loading space is satisfied by the provision of a Type "G" loading space".

Application of the City of Toronto Zoning By-law 569-2013 loading standards to the development programme requires the provision of 1 Type 'A', 1 Type 'B', 1 Type 'C' and 1 Type 'G'.

## 6.2 Proposed Loading Supply

It is proposed to meet the minimum Zoning By-law requirement for loading.

Residential and retail loading facilities (one Type 'C' and one Type 'G' space) are proposed at-grade, accessed off the site driveway. One Type C space will be provided in the western building to support the retail loading and residential moving activities. One Type G space will be provided in the eastern building and is proposed to accommodate waste and refuse pick-up for the entire site as well as retail loading and residential moving activities for the eastern building.

Dedicated loading (one Type 'A' and one Type 'B' space) will be provided to serve the proposed grocery store on site with access off the site driveway.

### 6.2.1 Operations and Manoeuvring

Vehicle Manoeuvring Diagrams (VMDs) have been developed which demonstrate the ability of service and delivery vehicles to manoeuvre within the site when entering / leaving the site in a forward motion. The design vehicles used to assess the proposed loading configuration are as follows:

The design arrangements of the proposed loading area and related access facilities incorporated into the current proposal are appropriate and will meet the functional manoeuvring needs of City of Toronto garbage and recycling collection and other vehicles that may wish to service the site. VMDs are provided in Appendix C and illustrate the turning movements for the design vehicles entering / exiting the proposed loading spaces.

# 7.0 SHORT TERM PARKING CONSIDERATIONS

## 7.1 Overview of Short-Term Parking and Pick-Up / Drop-Off Activities

Short-term parking facilities are spaces designated for temporary use to accommodate activities such as picking up or dropping off a passenger (e.g. Uber, Lyft, taxi, personal drop-off, etc.) or making short-term small-vehicle deliveries (e.g. scheduled couriers, food deliveries, on-demand deliveries, etc.) to a site. The emergence of auto-based shared mobility services (e.g. Uber, Lyft, ridesharing, etc.) and on-demand delivery services (e.g. Uber Eats, Amazon Flex, etc.), particularly in urban contexts, increasingly necessitates the consideration of short-term vehicular activity throughout the site planning and design process.

While not required from a Zoning By-law standpoint, there are functional requirements that guide the need to consider the provision and location of adequate space to accommodate short-term activities associated with a given site. Practically speaking, these activities can be accommodated by a variety of facility types and are in part driven by the following:

- Development size, type, and geographic location.
- Site constraints (space limitations, conflicting development needs).
- Site location within the area transportation network, for example:
    - Adjacency to Arterial, Collector, or Local Roads.
    - Presence of adjacent cycling and pedestrian infrastructure; and
    - Adjacent on-street parking regulations (e.g. parking permitted, no parking, no stopping, no standing, etc.).
- Urban design considerations (pedestrian facilities, landscaping, public realm, etc.).

Each of these factors contribute to the potential facility type(s) and location which may be suitable to accommodate short-term activities on a site, and facilities can vary to maintain compatibility with these factors while continuing to meet the site's functional needs. Examples of potentially suitable short-term vehicle facilities may include, but are not limited to:

- Designated parking spaces
- Turnaround loops
- On- or off-street layby areas
- Designated short-term activity zones
- Informal on-street parking areas (where applicable restrictions permit)
- Small loading spaces

It should be noted that short-term parking and pick-up / drop-off activities are distinct from loading and longer duration service / maintenance / moving activities in that they are conducted using relatively small vehicles (e.g. Type C1 and C2) and occur over short periods of time (typically only a couple of minutes, and not more and 30 minutes). Conversely, loading and service / maintenance activities typically occur with larger vehicles sizes (e.g. Type B and larger), over longer periods of time and are intended to be accommodated within designated spaces on-site (loading spaces). On this basis, short-term parking and pick-up / drop-off activities represent a distinct site-related activity with unique site planning and accommodation considerations relative to loading activities.

## 7.2 Approach

Short-term parking supply needs for the site have been established based on a review of demands at proxy sites, with similar transportation contexts to the proposed development. Accumulation rates (85th percentile, 95th percentile and peak) were derived from the surveys on a per unit basis at a range of buildings with comparable contexts, and have been applied to the proposed site to determine short-term parking needs. Given the similarity of "front-door" activities (e.g., passenger pick-up / drop-off, quick and small food or parcel deliveries, couriers, etc.) at developments across urban areas of the City, the selected proxy sites are considered to be indicative in determining "front-door" demands that can be expected at the site.

## 7.3 Forecasted Short-Term and Pick-up / Drop-off Accumulation

BA Group has undertaken short-term parking studies at several developments with similar transportation contexts to the site. These studies captured short-term pick-up/drop-off and parking activity within designated spaces on-site as well as on adjacent streets (including on-street parking spaces). Recorded activities were considered as short-term if they had an observed interaction with the site (e.g. passenger pick-up / drop-off, delivery, etc.), if the vehicle was small (i.e. Type C and smaller), and if the interaction with the site occurred over a short period of time (i.e. 30 minutes or less).

Summary information related to each proxy site is provided in Table 9.

Table 9 PUDO Proxy Site Survey Information

| Site | Major Intersection | Survey Date | Building Type | Number of Residential Units | PUDO Facility Type |
|---|---|---|---|---|---|
| 15-33 Singer Court | Sheppard Ave E / Leslie St | Thurs. April 20th, 2023 | Condominium | 1,131 units | Designated PUDO Area |
| 161 Roehampton Avenue | Yonge Street / Eglinton Avenue E | Thurs., January 25, 2024<br>Sat., January 27, 2024 | Condominium | 573 units | On-Street |
| 575 & 585 Bloor Street | Bloor St E / Parliament St | Thurs. June 6th, 2024 | Condominium | 772 units | Designated Layby Areas & On-Street Parking |
| 99 Broadway Avenue & 195 Redpath Avenue | Yonge Street / Eglinton Avenue E | Tues., March 28, 2023 | Condominium | 888 units | On-Street, Laneway Parking |
| 39 Roehampton Avenue | Yonge Street / Eglinton Avenue E | Tues., March 28, 2023 | Condominium | 439 units | On-Street, UG Driveway |

Surveys were conducted to derive forecast accumulation rates on a per-unit basis for the site. The forecast accumulation rate was applied to the site to determine the expected 85th percentile, 95th percentile and peak accumulation for the site. Results of the proxy surveys and application of the corresponding 85th percentile 95th percentile and peak accumulation rates to each phase of the proposed development are provided in Table 10.

Table 10 Short-Term Parking and Pick-Up / Drop-Off Accumulation Summary and Forecast

| Location | Number of Residential Units | 85th Percentile Rate | 95th Percentile Rate | Peak Accumulation |
|---|---|---|---|---|
| **Observed Accumulation per Unit** | | | | |
| 15-33 Singer Court | 1,131 unit | 0.004 | 0.005 | 0.007 |
| 575 & 585 Bloor Street | 772 unit | 0.001 | 0.003 | 0.003 |
| 161 Roehampton Avenue | 573 units | 0.0017 | 0.0017 | 0.0052 |
| | | 0.0017 | 0.0035 | 0.0052 |
| 99 Broadway Avenue & 195 Redpath Avenue | 888 units | 0.0011 | 0.0023 | 0.0045 |
| 39 Roehampton Avenue | 439 units | 0.0023 | 0.0046 | 0.0068 |
| **Average Accumulation Rate (Veh. / Unit)** | | 0.002 | 0.003 | 0.005 |
| **Forecast Site Accumulation** | | | | |
| **2451 – 2495 Danforth** | **620 units** | **1** | **2** | **3** |

Application of the average percentile accumulation rates to the proposed developments results in an expected demand of 1, 2 and 3 vehicles at the 85th, 95th and peak accumulation respectively.

## 7.4 Proposed Pick-up / Drop-Off Supply

The intent of the proposed pick-up / drop-off (PUDO) arrangements will facilitate day-to-day activities associated with the residential uses on-site, accommodating a range of "front door" activity in a convenient and reasonable manner while maintaining a strong public realm at-grade.

The PUDO demands of the site will be accommodated on-site via two designated PUDO areas on-site, outlined below:

- Tower A – PUDO activity will be accommodated in two (2) at-grade parking spaces adjacent to the lobby; and
- Tower B – PUDO activity will be accommodated in two (2) at-grade parking spaces adjacent to the lobby;

Based on the foregoing, the proposed on-site short-term parking facilities are considered appropriate to meet the short-term parking and pick-up / drop-off demands associated with the site.

# 8.0 TRANSPORTATION DEMAND MANAGEMENT

## 8.1 Mobility Choice Travel Plan

The Mobility Choice Travel Plan is proposed to guide the provision of viable alternative personal transportation options beyond the single-occupant, private automobile. This Plan intends to support the site by outlining TDM measures and the suite of strategies under consideration to promote the use of more active and sustainable transportation modes, respond to the mobility needs of residents and visitors to the site, and reduce dependence on the private automobile.

Four specific objectives define the policy framework for the Mobility Choice Travel Plan:

- Encourage the use of alternate travel modes (transit, cycling, walking);
- Increase vehicle occupancy;
- Shift travel to off-peak periods; and
- Reduce vehicle kilometres travelled.

A comprehensive framework has been developed that will serve as a guideline for the implementation of effective TDM strategies during the site design stage, as well as in its operations following the full redevelopment of the property.

## 8.2 Organizational Framework

The four broader objectives can be organized within the following categories:

- Facilitation of Reduced Car Ownership and Usage;
- Vehicular Parking Supply and Management;
- Encourage Transit Use;
- Encourage and Facilitate Bicycle Use;
- Enhance Pedestrian Access and Walkability;
- Land Use and Building Infrastructure; and
- Coordination, Communication, and Promotion

## 8.3 Mobility Plan Strategies

While strong opportunities exist in the area's infrastructure to accommodate sustainable transportation practices, the ability to fully leverage these opportunities, ensuring the success of the Mobility Plan strategies is important. To this end, Mobility Plan strategies are presented with targeted "intents" (i.e. what it is trying to achieve and for whom), accompanied by methods of implementation. Potential strategies are then framed in the context of the site and the strategies most appropriate for the application are proposed. A summary of the mobility strategy is outlined below.

Based on the site context and proposed land uses, the following TDM strategies will be explored (as summarized in Table 11).

Table 11 Recommended Site TDM Measures

| TDM Measure | Overview | Impact |
|---|---|---|
| **Cycling Related** | | |
| **Bicycle Parking** | Bicycle parking to meet TGS standards. | Improved cycling convenience. |
| **Bicycle Repair Station** | Bike repair station(s) will be provided within the secure long-term bicycle parking rooms of the underground parking garage. This allows residents of the proposed building to change tires, inflate tires, adjust seat, etc. | Improved cycling convenience. |
| **Bike-Share** | A Bike Share station may be relocated on site, subject to confirmation with Bike Share Toronto. | Accommodates cycling and *last-mile* connection. Allows site residents and visitors access to a bicycle on an infrequent as-needed basis. |
| **Transit-Related** | | |
| **Provision of Transit pass** | Provide pre-loaded Presto cards (1 per unit upon initial occupancy for a duration of one month with access to TTC). | Promotes transit use. |
| **Travel Information Brochures** | Provide a travel information brochure to residents providing an overview of transportation (walk, cycle, car-share, transit) in the area. | Identifies mobility choices in the area. |
| **Pedestrian-Related** | | |
| **Pedestrian connections** | Enhance existing public sidewalks along site frontages as part of development program. | Improved pedestrian safety and connectivity. |
| **Automobile Infrastructure** | | |
| **Unbundling of Parking** | Unbundling of unit and parking space sales will benefit potential tenants who do not need or want a parking space. | Tenants only purchase / rent parking spaces as required. Parking costs are unbundled for purchasers or renters. |
| **EVSE Spaces** | 100% of the resident parking supply will be EV spaces and 25% of commercial parking supply will be EV spaces (consistent with TGS v4). | Reduces greenhouse gas emissions. |
| **Car-Share** | Maintain two existing car-share spaces and relocate them within the garage. | Reduces automobile reliance and ownership. Accommodates automobile-related needs of residents who don't own a car or require a car on an infrequent as-needed basis. |

# 9.0 MULTI-MODAL TRAVEL DEMAND FORECASTING

The site is located within the Danforth and Main area, in proximity to a transportation network that provides significant opportunities for sustainable modes of travel (i.e. transit, walking, and cycling). As part of this study, BA Group has established travel demand forecasts for auto-based and non-auto based trips for the site. Person trip generation for the site was based on a review of trip generation rates observed at existing developments with comparable contexts and characteristics to the proposed development, mode split information is obtained from the Transportation Tomorrow Survey (TTS). Further details are provided in the following sections.

## 9.1 Approach and Baseline Parameters

Travel demand forecasts for the site have been developed to reflect pedestrian, cycling, and transit usage that are reflective of the existing travel characteristics of the area. The site is located adjacent to high order transit services, a site plan that supports active transportation and a mix of uses that are supportive of non-auto based travel to and from the site, particularly during the weekday peak periods of travel.

For the purposes of this analysis, travel demand to and from the site has been developed for the residential use proposed on the site with a person-trip generation methodology by applying person occupancy, modal split, direction of travel, and time of travel assumptions obtained from the 2016 Transportation Tomorrow Survey (TTS) and data collection studies conducted by BA Group. The TTS data is provided in Appendix D**.**

## 9.2 Existing Area Travel Characteristics

The existing residential travel characteristics for the site vicinity were assessed using the 2016 TTS, as summarized in Table 12.

Table 12 Area Residential Mode Share

| Mode | Inbound | Outbound |
|---|---|---|
| Auto Driver | 22% | 29% |
| Auto Passenger | 5% | 3% |
| Rideshare/ Taxi Passenger | 3% | 3% |
| Transit | 52% | 50% |
| Walk | 12% | 9% |
| Cycle | 6% | 6% |
| Total | 100% | 100% |

Notes:
1. Inbound travel mode shares based on afternoon peak period residential inbound trips. Outbound travel mode shares based on morning peak period residential outbound trips.
2. Data shown for 2006 TTS zones 251 and 258.

## 9.3 Site Residential Person Trip Generation

A person trip rate for the site was derived from the proxy sites surveyed below. As detailed above, these proxy sites were selected based on their similar transportation context. A review of the person trip generation rates for the proxy sites, provided as trips per unit, is summarized in Table 13.

Table 13 Site Residential Person Trip Rates

| Proxy Site | Survey Date | Units | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|---|
| | | | In | Out | 2-Way | In | Out | 2-Way |
| 2055 Danforth Avenue | Tues, June 11, 2024 | 147 | 0.10 | 0.36 | 0.46 | 0.4 | 0.23 | 0.63 |
| 575 & 585 Bloor Street East | Thurs, June 6, 2024 | 772 | 0.07 | 0.27 | 0.34 | 0.29 | 0.2 | 0.49 |
| 1638 Bloor Street West | Wed, March 29, 2023 | 108 | 0.15 | 0.34 | 0.49 | 0.26 | 0.25 | 0.52 |
| **Average Trip Rate** | | | **0.11** | **0.32** | **0.43** | **0.32** | **0.23** | **0.55** |
| **Site Residential Person Trips** | | | **70** | **200** | **270** | **200** | **140** | **340** |

Notes:

1. Site statistics provided by Superkül Architects, within architectural plans dated November 7th, 2024.

Application of the adopted site person trip rate to the proposed development will result in **270** and **340** two-way residential trips during the weekday morning and afternoon peak hours, respectively.

## 9.4 Site Residential Trips by Travel Mode

The site residential trips by travel mode are summarized in Table 14 below.

Table 14 Residential Site Trips by Mode

| Parameter | | | | | | |
|---|---|---|---|---|---|---|
| Residential Units | | | 620 units[1] | | | |
| | | | **Peak Hour Travel Characteristics** | | | |
| | | | **Weekday AM Peak** | | **Weekday PM Peak** | |
| | | | *Inbound* | *Outbound* | *Inbound* | *Outbound* |
| Person Trips / Unit | | | 0.11 | 0.32 | 0.32 | 0.23 |
| Person Trips[2] | | | 70 | 200 | 200 | 140 |
| **Trips by Travel Mode** | | | | | | |
| Mode | **Inbound** | **Outbound** | **Weekday AM Peak** | | **Weekday PM Peak** | |
| Auto | 22% | 29% | 15 | 60 | 45 | 40 |
| Auto Passenger | 5% | 3% | 5 | 5 | 10 | 5 |
| Rideshare / Taxi | 3% | 3% | 0 | 5 | 5 | 5 |
| Transit | 52% | 50% | 35 | 100 | 105 | 70 |
| Walk | 12% | 9% | 10 | 20 | 25 | 10 |
| Cycle | 6% | 6% | 5 | 10 | 10 | 10 |
| **Total** | **100%** | **100%** | **70** | **200** | **200** | **140** |
| **Peak Hour Traffic Demand** | | | | | | |
| | | | **AM Peak Hour** | | **PM Peak Hour** | |
| | | | **Trips** | **Rate** | **Trips** | **Rate** |
| | | **Inbound** | **15** | **0.02** | **45** | **0.07** |
| | | **Outbound** | **60** | **0.10** | **40** | **0.06** |
| | | **2-way** | **75** | **0.12** | **85** | **0.13** |

Notes:

1. Site statistics provided by Superkül Architects within architectural plans dated November 7th, 2024.
2. Person trips based on Table 13.

Application of the mode split results in **75** and **85** two-way auto trips during the weekday morning and afternoon peak hours, respectively.

The site is expected to generate **135** and **175** two-way transit trips during the weekday morning and afternoon respectively, **5** and **10** two-way combined trips will be accommodated as PUDO rideshare/taxi trips and **45** and **55** two-way combined walking and cycling trips during the weekday morning and afternoon peak hours, respectively.

## 9.5 Site Grocery Store Trips

The existing grocery store use has been included within the proposed new development with approximately the same GFA. As such, grocery store vehicle trips for the development have been assumed to remain consistent with the existing site vehicle trips. Existing vehicular trips using the Danforth Avenue driveways have been reassigned in the analysis to the proposed site driveway off Westlake Avenue. Existing site vehicle trips are summarized in Table 15 below.

Trips to and from the grocery store made using non-auto modes (walking, cycling and transit) are also assumed to remain the same.

Table 15 Site Grocery Store Vehicular Trips

| | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | In | Out | 2-Way | In | Out | 2-Way |
| Grocery Store Trips | 45 | 40 | 85 | 45 | 55 | 100 |

Notes:

1. Determined from traffic counts conducted by Spectrum Traffic Data Inc. on behalf of BA Group on Thursday, May 16, 2024.

## 9.6 Toronto Green Standards (TGS) Version 4.0 – Reduction in Single-Occupant Vehicle Trips

The site is subject to the 'Mid to High Rise Residential and Non-Residential Version 4' standards as outlined in Toronto Green Standard Version 4.0, which applies to applications submitted on or after May 1, 2022. This standard requires that single-occupancy auto vehicle trips generated by the site be reduced by 25 percent through various multi-modal infrastructure strategies and Transportation Demand Management (TDM) measures.

A number of TDM measures are proposed on-site (as discussed in **Section 7.0**) to further reduce single occupancy vehicle trips and encourage other alternative, non-motorized travel through a number of strategies. Such strategies include, but not limited to, the provision of bicycle parking and repair stations, pedestrian connections, car-share spaces, and strategic proximity to an array of transit services.

A reduction is evident when comparing the vehicular trip generation forecasts for the site (outlined in Table 14) report and those calculated using the ITE Trip Generation Manual 10th Edition, outlined in Table 16.

Table 16 Trip Generation Reduction Summary

| | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | In | Out | 2-Way | In | Out | 2-way |
| ITE Trip Rates (LUC 222 – Multifamily Housing)[1] | 0.02 | 0.20 | 0.22 | 0.13 | 0.06 | 0.19 |
| Number of Trips[2] (620 units) | 10 | 125 | 135 | 80 | 40 | 120 |
| Site Trip Generation per BA Group Rates (**Section 9.4**) | 0.024 | 0.01 | 0.12 | 0.07 | 0.06 | 0.13 |
| Number of Trips[2] (620 units) | 15 | 60 | 75 | 45 | 40 | 85 |
| **Reduction** | -5 | 65 | 60 | 35 | -- | 35 |
| **% Reduction** | -- | -- | **57%** | -- | -- | **35%** |

Notes:
1. ITE Trip Rate is representative of the average peak hour vehicle trip rate for sites within dense multi-use urban centres located close to rail transit.
2. Trips rounded to the nearest 5 vehicles.

As summarized in Table 16, compared to the ITE trip generation rates for a 'multifamily high-rise' land use located within a dense multi-use urban setting, close to rail transit, the site is anticipated to generate ~ 35 - 55% less two-way vehicle trips during the critical weekday peak hours. This reduction, reflects the overall transportation context of the site that encourages non-auto trips

# 10.0 MULTI-MODAL TRAVEL ASSESSMENT

## 10.1 Transit Assessment

This section provides an assessment on the impact of the proposed residential components of the development on local transit.

### 10.1.1 Transit Trip Generation

The site generated transit trips, as determined by the methodology in **Section 9.0**, are summarized in Table 17 below.

Table 17 Site Transit Trips

| | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | In | Out | 2-Way | In | Out | 2-Way |
| Site Transit Trips | 35 | 100 | 135 | 105 | 70 | 175 |

As stated, the site is expected to generate **135** and **175** two-way transit trips during the weekday morning and afternoon, respectively.

### 10.1.2 Transit Trip Distribution

The distribution of transit trips across local routes within proximity to the site has been evaluated using data from the 2016 Transportation Tomorrow Survey (TTS) for destinations and origins of transit-trips made by residents who reside in the site area. Subsequently, these trips have been assigned to routes within the local transit network, as summarized in Table 18.

Table 18 Transit Trip Distribution

| Route | Direction (To/From) | Inbound | Outbound |
|---|---|---|---|
| 135 Gerrard | South | 5% | 0% |
| 91 Woodbine | North | 5% | 5% |
| 64 Main | South | 5% | 0% |
| 506 Carleton | South | 15% | 10% |
| Danforth GO | East | 0% | 0% |
| | West | 5% | 10% |
| Line 2 – Bloor-Danforth | East | 10% | 10% |
| | West | 55% | 65% |
| **Total** | | **100%** | **100%** |

Notes:
1. Inbound travel mode shares based on afternoon peak period residential inbound trips taken by transit. Outbound travel mode shares based on morning peak period residential outbound trips taken by transit.
2. Data shown for 2006 TTS zones 251 and 258.

### 10.1.3 Forecast Site Transit Trips

Site transit riders to and from the site, as generated in **Section 9.4**, have been distributed to transit routes person transit trips summarized in Table 17**.** The number of site-generated trips assigned to local transit routes is summarized in Table 19.

Table 19 Site Transit Trip Volumes

| Route | Direction (To/From) | AM Peak Hour[2] | PM Peak Hour[2] |
|---|---|---|---|
| 92 Woodbine South | South | 0(2) | 0(5) |
| 91 Woodbine | North | 5(2) | 4(5) |
| 64 Main | South | 0(2) | 0(5) |
| 506 Carleton | South | 10(5) | 7(16) |
| Danforth GO | East | 10(5) | 7(16) |
| | West | 0(0) | 0(0) |
| Line 2 – Bloor-Danforth | East | 10(2) | 7(5) |
| | West | 10(4) | 7(11) |
| **Total** | | 100(35) | 70(105) |

Notes:
1. XX(XX) – Boarding (Alighting)
2. Boarding and alighting are not rounded to account for low trip volumes on some route.

From the above, the site is expected to add a maximum of 5 riders to any surface bus route during any peak hour. The majority of transit riders are expected to utilize the Line 2 – Bloor-Danforth subway.

## 10.2 Pedestrian Travel Assessment

Pedestrian trips for the proposed development can be divided into the following two categories:

- Primary Pedestrian Trips – these are pedestrian trips where the primary mode of travel to their destination is walking; and
- Transit-based Pedestrian Trips – these are pedestrian trips where the primary mode of travel to their destination is transit, with walking to and from transit stops or stations.

The total number of pedestrian trips expected to be generated by the proposed development is summarized in Table 20.

Table 20 Total Site Pedestrian Volumes

| | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | In | Out | 2-Way | In | Out | 2-Way |
| Primary Pedestrian Trips | 10 | 20 | 30 | 25 | 10 | 35 |
| Transit-based Pedestrian Trips | 35 | 100 | 135 | 105 | 70 | 175 |
| **Total Pedestrian Trips** | **45** | **120** | **165** | **130** | **80** | **210** |

The proposed development will generate **165** and **210** total two-way pedestrian trips during the weekday morning, and weekday afternoon peak hours, respectively. A majority of these pedestrians will be travelling to Main Station to access bus and subway services, which is a less than 250 metre walk from either of the residential tower lobbies. As described in **Section 9.4**, the street network surrounding the site is made up of continuous and connected sidewalks which make up a well-connected network, providing a high level of area coverage without "gaps" or disconnected links for pedestrian travel.

## 10.3 Cycling Assessment

The cycling trips expected to be generated by the site as determined by the methodology in **Section 9.0** are summarized in Table 21 below.

Table 21 Site Cycling Volumes

| | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | In | Out | 2-Way | In | Out | 2-Way |
| Cycling Trips | 5 | 10 | 15 | 10 | 10 | 20 |

As described in **Section 9.4**, the site is in proximity to several cycling routes that will encourage cycling as a viable mode of travel to and from the site for experienced and non-experienced riders alike. In particular, separated cycling lanes along Danforth Avenue provide cyclists with many destinations and connections to other cycling routes throughout the city.

# 11.0 TRAFFIC VOLUMES

## 11.1 Analysis Scenarios and Horizons

The travel demand forecast and traffic analysis have been completed for the following weekday morning and afternoon peak hour scenarios:

- **Existing Traffic** – volumes on the road network under existing conditions.
- **5-year Future Background Traffic** – volumes in the future prior to build-out of the site which considers area growth.
- **5-year Future Total Traffic** – volumes in the future after build-out of the site, inclusive of area background growth.

## 11.2 Existing Traffic Volumes

Base existing traffic volumes were established for the weekday morning and afternoon hours, the busiest hour of traffic between 7:30 a.m. – 9:30 a.m., and 4:00 p.m. – 6:00 p.m. respectively for intersections within the study area, based upon recent traffic count information collected by Spectrum Traffic Inc. on behalf of BA Group which are summarized in Appendix E.

Traffic count information adopted as the basis for the analysis of operational impacts of the proposed development is summarized in Table 22.

Table 22 Traffic Count Information

| Intersection | Count Date | Source |
|---|---|---|
| Danforth Avenue / Chisholm Avenue | Thursday, May 16th, 2024 | Spectrum Traffic Inc. |
| Danforth Avenue / West Site Access | | |
| Danforth Avenue / East Site Access | | |
| Westlake Avenue / Stephenson Avenue | | |
| Westlake Avenue / Site Access | | |
| Westlake Avenue / Morton Road | | |
| Danforth Avenue / Oak Park Avenue | | |
| Danforth Avenue / Main Street | | |
| Danforth Avenue / Westlake Avenue | | |
| Danforth Avenue / Gledhill Avenue & Patricia Drive | | |

Weekday morning and afternoon peak hour existing traffic volumes are illustrated in Figure 10.

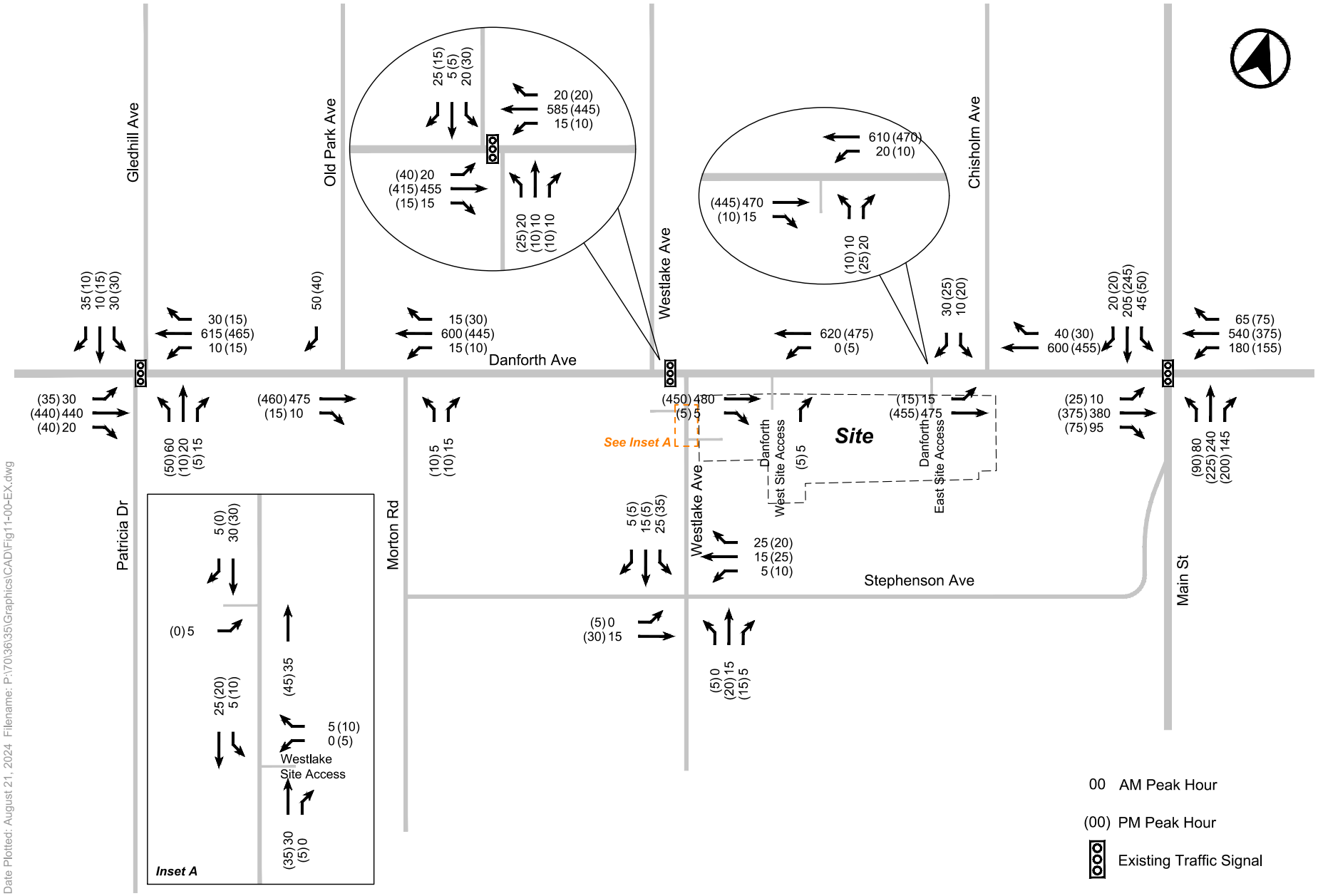



**FIGURE 10 EXISTING TRAFFIC VOLUMES**

## 11.3 Background Traffic Volumes

### 11.3.1 Corridor Growth

Historical traffic counts at the Main Street and Danforth Avenue intersection from 2022 to 2024 were reviewed to determine if there have been any changes in traffic volumes. A review of the trends indicates 0.5% corridor growth on Danforth Avenue during the weekday morning and afternoon peak periods. Corridor growth calculations are attached in Appendix F**.**

### 11.3.2 Background Developments

Traffic volume allowances have been made to account for area background developments that are either proposed, approved, or currently under construction in the area of the Site. A total of 11 development proposals have been considered, which represent in the order of 7,188 residential units and 10,801 $m^2$ of non-residential GFA.

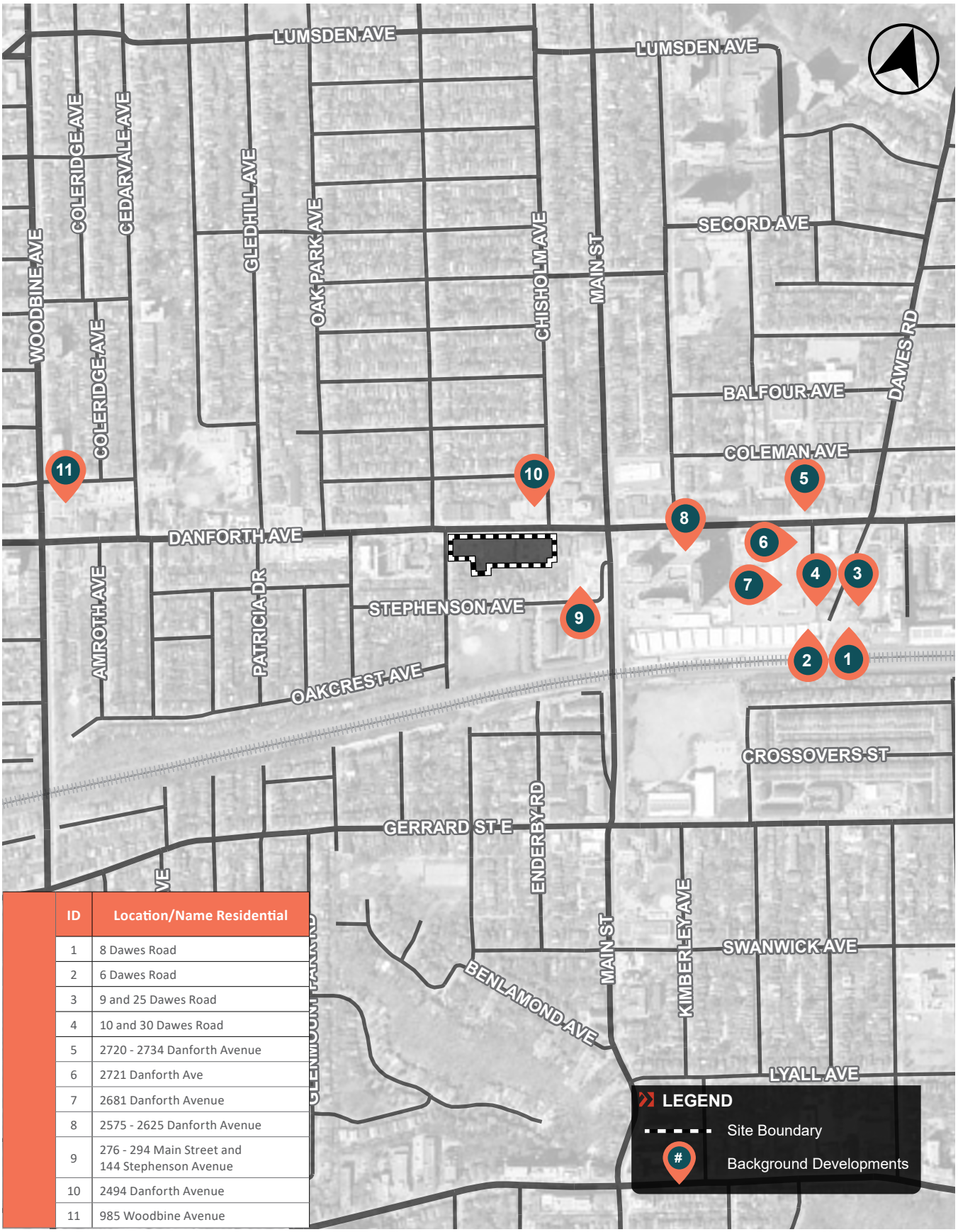
Trip generation rates and traffic distributions for each background development are based on information provided in the respective traffic impact studies (TIS) that have been prepared for each project. Background developments considered in this analysis are summarized in Table 23. Background development locations are shown in Figure 11.

Table 23 Background Developments

| Development | Development Statistics | Source |
|---|---|---|
| 6 Dawes Road | 1,033 res. units | LEA |
| 8 Dawes Road | 399 res. units, 451 $m^2$ non-res GFA | BA Group |
| 9 & 25 Dawes Road | 646 res. units, 1,518 $m^2$ non-res GFA | BA Group |
| 10 - 30 Dawes Road | 636 res. units, 2,686 $m^2$ non-res GFA | BA Group |
| 2494 Danforth Avenue | 146 long-term care beds, 887 $m^2$ non-res GFA | BA Group |
| 2681 Danforth Avenue | 609 res. units | IBI |
| 2720 – 2734 Danforth Avenue | 81 res. units, 256 $m^2$ non-res GFA | LEA |
| 2721 Danforth Avenue | 1,139 res. units, 390 $m^2$ non-res GFA | LEA |
| 2575 - 2625 Danforth Ave | 1,552 res. units, 1094 $m^2$ non-res GFA | BA Group |
| 276 – 294 Main St & 144 Stephenson Avenue | 301 res. units, 1371 $m^2$ non-res GFA | BA Group |
| 985 Woodbine Avenue | 646 res. units, 2,148 $m^2$ non-res GFA | BA Group |

### 11.3.3 Future Background Traffic

Future background traffic volumes representing the sum of existing site traffic volumes, corridor growth and background development traffic volumes are illustrated in Figure 12.




| ID | Location/Name Residential |
|---|---|
| 1 | 8 Dawes Road |
| 2 | 6 Dawes Road |
| 3 | 9 and 25 Dawes Road |
| 4 | 10 and 30 Dawes Road |
| 5 | 2720 - 2734 Danforth Avenue |
| 6 | 2721 Danforth Ave |
| 7 | 2681 Danforth Avenue |
| 8 | 2575 - 2625 Danforth Avenue |
| 9 | 276 - 294 Main Street and 144 Stephenson Avenue |
| 10 | 2494 Danforth Avenue |
| 11 | 985 Woodbine Avenue |

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Aerial maps provided courtesy of: Esri, DigitalGlobe, GeoEye, Earthstar Geographies, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, the GIS User Community and/or Google Earth/Maps.

**FIGURE 11 BACKGROUND AREA DEVELOPMENTS**

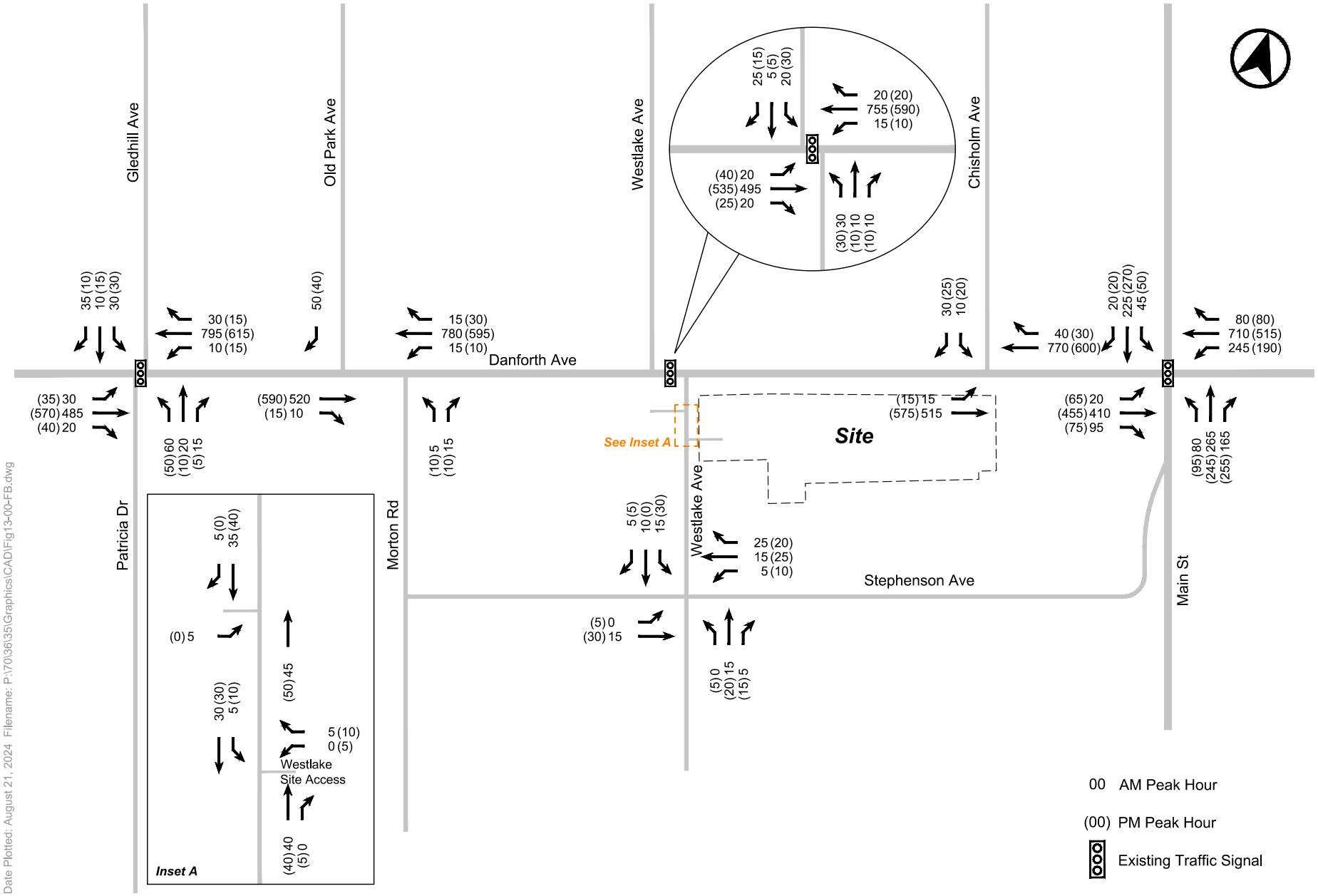


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**FIGURE 12 FUTURE BACKGROUND TRAFFIC VOLUMES**

## 11.4 Site Traffic Volumes

### 11.4.1 Site Traffic Generation

#### 11.4.1.1 RESIDENTIAL TRIP GENERATION

**Private Vehicle Trip Generation**

Residential vehicular trip generation rates for the proposed development are based on the results of the multi-modal forecasting approach described in **Section 9.0**. A review of vehicular trip rates from developments with similar unit counts and similar proximities to subway stations was undertaken to evaluate the appropriateness of results from the multi-modal forecasting approach. Proxy residential trip generation rates are summarized Table 13.

Based on **Section 9.0** and the foregoing, the site traffic generation is summarized in Table 24. Residential site uses are expected to generate **75** and **80** two-way trips in the weekday morning and afternoon peak hours, respectively.

Table 24 Residential Site Traffic Volumes

| | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | In | Out | 2-Way | In | Out | 2-Way |
| Residential Trip Rates (per unit) | 0.024 | 0.10 | 0.12 | 0.07 | 0.06 | 0.13 |
| **Residential Traffic Generation (620 units)** | **15** | **60** | **75** | **45** | **40** | **85** |

#### 11.4.1.2 NON-RESIDENTIAL TRIP GENERATION

As stated in **Section 9.5**, the grocery store vehicle trips are expected to remain the same upon the opening of the new grocery store in the development, which has a similar planned GFA to the existing grocery store. As such, existing vehicular trips using the Danforth Avenue driveways have been reassigned in the analysis to the consolidated site driveway off Westlake Avenue. Figure 13 depicts the redistribution of grocery store site traffic.

### 11.4.2 Total Site Vehicle Trips

A summary of vehicle trips to and from the site is provided in Table 25.

Table 25 Total Site Vehicle Trips

| | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | In | Out | 2-Way | In | Out | 2-Way |
| Residential Vehicle Trips | 15 | 60 | 75 | 45 | 40 | 85 |
| Grocery Store Trips | 45 | 40 | 85 | 45 | 55 | 100 |
| **Total** | **60** | **100** | **160** | **90** | **95** | **185** |

The site will generate **160** and **180** two-way vehicle trips during the weekday morning and afternoon peak hours, respectively. It is noted that the grocery store vehicle trips are existing trips that will remain upon completion of the development. The existing grocery store trips have been retained but are consolidated to the Westlake access. Site Traffic Distribution and Assignment

**Residential Trip Distribution**

Residential site traffic has been assigned onto the area road network based upon a review of information queried from the 2016 Transportation Tomorrow Survey (TTS) for the site vicinity, as summarized in Table 26. Detailed TTS queries and data are attached in Appendix D**.**

Table 26 Site Traffic Distribution

| Route | To / From | Inbound[1] | Outbound[2] |
|---|---|---|---|
| Woodbine Avenue | North | 45% | 45% |
| | South | 20% | 20% |
| Danforth Avenue | East | 15% | 15% |
| | West | 20% | 10% |
| Main Street | South | 0% | 10% |
| **Total** | | **100%** | **100%** |

Notes:
1. Inbound distribution based on afternoon peak period residential inbound trips ending in TTS zones 250 and 251.
2. Outbound distribution based on morning peak period residential outbound trips originating in TTS zones 250 and 251.

Residential site traffic distributed onto the area road network is illustrated in Figure 14. As discussed in **Section 11.4**, future non-residential site traffic is conservatively assumed to remain the same as today.

## 11.5 Future Total Traffic Volumes

Future total traffic volumes, which represent the sum of existing traffic volumes, corridor growth background development traffic, redistributed grocery store traffic and new site traffic volumes are illustrated in Figure 15.

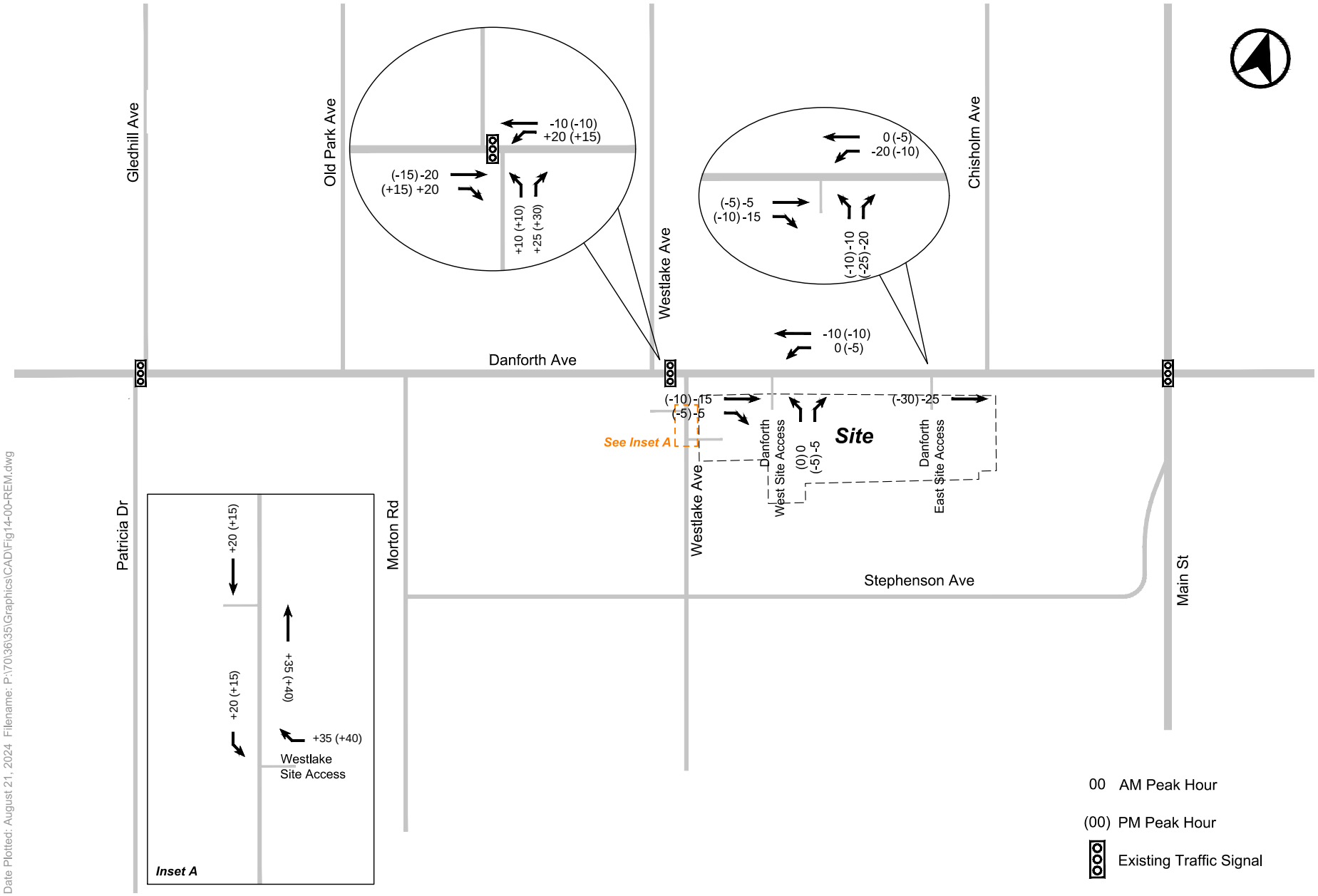


**FIGURE 13 EXISTING SITE TRAFFIC VOLUMES TO BE REDISTRIBUTED TO WESTLAKE SITE ACCESS**

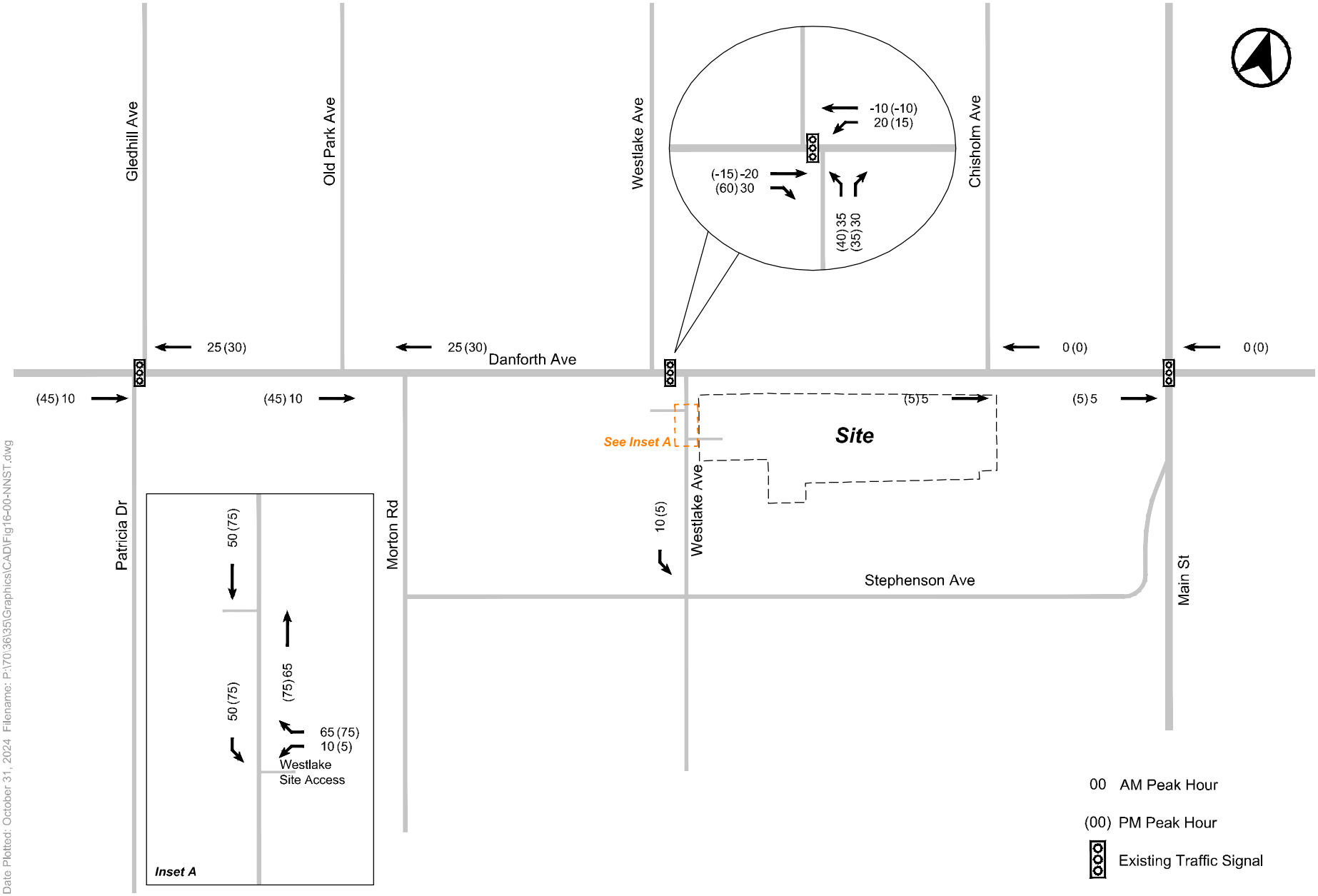


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**FIGURE 14 NET NEW SITE TRAFFIC VOLUMES**

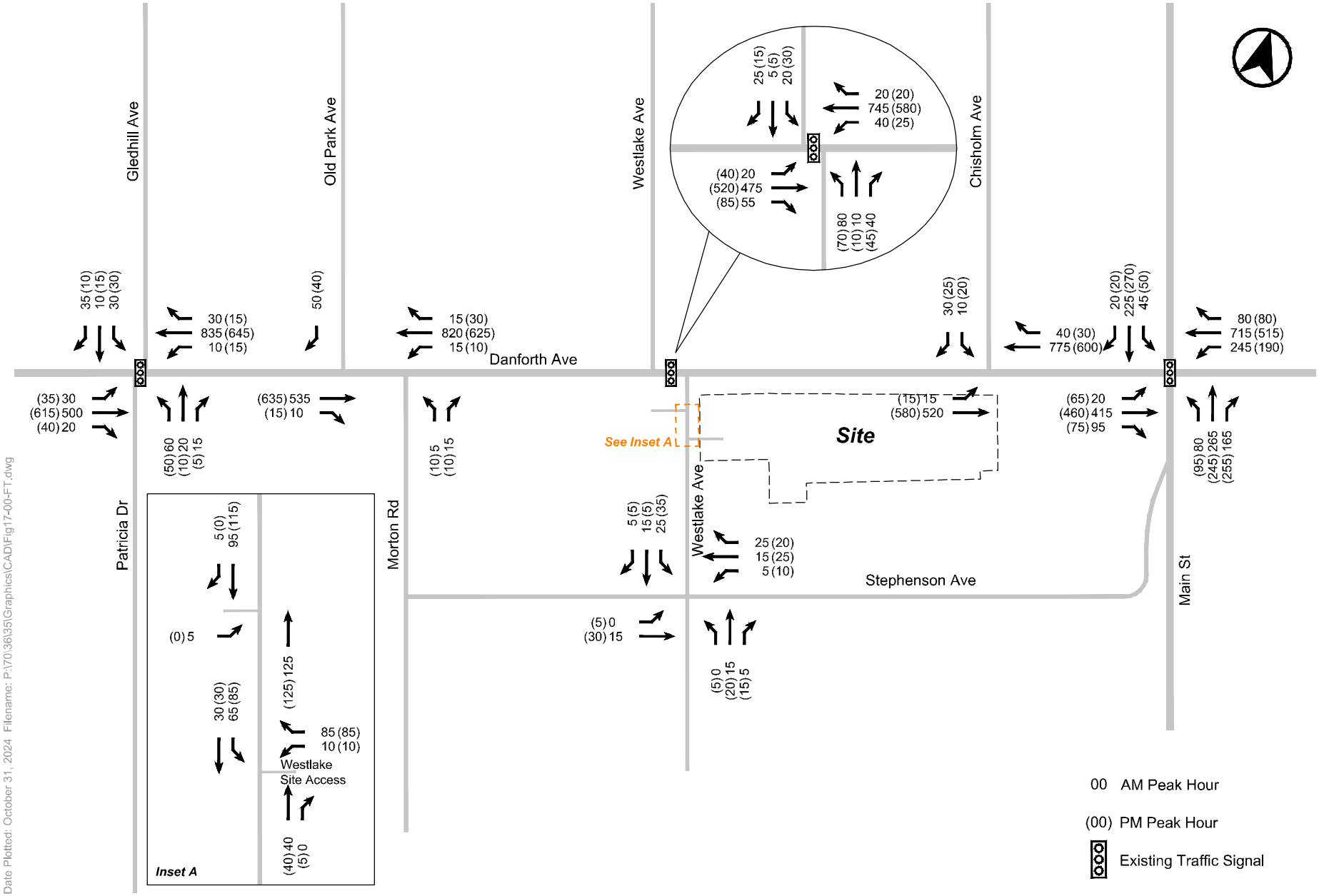


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**FIGURE 15 FUTURE TOTAL TRAFFIC VOLUMES**

# 12.0 TRAFFIC OPERATIONS ANALYSIS

## 12.1 Analysis Methodology

The traffic operations analysis has been undertaken at the area intersections using standard capacity analysis procedures as follows:

### Signalized Intersections:

The analysis undertaken at intersections operating under traffic signal control has been undertaken using the methodologies and procedures outlined in the Highway Capacity Manual (HCM) 2000, and in accordance with the City of Toronto's guidelines for analysis undertaken using Synchro 11.0 software. The product of the signalized intersection evaluation is an intersection performance index (volume to capacity ratio or v/c), where a v/c index of 1.00 indicates 'at or near capacity' conditions.

HCM level of service (LOS) criteria for unsignalized intersections is as follow:

- LOS A: Control Delay ≤ 10s
- LOS B: 10s < Control Delay ≤ 20s
- LOS C: 20s < Control Delay ≤ 35s
- LOS D: 35s < Control Delay ≤ 55s
- LOS E: 55s < Control Delay ≤ 80s
- LOS F: Control Delay > 80s

### Unsignalized Intersections:

The unsignalized intersection analysis was completed using standard capacity procedures for intersections operating under "two-way" and "all-way" stop control and in accordance with the methodologies outlined in the Highway Capacity Manual 2000 (HCM2000).

The product of this analysis is a level of service (LOS) designation, ranging from LOS of A to F; which provides a relative indication of the level of delay experienced by motorists completing a turning manoeuvre at an intersection. LOS A represents conditions under which motorists would experience little delay and LOS F reflects conditions where more extended delays can be expected.

HCM level of service (LOS) criteria for unsignalized intersections is as follows:

- LOS A: Control Delay ≤ 10s
- LOS B: 10s < Control Delay ≤ 15s
- LOS C: 15s < Control Delay ≤ 25s
- LOS D: 25s < Control Delay ≤ 35s
- LOS E: 35s < Control Delay ≤ 50s
- LOS F: Control Delay > 50s

## 12.2 Network-Wide Parameters

Key analysis parameters were assumed based on requirements contained in the City of Toronto's *Guidelines for Using Synchro 11 (Including SimTraffic 11)* (January 2021), summarized as follows:

### Network Assumptions

The existing area road network lane configuration and traffic control are illustrated in Figure 3.

### Lane Widths

In accordance with the City of Toronto's *Guidelines for Using Synchro 11 (Including SimTraffic 11)* (January 2021), through and turning lanes are modelled with lane widths of 3.5 metres and 3.0 metres, respectively.

### Traffic Signal Timings

Existing traffic signal timings, phasing plans and cycle lengths were obtained from the City of Toronto. Existing traffic signal timings were maintained during the analysis of future conditions. Existing traffic signal timings adopted as the basis for the traffic operations analysis are provided in Appendix G.

### Base Saturation Flow Rates

The City of Toronto *Guidelines for Using Synchro 11 (Including SimTraffic 11)* (January 2021), specifies a base saturation flow rate of 1,900 passenger cars per hour of green time per lane (pcphgpl) for signalized and unsignalized intersections. These default rates were adopted in the analysis for the proposed development.

### Heavy Vehicle Assumptions

Heavy and medium truck percentages incorporated into the analysis were based upon information provided as part of intersection turning movement counts.

### Lost Time Adjustments

The City of Toronto *Guidelines for Using Synchro 11 (Including SimTraffic 11)* (January 2021), specify a base lost time adjustment factor of -1.0 seconds (i.e. a total loss time per phase equal to the amber plus all-red time minus 1 second). This default value was adopted in the analysis.

### Peak Hour Factors

The City of Toronto *Guidelines for Using Synchro 11 (Including SimTraffic 11)* (January 2021), specifies that default peak hour factors should be used except where site-specific values can be calculated from existing traffic count information. These guidelines specify that a default peak hour factor of 0.90 should be used for through and turn movements during the weekday morning peak hour; and 0.95 for the through movements and 0.90 for turn movements during the weekday afternoon peak hour.

The City of Toronto default values were used in the analysis of the study intersections under future conditions.

# 13.0 SIGNALIZED INTERSECTION ANALYSIS

Traffic operations analysis results and discussion for the area signalized intersections for the existing, future background and future total conditions are summarized in the following sections. Detailed capacity analysis calculation worksheets for signalized intersections are attached in Appendix H.

## 13.1.1 Danforth Avenue / Main Street

The results of the signalized intersection traffic operations analysis undertaken for the Danforth Avenue / Main Street are summarized in Table 27.

Table 27 Danforth Avenue / Main Street

| Lane Group | Existing | | Future Background | | Future Total | |
|---|---|---|---|---|---|---|
| | V/C | LOS | V/C | LOS | V/C | LOS |
| EBL | 0.04 (0.09) | B (C) | 0.10 (0.24) | B (C) | 0.13 (0.24) | B (C) |
| EBTR | 0.82 (0.76) | D (D) | 0.87 (0.85) | D (D) | 0.88 (0.86) | D (D) |
| WBL | 0.55 (0.50) | B (B) | 0.74 (0.71) | C (C) | 0.74 (0.71) | C (C) |
| WBT | 0.57 (0.41) | B (B) | 0.72 (0.54) | B (B) | 0.72 (0.54) | B (B) |
| WBR | 0.07 (0.08) | A (B) | 0.08 (0.09) | A (B) | 0.08 (0.09) | A (B) |
| NBTLR | 0.61 (0.65) | C (C) | 0.69 (0.76) | C (D) | 0.70 (0.77) | C (D) |
| SBTLR | 0.37 (0.42) | C (C) | 0.43 (0.50) | C (C) | 0.43 (0.50) | C (C) |
| **Overall** | 0.74 (0.70) | C (C) | 0.83 (0.81) | C (C) | 0.83 (0.82) | C (C) |

Note:
1. 00 (00): Weekday morning peak hour (Weekday afternoon peak hour).

Under existing conditions, the intersection operates under acceptable conditions with an overall volume-to-capacity (v/c) ratio of 0.74 during the weekday morning peak hour and 0.70 during the afternoon peak hour.

Under future background conditions, with the addition of background traffic, the intersection will continue to operate under acceptable conditions with overall v/c ratios of 0.83 and 0.81 during the morning and afternoon peak hours, respectively.

Under future total conditions, with the addition of site-related traffic, the intersection will continue to acceptable conditions with overall v/c ratios of 0.83 and 0.82 during the morning and afternoon peak hours, respectively. The addition of site traffic has negligible impacts on the overall intersection operations. All individual movements and the intersection overall continue to operate at acceptable levels of service and within capacity.

### 13.1.2 Danforth Avenue / Westlake Avenue

The results of the signalized intersection traffic operations analysis undertaken for the Danforth Avenue / Westlake Avenue are summarized in Table 28.

Table 28 Danforth Avenue / Westlake Avenue Summary

| Lane Group | Existing | | Future Background | | Future Total | |
|---|---|---|---|---|---|---|
| | V/C | LOS | V/C | LOS | V/C | LOS |
| EBL | 0.05 (0.08) | A (A) | 0.07 (0.09) | A (A) | 0.09 (0.11) | B (A) |
| EBTR | 0.40 (0.35) | B (A) | 0.44 (0.45) | B (A) | 0.53 (0.59) | B (B) |
| WBL | 0.03 (0.02) | A (A) | 0.04 (0.02) | A (A) | 0.10 (0.07) | B (B) |
| WBT | 0.48 (0.35) | B (A) | 0.63 (0.46) | A (B) | 0.71 (0.52) | B (B) |
| WBR | 0.03 (0.03) | A (A) | 0.03 (0.03) | A (A) | 0.03 (0.03) | B (B) |
| NBTLR | 0.18 (0.21) | D (D) | 0.25 (0.24) | D (D) | 0.43 (0.36) | C (C) |
| SBTLR | 0.16 (0.24) | C (D) | 0.17 (0.24) | C (D) | 0.11 (0.15) | C (C) |
| Overall | 0.44 (0.33) | B (A) | 0.57 (0.43) | B (B) | 0.63 (0.53) | B (B) |

Note:
1. 00 (00): Weekday morning peak hour (Weekday afternoon peak hour).

Under existing conditions, the intersection operates under acceptable conditions with an overall volume-to-capacity (v/c) ratio of 0.44 during the weekday morning peak hour and 0.33 during the afternoon peak hour.

Under future background conditions, with the addition of background traffic, the intersection will continue to operate acceptable conditions with overall v/c ratios of 0.57 and 0.43 during the morning and afternoon peak hours, respectively.

Under future total conditions, with the addition of site-related traffic, the intersection will continue to operate under acceptable conditions with overall v/c ratios of 0.63 and 0.53 during the morning and afternoon peak hours, respectively. The addition of site traffic has modest impacts on the overall intersection operations. All individual movements and the intersection overall continue to operate at acceptable levels of service and within capacity.

Modest improvements in the SBTLR v/c ratio occur in the future total scenario as compared to the future background scenario. Under the future background scenario, the north-south volumes are sufficiently low such that the signal is not actuated at the 10th and 30th percentiles. Under the future total scenario, site traffic adds additional northbound volumes which actuate the north-south phases of the signal at the 10th and 30th percentile. Actuated signal results for Danforth Avenue and Westlake Avenue are included in **Appendix H**.

### 13.1.3 Danforth Avenue / Gledhill Avenue / Patricia Drive

The results of the signalized intersection traffic operations analysis undertaken for the Danforth Avenue / Gledhill Avenue / Patricia Drive are summarized in Table 29.

Table 29 Danforth Avenue / Gledhill Avenue / Patricia Drive

| Lane Group | Existing | | Future Background | | Future Total | |
|---|---|---|---|---|---|---|
| | V/C | LOS | V/C | LOS | V/C | LOS |
| EBL | 0.09 (0.08) | A (A) | 0.11 (0.09) | A (A) | 0.12 (0.09) | A (A) |
| EBTR | 0.45 (0.42) | A (A) | 0.49 (0.54) | A (B) | 0.51 (0.58) | A (B) |
| WBL | 0.03 (0.03) | A (B) | 0.03 (0.04) | A (B) | 0.03 (0.04) | A (A) |
| WBTR | 0.32 (0.22) | A (B) | 0.41 (0.29) | A (B) | 0.43 (0.30) | A (B) |
| NBTLR | 0.38 (0.25) | C (C) | 0.38 (0.25) | C (C) | 0.38 (0.25) | C (C) |
| SBTLR | 0.21 (0.18) | C (C) | 0.21 (0.18) | C (C) | 0.22 (0.18) | C (C) |
| **Overall** | 0.43 (0.38) | A (B) | 0.47 (0.47) | A (B) | 0.48 (0.50) | A (B) |

Note:
1. 00 (00): Weekday morning peak hour (Weekday afternoon peak hour).

Under existing conditions, the intersection operates under acceptable conditions with an overall volume-to-capacity (v/c) ratio of 0.43 during the weekday morning peak hour and 0.38 during the afternoon peak hour.

Under future background conditions, with the addition of background traffic, the intersection will continue to operate under acceptable conditions with overall v/c ratios of 0.47 during the morning and afternoon peak hours, respectively.

Under future total conditions, with the addition of site-related traffic, the intersection will continue to operate acceptable conditions with overall v/c ratios of 0.48 and 0.50 during the morning and afternoon peak hours, respectively.

## 13.2 UNSIGNALIZED INTERSECTION ANALYSIS

Unsignalized intersection operations were analyzed under existing, future background and future total traffic conditions for both the morning and afternoon peak hours. Detailed Synchro analysis sheets are attached in Appendix H.

### 13.2.1 Danforth Avenue / Chisholm Avenue

The intersection of Danforth Avenue / Chisholm Avenue operates with stop control on Chisholm Avenue and free flow on Danforth Avenue. The intersection of Danforth Avenue / Chisholm Avenue is expected to operate acceptably (range of LOS A to LOS C), under the future total scenario. The results of the traffic operations analysis are summarized in Table 30.

Table 30 Danforth Avenue / Chisholm Analysis Summary

| Lane Group | Existing | | Future Background | | Future Total | |
|---|---|---|---|---|---|---|
| | Delay (s) | LOS | Delay (s) | LOS | Delay (s) | LOS |
| EBTL | 0.6 (0.6) | A (A) | 0.8 (0.7) | A (A) | 0.8 (0.7) | A (A) |
| WBT | 0.0 (0.0) | A (A) | 0.0 (0.0) | A (A) | 0.0 (0.0) | A (A) |
| WBR | 0.0 (0.0) | A (A) | 0.0 (0.0) | A (A) | 0.0 (0.0) | A (A) |
| SBLR | 19.0 (20.9) | C (C) | 25.7 (27.1) | D (D) | 23.8 (24.0) | C (C) |

Note:
1. 00 (00): Weekday morning peak hour (Weekday afternoon peak hour).

### 13.2.2 Westlake Avenue / Westlake Site Access

The intersection of Westlake Avenue / Westlake Site Access operates with stop control on the Site access and free flow on Westlake Avenue. The intersection of Westlake Avenue / Westlake Site Access is expected to operate acceptably (range of LOS A), under the future total scenario. The results of the traffic operations analysis are summarized in Table 31.

Table 31 Westlake Avenue / Westlake Site Access Analysis Summary

| Lane Group | Existing | | Future Background | | Future Total | |
|---|---|---|---|---|---|---|
| | Delay (s) | LOS | Delay (s) | LOS | Delay (s) | LOS |
| WBLR | 8.6 (9.0) | A (A) | 8.7 (9.1) | A (A) | 9.3 (9.5) | A (A) |
| NBTR | 0.0 (0.0) | A (A) | 0.0 (0.0) | A (A) | 0.0 (0.0) | A (A) |
| SBTL | 1.2 (2.5) | A (A) | 1.0 (1.9) | A (A) | 5.2 (5.7) | A (A) |

Note:
1. 00 (00): Weekday morning peak hour (Weekday afternoon peak hour).

### 13.2.3 Westlake Avenue / Stephenson Avenue

The intersection of Westlake Avenue / Stephenson Avenue operates as an all-way stop control. The intersection of Westlake Avenue / Stephenson Avenue is expected to operate acceptably (range of LOS A), under the future total scenario. The results of the traffic operations analysis are summarized in Table 32.

Table 32 Westlake Avenue / Stephenson Avenue Analysis Summary

| Lane Group | Existing | | Future Background | | Future Total | |
|---|---|---|---|---|---|---|
| | Delay (s) | LOS | Delay (s) | LOS | Delay (s) | LOS |
| EBTLR | 7.1 (7.3) | A (A) | 7.1 (7.3) | A (A) | 7.2 (7.4) | A (A) |
| WBTLR | 7.0 (7.2) | A (A) | 7.0 (7.2) | A (A) | 7.0 (7.2) | A (A) |
| NBTLR | 7.1 (7.1) | A (A) | 7.1 (7.1) | A (A) | 7.2 (7.1) | A (A) |
| SBTLR | 7.3 (7.3) | A (A) | 7.4 (7.4) | A (A) | 7.5 (7.5) | A (A) |

Note:
1. 00 (00): Weekday morning peak hour (Weekday afternoon peak hour).

### 13.2.4 Morton Road / Danforth Avenue / Oak Park Avenue

The intersection of Morton Road / Danforth Avenue / Oak Park Avenue operates with stop control on Oak Park Avenue and Morton Road and free flow on Danforth Avenue. The intersection of Morton Road / Danforth Avenue / Oak Park Avenue is expected to operate acceptably (range of LOS A to LOS D), under the future total scenario. The results of the traffic operations analysis are summarized in Table 33.

Table 33 Morton Road / Danforth Avenue / Oak Park Avenue Analysis Summary

| Lane Group | Existing | | Future Background | | Future Total | |
|---|---|---|---|---|---|---|
| | Delay (s) | LOS | Delay (s) | LOS | Delay (s) | LOS |
| EBTLR | 0.0 (0.0) | A (A) | 0.0 (0.0) | A (A) | 0.0 (0.0) | A (A) |
| WBTLR | 0.5 (0.4) | A (A) | 0.6 (0.4) | A (A) | 0.6 (0.5) | A (A) |
| NBLR | 17.4 (20.7) | C (C) | 20.9 (25.8) | C (D) | 22.5 (26.3) | C (D) |
| SBLR | 0.0 (0.0) | A (A) | 0.0 (0.0) | A (A) | 0.0 (0.0) | A (A) |

Note:
1. 00 (00): Weekday morning peak hour (Weekday afternoon peak hour).

# 14.0 SUMMARY AND CONCLUSIONS

BA Group has been retained by First Capital to provide transportation consulting services in relation to a concurrent Official Plan Amendment (OPA) and Zoning By-law Amendment (ZBA) being made to the City of Toronto for a proposed redevelopment of the site municipally known as 2451 – 2495 Danforth Avenue. The site is located on the southeast corner of the Danforth Avenue and Westlake Avenue intersection, approximately 100 metres west of the intersection of Danforth Avenue and Main Street.

The site is currently occupied by a grocery store that fronts onto Danforth Avenue abutted by surface parking lots on the east and west sides. The site currently has three driveway access, two connecting to Danforth Avenue and one connecting to Westlake Avenue. The mixed-use development proposal includes 620 residential units and 3,197 $m^2$ GFA of non-residential. The non-residential component includes 2,258 $m^2$ GFA grocery store and 939 $m^2$ GFA of at-grade retail spaces.

It is proposed to maintain the general location of the existing site driveway on Westlake Avenue which will provide access to the underground parking, pick-up/drop-off spaces and loading facilities. A primary pedestrian access to the east residential building is provided from Danforth Avenue and a primary pedestrian access to the west residential building is provided from Westlake Avenue.

**Site Context**

1. The site consists of a rectangular shaped plot of land in the southeast quadrant of the Danforth Avenue and Westlake Avenue intersection. It is bounded by Danforth Avenue to the north, existing low-rise commercial developments to the east, existing 2-storey residential homes to the south, and Westlake Avenue to the west. The site currently consists of a grocery store (Sobeys) and its associated parking lot to the east and west.

2. Vehicular access to the site is currently provided via 3 driveways and include:
   - An east-west driveway on the site's western property boundary, connecting to Westlake Avenue; and
   - two north-south driveway accesses along the northern property boundary connecting to Danforth Avenue.

**Transportation Context**

3. The site is well served by existing and planned transit, including several Toronto Transit Commission (TTC) and GO Transit services made available at Main Street Station and Danforth GO Station.

4. Notably, the site is located approximately 260 metres northwest of Danforth GO Station with access to the GO Transit Lakeshore East line. Additionally, the site is located 190 metres west of the Main Street Station and 650 metres of the Woodbine Station, currently served by the TTC Line 2 Bloor-Danforth subway, and several bus routes that utilize the stations' bus terminals.

5. While the existing level of transit accessibility afforded to the site today provides convenient connectivity across the City of Toronto, planned investments in public transit services will further improve the transit options for future residents and visitors of the site and surrounding area.

6. The level of transit service afforded to the site and surrounding area given the extent of existing and planned transit service operating from Main Street Subway Station and Danforth GO Station, will provide significant levels of convenient transit access across the City of Toronto and are strongly supportive of the proposed development.

7. Raised cycle tracks are proposed to replace the existing bike lane along the Danforth Avenue site frontage. Given site constraints, it was agreed to provide a 1.8m wide cycle track with a 0.9 metre buffer to the north (separation from traffic) and 0.3 metre buffer to the south. No changes are proposed to the eastbound travel lane.

**Vehicle Parking Considerations**

8. Application of the City of Toronto Zoning By-law 569-2013 'Parking Zone A', parking standards, results in a minimum requirement of 7 residential visitor parking spaces, with a zero resident and retail minimum parking requirement, and a maximum total allowance of 530 parking spaces (367 resident and 163 non-resident parking spaces).

9. Vehicular parking will be provided within a two-level below-grade parking garage. A total of 278 parking spaces are proposed across the P1 and P2 level. The 86 retail spaces and visitor spaces will be located on the P1 level along with 2 car-share spaces. The remaining 190 resident parking spaces will be located across the P1 and P2 level. The proposed parking supply includes 13 accessible parking spaces located adjacent to elevator cores.

10. The proposed total parking supply of 278 spaces (190 resident, 88 retail / visitor spaces and 2 car-share spaces) are within the parking minimum and maximum rates as prescribed by Zoning By-law 569-2013.

11. The proposed parking supply includes 13 accessible parking spaces located in close proximity to elevator cores and meets the accessible parking requirements set out by Zoning By-law 569-2013.

12. Two car-share spaces will be maintained on site and relocated to the parking garage on the P1 level in a preferable location in close vicinity to garage accesses.

**Bicycle Parking Considerations**

13. Application of Zoning By-law 569-2013 (as amended by 839-2022) standards to the current proposal would require the provision of a minimum of 710 bicycle parking spaces (including 136 short-term and 564 long-term spaces).

14. A total of 714 bicycle parking spaces are provided within the P1 level. The total bicycle parking supply includes 568 long-term parking spaces and 136 short-term parking spaces.

15. As per Toronto Green Standards Version 4, an additional 10 publicly accessible short-term bicycle spaces will be provided.

16. It is also proposed to relocate the existing Toronto Bike Share spaces (located on the west side of the site) along the Danforth Avenue frontage, in proximity to the grocery store entrance.

**Loading and Access Considerations**

17. Application of the City of Toronto Zoning By-law 569-2013 loading standards to the development programme requires the provision of 1 Type A, 1 Type B, 1 Type C and 1 Type G.

18. Residential and retail loading facilities (one Type 'C' and one Type 'G' space) are proposed at-grade, accessed off the site driveway. One Type C space will be provided in the western building to support the retail loading and residential moving activities. One Type G space will be provided in the eastern building and is proposed to accommodate waste and refuse pick-up for the entire site as well as retail loading and residential moving activities for the eastern building.

19. Dedicated loading (one Type 'A' and one Type 'B' space) will be provided to serve the proposed grocery store on site with access off the site driveway.

**Short-Term Parking**

20. The PUDO demands of the site will be accommodated on-site via two designated PUDO areas, outlined below:

    - Tower A – PUDO activity will be accommodated in 2 at-grade parking spaces adjacent to the lobby; and
    - Tower B – PUDO activity will be accommodated in 2 at-grade parking spaces adjacent to the lobby;

21. Forecast short-term parking accumulation rates for the proposed development ranged from 1-3 vehicles (representing the 85$^{th}$ to peak accumulation). The proposed on-site short-term parking facilities are considered appropriate to meet the short-term parking and pick-up/drop-off demands associated with the site. w

**Transportation Demand Management (TDM)**

22. A TDM strategy has been developed to encourages the use of alternative travel modes (transit, cycling and walking) beyond the single-occupant, private automobile.

23. TDM measures proposed as part of the development include, but are not limited to:

    - Maintain an on-site bike share station;
    - Provision of transit pass loaded with the equivalent of one month's access to the TTC;
    - Provision of pick-up / drop-off spaces;
    - Relocation of two existing car-share spaces within the garage;
    - Provision of bicycle parking adhering to the zoning by-law requirements and TGS V4.0; and
    - Enhance pedestrian realm along the Danforth Avenue and Westlake Avenue site frontages.

**Multimodal Travel Demand**

24. Application of the adopted site person trip rate to the proposed development will result in **270** and **340** two-way resident trips during the weekday morning and afternoon peak hours, respectively.

25. Application of the selected mode split to the site generated person residential trips results in **75** and **85** two-way auto trips during the weekday morning and afternoon peak hours, respectively.

26. The site is expected to generate **135** and **175** two-way transit trips during the weekday morning and afternoon, respectively, **5** and **10** two-way combined trips will be accommodated as PUDO taxi trips and **45** and **55** two-way combined walking and cycling trips during the weekday morning and afternoon peak hours, respectively.

**Vehicular Traffic Assessment**

27. Traffic allowances were made for other specific proposed developments in the area based on a review of the City of Toronto's list of current development Projects as of September 2024, a total of 11 background sites are considered.

28. These sites represent a background development total in the order of 7,188 residential units and 10,801 m$^2$ of non-residential GFA.

29. Historical weekday traffic volume counts at the Main Street and Danforth Avenue intersection from 2022 to 2024 were reviewed to determine if there have been any changes in traffic Danforth Avenue within the study area.

30. An annual corridor growth rate of 0.5% along the Danforth Avenue corridor is considered during both the AM and PM peak hours.

31. The existing grocery store generates 85 and 100 two-way trips during the AM and PM peak hour respectively. The proposed future grocery store is approximately the same GFA as the existing and therefore, future grocery store trips remain consistent with the existing conditions.

32. Given the proposed consolidation of the site accesses to Westlake Avenue, the existing two-way site traffic utilizing the Danforth Avenue accesses have been redistributed to the Westlake Avenue access.

**Traffic Operations Analysis**

**Danforth Avenue / Main Street**

33. Under existing conditions, the intersection operates under acceptable conditions with an overall volume-to-capacity (v/c) ratio of 0.74 during the weekday morning peak hour and 0.70 during the afternoon peak hour.

34. Under future background conditions, with the addition of background traffic, the intersection will continue to operate under acceptable conditions with overall v/c ratios of 0.83 and 0.81 during the morning and afternoon peak hours, respectively.

35. Under future total conditions, with the addition of site-related traffic, the intersection will continue to acceptable conditions with overall v/c ratios of 0.83 and 0.82 during the morning and afternoon peak hours, respectively.

**Danforth Avenue / Westlake Avenue**

36. Under existing conditions, the intersection operates under acceptable conditions with an overall volume-to-capacity (v/c) ratio of 0.44 during the weekday morning peak hour and 0.33 during the afternoon peak hour.

37. Under future background conditions, with the addition of background traffic, the intersection will continue to operate acceptable conditions with overall v/c ratios of 0.57 and 0.43 during the morning and afternoon peak hours, respectively.

38. Under future total conditions, with the addition of site-related traffic, the intersection will continue to operate under acceptable conditions with overall v/c ratios of 0.63 and 0.53 during the morning and afternoon peak hours, respectively.

**Danforth Avenue / Gledhill / Patricia Drive**

39. Under existing conditions, the intersection operates under acceptable conditions with an overall volume-to-capacity (v/c) ratio of 0.43 during the weekday morning peak hour and 0.38 during the afternoon peak hour.

40. Under future background conditions, with the addition of background traffic, the intersection will continue to operate under acceptable conditions with overall v/c ratios of 0.47 during the morning and afternoon peak hours, respectively.

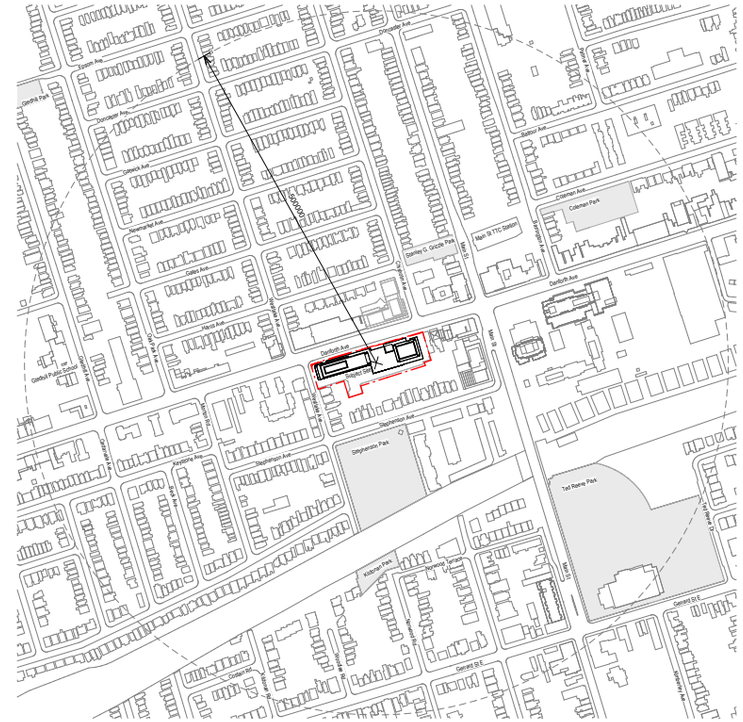
41. Under future total conditions, with the addition of site-related traffic, the intersection will continue to operate acceptable conditions with overall v/c ratios of 0.48 and 0.50 during the morning and afternoon peak hours, respectively.

42. All movements for the unsignalized intersections operate with acceptable delays during the weekday morning and afternoon hours in all scenarios. Site traffic has a minimal impact on the delays experienced at the unsignalized intersections within the study area.

**The proposed development is appropriate from a transportation perspective and can be reasonably accommodated on the area transportation network.**

# Appendix A:
# Reduced Architectural Plans

# 2451-2495 Danforth




1 Context Plan
1 : 4000

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| DRAWING NUMBER | DRAWING TITLE | 241028 - ISSUED FOR OPA and ZBA |
|---|---|---|
| A.000 | COVER SHEET | ✓ |
| A.001 | PROJECT STATISTICS | ✓ |
| A.002 | PERSPECTIVE VIEWS | ✓ |
| A.003 | GFA DIAGRAMS PER ZBL 569-2013 | ✓ |
| A.004 | GFA DIAGRAMS PER ZBL 569-2013 | ✓ |
| A.005 | GFA DIAGRAMS PER ZBL 569-2013 | ✓ |
| A.006 | SETBACK DIAGRAM | ✓ |
| A.100 | SITE PLAN | ✓ |
| A.101 | FLOOR PLAN - P2 | ✓ |
| A.102 | FLOOR PLAN - P1 | ✓ |
| A.103 | FLOOR PLAN - GROUND FLOOR | ✓ |
| A.104 | FLOOR PLAN - LEVEL 02 | ✓ |
| A.105 | FLOOR PLAN - LEVEL 03 | ✓ |
| A.106 | FLOOR PLAN - LEVEL 04 | ✓ |
| A.107 | FLOOR PLAN - LEVEL 05-08 | ✓ |
| A.108 | FLOOR PLAN - LEVEL 09-10 | ✓ |
| A.109 | FLOOR PLAN - LEVEL 11-13 | ✓ |
| A.110 | FLOOR PLAN - LEVEL 14-35 | ✓ |
| A.111 | ROOF PLAN | ✓ |
| A.201 | NORTH ELEVATION | ✓ |
| A.202 | EAST & WEST ELEVATIONS | ✓ |
| A.203 | SOUTH ELEVATION | ✓ |
| A.301 | BUILDING SECTION | ✓ |
| A.302 | BUILDING SECTION | ✓ |

**ISSUED FOR OPA AND ZBA - OCTOBER 28, 2024**



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| No. | Date | Issue/Revision |
|---|---|---|
| 1 | OCT 28, 2024 | Issued for OPA and ZBA |

ONTARIO ASSOCIATION of ARCHITECTS
ANDRE D'ELIA
LICENCE
5625

2451-2495 Danforth
2451-2495 Danforth Avenue, Toronto, ON M6R 2J5

Title:
COVER SHEET

Project No. 2216 | Scale 1 : 4000

Drawing No.
**A.000**

2024-11-07 8:10:00 PM

TORONTO

Statistics Template – Toronto Green Standard Version 4.0

# City Agency, Corporation & Division-Owned Facilities

The Toronto Green Standard Version 4.0 Statistics Template is submitted with Site Plan Control Applications and stand-alone Zoning Bylaw Amendment applications. Complete the table and copy it directly onto the Site Plan submitted as part of the application.

For Zoning Bylaw Amendment applications: complete General Project Description and Section 1.
For Site Plan Control applications: complete General Project Description, Section 1 and Section 2.
For further information, please visit www.toronto.ca/greendevelopment

| General Project Description | Proposed | |
|---|---|---|
| Total Gross Floor Area | 41251.7 m² | 444029.5 ft² |
| Breakdown of project components (m²): | | |
| Retail **GROCERY GFA:** | 2258.1 m² | 24306.3 ft² |
| Commercial **TOTAL RETAIL GFA:** | 939.2 m² | 10109.6 ft² (EXCLUDING GROCERY) |
| Industrial | | |
| Institutional/Other | | |
| Total number of residential units | 620 | |

**Section 1: For Stand Alone Zoning Bylaw Amendment Applications and Site Plan Control Applications**

| Low Emissions Transportation | Required | Proposed | Proposed % |
|---|---|---|---|
| Number of Parking Spaces | 7 | 278 | >100% |
| Number of EV Parking Spaces (Residential) | 190 | 190 | 100% |
| Number of EV Parking Spaces (Non - Residential) | 22 | 22 | 100% |

| Cycling Infrastructure | Required | Proposed | Proposed % |
|---|---|---|---|
| Number of long-term bicycle parking spaces (all-uses) | 564 | 568 | >100% |
| Number of long-term bicycle parking located on: | | | |
| a) first storey of building | | | |
| b) second storey of building | | | |
| c) first level below-ground | | 568 | 100% |
| d) second level below-ground | | | |
| e) other levels below-ground | | | |
| Number of short-term bicycle parking spaces | 146 | 146 | 100% |
| Number of shower and change facilities | N/A | N/A | |

3-1-1 Toronto at your service



TORONTO

Statistics Template – Toronto Green Standard Version 4.0

City Agency, Corporation & Division-Owned Facilities

| Tree Canopy | Required | Proposed | Proposed % |
|---|---|---|---|
| Total Soil Volume (40% of the site area ÷ 66 m² x 30 m³) | 1374 m3 | 1156 m3 | 84% |
| Soil volume provided within the site area (m³) | | 644 m3 | |
| Soil Volume provided within the public boulevard (m³) | | 512 m3 | |

## GCA AND GFA BREAKDOWN

| ABOVE GROUND | GROSS CONSTRUCTION AREA | | ZBL 569-2013 EXCLUSIONS | | CITY WIDE BY-LAW 569-2013 GROSS FLOOR AREA | |
|---|---|---|---|---|---|---|
| Level | GCA, m2 | GCA, sf | GFA Exclusion, m2 | GFA Exclusion, sf | GFA, m2 | GFA, sf |
| Ground Floor | 3987.9 m² | 42925.9 ft² | 518.1 m² | 5577.2 ft² | 3469.8 m² | 37348.6 ft² |
| Level02 | 1476.8 m² | 15895.7 ft² | 145.0 m² | 1560.6 ft² | 1331.8 m² | 14335.1 ft² |
| Level03 | 2425.8 m² | 26110.8 ft² | 1580.2 m² | 17009.2 ft² | 845.6 m² | 9101.6 ft² |
| Level04 | 2245.3 m² | 24168.1 ft² | 147.3 m² | 1585.3 ft² | 2098.0 m² | 22582.8 ft² |
| Level05 | 2193.6 m² | 23612.2 ft² | 142.2 m² | 1530.4 ft² | 2051.5 m² | 22081.8 ft² |
| Level06 | 2193.6 m² | 23612.2 ft² | 142.2 m² | 1530.4 ft² | 2051.5 m² | 22081.8 ft² |
| Level07 | 2193.6 m² | 23612.2 ft² | 142.2 m² | 1530.4 ft² | 2051.5 m² | 22081.8 ft² |
| Level08 | 2193.6 m² | 23612.2 ft² | 142.2 m² | 1530.4 ft² | 2051.5 m² | 22081.8 ft² |
| Level09 | 2193.6 m² | 23612.2 ft² | 142.2 m² | 1530.4 ft² | 2051.5 m² | 22081.8 ft² |
| Level10 | 2193.6 m² | 23612.2 ft² | 142.2 m² | 1530.4 ft² | 2051.5 m² | 22081.8 ft² |
| Level11 | 1984.1 m² | 21356.9 ft² | 142.2 m² | 1531.0 ft² | 1841.9 m² | 19825.9 ft² |
| Level12 | 1984.1 m² | 21356.9 ft² | 142.2 m² | 1531.0 ft² | 1841.9 m² | 19825.9 ft² |
| Level13 | 1984.1 m² | 21356.9 ft² | 142.2 m² | 1531.0 ft² | 1841.9 m² | 19825.9 ft² |
| Level14/MPH | 1086.9 m² | 11699.1 ft² | 368.1 m² | 3962.3 ft² | 718.8 m² | 7736.8 ft² |
| Level15 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level16 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level17 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level18 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level19 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level20 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level21 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level22 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level23 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level24 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level25 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level26 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level27 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level28 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level29 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level30 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level31 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level32 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level33 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level34 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| Level35 | 778.1 m² | 8374.9 ft² | 68.1 m² | 732.8 ft² | 710.0 m² | 7642.2 ft² |
| MPH | 503.5 m² | 5419.6 ft² | 459.8 m² | 4948.7 ft² | 43.7 m² | 470.9 ft² |
| Grand total | 47179.6 m² | 507837.0 ft² | 5927.9 m² | 63807.5 ft² | 41251.7 m² | 444029.5 ft² |

## DEFINITIONS

From the City of Toronto ZBL 569-2013:
In the Residential Zone category, the **Gross Floor Area** of an apartment building is reduced by the area in the building used for:
(A) parking, loading and bicycle parking below established grade;
(B) required loading spaces and required bicycle parking spaces at or above established grade;
(C) storage rooms, washrooms, electrical, utility, mechanical and ventilation rooms in the basement;
(D) shower and change facilities and bicycle maintenance facilities required by this By-law for required bicycle parking spaces; [ By-law: 839-2022 ]
(E) indoor amenity space required by this By-law;
(F) elevator shafts;
(G) garbage shafts;
(H) mechanical penthouse; and
(I) exit stairwells in the building.

**Floor Space Index** Calculation
In the Residential Zone category, the floor space index:
(A) for a non-residential building, is the result of the gross floor area of a building divided by the area of the lot;
(B) for a residential building, other than an apartment building, is the result of the gross floor area, plus the area of an attic described in regulation 10.5.40.40(1) and subject to regulation 10.5.40.40(2) minus the areas listed in regulation 10.5.40.40(3), divided by the area of the lot; and
(C) for an apartment building, is the result of the gross floor area, minus the areas of an apartment building listed in regulation 10.5.40.40(4), divided by the area of the lot.

**Green Roof Statistics**

| | | Proposed |
|---|---|---|
| Gross Floor Area, as defined in Green Roof Bylaw (m²) | | 46879.5 m² |
| Total Roof Area (m²): | | 4231.57 m² |
| Area of Residential Private Terraces (m²) | | 990.04 m² |
| Rooftop Outdoor Amenity Space, if in a Residential Building (m²) | | 1376.17 m² |
| Area of Renewable Energy Devices (m²) | | 0 m² |
| Tower (s)Roof Area with floor plate less than 750 m² | | N/A |
| Total Available Roof Space (m²) | | 2865.36 m² |
| **Green Roof Coverage** | **Required** | **Proposed** |
| Coverage of Available Roof Space (m²) | 1479.22 m² | 1990 m² |
| Coverage of Available Roof Space (%) | 60 % | 80.7 % |

Number of Affordable Units:

3.2 Unit Mix, Size and Location

3.2.1. 40% of all housing units should contain one bedroom and should be no less than 525 sq ft (48.7 sq m) in area. The average of all one bedroom affordable units will be no less than 550 square feet (50 sq m) (+/- 5%). Bachelor units are not acceptable.

3.2.2. 40% of all units should contain two bedrooms and should be no less than 650 sq ft (60 sq m) in area. The average size of all two bedroom units should be 725 square feet (+/- 5%).

3.2.3. 15% of all units should contain three bedrooms and should be no less than 900 sq ft (84 sq m) in area. The average size of three bedroom units should be 1000 square feet (+/- 5%).

3.2.4. 5% of all units should contain four bedrooms and should be no less than 1100 sq ft (102 sq m) in area. The average size of all four bedroom units shall be 1175 sq ft (+/- 5%).

3.2.5. Family Units:
a. Larger family units are preferred either on the ground floor with direct access to a street with front outdoor space; or
b. In building types that don't permit this configuration, family units can also function well on floors above grade(with an outdoor terrace).
c. Family units should have proportionately larger living, dining and storage areas.
d. Outdoor private amenity spaces such as patios, balconies and terraces are key features for family suites.

3.2.6. Bedrooms should be a minimum of 100 sq ft (9.3 sq m) with a minimum dimension of 9 ft and include operable windows to the exterior.

## AFFORDABLE HOUSING UNIT MIX

**AFFORDABLE HOUSING UNITS PROVIDED:**

| Name | Count | Unit Mix | Average Area, m2 | Average Area, sf |
|---|---|---|---|---|
| UNIT 1BD | 7 | 54% | 58.1 m² | 625.9 ft² |
| UNIT 2BD | 3 | 23% | 73.1 m² | 786.4 ft² |
| UNIT 3 BD | 1 | 8% | 122.7 m² | 1321.0 ft² |
| UNIT 4 BD | 1 | 8% | 126.9 m² | 1366.1 ft² |
| UNIT STUDIO | 1 | 8% | 43.2 m² | 465.3 ft² |
| | 13 | | 424.1 m² | 4564.8 ft² |

*AFFORDABLE HOUSING UNITS INCLUDED IN UNIT MIX AND UNIT TOAL.

*REFER TO FLOOR PLANS FOR AFFORDABLE HOUSING UNIT LOCATIONS. SEE 'AHU' TAG ON PLANS.

## CAR PARKING

| Level | Visitor Parking Provided | Visitor Parking Required | Car-Share Provided |
|---|---|---|---|
| P1 | 86 | 33 | 2 |

*required visitor parking = 2 + (0.03 per unit)

| Level | Residential Parking Provided |
|---|---|
| P2 | 162 |
| P1 | 28 |
| | 190 |

| Total Parking Provided |
|---|
| 278 |

## LOADING PROVISIONS

1x TYPE 'A' LOADING SPACE
1x TYPE 'B' LOADING SPACE
1x TYPE 'C' LOADING SPACES
1x TYPE 'G' LOADING SPACE
4x PUDO PARKING SPACES

*REFER TO FLOOR PLANS FOR LOCATIONS

## AMENITY

| Level | Name | Indoor Amenity Provided | Indoor Amenity Required |
|---|---|---|---|
| Level03 | AMENITY | 1265.9 m² | 1240 m² |

*required area (2sm per unit) = 1240m².

| Level | Name | Outdoor Amenity Provided | Outdoor Amenity Required |
|---|---|---|---|
| Level03 | OUTDOOR AMENITY | 1574.2 m² | 1240 m² |

*required area (2sm per unit) = 1240m².

## BIKE PARKING*

*INCLUDES EXISTING BIKE SHARE PARKING ON SITE

REQUIRED BIKE PARKING SPACES:

| Land Use | Units / GFA | Short Term | Long Term* | Spaces Required |
|---|---|---|---|---|
| Residential | 620 Units | 0.2 per unit = 124 | 0.9 per unit = 558 | 682 Spaces |
| Retail / Grocery | 3,197.1 m² | 3 + 0.3 per 100 m² = 13 | 0.2 per 100 m² = 7 | 20 Spaces |
| At Grade | N/A | 10 Spaces | | 10 Spaces |
| Totals: | | 147 Spaces | 565 Spaces | 712 Spaces |

*70% OF REQUIRED LONG-TERM RESIDENTIAL BICYCLE PARKING SPACES TO BE IP-PROVIDED WITH EC CHARGERS AS PER TGS 16.40.2.3.

PROVIDED BIKE PARKING SPACES:

| Land Use | Short Term | Long Term** | Spaces Provided |
|---|---|---|---|
| Residential | 124 Spaces | 560 Spaces | 684 Spaces |
| Retail / Grocery | 13 Spaces | 7 Spaces | 20 Spaces |
| At Grade | 10 Spaces | | 10 Spaces |
| Totals: | 147 Spaces | 567 Spaces | 714 Spaces |

**ALL LONG-TERM RESIDENTIAL BIKE PARKING SPACES TO BE EQUIPPED FOR EV CHARGING

BIKE PARKING LOCATIONS:

| Level | Count |
|---|---|
| P1 | 176 x 4 = 704* |
| Ground Floor | 10 |
| Total: | 714 |

*REFER TO P1 PLAN FOR DIERO DECKER SYSTEM

## PROJECT STATISTICS SUMMARY

| | | |
|---|---|---|
| NUMBER OF FLOORS: 13/35 | FSI (GFA/LOT AREA): | 5.54 |
| GROSS CONSTRUCTION AREA (GCA) ABOVE GRADE: | 47179.6 m² | 507837.0 ft² |
| TOTAL GROSS FLOOR AREA (GFA): *as defined in ZBL 569-2013 | 41251.7 m² | 444029.5 ft² |
| RESIDENTIAL GFA: | 38054.4 m² | 409613.6 ft² |
| RETAIL GFA: | 939.2 m² | 10109.6 ft² |
| GROCERY STORE GFA: | 2258.1 m² | 24306.3 ft² |
| POPS AREA: | 353.9 m² | 3809.4 ft² |
| LOT AREA: | 7,724 m² | |
| CONVEYANCES AREA: | 168m² | |
| ADJUSTED LOT AREA: | 7,556m² | |
| TOTAL EFFICIENCY Total Salable / above ground GCA | 80.7% | |
| NUMBER OF RESIDENTIAL UNITS | 620 | |
| NUMBER OF AFFORDABLE UNITS | 13 (2%) | |

## UNIT COUNT AND MIX

**BUILDING A*:** *SEE UNIT MIX DIAGRAM GREY AREA

| Level | Residential GFA, m2 | Residential GFA, sf | Count |
|---|---|---|---|
| Level04 | 659.8 m² | 7102.2 ft² | 11 |
| Level05 | 659.8 m² | 7102.2 ft² | 11 |
| Level06 | 659.8 m² | 7102.2 ft² | 11 |
| Level07 | 659.8 m² | 7102.2 ft² | 11 |
| Level08 | 659.8 m² | 7102.2 ft² | 11 |
| Level09 | 659.8 m² | 7102.2 ft² | 12 |
| Level10 | 659.8 m² | 7102.2 ft² | 12 |
| Level11 | 659.8 m² | 7102.2 ft² | 12 |
| Level12 | 659.8 m² | 7102.2 ft² | 12 |
| Level13 | 659.8 m² | 7102.2 ft² | 12 |
| Level14/MPH | 659.8 m² | 7102.2 ft² | 12 |
| Level15 | 659.8 m² | 7102.2 ft² | 12 |
| Level16 | 659.8 m² | 7102.2 ft² | 12 |
| Level17 | 659.8 m² | 7102.2 ft² | 12 |
| Level18 | 659.8 m² | 7102.2 ft² | 12 |
| Level19 | 659.8 m² | 7102.2 ft² | 12 |
| Level20 | 659.8 m² | 7102.2 ft² | 12 |
| Level21 | 659.8 m² | 7102.2 ft² | 12 |
| Level22 | 659.8 m² | 7102.2 ft² | 12 |
| Level23 | 659.8 m² | 7102.2 ft² | 12 |
| Level24 | 659.8 m² | 7102.2 ft² | 12 |
| Level25 | 659.8 m² | 7102.2 ft² | 12 |
| Level26 | 659.8 m² | 7102.2 ft² | 12 |
| Level27 | 659.8 m² | 7102.2 ft² | 12 |
| Level28 | 659.8 m² | 7102.2 ft² | 12 |
| Level29 | 659.8 m² | 7102.2 ft² | 12 |
| Level30 | 659.8 m² | 7102.2 ft² | 12 |
| Level31 | 659.8 m² | 7102.2 ft² | 12 |
| Level32 | 659.8 m² | 7102.2 ft² | 12 |
| Level33 | 659.8 m² | 7102.2 ft² | 12 |
| Level34 | 659.8 m² | 7102.2 ft² | 12 |
| Level35 | 659.8 m² | 7102.2 ft² | 12 |
| | 21114.1 m² | 227270.5 ft² | 379 |

**BUILDING A UNIT MIX:**

| Name | Count | Unit Mix | Average Area, m2 | Average Area, sf |
|---|---|---|---|---|
| UNIT 1BD | 155 | 41% | 55.6 m² | 598.2 ft² |
| UNIT 2BD | 96 | 25% | 69.1 m² | 744.0 ft² |
| UNIT 3 BD | 37 | 10% | 81.7 m² | 879.4 ft² |
| UNIT STUDIO | 91 | 24% | 31.2 m² | 336.2 ft² |
| | 379 | | 237.6 m² | 2557.8 ft² |

**BUILDING B*:** *SEE UNIT MIX DIAGRAM WHITE AREA

| Level | Residential GFA, m2 | Residential GFA, sf | Count |
|---|---|---|---|
| Level02 | 963.7 m² | 10373.4 ft² | 14 |
| Level03 | 715.7 m² | 7704.2 ft² | 11 |
| Level04 | 1285.5 m² | 13837.3 ft² | 24 |
| Level05 | 1239.0 m² | 13336.3 ft² | 23 |
| Level06 | 1239.0 m² | 13336.3 ft² | 23 |
| Level07 | 1239.0 m² | 13336.3 ft² | 23 |
| Level08 | 1239.0 m² | 13336.3 ft² | 23 |
| Level09 | 1239.0 m² | 13336.3 ft² | 23 |
| Level10 | 1239.0 m² | 13336.3 ft² | 23 |
| Level11 | 1032.2 m² | 11110.9 ft² | 18 |
| Level12 | 1032.2 m² | 11110.9 ft² | 18 |
| Level13 | 1032.2 m² | 11110.9 ft² | 18 |
| | 13495.6 m² | 145265.4 ft² | 241 |

**BUILDING B UNIT MIX:**

| Name | Count | Unit Mix | Average Area, m2 | Average Area, sf |
|---|---|---|---|---|
| UNIT 1BD | 111 | 46% | 51.7 m² | 556.8 ft² |
| UNIT 2BD | 56 | 23% | 64.6 m² | 695.4 ft² |
| UNIT 3 BD | 25 | 10% | 92.1 m² | 991.8 ft² |
| UNIT 4 BD | 1 | 0% | 126.9 m² | 1366.1 ft² |
| UNIT STUDIO | 48 | 20% | 35.5 m² | 382.3 ft² |
| | 241 | | 370.9 m² | 3992.5 ft² |

**BUILDING A & B UNIT MIX:**

| Name | Count | Unit Mix | Average Area, m2 | Average Area, sf |
|---|---|---|---|---|
| UNIT 1BD | 266 | 43% | 54.0 m² | 580.9 ft² |
| UNIT 2BD | 152 | 25% | 67.5 m² | 726.1 ft² |
| UNIT 3 BD | 62 | 10% | 85.9 m² | 924.8 ft² |
| UNIT 4 BD | 1 | 0% | 126.9 m² | 1366.1 ft² |
| UNIT STUDIO | 139 | 22% | 32.7 m² | 352.1 ft² |
| | 620 | | 367.0 m² | 3950.0 ft² |



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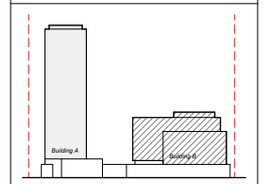



UNIT MIX DIAGRAM

| No. | Date | Issue/Revision |
|---|---|---|
| 1 | OCT 28, 2024 | Issued for OPA and ZBA |

ONTARIO ASSOCIATION OF ARCHITECTS
ANDRÉ D'ELIA
LICENCE
5526

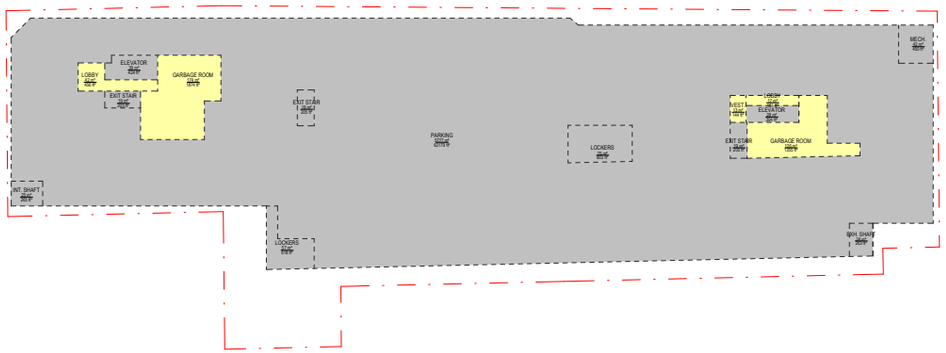
2451-2495 Danforth
2451-2495 Danforth Avenue, Toronto, ON M6R 2J5

Title:
PROJECT STATISTICS

Project No. 2216 | Scale 1 : 1

Drawing No.
A.001

2026-11-07 9:10:40 PM

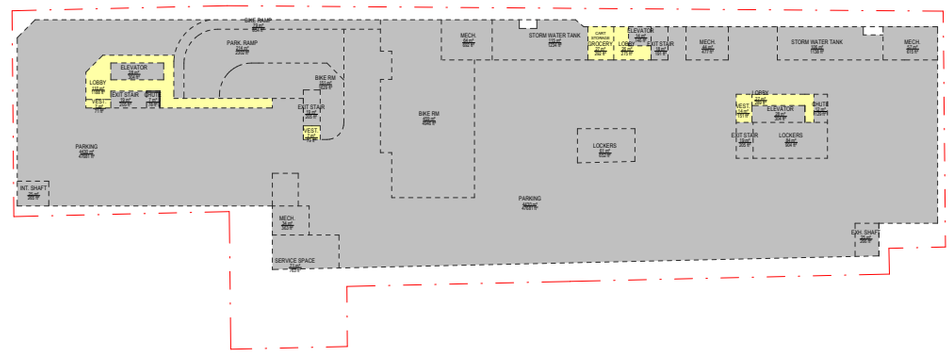



1 GFA Level P2
1 : 500

| GFA EXCLUSION PER ZBL-569-2013 LEVEL P2 | |
|---|---|
| Name | Area |
| ELEVATOR | 39.4 m² |
| ELEVATOR | 28.2 m² |
| EXH. SHAFT | 24.4 m² |
| EXIT STAIR | 19.1 m² |
| EXIT STAIR | 19.1 m² |
| EXIT STAIR | 19.1 m² |
| INT. SHAFT | 24.6 m² |
| LOCKERS | 74.6 m² |
| LOCKERS | 57.4 m² |
| MECH. | 41.8 m² |
| PARKING | 5776.7 m² |
| Grand total | 6124.4 m² |

| GFA PER ZBL-569-2013 LEVEL P2 | |
|---|---|
| Name | Area |
| GARBAGE ROOM | 174.1 m² |
| GARBAGE ROOM | 125.9 m² |
| LOBBY | 42.4 m² |
| LOBBY | 16.8 m² |
| VEST. | 13.4 m² |
| Grand total | 372.6 m² |

| GROSS CONSTRUCTION AREA (GCA) - LEVEL P2 | |
|---|---|
| Name | Area |
| ELEVATOR | 39.4 m² |
| ELEVATOR | 28.2 m² |
| EXH. SHAFT | 24.4 m² |
| EXIT STAIR | 19.1 m² |
| EXIT STAIR | 19.1 m² |
| EXIT STAIR | 19.1 m² |
| GARBAGE ROOM | 174.1 m² |
| GARBAGE ROOM | 125.9 m² |
| INT. SHAFT | 24.6 m² |
| LOBBY | 42.4 m² |
| LOBBY | 16.8 m² |
| LOCKERS | 74.6 m² |
| LOCKERS | 57.4 m² |
| MECH. | 41.8 m² |
| PARKING | 5776.7 m² |
| VEST. | 13.4 m² |
| Grand total | 6497.0 m² |




2 GFA Level P1
1 : 500

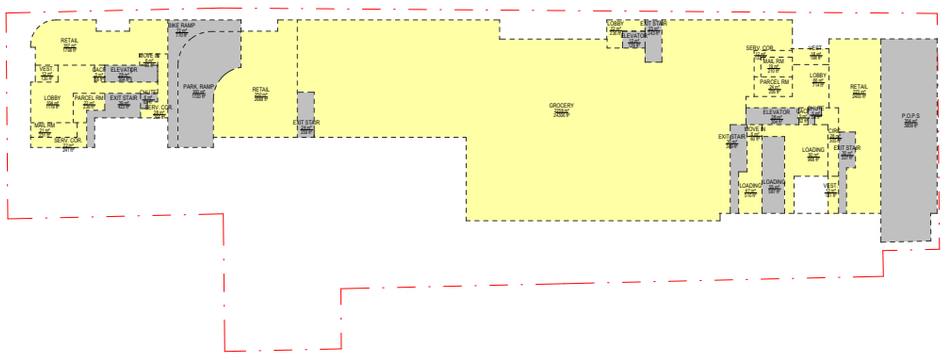
| GFA EXCLUSION PER ZBL-569-2013 LEVEL P1 | |
|---|---|
| Name | Area |
| BIKE RAMP | 79.3 m² |
| BIKE RM | 459.5 m² |
| BIKE RM | 151.3 m² |
| BIKE RM | 26.7 m² |
| CHUTE | 12.0 m² |
| CHUTE | 7.2 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 13.5 m² |
| EXH. SHAFT | 24.7 m² |
| EXIT STAIR | 19.1 m² |
| EXIT STAIR | 19.1 m² |
| EXIT STAIR | 19.1 m² |
| EXIT STAIR | 17.7 m² |
| INT. SHAFT | 24.6 m² |
| LOCKERS | 84.0 m² |

| GFA EXCLUSION PER ZBL-569-2013 LEVEL P1 | |
|---|---|
| Name | Area |
| LOCKERS | 60.6 m² |
| MECH. | 64.3 m² |
| MECH. | 57.1 m² |
| MECH. | 44.4 m² |
| MECH. | 33.7 m² |
| PARK. RAMP | 213.9 m² |
| PARKING | 4429.7 m² |
| SERVICE SPACE | 70.9 m² |
| STORM WATER TANK | 114.7 m² |
| STORM WATER TANK | 105.7 m² |
| Grand total | 6209.2 m² |

| GFA PER ZBL-569-2013 LEVEL P1 | |
|---|---|
| Name | Area |
| GROCERY | 27.1 m² |
| LOBBY | 110.4 m² |
| LOBBY | 26.8 m² |
| LOBBY | 25.6 m² |
| VEST. | 14.0 m² |
| VEST. | 7.3 m² |
| VEST. | 6.6 m² |
| Grand total | 217.8 m² |

| GROSS CONSTRUCTION AREA (GCA) - LEVEL P1 | |
|---|---|
| Name | Area |
| BIKE RAMP | 79.3 m² |
| BIKE RM | 459.5 m² |
| BIKE RM | 151.3 m² |
| BIKE RM | 26.7 m² |
| CHUTE | 12.0 m² |
| CHUTE | 7.2 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 13.5 m² |
| EXH. SHAFT | 24.7 m² |
| EXIT STAIR | 19.1 m² |
| EXIT STAIR | 19.1 m² |
| EXIT STAIR | 19.1 m² |
| EXIT STAIR | 17.7 m² |
| GROCERY | 27.1 m² |
| INT. SHAFT | 24.6 m² |
| LOBBY | 110.4 m² |
| LOBBY | 26.8 m² |
| LOBBY | 25.6 m² |

| GROSS CONSTRUCTION AREA (GCA) - LEVEL P1 | |
|---|---|
| Name | Area |
| LOCKERS | 84.0 m² |
| LOCKERS | 60.6 m² |
| MECH. | 64.3 m² |
| MECH. | 57.1 m² |
| MECH. | 44.4 m² |
| MECH. | 33.7 m² |
| PARK. RAMP | 213.9 m² |
| PARKING | 4429.7 m² |
| SERVICE SPACE | 70.9 m² |
| STORM WATER TANK | 114.7 m² |
| STORM WATER TANK | 105.7 m² |
| VEST. | 14.0 m² |
| VEST. | 7.3 m² |
| VEST. | 6.6 m² |
| Grand total | 6427.0 m² |




3 GFA Ground Floor
1 : 500

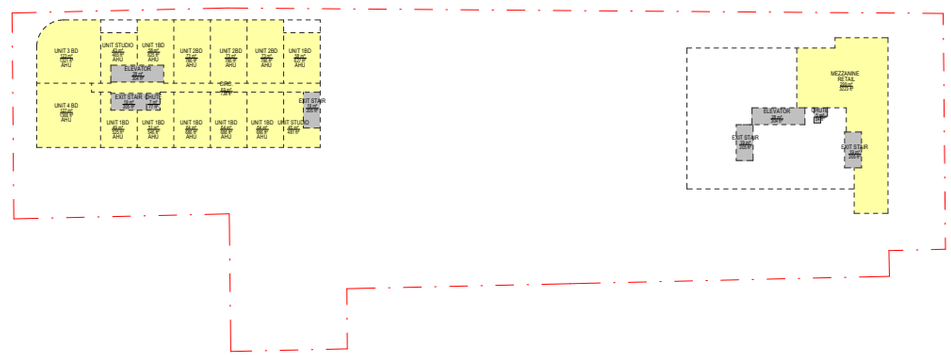
| GFA EXCLUSION PER ZBL-569-2013 GROUND FLOOR | |
|---|---|
| Name | Area |
| BIKE RAMP | 71.6 m² |
| CHUTE | 6.0 m² |
| CHUTE | 5.4 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 12.0 m² |
| EXIT STAIR | 39.3 m² |
| EXIT STAIR | 36.2 m² |
| EXIT STAIR | 30.4 m² |
| EXIT STAIR | 24.0 m² |
| EXIT STAIR | 22.5 m² |
| LOADING | 54.6 m² |
| P.O.P.S | 353.9 m² |
| PARK. RAMP | 159.8 m² |
| Grand total | 872.0 m² |

| GFA PER ZBL-569-2013 GROUND FLOOR | |
|---|---|
| Name | Area |
| CACF | 5.4 m² |
| CACF | 4.8 m² |
| CIRC. | 28.4 m² |
| GROCERY | 2258.1 m² |
| LOADING | 89.9 m² |
| LOADING | 47.4 m² |
| LOBBY | 104.0 m² |
| LOBBY | 66.4 m² |
| LOBBY | 21.9 m² |
| MAIL RM | 21.5 m² |
| MAIL RM | 19.5 m² |

| GFA PER ZBL-569-2013 GROUND FLOOR | |
|---|---|
| Name | Area |
| MOVE IN | 6.4 m² |
| MOVE IN | 5.6 m² |
| PARCEL RM | 23.8 m² |
| PARCEL RM | 22.1 m² |
| RETAIL | 249.7 m² |
| RETAIL | 223.0 m² |
| RETAIL | 167.1 m² |
| SERV. COR. | 27.6 m² |
| SERV. COR. | 22.3 m² |
| SERV. COR. | 12.3 m² |
| VEST. | 18.4 m² |
| VEST. | 12.2 m² |
| VEST. | 12.1 m² |
| Grand total | 3469.8 m² |

| GROSS CONSTRUCTION AREA (GCA) - GROUND FLOOR | |
|---|---|
| Name | Area |
| BIKE RAMP | 71.6 m² |
| CACF | 5.4 m² |
| CACF | 4.8 m² |
| CHUTE | 6.0 m² |
| CHUTE | 5.4 m² |
| CIRC. | 28.4 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 12.0 m² |
| EXIT STAIR | 39.3 m² |
| EXIT STAIR | 36.2 m² |
| EXIT STAIR | 30.4 m² |
| EXIT STAIR | 24.0 m² |
| EXIT STAIR | 22.5 m² |
| GROCERY | 2258.1 m² |
| LOADING | 89.9 m² |
| LOADING | 54.6 m² |
| LOADING | 47.4 m² |
| LOBBY | 104.0 m² |

| GROSS CONSTRUCTION AREA (GCA) - GROUND FLOOR | |
|---|---|
| Name | Area |
| LOBBY | 66.4 m² |
| LOBBY | 21.9 m² |
| MAIL RM | 21.5 m² |
| MAIL RM | 19.5 m² |
| MOVE IN | 6.4 m² |
| MOVE IN | 5.6 m² |
| P.O.P.S | 353.9 m² |
| PARCEL RM | 23.8 m² |
| PARCEL RM | 22.1 m² |
| PARK. RAMP | 159.8 m² |
| RETAIL | 249.7 m² |
| RETAIL | 223.0 m² |
| RETAIL | 167.1 m² |
| SERV. COR. | 27.6 m² |
| SERV. COR. | 22.3 m² |
| SERV. COR. | 12.3 m² |
| VEST. | 18.4 m² |
| VEST. | 12.2 m² |
| VEST. | 12.1 m² |
| Grand total | 4341.8 m² |




4 GFA Level02
1 : 500

| GFA EXCLUSION PER ZBL-569-2013 LEVEL 02 | |
|---|---|
| Name | Area |
| CHUTE | 7.2 m² |
| CHUTE | 5.0 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 28.2 m² |
| EXIT STAIR | 19.1 m² |
| EXIT STAIR | 19.1 m² |
| EXIT STAIR | 19.1 m² |
| EXIT STAIR | 19.1 m² |
| Grand total | 145.0 m² |

| GFA PER ZBL-569-2013 LEVEL 02 | |
|---|---|
| Name | Area |
| CIRC. | 68.6 m² |
| RETAIL | 299.5 m² |
| UNIT 1BD | 63.7 m² |
| UNIT 1BD | 63.7 m² |
| UNIT 1BD | 63.7 m² |
| UNIT 1BD | 58.3 m² |
| UNIT 1BD | 58.0 m² |
| UNIT 1BD | 50.7 m² |
| UNIT 1BD | 48.8 m² |
| UNIT 2BD | 73.1 m² |
| UNIT 2BD | 73.1 m² |
| UNIT 2BD | 73.1 m² |
| UNIT 3 BD | 122.7 m² |
| UNIT 4 BD | 126.9 m² |
| UNIT STUDIO | 44.6 m² |
| UNIT STUDIO | 43.2 m² |
| Grand total | 1331.8 m² |

| GROSS CONSTRUCTION AREA (GCA) - LEVEL 02 | |
|---|---|
| Name | Area |
| CHUTE | 7.2 m² |
| CHUTE | 5.0 m² |
| CIRC. | 68.6 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 28.2 m² |
| EXIT STAIR | 19.1 m² |
| EXIT STAIR | 19.1 m² |
| EXIT STAIR | 19.1 m² |
| EXIT STAIR | 19.1 m² |
| EXIT STAIR | 17.7 m² |
| RETAIL | 299.5 m² |
| UNIT 1BD | 63.7 m² |
| UNIT 1BD | 63.7 m² |

| GROSS CONSTRUCTION AREA (GCA) - LEVEL 02 | |
|---|---|
| Name | Area |
| UNIT 1BD | 63.7 m² |
| UNIT 1BD | 58.3 m² |
| UNIT 1BD | 58.0 m² |
| UNIT 1BD | 50.7 m² |
| UNIT 1BD | 48.8 m² |
| UNIT 2BD | 73.1 m² |
| UNIT 2BD | 73.1 m² |
| UNIT 2BD | 73.1 m² |
| UNIT 3 BD | 122.7 m² |
| UNIT 4 BD | 126.9 m² |
| UNIT STUDIO | 44.6 m² |
| UNIT STUDIO | 43.2 m² |
| Grand total | 1476.8 m² |



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GROSS FLOOR AREA (ZBL 569-2013)

GROSS FLOOR AREA (ZBL 569-2013)

569-2013 EXCLUSION

Gross Floor Area Calculations for an Apartment Building in the Commercial Residential Zone Category per ZBL 569-2013, Section 40.5.40.40 (5).

In the Commercial Residential Zone category the gross floor area of an apartment building is reduced by the area in the building used for:

(A) parking, loading and bicycle parking below-ground;
(B) required loading spaces at the ground level and required bicycle parking spaces at or above ground;
(C) storage rooms, washrooms, electrical, utility, mechanical and ventilation rooms in the basement;
(D) shower and change facilities required by this By-law for required bicycle parking spaces;
(E) amenity space required by this By-law;
(F) elevator shafts;
(G) garbage chutes;
(H) mechanical penthouse; and
(I) exit stairwells in the building.

| No. | Date | Issue/Revision |
|---|---|---|
| 1 | OCT 28, 2024 | Issued for OPA and ZBA |

ONTARIO ASSOCIATION OF ARCHITECTS
ANDRÉ D'ELIA
LICENCE
5626

# 2451-2495 Danforth

2451-2495 Danforth
Avenue, Toronto, ON
M6R 2J5

Title:

## GFA DIAGRAMS PER ZBL 569-2013

Project No. 2216 | Scale As indicated

Drawing No.

# A.003

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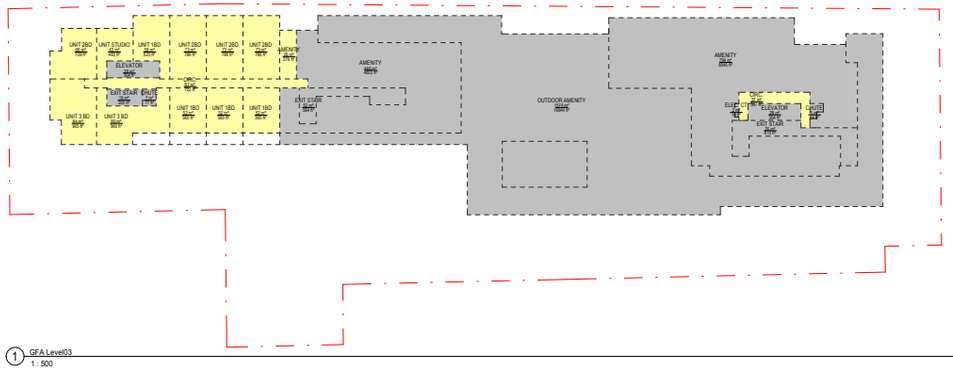
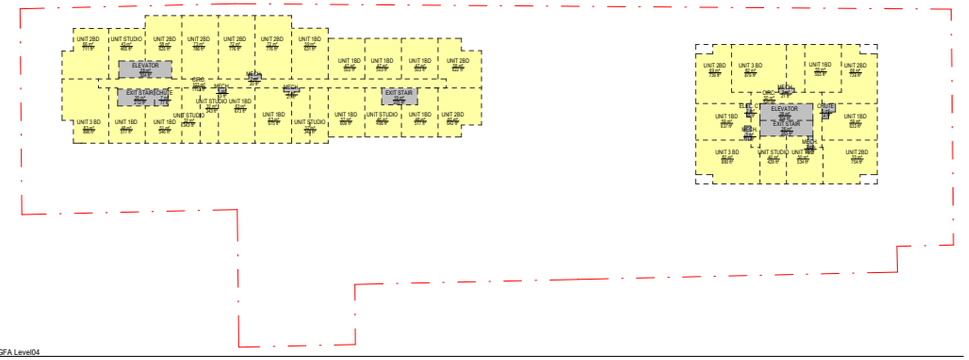



1 GFA Level03
1 : 500

| GFA EXCLUSION PER ZBL-569-2013 LEVEL 03 | |
|---|---|
| Name | Area |
| AMENITY | 793.8 m² |
| AMENITY | 446.2 m² |
| CHUTE | 7.2 m² |
| CHUTE | 5.0 m² |
| ELEC. CT | 1.8 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 28.2 m² |
| EXIT STAIR | 75.7 m² |
| EXIT STAIR | 52.4 m² |
| EXIT STAIR | 19.1 m² |
| MECH. | 122.6 m² |
| OUTDOOR AMENITY | 1574.2 m² |
| Grand total | 3154.4 m² |

| GFA PER ZBL-569-2013 LEVEL 03 | |
|---|---|
| Name | Area |
| AMENITY | 25.9 m² |
| CIRC. | 67.1 m² |
| CIRC. | 36.9 m² |
| UNIT 1BD | 58.0 m² |
| UNIT 1BD | 52.0 m² |
| UNIT 1BD | 52.0 m² |
| UNIT 1BD | 52.0 m² |
| UNIT 2BD | 73.1 m² |
| UNIT 2BD | 73.1 m² |
| UNIT 2BD | 73.1 m² |
| UNIT 2BD | 65.9 m² |
| UNIT 3 BD | 89.2 m² |
| UNIT 3 BD | 84.1 m² |
| UNIT STUDIO | 43.2 m² |
| Grand total | 845.6 m² |

| GROSS CONSTRUCTION AREA (GCA) - LEVEL 03 | | GROSS CONSTRUCTION AREA (GCA) - LEVEL 03 | |
|---|---|---|---|
| Name | Area | Name | Area |
| AMENITY | 793.8 m² | MECH. | 122.6 m² |
| AMENITY | 446.2 m² | OUTDOOR AMENITY | 1574.2 m² |
| AMENITY | 25.9 m² | UNIT 1BD | 58.0 m² |
| CHUTE | 7.2 m² | UNIT 1BD | 52.0 m² |
| CHUTE | 5.0 m² | UNIT 1BD | 52.0 m² |
| CIRC. | 67.1 m² | UNIT 1BD | 52.0 m² |
| CIRC. | 36.9 m² | UNIT 2BD | 73.1 m² |
| ELEC. CT | 1.8 m² | UNIT 2BD | 73.1 m² |
| ELEVATOR | 28.2 m² | UNIT 2BD | 73.1 m² |
| ELEVATOR | 28.2 m² | UNIT 2BD | 65.9 m² |
| EXIT STAIR | 75.7 m² | UNIT 3 BD | 89.2 m² |
| EXIT STAIR | 52.4 m² | UNIT 3 BD | 84.1 m² |
| EXIT STAIR | 19.1 m² | UNIT STUDIO | 43.2 m² |
| | | Grand total | 3999.9 m² |



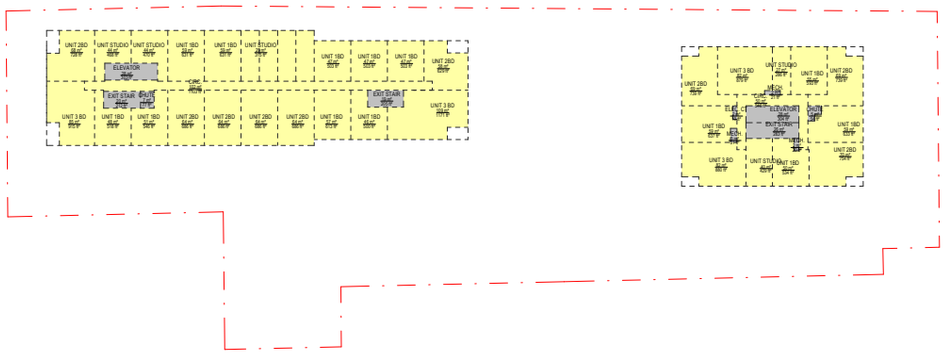

2 GFA Level04
1 : 500

| GFA EXCLUSION PER ZBL-569-2013 LEVEL 04 | |
|---|---|
| Name | Area |
| CHUTE | 7.2 m² |
| CHUTE | 5.0 m² |
| ELEC. CT | 1.8 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 28.2 m² |
| EXIT STAIR | 26.3 m² |
| EXIT STAIR | 19.7 m² |
| EXIT STAIR | 19.1 m² |
| MECH. | 2.9 m² |
| MECH. | 2.0 m² |
| MECH. | 2.0 m² |
| MECH. | 1.9 m² |
| MECH. | 1.9 m² |
| MECH. | 1.2 m² |
| Grand total | 147.3 m² |

| GFA PER ZBL-569-2013 LEVEL 04 | |
|---|---|
| Name | Area |
| CIRC. | 102.5 m² |
| CIRC. | 50.2 m² |
| UNIT 1BD | 62.8 m² |
| UNIT 1BD | 62.5 m² |
| UNIT 1BD | 59.2 m² |
| UNIT 1BD | 58.8 m² |
| UNIT 1BD | 58.6 m² |
| UNIT 1BD | 56.6 m² |
| UNIT 1BD | 55.1 m² |
| UNIT 1BD | 50.7 m² |
| UNIT 1BD | 49.6 m² |
| UNIT 1BD | 48.1 m² |
| UNIT 1BD | 48.0 m² |
| UNIT 1BD | 46.8 m² |
| UNIT 1BD | 46.8 m² |
| UNIT 1BD | 46.8 m² |
| UNIT 2BD | 73.1 m² |
| UNIT 2BD | 72.1 m² |

| GFA PER ZBL-569-2013 LEVEL 04 | |
|---|---|
| Name | Area |
| UNIT 2BD | 72.1 m² |
| UNIT 2BD | 70.1 m² |
| UNIT 2BD | 68.6 m² |
| UNIT 2BD | 68.6 m² |
| UNIT 2BD | 66.1 m² |
| UNIT 2BD | 59.6 m² |
| UNIT 2BD | 58.1 m² |
| UNIT 2BD | 57.8 m² |
| UNIT 3 BD | 83.3 m² |
| UNIT 3 BD | 81.7 m² |
| UNIT 3 BD | 81.7 m² |
| UNIT STUDIO | 46.1 m² |
| UNIT STUDIO | 43.2 m² |
| UNIT STUDIO | 39.8 m² |
| UNIT STUDIO | 31.9 m² |
| UNIT STUDIO | 31.9 m² |
| UNIT STUDIO | 31.9 m² |
| UNIT STUDIO | 30.9 m² |
| UNIT STUDIO | 26.6 m² |
| Grand total | 2098.0 m² |

| GROSS CONSTRUCTION AREA (GCA) - LEVEL 04 | | GROSS CONSTRUCTION AREA (GCA) - LEVEL 04 | |
|---|---|---|---|
| Name | Area | Name | Area |
| CHUTE | 7.2 m² | UNIT 1BD | 48.0 m² |
| CHUTE | 5.0 m² | UNIT 1BD | 46.8 m² |
| CIRC. | 102.5 m² | UNIT 1BD | 46.8 m² |
| CIRC. | 50.2 m² | UNIT 1BD | 46.8 m² |
| ELEC. CT | 1.8 m² | UNIT 2BD | 73.1 m² |
| ELEVATOR | 28.2 m² | UNIT 2BD | 72.1 m² |
| ELEVATOR | 28.2 m² | UNIT 2BD | 72.1 m² |
| EXIT STAIR | 26.3 m² | UNIT 2BD | 70.1 m² |
| EXIT STAIR | 19.7 m² | UNIT 2BD | 68.6 m² |
| EXIT STAIR | 19.1 m² | UNIT 2BD | 68.6 m² |
| MECH. | 2.9 m² | UNIT 2BD | 66.1 m² |
| MECH. | 2.0 m² | UNIT 2BD | 59.6 m² |
| MECH. | 2.0 m² | UNIT 2BD | 58.1 m² |
| MECH. | 1.9 m² | UNIT 2BD | 57.8 m² |
| MECH. | 1.9 m² | UNIT 3 BD | 83.3 m² |
| MECH. | 1.2 m² | UNIT 3 BD | 81.7 m² |
| UNIT 1BD | 62.8 m² | UNIT 3 BD | 81.7 m² |
| UNIT 1BD | 62.5 m² | UNIT STUDIO | 46.1 m² |
| UNIT 1BD | 59.2 m² | UNIT STUDIO | 43.2 m² |
| UNIT 1BD | 58.8 m² | UNIT STUDIO | 39.8 m² |
| UNIT 1BD | 58.6 m² | UNIT STUDIO | 31.9 m² |
| UNIT 1BD | 56.6 m² | UNIT STUDIO | 31.9 m² |
| UNIT 1BD | 55.1 m² | UNIT STUDIO | 31.9 m² |
| UNIT 1BD | 50.7 m² | UNIT STUDIO | 30.9 m² |
| UNIT 1BD | 49.6 m² | UNIT STUDIO | 26.6 m² |
| UNIT 1BD | 48.1 m² | Grand total | 2245.3 m² |

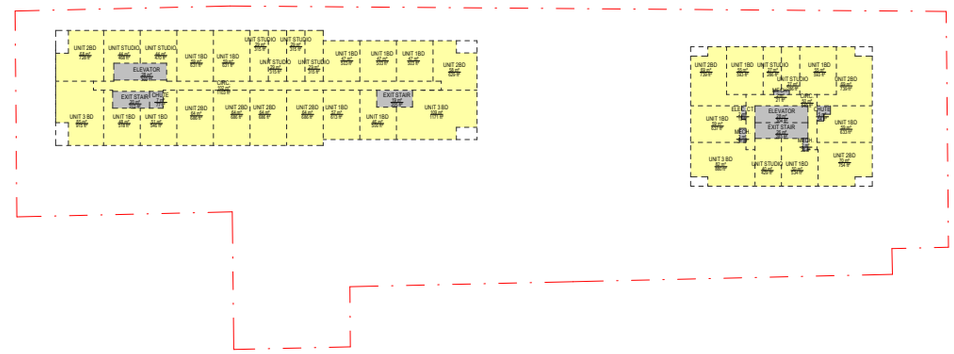



3 GFA Level05-08
1 : 500

| GFA EXCLUSION PER ZBL-569-2013 LEVEL 07 | |
|---|---|
| Name | Area |
| CHUTE | 7.2 m² |
| CHUTE | 5.0 m² |
| ELEC. CT | 1.8 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 28.2 m² |
| EXIT STAIR | 26.3 m² |
| EXIT STAIR | 19.7 m² |
| EXIT STAIR | 19.1 m² |
| MECH. | 2.9 m² |
| MECH. | 2.0 m² |
| MECH. | 1.9 m² |
| Grand total | 142.2 m² |

| GFA PER ZBL-569-2013 LEVEL 07 | | GFA PER ZBL-569-2013 LEVEL 07 | |
|---|---|---|---|
| Name | Area | Name | Area |
| CIRC. | 102.5 m² | UNIT 2BD | 67.6 m² |
| CIRC. | 50.2 m² | UNIT 2BD | 63.7 m² |
| UNIT 1BD | 59.2 m² | UNIT 2BD | 63.7 m² |
| UNIT 1BD | 58.8 m² | UNIT 2BD | 63.7 m² |
| UNIT 1BD | 58.6 m² | UNIT 2BD | 63.7 m² |
| UNIT 1BD | 58.6 m² | UNIT 2BD | 58.5 m² |
| UNIT 1BD | 56.9 m² | UNIT 3 BD | 108.8 m² |
| UNIT 1BD | 55.1 m² | UNIT 3 BD | 85.0 m² |
| UNIT 1BD | 50.7 m² | UNIT 3 BD | 81.7 m² |
| UNIT 1BD | 49.6 m² | UNIT 3 BD | 81.7 m² |
| UNIT 1BD | 48.1 m² | UNIT STUDIO | 43.7 m² |
| UNIT 1BD | 46.8 m² | UNIT STUDIO | 43.5 m² |
| UNIT 1BD | 46.8 m² | UNIT STUDIO | 39.8 m² |
| UNIT 1BD | 46.8 m² | UNIT STUDIO | 29.3 m² |
| UNIT 1BD | 46.4 m² | UNIT STUDIO | 29.3 m² |
| UNIT 2BD | 70.1 m² | UNIT STUDIO | 29.3 m² |
| UNIT 2BD | 68.6 m² | UNIT STUDIO | 29.3 m² |
| UNIT 2BD | 68.6 m² | UNIT STUDIO | 26.6 m² |
| | | Grand total | 2051.5 m² |

| GROSS CONSTRUCTION AREA (GCA) - LEVEL 07 | | GROSS CONSTRUCTION AREA (GCA) - LEVEL 07 | |
|---|---|---|---|
| Name | Area | Name | Area |
| CHUTE | 7.2 m² | UNIT 1BD | 46.8 m² |
| CHUTE | 5.0 m² | UNIT 1BD | 46.4 m² |
| CIRC. | 102.5 m² | UNIT 2BD | 70.1 m² |
| CIRC. | 50.2 m² | UNIT 2BD | 68.6 m² |
| ELEC. CT | 1.8 m² | UNIT 2BD | 68.6 m² |
| ELEVATOR | 28.2 m² | UNIT 2BD | 67.6 m² |
| ELEVATOR | 28.2 m² | UNIT 2BD | 63.7 m² |
| EXIT STAIR | 26.3 m² | UNIT 2BD | 63.7 m² |
| EXIT STAIR | 19.7 m² | UNIT 2BD | 63.7 m² |
| EXIT STAIR | 19.1 m² | UNIT 2BD | 63.7 m² |
| MECH. | 2.9 m² | UNIT 2BD | 58.5 m² |
| MECH. | 2.0 m² | UNIT 3 BD | 108.8 m² |
| MECH. | 1.9 m² | UNIT 3 BD | 85.0 m² |
| UNIT 1BD | 59.2 m² | UNIT 3 BD | 81.7 m² |
| UNIT 1BD | 58.8 m² | UNIT 3 BD | 81.7 m² |
| UNIT 1BD | 58.6 m² | UNIT STUDIO | 43.7 m² |
| UNIT 1BD | 58.6 m² | UNIT STUDIO | 43.5 m² |
| UNIT 1BD | 56.9 m² | UNIT STUDIO | 39.8 m² |
| UNIT 1BD | 55.1 m² | UNIT STUDIO | 29.3 m² |
| UNIT 1BD | 50.7 m² | UNIT STUDIO | 29.3 m² |
| UNIT 1BD | 49.6 m² | UNIT STUDIO | 29.3 m² |
| UNIT 1BD | 48.1 m² | UNIT STUDIO | 29.3 m² |
| UNIT 1BD | 46.8 m² | UNIT STUDIO | 26.6 m² |
| UNIT 1BD | 46.8 m² | Grand total | 2193.6 m² |




4 Level09
1 : 500

| GFA EXCLUSION PER ZBL-569-2013 LEVEL 09 | |
|---|---|
| Name | Area |
| CHUTE | 7.2 m² |
| CHUTE | 5.0 m² |
| ELEC. CT | 1.8 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 28.2 m² |
| EXIT STAIR | 26.3 m² |
| EXIT STAIR | 19.7 m² |
| EXIT STAIR | 19.1 m² |
| MECH. | 2.9 m² |
| MECH. | 2.0 m² |
| MECH. | 1.9 m² |
| Grand total | 142.2 m² |

| GFA PER ZBL-569-2013 LEVEL 09 | | GFA PER ZBL-569-2013 LEVEL 09 | |
|---|---|---|---|
| Name | Area | Name | Area |
| CIRC. | 102.5 m² | UNIT 2BD | 67.6 m² |
| CIRC. | 50.2 m² | UNIT 2BD | 63.7 m² |
| UNIT 1BD | 59.2 m² | UNIT 2BD | 63.7 m² |
| UNIT 1BD | 58.8 m² | UNIT 2BD | 63.7 m² |
| UNIT 1BD | 58.6 m² | UNIT 2BD | 63.7 m² |
| UNIT 1BD | 58.6 m² | UNIT 2BD | 58.5 m² |
| UNIT 1BD | 56.9 m² | UNIT 3 BD | 108.8 m² |
| UNIT 1BD | 55.1 m² | UNIT 3 BD | 85.0 m² |
| UNIT 1BD | 55.1 m² | UNIT 3 BD | 81.7 m² |
| UNIT 1BD | 50.7 m² | UNIT STUDIO | 43.7 m² |
| UNIT 1BD | 49.6 m² | UNIT STUDIO | 43.5 m² |
| UNIT 1BD | 48.1 m² | UNIT STUDIO | 39.8 m² |
| UNIT 1BD | 46.8 m² | UNIT STUDIO | 29.3 m² |
| UNIT 1BD | 46.8 m² | UNIT STUDIO | 29.3 m² |
| UNIT 1BD | 46.8 m² | UNIT STUDIO | 29.3 m² |
| UNIT 1BD | 46.4 m² | UNIT STUDIO | 29.3 m² |
| UNIT 2BD | 70.1 m² | UNIT STUDIO | 26.6 m² |
| UNIT 2BD | 68.6 m² | UNIT STUDIO | 26.6 m² |
| UNIT 2BD | 68.6 m² | Grand total | 2051.5 m² |

| GROSS CONSTRUCTION AREA (GCA) - LEVEL 09 | | GROSS CONSTRUCTION AREA (GCA) - LEVEL 09 | |
|---|---|---|---|
| Name | Area | Name | Area |
| CHUTE | 7.2 m² | UNIT 1BD | 46.8 m² |
| CHUTE | 5.0 m² | UNIT 1BD | 46.8 m² |
| CIRC. | 102.5 m² | UNIT 1BD | 46.4 m² |
| CIRC. | 50.2 m² | UNIT 2BD | 70.1 m² |
| ELEC. CT | 1.8 m² | UNIT 2BD | 68.6 m² |
| ELEVATOR | 28.2 m² | UNIT 2BD | 68.6 m² |
| ELEVATOR | 28.2 m² | UNIT 2BD | 67.6 m² |
| EXIT STAIR | 26.3 m² | UNIT 2BD | 63.7 m² |
| EXIT STAIR | 19.7 m² | UNIT 2BD | 63.7 m² |
| EXIT STAIR | 19.1 m² | UNIT 2BD | 63.7 m² |
| MECH. | 2.9 m² | UNIT 2BD | 63.7 m² |
| MECH. | 2.0 m² | UNIT 2BD | 58.5 m² |
| MECH. | 1.9 m² | UNIT 3 BD | 108.8 m² |
| UNIT 1BD | 59.2 m² | UNIT 3 BD | 85.0 m² |
| UNIT 1BD | 58.8 m² | UNIT 3 BD | 81.7 m² |
| UNIT 1BD | 58.6 m² | UNIT STUDIO | 43.7 m² |
| UNIT 1BD | 58.6 m² | UNIT STUDIO | 43.5 m² |
| UNIT 1BD | 56.9 m² | UNIT STUDIO | 39.8 m² |
| UNIT 1BD | 55.1 m² | UNIT STUDIO | 29.3 m² |
| UNIT 1BD | 55.1 m² | UNIT STUDIO | 29.3 m² |
| UNIT 1BD | 50.7 m² | UNIT STUDIO | 29.3 m² |
| UNIT 1BD | 49.6 m² | UNIT STUDIO | 29.3 m² |
| UNIT 1BD | 48.1 m² | UNIT STUDIO | 26.6 m² |
| UNIT 1BD | 46.8 m² | UNIT STUDIO | 26.6 m² |
| | | Grand total | 2193.6 m² |



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GROSS FLOOR AREA (ZBL 569-2013)

GROSS FLOOR AREA (ZBL 569-2013)

569-2013 EXCLUSION

Gross Floor Area Calculations for an Apartment Building in the Commercial Residential Zone Category per ZBL 569-2013, Section 40.5.40.40 (5).

In the Commercial Residential Zone category the gross floor area of an apartment building is reduced by the area in the building used for:

(A) parking, loading and bicycle parking below-ground;
(B) required loading spaces at the ground level and required bicycle parking spaces at or above ground;
(C) storage rooms, washrooms, electrical, utility, mechanical and ventilation rooms in the basement;
(D) shower and change facilities required by this By-law for required bicycle parking spaces;
(E) amenity space required by this By-law;
(F) elevator shafts;
(G) garbage shafts;
(H) mechanical penthouse; and
(I) exit stairwells in the building.

| No. | Date | Issue/Revision |
|---|---|---|
| 1 | OCT 28, 2024 | Issued for OPA and ZBA |

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Title:

## GFA DIAGRAMS PER ZBL 569-2013

Project No. 2216 | Scale As indicated

Drawing No.

# A.004

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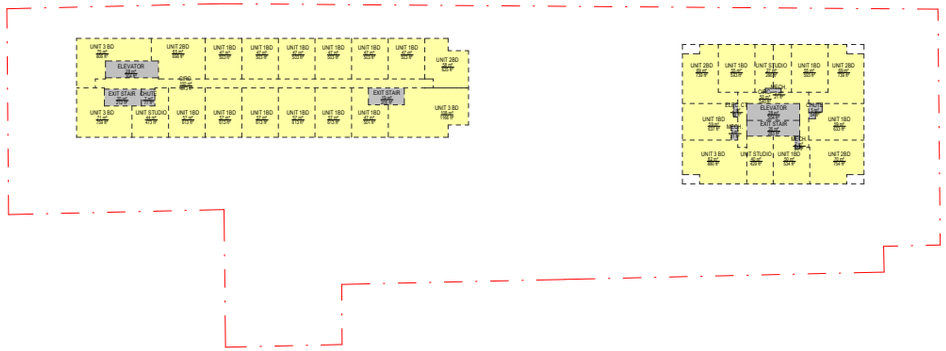



4 GFA Level11-13
1 : 500

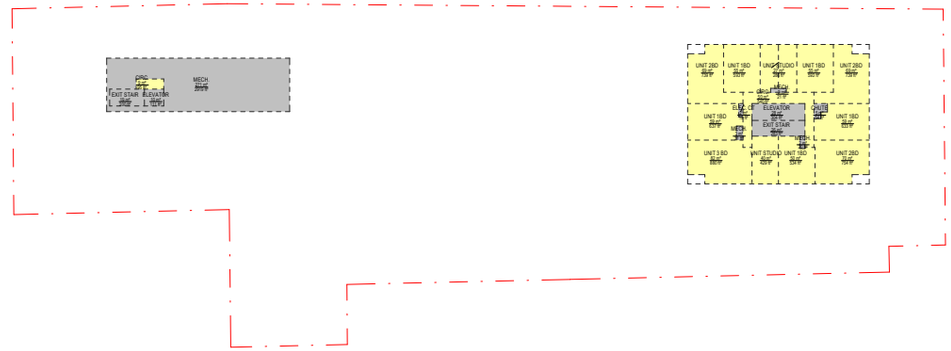
| GFA EXCLUSION PER ZBL-569-2013 LEVEL 11 | |
|---|---|
| Name | Area |
| CHUTE | 7.2 m² |
| CHUTE | 5.0 m² |
| ELEC. CT | 1.8 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 28.2 m² |
| EXIT STAIR | 26.3 m² |
| EXIT STAIR | 19.7 m² |
| EXIT STAIR | 19.1 m² |
| MECH. | 2.9 m² |
| MECH. | 2.0 m² |
| MECH. | 1.9 m² |
| Grand total | 142.2 m² |

| GFA PER ZBL-569-2013 LEVEL 11 | |
|---|---|
| Name | Area |
| CIRC. | 99.7 m² |
| CIRC. | 50.2 m² |
| UNIT 1BD | 59.2 m² |
| UNIT 1BD | 58.8 m² |
| UNIT 1BD | 56.9 m² |
| UNIT 1BD | 56.9 m² |
| UNIT 1BD | 56.9 m² |
| UNIT 1BD | 56.9 m² |
| UNIT 1BD | 55.1 m² |
| UNIT 1BD | 55.1 m² |
| UNIT 1BD | 49.6 m² |
| UNIT 1BD | 46.8 m² |
| UNIT 1BD | 46.8 m² |
| UNIT 1BD | 46.8 m² |
| UNIT 1BD | 46.8 m² |

| GFA PER ZBL-569-2013 LEVEL 11 | |
|---|---|
| Name | Area |
| UNIT 1BD | 46.8 m² |
| UNIT 1BD | 46.8 m² |
| UNIT 1BD | 46.5 m² |
| UNIT 1BD | 70.1 m² |
| UNIT 2BD | 68.6 m² |
| UNIT 2BD | 68.6 m² |
| UNIT 2BD | 64.8 m² |
| UNIT 2BD | 58.1 m² |
| UNIT 3 BD | 108.4 m² |
| UNIT 3 BD | 81.7 m² |
| UNIT 3 BD | 74.8 m² |
| UNIT 3 BD | 70.5 m² |
| UNIT STUDIO | 43.9 m² |
| UNIT STUDIO | 39.8 m² |
| UNIT STUDIO | 26.6 m² |
| UNIT STUDIO | 26.6 m² |
| Grand total | 1841.9 m² |

| GROSS CONSTRUCTION AREA (GCA) - LEVEL 11 | |
|---|---|
| Name | Area |
| CHUTE | 7.2 m² |
| CHUTE | 5.0 m² |
| CIRC. | 99.7 m² |
| CIRC. | 50.2 m² |
| ELEC. CT | 1.8 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 28.2 m² |
| EXIT STAIR | 26.3 m² |
| EXIT STAIR | 19.7 m² |
| EXIT STAIR | 19.1 m² |
| MECH. | 2.9 m² |
| MECH. | 2.0 m² |
| MECH. | 1.9 m² |
| UNIT 1BD | 59.2 m² |
| UNIT 1BD | 58.8 m² |
| UNIT 1BD | 56.9 m² |
| UNIT 1BD | 56.9 m² |
| UNIT 1BD | 56.9 m² |
| UNIT 1BD | 56.9 m² |
| UNIT 1BD | 56.9 m² |

| GROSS CONSTRUCTION AREA (GCA) - LEVEL 11 | |
|---|---|
| Name | Area |
| UNIT 1BD | 55.1 m² |
| UNIT 1BD | 55.1 m² |
| UNIT 1BD | 49.6 m² |
| UNIT 1BD | 46.8 m² |
| UNIT 1BD | 46.8 m² |
| UNIT 1BD | 46.8 m² |
| UNIT 1BD | 46.8 m² |
| UNIT 1BD | 46.5 m² |
| UNIT 2BD | 70.1 m² |
| UNIT 2BD | 68.6 m² |
| UNIT 2BD | 68.6 m² |
| UNIT 2BD | 64.8 m² |
| UNIT 2BD | 58.1 m² |
| UNIT 3 BD | 108.4 m² |
| UNIT 3 BD | 81.7 m² |
| UNIT 3 BD | 74.8 m² |
| UNIT 3 BD | 70.5 m² |
| UNIT STUDIO | 43.9 m² |
| UNIT STUDIO | 39.8 m² |
| UNIT STUDIO | 26.6 m² |
| UNIT STUDIO | 26.6 m² |
| Grand total | 1984.1 m² |

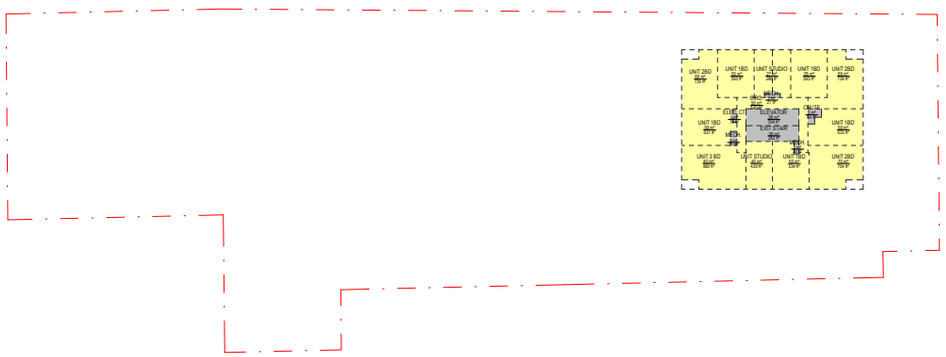



1 GFA Level14/MPH
1 : 500

| GFA EXCLUSION PER ZBL-569-2013 LEVEL 14 | |
|---|---|
| Name | Area |
| CHUTE | 5.0 m² |
| ELEC. CT | 1.8 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 10.3 m² |
| EXIT STAIR | 26.3 m² |
| EXIT STAIR | 18.6 m² |
| MECH. | 271.2 m² |
| MECH. | 2.9 m² |
| MECH. | 2.0 m² |
| MECH. | 1.9 m² |
| Grand total | 368.1 m² |

| GFA PER ZBL-569-2013 LEVEL 14 | |
|---|---|
| Name | Area |
| CIRC. | 50.2 m² |
| CIRC. | 8.8 m² |
| UNIT 1BD | 59.2 m² |
| UNIT 1BD | 58.8 m² |
| UNIT 1BD | 55.1 m² |
| UNIT 1BD | 55.1 m² |
| UNIT 1BD | 49.6 m² |
| UNIT 2BD | 70.1 m² |
| UNIT 2BD | 68.6 m² |
| UNIT 2BD | 68.6 m² |
| UNIT 3 BD | 81.7 m² |
| UNIT STUDIO | 39.8 m² |
| UNIT STUDIO | 26.6 m² |
| UNIT STUDIO | 26.6 m² |
| Grand total | 718.8 m² |

| GROSS CONSTRUCTION AREA (GCA) - LEVEL 14 | |
|---|---|
| Name | Area |
| CHUTE | 5.0 m² |
| CIRC. | 50.2 m² |
| CIRC. | 8.8 m² |
| ELEC. CT | 1.8 m² |
| ELEVATOR | 28.2 m² |
| ELEVATOR | 10.3 m² |
| EXIT STAIR | 26.3 m² |
| EXIT STAIR | 18.6 m² |
| MECH. | 271.2 m² |
| MECH. | 2.9 m² |
| MECH. | 2.0 m² |
| MECH. | 1.9 m² |
| UNIT 1BD | 59.2 m² |
| UNIT 1BD | 58.8 m² |
| UNIT 1BD | 55.1 m² |
| UNIT 1BD | 55.1 m² |
| UNIT 1BD | 49.6 m² |
| UNIT 2BD | 70.1 m² |
| UNIT 2BD | 68.6 m² |
| UNIT 2BD | 68.6 m² |
| UNIT 3 BD | 81.7 m² |
| UNIT STUDIO | 39.8 m² |
| UNIT STUDIO | 26.6 m² |
| UNIT STUDIO | 26.6 m² |
| Grand total | 1086.9 m² |

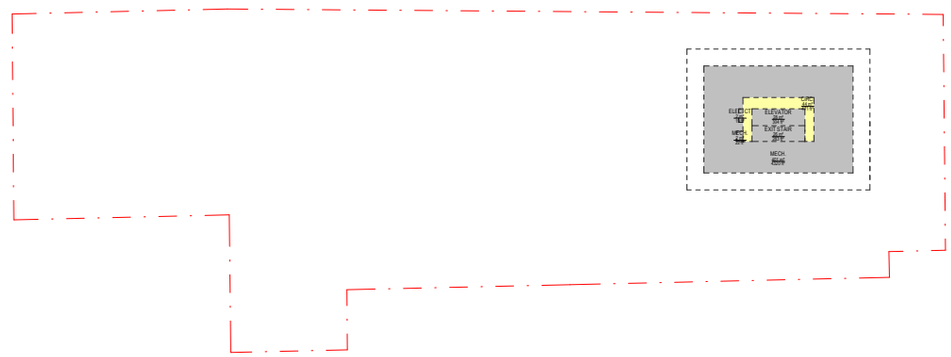



2 GFA Level15-35
1 : 500

| GFA EXCLUSION PER ZBL-569-2013 LEVEL 15 | |
|---|---|
| Name | Area |
| CHUTE | 5.0 m² |
| ELEC. CT | 1.8 m² |
| ELEVATOR | 28.2 m² |
| EXIT STAIR | 26.3 m² |
| MECH. | 2.9 m² |
| MECH. | 2.0 m² |
| MECH. | 1.9 m² |
| Grand total | 68.1 m² |

| GFA PER ZBL-569-2013 LEVEL 15 | |
|---|---|
| Name | Area |
| CIRC. | 50.2 m² |
| UNIT 1BD | 59.2 m² |
| UNIT 1BD | 58.8 m² |
| UNIT 1BD | 55.1 m² |
| UNIT 1BD | 55.1 m² |
| UNIT 1BD | 49.6 m² |
| UNIT 2BD | 70.1 m² |
| UNIT 2BD | 68.6 m² |
| UNIT 2BD | 68.6 m² |
| UNIT 3 BD | 81.7 m² |
| UNIT STUDIO | 39.8 m² |
| UNIT STUDIO | 26.6 m² |
| UNIT STUDIO | 26.6 m² |
| Grand total | 710.0 m² |

| GROSS CONSTRUCTION AREA (GCA) - LEVEL 15 | |
|---|---|
| Name | Area |
| CHUTE | 5.0 m² |
| CIRC. | 50.2 m² |
| ELEC. CT | 1.8 m² |
| ELEVATOR | 28.2 m² |
| EXIT STAIR | 26.3 m² |
| MECH. | 2.9 m² |
| MECH. | 2.0 m² |
| MECH. | 1.9 m² |
| UNIT 1BD | 59.2 m² |
| UNIT 1BD | 58.8 m² |
| UNIT 1BD | 55.1 m² |
| UNIT 1BD | 55.1 m² |
| UNIT 1BD | 49.6 m² |
| UNIT 2BD | 70.1 m² |
| UNIT 2BD | 68.6 m² |
| UNIT 2BD | 68.6 m² |
| UNIT 3 BD | 81.7 m² |
| UNIT STUDIO | 39.8 m² |
| UNIT STUDIO | 26.6 m² |
| UNIT STUDIO | 26.6 m² |
| Grand total | 778.1 m² |




3 GFA MPH
1 : 500

| GFA EXCLUSION PER ZBL-569-2013 LEVEL MPH | |
|---|---|
| Name | Area |
| ELEC. CT | 1.8 m² |
| ELEVATOR | 28.2 m² |
| EXIT STAIR | 26.3 m² |
| MECH. | 401.3 m² |
| MECH. | 2.1 m² |
| Grand total | 459.8 m² |

| GFA PER ZBL-569-2013 LEVEL MPH | |
|---|---|
| Name | Area |
| CIRC. | 43.7 m² |
| Grand total | 43.7 m² |

| GROSS CONSTRUCTION AREA (GCA) - LEVEL MPH | |
|---|---|
| Name | Area |
| CIRC. | 43.7 m² |
| ELEC. CT | 1.8 m² |
| ELEVATOR | 28.2 m² |
| EXIT STAIR | 26.3 m² |
| MECH. | 401.3 m² |
| MECH. | 2.1 m² |
| Grand total | 503.5 m² |



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GROSS FLOOR AREA (ZBL 569-2013)

GROSS FLOOR AREA (ZBL 569-2013)

569-2013 EXCLUSION

Gross Floor Area Calculations for an Apartment Building in the Commercial Residential Zone Category per ZBL 569-2013, Section 40.5.40.40 (5).

In the Commercial Residential Zone category the gross floor area of an apartment building is reduced by the area in the building used for:

(A) parking, loading and bicycle parking below-ground;
(B) required loading spaces at the ground level and required bicycle parking spaces at or above ground;
(C) storage rooms, washrooms, electrical, utility, mechanical and ventilation rooms in the basement;
(D) shower and change facilities required by this By-law for required bicycle parking spaces;
(E) amenity space required by this By-law;
(F) elevator shafts;
(G) garbage shafts;
(H) mechanical penthouse; and
(I) exit stairwells in the building.

| No. | Date | Issue/Revision |
|---|---|---|
| 1 | OCT 28, 2024 | Issued for OPA and ZBA |

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Title:

## GFA DIAGRAMS PER ZBL 569-2013

Project No. 2216 | Scale As indicated

Drawing No.

# A.005

2024-10-28 9:11:19 PM

## GREEN ROOF STATISTICS

| | | Proposed |
|---|---|---|
| Gross Floor Area, as defined in Green Roof Bylaw (m²) | | 46879.5 m² |
| Total Roof Area (m²) | | 4231.57 m² |
| Area of Residential Private Terraces (m²) | | 390.04 m² |
| Rooftop Outdoor Amenity Space, if in a Residential Building (m²) | | 1376.17 m² |
| Area of Renewable Energy Devices (m²) | | 0 m² |
| Tower (s)Roof Area with floor plate less than 750 m² | | N/A |
| **Total Available Roof Space (m²)** | | 2465.36 m² |
| Green Roof Coverage | Required | Proposed |
| Coverage of Available Roof Space (m²) | 1479.22 m² | 1990 m² |
| Coverage of Available Roof Space (%) | 60 % | 80.7 % |

Gross Floor Area, as defined in Green Roof Bylaw

The total area of each floor level of a building, above and below average grade, measured from the exterior of the main wall of each floor level, including voids at the level of each floor, such as an atrium, mezzanine, stairwell, escalator, elevator, ventilation duct or utility shaft, but *excluding areas used for the purpose of parking or loading*

Definitions

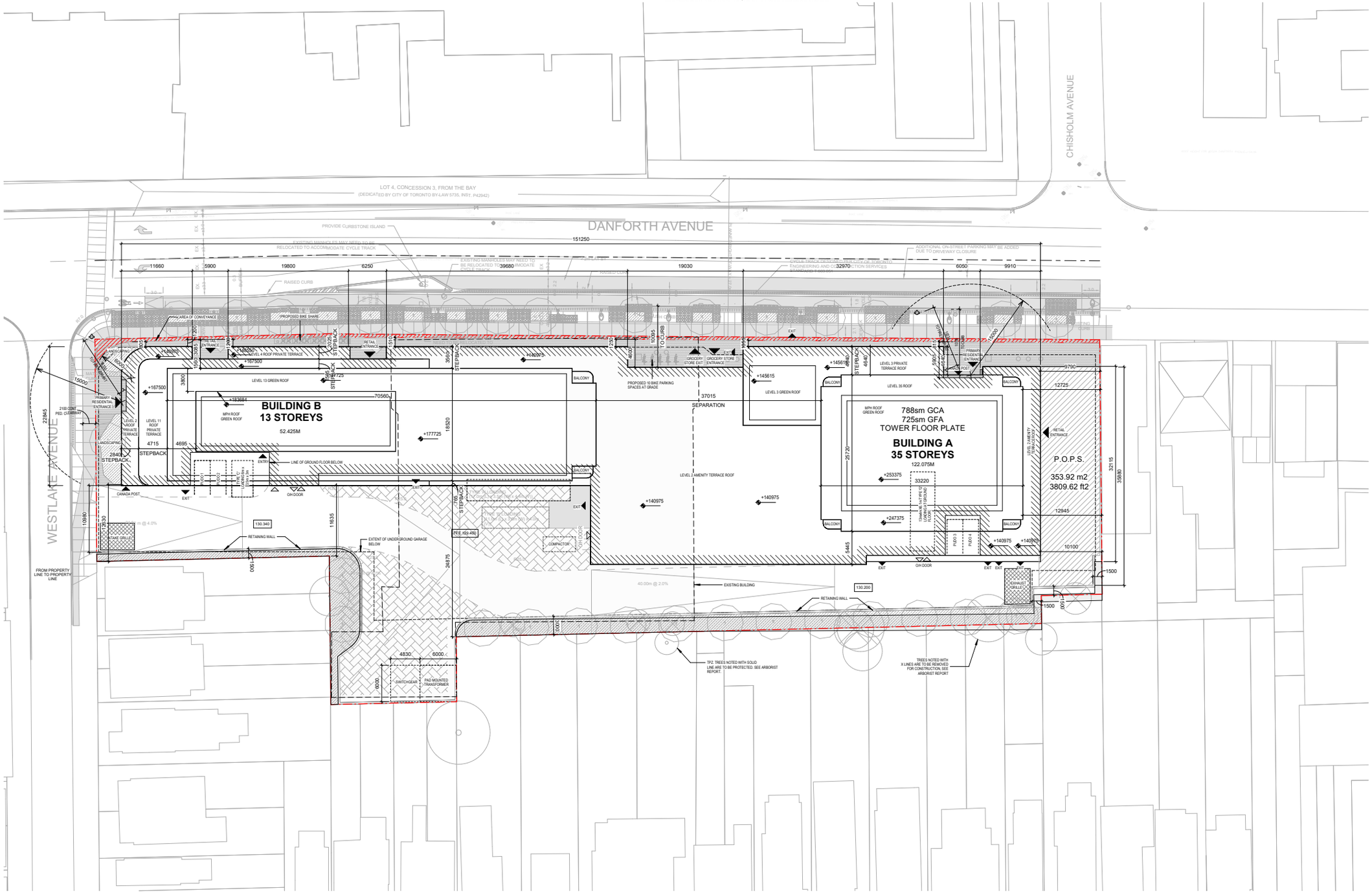
FLOOR PLATE AREA - The total area of a floor of a building, measured from the exterior of the main wall of the floor level, including voids at the level of the floor, such as an atrium, mezzanine, stairwell, escalator, elevator, ventilation duct or utility shaft.

GROSS FLOOR AREA - The total area of each floor level of a building, above and below average grade, measured from the exterior of the main wall of each floor level, including voids at the level of each floor, such as an atrium, mezzanine, stairwell, escalator, elevator, ventilation duct or utility shaft, but excluding areas used for the purpose of parking or loading

LOADING NOTES
1. TYPE G LOADING SPACE AND ADJACENT STAGING PAD HAVE VERTICAL CLEARANCE OF MIN 6.1 METERS.
OVERHEAD DOOR TO LOADING SPACE WILL HAVE MIN 4.4 METER HEIGHT. 2.1M DEEP STAGING AREA DIRECTLY IN FRONT OF THE LOADING AREA TO HAVE MIN. VERTICAL CLEARANCE OF 6.1M.
2. TYPE G LOADING SPACE WILL BE SHARED BETWEEN RESIDENTIAL AND NON-RESIDENTIAL USES. NON-RESIDENTIAL COMPONENT WILL ONLY SCHEDULE USE OF THE TYPE G LOADING SPACE ON DIFFERENT DAYS FROM THE COLLECTION DAYS OF THE RESIDENTIAL COMPONENT TO ENSURE THAT THE TYPE G LOADING SPACE WILL BE VACANT FOR CITY WASTE COLLECTION.
3. NON-RESIDENTIAL WASTE WILL BE LABELLED AND STORED SEPARATELY FROM THE BINS FOR RESIDENTIAL WASTE.
4. TYPE G LOADING SPACE WILL BE LEVEL (+/- 2%) AND CONSTRUCTED WITH MIN 200mm THICK SACRIFICIAL CONCRETE SLAB
5. A WARNING SYSTEM WILL BE PROVIDED, ALERTING DRIVERS WHEN EXITING THE UNDERGROUND PARKING GARAGE THAT LARGE TRUCKS ARE MANOEUVRING WITHIN THE PUBLIC LANE;
6. ALL ACCESS DRIVEWAYS TO BE USED BY THE GARBAGE COLLECTION VEHICLE WILL HAVE:
a) MAXIMUM GRADIENT OF 8%;
b) MINIMUM VERTICAL CLEARANCE OF 4.4 METRES THROUGHOUT;
c) MINIMUM WIDTH OF 4.5 METRES THROUGHOUT; AND,
d) 6 METRES WIDE AT POINT OF INGRESS AND EGRESS.
7. NO PARKING" SIGNS TO BE PROVIDED AND MAINTAINED ADJACENT TO THE LOADING SPACE.
8. CONSTRUCT ANY TYPE G LOADING SPACE AND ALL DRIVEWAYS AND PASSAGEWAYS PROVIDING ACCESS THERETO, TO THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, INCLUDING ALLOWANCE FOR CITY OF TORONTO BULK LIFT AND REAR BIN LOADING WITH IMPACT FACTORS WHERE THEY ARE TO BE BUILT AS SUPPORTED STRUCTURES.
9. THE RESIDENTIAL SOLID WASTE ROOM WILL ACCOMMODATE GARBAGE, RECYCLING AND ORGANICS FOR THE RESIDENTIAL COMPONENT OF THE BUILDING VIA USE OF A BISORTER IN THE DEVELOPMENT.
10. BULK WASTE HAS 10m2 DESIGNATED FLOOR AREA FOR THE DEVELOPMENT.
11. "COLLECTION OF WASTE MATERIALS FOR THIS DEVELOPMENT WILL TAKE PLACE IN AN ENCLOSED LOADING BAY. AN ON-SITE STAFF PERSON IS RESPONSIBLE FOR MOVING THE BINS FROM THE GARBAGE STORAGE SPACE TO THE COLLECTION POINT AND PROVIDE VEHICULAR DIRECTIVES TO THE COLLECTION VEHICLE OPERATOR AS REQUIRED."
12. THIS BUILDING IS DESIGNED WITH A TYPE G LOADING SPACE. A FLASHING WARNING LIGHT SYSTEM AND / OR APPROPRIATE SIGNAGE ADJACENT TO THE SPACE, AT NO COST TO THE CITY, WILL BE IN PLACE AND ACTIVATED DURING COLLECTION AND REMAIN ACTIVE UNTIL THE VEHICLE EXITS THE SITE. REFER TO TRAFFIC CONSULTANT REPORT FOR SWEPT PATH.
13. SOLID WASTE MANAGEMENT TO BE NOTIFIED UPON COMPLETION OF THE DEVELOPMENT AND SHOULD PUBLIC WASTE COLLECTION BE USED, ALL NECESSARY APPLICATION AND WAIVER FORMS TO BE COMPLETED PRIOR TO COMMENCEMENT OF CITY REFUSE COLLECTION.
14. NON-RESIDENTIAL GARBAGE WILL BE COLLECTED BY LISCENSED PRIVATE WASTE MANAGEMENT COMPANY.
15. REFUSE GENERATED BY THE NON-RESIDENTIAL USE MUST BE STORED ON SITE, IN RODENT PROOF CONTAINERS IN ACCORDANCE WITH CHAPTER 841 OF THE MUNICIPAL CODE, "WASTE COLLECTION. COMMERCIAL PROPERTIES".
16. TRAINED ON-SITE STAFF MEMBER WILL BE AVAILABLE TO MANOEUVRE BINS FOR THE COLLECTION DRIVER AND ALSO ACT AS A FLAGMAN WHEN THE TRUCK IS REVERSING. IN THE EVENT THE ON-SITE STAFF IS UNAVAILABLE AT THE TIME THE CITY COLLEGION VEHICLE ARRIVES AT THE SITE, THE COLLECTION VEHICLE WILL LEAVE THE SITE AND NOT RETURN UNTIL THE NEXT SCHEDULED COLLECTION DATE. FOR SPECIFIC TRUCK DIMENSIONS AND TURNING RADII, REFER TO TRAFFIC CONSULTANT'S REPORT.

SITE PLAN NOTES
1. THE BUILDING(S) TO BE SPRINKLERED.
2. RESIDENTIAL VISITOR PARKING SPACES WILL BE INDIVIDUALLY SIGNED AT THE FRONT OF EACH SPACE FOR THE USE OF RESIDENTIAL VISITORS. BUILDING MANAGEMENT SHALL PROVIDE ENFORCEMENT OF THIS ARRANGEMENT.
3. SIDEWALKS AND BOULEVARDS WITHIN THE RIGHT OF WAY TO HAVE A MINIMUM 1% AND MAXIMUM 4% SLOPE TOWARDS THE ROADWAY.
4. REFER TO SITE SERVICING DOCUMENTS FOR SEWER AND WATER SERVICE INFORMATION.
5. ANY RETAINING WALLS ARE TO BE PROFESSIONALLY ENGINEERED.
6. ALL EXISTING ACCESSES, CURB CUTS, TRAFFIC CONTROL SIGNS, ETC. ALONG THE DEVELOPMENT SITE FRONTAGES THAT ARE NO LONGER REQUIRED ARE TO BE REMOVED. THE BOULEVARD WITHIN THE PUBLIC RIGHT OF WAY, IN ACCORDANCE WITH CITY STANDARDS AND TO THE SATISFACTION OF THE EXECUTIVE DIRECTOR OF TECHNICAL SERVICES ARE TO BE REINSTATED.
7. PROPOSED ACCESS TO THE RIGHT-OF-WAY/LANEWAY FOR THIS PROJECT TO BE DESIGNED IN ACCORDANCE WITH CITY STANDARD NO.T310-050-1 FOR COMBINED CURB AND SIDEWALK VEHICULAR ENTRANCES.
8. NO SPEED BUMPS SHALL BE INSTALLED ON ANY DESIGNATED FIRE ROUTE.
9. MAX. POROSITY OF ALL GROUND LEVEL VENTILATION GRATES MUST BE 20mm X 20mm PER TORONTO GREEN STANDARDS.
10. ALL EXTERIOR LIGHT FIXTURES TO BE "DARK SKY" COMPLIANT.

UTILITY/SERVICES NOTES
1. THE METHOD OF INSTALLATION FOR THE PROPOSED SERVICE CONNECTIONS WILL BE AT THE DISCRETION OF TORONTO WATER.
2. EXISTING CONNECTIONS NO LONGER IN USE SHALL BE DISCONNECTED BY TORONTO WATER AT THE OWNER'S COST.
3. THE LOCATION OF THE WATER METER SHALL BE TO TORONTO WATER'S SATISFACTION.*
4. THE OWNER IS REQUIRED TO INSTALL AND MAINTAIN A PREMISE ISOLATION DEVICE FOR ALL APPLICABLE WATER SERVICES IN ACCORDANCE WITH THE TORONTO MUNICIPAL CODE, CHAPTER 851 WATER SUPPLY, THE BUILDING CODE AND CSA B64 SERIES STANDARDS.
5. THE BUILDING'S STORM AND SANITARY SYSTEM MUST BE DESIGNED TO BE ABLE TO OPERATE UNDER MUNICIPAL SURCHARGE CONDITIONS.
6. BE ADVISED THAT SHOULD ANY PARTY, INCLUDING THE APPLICANT OR ANY SUBSEQUENT OWNER, APPLY FOR MORE THAN ONE CONDOMINIUM CORPORATION ENCOMPASSING ANY OF ALL OF THIS DEVELOPMENT OR MAKE AN APPLICATION THAT RESULTS IN A LAND DIVISION, STAFF MAY REQUIRE LEGAL ASSURANCES, INCLUDING BUT NOT LIMITED TO EASEMENTS, WITH RESPECT TO THE APPROVED SERVICES. SUCH ASSURANCES WILL BE DETERMINED AT THE TIME OF APPLICATION FOR CONDOMINIUM APPROVAL.




1 Site Plan
1 : 300



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PRINCIPAL ENTRY
ENTRY/ EXIT
VEHICULAR ENTRY/ EXIT
FIRE DEPARTMENT CONNECTION
FH FIRE HYDRANT
MH MANHOLE COVER
CB CATCH BASIN
HP HYDRO POLE
EL ELECTRICAL STAND
EXTENT OF BELOW GRADE
BUILDING ELEMENT ABOVE
OPEN TO BELOW
EXTENT OF GROUND FLOOR
123.45 GEODETIC ELEVATION
HT: 12.30 m ELEVATION FROM EXTABLISHED GRADE
78.20 EXISTING GRADE ELEVATION FH
BARRIER FREE TURNING RADIUS
EXISTING BUILDING
PROPERTY CONVEYANCE
PROPERTY LINE

| | |
|---|---|
| FFE | FINISHED FLOOR ELEVATION |
| TOP | TOP OF PARAPET |
| TOR | TOP OF ROOF |
| TOS | TOP OF STRUCTURE |
| TGS | TORONTO GREEN STANDARDS |
| TPZ | TREE PROTECTION ZONE |

**NOTE:**

SURVEY INFORMATION TAKEN FROM "LOT 1 AND PART OF LOT 2 REGISTERED PLAN 614 YORK AND PART OF LOT 13 SOUTH SIDE OF DANFORTH AVENUE REGISTERED PLAN 90 YORK AND PART OF LOTS 3,4,5,6,7 AND 8 REGISTERED PLAN 580 YORK CITY OF TORONTO"
BY KROMAR SURVEYORS LTD.
DATED JULY, 27 2022.

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|---|---|---|
| 1 | OCT 28, 2024 | Issued for OPA and ZBA |

ONTARIO ASSOCIATION OF ARCHITECTS
ANDREA DELLA
LICENCE 5626

# 2451-2495 Danforth

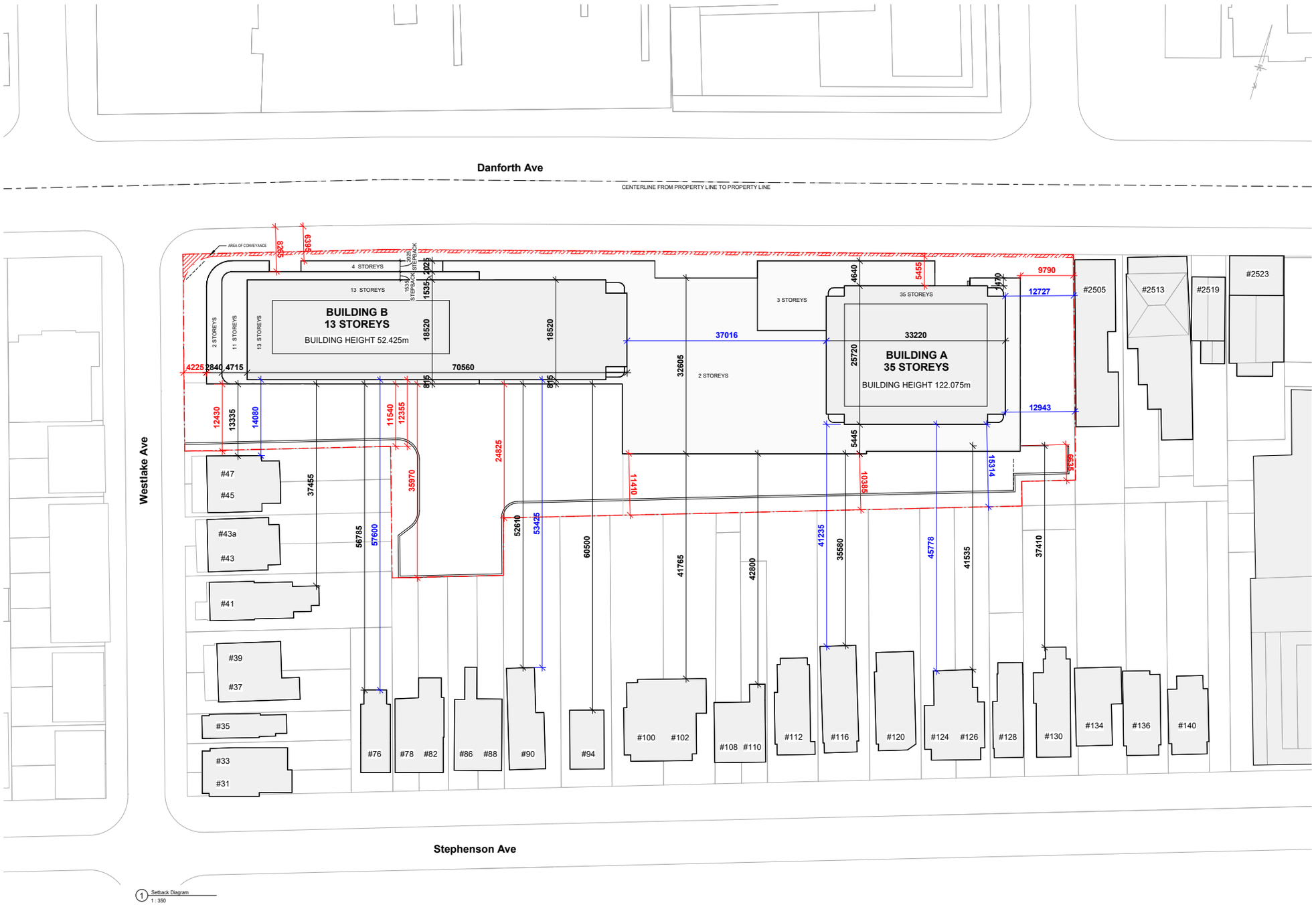
2451-2495 Danforth
Avenue, Toronto, ON
M6R 2J5

Title:
## SITE PLAN

| Project No. 2216 | Scale | As indicated |
|---|---|---|

Drawing No.
**A.100**

2024-11-01 8:11:12 PM




1 Setback Diagram
1 : 350



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SETBACK DIAGRAM LEGEND

- SETBACK FROM PROPERTY LINE
- SEPARATION DISTANCE BETWEEN UPPER FLOORS AND EXISTING BUILDINGS
- SEPARATION DISTANCE BETWEEN PODIUM AND EXISTING BUILDINGS

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|---|---|---|
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ANDREE DELLA
LICENCE
5625

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M6R 2J5

Title:
SETBACK DIAGRAM

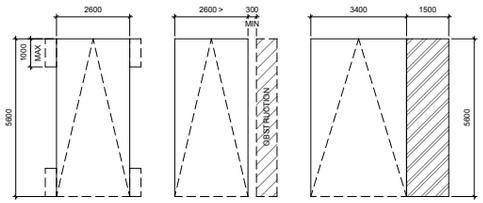
Project No. 2216 | Scale As indicated

Drawing No.

A.006

2024-11-07 9:11:00 PM

**VEHICLE PARKING DIMENSIONS**

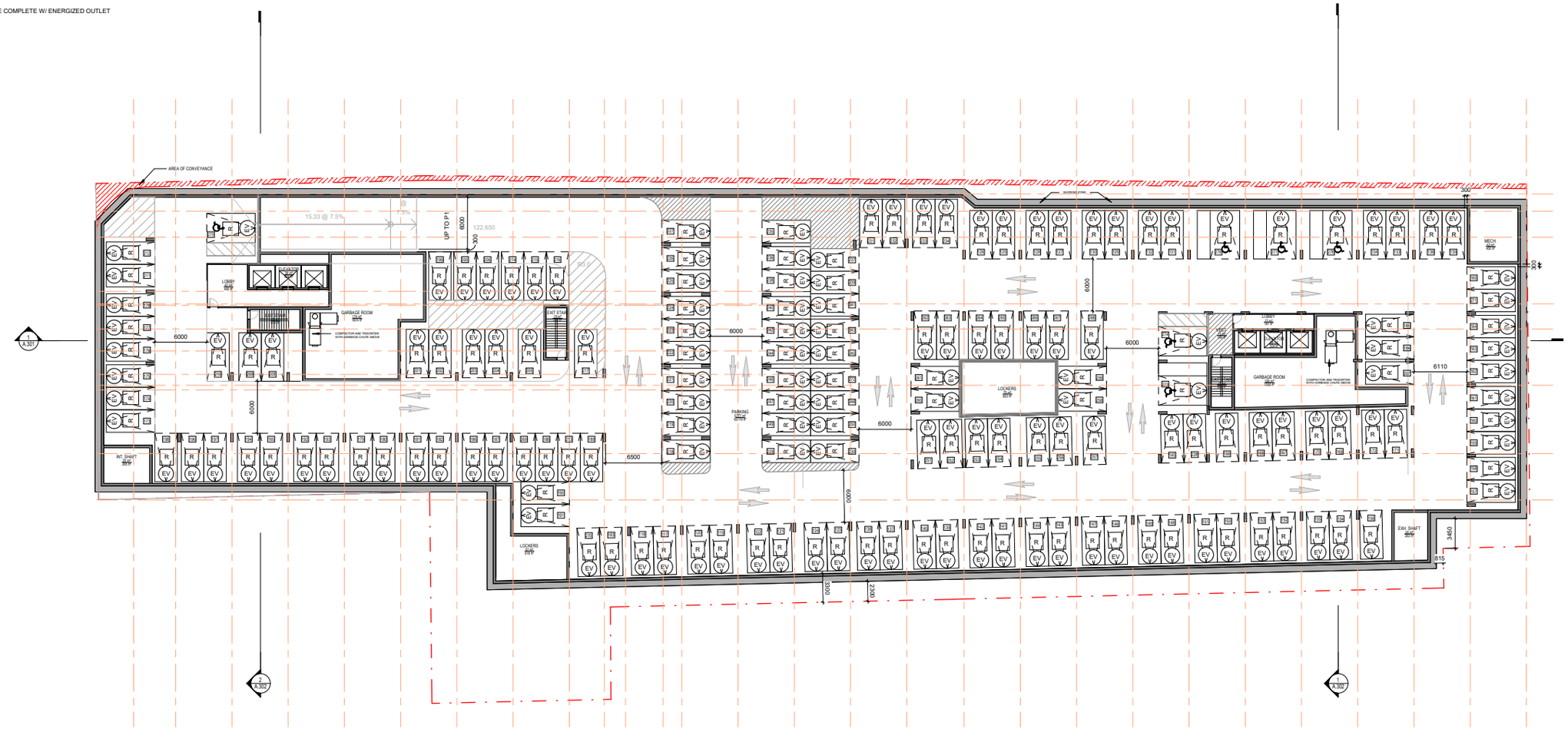



TYPICAL PARKING SPACE

TYPICAL OBSTRUCTED PARKING SPACE

TYPICAL BARRIER FREE PARKING SPACE PER 569-2017

EV - PARKING SPACE COMPLETE W/ ENERGIZED OUTLET
V - VISITOR
R - RESIDENTIAL
EB - BIKE PARKING SPACE COMPLETE W/ ENERGIZED OUTLET




1 P2
1 : 250



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LICENCE
5626

2451-2495 Danforth

2451-2495 Danforth
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M6R 2J5

Title:
FLOOR PLAN - P2

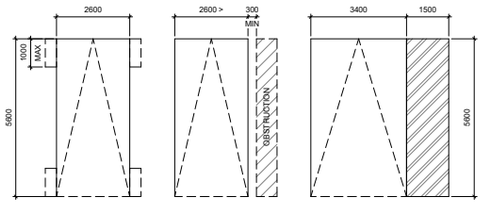
Project No. 2216 | Scale As indicated

Drawing No.

**A.101**

2024-11-01 01:10:10 PM

**VEHICLE PARKING DIMENSIONS**




TYPICAL PARKING SPACE

TYPICAL OBSTRUCTED PARKING SPACE

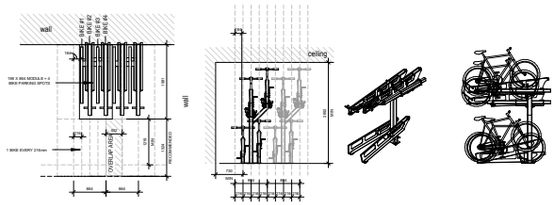
TYPICAL BARRIER FREE PARKING SPACE PER 569-2017

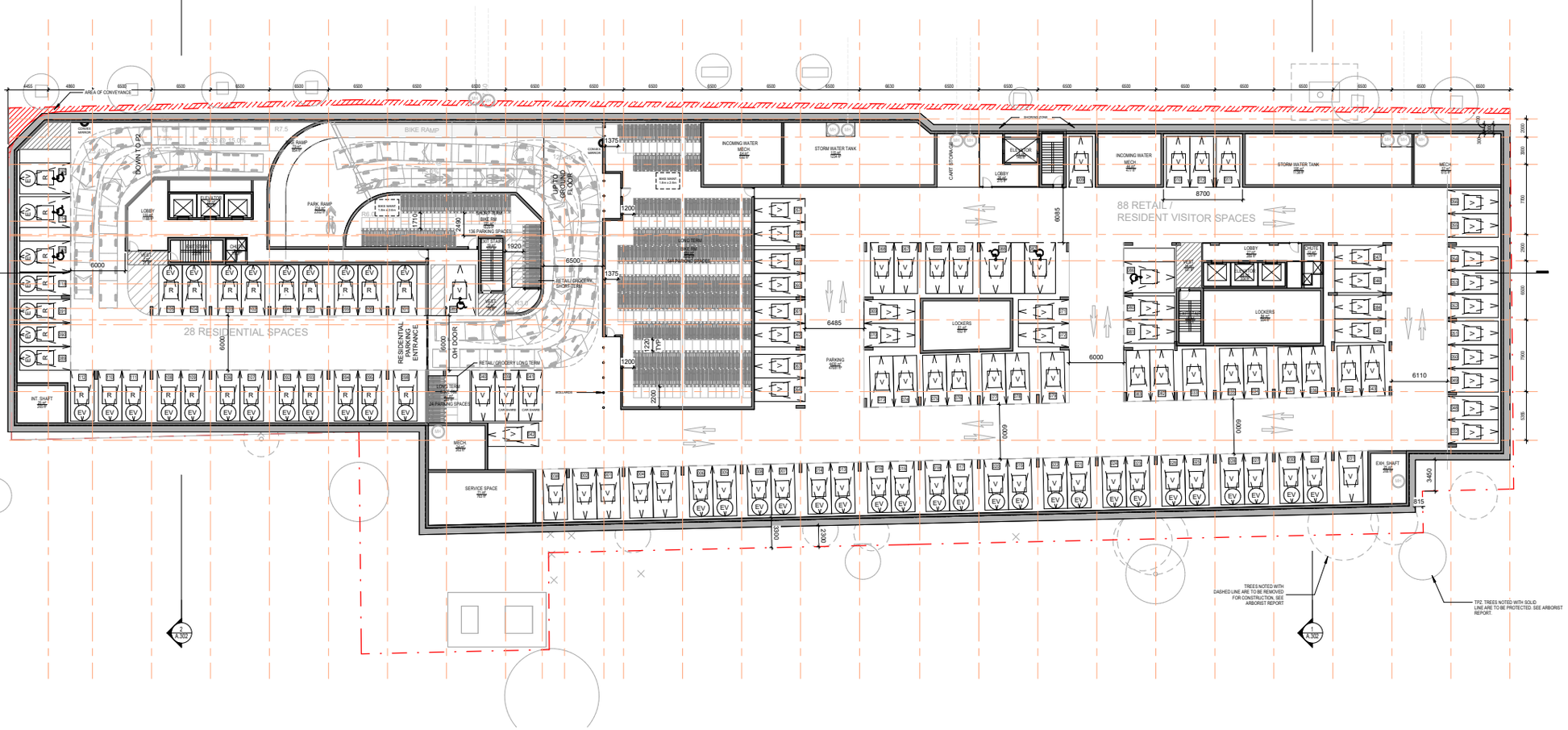
EV - PARKING SPACE COMPLETE W/ ENERGIZED OUTLET
V - VISITOR
R - RESIDENTIAL
EB - BIKE PARKING SPACE COMPLETE W/ ENERGIZED OUTLET

**BICYCLE SPACE LEGEND**

**STACKABLE BIKE PARKING. TYPICAL DETAIL**

DERO DECKER or SIMILAR - 2 TEIRED SYSTEM (4 BIKES / UNIT TOTAL)




1 P1
1 : 250



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5626

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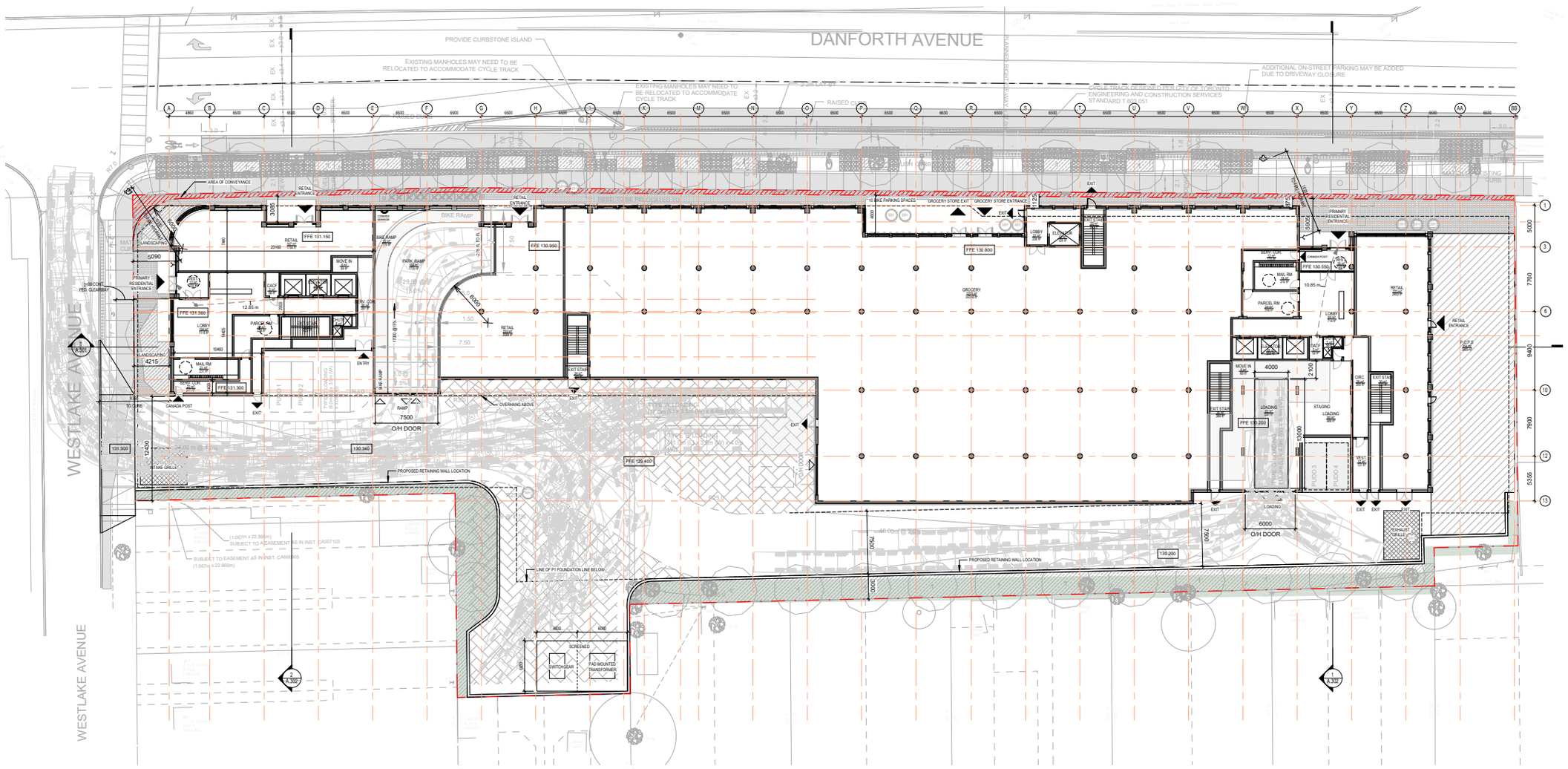
2451-2495 Danforth
Avenue, Toronto, ON
M6R 2J5

Title:
FLOOR PLAN - P1

Project No. 2216 | Scale As indicated

Drawing No.

**A.102**




1 Site Plan - Ground Floor
1 : 250



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PRINCIPAL ENTRY
ENTRY/ EXIT
VEHICULAR ENTRY/ EXIT
FIRE DEPARTMENT CONNECTION
FIRE HYDRANT
MANHOLE COVER
CATCH BASIN
HYDRO POLE
ELECTRICAL STAND
EXTENT OF BELOW GRADE
BUILDING ELEMENT ABOVE
OPEN TO BELOW
EXTENT OF GROUND FLOOR
123.45 GEODETIC ELEVATION
HT: 12.30 m ELEVATION FROM EXTABLISHED GRADE
78.20 EXISTING GRADE ELEVATION FH
BARRIER FREE TURNING RADIUS
EXISTING BUILDING
PROPERTY CONVEYANCE
PROPERTY LINE

| | |
|---|---|
| FFE | FINISHED FLOOR ELEVATION |
| TOP | TOP OF PARAPET |
| TOR | TOP OF ROOF |
| TOS | TOP OF STRUCTURE |
| TGS | TORONTO GREEN STANDARDS |
| TPZ | TREE PROTECTION ZONE |

**NOTE:**

SURVEY INFORMATION TAKEN FROM "LOT 1 AND PART OF LOT 2 REGISTERED PLAN 614 YORK AND PART OF LOT 13 SOUTH SIDE OF DANFORTH AVENUE REGISTERED PLAN 90 YORK AND PART OF LOTS 3,4,5,6,7 AND 8 REGISTERED PLAN 580 YORK CITY OF TORONTO"
BY KRCMAR SURVEYORS LTD.
DATED JULY, 27 2022.

| No. | Date | Issue/Revision |
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ANDRE D'ELIA
LICENCE
5526

## 2451-2495 Danforth

2451-2495 Danforth
Avenue, Toronto, ON
M6R 2J5

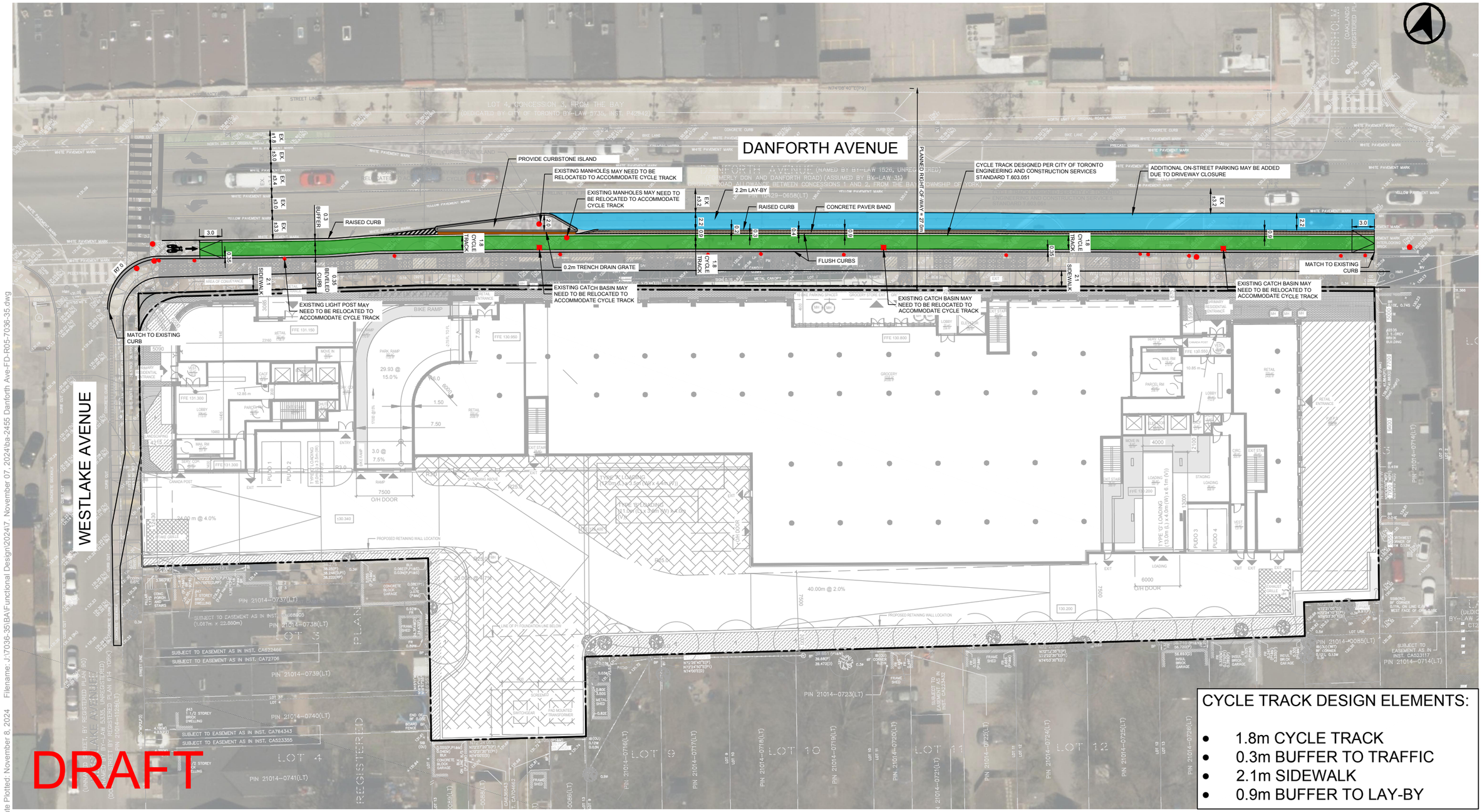
Title:
# FLOOR PLAN - GROUND FLOOR

| Project No. 2216 | Scale | As indicated |
|---|---|---|

Drawing No.
# A.103

2024-12-9 11:10:07 PM

# Appendix B:
# Functional Design Plans – Danforth Avenue Cycle Track




CYCLE TRACK DESIGN ELEMENTS:

- 1.8m CYCLE TRACK
- 0.3m BUFFER TO TRAFFIC
- 2.1m SIDEWALK
- 0.9m BUFFER TO LAY-BY

BA Group

# 2451 - 2495 DANFORTH AVENUE

FUNCTIONAL ROAD PLAN

INTERMEDIATE HEIGHT RAISED CYCLE TRACK WITH BEVELED SERRATION CURB

(T-603.051)

| | |
|---|---|
| Project: | 2451-2495 DANFORTH |
| Project No. | 7036-35 |
| Date: | November 8, 2024 |
| Revised: | |

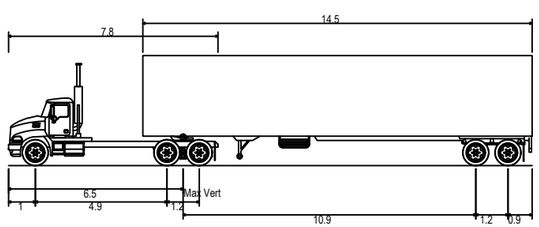
Scale 1:400 — 0 2 4 6 8 10 20m

Drawing No. FD-01

Date Plotted: November 8, 2024 Filename: J:\7036-35\BA\Functional Design\202417 November 07, 2024\ba-2455 Danforth Ave-FD-R05-7036-35.dwg

# Appendix C:
# Vehicle Manoeuvring Diagrams


Design Vehicle - MTO WB-17.5, URBAN VEHICLE




| | |
|---|---|
| Overall Length | 19.50m |
| Overall Width | 2.60m |
| Overall Body Height | 4.10m |
| Inside Turning Radius | Varies |
| Outside Turning Radius | 14.40m |

BA Group

# 2451 - 2495 DANFORTH AVENUE

## VEHICLE MANOEUVRING DIAGRAM

## MTO WB-17.5 - INBOUND

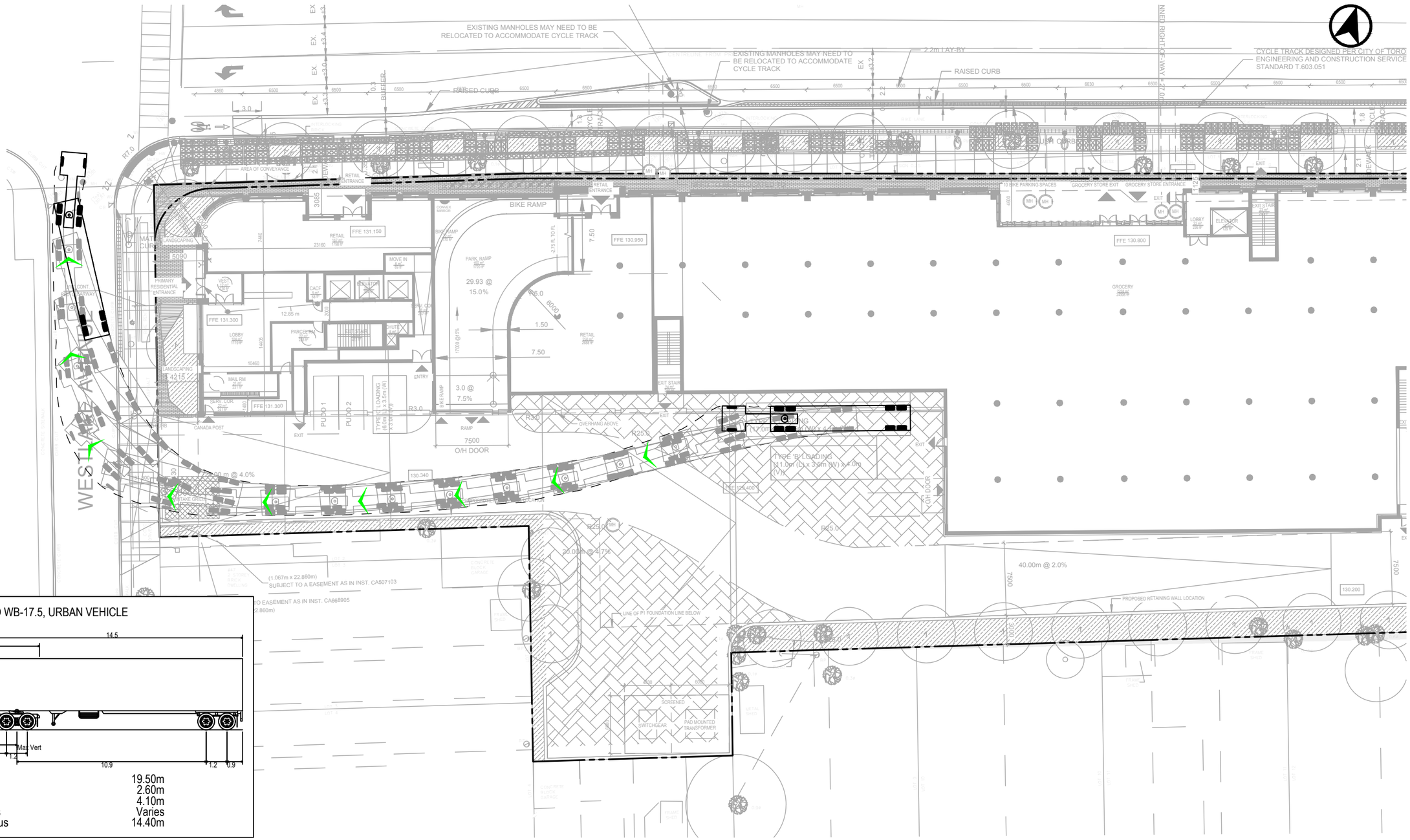
## TYPE 'A' LOADING SPACE

| | |
|---|---|
| Project: | 2451-2495 DANFORTH |
| Project No. | 7036-35 |
| Date: | April 09, 2024 |
| Revised: | November 8, 2024 |

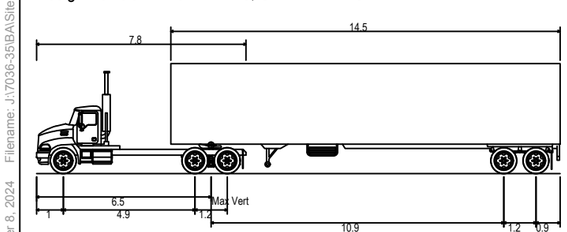
Scale 1:400 — 0 2 4 6 8 10 20m

Drawing No. VMD-01

Date Plotted: November 8, 2024 Filename: J:\7036-35\BA\Site Plan Review\2024\11. Nov 06, 2024\ba-2455 Danforth Ave-SPR-R06-7036-35.dwg




Design Vehicle - MTO WB-17.5, URBAN VEHICLE




| | |
|---|---|
| Overall Length | 19.50m |
| Overall Width | 2.60m |
| Overall Body Height | 4.10m |
| Inside Turning Radius | Varies |
| Outside Turning Radius | 14.40m |

Date Plotted: November 8, 2024 Filename: J:\7036-35\BA\Site Plan Review\2024\11. Nov 06, 2024\ba-2455 Danforth Ave-SPR-R06-7036-35.dwg

BA Group

# 2451 - 2495 DANFORTH AVENUE

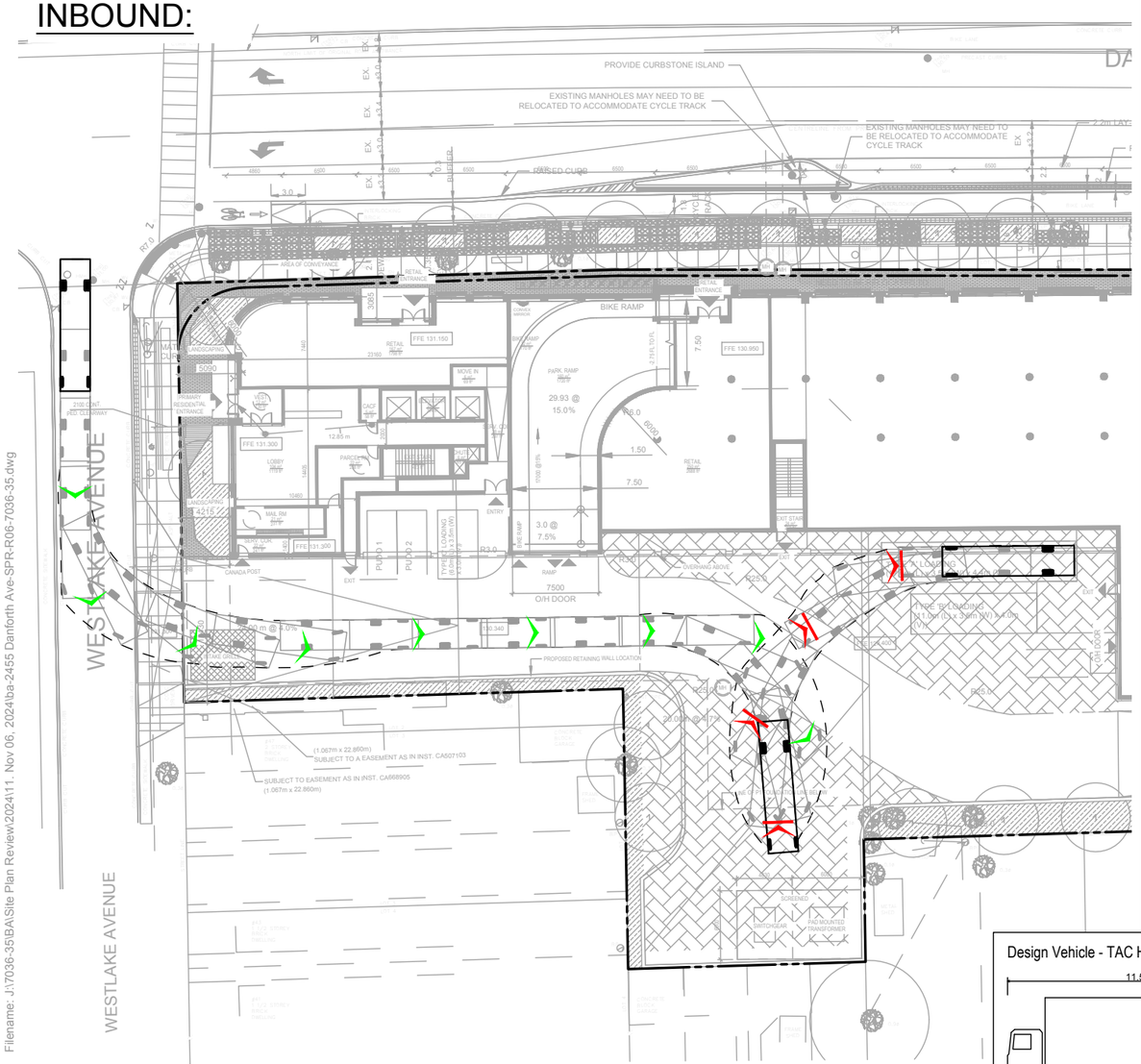
## VEHICLE MANOEUVRING DIAGRAM
## MTO WB-17.5 - OUTBOUND
## TYPE 'A' LOADING SPACE

| | |
|---|---|
| Project: | 2451-2495 DANFORTH |
| Project No. | 7036-35 |
| Date: | April 09, 2024 |
| Revised: | November 8, 2024 |

Scale 1:400 — 0 2 4 6 8 10 20m

Drawing No. VMD-02

## INBOUND:

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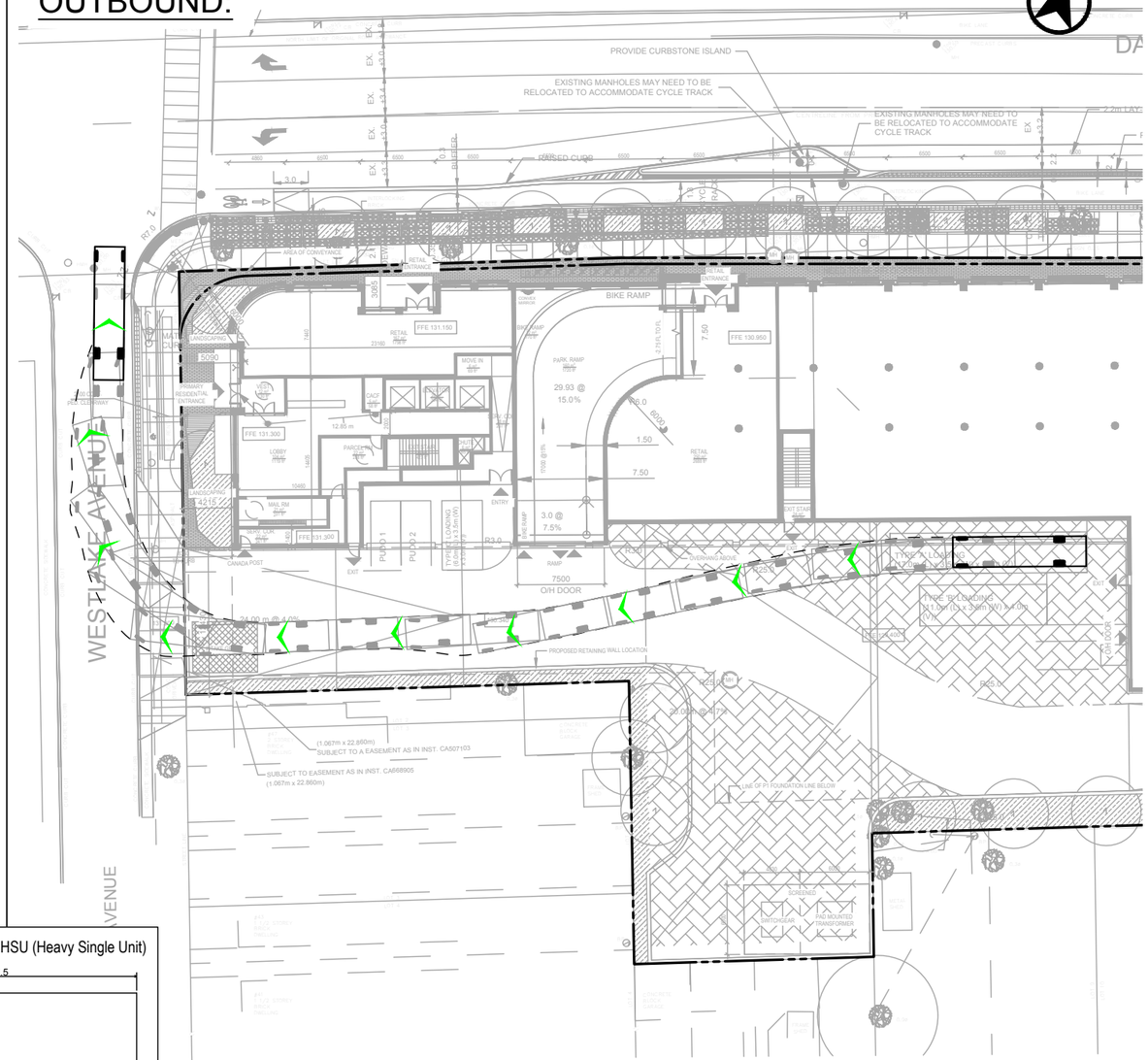
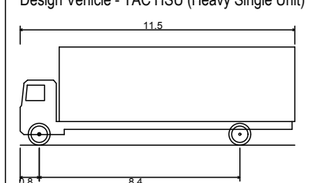



Design Vehicle - TAC HSU (Heavy Single Unit)




| | |
|---|---|
| Overall Length | 11.50m |
| Overall Width | 2.60m |
| Overall Body Height | 4.11m |
| Outside Turning Radius | 14.56m |
| Inside Turning Radius | 8.69m |

Date Plotted: November 8, 2024 Filename: J:\7036-35\BA\Site Plan Review\2024\11. Nov 06, 2024\ba-2455 Danforth Ave-SPR-R06-7036-35.dwg

BA Group

# 2451 - 2495 DANFORTH AVENUE

VEHICLE MANOEUVRING DIAGRAM
HEAVY SINGLE UNIT (HSU) VEHICLE
TYPE 'A' LOADING SPACE

| | |
|---|---|
| Project: | 2451-2495 DANFORTH |
| Project No. | 7036-35 |
| Date: | April 09, 2024 |
| Revised: | November 8, 2024 |

Scale 1:400 — 0 2 4 6 8 10 20m

Drawing No. VMD-03

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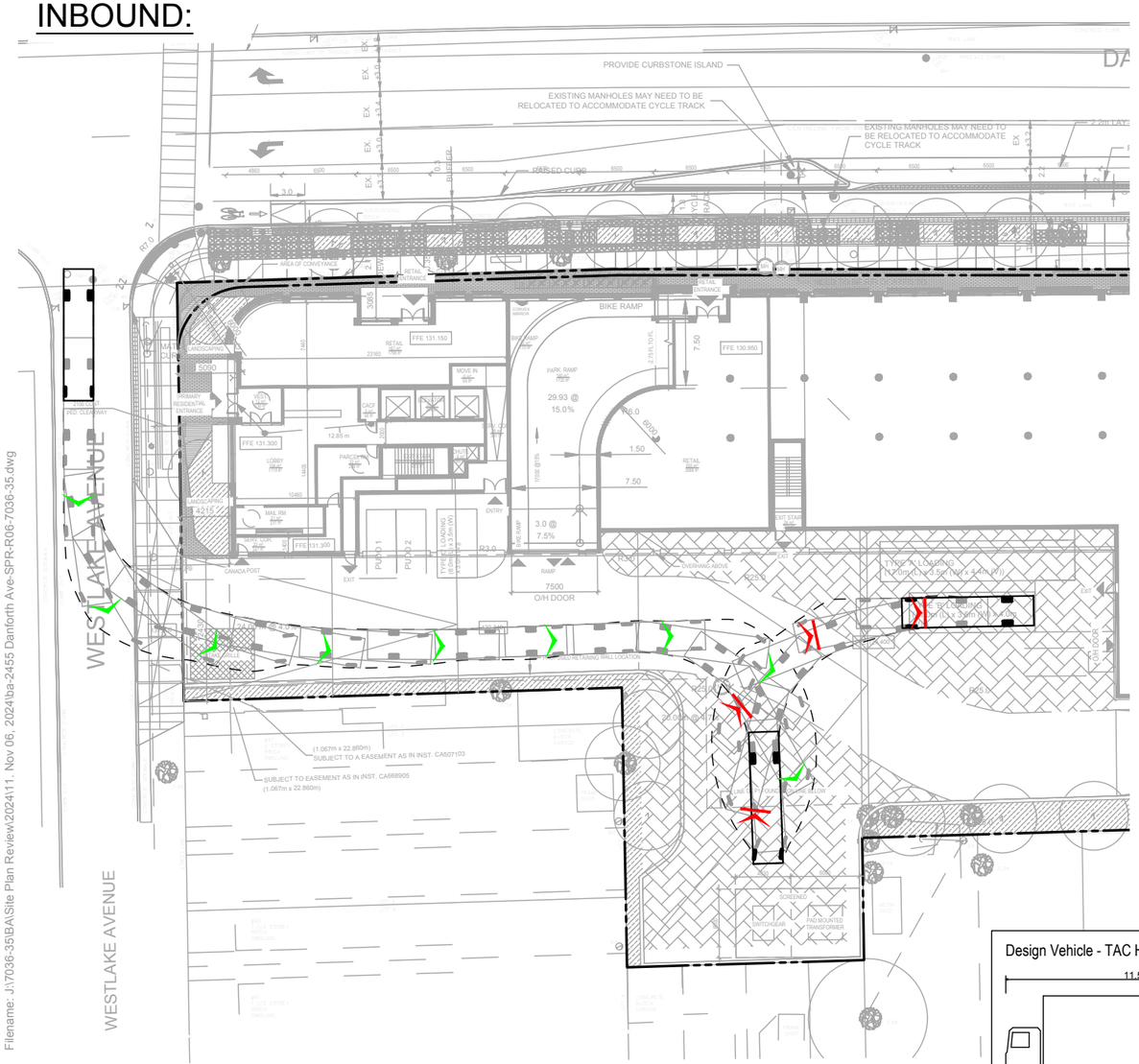


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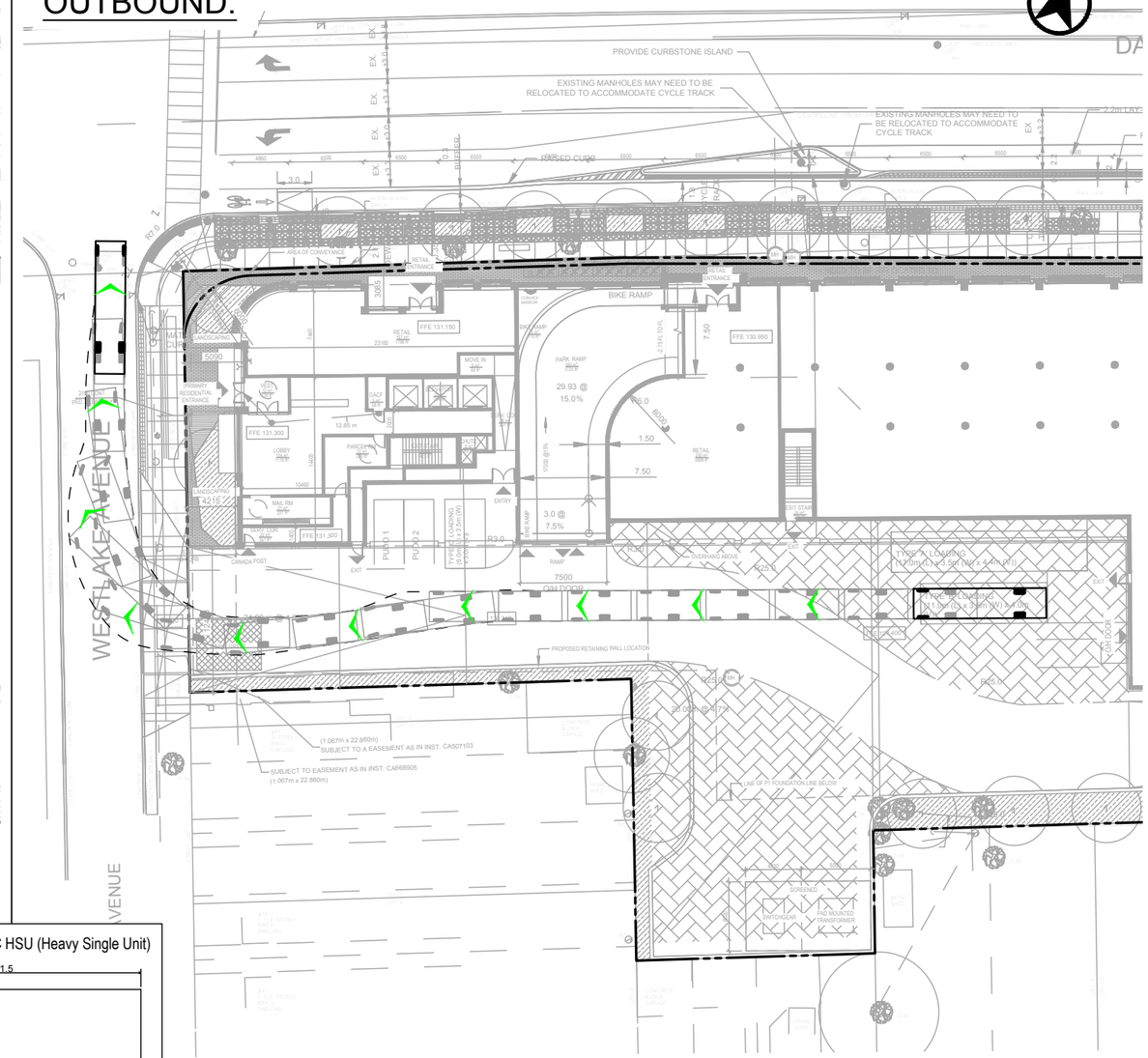
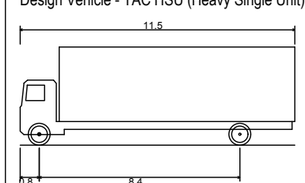



Design Vehicle - TAC HSU (Heavy Single Unit)




| | |
|---|---|
| Overall Length | 11.50m |
| Overall Width | 2.60m |
| Overall Body Height | 4.11m |
| Outside Turning Radius | 14.56m |
| Inside Turning Radius | 8.69m |

Date Plotted: November 8, 2024 Filename: J:\7036-35\BA\Site Plan Review\2024\11. Nov 06, 2024\ba-2455 Danforth Ave-SPR-R06-7036-35.dwg

BA Group

# 2451 - 2495 DANFORTH AVENUE

VEHICLE MANOEUVRING DIAGRAM
HEAVY SINGLE UNIT (HSU) VEHICLE
TYPE 'B' LOADING SPACE

| | |
|---|---|
| Project: | 2451-2495 DANFORTH |
| Project No. | 7036-35 |
| Date: | April 09, 2024 |
| Revised: | November 8, 2024 |

Scale 1:400 — 0 2 4 6 8 10 20m

Drawing No. VMD-04

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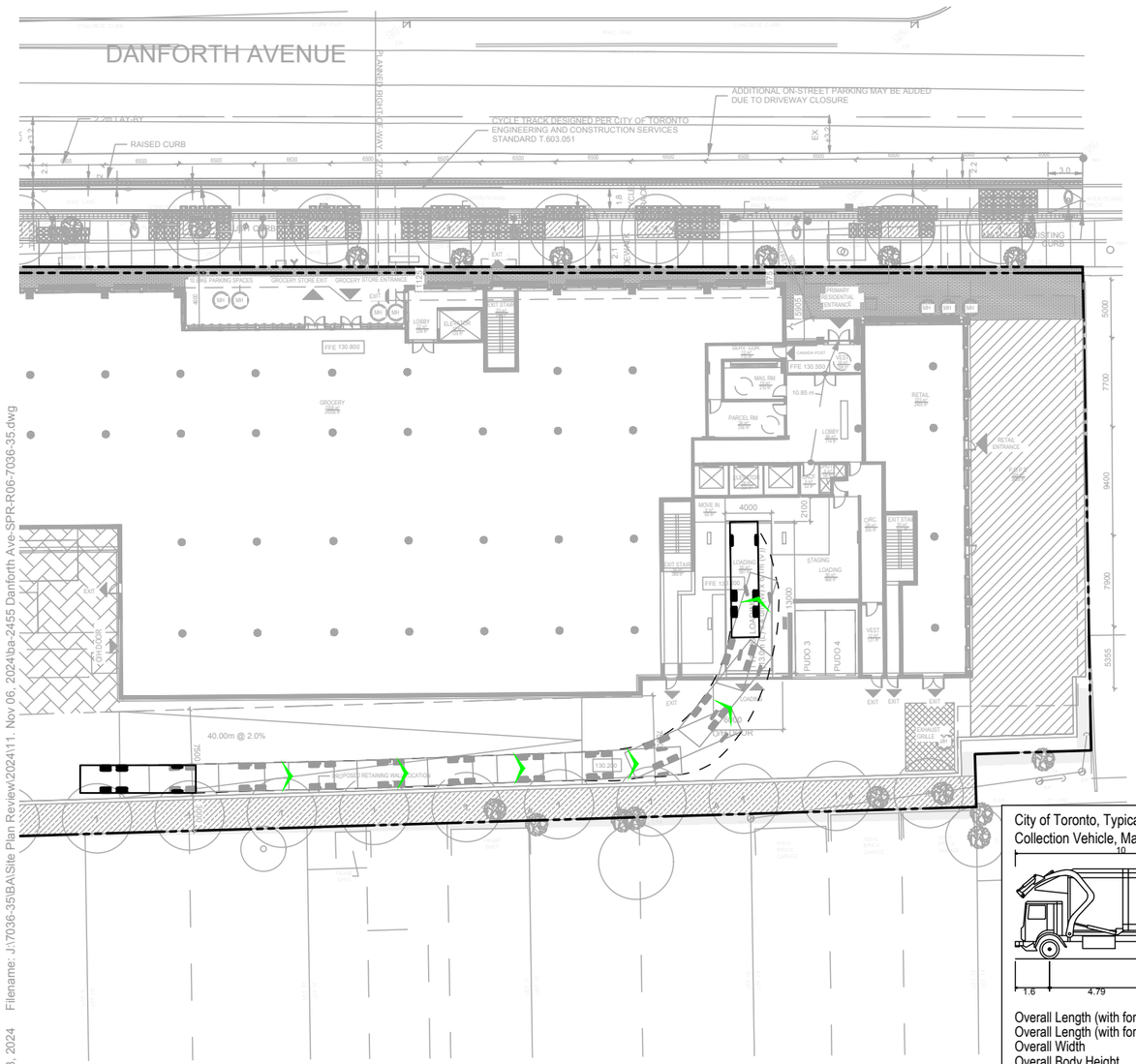


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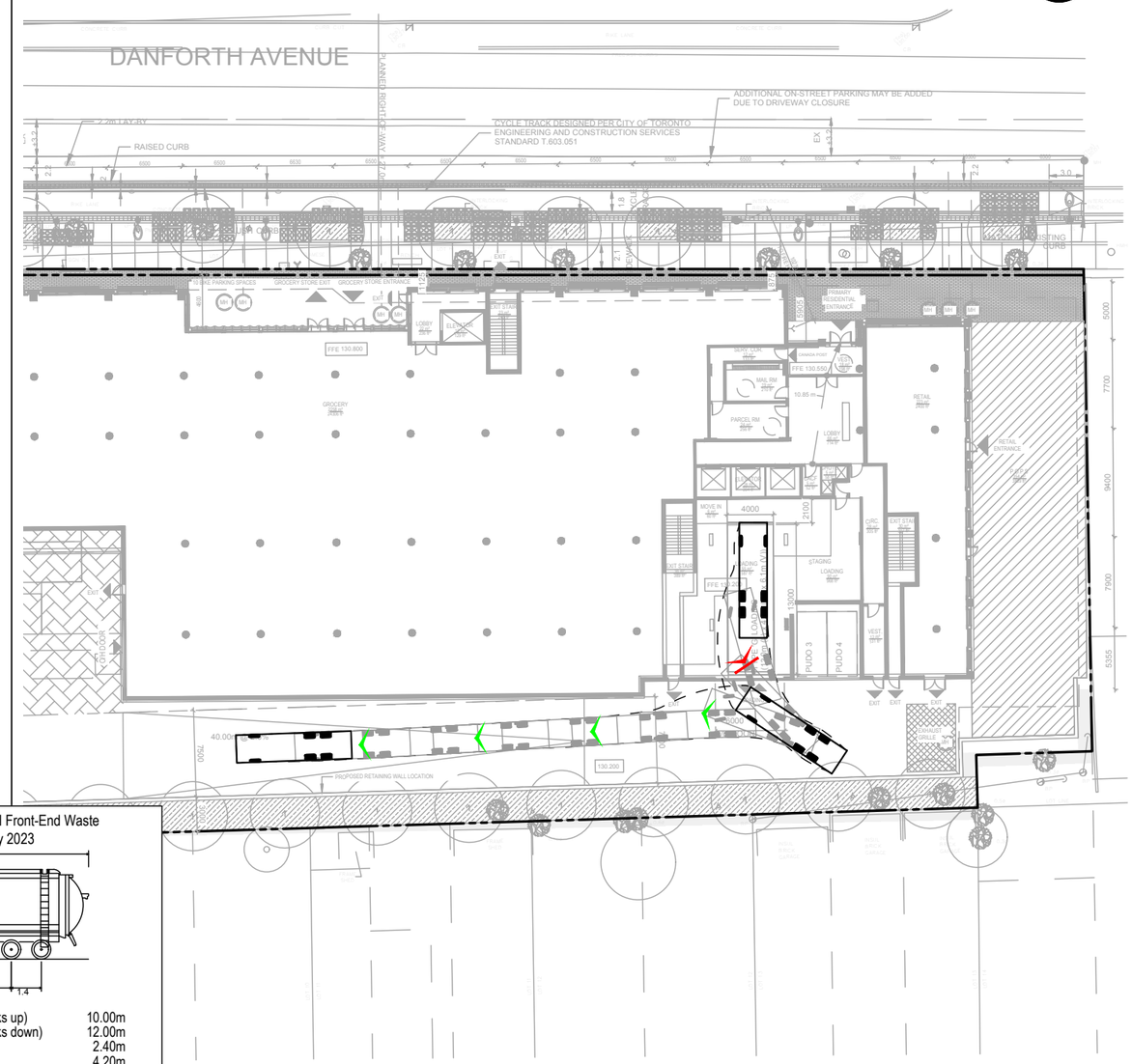
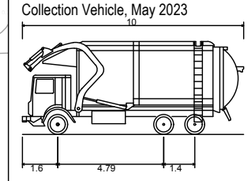



City of Toronto, Typical Front-End Waste Collection Vehicle, May 2023




| | |
|---|---|
| Overall Length (with forks up) | 10.00m |
| Overall Length (with forks down) | 12.00m |
| Overall Width | 2.40m |
| Overall Body Height | 4.20m |
| Outside Turning Radius | 14.00m |
| Inside Turning Radius | 9.50m |

(Dimensions as per City of Toronto Requirements for Garbage, Recycling and Organics Collection Services for New Developments and Redevelopments (May 2023)

Date Plotted: November 8, 2024 Filename: J:\7036-35\BA\Site Plan Review\2024\11. Nov 06, 2024\ba-2455 Danforth Ave-SPR-R06-7036-35.dwg

BA Group

# 2451 - 2495 DANFORTH AVENUE

## VEHICLE MANOEUVRING DIAGRAM

## CITY OF TORONTO TYPICAL FRONT-LOADING WASTE COLLECTION VEHICLE TYPE 'G' LOADING SPACE

| | |
|---|---|
| Project: | 2451-2495 DANFORTH |
| Project No. | 7036-35 |
| Date: | April 09, 2024 |
| Revised: | November 8, 2024 |

Scale 1:400 — 0 2 4 6 8 10 20m

Drawing No. VMD-05

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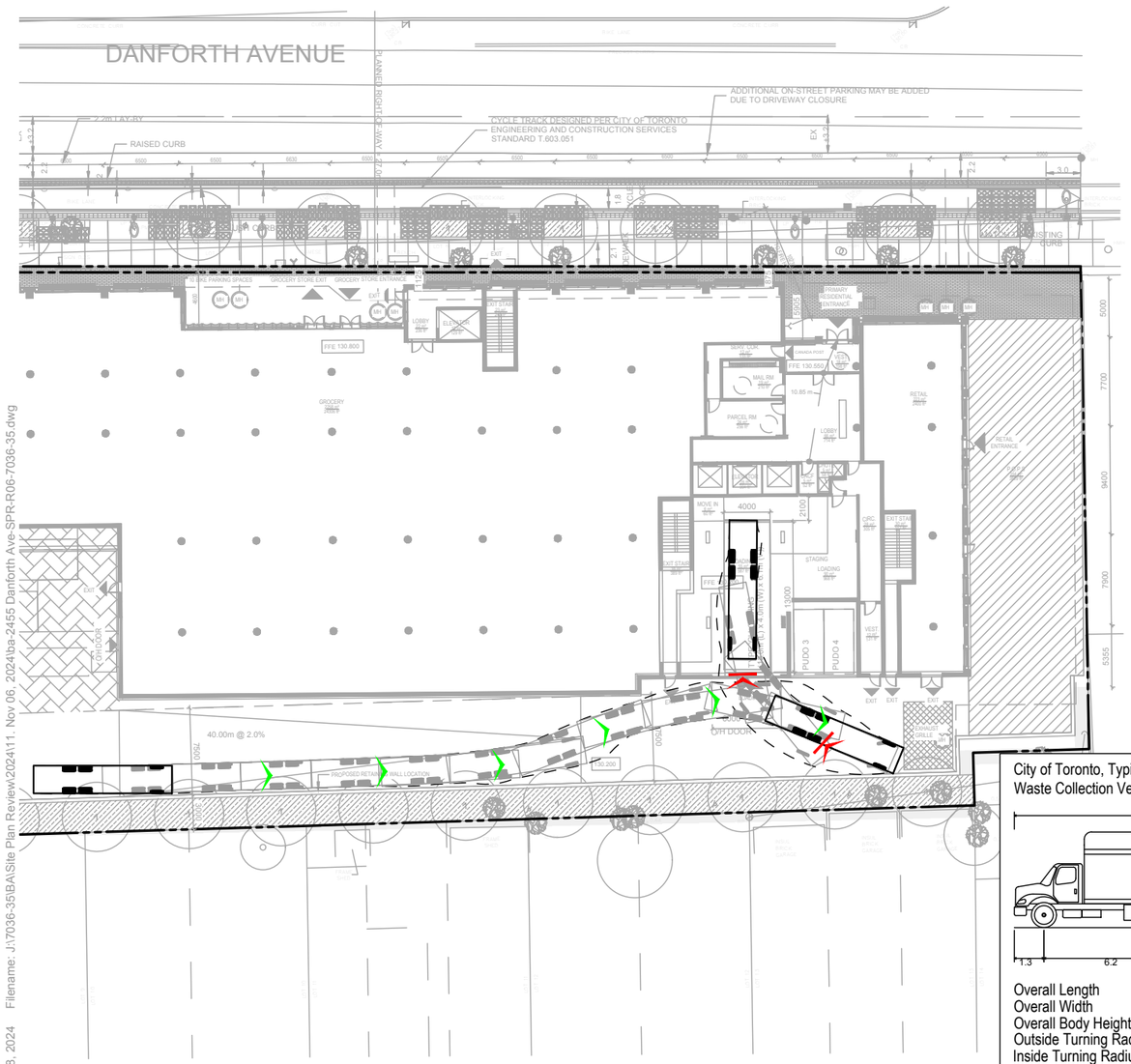


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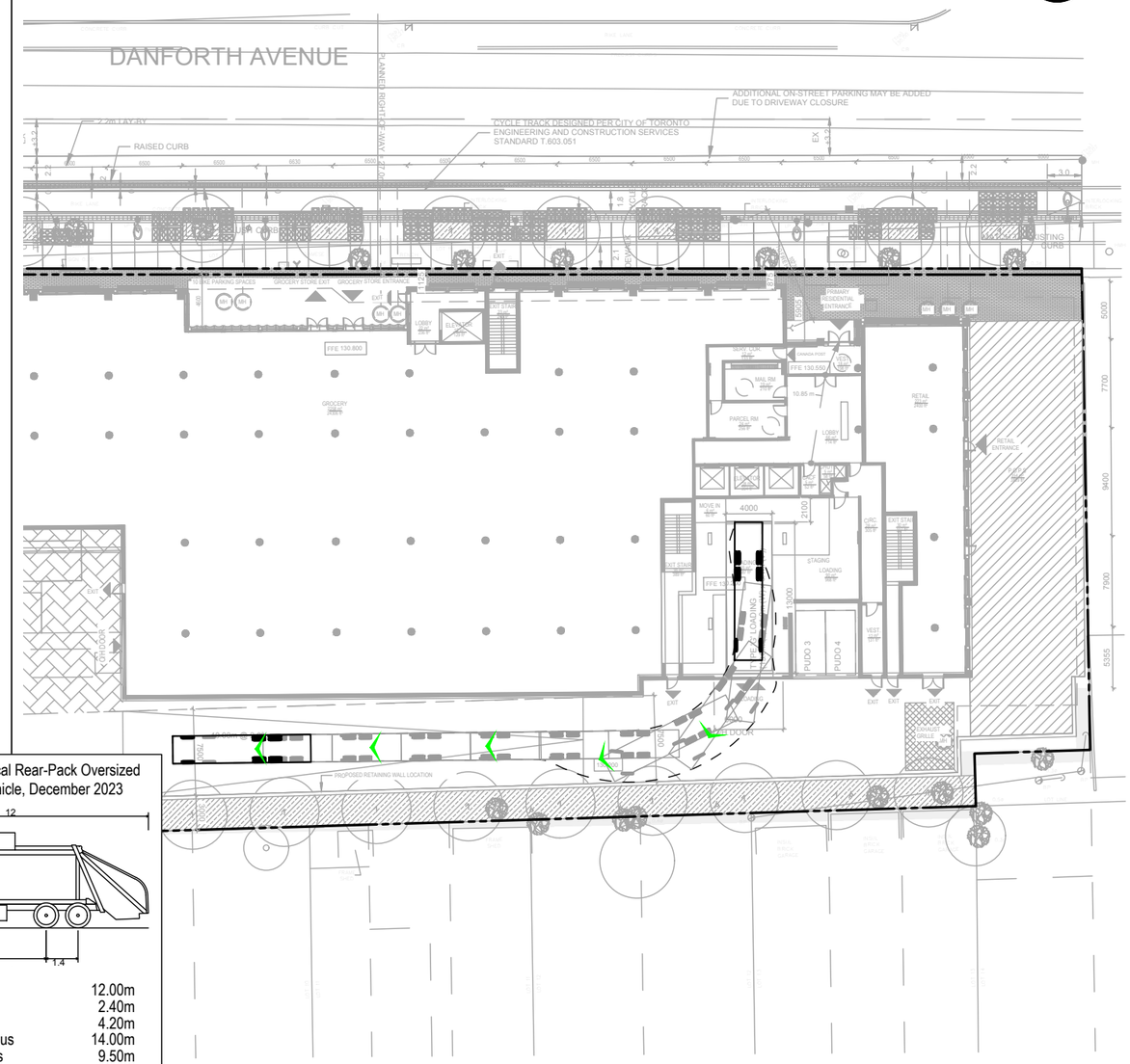
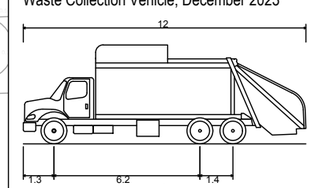



City of Toronto, Typical Rear-Pack Oversized Waste Collection Vehicle, December 2023




| | |
|---|---|
| Overall Length | 12.00m |
| Overall Width | 2.40m |
| Overall Body Height | 4.20m |
| Outside Turning Radius | 14.00m |
| Inside Turning Radius | 9.50m |

(Dimensions as per City of Toronto Requirements for Garbage, Recycling and Organics Collection Services for New Developments and Redevelopments (May 2023))

Date Plotted: November 8, 2024 Filename: J:\7036-35\BA\Site Plan Review\2024\11. Nov 06, 2024\ba-2455 Danforth Ave-SPR-R06-7036-35.dwg

BA Group

# 2451 - 2495 DANFORTH AVENUE

## VEHICLE MANOEUVRING DIAGRAM

## CITY OF TORONTO TYPICAL REAR-PACK WASTE COLLECTION VEHICLE

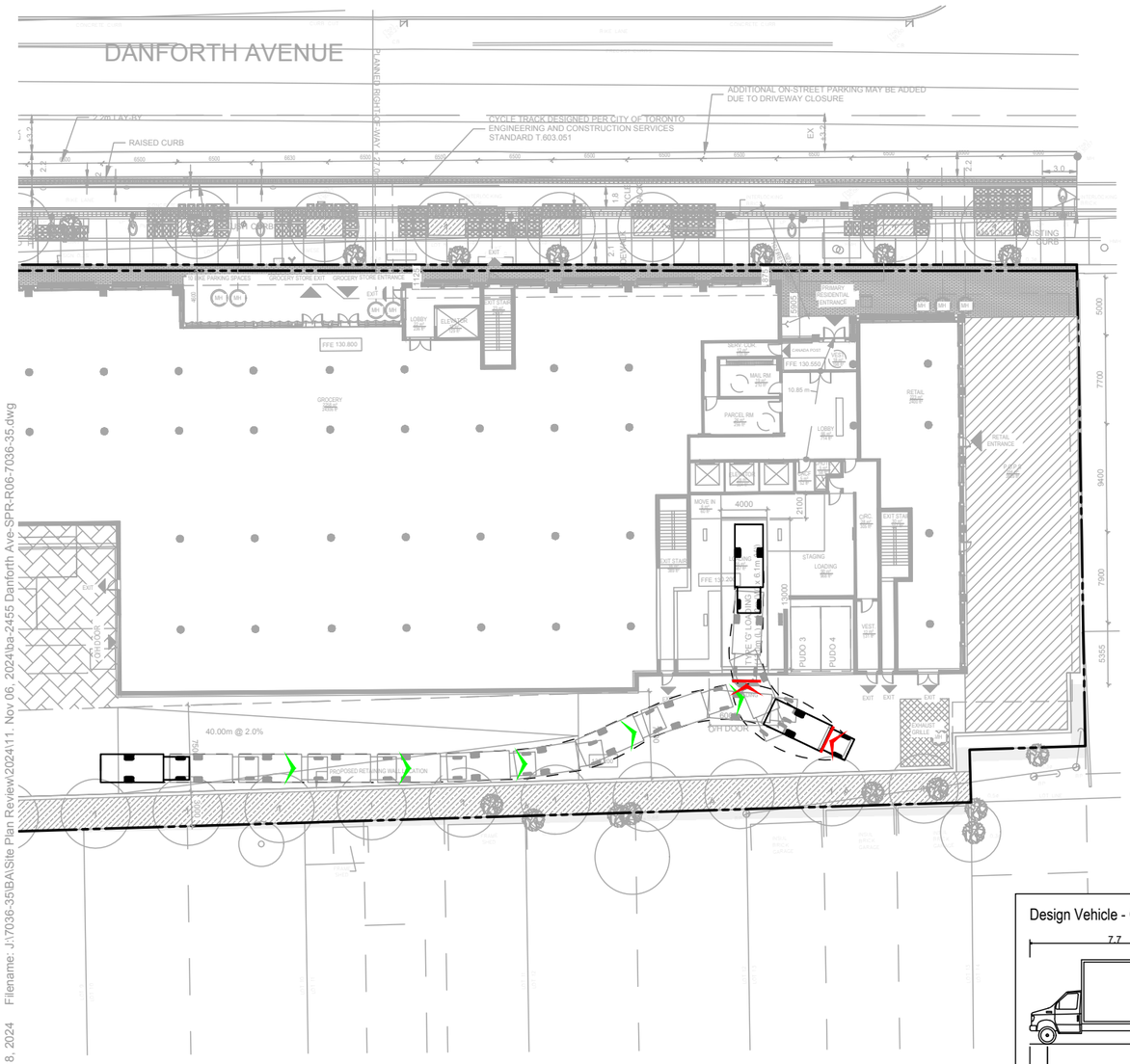
## TYPE 'G' LOADING SPACE

| | |
|---|---|
| Project: | 2451-2495 DANFORTH |
| Project No. | 7036-35 |
| Date: | April 09, 2024 |
| Revised: | November 8, 2024 |

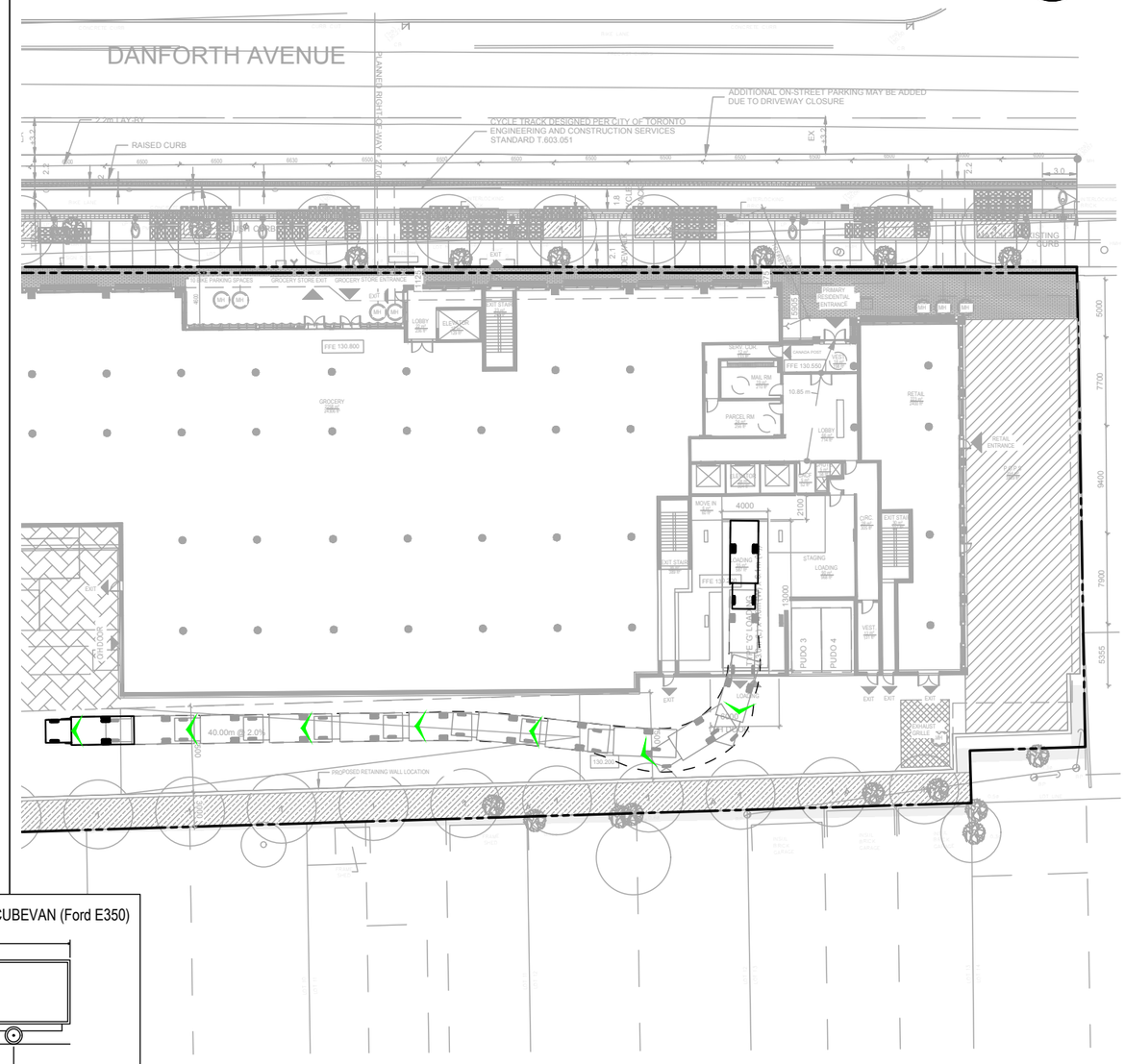
Scale 1:400 (0 2 4 6 8 10 20m)

Drawing No. VMD-06

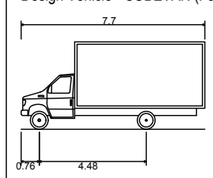
## INBOUND:




## OUTBOUND:




Design Vehicle - CUBEVAN (Ford E350)




| | |
|---|---|
| Overall Length | 7.70m |
| Overall Width | 2.45m |
| Overall Body Height | 3.66m |
| Outside Turning Radius | 9.49m |
| Inside Turning Radius | 5.68m |

Date Plotted: November 8, 2024 Filename: J:\7036-35\BA\Site Plan Review\2024\11. Nov 06, 2024\ba-2455 Danforth Ave-SPR-R06-7036-35.dwg

BA Group

# 2451 - 2495 DANFORTH AVENUE

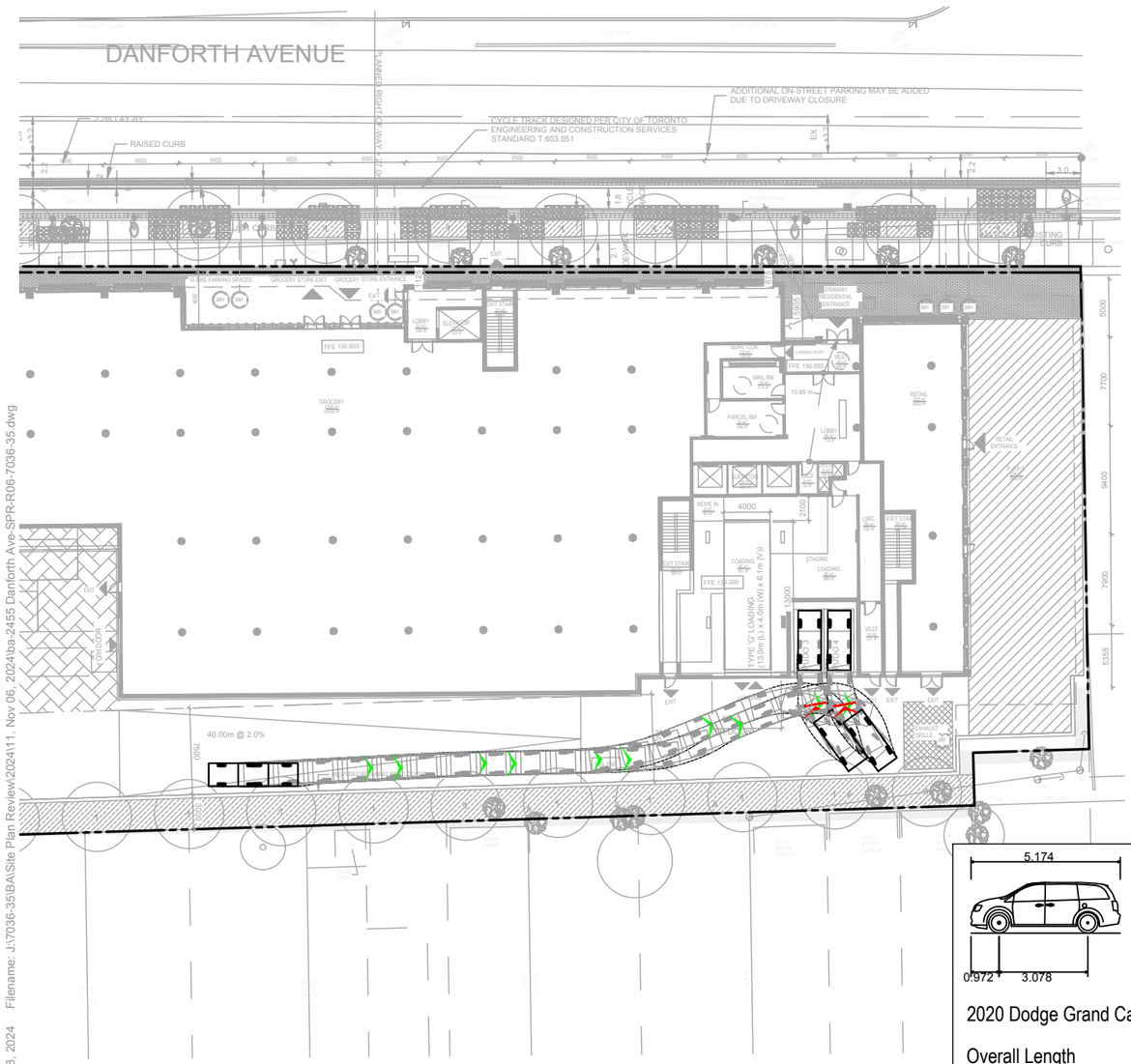
VEHICLE MANOEUVRING DIAGRAM
CUBEVAN (FORD E350)
TYPE 'G' LOADING SPACE

| | |
|---|---|
| Project: | 2451-2495 DANFORTH |
| Project No. | 7036-35 |
| Date: | April 09, 2024 |
| Revised: | November 8, 2024 |

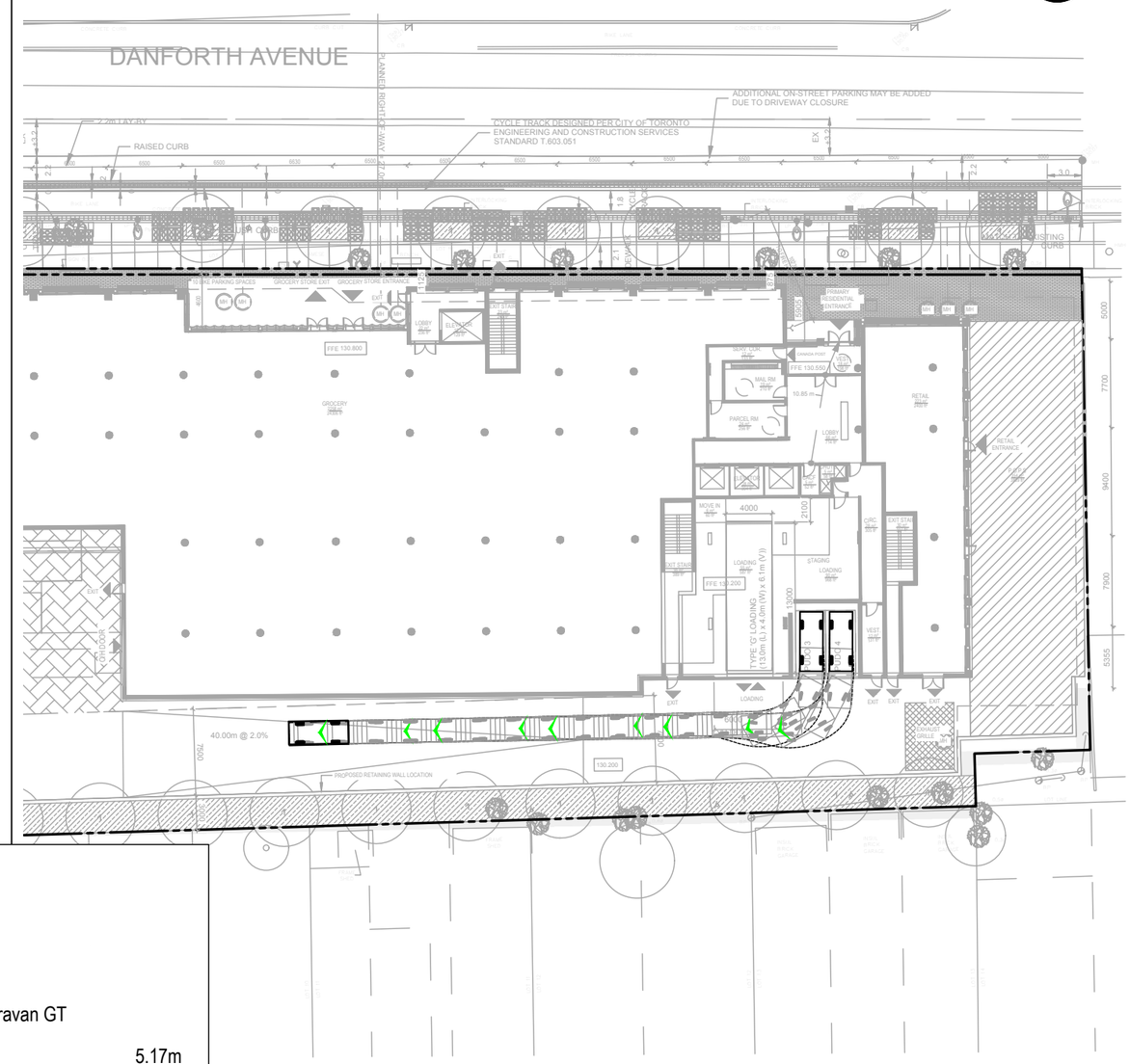
Scale 1:400 — 0 2 4 6 8 10 20m

Drawing No. VMD-07

## INBOUND:




## OUTBOUND:







2020 Dodge Grand Caravan GT

| | |
|---|---|
| Overall Length | 5.17m |
| Overall Width (without Mirrors) | 2.00m |
| Overall Width (with Mirrors) | 2.25m |
| Overall Body Height | 1.75m |
| Outside Wall to Wall Turning Radius | 6.50m |
| Inside Wall to Wall Turning Radius | 3.35m |

Date Plotted: November 8, 2024 Filename: J:\7036-35\BA\Site Plan Review\2024\11. Nov 06, 2024\ba-2455 Danforth Ave-SPR-R06-7036-35.dwg

BA Group

# 2451 - 2495 DANFORTH AVENUE

VEHICLE MANOEUVRING DIAGRAM

2020 DODGE GRAND CARAVAN (95TH PERCENTILE VEHICLE)

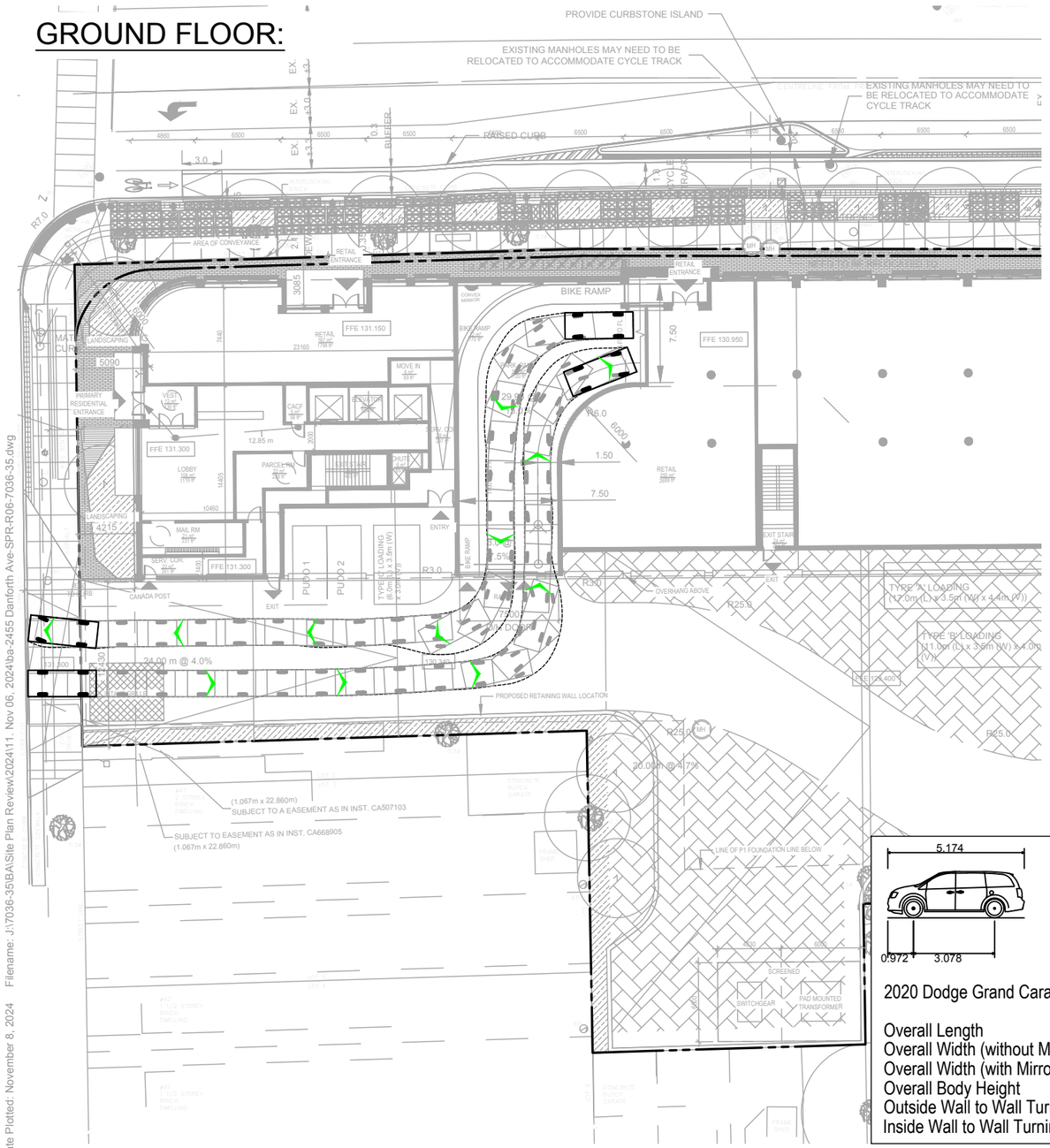
PICK-UP / DROP-OFF

| | |
|---|---|
| Project: | 2451-2495 DANFORTH |
| Project No. | 7036-35 |
| Date: | April 09, 2024 |
| Revised: | November 8, 2024 |

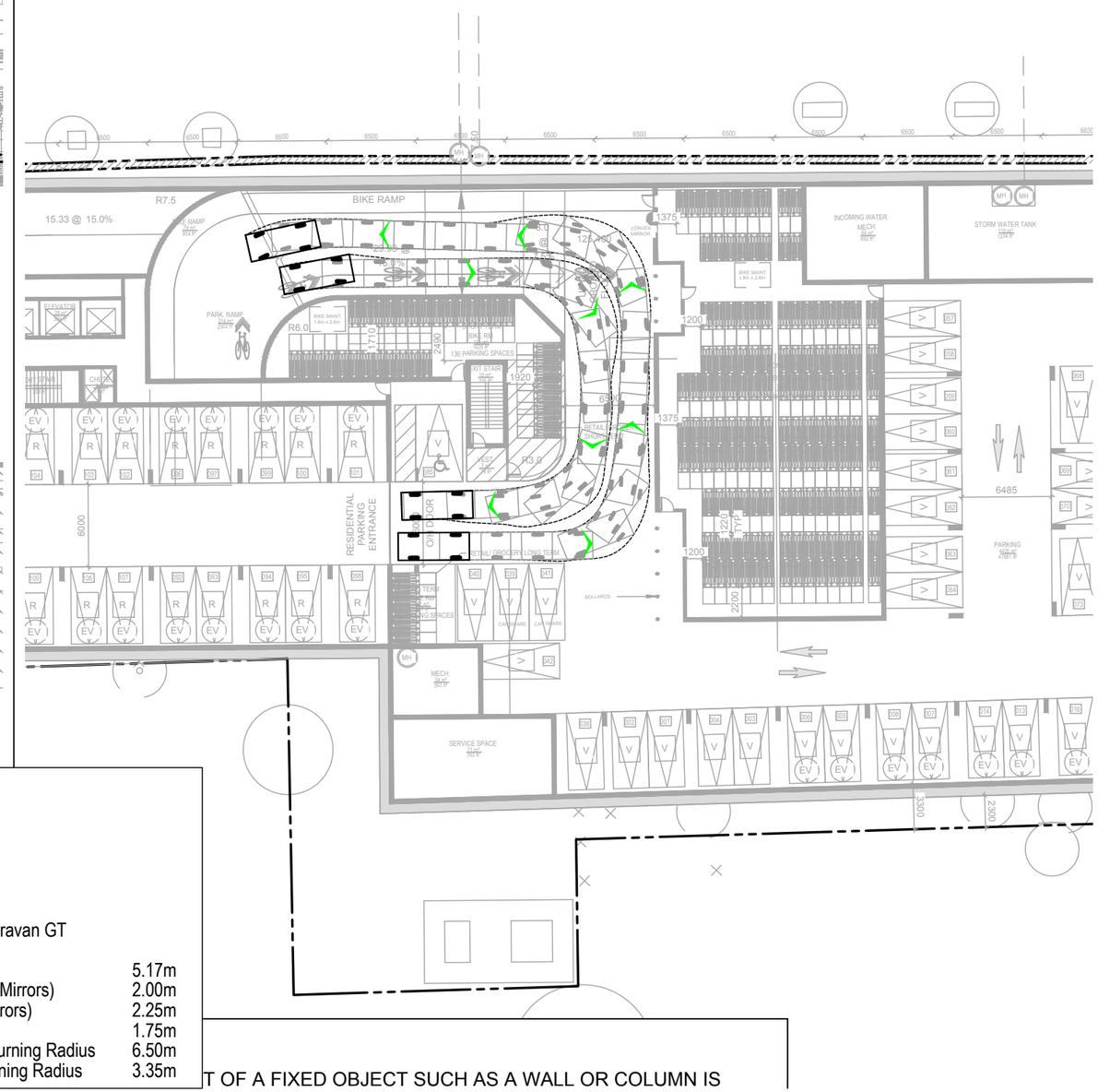
Scale 1:400 — 0 2 4 6 8 10 20m

Drawing No. VMD-08

## GROUND FLOOR:




## P1 LEVEL:







2020 Dodge Grand Caravan GT

| | |
|---|---|
| Overall Length | 5.17m |
| Overall Width (without Mirrors) | 2.00m |
| Overall Width (with Mirrors) | 2.25m |
| Overall Body Height | 1.75m |
| Outside Wall to Wall Turning Radius | 6.50m |
| Inside Wall to Wall Turning Radius | 3.35m |

T OF A FIXED OBJECT SUCH AS A WALL OR COLUMN IS

Date Plotted: November 8, 2024 Filename: J:\7036-35\BA\Site Plan Review\2024\11. Nov 06, 2024\ba-2455 Danforth Ave-SPR-R06-7036-35.dwg

BA Group

# 2451 - 2495 DANFORTH AVENUE

VEHICLE MANOEUVRING DIAGRAM

PARKING RAMP - 2020 DODGE GRAND CARAVAN (95TH PERCENTILE VEHICLE)

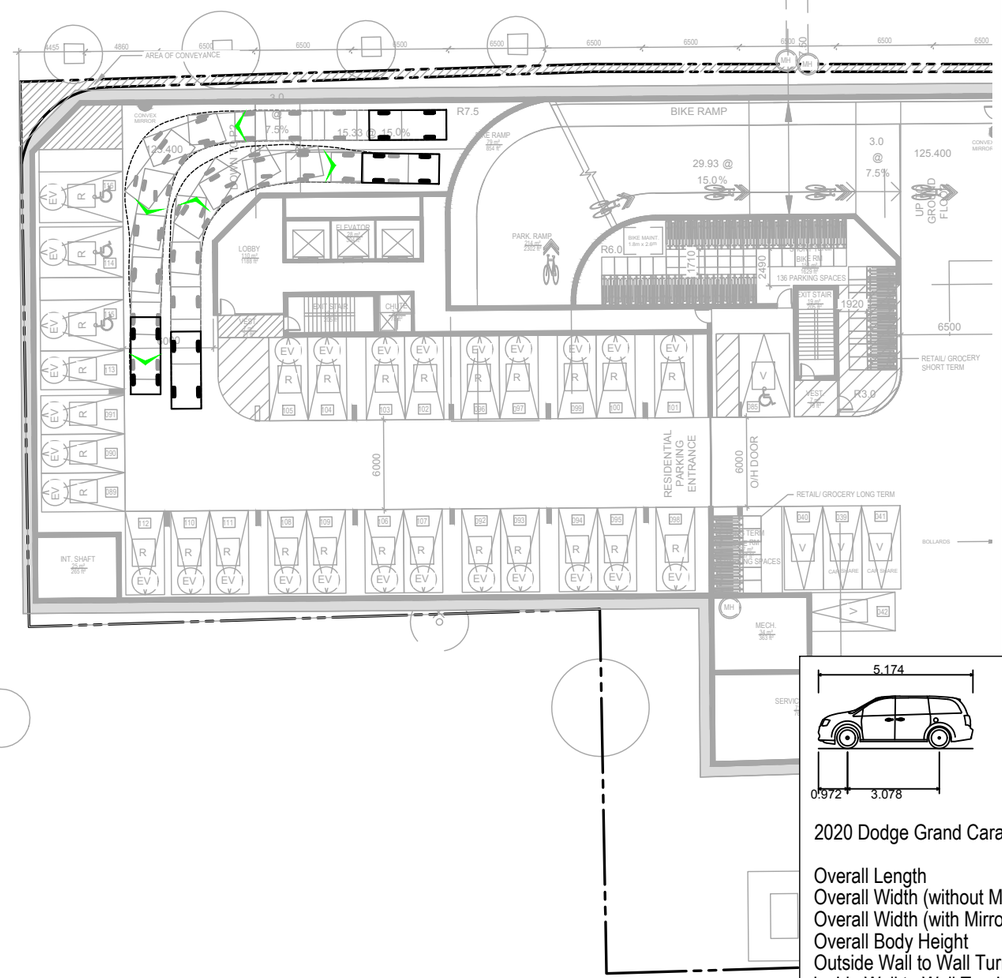
TWO-WAY MANOEUVRING

| | |
|---|---|
| Project: | 2451-2495 DANFORTH |
| Project No. | 7036-35 |
| Date: | April 09, 2024 |
| Revised: | November 8, 2024 |

Scale 1:400 (0 2 4 6 8 10 20m)

Drawing No. VMD-09

P1 TO P2:




P1 TO P2:





2020 Dodge Grand Caravan GT

| | |
|---|---|
| Overall Length | 5.17m |
| Overall Width (without Mirrors) | 2.00m |
| Overall Width (with Mirrors) | 2.25m |
| Overall Body Height | 1.75m |
| Outside Wall to Wall Turning Radius | 6.50m |
| Inside Wall to Wall Turning Radius | 3.35m |

Date Plotted: November 8, 2024 Filename: J:\7036-35\BA\Site Plan Review\2024\11. Nov 06, 2024\ba-2455 Danforth Ave-SPR-R06-7036-35.dwg

BA Group

# 2451 - 2495 DANFORTH AVENUE

## VEHICLE MANOEUVRING DIAGRAM

## PARKING RAMP - 2020 DODGE GRAND CARAVAN (95TH PERCENTILE VEHICLE)

## TWO-WAY MANOEUVRING

| | |
|---|---|
| Project: | 2451-2495 DANFORTH |
| Project No. | 7036-35 |
| Date: | April 09, 2024 |
| Revised: | November 8, 2024 |

Scale 1:400 — 0 2 4 6 8 10 20m

Drawing No. VMD-10

# Appendix D:
# Transportation Tomorrow Survey 2016 (TTS)

## 2451 Danforth Ave

**7036-35**

Residential Vehicular Site Traffic Distribution (AM Peak Hour)

Outbound

BA Group - JS

2024-10-28 ote: Trips from TTS TAZs 251 and 258

| | | | Traffic Volume Allocation | | | | | | Route Split Totals | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Zone | Trips | % | NORTH Woodbine | South Woodbine | SOUTH Main St | WEST Danforth Ave | EAST Danforth Ave | TOTAL | NORTH Woodbine Ave | SOUTH Woodbine Ave | SOUTH Main Ave | WEST Danforth Ave | EAST Danforth Ave | TOTAL |
| PD 1 of Toronto | 398 | 20% | | 60% | 40% | | | 100% | 0% | 12% | 8% | 0% | 0% | 20% |
| PD 3 of Toronto | 34 | 2% | 50% | 50% | | | | 100% | 1% | 1% | 0% | 0% | 0% | 2% |
| PD 4 of Toronto | 50 | 3% | 100% | | | | | 100% | 3% | 0% | 0% | 0% | 0% | 3% |
| PD 5 of Toronto | 265 | 13% | 100% | | | | | 100% | 13% | 0% | 0% | 0% | 0% | 13% |
| 250 | 48 | 2% | 100% | | | | | 100% | 2% | 0% | 0% | 0% | 0% | 2% |
| 251 | 15 | 1% | | | | 50% | 50% | 100% | 0% | 0% | 0% | 0% | 0% | 1% |
| 252 | 10 | 1% | | 40% | 60% | | | 100% | 0% | 0% | 0% | 0% | 0% | 1% |
| 253 | 13 | 1% | | 20% | 80% | | | 100% | 0% | 0% | 1% | 0% | 0% | 1% |
| 254 | 15 | 1% | | 40% | 60% | | | 100% | 0% | 0% | 0% | 0% | 0% | 1% |
| 257 | 16 | 1% | | 20% | 80% | | | 100% | 0% | 0% | 1% | 0% | 0% | 1% |
| 258 | 93 | 5% | | | | 100% | | 100% | 0% | 0% | 0% | 5% | 0% | 5% |
| 259 | 13 | 1% | 100% | | | | | 100% | 1% | 0% | 0% | 0% | 0% | 1% |
| 263 | 63 | 3% | 70% | | | 30% | | 100% | 2% | 0% | 0% | 1% | 0% | 3% |
| 265 | 15 | 1% | | 60% | | 40% | | 100% | 0% | 0% | 0% | 0% | 0% | 1% |
| 269 | 14 | 1% | | | | 100% | | 100% | 0% | 0% | 0% | 1% | 0% | 1% |
| 273 | 23 | 1% | | | | 100% | | 100% | 0% | 0% | 0% | 1% | 0% | 1% |
| 281 | 39 | 2% | 30% | | | 70% | | 100% | 1% | 0% | 0% | 1% | 0% | 2% |
| PD 8 of Toronto | 55 | 3% | 30% | 70% | | | | 100% | 1% | 2% | 0% | 0% | 0% | 3% |
| PD 9 of Toronto | 66 | 3% | 30% | 70% | | | | 100% | 1% | 2% | 0% | 0% | 0% | 3% |
| PD 10 of Toronto | 114 | 6% | 100% | | | | | 100% | 6% | 0% | 0% | 0% | 0% | 6% |
| PD 11 of Toronto | 8 | 0% | 100% | | | | | 100% | 0% | 0% | 0% | 0% | 0% | 0% |
| PD 12 of Toronto | 55 | 3% | 100% | | | | | 100% | 3% | 0% | 0% | 0% | 0% | 3% |
| PD 13 of Toronto | 52 | 3% | | | | | 100% | 100% | 0% | 0% | 0% | 0% | 3% | 3% |
| PD 14 of Toronto | 190 | 10% | | | | | 100% | 100% | 0% | 0% | 0% | 0% | 10% | 10% |
| PD 16 of Toronto | 57 | 3% | | | | | 100% | 100% | 0% | 0% | 0% | 0% | 3% | 3% |
| Oshawa | 15 | 1% | | | | | 100% | 100% | 0% | 0% | 0% | 0% | 1% | 1% |
| East Gwillimbury | 9 | 0% | 100% | | | | | 100% | 0% | 0% | 0% | 0% | 0% | 0% |
| Whitchurch-Stou | 18 | 1% | 100% | | | | | 100% | 1% | 0% | 0% | 0% | 0% | 1% |
| Markham | 127 | 6% | 100% | | | | | 100% | 6% | 0% | 0% | 0% | 0% | 6% |
| Vaughan | 26 | 1% | 100% | | | | | 100% | 1% | 0% | 0% | 0% | 0% | 1% |
| Brampton | 14 | 1% | 100% | | | | | 100% | 1% | 0% | 0% | 0% | 0% | 1% |
| Mississauga | 29 | 1% | 30% | 70% | | | | 100% | 0% | 1% | 0% | 0% | 0% | 1% |
| Oakville | 5 | 0% | 30% | 70% | | | | 100% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Total Trips** | 1964 | 100% | | | | | | | **44.1%** | **19.8%** | **10.1%** | **9.7%** | **16.4%** | **100.0%** |
| | | | | | | | **Assumed Split** | | **45%** | **20%** | **10%** | **10%** | **15%** | **100%** |

## 2451 Danforth Ave

**7036-35**

Residential Vehicular Site Traffic Distribution (AM Peak Hour)

Outbound

BA Group - JS

2024-10-28 ote: Trips from TTS TAZs 251 and 258

| | | | Traffic Volume Allocation | | | | | | Route Split Totals | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Zone | Trips | % | NORTH Woodbine | SOUTH Woodbine | SOUTH Main St | WEST Danforth Ave | EAST Danforth Ave | TOTAL | NORTH Woodbine Ave | SOUTH Woodbine Ave | SOUTH Main Street | WEST Danforth Ave | EAST Danforth Ave | TOTAL |
| PD 1 of Toronto | 369 | 18% | 20% | 80% | | | | 100% | 4% | 15% | 0% | 0% | 0% | 18% |
| PD 2 of Toronto | 12 | 1% | 20% | 80% | | | | 100% | 0% | 0% | 0% | 0% | 0% | 1% |
| PD 3 of Toronto | 69 | 3% | 80% | | | 20% | | 100% | 3% | 0% | 0% | 1% | 0% | 3% |
| PD 4 of Toronto | 46 | 2% | 100% | | | | | 100% | 2% | 0% | 0% | 0% | 0% | 2% |
| PD 5 of Toronto | 221 | 11% | 100% | | | | | 100% | 11% | 0% | 0% | 0% | 0% | 11% |
| 249 | 45 | 2% | 100% | | | | | 100% | 2% | 0% | 0% | 0% | 0% | 2% |
| 250 | 21 | 1% | 100% | | | | | 100% | 1% | 0% | 0% | 0% | 0% | 1% |
| 251 | 15 | 1% | | | | 50% | 50% | 100% | 0% | 0% | 0% | 0% | 0% | 1% |
| 252 | 10 | 0% | | 50% | 50% | | | 100% | 0% | 0% | 0% | 0% | 0% | 0% |
| 253 | 11 | 1% | | 25% | 75% | | | 100% | 0% | 0% | 0% | 0% | 0% | 1% |
| 254 | 15 | 1% | | 25% | 75% | | | 100% | 0% | 0% | 1% | 0% | 0% | 1% |
| 255 | 8 | 0% | | 75% | 25% | | | 100% | 0% | 0% | 0% | 0% | 0% | 0% |
| 256 | 15 | 1% | | 25% | 75% | | | 100% | 0% | 0% | 1% | 0% | 0% | 1% |
| 257 | 5 | 0% | | 100% | | | | 100% | 0% | 0% | 0% | 0% | 0% | 0% |
| 258 | 45 | 2% | | | | 100% | | 100% | 0% | 0% | 0% | 2% | 0% | 2% |
| 262 | 9 | 0% | 100% | | | | | 100% | 0% | 0% | 0% | 0% | 0% | 0% |
| 263 | 61 | 3% | | | | 100% | | 100% | 0% | 0% | 0% | 3% | 0% | 3% |
| 264 | 11 | 1% | | | | 100% | | 100% | 0% | 0% | 0% | 1% | 0% | 1% |
| 269 | 59 | 3% | | 20% | | 80% | | 100% | 0% | 1% | 0% | 2% | 0% | 3% |
| 272 | 27 | 1% | | | | 100% | | 100% | 0% | 0% | 0% | 1% | 0% | 1% |
| 279 | 142 | 7% | | | | 100% | | 100% | 0% | 0% | 0% | 7% | 0% | 7% |
| 281 | 15 | 1% | | | | 100% | | 100% | 0% | 0% | 0% | 1% | 0% | 1% |
| 282 | 24 | 1% | | | | 100% | | 100% | 0% | 0% | 0% | 1% | 0% | 1% |
| PD 9 of Toronto | 66 | 3% | 100% | | | | | 100% | 3% | 0% | 0% | 0% | 0% | 3% |
| PD 10 of Toronto | 59 | 3% | 100% | | | | | 100% | 3% | 0% | 0% | 0% | 0% | 3% |
| PD 11 of Toronto | 19 | 1% | 100% | | | | | 100% | 1% | 0% | 0% | 0% | 0% | 1% |
| PD 12 of Toronto | 83 | 4% | 100% | | | | | 100% | 4% | 0% | 0% | 0% | 0% | 4% |
| PD 13 of Toronto | 112 | 6% | | | | | 100% | 100% | 0% | 0% | 0% | 0% | 6% | 6% |
| PD 14 of Toronto | 66 | 3% | | | | | 100% | 100% | 0% | 0% | 0% | 0% | 3% | 3% |
| PD 15 of Toronto | 55 | 3% | | | | | 100% | 100% | 0% | 0% | 0% | 0% | 3% | 3% |
| PD 16 of Toronto | 86 | 4% | | | | | 100% | 100% | 0% | 0% | 0% | 0% | 4% | 4% |
| Whitchurch-Stou | 18 | 1% | 100% | | | | | 100% | 1% | 0% | 0% | 0% | 0% | 1% |
| Markham | 115 | 6% | 100% | | | | | 100% | 6% | 0% | 0% | 0% | 0% | 6% |
| Vaughan | 16 | 1% | 100% | | | | | 100% | 1% | 0% | 0% | 0% | 0% | 1% |
| Brampton | 22 | 1% | 40% | 60% | | | | 100% | 0% | 1% | 0% | 0% | 0% | 1% |
| Mississauga | 27 | 1% | | 100% | | | | 100% | 0% | 1% | 0% | 0% | 0% | 1% |
| Hamilton | 10 | 0% | | 100% | | | | 100% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Total Trips** | 2009 | 100% | | | | | | | **42.7%** | **19.6%** | **1.9%** | **19.6%** | **16.3%** | **100.0%** |
| | | | | | | | **Assumed Split** | | **45%** | **20%** | **0%** | **20%** | **15%** | **100%** |

# Appendix E:
# Turning Movement Counts (TMCs)

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & 2451 DANFORTH AVE SOBEYS EAST DRIVEWAY
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

## Turning Movement Count (5 . DANFORTH AVE & 2451 DANFORTH AVE SOBEYS EAST DRIVEWAY)

| Start Time | E Approach DANFORTH AVE | | | | | S Approach 2451 DANFORTH AVE (SOBEYS EAST DRIVEWAY) | | | | | W Approach DANFORTH AVE | | | | | Int. Total (15 min) | Int. Total (1 hr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thru E:W | Left E:S | UTurn E:E | Peds E: | Approach Total | Right S:E | Left S:W | UTurn S:S | Peds S: | Approach Total | Right W:S | Thru W:E | UTurn W:W | Peds W: | Approach Total | | |
| 07:30:00 | 138 | 2 | 0 | 4 | 140 | 3 | 0 | 0 | 31 | 3 | 1 | 72 | 0 | 0 | 73 | 216 | |
| 07:45:00 | 142 | 2 | 0 | 1 | 144 | 1 | 1 | 0 | 24 | 2 | 3 | 95 | 0 | 0 | 98 | 244 | |
| 08:00:00 | 131 | 2 | 0 | 0 | 133 | 3 | 0 | 0 | 23 | 3 | 2 | 128 | 0 | 1 | 130 | 266 | |
| 08:15:00 | 146 | 4 | 0 | 2 | 150 | 6 | 3 | 0 | 30 | 9 | 6 | 115 | 0 | 1 | 121 | 280 | 1006 |
| 08:30:00 | 173 | 9 | 0 | 0 | 182 | 5 | 1 | 0 | 59 | 6 | 3 | 114 | 0 | 2 | 117 | 305 | 1095 |
| 08:45:00 | 143 | 1 | 0 | 3 | 144 | 1 | 3 | 0 | 38 | 4 | 4 | 121 | 0 | 1 | 125 | 273 | 1124 |
| 09:00:00 | 147 | 8 | 0 | 1 | 155 | 8 | 2 | 0 | 22 | 10 | 1 | 116 | 0 | 3 | 117 | 282 | 1140 |
| 09:15:00 | 144 | 3 | 0 | 2 | 147 | 7 | 1 | 0 | 28 | 8 | 0 | 109 | 0 | 0 | 109 | 264 | 1124 |
| ***BREAK*** | | | | | | | | | | | | | | | | | |
| 16:00:00 | 121 | 4 | 1 | 3 | 126 | 8 | 2 | 0 | 92 | 10 | 0 | 113 | 0 | 0 | 113 | 249 | |
| 16:15:00 | 111 | 4 | 1 | 4 | 116 | 4 | 2 | 0 | 71 | 6 | 4 | 95 | 0 | 0 | 99 | 221 | |
| 16:30:00 | 123 | 2 | 0 | 2 | 125 | 6 | 4 | 0 | 65 | 10 | 4 | 100 | 0 | 1 | 104 | 239 | |
| 16:45:00 | 115 | 2 | 0 | 4 | 117 | 5 | 3 | 0 | 67 | 8 | 4 | 111 | 0 | 2 | 115 | 240 | 949 |
| 17:00:00 | 108 | 9 | 1 | 1 | 118 | 8 | 0 | 0 | 74 | 8 | 4 | 81 | 0 | 3 | 85 | 211 | 911 |
| 17:15:00 | 110 | 1 | 0 | 6 | 111 | 8 | 1 | 0 | 112 | 9 | 2 | 92 | 0 | 1 | 94 | 214 | 904 |
| 17:30:00 | 112 | 2 | 0 | 2 | 114 | 4 | 1 | 0 | 112 | 5 | 3 | 60 | 0 | 2 | 63 | 182 | 847 |
| 17:45:00 | 109 | 9 | 0 | 0 | 118 | 2 | 3 | 0 | 74 | 5 | 6 | 97 | 0 | 1 | 103 | 226 | 833 |
| **Grand Total** | 2073 | 64 | 3 | 35 | 2140 | 79 | 27 | 0 | 922 | 106 | 47 | 1619 | 0 | 18 | 1666 | **3912** | - |
| **Approach%** | 96.9% | 3% | 0.1% | | - | 74.5% | 25.5% | 0% | | - | 2.8% | 97.2% | 0% | | - | - | - |
| **Totals %** | 53% | 1.6% | 0.1% | | 54.7% | 2% | 0.7% | 0% | | 2.7% | 1.2% | 41.4% | 0% | | 42.6% | - | - |
| **Heavy** | 74 | 0 | 0 | | - | 0 | 0 | 0 | | - | 0 | 81 | 0 | | - | - | - |
| **Heavy %** | 3.6% | 0% | 0% | | - | 0% | 0% | 0% | | - | 0% | 5% | 0% | | - | - | - |
| **Bicycles** | 258 | 0 | 0 | | - | 0 | 0 | 0 | | - | 0 | 200 | 0 | | - | - | - |
| **Bicycle %** | 12.4% | 0% | 0% | | - | 0% | 0% | 0% | | - | 0% | 12.4% | 0% | | - | - | - |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & 2451 DANFORTH AVE SOBEYS EAST DRIVEWAY
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:15 AM - 09:15 AM Weather: Clear Sky (13.64 °C)**

| Start Time | E Approach DANFORTH AVE | | | | | S Approach 2451 DANFORTH AVE (SOBEYS EAST DRIVEWAY) | | | | | W Approach DANFORTH AVE | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thru | Left | UTurn | Peds | Approach Total | Right | Left | UTurn | Peds | Approach Total | Right | Thru | UTurn | Peds | Approach Total | |
| 08:15:00 | 146 | 4 | 0 | 2 | 150 | 6 | 3 | 0 | 30 | 9 | 6 | 115 | 0 | 1 | 121 | 280 |
| 08:30:00 | 173 | 9 | 0 | 0 | 182 | 5 | 1 | 0 | 59 | 6 | 3 | 114 | 0 | 2 | 117 | 305 |
| 08:45:00 | 143 | 1 | 0 | 3 | 144 | 1 | 3 | 0 | 38 | 4 | 4 | 121 | 0 | 1 | 125 | 273 |
| 09:00:00 | 147 | 8 | 0 | 1 | 155 | 8 | 2 | 0 | 22 | 10 | 1 | 116 | 0 | 3 | 117 | 282 |
| **Grand Total** | 609 | 22 | 0 | 6 | 631 | 20 | 9 | 0 | 149 | 29 | 14 | 466 | 0 | 7 | 480 | **1140** |
| **Approach%** | 96.5% | 3.5% | 0% | | - | 69% | 31% | 0% | | - | 2.9% | 97.1% | 0% | | - | - |
| **Totals %** | 53.4% | 1.9% | 0% | | 55.4% | 1.8% | 0.8% | 0% | | 2.5% | 1.2% | 40.9% | 0% | | 42.1% | - |
| **PHF** | 0.88 | 0.61 | 0 | | 0.87 | 0.63 | 0.75 | 0 | | 0.73 | 0.58 | 0.96 | 0 | | 0.96 | - |
| **Heavy** | 24 | 0 | 0 | | 24 | 0 | 0 | 0 | | 0 | 0 | 34 | 0 | | 34 | - |
| **Heavy %** | 3.9% | 0% | 0% | | 3.8% | 0% | 0% | 0% | | 0% | 0% | 7.3% | 0% | | 7.1% | - |
| **Lights** | 585 | 22 | 0 | | 607 | 20 | 9 | 0 | | 29 | 14 | 432 | 0 | | 446 | - |
| **Lights %** | 96.1% | 100% | 0% | | 96.2% | 100% | 100% | 0% | | 100% | 100% | 92.7% | 0% | | 92.9% | - |
| **Single-Unit Trucks** | 10 | 0 | 0 | | 10 | 0 | 0 | 0 | | 0 | 0 | 16 | 0 | | 16 | - |
| **Single-Unit Trucks %** | 1.6% | 0% | 0% | | 1.6% | 0% | 0% | 0% | | 0% | 0% | 3.4% | 0% | | 3.3% | - |
| **Buses** | 12 | 0 | 0 | | 12 | 0 | 0 | 0 | | 0 | 0 | 18 | 0 | | 18 | - |
| **Buses %** | 2% | 0% | 0% | | 1.9% | 0% | 0% | 0% | | 0% | 0% | 3.9% | 0% | | 3.8% | - |
| **Articulated Trucks** | 2 | 0 | 0 | | 2 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Articulated Trucks %** | 0.3% | 0% | 0% | | 0.3% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Pedestrians** | - | - | - | 6 | - | - | - | - | 147 | - | - | - | - | 7 | - | - |
| **Pedestrians%** | - | - | - | 3.7% | | - | - | - | 90.7% | | - | - | - | 4.3% | | - |
| **Bicycles on Road** | 74 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 28 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | 0% | | - | - | - | 0% | | - | - | - | 0% | | - |
| **Bicycles on Crosswalk** | - | - | - | 0 | - | - | - | - | 2 | - | - | - | - | 0 | - | - |
| **Bicycles on Crosswalk%** | - | - | - | 0% | | - | - | - | 1.2% | | - | - | - | 0% | | - |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & 2451 DANFORTH AVE SOBEYS EAST DRIVEWAY
Date: Thu, May 16, 2024 Deployment Lead: David Chu

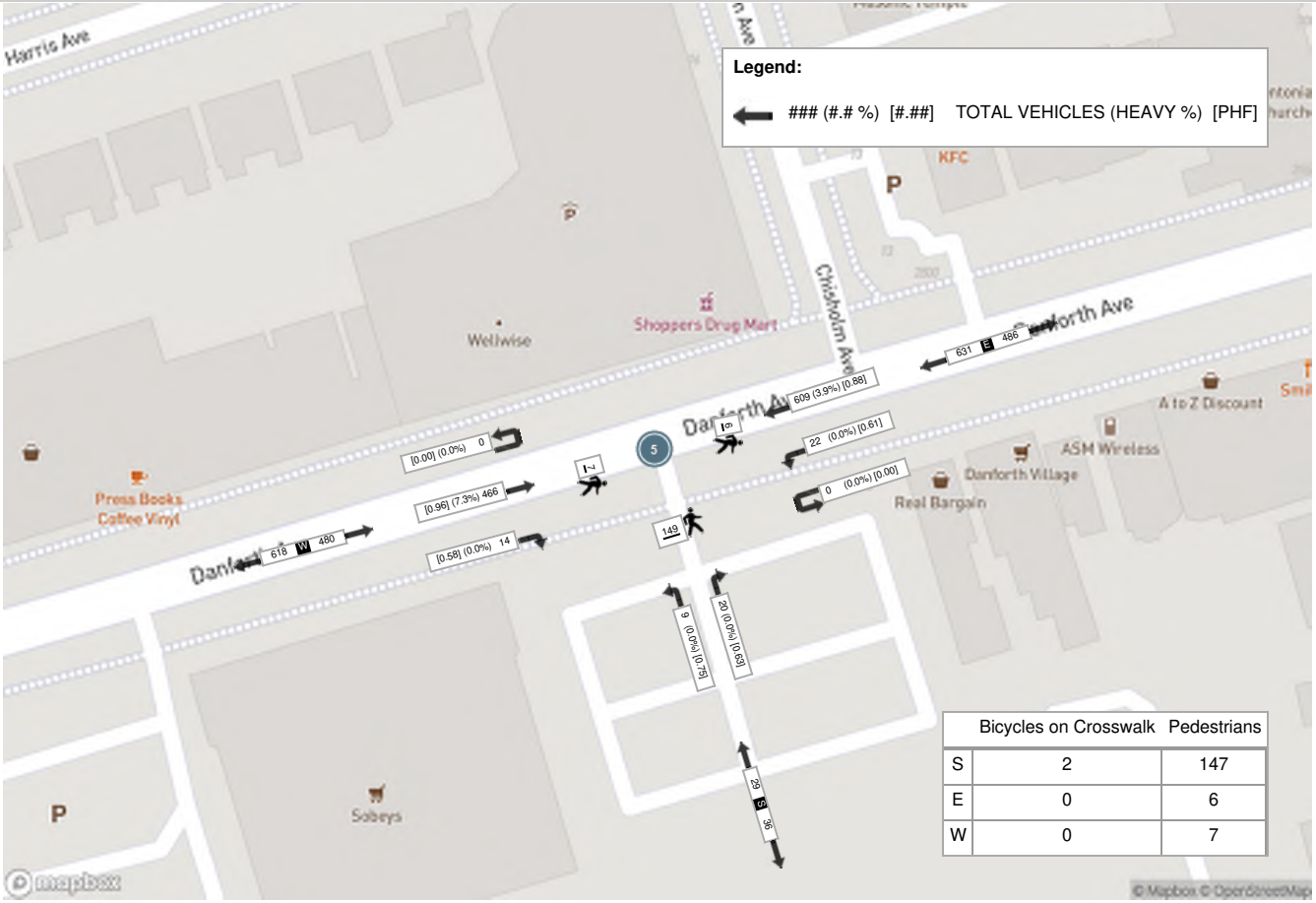
BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 04:00 PM - 05:00 PM Weather: Clear Sky (19.95 °C)**

| Start Time | E Approach DANFORTH AVE | | | | | S Approach 2451 DANFORTH AVE (SOBEYS EAST DRIVEWAY) | | | | | W Approach DANFORTH AVE | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thru | Left | UTurn | Peds | Approach Total | Right | Left | UTurn | Peds | Approach Total | Right | Thru | UTurn | Peds | Approach Total | |
| 16:00:00 | 121 | 4 | 1 | 3 | 126 | 8 | 2 | 0 | 92 | 10 | 0 | 113 | 0 | 0 | 113 | 249 |
| 16:15:00 | 111 | 4 | 1 | 4 | 116 | 4 | 2 | 0 | 71 | 6 | 4 | 95 | 0 | 0 | 99 | 221 |
| 16:30:00 | 123 | 2 | 0 | 2 | 125 | 6 | 4 | 0 | 65 | 10 | 4 | 100 | 0 | 1 | 104 | 239 |
| 16:45:00 | 115 | 2 | 0 | 4 | 117 | 5 | 3 | 0 | 67 | 8 | 4 | 111 | 0 | 2 | 115 | 240 |
| **Grand Total** | 470 | 12 | 2 | 13 | 484 | 23 | 11 | 0 | 295 | 34 | 12 | 419 | 0 | 3 | 431 | **949** |
| **Approach%** | 97.1% | 2.5% | 0.4% | | - | 67.6% | 32.4% | 0% | | - | 2.8% | 97.2% | 0% | | - | - |
| **Totals %** | 49.5% | 1.3% | 0.2% | | 51% | 2.4% | 1.2% | 0% | | 3.6% | 1.3% | 44.2% | 0% | | 45.4% | - |
| **PHF** | 0.96 | 0.75 | 0.5 | | 0.96 | 0.72 | 0.69 | 0 | | 0.85 | 0.75 | 0.93 | 0 | | 0.94 | - |
| **Heavy** | 11 | 0 | 0 | | 11 | 0 | 0 | 0 | | 0 | 0 | 14 | 0 | | 14 | - |
| **Heavy %** | 2.3% | 0% | 0% | | 2.3% | 0% | 0% | 0% | | 0% | 0% | 3.3% | 0% | | 3.2% | - |
| **Lights** | 459 | 12 | 2 | | 473 | 23 | 11 | 0 | | 34 | 12 | 405 | 0 | | 417 | - |
| **Lights %** | 97.7% | 100% | 100% | | 97.7% | 100% | 100% | 0% | | 100% | 100% | 96.7% | 0% | | 96.8% | - |
| **Single-Unit Trucks** | 4 | 0 | 0 | | 4 | 0 | 0 | 0 | | 0 | 0 | 8 | 0 | | 8 | - |
| **Single-Unit Trucks %** | 0.9% | 0% | 0% | | 0.8% | 0% | 0% | 0% | | 0% | 0% | 1.9% | 0% | | 1.9% | - |
| **Buses** | 7 | 0 | 0 | | 7 | 0 | 0 | 0 | | 0 | 0 | 6 | 0 | | 6 | - |
| **Buses %** | 1.5% | 0% | 0% | | 1.4% | 0% | 0% | 0% | | 0% | 0% | 1.4% | 0% | | 1.4% | - |
| **Articulated Trucks** | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Articulated Trucks %** | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Pedestrians** | - | - | - | 13 | - | - | - | - | 289 | - | - | - | - | 3 | - | - |
| **Pedestrians%** | - | - | - | 4.2% | | - | - | - | 92.9% | | - | - | - | 1% | | - |
| **Bicycles on Road** | 56 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 72 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | 0% | | - | - | - | 0% | | - | - | - | 0% | | - |
| **Bicycles on Crosswalk** | - | - | - | 0 | - | - | - | - | 6 | - | - | - | - | 0 | - | - |
| **Bicycles on Crosswalk%** | - | - | - | 0% | | - | - | - | 1.9% | | - | - | - | 0% | | - |

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:15 AM - 09:15 AM Weather: Clear Sky (13.64 °C)**

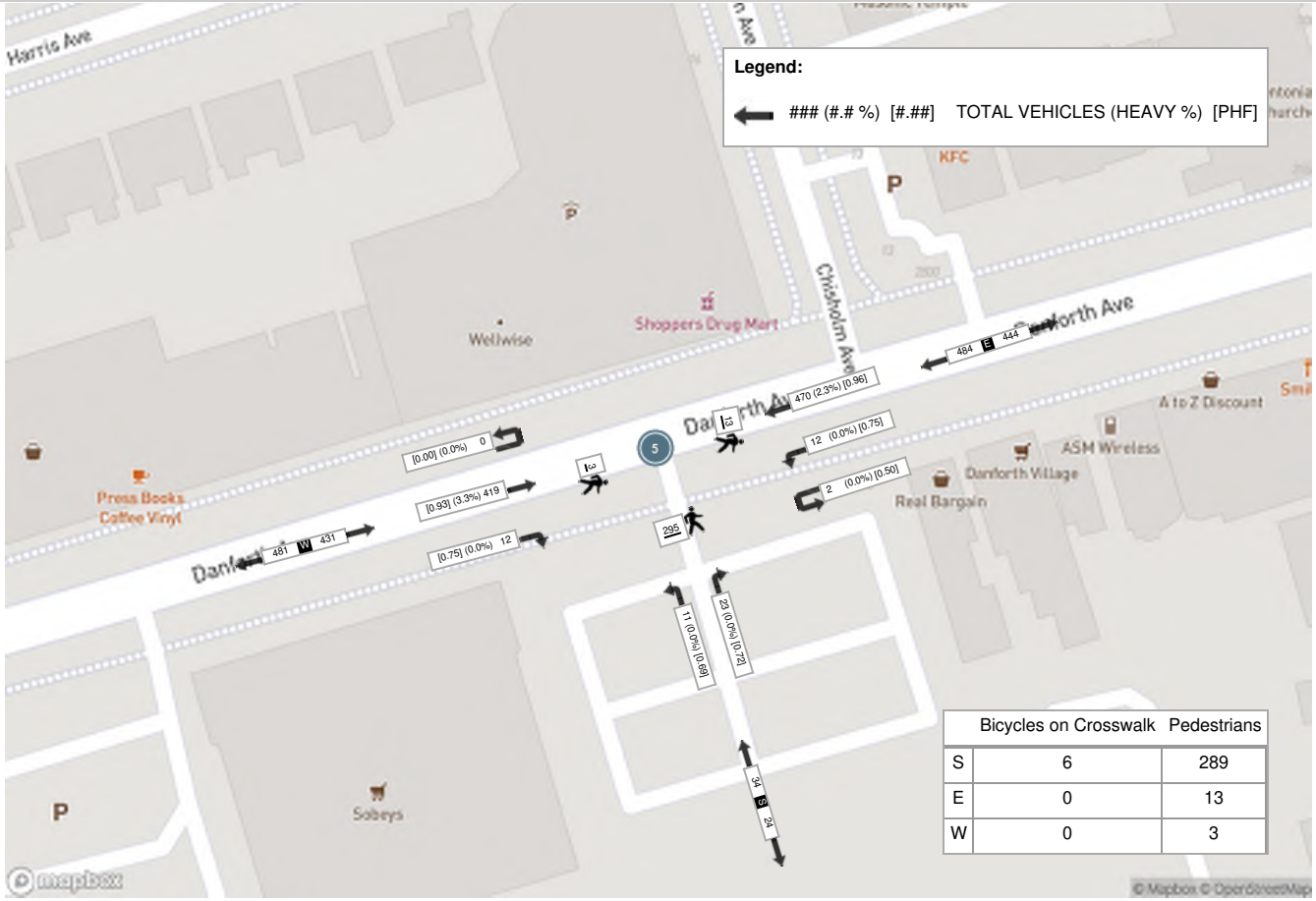



| | Bicycles on Crosswalk | Pedestrians |
|---|---|---|
| S | 2 | 147 |
| E | 0 | 6 |
| W | 0 | 7 |

Turning Movement Count
Location Name: DANFORTH AVE & 2451 DANFORTH AVE SOBEYS EAST DRIVEWAY
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 04:00 PM - 05:00 PM Weather: Clear Sky (19.95 °C)**




| | Bicycles on Crosswalk | Pedestrians |
|---|---|---|
| S | 6 | 289 |
| E | 0 | 13 |
| W | 0 | 3 |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & 2451 DANFORTH AVE SOBEYS WEST DRIVEWAY
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

## Turning Movement Count (4 . DANFORTH AVE & 2451 DANFORTH AVE SOBEYS WEST DRIVEWAY)

| Start Time | E Approach DANFORTH AVE | | | | | S Approach 2451 DANFORTH AVE (SOBEYS WEST DRIVEWAY) | | | | | W Approach DANFORTH AVE | | | | | Int. Total (15 min) | Int. Total (1 hr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thru E:W | Left E:S | UTurn E:E | Peds E: | Approach Total | Right S:E | Left S:W | UTurn S:S | Peds S: | Approach Total | Right W:S | Thru W:E | UTurn W:W | Peds W: | Approach Total | | |
| 07:30:00 | 137 | 0 | 0 | 1 | 137 | 0 | 0 | 0 | 24 | 0 | 0 | 71 | 0 | 0 | 71 | 208 | |
| 07:45:00 | 145 | 0 | 0 | 2 | 145 | 0 | 0 | 0 | 20 | 0 | 0 | 102 | 0 | 1 | 102 | 247 | |
| 08:00:00 | 130 | 0 | 0 | 0 | 130 | 0 | 0 | 0 | 16 | 0 | 1 | 126 | 0 | 0 | 127 | 257 | |
| 08:15:00 | 147 | 0 | 0 | 0 | 147 | 2 | 0 | 0 | 27 | 2 | 0 | 119 | 0 | 0 | 119 | 268 | 980 |
| 08:30:00 | 172 | 1 | 0 | 0 | 173 | 1 | 0 | 0 | 41 | 1 | 1 | 116 | 0 | 0 | 117 | 291 | 1063 |
| 08:45:00 | 142 | 1 | 0 | 0 | 143 | 3 | 1 | 0 | 40 | 4 | 1 | 123 | 0 | 2 | 124 | 271 | 1087 |
| 09:00:00 | 144 | 1 | 0 | 2 | 145 | 2 | 0 | 0 | 19 | 2 | 0 | 107 | 0 | 0 | 107 | 254 | 1084 |
| 09:15:00 | 145 | 0 | 0 | 0 | 145 | 2 | 0 | 0 | 24 | 2 | 2 | 111 | 0 | 1 | 113 | 260 | 1076 |
| ***BREAK*** | | | | | | | | | | | | | | | | | |
| 16:00:00 | 129 | 1 | 0 | 0 | 130 | 2 | 0 | 0 | 62 | 2 | 0 | 108 | 0 | 0 | 108 | 240 | |
| 16:15:00 | 109 | 1 | 0 | 1 | 110 | 1 | 0 | 0 | 58 | 1 | 2 | 110 | 0 | 0 | 112 | 223 | |
| 16:30:00 | 122 | 0 | 0 | 2 | 122 | 2 | 0 | 0 | 46 | 2 | 1 | 103 | 0 | 2 | 104 | 228 | |
| 16:45:00 | 111 | 1 | 0 | 1 | 112 | 1 | 0 | 0 | 54 | 1 | 1 | 119 | 0 | 0 | 120 | 233 | 924 |
| 17:00:00 | 114 | 1 | 0 | 1 | 115 | 0 | 0 | 0 | 43 | 0 | 1 | 84 | 0 | 1 | 85 | 200 | 884 |
| 17:15:00 | 108 | 1 | 1 | 1 | 110 | 3 | 0 | 0 | 62 | 3 | 2 | 84 | 0 | 0 | 86 | 199 | 860 |
| 17:30:00 | 115 | 0 | 0 | 1 | 115 | 1 | 1 | 0 | 60 | 2 | 1 | 65 | 0 | 1 | 66 | 183 | 815 |
| 17:45:00 | 108 | 0 | 0 | 0 | 108 | 2 | 0 | 0 | 48 | 2 | 2 | 98 | 0 | 1 | 100 | 210 | 792 |
| **Grand Total** | 2078 | 8 | 1 | 12 | 2087 | 22 | 2 | 0 | 644 | 24 | 15 | 1646 | 0 | 9 | 1661 | **3772** | - |
| **Approach%** | 99.6% | 0.4% | 0% | | - | 91.7% | 8.3% | 0% | | - | 0.9% | 99.1% | 0% | | - | - | - |
| **Totals %** | 55.1% | 0.2% | 0% | | 55.3% | 0.6% | 0.1% | 0% | | 0.6% | 0.4% | 43.6% | 0% | | 44% | - | - |
| **Heavy** | 70 | 0 | 0 | | - | 2 | 0 | 0 | | - | 0 | 82 | 0 | | - | - | - |
| **Heavy %** | 3.4% | 0% | 0% | | - | 9.1% | 0% | 0% | | - | 0% | 5% | 0% | | - | - | - |
| **Bicycles** | 264 | 0 | 0 | | - | 2 | 0 | 0 | | - | 0 | 199 | 0 | | - | - | - |
| **Bicycle %** | 12.7% | 0% | 0% | | - | 9.1% | 0% | 0% | | - | 0% | 12.1% | 0% | | - | - | - |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & 2451 DANFORTH AVE SOBEYS WEST DRIVEWAY
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:00 AM - 09:00 AM Weather: Clear Sky (13.64 °C)**

| Start Time | E Approach DANFORTH AVE | | | | | S Approach 2451 DANFORTH AVE (SOBEYS WEST DRIVEWAY) | | | | | W Approach DANFORTH AVE | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thru | Left | UTurn | Peds | Approach Total | Right | Left | UTurn | Peds | Approach Total | Right | Thru | UTurn | Peds | Approach Total | |
| 08:00:00 | 130 | 0 | 0 | 0 | 130 | 0 | 0 | 0 | 16 | 0 | 1 | 126 | 0 | 0 | 127 | 257 |
| 08:15:00 | 147 | 0 | 0 | 0 | 147 | 2 | 0 | 0 | 27 | 2 | 0 | 119 | 0 | 0 | 119 | 268 |
| 08:30:00 | 172 | 1 | 0 | 0 | 173 | 1 | 0 | 0 | 41 | 1 | 1 | 116 | 0 | 0 | 117 | 291 |
| 08:45:00 | 142 | 1 | 0 | 0 | 143 | 3 | 1 | 0 | 40 | 4 | 1 | 123 | 0 | 2 | 124 | 271 |
| **Grand Total** | 591 | 2 | 0 | 0 | 593 | 6 | 1 | 0 | 124 | 7 | 3 | 484 | 0 | 2 | 487 | **1087** |
| **Approach%** | 99.7% | 0.3% | 0% | | - | 85.7% | 14.3% | 0% | | - | 0.6% | 99.4% | 0% | | - | - |
| **Totals %** | 54.4% | 0.2% | 0% | | 54.6% | 0.6% | 0.1% | 0% | | 0.6% | 0.3% | 44.5% | 0% | | 44.8% | - |
| **PHF** | 0.86 | 0.5 | 0 | | 0.86 | 0.5 | 0.25 | 0 | | 0.44 | 0.75 | 0.96 | 0 | | 0.96 | - |
| **Heavy** | 23 | 0 | 0 | | 23 | 0 | 0 | 0 | | 0 | 0 | 29 | 0 | | 29 | - |
| **Heavy %** | 3.9% | 0% | 0% | | 3.9% | 0% | 0% | 0% | | 0% | 0% | 6% | 0% | | 6% | - |
| **Lights** | 568 | 2 | 0 | | 570 | 6 | 1 | 0 | | 7 | 3 | 455 | 0 | | 458 | - |
| **Lights %** | 96.1% | 100% | 0% | | 96.1% | 100% | 100% | 0% | | 100% | 100% | 94% | 0% | | 94% | - |
| **Single-Unit Trucks** | 12 | 0 | 0 | | 12 | 0 | 0 | 0 | | 0 | 0 | 16 | 0 | | 16 | - |
| **Single-Unit Trucks %** | 2% | 0% | 0% | | 2% | 0% | 0% | 0% | | 0% | 0% | 3.3% | 0% | | 3.3% | - |
| **Buses** | 10 | 0 | 0 | | 10 | 0 | 0 | 0 | | 0 | 0 | 12 | 0 | | 12 | - |
| **Buses %** | 1.7% | 0% | 0% | | 1.7% | 0% | 0% | 0% | | 0% | 0% | 2.5% | 0% | | 2.5% | - |
| **Articulated Trucks** | 1 | 0 | 0 | | 1 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | | 1 | - |
| **Articulated Trucks %** | 0.2% | 0% | 0% | | 0.2% | 0% | 0% | 0% | | 0% | 0% | 0.2% | 0% | | 0.2% | - |
| **Pedestrians** | - | - | - | 0 | - | - | - | - | 123 | - | - | - | - | 2 | - | - |
| **Pedestrians%** | - | - | - | 0% | | - | - | - | 97.6% | | - | - | - | 1.6% | | - |
| **Bicycles on Road** | 72 | 0 | 0 | 0 | - | 1 | 0 | 0 | 0 | - | 0 | 26 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | 0% | | - | - | - | 0% | | - | - | - | 0% | | - |
| **Bicycles on Crosswalk** | - | - | - | 0 | - | - | - | - | 1 | - | - | - | - | 0 | - | - |
| **Bicycles on Crosswalk%** | - | - | - | 0% | | - | - | - | 0.8% | | - | - | - | 0% | | - |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & 2451 DANFORTH AVE SOBEYS WEST DRIVEWAY
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

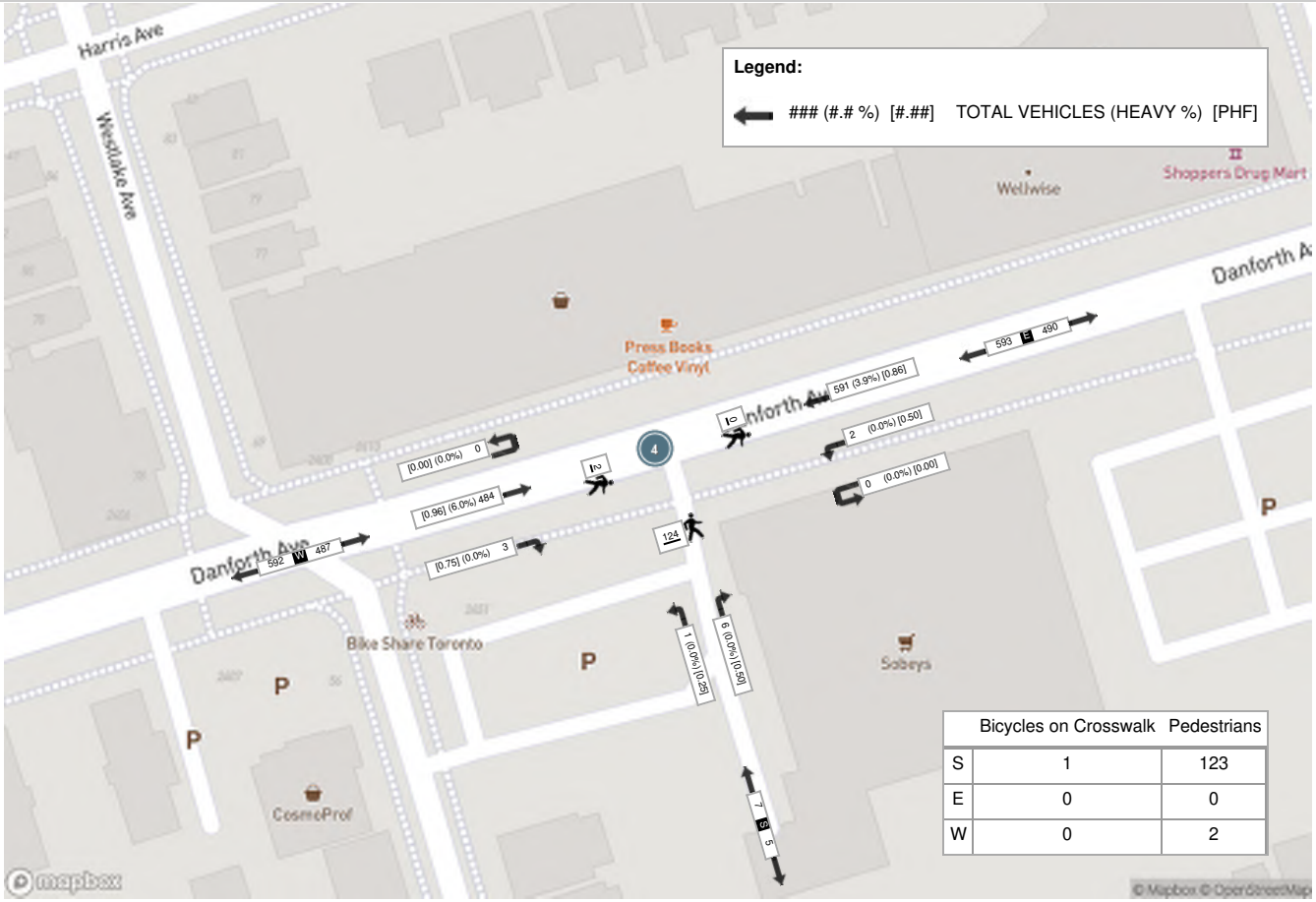
**Peak Hour: 04:00 PM - 05:00 PM Weather: Clear Sky (19.95 °C)**

| Start Time | E Approach DANFORTH AVE | | | | | S Approach 2451 DANFORTH AVE (SOBEYS WEST DRIVEWAY) | | | | | W Approach DANFORTH AVE | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thru | Left | UTurn | Peds | Approach Total | Right | Left | UTurn | Peds | Approach Total | Right | Thru | UTurn | Peds | Approach Total | |
| 16:00:00 | 129 | 1 | 0 | 0 | 130 | 2 | 0 | 0 | 62 | 2 | 0 | 108 | 0 | 0 | 108 | 240 |
| 16:15:00 | 109 | 1 | 0 | 1 | 110 | 1 | 0 | 0 | 58 | 1 | 2 | 110 | 0 | 0 | 112 | 223 |
| 16:30:00 | 122 | 0 | 0 | 2 | 122 | 2 | 0 | 0 | 46 | 2 | 1 | 103 | 0 | 2 | 104 | 228 |
| 16:45:00 | 111 | 1 | 0 | 1 | 112 | 1 | 0 | 0 | 54 | 1 | 1 | 119 | 0 | 0 | 120 | 233 |
| **Grand Total** | 471 | 3 | 0 | 4 | 474 | 6 | 0 | 0 | 220 | 6 | 4 | 440 | 0 | 2 | 444 | **924** |
| **Approach%** | 99.4% | 0.6% | 0% | | - | 100% | 0% | 0% | | - | 0.9% | 99.1% | 0% | | - | - |
| **Totals %** | 51% | 0.3% | 0% | | 51.3% | 0.6% | 0% | 0% | | 0.6% | 0.4% | 47.6% | 0% | | 48.1% | - |
| **PHF** | 0.91 | 0.75 | 0 | | 0.91 | 0.75 | 0 | 0 | | 0.75 | 0.5 | 0.92 | 0 | | 0.93 | - |
| **Heavy** | 7 | 0 | 0 | | 7 | 1 | 0 | 0 | | 1 | 0 | 13 | 0 | | 13 | - |
| **Heavy %** | 1.5% | 0% | 0% | | 1.5% | 16.7% | 0% | 0% | | 16.7% | 0% | 3% | 0% | | 2.9% | - |
| **Lights** | 464 | 3 | 0 | | 467 | 5 | 0 | 0 | | 5 | 4 | 427 | 0 | | 431 | - |
| **Lights %** | 98.5% | 100% | 0% | | 98.5% | 83.3% | 0% | 0% | | 83.3% | 100% | 97% | 0% | | 97.1% | - |
| **Single-Unit Trucks** | 3 | 0 | 0 | | 3 | 1 | 0 | 0 | | 1 | 0 | 8 | 0 | | 8 | - |
| **Single-Unit Trucks %** | 0.6% | 0% | 0% | | 0.6% | 16.7% | 0% | 0% | | 16.7% | 0% | 1.8% | 0% | | 1.8% | - |
| **Buses** | 4 | 0 | 0 | | 4 | 0 | 0 | 0 | | 0 | 0 | 5 | 0 | | 5 | - |
| **Buses %** | 0.8% | 0% | 0% | | 0.8% | 0% | 0% | 0% | | 0% | 0% | 1.1% | 0% | | 1.1% | - |
| **Articulated Trucks** | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Articulated Trucks %** | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Pedestrians** | - | - | - | 4 | - | - | - | - | 214 | - | - | - | - | 2 | - | - |
| **Pedestrians%** | - | - | - | 1.8% | | - | - | - | 94.7% | | - | - | - | 0.9% | | - |
| **Bicycles on Road** | 55 | 0 | 0 | 0 | - | 1 | 0 | 0 | 0 | - | 0 | 71 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | 0% | | - | - | - | 0% | | - | - | - | 0% | | - |
| **Bicycles on Crosswalk** | - | - | - | 0 | - | - | - | - | 6 | - | - | - | - | 0 | - | - |
| **Bicycles on Crosswalk%** | - | - | - | 0% | | - | - | - | 2.7% | | - | - | - | 0% | | - |

Turning Movement Count
Location Name: DANFORTH AVE & 2451 DANFORTH AVE SOBEYS WEST DRIVEWAY
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:00 AM - 09:00 AM Weather: Clear Sky (13.64 °C)**

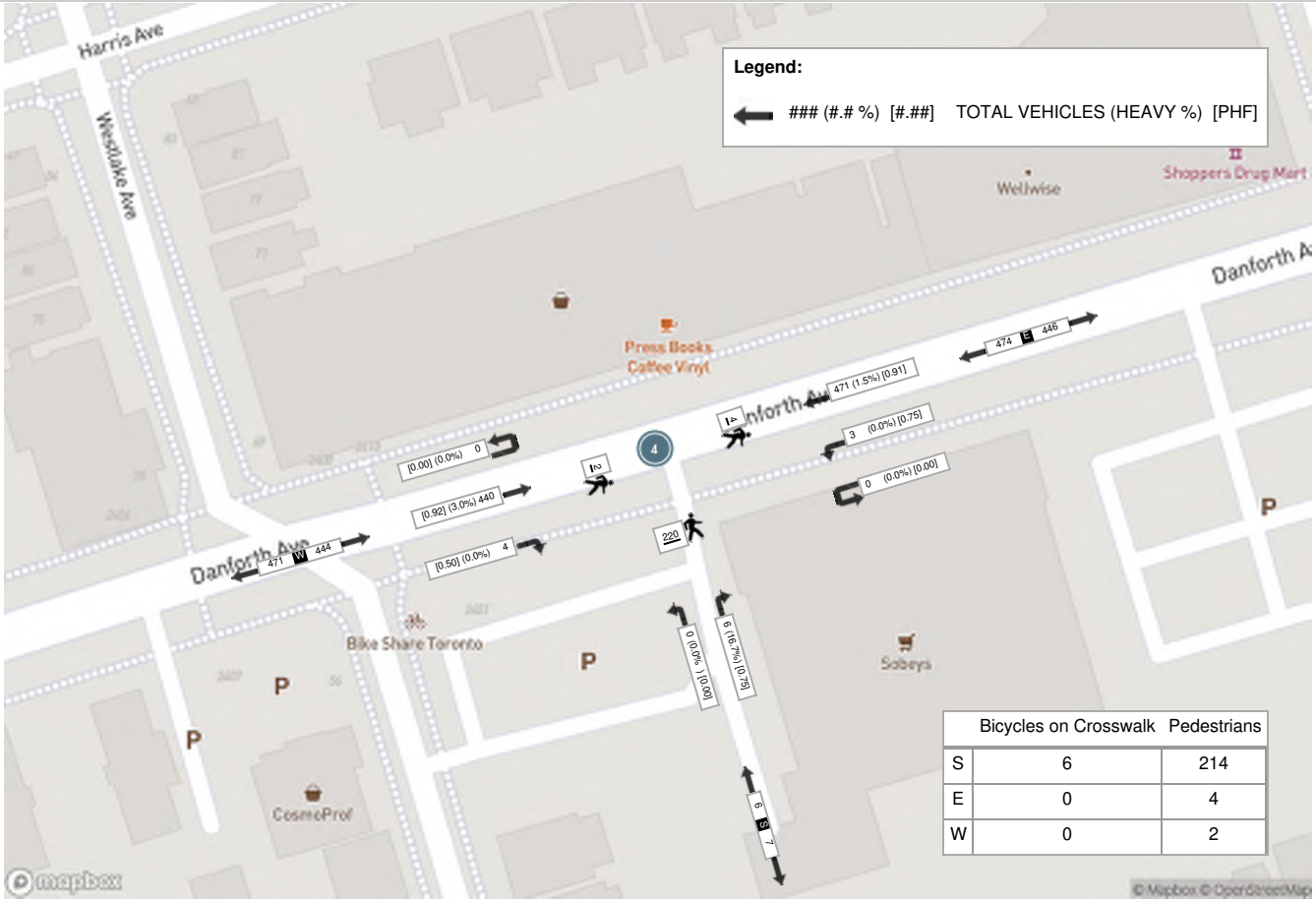



| | Bicycles on Crosswalk | Pedestrians |
|---|---|---|
| S | 1 | 123 |
| E | 0 | 0 |
| W | 0 | 2 |

Turning Movement Count
Location Name: DANFORTH AVE & 2451 DANFORTH AVE SOBEYS WEST DRIVEWAY
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 04:00 PM - 05:00 PM Weather: Clear Sky (19.95 °C)**




| | Bicycles on Crosswalk | Pedestrians |
|---|---|---|
| S | 6 | 214 |
| E | 0 | 4 |
| W | 0 | 2 |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & CHISHOLM AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

## Turning Movement Count (6 . DANFORTH AVE & CHISHOLM AVE)

| Start Time | N Approach CHISHOLM AVE | | | | | E Approach DANFORTH AVE | | | | | W Approach DANFORTH AVE | | | | | Int. Total (15 min) | Int. Total (1 hr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right N:W | Left N:E | UTurn N:N | Peds N: | Approach Total | Right E:N | Thru E:W | UTurn E:E | Peds E: | Approach Total | Thru W:E | Left W:N | UTurn W:W | Peds W: | Approach Total | | |
| 07:30:00 | 3 | 2 | 0 | 22 | 5 | 9 | 139 | 1 | 0 | 149 | 72 | 3 | 0 | 0 | 75 | 229 | |
| 07:45:00 | 1 | 4 | 0 | 14 | 5 | 11 | 145 | 0 | 0 | 156 | 100 | 1 | 1 | 1 | 102 | 263 | |
| 08:00:00 | 7 | 6 | 0 | 18 | 13 | 6 | 124 | 0 | 1 | 130 | 124 | 3 | 0 | 2 | 127 | 270 | |
| 08:15:00 | 12 | 3 | 0 | 26 | 15 | 8 | 148 | 0 | 0 | 156 | 116 | 5 | 0 | 1 | 121 | 292 | 1054 |
| 08:30:00 | 7 | 2 | 0 | 24 | 9 | 10 | 176 | 0 | 0 | 186 | 113 | 3 | 0 | 1 | 116 | 311 | 1136 |
| 08:45:00 | 5 | 2 | 0 | 35 | 7 | 14 | 140 | 0 | 0 | 154 | 117 | 6 | 0 | 3 | 123 | 284 | 1157 |
| 09:00:00 | 5 | 4 | 0 | 40 | 9 | 9 | 148 | 0 | 2 | 157 | 121 | 3 | 1 | 1 | 125 | 291 | 1178 |
| 09:15:00 | 5 | 1 | 0 | 37 | 6 | 11 | 143 | 0 | 0 | 154 | 113 | 3 | 0 | 2 | 116 | 276 | 1162 |
| ***BREAK*** | | | | | | | | | | | | | | | | | |
| 16:00:00 | 7 | 5 | 0 | 59 | 12 | 7 | 122 | 0 | 4 | 129 | 124 | 4 | 0 | 1 | 128 | 269 | |
| 16:15:00 | 3 | 2 | 0 | 54 | 5 | 4 | 110 | 0 | 1 | 114 | 105 | 4 | 0 | 0 | 109 | 228 | |
| 16:30:00 | 11 | 5 | 0 | 43 | 16 | 7 | 117 | 1 | 0 | 125 | 96 | 3 | 0 | 1 | 99 | 240 | |
| 16:45:00 | 4 | 6 | 0 | 36 | 10 | 10 | 114 | 0 | 1 | 124 | 113 | 3 | 0 | 2 | 116 | 250 | 987 |
| 17:00:00 | 6 | 1 | 0 | 50 | 7 | 6 | 108 | 0 | 1 | 114 | 80 | 6 | 0 | 0 | 86 | 207 | 925 |
| 17:15:00 | 8 | 0 | 0 | 60 | 8 | 9 | 105 | 0 | 1 | 114 | 89 | 9 | 0 | 2 | 98 | 220 | 917 |
| 17:30:00 | 7 | 3 | 0 | 54 | 10 | 19 | 113 | 0 | 2 | 132 | 55 | 5 | 0 | 1 | 60 | 202 | 879 |
| 17:45:00 | 5 | 3 | 0 | 43 | 8 | 8 | 109 | 0 | 1 | 117 | 97 | 4 | 0 | 2 | 101 | 226 | 855 |
| **Grand Total** | 96 | 49 | 0 | 615 | 145 | 148 | 2061 | 2 | 14 | 2211 | 1635 | 65 | 2 | 20 | 1702 | **4058** | - |
| **Approach%** | 66.2% | 33.8% | 0% | | - | 6.7% | 93.2% | 0.1% | | - | 96.1% | 3.8% | 0.1% | | - | **-** | - |
| **Totals %** | 2.4% | 1.2% | 0% | | 3.6% | 3.6% | 50.8% | 0% | | 54.5% | 40.3% | 1.6% | 0% | | 41.9% | **-** | - |
| **Heavy** | 4 | 1 | 0 | | - | 3 | 70 | 0 | | - | 82 | 2 | 0 | | - | **-** | - |
| **Heavy %** | 4.2% | 2% | 0% | | - | 2% | 3.4% | 0% | | - | 5% | 3.1% | 0% | | - | **-** | - |
| **Bicycles** | 11 | 3 | 0 | | - | 5 | 243 | 0 | | - | 204 | 0 | 0 | | - | **-** | - |
| **Bicycle %** | 11.5% | 6.1% | 0% | | - | 3.4% | 11.8% | 0% | | - | 12.5% | 0% | 0% | | - | **-** | - |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & CHISHOLM AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:15 AM - 09:15 AM Weather: Clear Sky (13.64 °C)**

| Start Time | N Approach CHISHOLM AVE | | | | | E Approach DANFORTH AVE | | | | | W Approach DANFORTH AVE | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Left | UTurn | Peds | Approach Total | Right | Thru | UTurn | Peds | Approach Total | Thru | Left | UTurn | Peds | Approach Total | |
| 08:15:00 | 12 | 3 | 0 | 26 | 15 | 8 | 148 | 0 | 0 | 156 | 116 | 5 | 0 | 1 | 121 | 292 |
| 08:30:00 | 7 | 2 | 0 | 24 | 9 | 10 | 176 | 0 | 0 | 186 | 113 | 3 | 0 | 1 | 116 | 311 |
| 08:45:00 | 5 | 2 | 0 | 35 | 7 | 14 | 140 | 0 | 0 | 154 | 117 | 6 | 0 | 3 | 123 | 284 |
| 09:00:00 | 5 | 4 | 0 | 40 | 9 | 9 | 148 | 0 | 2 | 157 | 121 | 3 | 1 | 1 | 125 | 291 |
| **Grand Total** | 29 | 11 | 0 | 125 | 40 | 41 | 612 | 0 | 2 | 653 | 467 | 17 | 1 | 6 | 485 | **1178** |
| **Approach%** | 72.5% | 27.5% | 0% | | - | 6.3% | 93.7% | 0% | | - | 96.3% | 3.5% | 0.2% | | - | - |
| **Totals %** | 2.5% | 0.9% | 0% | | 3.4% | 3.5% | 52% | 0% | | 55.4% | 39.6% | 1.4% | 0.1% | | 41.2% | - |
| **PHF** | 0.6 | 0.69 | 0 | | 0.67 | 0.73 | 0.87 | 0 | | 0.88 | 0.96 | 0.71 | 0.25 | | 0.97 | - |
| **Heavy** | 2 | 1 | 0 | | 3 | 0 | 26 | 0 | | 26 | 35 | 0 | 0 | | 35 | - |
| **Heavy %** | 6.9% | 9.1% | 0% | | 7.5% | 0% | 4.2% | 0% | | 4% | 7.5% | 0% | 0% | | 7.2% | - |
| **Lights** | 27 | 10 | 0 | | 37 | 41 | 586 | 0 | | 627 | 432 | 17 | 1 | | 450 | - |
| **Lights %** | 93.1% | 90.9% | 0% | | 92.5% | 100% | 95.8% | 0% | | 96% | 92.5% | 100% | 100% | | 92.8% | - |
| **Single-Unit Trucks** | 0 | 0 | 0 | | 0 | 0 | 12 | 0 | | 12 | 16 | 0 | 0 | | 16 | - |
| **Single-Unit Trucks %** | 0% | 0% | 0% | | 0% | 0% | 2% | 0% | | 1.8% | 3.4% | 0% | 0% | | 3.3% | - |
| **Buses** | 2 | 1 | 0 | | 3 | 0 | 12 | 0 | | 12 | 18 | 0 | 0 | | 18 | - |
| **Buses %** | 6.9% | 9.1% | 0% | | 7.5% | 0% | 2% | 0% | | 1.8% | 3.9% | 0% | 0% | | 3.7% | - |
| **Articulated Trucks** | 0 | 0 | 0 | | 0 | 0 | 2 | 0 | | 2 | 1 | 0 | 0 | | 1 | - |
| **Articulated Trucks %** | 0% | 0% | 0% | | 0% | 0% | 0.3% | 0% | | 0.3% | 0.2% | 0% | 0% | | 0.2% | - |
| **Pedestrians** | - | - | - | 124 | - | - | - | - | 2 | - | - | - | - | 6 | - | - |
| **Pedestrians%** | - | - | - | 93.2% | | - | - | - | 1.5% | | - | - | - | 4.5% | | - |
| **Bicycles on Road** | 5 | 0 | 0 | 0 | - | 1 | 66 | 0 | 0 | - | 29 | 0 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | 0% | | - | - | - | 0% | | - | - | - | 0% | | - |
| **Bicycles on Crosswalk** | - | - | - | 1 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| **Bicycles on Crosswalk%** | - | - | - | 0.8% | | - | - | - | 0% | | - | - | - | 0% | | - |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & CHISHOLM AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

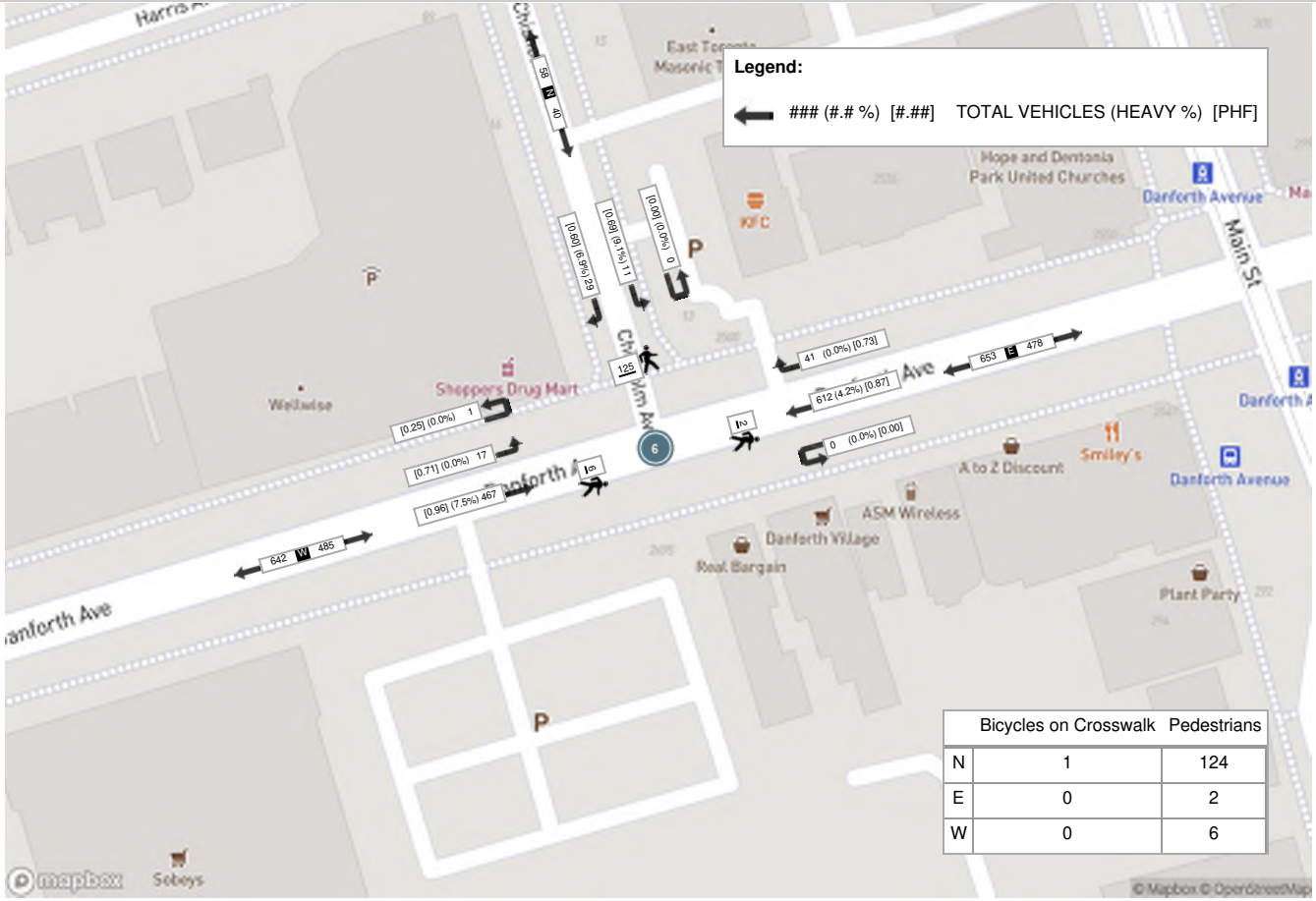
**Peak Hour: 04:00 PM - 05:00 PM Weather: Clear Sky (19.95 °C)**

| Start Time | N Approach CHISHOLM AVE | | | | | E Approach DANFORTH AVE | | | | | W Approach DANFORTH AVE | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Left | UTurn | Peds | Approach Total | Right | Thru | UTurn | Peds | Approach Total | Thru | Left | UTurn | Peds | Approach Total | |
| 16:00:00 | 7 | 5 | 0 | 59 | 12 | 7 | 122 | 0 | 4 | 129 | 124 | 4 | 0 | 1 | 128 | 269 |
| 16:15:00 | 3 | 2 | 0 | 54 | 5 | 4 | 110 | 0 | 1 | 114 | 105 | 4 | 0 | 0 | 109 | 228 |
| 16:30:00 | 11 | 5 | 0 | 43 | 16 | 7 | 117 | 1 | 0 | 125 | 96 | 3 | 0 | 1 | 99 | 240 |
| 16:45:00 | 4 | 6 | 0 | 36 | 10 | 10 | 114 | 0 | 1 | 124 | 113 | 3 | 0 | 2 | 116 | 250 |
| **Grand Total** | 25 | 18 | 0 | 192 | 43 | 28 | 463 | 1 | 6 | 492 | 438 | 14 | 0 | 4 | 452 | **987** |
| **Approach%** | 58.1% | 41.9% | 0% | | - | 5.7% | 94.1% | 0.2% | | - | 96.9% | 3.1% | 0% | | - | - |
| **Totals %** | 2.5% | 1.8% | 0% | | 4.4% | 2.8% | 46.9% | 0.1% | | 49.8% | 44.4% | 1.4% | 0% | | 45.8% | - |
| **PHF** | 0.57 | 0.75 | 0 | | 0.67 | 0.7 | 0.95 | 0.25 | | 0.95 | 0.88 | 0.88 | 0 | | 0.88 | - |
| **Heavy** | 1 | 0 | 0 | | 1 | 1 | 6 | 0 | | 7 | 15 | 0 | 0 | | 15 | - |
| **Heavy %** | 4% | 0% | 0% | | 2.3% | 3.6% | 1.3% | 0% | | 1.4% | 3.4% | 0% | 0% | | 3.3% | - |
| **Lights** | 24 | 18 | 0 | | 42 | 27 | 457 | 1 | | 485 | 423 | 14 | 0 | | 437 | - |
| **Lights %** | 96% | 100% | 0% | | 97.7% | 96.4% | 98.7% | 100% | | 98.6% | 96.6% | 100% | 0% | | 96.7% | - |
| **Single-Unit Trucks** | 1 | 0 | 0 | | 1 | 0 | 2 | 0 | | 2 | 9 | 0 | 0 | | 9 | - |
| **Single-Unit Trucks %** | 4% | 0% | 0% | | 2.3% | 0% | 0.4% | 0% | | 0.4% | 2.1% | 0% | 0% | | 2% | - |
| **Buses** | 0 | 0 | 0 | | 0 | 1 | 4 | 0 | | 5 | 6 | 0 | 0 | | 6 | - |
| **Buses %** | 0% | 0% | 0% | | 0% | 3.6% | 0.9% | 0% | | 1% | 1.4% | 0% | 0% | | 1.3% | - |
| **Articulated Trucks** | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Articulated Trucks %** | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Pedestrians** | - | - | - | 187 | - | - | - | - | 6 | - | - | - | - | 4 | - | - |
| **Pedestrians%** | - | - | - | 92.6% | | - | - | - | 3% | | - | - | - | 2% | | - |
| **Bicycles on Road** | 2 | 1 | 0 | 0 | - | 0 | 54 | 0 | 0 | - | 77 | 0 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | 0% | | - | - | - | 0% | | - | - | - | 0% | | - |
| **Bicycles on Crosswalk** | - | - | - | 5 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| **Bicycles on Crosswalk%** | - | - | - | 2.5% | | - | - | - | 0% | | - | - | - | 0% | | - |

Turning Movement Count
Location Name: DANFORTH AVE & CHISHOLM AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:15 AM - 09:15 AM Weather: Clear Sky (13.64 °C)**

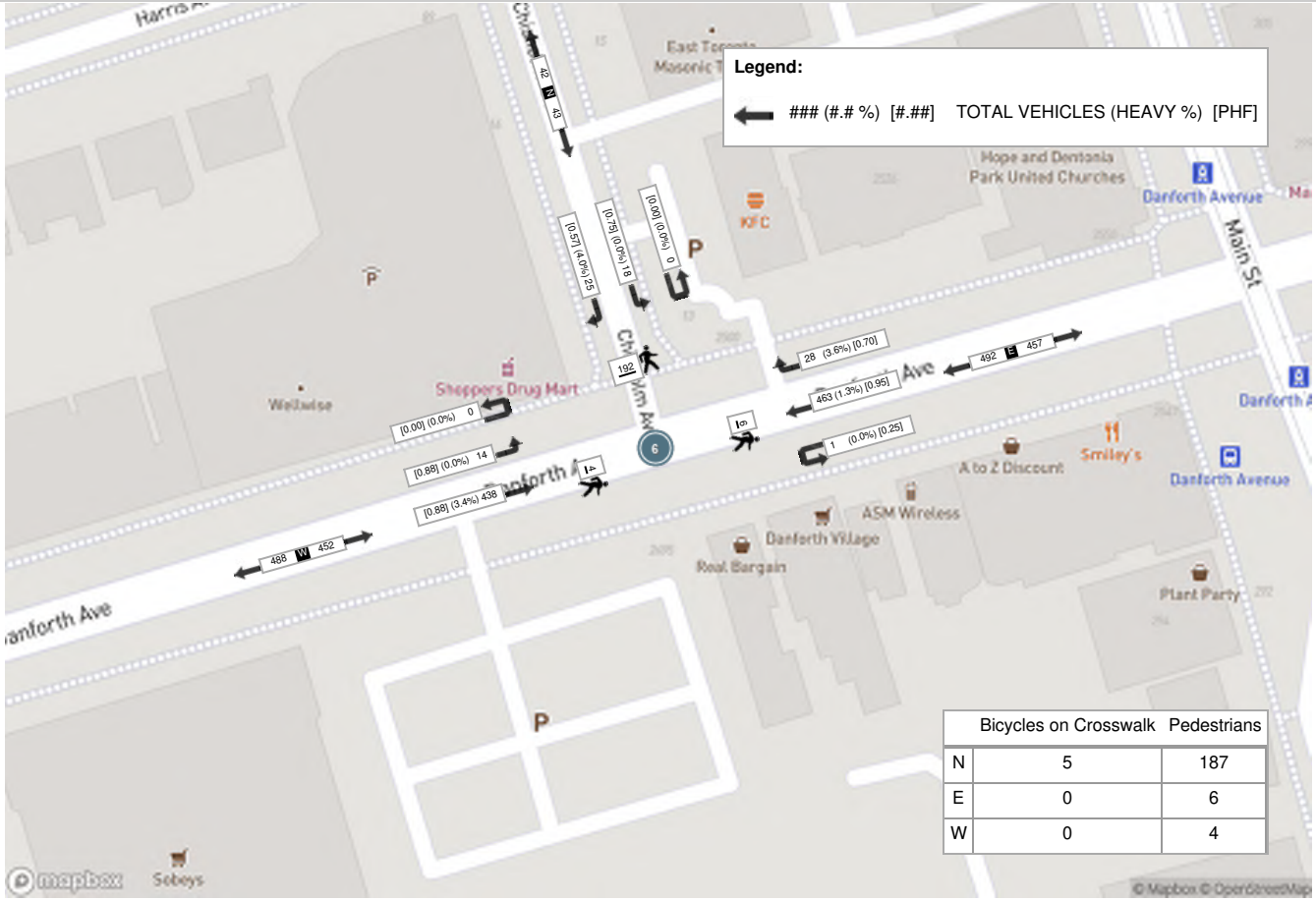



| | Bicycles on Crosswalk | Pedestrians |
|---|---|---|
| N | 1 | 124 |
| E | 0 | 2 |
| W | 0 | 6 |

Turning Movement Count
Location Name: DANFORTH AVE & CHISHOLM AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 04:00 PM - 05:00 PM Weather: Clear Sky (19.95 °C)**




| | Bicycles on Crosswalk | Pedestrians |
|---|---|---|
| N | 5 | 187 |
| E | 0 | 6 |
| W | 0 | 4 |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & GLEDHILL AVE
Date: Tue, May 28, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

## Turning Movement Count (1 . DANFORTH AVE & GLEDHILL AVE)

| Start Time | N Approach GLEDHILL AVE | | | | | | E Approach DANFORTH AVE | | | | | | S Approach PATRICIA DR | | | | | | W Approach DANFORTH AVE | | | | | | Int. Total (15 min) | Int. Total (1 hr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right N:W | Thru N:S | Left N:E | UTurn N:N | Peds N: | Approach Total | Right E:N | Thru E:W | Left E:S | UTurn E:E | Peds E: | Approach Total | Right S:E | Thru S:N | Left S:W | UTurn S:S | Peds S: | Approach Total | Right W:S | Thru W:E | Left W:N | UTurn W:W | Peds W: | Approach Total | | |
| 07:30:00 | 9 | 2 | 3 | 0 | 15 | 14 | 6 | 167 | 0 | 0 | 0 | 173 | 3 | 3 | 10 | 0 | 11 | 16 | 3 | 61 | 3 | 0 | 10 | 67 | 270 | |
| 07:45:00 | 7 | 4 | 5 | 0 | 18 | 16 | 6 | 156 | 3 | 0 | 5 | 165 | 3 | 5 | 13 | 0 | 6 | 21 | 3 | 79 | 5 | 0 | 5 | 87 | 289 | |
| 08:00:00 | 7 | 2 | 3 | 0 | 19 | 12 | 5 | 137 | 3 | 0 | 3 | 145 | 6 | 2 | 17 | 0 | 6 | 25 | 3 | 90 | 4 | 0 | 13 | 97 | 279 | |
| 08:15:00 | 5 | 0 | 8 | 0 | 32 | 13 | 4 | 168 | 2 | 0 | 7 | 174 | 4 | 5 | 15 | 0 | 20 | 24 | 2 | 117 | 5 | 0 | 23 | 124 | 335 | 1173 |
| 08:30:00 | 7 | 2 | 6 | 0 | 112 | 15 | 11 | 134 | 5 | 0 | 27 | 150 | 3 | 9 | 24 | 0 | 35 | 36 | 8 | 105 | 7 | 0 | 134 | 120 | 321 | 1224 |
| 08:45:00 | 12 | 7 | 14 | 0 | 43 | 33 | 7 | 153 | 2 | 0 | 21 | 162 | 5 | 5 | 13 | 0 | 10 | 23 | 7 | 102 | 8 | 0 | 30 | 117 | 335 | 1270 |
| 09:00:00 | 6 | 0 | 6 | 0 | 27 | 12 | 6 | 156 | 1 | 0 | 1 | 163 | 1 | 0 | 10 | 0 | 16 | 11 | 5 | 113 | 9 | 0 | 5 | 127 | 313 | 1304 |
| 09:15:00 | 8 | 4 | 2 | 0 | 22 | 14 | 4 | 146 | 1 | 0 | 5 | 151 | 2 | 2 | 18 | 0 | 15 | 22 | 11 | 88 | 7 | 0 | 8 | 106 | 293 | 1262 |
| ***BREAK*** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16:00:00 | 11 | 6 | 4 | 0 | 42 | 21 | 4 | 105 | 4 | 0 | 8 | 113 | 2 | 0 | 13 | 0 | 29 | 15 | 9 | 110 | 7 | 0 | 13 | 126 | 275 | |
| 16:15:00 | 10 | 0 | 1 | 0 | 31 | 11 | 8 | 127 | 1 | 0 | 3 | 136 | 1 | 1 | 8 | 0 | 27 | 10 | 7 | 117 | 8 | 0 | 20 | 132 | 289 | |
| 16:30:00 | 6 | 3 | 2 | 0 | 40 | 11 | 3 | 111 | 5 | 0 | 8 | 119 | 1 | 5 | 19 | 0 | 25 | 25 | 10 | 102 | 13 | 0 | 10 | 125 | 280 | |
| 16:45:00 | 5 | 5 | 1 | 0 | 41 | 11 | 2 | 119 | 5 | 0 | 11 | 126 | 1 | 5 | 12 | 0 | 30 | 18 | 12 | 122 | 9 | 1 | 20 | 144 | 299 | 1143 |
| 17:00:00 | 10 | 5 | 3 | 0 | 59 | 18 | 6 | 101 | 3 | 0 | 16 | 110 | 2 | 5 | 13 | 0 | 14 | 20 | 14 | 93 | 8 | 0 | 21 | 115 | 263 | 1131 |
| 17:15:00 | 8 | 4 | 5 | 0 | 44 | 17 | 5 | 99 | 3 | 0 | 11 | 107 | 4 | 2 | 13 | 0 | 29 | 19 | 15 | 46 | 12 | 0 | 17 | 73 | 216 | 1058 |
| 17:30:00 | 7 | 4 | 6 | 0 | 40 | 17 | 7 | 114 | 3 | 0 | 10 | 124 | 0 | 7 | 13 | 0 | 32 | 20 | 16 | 103 | 7 | 0 | 23 | 126 | 287 | 1065 |
| 17:45:00 | 10 | 3 | 2 | 0 | 28 | 15 | 5 | 128 | 12 | 0 | 3 | 145 | 2 | 1 | 11 | 0 | 32 | 14 | 6 | 60 | 10 | 0 | 15 | 76 | 250 | 1016 |
| **Grand Total** | 128 | 51 | 71 | 0 | 613 | 250 | 89 | 2121 | 53 | 0 | 139 | 2263 | 40 | 57 | 222 | 0 | 337 | 319 | 131 | 1508 | 122 | 1 | 367 | 1762 | **4594** | - |
| **Approach%** | 51.2% | 20.4% | 28.4% | 0% | | - | 3.9% | 93.7% | 2.3% | 0% | | - | 12.5% | 17.9% | 69.6% | 0% | | - | 7.4% | 85.6% | 6.9% | 0.1% | | - | - | - |
| **Totals %** | 2.8% | 1.1% | 1.5% | 0% | | 5.4% | 1.9% | 46.2% | 1.2% | 0% | | 49.3% | 0.9% | 1.2% | 4.8% | 0% | | 6.9% | 2.9% | 32.8% | 2.7% | 0% | | 38.4% | - | - |
| **Heavy** | 5 | 2 | 4 | 0 | | - | 1 | 57 | 1 | 0 | | - | 3 | 5 | 3 | 0 | | - | 8 | 65 | 3 | 0 | | - | - | - |
| **Heavy %** | 3.9% | 3.9% | 5.6% | 0% | | - | 1.1% | 2.7% | 1.9% | 0% | | - | 7.5% | 8.8% | 1.4% | 0% | | - | 6.1% | 4.3% | 2.5% | 0% | | - | - | - |
| **Bicycles** | 9 | 6 | 7 | 0 | | - | 3 | 227 | 3 | 0 | | - | 2 | 6 | 14 | 0 | | - | 7 | 138 | 4 | 1 | | - | - | - |
| **Bicycle %** | 7% | 11.8% | 9.9% | 0% | | - | 3.4% | 10.7% | 5.7% | 0% | | - | 5% | 10.5% | 6.3% | 0% | | - | 5.3% | 9.2% | 3.3% | 100% | | - | - | - |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & GLEDHILL AVE
Date: Tue, May 28, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:15 AM - 09:15 AM Weather: Overcast Clouds (15.49 °C)**

| Start Time | N Approach GLEDHILL AVE | | | | | | E Approach DANFORTH AVE | | | | | | S Approach PATRICIA DR | | | | | | W Approach DANFORTH AVE | | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | |
| 08:15:00 | 5 | 0 | 8 | 0 | 32 | 13 | 4 | 168 | 2 | 0 | 7 | 174 | 4 | 5 | 15 | 0 | 20 | 24 | 2 | 117 | 5 | 0 | 23 | 124 | 335 |
| 08:30:00 | 7 | 2 | 6 | 0 | 112 | 15 | 11 | 134 | 5 | 0 | 27 | 150 | 3 | 9 | 24 | 0 | 35 | 36 | 8 | 105 | 7 | 0 | 134 | 120 | 321 |
| 08:45:00 | 12 | 7 | 14 | 0 | 43 | 33 | 7 | 153 | 2 | 0 | 21 | 162 | 5 | 5 | 13 | 0 | 10 | 23 | 7 | 102 | 8 | 0 | 30 | 117 | 335 |
| 09:00:00 | 6 | 0 | 6 | 0 | 27 | 12 | 6 | 156 | 1 | 0 | 1 | 163 | 1 | 0 | 10 | 0 | 16 | 11 | 5 | 113 | 9 | 0 | 5 | 127 | 313 |
| **Grand Total** | 30 | 9 | 34 | 0 | 214 | 73 | 28 | 611 | 10 | 0 | 56 | 649 | 13 | 19 | 62 | 0 | 81 | 94 | 22 | 437 | 29 | 0 | 192 | 488 | **1304** |
| **Approach%** | 41.1% | 12.3% | 46.6% | 0% | | - | 4.3% | 94.1% | 1.5% | 0% | | - | 13.8% | 20.2% | 66% | 0% | | - | 4.5% | 89.5% | 5.9% | 0% | | - | - |
| **Totals %** | 2.3% | 0.7% | 2.6% | 0% | | 5.6% | 2.1% | 46.9% | 0.8% | 0% | | 49.8% | 1% | 1.5% | 4.8% | 0% | | 7.2% | 1.7% | 33.5% | 2.2% | 0% | | 37.4% | - |
| **PHF** | 0.63 | 0.32 | 0.61 | 0 | | 0.55 | 0.64 | 0.91 | 0.5 | 0 | | 0.93 | 0.65 | 0.53 | 0.65 | 0 | | 0.65 | 0.69 | 0.93 | 0.81 | 0 | | 0.96 | - |
| **Heavy** | 3 | 2 | 2 | 0 | | 7 | 1 | 18 | 1 | 0 | | 20 | 2 | 2 | 2 | 0 | | 6 | 3 | 30 | 2 | 0 | | 35 | - |
| **Heavy %** | 10% | 22.2% | 5.9% | 0% | | 9.6% | 3.6% | 2.9% | 10% | 0% | | 3.1% | 15.4% | 10.5% | 3.2% | 0% | | 6.4% | 13.6% | 6.9% | 6.9% | 0% | | 7.2% | - |
| **Lights** | 27 | 7 | 32 | 0 | | 66 | 27 | 593 | 9 | 0 | | 629 | 11 | 17 | 60 | 0 | | 88 | 19 | 407 | 27 | 0 | | 453 | - |
| **Lights %** | 90% | 77.8% | 94.1% | 0% | | 90.4% | 96.4% | 97.1% | 90% | 0% | | 96.9% | 84.6% | 89.5% | 96.8% | 0% | | 93.6% | 86.4% | 93.1% | 93.1% | 0% | | 92.8% | - |
| **Single-Unit Trucks** | 1 | 0 | 1 | 0 | | 2 | 1 | 10 | 0 | 0 | | 11 | 0 | 0 | 1 | 0 | | 1 | 0 | 14 | 1 | 0 | | 15 | - |
| **Single-Unit Trucks %** | 3.3% | 0% | 2.9% | 0% | | 2.7% | 3.6% | 1.6% | 0% | 0% | | 1.7% | 0% | 0% | 1.6% | 0% | | 1.1% | 0% | 3.2% | 3.4% | 0% | | 3.1% | - |
| **Buses** | 2 | 2 | 1 | 0 | | 5 | 0 | 8 | 1 | 0 | | 9 | 2 | 2 | 1 | 0 | | 5 | 3 | 16 | 1 | 0 | | 20 | - |
| **Buses %** | 6.7% | 22.2% | 2.9% | 0% | | 6.8% | 0% | 1.3% | 10% | 0% | | 1.4% | 15.4% | 10.5% | 1.6% | 0% | | 5.3% | 13.6% | 3.7% | 3.4% | 0% | | 4.1% | - |
| **Articulated Trucks** | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | - |
| **Articulated Trucks %** | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | - |
| **Pedestrians** | - | - | - | - | 214 | - | - | - | - | - | 54 | - | - | - | - | - | 81 | - | - | - | - | - | 189 | - | - |
| **Pedestrians%** | - | - | - | - | 39.4% | | - | - | - | - | 9.9% | | - | - | - | - | 14.9% | | - | - | - | - | 34.8% | | - |
| **Bicycles on Road** | 4 | 0 | 2 | 0 | 0 | - | 1 | 65 | 1 | 0 | 0 | - | 1 | 2 | 6 | 0 | 0 | - | 1 | 17 | 0 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | - | 0% | | - | - | - | - | 0% | | - | - | - | - | 0% | | - | - | - | - | 0% | | - |
| **Bicycles on Crosswalk** | - | - | - | - | 0 | - | - | - | - | - | 2 | - | - | - | - | - | 0 | - | - | - | - | - | 3 | - | - |
| **Bicycles on Crosswalk%** | - | - | - | - | 0% | | - | - | - | - | 0.4% | | - | - | - | - | 0% | | - | - | - | - | 0.6% | | - |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & GLEDHILL AVE
Date: Tue, May 28, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 04:00 PM - 05:00 PM Weather: Light Rain (17.87 °C)**

| Start Time | N Approach GLEDHILL AVE | | | | | | E Approach DANFORTH AVE | | | | | | S Approach PATRICIA DR | | | | | | W Approach DANFORTH AVE | | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | |
| 16:00:00 | 11 | 6 | 4 | 0 | 42 | 21 | 4 | 105 | 4 | 0 | 8 | 113 | 2 | 0 | 13 | 0 | 29 | 15 | 9 | 110 | 7 | 0 | 13 | 126 | 275 |
| 16:15:00 | 10 | 0 | 1 | 0 | 31 | 11 | 8 | 127 | 1 | 0 | 3 | 136 | 1 | 1 | 8 | 0 | 27 | 10 | 7 | 117 | 8 | 0 | 20 | 132 | 289 |
| 16:30:00 | 6 | 3 | 2 | 0 | 40 | 11 | 3 | 111 | 5 | 0 | 8 | 119 | 1 | 5 | 19 | 0 | 25 | 25 | 10 | 102 | 13 | 0 | 10 | 125 | 280 |
| 16:45:00 | 5 | 5 | 1 | 0 | 41 | 11 | 2 | 119 | 5 | 0 | 11 | 126 | 1 | 5 | 12 | 0 | 30 | 18 | 12 | 122 | 9 | 1 | 20 | 144 | 299 |
| **Grand Total** | 32 | 14 | 8 | 0 | 154 | 54 | 17 | 462 | 15 | 0 | 30 | 494 | 5 | 11 | 52 | 0 | 111 | 68 | 38 | 451 | 37 | 1 | 63 | 527 | **1143** |
| **Approach%** | 59.3% | 25.9% | 14.8% | 0% | | - | 3.4% | 93.5% | 3% | 0% | | - | 7.4% | 16.2% | 76.5% | 0% | | - | 7.2% | 85.6% | 7% | 0.2% | | - | - |
| **Totals %** | 2.8% | 1.2% | 0.7% | 0% | | 4.7% | 1.5% | 40.4% | 1.3% | 0% | | 43.2% | 0.4% | 1% | 4.5% | 0% | | 5.9% | 3.3% | 39.5% | 3.2% | 0.1% | | 46.1% | - |
| **PHF** | 0.73 | 0.58 | 0.5 | 0 | | 0.64 | 0.53 | 0.91 | 0.75 | 0 | | 0.91 | 0.63 | 0.55 | 0.68 | 0 | | 0.68 | 0.79 | 0.92 | 0.71 | 0.25 | | 0.91 | - |
| **Heavy** | 1 | 0 | 1 | 0 | | 2 | 0 | 8 | 0 | 0 | | 8 | 1 | 2 | 1 | 0 | | 4 | 1 | 9 | 1 | 0 | | 11 | - |
| **Heavy %** | 3.1% | 0% | 12.5% | 0% | | 3.7% | 0% | 1.7% | 0% | 0% | | 1.6% | 20% | 18.2% | 1.9% | 0% | | 5.9% | 2.6% | 2% | 2.7% | 0% | | 2.1% | - |
| **Lights** | 31 | 14 | 7 | 0 | | 52 | 17 | 454 | 15 | 0 | | 486 | 4 | 9 | 51 | 0 | | 64 | 37 | 442 | 36 | 1 | | 516 | - |
| **Lights %** | 96.9% | 100% | 87.5% | 0% | | 96.3% | 100% | 98.3% | 100% | 0% | | 98.4% | 80% | 81.8% | 98.1% | 0% | | 94.1% | 97.4% | 98% | 97.3% | 100% | | 97.9% | - |
| **Single-Unit Trucks** | 0 | 0 | 0 | 0 | | 0 | 0 | 4 | 0 | 0 | | 4 | 0 | 0 | 0 | 0 | | 0 | 0 | 6 | 0 | 0 | | 6 | - |
| **Single-Unit Trucks %** | 0% | 0% | 0% | 0% | | 0% | 0% | 0.9% | 0% | 0% | | 0.8% | 0% | 0% | 0% | 0% | | 0% | 0% | 1.3% | 0% | 0% | | 1.1% | - |
| **Buses** | 1 | 0 | 1 | 0 | | 2 | 0 | 4 | 0 | 0 | | 4 | 1 | 2 | 1 | 0 | | 4 | 1 | 3 | 0 | 0 | | 4 | - |
| **Buses %** | 3.1% | 0% | 12.5% | 0% | | 3.7% | 0% | 0.9% | 0% | 0% | | 0.8% | 20% | 18.2% | 1.9% | 0% | | 5.9% | 2.6% | 0.7% | 0% | 0% | | 0.8% | - |
| **Articulated Trucks** | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 1 | 0 | | 1 | - |
| **Articulated Trucks %** | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 2.7% | 0% | | 0.2% | - |
| **Pedestrians** | - | - | - | - | 153 | - | - | - | - | - | 30 | - | - | - | - | - | 111 | - | - | - | - | - | 60 | - | - |
| **Pedestrians%** | - | - | - | - | 42.7% | | - | - | - | - | 8.4% | | - | - | - | - | 31% | | - | - | - | - | 16.8% | | - |
| **Bicycles on Road** | 0 | 4 | 0 | 0 | 0 | - | 0 | 44 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | 0 | - | 3 | 49 | 0 | 1 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | - | 0% | | - | - | - | - | 0% | | - | - | - | - | 0% | | - | - | - | - | 0% | | - |
| **Bicycles on Crosswalk** | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 3 | - | - |
| **Bicycles on Crosswalk%** | - | - | - | - | 0.3% | | - | - | - | - | 0% | | - | - | - | - | 0% | | - | - | - | - | 0.8% | | - |

Turning Movement Count
Location Name: DANFORTH AVE & GLEDHILL AVE
Date: Tue, May 28, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:15 AM - 09:15 AM Weather: Overcast Clouds (15.49 °C)**


| | Bicycles on Crosswalk | Pedestrians |
|---|---|---|
| N | 0 | 214 |
| S | 0 | 81 |
| E | 2 | 54 |
| W | 3 | 189 |

Turning Movement Count
Location Name: DANFORTH AVE & GLEDHILL AVE
Date: Tue, May 28, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 04:00 PM - 05:00 PM Weather: Light Rain (17.87 °C)**


| | Bicycles on Crosswalk | Pedestrians |
|---|---|---|
| N | 1 | 153 |
| S | 0 | 111 |
| E | 0 | 30 |
| W | 3 | 60 |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & MAIN ST
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

## Turning Movement Count (7 . DANFORTH AVE & MAIN ST)

| Start Time | N Approach MAIN ST | | | | | | E Approach DANFORTH AVE | | | | | | S Approach MAIN ST | | | | | | W Approach DANFORTH AVE | | | | | | Int. Total (15 min) | Int. Total (1 hr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right N:W | Thru N:S | Left N:E | UTurn N:N | Peds N: | Approach Total | Right E:N | Thru E:W | Left E:S | UTurn E:E | Peds E: | Approach Total | Right S:E | Thru S:N | Left S:W | UTurn S:S | Peds S: | Approach Total | Right W:S | Thru W:E | Left W:N | UTurn W:W | Peds W: | Approach Total | | |
| 07:30:00 | 6 | 33 | 5 | 0 | 29 | 44 | 15 | 128 | 35 | 0 | 127 | 178 | 17 | 54 | 14 | 0 | 39 | 85 | 21 | 45 | 3 | 0 | 23 | 69 | 376 | |
| 07:45:00 | 5 | 53 | 8 | 0 | 24 | 66 | 12 | 126 | 49 | 0 | 134 | 187 | 24 | 44 | 16 | 0 | 49 | 84 | 15 | 84 | 3 | 0 | 21 | 102 | 439 | |
| 08:00:00 | 4 | 55 | 11 | 0 | 35 | 70 | 13 | 111 | 59 | 0 | 167 | 183 | 37 | 56 | 18 | 0 | 32 | 111 | 26 | 107 | 2 | 0 | 21 | 135 | 499 | |
| 08:15:00 | 3 | 55 | 10 | 0 | 52 | 68 | 16 | 149 | 45 | 0 | 215 | 210 | 34 | 65 | 16 | 0 | 43 | 115 | 27 | 87 | 3 | 0 | 37 | 117 | 510 | 1824 |
| 08:30:00 | 11 | 53 | 10 | 0 | 46 | 74 | 17 | 139 | 51 | 0 | 223 | 207 | 37 | 57 | 30 | 0 | 54 | 124 | 24 | 86 | 3 | 0 | 39 | 113 | 518 | 1966 |
| 08:45:00 | 4 | 43 | 14 | 0 | 52 | 61 | 21 | 132 | 26 | 0 | 163 | 179 | 37 | 60 | 18 | 0 | 44 | 115 | 18 | 99 | 2 | 0 | 42 | 119 | 474 | 2001 |
| 09:00:00 | 6 | 51 | 14 | 0 | 44 | 71 | 16 | 120 | 34 | 0 | 116 | 170 | 36 | 46 | 28 | 0 | 33 | 110 | 24 | 99 | 1 | 0 | 19 | 124 | 475 | 1977 |
| 09:15:00 | 3 | 36 | 11 | 0 | 33 | 50 | 12 | 132 | 48 | 0 | 95 | 192 | 19 | 51 | 22 | 0 | 38 | 92 | 19 | 92 | 5 | 0 | 31 | 116 | 450 | 1917 |
| ***BREAK*** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16:00:00 | 4 | 64 | 15 | 0 | 67 | 83 | 21 | 103 | 43 | 0 | 172 | 167 | 49 | 50 | 21 | 0 | 57 | 120 | 17 | 100 | 8 | 0 | 62 | 125 | 495 | |
| 16:15:00 | 3 | 60 | 15 | 0 | 64 | 78 | 20 | 93 | 35 | 0 | 188 | 148 | 47 | 65 | 17 | 0 | 82 | 129 | 11 | 80 | 5 | 0 | 39 | 96 | 451 | |
| 16:30:00 | 9 | 53 | 7 | 0 | 62 | 69 | 17 | 94 | 40 | 0 | 178 | 151 | 50 | 44 | 26 | 0 | 57 | 120 | 24 | 84 | 11 | 0 | 43 | 119 | 459 | |
| 16:45:00 | 6 | 69 | 15 | 0 | 58 | 90 | 16 | 93 | 36 | 0 | 151 | 145 | 54 | 65 | 24 | 0 | 64 | 143 | 24 | 93 | 3 | 0 | 68 | 120 | 498 | 1903 |
| 17:00:00 | 4 | 65 | 14 | 0 | 92 | 83 | 18 | 88 | 46 | 0 | 231 | 152 | 34 | 70 | 20 | 0 | 90 | 124 | 21 | 55 | 2 | 0 | 68 | 78 | 437 | 1845 |
| 17:15:00 | 9 | 74 | 14 | 0 | 96 | 97 | 20 | 90 | 53 | 0 | 232 | 163 | 42 | 74 | 20 | 0 | 119 | 136 | 20 | 80 | 2 | 0 | 71 | 102 | 498 | 1892 |
| 17:30:00 | 0 | 56 | 12 | 0 | 102 | 68 | 19 | 110 | 41 | 0 | 215 | 170 | 39 | 70 | 20 | 0 | 73 | 129 | 12 | 48 | 2 | 0 | 40 | 62 | 429 | 1862 |
| 17:45:00 | 3 | 59 | 8 | 0 | 90 | 70 | 18 | 93 | 37 | 0 | 155 | 148 | 45 | 76 | 24 | 0 | 89 | 145 | 21 | 78 | 2 | 0 | 73 | 101 | 464 | 1828 |
| **Grand Total** | 80 | 879 | 183 | 0 | 946 | 1142 | 271 | 1801 | 678 | 0 | 2762 | 2750 | 601 | 947 | 334 | 0 | 963 | 1882 | 324 | 1317 | 57 | 0 | 697 | 1698 | **7472** | - |
| **Approach%** | 7% | 77% | 16% | 0% | | - | 9.9% | 65.5% | 24.7% | 0% | | - | 31.9% | 50.3% | 17.7% | 0% | | - | 19.1% | 77.6% | 3.4% | 0% | | - | - | - |
| **Totals %** | 1.1% | 11.8% | 2.4% | 0% | | 15.3% | 3.6% | 24.1% | 9.1% | 0% | | 36.8% | 8% | 12.7% | 4.5% | 0% | | 25.2% | 4.3% | 17.6% | 0.8% | 0% | | 22.7% | - | - |
| **Heavy** | 3 | 64 | 65 | 0 | | - | 66 | 59 | 19 | 0 | | - | 19 | 71 | 11 | 0 | | - | 5 | 74 | 4 | 0 | | - | - | - |
| **Heavy %** | 3.8% | 7.3% | 35.5% | 0% | | - | 24.4% | 3.3% | 2.8% | 0% | | - | 3.2% | 7.5% | 3.3% | 0% | | - | 1.5% | 5.6% | 7% | 0% | | - | - | - |
| **Bicycles** | 8 | 25 | 3 | 0 | | - | 19 | 227 | 3 | 0 | | - | 8 | 41 | 25 | 0 | | - | 52 | 156 | 2 | 0 | | - | - | - |
| **Bicycle %** | 10% | 2.8% | 1.6% | 0% | | - | 7% | 12.6% | 0.4% | 0% | | - | 1.3% | 4.3% | 7.5% | 0% | | - | 16% | 11.8% | 3.5% | 0% | | - | - | - |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & MAIN ST
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:00 AM - 09:00 AM Weather: Clear Sky (13.64 °C)**

| Start Time | N Approach MAIN ST | | | | | | E Approach DANFORTH AVE | | | | | | S Approach MAIN ST | | | | | | W Approach DANFORTH AVE | | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | |
| 08:00:00 | 4 | 55 | 11 | 0 | 35 | 70 | 13 | 111 | 59 | 0 | 167 | 183 | 37 | 56 | 18 | 0 | 32 | 111 | 26 | 107 | 2 | 0 | 21 | 135 | 499 |
| 08:15:00 | 3 | 55 | 10 | 0 | 52 | 68 | 16 | 149 | 45 | 0 | 215 | 210 | 34 | 65 | 16 | 0 | 43 | 115 | 27 | 87 | 3 | 0 | 37 | 117 | 510 |
| 08:30:00 | 11 | 53 | 10 | 0 | 46 | 74 | 17 | 139 | 51 | 0 | 223 | 207 | 37 | 57 | 30 | 0 | 54 | 124 | 24 | 86 | 3 | 0 | 39 | 113 | 518 |
| 08:45:00 | 4 | 43 | 14 | 0 | 52 | 61 | 21 | 132 | 26 | 0 | 163 | 179 | 37 | 60 | 18 | 0 | 44 | 115 | 18 | 99 | 2 | 0 | 42 | 119 | 474 |
| **Grand Total** | 22 | 206 | 45 | 0 | 185 | 273 | 67 | 531 | 181 | 0 | 768 | 779 | 145 | 238 | 82 | 0 | 173 | 465 | 95 | 379 | 10 | 0 | 139 | 484 | **2001** |
| **Approach%** | 8.1% | 75.5% | 16.5% | 0% | | - | 8.6% | 68.2% | 23.2% | 0% | | - | 31.2% | 51.2% | 17.6% | 0% | | - | 19.6% | 78.3% | 2.1% | 0% | | - | - |
| **Totals %** | 1.1% | 10.3% | 2.2% | 0% | | 13.6% | 3.3% | 26.5% | 9% | 0% | | 38.9% | 7.2% | 11.9% | 4.1% | 0% | | 23.2% | 4.7% | 18.9% | 0.5% | 0% | | 24.2% | - |
| **PHF** | 0.5 | 0.94 | 0.8 | 0 | | 0.92 | 0.8 | 0.89 | 0.77 | 0 | | 0.93 | 0.98 | 0.92 | 0.68 | 0 | | 0.94 | 0.88 | 0.89 | 0.83 | 0 | | 0.9 | - |
| **Heavy** | 1 | 15 | 18 | 0 | | 34 | 19 | 22 | 9 | 0 | | 50 | 8 | 21 | 3 | 0 | | 32 | 3 | 25 | 1 | 0 | | 29 | - |
| **Heavy %** | 4.5% | 7.3% | 40% | 0% | | 12.5% | 28.4% | 4.1% | 5% | 0% | | 6.4% | 5.5% | 8.8% | 3.7% | 0% | | 6.9% | 3.2% | 6.6% | 10% | 0% | | 6% | - |
| **Lights** | 21 | 191 | 27 | 0 | | 239 | 48 | 509 | 172 | 0 | | 729 | 137 | 217 | 79 | 0 | | 433 | 92 | 354 | 9 | 0 | | 455 | - |
| **Lights %** | 95.5% | 92.7% | 60% | 0% | | 87.5% | 71.6% | 95.9% | 95% | 0% | | 93.6% | 94.5% | 91.2% | 96.3% | 0% | | 93.1% | 96.8% | 93.4% | 90% | 0% | | 94% | - |
| **Single-Unit Trucks** | 0 | 0 | 1 | 0 | | 1 | 2 | 13 | 5 | 0 | | 20 | 2 | 1 | 1 | 0 | | 4 | 0 | 14 | 1 | 0 | | 15 | - |
| **Single-Unit Trucks %** | 0% | 0% | 2.2% | 0% | | 0.4% | 3% | 2.4% | 2.8% | 0% | | 2.6% | 1.4% | 0.4% | 1.2% | 0% | | 0.9% | 0% | 3.7% | 10% | 0% | | 3.1% | - |
| **Buses** | 1 | 9 | 17 | 0 | | 27 | 17 | 8 | 4 | 0 | | 29 | 5 | 14 | 2 | 0 | | 21 | 3 | 10 | 0 | 0 | | 13 | - |
| **Buses %** | 4.5% | 4.4% | 37.8% | 0% | | 9.9% | 25.4% | 1.5% | 2.2% | 0% | | 3.7% | 3.4% | 5.9% | 2.4% | 0% | | 4.5% | 3.2% | 2.6% | 0% | 0% | | 2.7% | - |
| **Street-Car** | 0 | 6 | 0 | 0 | | 6 | 0 | 0 | 0 | 0 | | 0 | 0 | 6 | 0 | 0 | | 6 | 0 | 0 | 0 | 0 | | 0 | - |
| **Street-Car %** | 0% | 2.9% | 0% | 0% | | 2.2% | 0% | 0% | 0% | 0% | | 0% | 0% | 2.5% | 0% | 0% | | 1.3% | 0% | 0% | 0% | 0% | | 0% | - |
| **Articulated Trucks** | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | 0 | | 1 | 1 | 0 | 0 | 0 | | 1 | 0 | 1 | 0 | 0 | | 1 | - |
| **Articulated Trucks %** | 0% | 0% | 0% | 0% | | 0% | 0% | 0.2% | 0% | 0% | | 0.1% | 0.7% | 0% | 0% | 0% | | 0.2% | 0% | 0.3% | 0% | 0% | | 0.2% | - |
| **Pedestrians** | - | - | - | - | 185 | - | - | - | - | - | 762 | - | - | - | - | - | 167 | - | - | - | - | - | 137 | - | - |
| **Pedestrians%** | - | - | - | - | 14.6% | | - | - | - | - | 60.2% | | - | - | - | - | 13.2% | | - | - | - | - | 10.8% | | - |
| **Bicycles on Road** | 1 | 5 | 0 | 0 | 0 | - | 1 | 63 | 1 | 0 | 0 | - | 1 | 15 | 6 | 0 | 0 | - | 10 | 17 | 0 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | - | 0% | | - | - | - | - | 0% | | - | - | - | - | 0% | | - | - | - | - | 0% | | - |
| **Bicycles on Crosswalk** | - | - | - | - | 0 | - | - | - | - | - | 6 | - | - | - | - | - | 6 | - | - | - | - | - | 2 | - | - |
| **Bicycles on Crosswalk%** | - | - | - | - | 0% | | - | - | - | - | 0.5% | | - | - | - | - | 0.5% | | - | - | - | - | 0.2% | | - |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & MAIN ST
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

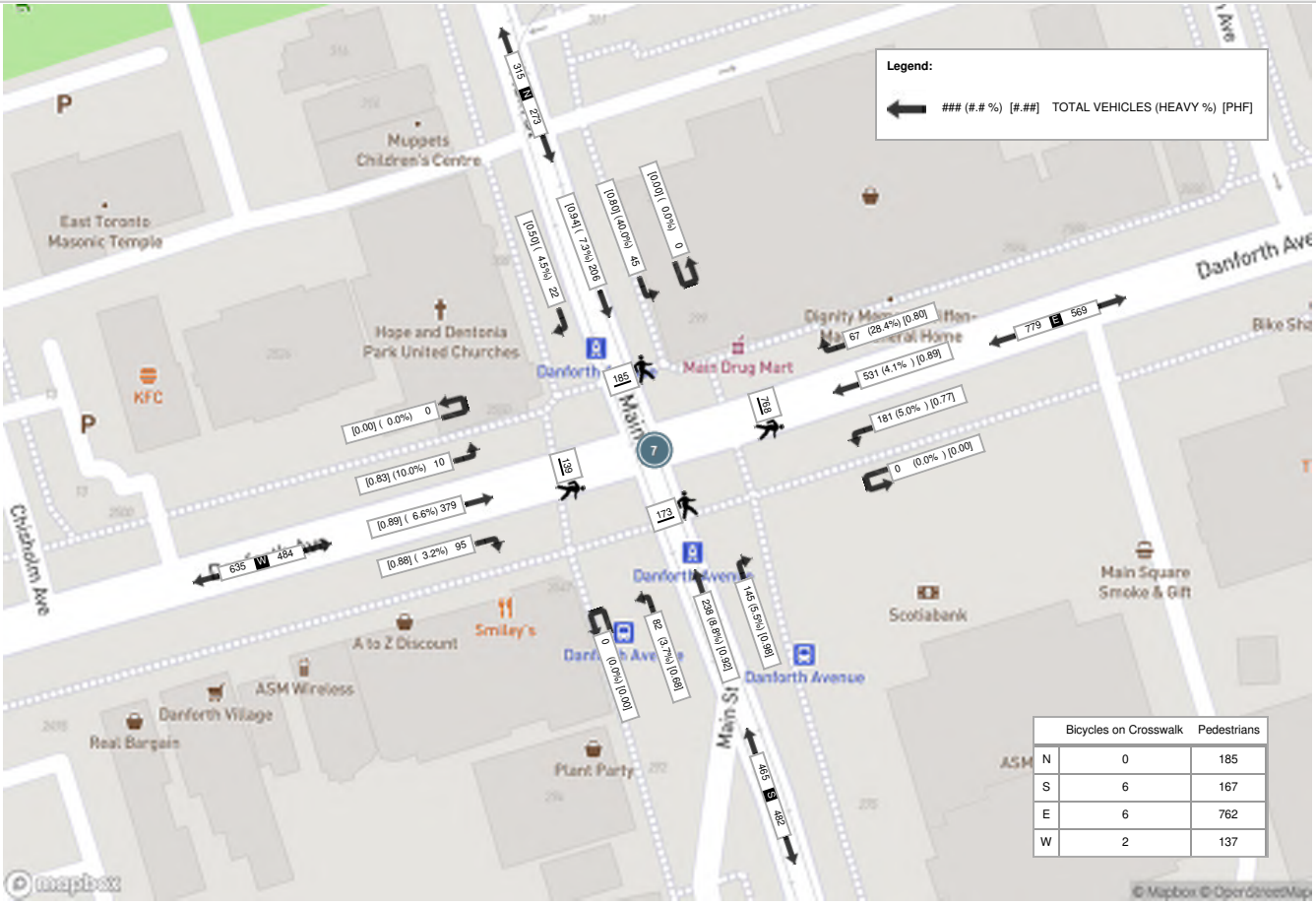
**Peak Hour: 04:00 PM - 05:00 PM Weather: Clear Sky (19.95 °C)**

| Start Time | N Approach MAIN ST | | | | | | E Approach DANFORTH AVE | | | | | | S Approach MAIN ST | | | | | | W Approach DANFORTH AVE | | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | |
| 16:00:00 | 4 | 64 | 15 | 0 | 67 | 83 | 21 | 103 | 43 | 0 | 172 | 167 | 49 | 50 | 21 | 0 | 57 | 120 | 17 | 100 | 8 | 0 | 62 | 125 | 495 |
| 16:15:00 | 3 | 60 | 15 | 0 | 64 | 78 | 20 | 93 | 35 | 0 | 188 | 148 | 47 | 65 | 17 | 0 | 82 | 129 | 11 | 80 | 5 | 0 | 39 | 96 | 451 |
| 16:30:00 | 9 | 53 | 7 | 0 | 62 | 69 | 17 | 94 | 40 | 0 | 178 | 151 | 50 | 44 | 26 | 0 | 57 | 120 | 24 | 84 | 11 | 0 | 43 | 119 | 459 |
| 16:45:00 | 6 | 69 | 15 | 0 | 58 | 90 | 16 | 93 | 36 | 0 | 151 | 145 | 54 | 65 | 24 | 0 | 64 | 143 | 24 | 93 | 3 | 0 | 68 | 120 | 498 |
| **Grand Total** | 22 | 246 | 52 | 0 | 251 | 320 | 74 | 383 | 154 | 0 | 689 | 611 | 200 | 224 | 88 | 0 | 260 | 512 | 76 | 357 | 27 | 0 | 212 | 460 | **1903** |
| **Approach%** | 6.9% | 76.9% | 16.3% | 0% | | - | 12.1% | 62.7% | 25.2% | 0% | | - | 39.1% | 43.8% | 17.2% | 0% | | - | 16.5% | 77.6% | 5.9% | 0% | | - | - |
| **Totals %** | 1.2% | 12.9% | 2.7% | 0% | | 16.8% | 3.9% | 20.1% | 8.1% | 0% | | 32.1% | 10.5% | 11.8% | 4.6% | 0% | | 26.9% | 4% | 18.8% | 1.4% | 0% | | 24.2% | - |
| **PHF** | 0.61 | 0.89 | 0.87 | 0 | | 0.89 | 0.88 | 0.93 | 0.9 | 0 | | 0.91 | 0.93 | 0.86 | 0.85 | 0 | | 0.9 | 0.79 | 0.89 | 0.61 | 0 | | 0.92 | - |
| **Heavy** | 1 | 18 | 16 | 0 | | 35 | 15 | 4 | 3 | 0 | | 22 | 1 | 19 | 2 | 0 | | 22 | 1 | 13 | 2 | 0 | | 16 | - |
| **Heavy %** | 4.5% | 7.3% | 30.8% | 0% | | 10.9% | 20.3% | 1% | 1.9% | 0% | | 3.6% | 0.5% | 8.5% | 2.3% | 0% | | 4.3% | 1.3% | 3.6% | 7.4% | 0% | | 3.5% | - |
| **Lights** | 21 | 228 | 36 | 0 | | 285 | 59 | 379 | 151 | 0 | | 589 | 199 | 205 | 86 | 0 | | 490 | 75 | 344 | 25 | 0 | | 444 | - |
| **Lights %** | 95.5% | 92.7% | 69.2% | 0% | | 89.1% | 79.7% | 99% | 98.1% | 0% | | 96.4% | 99.5% | 91.5% | 97.7% | 0% | | 95.7% | 98.7% | 96.4% | 92.6% | 0% | | 96.5% | - |
| **Single-Unit Trucks** | 0 | 2 | 1 | 0 | | 3 | 0 | 1 | 3 | 0 | | 4 | 1 | 2 | 1 | 0 | | 4 | 1 | 8 | 1 | 0 | | 10 | - |
| **Single-Unit Trucks %** | 0% | 0.8% | 1.9% | 0% | | 0.9% | 0% | 0.3% | 1.9% | 0% | | 0.7% | 0.5% | 0.9% | 1.1% | 0% | | 0.8% | 1.3% | 2.2% | 3.7% | 0% | | 2.2% | - |
| **Buses** | 1 | 12 | 15 | 0 | | 28 | 15 | 3 | 0 | 0 | | 18 | 0 | 14 | 1 | 0 | | 15 | 0 | 5 | 1 | 0 | | 6 | - |
| **Buses %** | 4.5% | 4.9% | 28.8% | 0% | | 8.8% | 20.3% | 0.8% | 0% | 0% | | 2.9% | 0% | 6.3% | 1.1% | 0% | | 2.9% | 0% | 1.4% | 3.7% | 0% | | 1.3% | - |
| **Street-Car** | 0 | 4 | 0 | 0 | | 4 | 0 | 0 | 0 | 0 | | 0 | 0 | 3 | 0 | 0 | | 3 | 0 | 0 | 0 | 0 | | 0 | - |
| **Street-Car %** | 0% | 1.6% | 0% | 0% | | 1.3% | 0% | 0% | 0% | 0% | | 0% | 0% | 1.3% | 0% | 0% | | 0.6% | 0% | 0% | 0% | 0% | | 0% | - |
| **Articulated Trucks** | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | - |
| **Articulated Trucks %** | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | - |
| **Pedestrians** | - | - | - | - | 248 | - | - | - | - | - | 688 | - | - | - | - | - | 258 | - | - | - | - | - | 210 | - | - |
| **Pedestrians%** | - | - | - | - | 17.6% | | - | - | - | - | 48.7% | | - | - | - | - | 18.3% | | - | - | - | - | 14.9% | | - |
| **Bicycles on Road** | 4 | 6 | 1 | 0 | 0 | - | 5 | 48 | 1 | 0 | 0 | - | 0 | 12 | 4 | 0 | 0 | - | 15 | 65 | 1 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | - | 0% | | - | - | - | - | 0% | | - | - | - | - | 0% | | - | - | - | - | 0% | | - |
| **Bicycles on Crosswalk** | - | - | - | - | 3 | - | - | - | - | - | 1 | - | - | - | - | - | 2 | - | - | - | - | - | 2 | - | - |
| **Bicycles on Crosswalk%** | - | - | - | - | 0.2% | | - | - | - | - | 0.1% | | - | - | - | - | 0.1% | | - | - | - | - | 0.1% | | - |

Turning Movement Count
Location Name: DANFORTH AVE & MAIN ST
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:00 AM - 09:00 AM Weather: Clear Sky (13.64 °C)**

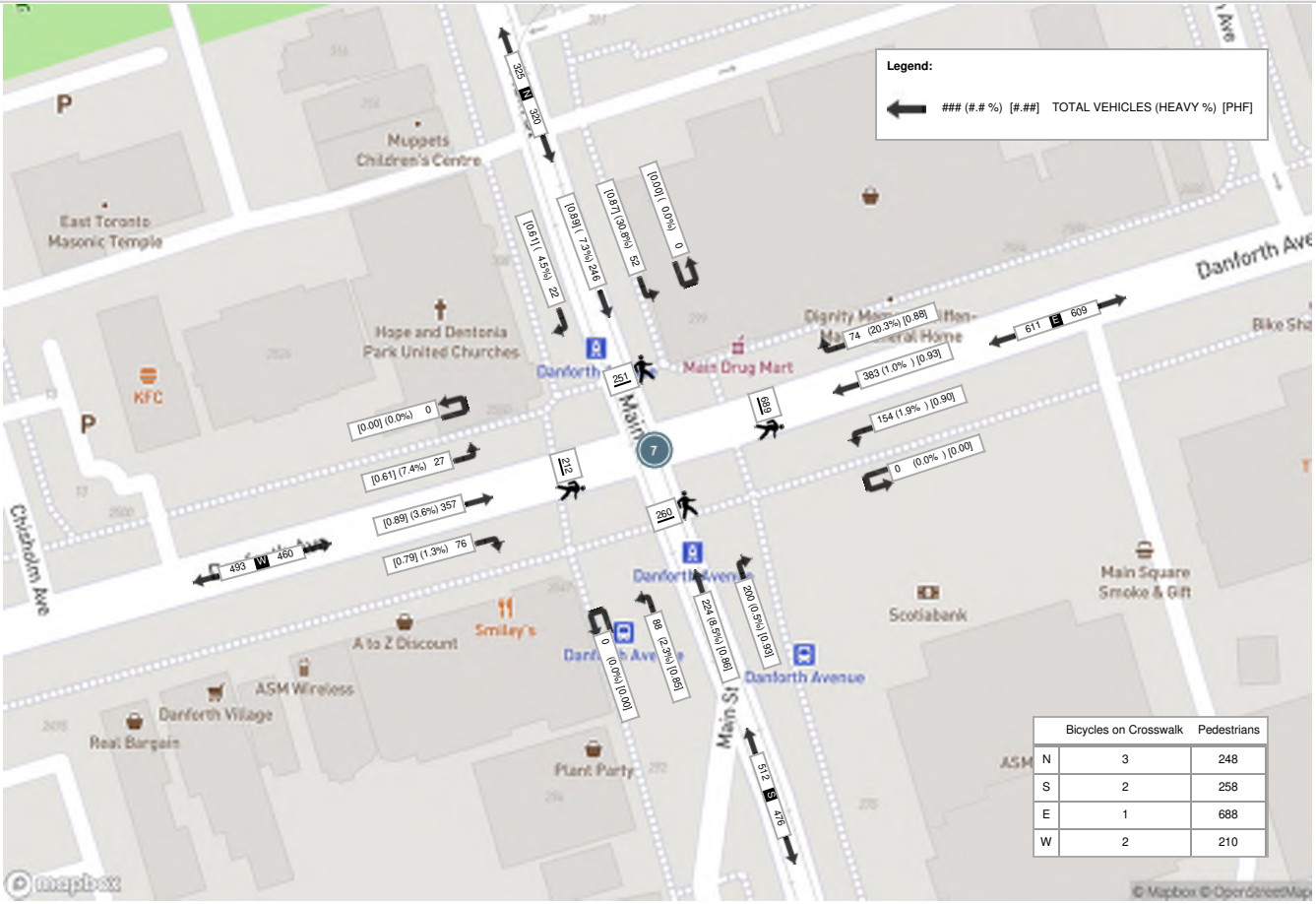



| | Bicycles on Crosswalk | Pedestrians |
|---|---|---|
| N | 0 | 185 |
| S | 6 | 167 |
| E | 6 | 762 |
| W | 2 | 137 |

Turning Movement Count
Location Name: DANFORTH AVE & MAIN ST
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 04:00 PM - 05:00 PM Weather: Clear Sky (19.95 °C)**




| | Bicycles on Crosswalk | Pedestrians |
|---|---|---|
| N | 3 | 248 |
| S | 2 | 258 |
| E | 1 | 688 |
| W | 2 | 210 |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & MORTON RD
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

## Turning Movement Count (2 . DANFORTH AVE & MORTON RD)

| Start Time | E Approach DANFORTH AVE | | | | | S Approach MORTON RD | | | | | W Approach DANFORTH AVE | | | | | Int. Total (15 min) | Int. Total (1 hr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thru E:W | Left E:S | UTurn E:E | Peds E: | Approach Total | Right S:E | Left S:W | UTurn S:S | Peds S: | Approach Total | Right W:S | Thru W:E | UTurn W:W | Peds W: | Approach Total | | |
| 07:30:00 | 137 | 0 | 0 | 0 | 137 | 0 | 2 | 0 | 15 | 2 | 0 | 73 | 0 | 0 | 73 | 212 | |
| 07:45:00 | 146 | 1 | 0 | 1 | 147 | 1 | 0 | 0 | 19 | 1 | 1 | 92 | 1 | 1 | 94 | 242 | |
| 08:00:00 | 135 | 2 | 0 | 0 | 137 | 6 | 1 | 0 | 11 | 7 | 3 | 121 | 0 | 2 | 124 | 268 | |
| 08:15:00 | 141 | 1 | 0 | 0 | 142 | 0 | 1 | 0 | 17 | 1 | 2 | 120 | 0 | 3 | 122 | 265 | 987 |
| 08:30:00 | 160 | 7 | 0 | 0 | 167 | 5 | 1 | 0 | 34 | 6 | 2 | 111 | 0 | 1 | 113 | 286 | 1061 |
| 08:45:00 | 153 | 4 | 0 | 0 | 157 | 4 | 2 | 0 | 28 | 6 | 2 | 131 | 0 | 0 | 133 | 296 | 1115 |
| 09:00:00 | 142 | 1 | 0 | 2 | 143 | 5 | 1 | 0 | 20 | 6 | 0 | 104 | 0 | 0 | 104 | 253 | 1100 |
| 09:15:00 | 146 | 1 | 0 | 1 | 147 | 3 | 2 | 0 | 19 | 5 | 1 | 118 | 0 | 0 | 119 | 271 | 1106 |
| ***BREAK*** | | | | | | | | | | | | | | | | | |
| 16:00:00 | 132 | 1 | 0 | 2 | 133 | 3 | 3 | 0 | 51 | 6 | 5 | 118 | 2 | 4 | 125 | 264 | |
| 16:15:00 | 118 | 3 | 0 | 1 | 121 | 2 | 1 | 0 | 20 | 3 | 5 | 114 | 0 | 2 | 119 | 243 | |
| 16:30:00 | 115 | 6 | 0 | 3 | 121 | 3 | 3 | 0 | 23 | 6 | 2 | 116 | 0 | 0 | 118 | 245 | |
| 16:45:00 | 125 | 0 | 0 | 0 | 125 | 1 | 3 | 0 | 28 | 4 | 2 | 120 | 0 | 1 | 122 | 251 | 1003 |
| 17:00:00 | 115 | 4 | 0 | 0 | 119 | 1 | 5 | 0 | 29 | 6 | 7 | 89 | 0 | 2 | 96 | 221 | 960 |
| 17:15:00 | 109 | 2 | 0 | 1 | 111 | 0 | 2 | 0 | 40 | 2 | 1 | 99 | 0 | 1 | 100 | 213 | 930 |
| 17:30:00 | 111 | 4 | 1 | 3 | 116 | 1 | 2 | 0 | 31 | 3 | 2 | 71 | 0 | 1 | 73 | 192 | 877 |
| 17:45:00 | 113 | 2 | 0 | 3 | 115 | 2 | 2 | 0 | 23 | 4 | 2 | 106 | 0 | 4 | 108 | 227 | 853 |
| **Grand Total** | 2098 | 39 | 1 | 17 | 2138 | 37 | 31 | 0 | 408 | 68 | 37 | 1703 | 3 | 22 | 1743 | **3949** | - |
| **Approach%** | 98.1% | 1.8% | 0% | | - | 54.4% | 45.6% | 0% | | - | 2.1% | 97.7% | 0.2% | | - | - | - |
| **Totals %** | 53.1% | 1% | 0% | | 54.1% | 0.9% | 0.8% | 0% | | 1.7% | 0.9% | 43.1% | 0.1% | | 44.1% | - | - |
| **Heavy** | 62 | 3 | 0 | | - | 2 | 1 | 0 | | - | 0 | 79 | 0 | | - | - | - |
| **Heavy %** | 3% | 7.7% | 0% | | - | 5.4% | 3.2% | 0% | | - | 0% | 4.6% | 0% | | - | - | - |
| **Bicycles** | 288 | 0 | 0 | | - | 2 | 1 | 0 | | - | 2 | 222 | 0 | | - | - | - |
| **Bicycle %** | 13.7% | 0% | 0% | | - | 5.4% | 3.2% | 0% | | - | 5.4% | 13% | 0% | | - | - | - |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & MORTON RD
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:00 AM - 09:00 AM Weather: Clear Sky (13.64 °C)**

| Start Time | E Approach DANFORTH AVE | | | | | S Approach MORTON RD | | | | | W Approach DANFORTH AVE | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thru | Left | UTurn | Peds | Approach Total | Right | Left | UTurn | Peds | Approach Total | Right | Thru | UTurn | Peds | Approach Total | |
| 08:00:00 | 135 | 2 | 0 | 0 | 137 | 6 | 1 | 0 | 11 | 7 | 3 | 121 | 0 | 2 | 124 | 268 |
| 08:15:00 | 141 | 1 | 0 | 0 | 142 | 0 | 1 | 0 | 17 | 1 | 2 | 120 | 0 | 3 | 122 | 265 |
| 08:30:00 | 160 | 7 | 0 | 0 | 167 | 5 | 1 | 0 | 34 | 6 | 2 | 111 | 0 | 1 | 113 | 286 |
| 08:45:00 | 153 | 4 | 0 | 0 | 157 | 4 | 2 | 0 | 28 | 6 | 2 | 131 | 0 | 0 | 133 | 296 |
| **Grand Total** | 589 | 14 | 0 | 0 | 603 | 15 | 5 | 0 | 90 | 20 | 9 | 483 | 0 | 6 | 492 | **1115** |
| **Approach%** | 97.7% | 2.3% | 0% | | - | 75% | 25% | 0% | | - | 1.8% | 98.2% | 0% | | - | - |
| **Totals %** | 52.8% | 1.3% | 0% | | 54.1% | 1.3% | 0.4% | 0% | | 1.8% | 0.8% | 43.3% | 0% | | 44.1% | - |
| **PHF** | 0.92 | 0.5 | 0 | | 0.9 | 0.63 | 0.63 | 0 | | 0.71 | 0.75 | 0.92 | 0 | | 0.92 | - |
| **Heavy** | 22 | 1 | 0 | | 23 | 1 | 0 | 0 | | 1 | 0 | 28 | 0 | | 28 | - |
| **Heavy %** | 3.7% | 7.1% | 0% | | 3.8% | 6.7% | 0% | 0% | | 5% | 0% | 5.8% | 0% | | 5.7% | - |
| **Lights** | 567 | 13 | 0 | | 580 | 14 | 5 | 0 | | 19 | 9 | 455 | 0 | | 464 | - |
| **Lights %** | 96.3% | 92.9% | 0% | | 96.2% | 93.3% | 100% | 0% | | 95% | 100% | 94.2% | 0% | | 94.3% | - |
| **Single-Unit Trucks** | 11 | 0 | 0 | | 11 | 0 | 0 | 0 | | 0 | 0 | 14 | 0 | | 14 | - |
| **Single-Unit Trucks %** | 1.9% | 0% | 0% | | 1.8% | 0% | 0% | 0% | | 0% | 0% | 2.9% | 0% | | 2.8% | - |
| **Buses** | 10 | 1 | 0 | | 11 | 1 | 0 | 0 | | 1 | 0 | 12 | 0 | | 12 | - |
| **Buses %** | 1.7% | 7.1% | 0% | | 1.8% | 6.7% | 0% | 0% | | 5% | 0% | 2.5% | 0% | | 2.4% | - |
| **Articulated Trucks** | 1 | 0 | 0 | | 1 | 0 | 0 | 0 | | 0 | 0 | 2 | 0 | | 2 | - |
| **Articulated Trucks %** | 0.2% | 0% | 0% | | 0.2% | 0% | 0% | 0% | | 0% | 0% | 0.4% | 0% | | 0.4% | - |
| **Pedestrians** | - | - | - | 0 | - | - | - | - | 89 | - | - | - | - | 5 | - | - |
| **Pedestrians%** | - | - | - | 0% | | - | - | - | 92.7% | | - | - | - | 5.2% | | - |
| **Bicycles on Road** | 84 | 0 | 0 | 0 | - | 0 | 1 | 0 | 0 | - | 0 | 32 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | 0% | | - | - | - | 0% | | - | - | - | 0% | | - |
| **Bicycles on Crosswalk** | - | - | - | 0 | - | - | - | - | 1 | - | - | - | - | 1 | - | - |
| **Bicycles on Crosswalk%** | - | - | - | 0% | | - | - | - | 1% | | - | - | - | 1% | | - |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & MORTON RD
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

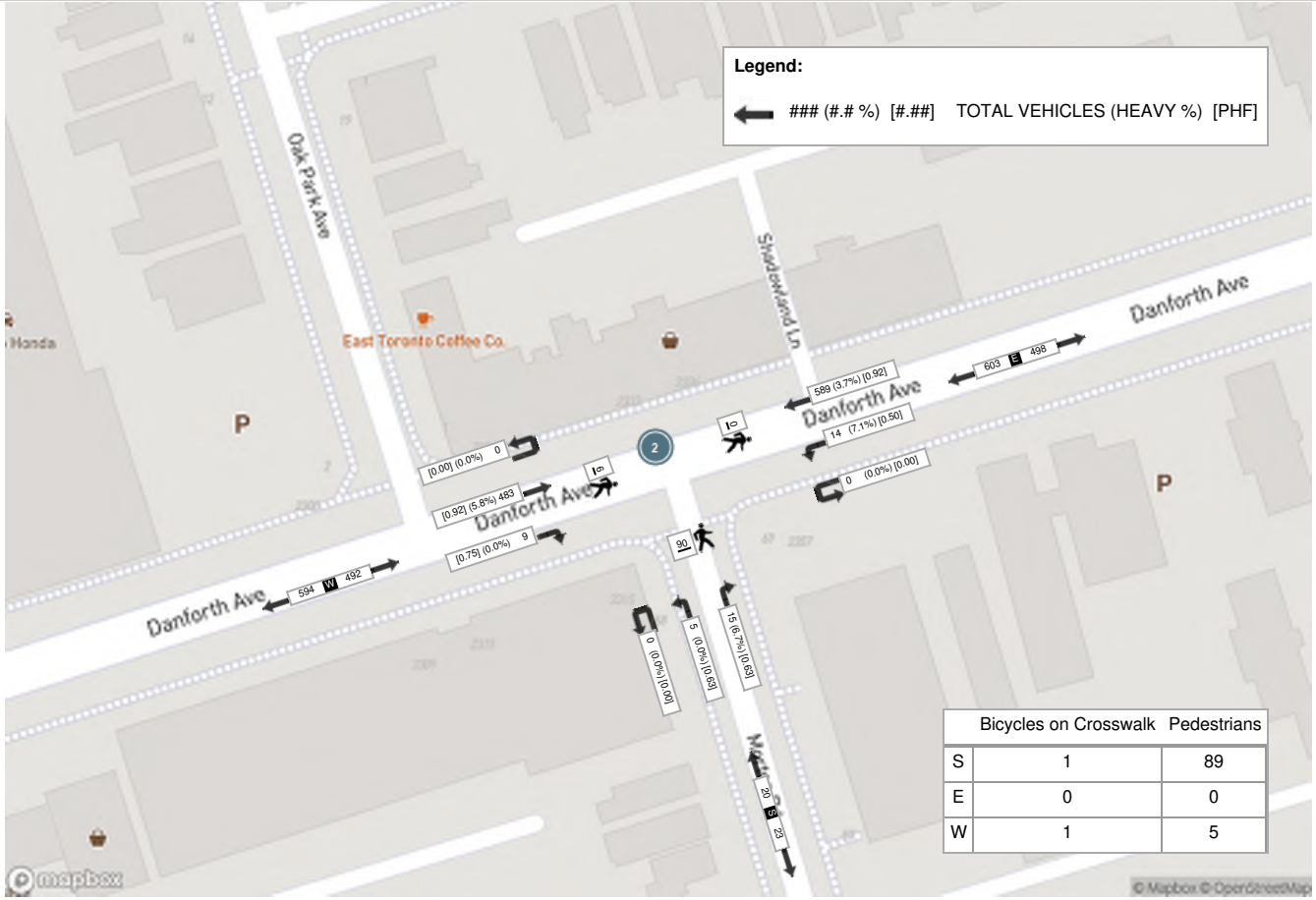
**Peak Hour: 04:00 PM - 05:00 PM Weather: Clear Sky (19.95 °C)**

| Start Time | E Approach DANFORTH AVE | | | | | S Approach MORTON RD | | | | | W Approach DANFORTH AVE | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thru | Left | UTurn | Peds | Approach Total | Right | Left | UTurn | Peds | Approach Total | Right | Thru | UTurn | Peds | Approach Total | |
| 16:00:00 | 132 | 1 | 0 | 2 | 133 | 3 | 3 | 0 | 51 | 6 | 5 | 118 | 2 | 4 | 125 | 264 |
| 16:15:00 | 118 | 3 | 0 | 1 | 121 | 2 | 1 | 0 | 20 | 3 | 5 | 114 | 0 | 2 | 119 | 243 |
| 16:30:00 | 115 | 6 | 0 | 3 | 121 | 3 | 3 | 0 | 23 | 6 | 2 | 116 | 0 | 0 | 118 | 245 |
| 16:45:00 | 125 | 0 | 0 | 0 | 125 | 1 | 3 | 0 | 28 | 4 | 2 | 120 | 0 | 1 | 122 | 251 |
| **Grand Total** | 490 | 10 | 0 | 6 | 500 | 9 | 10 | 0 | 122 | 19 | 14 | 468 | 2 | 7 | 484 | **1003** |
| **Approach%** | 98% | 2% | 0% | | - | 47.4% | 52.6% | 0% | | - | 2.9% | 96.7% | 0.4% | | - | - |
| **Totals %** | 48.9% | 1% | 0% | | 49.9% | 0.9% | 1% | 0% | | 1.9% | 1.4% | 46.7% | 0.2% | | 48.3% | - |
| **PHF** | 0.93 | 0.42 | 0 | | 0.94 | 0.75 | 0.83 | 0 | | 0.79 | 0.7 | 0.98 | 0.25 | | 0.97 | - |
| **Heavy** | 6 | 0 | 0 | | 6 | 1 | 0 | 0 | | 1 | 0 | 14 | 0 | | 14 | - |
| **Heavy %** | 1.2% | 0% | 0% | | 1.2% | 11.1% | 0% | 0% | | 5.3% | 0% | 3% | 0% | | 2.9% | - |
| **Lights** | 484 | 10 | 0 | | 494 | 8 | 10 | 0 | | 18 | 14 | 454 | 2 | | 470 | - |
| **Lights %** | 98.8% | 100% | 0% | | 98.8% | 88.9% | 100% | 0% | | 94.7% | 100% | 97% | 100% | | 97.1% | - |
| **Single-Unit Trucks** | 2 | 0 | 0 | | 2 | 1 | 0 | 0 | | 1 | 0 | 8 | 0 | | 8 | - |
| **Single-Unit Trucks %** | 0.4% | 0% | 0% | | 0.4% | 11.1% | 0% | 0% | | 5.3% | 0% | 1.7% | 0% | | 1.7% | - |
| **Buses** | 4 | 0 | 0 | | 4 | 0 | 0 | 0 | | 0 | 0 | 6 | 0 | | 6 | - |
| **Buses %** | 0.8% | 0% | 0% | | 0.8% | 0% | 0% | 0% | | 0% | 0% | 1.3% | 0% | | 1.2% | - |
| **Articulated Trucks** | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Articulated Trucks %** | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Pedestrians** | - | - | - | 6 | - | - | - | - | 122 | - | - | - | - | 7 | - | - |
| **Pedestrians%** | - | - | - | 4.4% | | - | - | - | 90.4% | | - | - | - | 5.2% | | - |
| **Bicycles on Road** | 65 | 0 | 0 | 0 | - | 2 | 0 | 0 | 0 | - | 0 | 83 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | 0% | | - | - | - | 0% | | - | - | - | 0% | | - |
| **Bicycles on Crosswalk** | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| **Bicycles on Crosswalk%** | - | - | - | 0% | | - | - | - | 0% | | - | - | - | 0% | | - |

Turning Movement Count
Location Name: DANFORTH AVE & MORTON RD
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:00 AM - 09:00 AM Weather: Clear Sky (13.64 °C)**

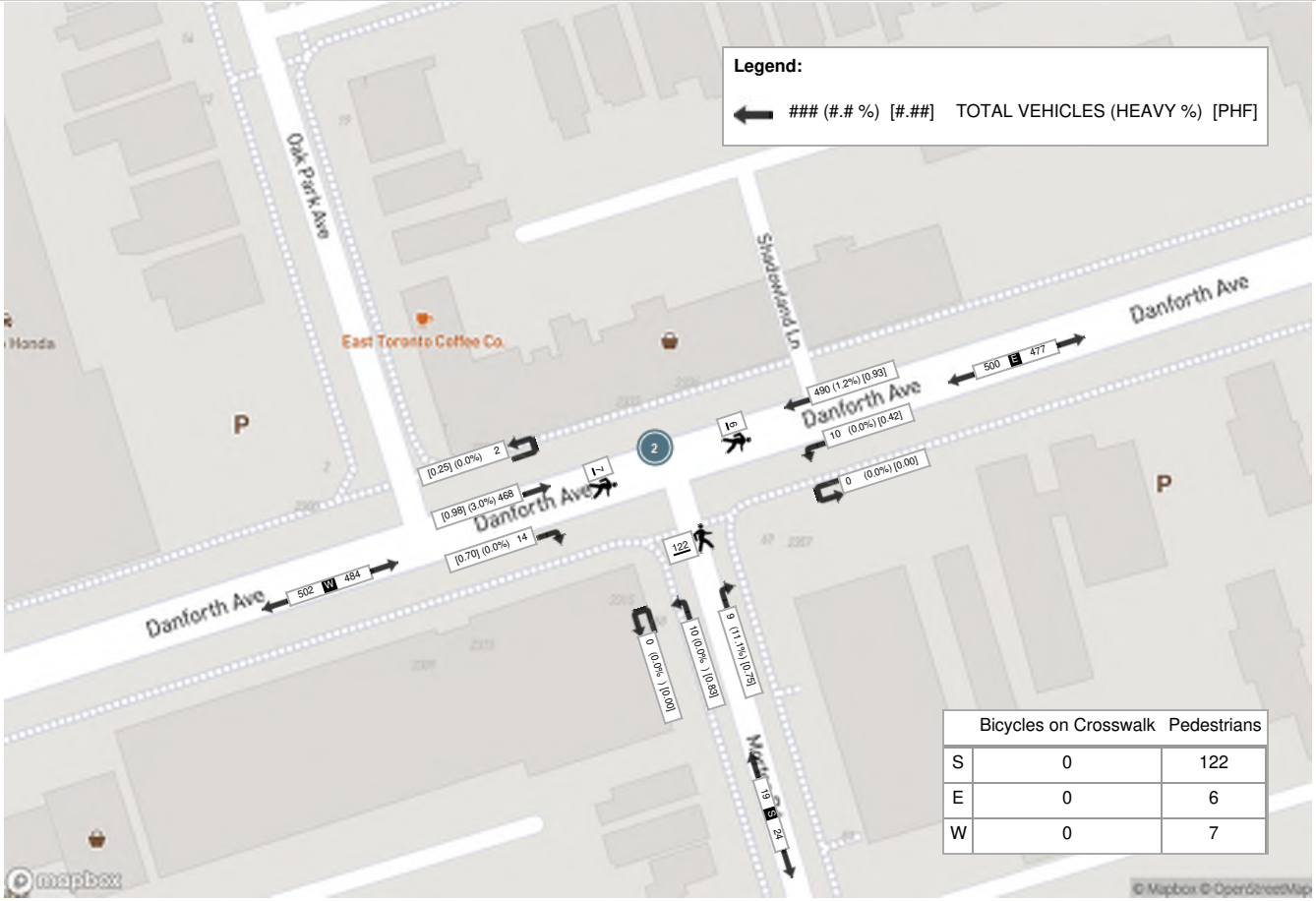



| | Bicycles on Crosswalk | Pedestrians |
|---|---|---|
| S | 1 | 89 |
| E | 0 | 0 |
| W | 1 | 5 |

Turning Movement Count
Location Name: DANFORTH AVE & MORTON RD
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 04:00 PM - 05:00 PM Weather: Clear Sky (19.95 °C)**



Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & OAK PARK AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

## Turning Movement Count (1 . DANFORTH AVE & OAK PARK AVE)

| Start Time | N Approach OAK PARK AVE | | | | | E Approach DANFORTH AVE | | | | | W Approach DANFORTH AVE | | | | | Int. Total (15 min) | Int. Total (1 hr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right N:W | Left N:E | UTurn N:N | Peds N: | Approach Total | Right E:N | Thru E:W | UTurn E:E | Peds E: | Approach Total | Thru W:E | Left W:N | UTurn W:W | Peds W: | Approach Total | | |
| 07:30:00 | 8 | 0 | 0 | 14 | 8 | 3 | 135 | 0 | 1 | 138 | 72 | 4 | 0 | 0 | 76 | 222 | |
| 07:45:00 | 5 | 0 | 0 | 23 | 5 | 2 | 146 | 0 | 0 | 148 | 92 | 5 | 1 | 0 | 98 | 251 | |
| 08:00:00 | 11 | 0 | 0 | 21 | 11 | 1 | 135 | 0 | 2 | 136 | 127 | 10 | 0 | 0 | 137 | 284 | |
| 08:15:00 | 16 | 0 | 0 | 33 | 16 | 2 | 140 | 0 | 1 | 142 | 122 | 5 | 0 | 0 | 127 | 285 | 1042 |
| 08:30:00 | 5 | 0 | 0 | 65 | 5 | 4 | 156 | 0 | 0 | 160 | 113 | 9 | 0 | 0 | 122 | 287 | 1107 |
| 08:45:00 | 17 | 0 | 0 | 34 | 17 | 6 | 145 | 0 | 0 | 151 | 132 | 9 | 0 | 1 | 141 | 309 | 1165 |
| 09:00:00 | 12 | 1 | 0 | 15 | 13 | 3 | 142 | 0 | 0 | 145 | 103 | 4 | 0 | 0 | 107 | 265 | 1146 |
| 09:15:00 | 5 | 0 | 0 | 34 | 5 | 2 | 141 | 1 | 1 | 144 | 118 | 6 | 0 | 0 | 124 | 273 | 1134 |
| ***BREAK*** | | | | | | | | | | | | | | | | | |
| 16:00:00 | 7 | 0 | 0 | 29 | 7 | 6 | 135 | 0 | 1 | 141 | 124 | 14 | 0 | 0 | 138 | 286 | |
| 16:15:00 | 8 | 0 | 0 | 21 | 8 | 8 | 114 | 0 | 4 | 122 | 117 | 13 | 0 | 1 | 130 | 260 | |
| 16:30:00 | 8 | 1 | 0 | 28 | 9 | 10 | 107 | 0 | 0 | 117 | 120 | 10 | 1 | 1 | 131 | 257 | |
| 16:45:00 | 16 | 1 | 0 | 29 | 17 | 8 | 122 | 0 | 4 | 130 | 118 | 22 | 0 | 2 | 140 | 287 | 1090 |
| 17:00:00 | 10 | 3 | 0 | 31 | 13 | 5 | 115 | 0 | 0 | 120 | 96 | 18 | 0 | 1 | 114 | 247 | 1051 |
| 17:15:00 | 9 | 1 | 0 | 34 | 10 | 6 | 103 | 0 | 0 | 109 | 98 | 17 | 0 | 0 | 115 | 234 | 1025 |
| 17:30:00 | 10 | 0 | 0 | 44 | 10 | 5 | 113 | 0 | 0 | 118 | 74 | 15 | 0 | 3 | 89 | 217 | 985 |
| 17:45:00 | 11 | 1 | 0 | 39 | 12 | 5 | 116 | 0 | 1 | 121 | 102 | 14 | 0 | 0 | 116 | 249 | 947 |
| **Grand Total** | 158 | 8 | 0 | 494 | 166 | 76 | 2065 | 1 | 15 | 2142 | 1728 | 175 | 2 | 9 | 1905 | **4213** | - |
| **Approach%** | 95.2% | 4.8% | 0% | | - | 3.5% | 96.4% | 0% | | - | 90.7% | 9.2% | 0.1% | | - | - | - |
| **Totals %** | 3.8% | 0.2% | 0% | | 3.9% | 1.8% | 49% | 0% | | 50.8% | 41% | 4.2% | 0% | | 45.2% | - | - |
| **Heavy** | 3 | 0 | 0 | | - | 1 | 63 | 0 | | - | 86 | 4 | 0 | | - | - | - |
| **Heavy %** | 1.9% | 0% | 0% | | - | 1.3% | 3.1% | 0% | | - | 5% | 2.3% | 0% | | - | - | - |
| **Bicycles** | 36 | 3 | 0 | | - | 3 | 270 | 0 | | - | 223 | 8 | 0 | | - | - | - |
| **Bicycle %** | 22.8% | 37.5% | 0% | | - | 3.9% | 13.1% | 0% | | - | 12.9% | 4.6% | 0% | | - | - | - |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & OAK PARK AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:00 AM - 09:00 AM Weather: Clear Sky (13.64 °C)**

| Start Time | N Approach OAK PARK AVE | | | | | E Approach DANFORTH AVE | | | | | W Approach DANFORTH AVE | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Left | UTurn | Peds | Approach Total | Right | Thru | UTurn | Peds | Approach Total | Thru | Left | UTurn | Peds | Approach Total | |
| 08:00:00 | 11 | 0 | 0 | 21 | 11 | 1 | 135 | 0 | 2 | 136 | 127 | 10 | 0 | 0 | 137 | 284 |
| 08:15:00 | 16 | 0 | 0 | 33 | 16 | 2 | 140 | 0 | 1 | 142 | 122 | 5 | 0 | 0 | 127 | 285 |
| 08:30:00 | 5 | 0 | 0 | 65 | 5 | 4 | 156 | 0 | 0 | 160 | 113 | 9 | 0 | 0 | 122 | 287 |
| 08:45:00 | 17 | 0 | 0 | 34 | 17 | 6 | 145 | 0 | 0 | 151 | 132 | 9 | 0 | 1 | 141 | 309 |
| **Grand Total** | 49 | 0 | 0 | 153 | 49 | 13 | 576 | 0 | 3 | 589 | 494 | 33 | 0 | 1 | 527 | **1165** |
| **Approach%** | 100% | 0% | 0% | | - | 2.2% | 97.8% | 0% | | - | 93.7% | 6.3% | 0% | | - | - |
| **Totals %** | 4.2% | 0% | 0% | | 4.2% | 1.1% | 49.4% | 0% | | 50.6% | 42.4% | 2.8% | 0% | | 45.2% | - |
| **PHF** | 0.72 | 0 | 0 | | 0.72 | 0.54 | 0.92 | 0 | | 0.92 | 0.94 | 0.83 | 0 | | 0.93 | - |
| **Heavy** | 3 | 0 | 0 | | 3 | 0 | 23 | 0 | | 23 | 32 | 2 | 0 | | 34 | - |
| **Heavy %** | 6.1% | 0% | 0% | | 6.1% | 0% | 4% | 0% | | 3.9% | 6.5% | 6.1% | 0% | | 6.5% | - |
| **Lights** | 46 | 0 | 0 | | 46 | 13 | 553 | 0 | | 566 | 462 | 31 | 0 | | 493 | - |
| **Lights %** | 93.9% | 0% | 0% | | 93.9% | 100% | 96% | 0% | | 96.1% | 93.5% | 93.9% | 0% | | 93.5% | - |
| **Single-Unit Trucks** | 1 | 0 | 0 | | 1 | 0 | 12 | 0 | | 12 | 16 | 0 | 0 | | 16 | - |
| **Single-Unit Trucks %** | 2% | 0% | 0% | | 2% | 0% | 2.1% | 0% | | 2% | 3.2% | 0% | 0% | | 3% | - |
| **Buses** | 2 | 0 | 0 | | 2 | 0 | 10 | 0 | | 10 | 14 | 2 | 0 | | 16 | - |
| **Buses %** | 4.1% | 0% | 0% | | 4.1% | 0% | 1.7% | 0% | | 1.7% | 2.8% | 6.1% | 0% | | 3% | - |
| **Articulated Trucks** | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | | 1 | 2 | 0 | 0 | | 2 | - |
| **Articulated Trucks %** | 0% | 0% | 0% | | 0% | 0% | 0.2% | 0% | | 0.2% | 0.4% | 0% | 0% | | 0.4% | - |
| **Pedestrians** | - | - | - | 150 | - | - | - | - | 3 | - | - | - | - | 1 | - | - |
| **Pedestrians%** | - | - | - | 95.5% | | - | - | - | 1.9% | | - | - | - | 0.6% | | - |
| **Bicycles on Road** | 17 | 1 | 0 | 0 | - | 0 | 81 | 0 | 0 | - | 28 | 1 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | 0% | | - | - | - | 0% | | - | - | - | 0% | | - |
| **Bicycles on Crosswalk** | - | - | - | 3 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| **Bicycles on Crosswalk%** | - | - | - | 1.9% | | - | - | - | 0% | | - | - | - | 0% | | - |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & OAK PARK AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

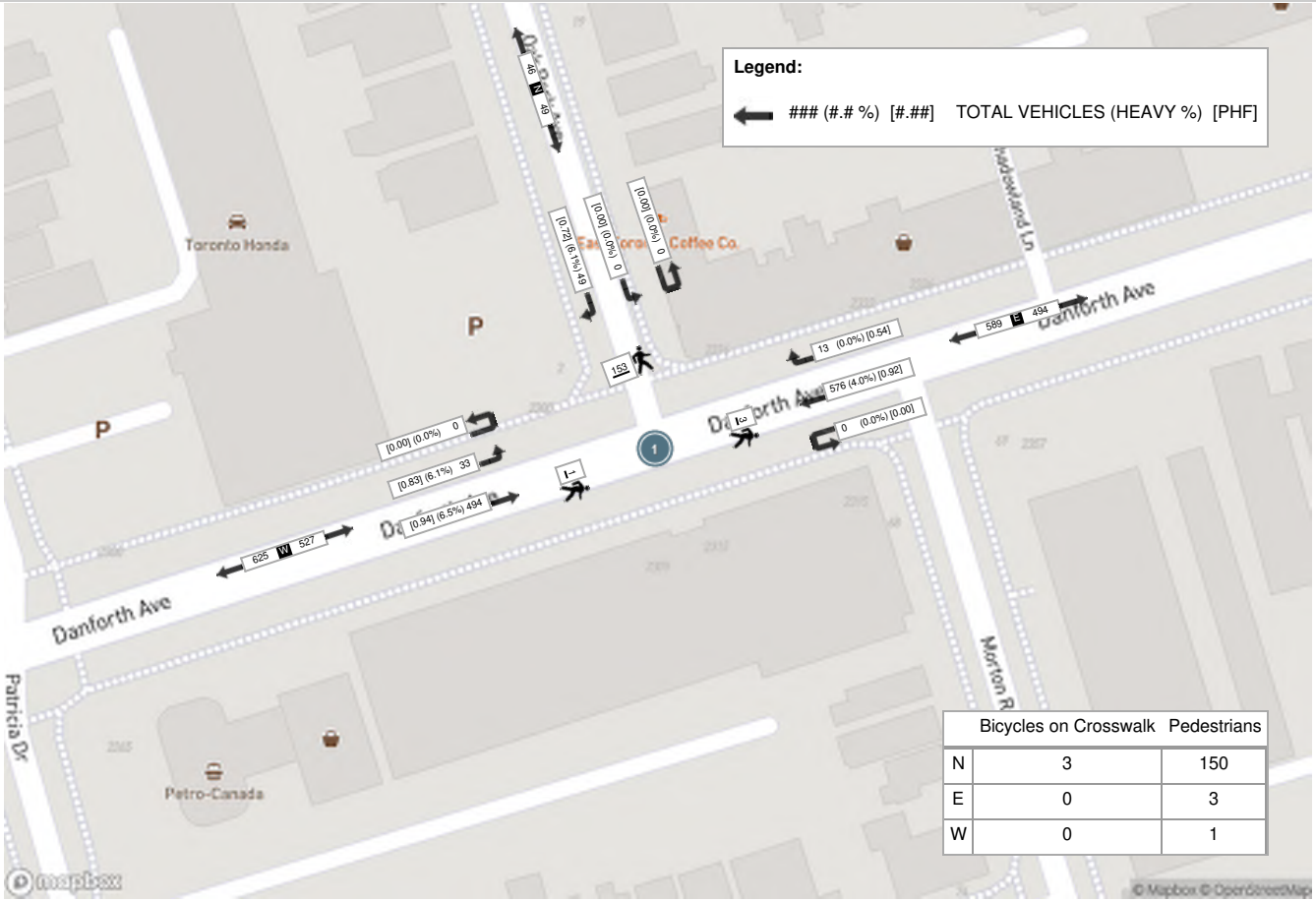
BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 04:00 PM - 05:00 PM Weather: Clear Sky (19.95 °C)**

| Start Time | N Approach OAK PARK AVE | | | | | E Approach DANFORTH AVE | | | | | W Approach DANFORTH AVE | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Left | UTurn | Peds | Approach Total | Right | Thru | UTurn | Peds | Approach Total | Thru | Left | UTurn | Peds | Approach Total | |
| 16:00:00 | 7 | 0 | 0 | 29 | 7 | 6 | 135 | 0 | 1 | 141 | 124 | 14 | 0 | 0 | 138 | 286 |
| 16:15:00 | 8 | 0 | 0 | 21 | 8 | 8 | 114 | 0 | 4 | 122 | 117 | 13 | 0 | 1 | 130 | 260 |
| 16:30:00 | 8 | 1 | 0 | 28 | 9 | 10 | 107 | 0 | 0 | 117 | 120 | 10 | 1 | 1 | 131 | 257 |
| 16:45:00 | 16 | 1 | 0 | 29 | 17 | 8 | 122 | 0 | 4 | 130 | 118 | 22 | 0 | 2 | 140 | 287 |
| **Grand Total** | 39 | 2 | 0 | 107 | 41 | 32 | 478 | 0 | 9 | 510 | 479 | 59 | 1 | 4 | 539 | **1090** |
| **Approach%** | 95.1% | 4.9% | 0% | | - | 6.3% | 93.7% | 0% | | - | 88.9% | 10.9% | 0.2% | | - | - |
| **Totals %** | 3.6% | 0.2% | 0% | | 3.8% | 2.9% | 43.9% | 0% | | 46.8% | 43.9% | 5.4% | 0.1% | | 49.4% | - |
| **PHF** | 0.61 | 0.5 | 0 | | 0.6 | 0.8 | 0.89 | 0 | | 0.9 | 0.97 | 0.67 | 0.25 | | 0.96 | - |
| **Heavy** | 0 | 0 | 0 | | 0 | 0 | 6 | 0 | | 6 | 14 | 1 | 0 | | 15 | - |
| **Heavy %** | 0% | 0% | 0% | | 0% | 0% | 1.3% | 0% | | 1.2% | 2.9% | 1.7% | 0% | | 2.8% | - |
| **Lights** | 39 | 2 | 0 | | 41 | 32 | 472 | 0 | | 504 | 465 | 58 | 1 | | 524 | - |
| **Lights %** | 100% | 100% | 0% | | 100% | 100% | 98.7% | 0% | | 98.8% | 97.1% | 98.3% | 100% | | 97.2% | - |
| **Single-Unit Trucks** | 0 | 0 | 0 | | 0 | 0 | 2 | 0 | | 2 | 8 | 0 | 0 | | 8 | - |
| **Single-Unit Trucks %** | 0% | 0% | 0% | | 0% | 0% | 0.4% | 0% | | 0.4% | 1.7% | 0% | 0% | | 1.5% | - |
| **Buses** | 0 | 0 | 0 | | 0 | 0 | 4 | 0 | | 4 | 6 | 1 | 0 | | 7 | - |
| **Buses %** | 0% | 0% | 0% | | 0% | 0% | 0.8% | 0% | | 0.8% | 1.3% | 1.7% | 0% | | 1.3% | - |
| **Articulated Trucks** | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Articulated Trucks %** | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Pedestrians** | - | - | - | 104 | - | - | - | - | 9 | - | - | - | - | 4 | - | - |
| **Pedestrians%** | - | - | - | 86.7% | | - | - | - | 7.5% | | - | - | - | 3.3% | | - |
| **Bicycles on Road** | 2 | 1 | 0 | 0 | - | 1 | 55 | 0 | 0 | - | 85 | 2 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | 0% | | - | - | - | 0% | | - | - | - | 0% | | - |
| **Bicycles on Crosswalk** | - | - | - | 3 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| **Bicycles on Crosswalk%** | - | - | - | 2.5% | | - | - | - | 0% | | - | - | - | 0% | | - |

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:00 AM - 09:00 AM Weather: Clear Sky (13.64 °C)**

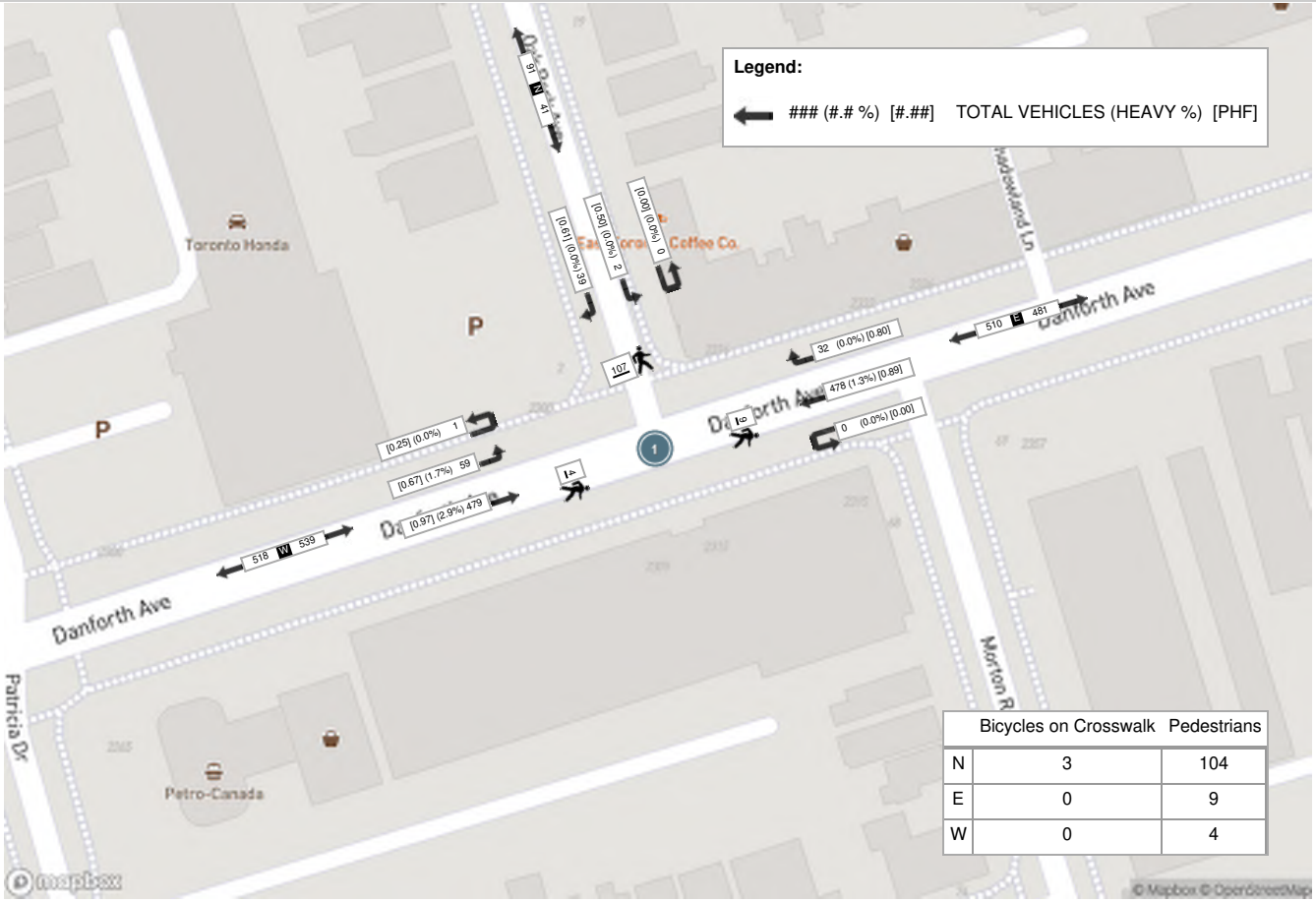



| | Bicycles on Crosswalk | Pedestrians |
|---|---|---|
| N | 3 | 150 |
| E | 0 | 3 |
| W | 0 | 1 |

Turning Movement Count
Location Name: DANFORTH AVE & OAK PARK AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 04:00 PM - 05:00 PM Weather: Clear Sky (19.95 °C)**




| | Bicycles on Crosswalk | Pedestrians |
|---|---|---|
| N | 3 | 104 |
| E | 0 | 9 |
| W | 0 | 4 |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & WESTLAKE AVE / COMMERIAL DRIVEWAY
Date: Thu, May 16, 2024 Deployment Lead: David Chu

## Turning Movement Count (3 . DANFORTH AVE & WESTLAKE AVE / COMMERIAL DRIVE

| Start Time | N Approach WESTLAKE AVE | | | | | | | E Approach DANFORTH AVE | | | | | | | S Approach WESTLAKE AVE | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right N:W | Thru N:S | Bear Left N:SW | Left N:E | UTurn N:N | Peds N: | Approach Total | Right E:N | Thru E:W | Bear Left E:SW | Left E:S | UTurn E:E | Peds E: | Approach Total | Right S:E | Thru S:N | Left S:W | Hard Left S:SW | UTurn S:S | Peds S: | Approach Total | Hard Ri W:SW |
| 07:30:00 | 5 | 0 | 0 | 0 | 0 | 12 | 5 | 6 | 140 | 0 | 1 | 0 | 3 | 147 | 3 | 1 | 1 | 0 | 0 | 19 | 5 | 0 |
| 07:45:00 | 3 | 3 | 0 | 6 | 0 | 13 | 12 | 1 | 135 | 0 | 1 | 0 | 5 | 137 | 4 | 0 | 2 | 0 | 0 | 17 | 6 | 0 |
| 08:00:00 | 5 | 1 | 0 | 5 | 0 | 19 | 11 | 4 | 124 | 0 | 1 | 0 | 4 | 129 | 3 | 1 | 5 | 0 | 0 | 12 | 9 | 0 |
| 08:15:00 | 6 | 0 | 0 | 4 | 0 | 21 | 10 | 3 | 140 | 0 | 2 | 0 | 5 | 145 | 2 | 4 | 3 | 0 | 0 | 18 | 9 | 0 |
| 08:30:00 | 9 | 1 | 0 | 5 | 0 | 27 | 15 | 4 | 158 | 0 | 7 | 0 | 6 | 169 | 1 | 2 | 3 | 0 | 0 | 35 | 6 | 0 |
| 08:45:00 | 6 | 1 | 0 | 6 | 0 | 23 | 13 | 7 | 136 | 0 | 3 | 0 | 13 | 146 | 3 | 5 | 2 | 0 | 0 | 22 | 10 | 0 |
| 09:00:00 | 3 | 3 | 0 | 3 | 0 | 14 | 9 | 2 | 136 | 0 | 4 | 0 | 4 | 142 | 3 | 0 | 1 | 0 | 0 | 12 | 4 | 0 |
| 09:15:00 | 4 | 3 | 0 | 6 | 0 | 26 | 13 | 2 | 142 | 0 | 2 | 0 | 6 | 146 | 1 | 1 | 3 | 0 | 0 | 22 | 5 | 0 |
| ***BREAK*** | | | | | | | | | | | | | | | | | | | | | | |
| 16:00:00 | 7 | 2 | 0 | 4 | 0 | 35 | 13 | 4 | 121 | 0 | 3 | 0 | 14 | 128 | 3 | 2 | 5 | 0 | 0 | 46 | 10 | 0 |
| 16:15:00 | 10 | 0 | 1 | 3 | 0 | 22 | 14 | 8 | 103 | 0 | 3 | 0 | 22 | 114 | 1 | 1 | 4 | 0 | 0 | 31 | 6 | 0 |
| 16:30:00 | 7 | 2 | 0 | 2 | 0 | 25 | 11 | 6 | 107 | 0 | 2 | 0 | 19 | 115 | 4 | 4 | 4 | 0 | 0 | 25 | 12 | 0 |
| 16:45:00 | 5 | 1 | 0 | 4 | 0 | 31 | 10 | 4 | 112 | 0 | 1 | 0 | 15 | 117 | 2 | 2 | 7 | 0 | 0 | 29 | 11 | 1 |
| 17:00:00 | 2 | 0 | 0 | 7 | 0 | 34 | 9 | 5 | 104 | 0 | 4 | 0 | 17 | 113 | 4 | 1 | 4 | 0 | 0 | 28 | 9 | 0 |
| 17:15:00 | 11 | 4 | 0 | 6 | 0 | 45 | 21 | 8 | 96 | 0 | 5 | 0 | 22 | 109 | 4 | 1 | 2 | 0 | 0 | 44 | 7 | 0 |
| 17:30:00 | 4 | 3 | 0 | 5 | 0 | 44 | 12 | 8 | 102 | 0 | 3 | 0 | 17 | 113 | 3 | 7 | 5 | 0 | 0 | 32 | 15 | 0 |
| 17:45:00 | 6 | 2 | 0 | 6 | 0 | 37 | 14 | 1 | 106 | 0 | 1 | 0 | 11 | 108 | 0 | 1 | 2 | 0 | 0 | 26 | 3 | 0 |
| **Grand Total** | 93 | 26 | 1 | 72 | 0 | 428 | 192 | 73 | 1962 | 0 | 43 | 0 | 183 | 2078 | 41 | 33 | 53 | 0 | 0 | 418 | 127 | 1 |
| **Approach%** | 48.4% | 13.5% | 0.5% | 37.5% | 0% | | - | 3.5% | 94.4% | 0% | 2.1% | 0% | | - | 32.3% | 26% | 41.7% | 0% | 0% | | - | 0.1% |
| **Totals %** | 2.3% | 0.6% | 0% | 1.8% | 0% | | 4.7% | 1.8% | 47.8% | 0% | 1% | 0% | | 50.6% | 1% | 0.8% | 1.3% | 0% | 0% | | 3.1% | 0% |
| **Heavy** | 3 | 1 | 0 | 1 | 0 | | - | 3 | 62 | 0 | 3 | 0 | | - | 0 | 0 | 1 | 0 | 0 | | - | 0 |
| **Heavy %** | 3.2% | 3.8% | 0% | 1.4% | 0% | | - | 4.1% | 3.2% | 0% | 7% | 0% | | - | 0% | 0% | 1.9% | 0% | 0% | | - | 0% |
| **Bicycles** | 11 | 0 | 0 | 2 | 0 | | - | 7 | 254 | 0 | 1 | 0 | | - | 2 | 1 | 1 | 0 | 0 | | - | 3 |
| **Bicycle %** | 11.8% | 0% | 0% | 2.8% | 0% | | - | 9.6% | 12.9% | 0% | 2.3% | 0% | | - | 4.9% | 3% | 1.9% | 0% | 0% | | - | 300% |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & WESTLAKE AVE / COMMERIAL DRIVEWAY
Date: Thu, May 16, 2024 Deployment Lead: David Chu

**Peak Hour: 08:00 AM - 09:00 AM Weather: Clear Sky (13.64 °C)**

| Start Time | N Approach WESTLAKE AVE | | | | | | | E Approach DANFORTH AVE | | | | | | | S Approach WESTLAKE AVE | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Thru | Bear Left | Left | UTurn | Peds | Approach Total | Right | Thru | Bear Left | Left | UTurn | Peds | Approach Total | Right | Thru | Left | Hard Left | UTurn | Peds | Approach Tot |
| 08:00:00 | 5 | 1 | 0 | 5 | 0 | 19 | 11 | 4 | 124 | 0 | 1 | 0 | 4 | 129 | 3 | 1 | 5 | 0 | 0 | 12 | 9 |
| 08:15:00 | 6 | 0 | 0 | 4 | 0 | 21 | 10 | 3 | 140 | 0 | 2 | 0 | 5 | 145 | 2 | 4 | 3 | 0 | 0 | 18 | 9 |
| 08:30:00 | 9 | 1 | 0 | 5 | 0 | 27 | 15 | 4 | 158 | 0 | 7 | 0 | 6 | 169 | 1 | 2 | 3 | 0 | 0 | 35 | 6 |
| 08:45:00 | 6 | 1 | 0 | 6 | 0 | 23 | 13 | 7 | 136 | 0 | 3 | 0 | 13 | 146 | 3 | 5 | 2 | 0 | 0 | 22 | 10 |
| **Grand Total** | 26 | 3 | 0 | 20 | 0 | 90 | 49 | 18 | 558 | 0 | 13 | 0 | 28 | 589 | 9 | 12 | 13 | 0 | 0 | 87 | 34 |
| **Approach%** | 53.1% | 6.1% | 0% | 40.8% | 0% | | - | 3.1% | 94.7% | 0% | 2.2% | 0% | | - | 26.5% | 35.3% | 38.2% | 0% | 0% | | - |
| **Totals %** | 2.2% | 0.3% | 0% | 1.7% | 0% | | 4.2% | 1.5% | 47.9% | 0% | 1.1% | 0% | | 50.6% | 0.8% | 1% | 1.1% | 0% | 0% | | 2.9% |
| **PHF** | 0.72 | 0.75 | 0 | 0.83 | 0 | | 0.82 | 0.64 | 0.88 | 0 | 0.46 | 0 | | 0.87 | 0.75 | 0.6 | 0.65 | 0 | 0 | | 0.85 |
| **Heavy** | 1 | 0 | 0 | 1 | 0 | | 2 | 1 | 22 | 0 | 2 | 0 | | 25 | 0 | 0 | 1 | 0 | 0 | | 1 |
| **Heavy %** | 3.8% | 0% | 0% | 5% | 0% | | 4.1% | 5.6% | 3.9% | 0% | 15.4% | 0% | | 4.2% | 0% | 0% | 7.7% | 0% | 0% | | 2.9% |
| **Lights** | 25 | 3 | 0 | 19 | 0 | | 47 | 17 | 536 | 0 | 11 | 0 | | 564 | 9 | 12 | 12 | 0 | 0 | | 33 |
| **Lights %** | 96.2% | 100% | 0% | 95% | 0% | | 95.9% | 94.4% | 96.1% | 0% | 84.6% | 0% | | 95.8% | 100% | 100% | 92.3% | 0% | 0% | | 97.1% |
| **Single-Unit Trucks** | 0 | 0 | 0 | 0 | 0 | | 0 | 1 | 12 | 0 | 0 | 0 | | 13 | 0 | 0 | 0 | 0 | 0 | | 0 |
| **Single-Unit Trucks %** | 0% | 0% | 0% | 0% | 0% | | 0% | 5.6% | 2.2% | 0% | 0% | 0% | | 2.2% | 0% | 0% | 0% | 0% | 0% | | 0% |
| **Buses** | 1 | 0 | 0 | 1 | 0 | | 2 | 0 | 9 | 0 | 2 | 0 | | 11 | 0 | 0 | 1 | 0 | 0 | | 1 |
| **Buses %** | 3.8% | 0% | 0% | 5% | 0% | | 4.1% | 0% | 1.6% | 0% | 15.4% | 0% | | 1.9% | 0% | 0% | 7.7% | 0% | 0% | | 2.9% |
| **Articulated Trucks** | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | 0 | 0 | | 1 | 0 | 0 | 0 | 0 | 0 | | 0 |
| **Articulated Trucks %** | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0.2% | 0% | 0% | 0% | | 0.2% | 0% | 0% | 0% | 0% | 0% | | 0% |
| **Pedestrians** | - | - | - | - | - | 87 | - | - | - | - | - | - | 28 | - | - | - | - | - | - | 86 | - |
| **Pedestrians%** | - | - | - | - | - | 35.8% | | - | - | - | - | - | 11.5% | | - | - | - | - | - | 35.4% | |
| **Bicycles on Road** | 8 | 0 | 0 | 0 | 0 | 0 | - | 1 | 71 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - |
| **Bicycles on Road%** | - | - | - | - | - | 0% | | - | - | - | - | - | 0% | | - | - | - | - | - | 0% | |
| **Bicycles on Crosswalk** | - | - | - | - | - | 3 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | - |
| **Bicycles on Crosswalk%** | - | - | - | - | - | 1.2% | | - | - | - | - | - | 0% | | - | - | - | - | - | 0.4% | |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & WESTLAKE AVE / COMMERIAL DRIVEWAY
Date: Thu, May 16, 2024 Deployment Lead: David Chu

**Peak Hour: 04:00 PM - 05:00 PM Weather: Clear Sky (19.95 °C)**

| Start Time | N Approach WESTLAKE AVE | | | | | | | E Approach DANFORTH AVE | | | | | | | S Approach WESTLAKE AVE | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Thru | Bear Left | Left | UTurn | Peds | Approach Total | Right | Thru | Bear Left | Left | UTurn | Peds | Approach Total | Right | Thru | Left | Hard Left | UTurn | Peds | Approach To |
| 16:00:00 | 7 | 2 | 0 | 4 | 0 | 35 | 13 | 4 | 121 | 0 | 3 | 0 | 14 | 128 | 3 | 2 | 5 | 0 | 0 | 46 | 10 |
| 16:15:00 | 10 | 0 | 1 | 3 | 0 | 22 | 14 | 8 | 103 | 0 | 3 | 0 | 22 | 114 | 1 | 1 | 4 | 0 | 0 | 31 | 6 |
| 16:30:00 | 7 | 2 | 0 | 2 | 0 | 25 | 11 | 6 | 107 | 0 | 2 | 0 | 19 | 115 | 4 | 4 | 4 | 0 | 0 | 25 | 12 |
| 16:45:00 | 5 | 1 | 0 | 4 | 0 | 31 | 10 | 4 | 112 | 0 | 1 | 0 | 15 | 117 | 2 | 2 | 7 | 0 | 0 | 29 | 11 |
| **Grand Total** | 29 | 5 | 1 | 13 | 0 | 113 | 48 | 22 | 443 | 0 | 9 | 0 | 70 | 474 | 10 | 9 | 20 | 0 | 0 | 131 | 39 |
| **Approach%** | 60.4% | 10.4% | 2.1% | 27.1% | 0% | | - | 4.6% | 93.5% | 0% | 1.9% | 0% | | - | 25.6% | 23.1% | 51.3% | 0% | 0% | | - |
| **Totals %** | 2.8% | 0.5% | 0.1% | 1.3% | 0% | | 4.7% | 2.1% | 43% | 0% | 0.9% | 0% | | 46% | 1% | 0.9% | 1.9% | 0% | 0% | | 3.8% |
| **PHF** | 0.73 | 0.63 | 0.25 | 0.81 | 0 | | 0.86 | 0.69 | 0.92 | 0 | 0.75 | 0 | | 0.93 | 0.63 | 0.56 | 0.71 | 0 | 0 | | 0.81 |
| **Heavy** | 0 | 1 | 0 | 0 | 0 | | 1 | 0 | 6 | 0 | 0 | 0 | | 6 | 0 | 0 | 0 | 0 | 0 | | 0 |
| **Heavy %** | 0% | 20% | 0% | 0% | 0% | | 2.1% | 0% | 1.4% | 0% | 0% | 0% | | 1.3% | 0% | 0% | 0% | 0% | 0% | | 0% |
| **Lights** | 29 | 4 | 1 | 13 | 0 | | 47 | 22 | 437 | 0 | 9 | 0 | | 468 | 10 | 9 | 20 | 0 | 0 | | 39 |
| **Lights %** | 100% | 80% | 100% | 100% | 0% | | 97.9% | 100% | 98.6% | 0% | 100% | 0% | | 98.7% | 100% | 100% | 100% | 0% | 0% | | 100% |
| **Single-Unit Trucks** | 0 | 1 | 0 | 0 | 0 | | 1 | 0 | 2 | 0 | 0 | 0 | | 2 | 0 | 0 | 0 | 0 | 0 | | 0 |
| **Single-Unit Trucks %** | 0% | 20% | 0% | 0% | 0% | | 2.1% | 0% | 0.5% | 0% | 0% | 0% | | 0.4% | 0% | 0% | 0% | 0% | 0% | | 0% |
| **Buses** | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 4 | 0 | 0 | 0 | | 4 | 0 | 0 | 0 | 0 | 0 | | 0 |
| **Buses %** | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0.9% | 0% | 0% | 0% | | 0.8% | 0% | 0% | 0% | 0% | 0% | | 0% |
| **Articulated Trucks** | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| **Articulated Trucks %** | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | 0% | | 0% |
| **Pedestrians** | - | - | - | - | - | 110 | - | - | - | - | - | - | 70 | - | - | - | - | - | - | 129 | - |
| **Pedestrians%** | - | - | - | - | - | 31.4% | | - | - | - | - | - | 20% | | - | - | - | - | - | 36.9% | |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 55 | 0 | 1 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - |
| **Bicycles on Road%** | - | - | - | - | - | 0% | | - | - | - | - | - | 0% | | - | - | - | - | - | 0% | |
| **Bicycles on Crosswalk** | - | - | - | - | - | 3 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 2 | - |
| **Bicycles on Crosswalk%** | - | - | - | - | - | 0.9% | | - | - | - | - | - | 0% | | - | - | - | - | - | 0.6% | |

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & WESTLAKE AVE / COMMERIAL DRIVEWAY
Date: Thu, May 16, 2024 Deployment Lead: David Chu

**Peak Hour: 08:00 AM - 09:00 AM Weather: Clear Sky (13.64 °C)**

Spectrum

Turning Movement Count
Location Name: DANFORTH AVE & WESTLAKE AVE / COMMERIAL DRIVEWAY
Date: Thu, May 16, 2024 Deployment Lead: David Chu

**Peak Hour: 04:00 PM - 05:00 PM Weather: Clear Sky (19.95 °C)**

Spectrum

Turning Movement Count
Location Name: WESTLAKE AVE & 2451 DANFORTH AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

## Turning Movement Count (9 . WESTLAKE AVE & 2451 DANFORTH AVE)

| Start Time | N Approach WESTLAKE AVE | | | | | E Approach 2451 DANFORTH AVE (SOBEYS ACCESS) | | | | | S Approach WESTLAKE AVE | | | | | Int. Total (15 min) | Int. Total (1 hr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thru N:S | Left N:E | UTurn N:N | Peds N: | Approach Total | Right E:N | Left E:S | UTurn E:E | Peds E: | Approach Total | Right S:E | Thru S:N | UTurn S:S | Peds S: | Approach Total | | |
| 07:30:00 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 3 | 5 | 7 | |
| 07:45:00 | 4 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 3 | 0 | 0 | 6 | 0 | 1 | 6 | 11 | |
| 08:00:00 | 4 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 3 | 0 | 0 | 9 | 0 | 2 | 9 | 14 | |
| 08:15:00 | 4 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 3 | 0 | 1 | 10 | 0 | 1 | 11 | 15 | 47 |
| 08:30:00 | 8 | 2 | 0 | 0 | 10 | 1 | 1 | 0 | 7 | 2 | 0 | 5 | 0 | 2 | 5 | 17 | 57 |
| 08:45:00 | 6 | 2 | 0 | 1 | 8 | 2 | 0 | 0 | 7 | 2 | 0 | 4 | 0 | 2 | 4 | 14 | 60 |
| 09:00:00 | 5 | 4 | 0 | 0 | 9 | 1 | 0 | 0 | 6 | 1 | 0 | 3 | 0 | 1 | 3 | 13 | 59 |
| 09:15:00 | 7 | 0 | 0 | 0 | 7 | 1 | 1 | 0 | 1 | 2 | 0 | 4 | 0 | 0 | 4 | 13 | 57 |
| ***BREAK*** | | | | | | | | | | | | | | | | | |
| 16:00:00 | 7 | 3 | 0 | 5 | 10 | 1 | 0 | 0 | 7 | 1 | 2 | 5 | 0 | 0 | 7 | 18 | |
| 16:15:00 | 6 | 3 | 0 | 2 | 9 | 3 | 1 | 0 | 7 | 4 | 2 | 4 | 0 | 2 | 6 | 19 | |
| 16:30:00 | 8 | 2 | 0 | 0 | 10 | 4 | 2 | 0 | 6 | 6 | 1 | 7 | 0 | 3 | 8 | 24 | |
| 16:45:00 | 2 | 1 | 0 | 0 | 3 | 3 | 1 | 0 | 6 | 4 | 0 | 9 | 0 | 3 | 9 | 16 | 77 |
| 17:00:00 | 8 | 0 | 0 | 1 | 8 | 2 | 0 | 0 | 6 | 2 | 2 | 7 | 0 | 0 | 9 | 19 | 78 |
| 17:15:00 | 7 | 5 | 0 | 3 | 12 | 1 | 3 | 0 | 14 | 4 | 2 | 7 | 0 | 1 | 9 | 25 | 84 |
| 17:30:00 | 8 | 4 | 0 | 2 | 12 | 3 | 1 | 0 | 8 | 4 | 1 | 9 | 0 | 2 | 10 | 26 | 86 |
| 17:45:00 | 4 | 3 | 0 | 1 | 7 | 1 | 2 | 0 | 6 | 3 | 1 | 2 | 0 | 0 | 3 | 13 | 83 |
| **Grand Total** | 90 | 31 | 0 | 16 | 121 | 23 | 12 | 0 | 95 | 35 | 12 | 96 | 0 | 23 | 108 | **264** | - |
| **Approach%** | 74.4% | 25.6% | 0% | | - | 65.7% | 34.3% | 0% | | - | 11.1% | 88.9% | 0% | | - | - | - |
| **Totals %** | 34.1% | 11.7% | 0% | | 45.8% | 8.7% | 4.5% | 0% | | 13.3% | 4.5% | 36.4% | 0% | | 40.9% | - | - |
| **Heavy** | 4 | 2 | 0 | | - | 0 | 0 | 0 | | - | 0 | 1 | 0 | | - | - | - |
| **Heavy %** | 4.4% | 6.5% | 0% | | - | 0% | 0% | 0% | | - | 0% | 1% | 0% | | - | - | - |
| **Bicycles** | 6 | 3 | 0 | | - | 3 | 1 | 0 | | - | 3 | 5 | 0 | | - | - | - |
| **Bicycle %** | 6.7% | 9.7% | 0% | | - | 13% | 8.3% | 0% | | - | 25% | 5.2% | 0% | | - | - | - |

Spectrum

Turning Movement Count
Location Name: WESTLAKE AVE & 2451 DANFORTH AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:00 AM - 09:00 AM Weather: Clear Sky (13.64 °C)**

| Start Time | N Approach WESTLAKE AVE | | | | | E Approach 2451 DANFORTH AVE (SOBEYS ACCESS) | | | | | S Approach WESTLAKE AVE | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thru | Left | UTurn | Peds | Approach Total | Right | Left | UTurn | Peds | Approach Total | Right | Thru | UTurn | Peds | Approach Total | |
| 08:00:00 | 4 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 3 | 0 | 0 | 9 | 0 | 2 | 9 | 14 |
| 08:15:00 | 4 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 3 | 0 | 1 | 10 | 0 | 1 | 11 | 15 |
| 08:30:00 | 8 | 2 | 0 | 0 | 10 | 1 | 1 | 0 | 7 | 2 | 0 | 5 | 0 | 2 | 5 | 17 |
| 08:45:00 | 6 | 2 | 0 | 1 | 8 | 2 | 0 | 0 | 7 | 2 | 0 | 4 | 0 | 2 | 4 | 14 |
| **Grand Total** | 22 | 5 | 0 | 2 | 27 | 3 | 1 | 0 | 20 | 4 | 1 | 28 | 0 | 7 | 29 | **60** |
| **Approach%** | 81.5% | 18.5% | 0% | | - | 75% | 25% | 0% | | - | 3.4% | 96.6% | 0% | | - | - |
| **Totals %** | 36.7% | 8.3% | 0% | | 45% | 5% | 1.7% | 0% | | 6.7% | 1.7% | 46.7% | 0% | | 48.3% | - |
| **PHF** | 0.69 | 0.63 | 0 | | 0.68 | 0.38 | 0.25 | 0 | | 0.5 | 0.25 | 0.7 | 0 | | 0.66 | - |
| **Heavy** | 2 | 1 | 0 | | 3 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | | 1 | - |
| **Heavy %** | 9.1% | 20% | 0% | | 11.1% | 0% | 0% | 0% | | 0% | 0% | 3.6% | 0% | | 3.4% | - |
| **Lights** | 20 | 4 | 0 | | 24 | 3 | 1 | 0 | | 4 | 1 | 27 | 0 | | 28 | - |
| **Lights %** | 90.9% | 80% | 0% | | 88.9% | 100% | 100% | 0% | | 100% | 100% | 96.4% | 0% | | 96.6% | - |
| **Single-Unit Trucks** | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Single-Unit Trucks %** | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Buses** | 2 | 0 | 0 | | 2 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | | 1 | - |
| **Buses %** | 9.1% | 0% | 0% | | 7.4% | 0% | 0% | 0% | | 0% | 0% | 3.6% | 0% | | 3.4% | - |
| **Articulated Trucks** | 0 | 1 | 0 | | 1 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Articulated Trucks %** | 0% | 20% | 0% | | 3.7% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Pedestrians** | - | - | - | 2 | - | - | - | - | 20 | - | - | - | - | 7 | - | - |
| **Pedestrians%** | - | - | - | 6.9% | | - | - | - | 69% | | - | - | - | 24.1% | | - |
| **Bicycles on Road** | 3 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 1 | 0 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | 0% | | - | - | - | 0% | | - | - | - | 0% | | - |

Spectrum

Turning Movement Count
Location Name: WESTLAKE AVE & 2451 DANFORTH AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

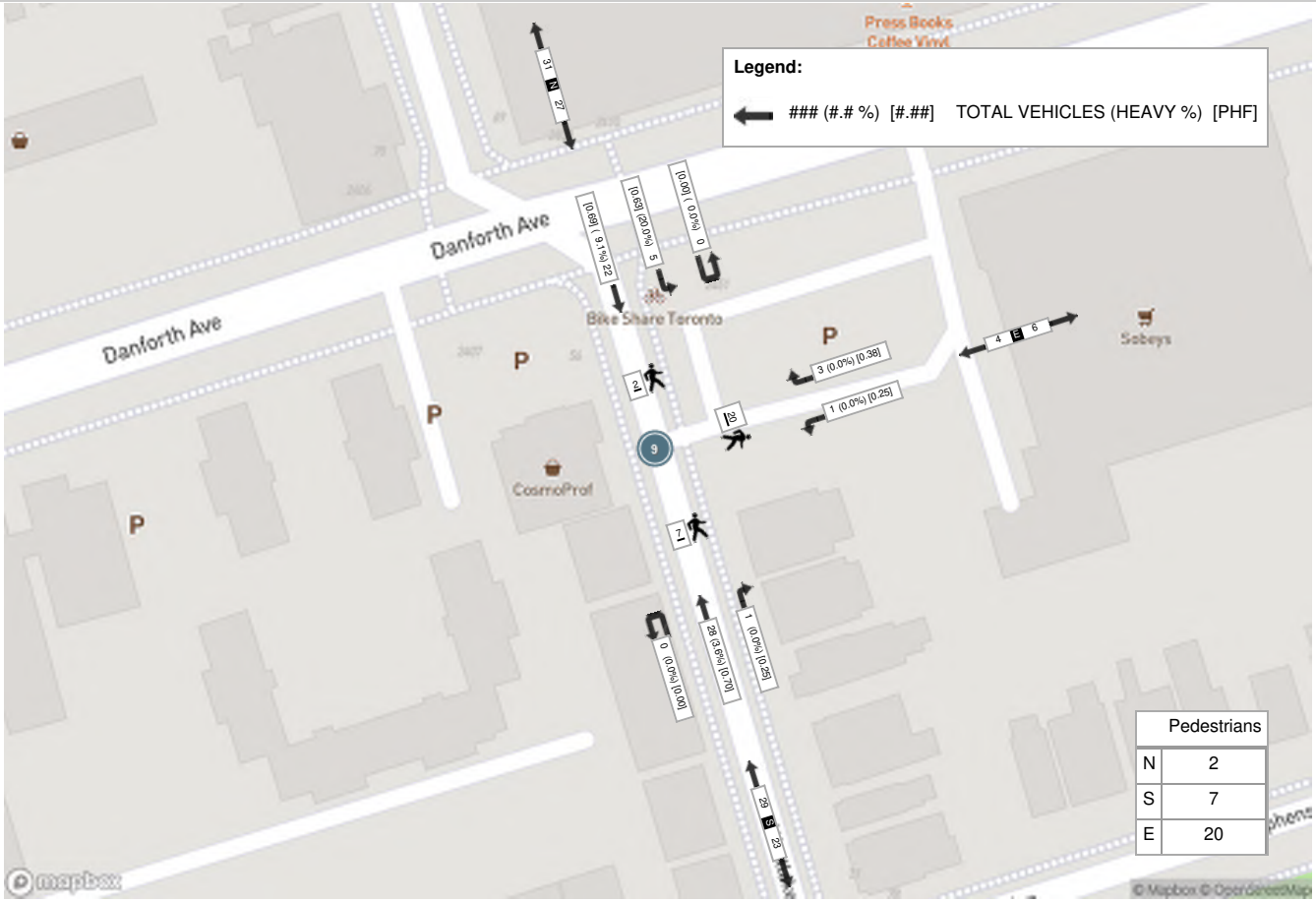
**Peak Hour: 04:45 PM - 05:45 PM Weather: Clear Sky (19.95 °C)**

| Start Time | N Approach WESTLAKE AVE | | | | | E Approach 2451 DANFORTH AVE (SOBEYS ACCESS) | | | | | S Approach WESTLAKE AVE | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thru | Left | UTurn | Peds | Approach Total | Right | Left | UTurn | Peds | Approach Total | Right | Thru | UTurn | Peds | Approach Total | |
| 16:45:00 | 2 | 1 | 0 | 0 | 3 | 3 | 1 | 0 | 6 | 4 | 0 | 9 | 0 | 3 | 9 | 16 |
| 17:00:00 | 8 | 0 | 0 | 1 | 8 | 2 | 0 | 0 | 6 | 2 | 2 | 7 | 0 | 0 | 9 | 19 |
| 17:15:00 | 7 | 5 | 0 | 3 | 12 | 1 | 3 | 0 | 14 | 4 | 2 | 7 | 0 | 1 | 9 | 25 |
| 17:30:00 | 8 | 4 | 0 | 2 | 12 | 3 | 1 | 0 | 8 | 4 | 1 | 9 | 0 | 2 | 10 | 26 |
| **Grand Total** | 25 | 10 | 0 | 6 | 35 | 9 | 5 | 0 | 34 | 14 | 5 | 32 | 0 | 6 | 37 | **86** |
| **Approach%** | 71.4% | 28.6% | 0% | | - | 64.3% | 35.7% | 0% | | - | 13.5% | 86.5% | 0% | | - | - |
| **Totals %** | 29.1% | 11.6% | 0% | | 40.7% | 10.5% | 5.8% | 0% | | 16.3% | 5.8% | 37.2% | 0% | | 43% | - |
| **PHF** | 0.78 | 0.5 | 0 | | 0.73 | 0.75 | 0.42 | 0 | | 0.88 | 0.63 | 0.89 | 0 | | 0.93 | - |
| **Heavy** | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Heavy %** | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Lights** | 25 | 10 | 0 | | 35 | 9 | 5 | 0 | | 14 | 5 | 32 | 0 | | 37 | - |
| **Lights %** | 100% | 100% | 0% | | 100% | 100% | 100% | 0% | | 100% | 100% | 100% | 0% | | 100% | - |
| **Single-Unit Trucks** | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Single-Unit Trucks %** | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Buses** | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Buses %** | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Articulated Trucks** | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Articulated Trucks %** | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Pedestrians** | - | - | - | 6 | - | - | - | - | 34 | - | - | - | - | 6 | - | - |
| **Pedestrians%** | - | - | - | 13% | | - | - | - | 73.9% | | - | - | - | 13% | | - |
| **Bicycles on Road** | 0 | 2 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 2 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | 0% | | - | - | - | 0% | | - | - | - | 0% | | - |

Turning Movement Count
Location Name: WESTLAKE AVE & 2451 DANFORTH AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:00 AM - 09:00 AM Weather: Clear Sky (13.64 °C)**

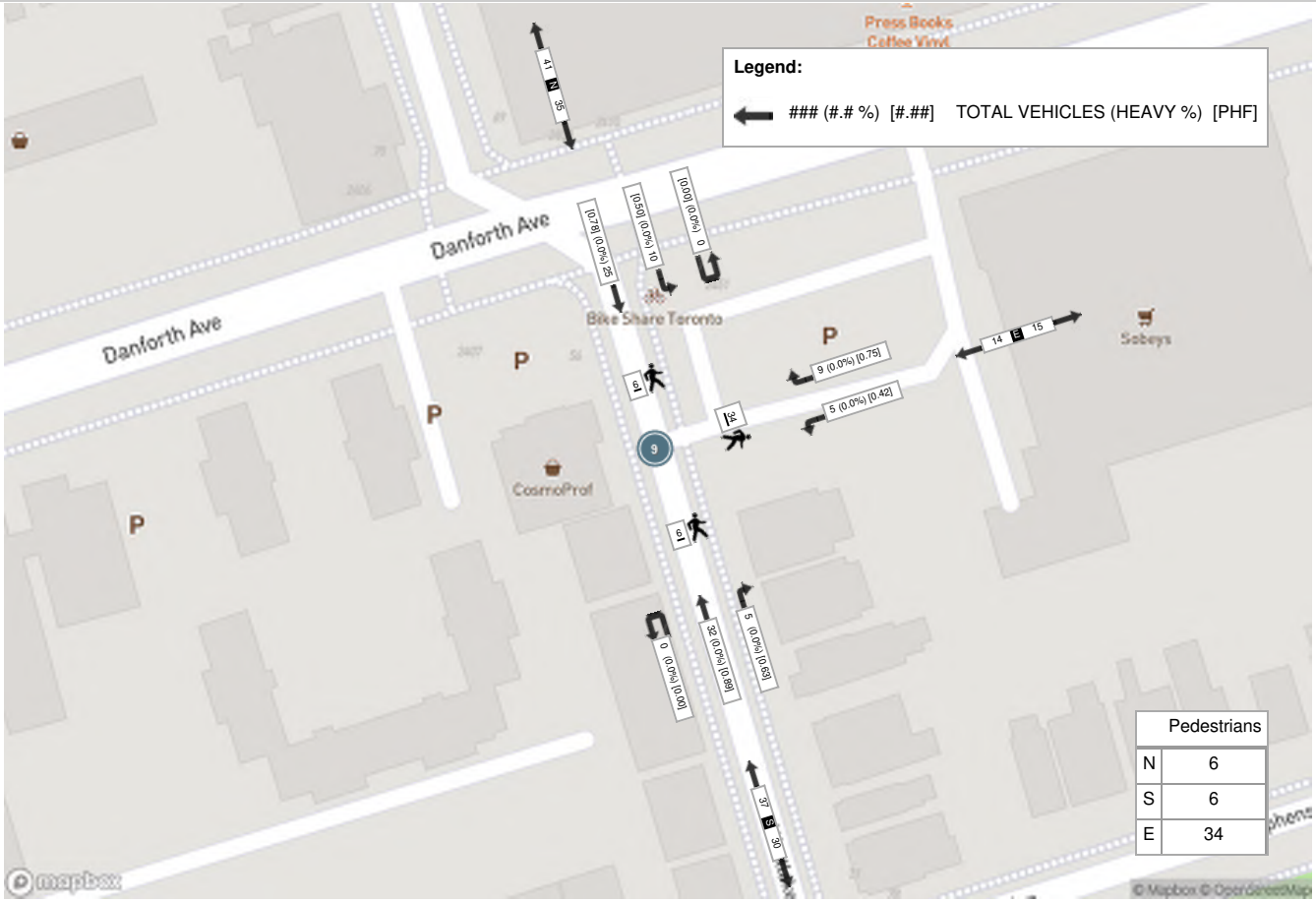



| | Pedestrians |
|---|---|
| N | 2 |
| S | 7 |
| E | 20 |

Turning Movement Count
Location Name: WESTLAKE AVE & 2451 DANFORTH AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 04:45 PM - 05:45 PM Weather: Clear Sky (19.95 °C)**




| | Pedestrians |
|---|---|
| N | 6 |
| S | 6 |
| E | 34 |

Spectrum

Turning Movement Count
Location Name: WESTLAKE AVE & COSMO PROF ACCESS
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

## Turning Movement Count (8 . WESTLAKE AVE & COSMO PROF ACCESS)

| Start Time | N Approach WESTLAKE AVE | | | | | S Approach WESTLAKE AVE | | | | | W Approach 2407 DANFORTH AVE (COSMO PROF ACCESS) | | | | | Int. Total (15 min) | Int. Total (1 hr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right N:W | Thru N:S | UTurn N:N | Peds N: | Approach Total | Thru S:N | Left S:W | UTurn S:S | Peds S: | Approach Total | Right W:S | Left W:N | UTurn W:W | Peds W: | Approach Total | | |
| 07:30:00 | 0 | 2 | 0 | 0 | 2 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 7 | |
| 07:45:00 | 0 | 5 | 0 | 2 | 5 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 11 | |
| 08:00:00 | 0 | 5 | 0 | 0 | 5 | 9 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 1 | 0 | 14 | |
| 08:15:00 | 0 | 4 | 0 | 0 | 4 | 9 | 0 | 0 | 1 | 9 | 0 | 0 | 0 | 14 | 0 | 13 | 45 |
| 08:30:00 | 1 | 10 | 0 | 0 | 11 | 7 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 9 | 0 | 18 | 56 |
| 08:45:00 | 1 | 8 | 0 | 0 | 9 | 7 | 0 | 0 | 1 | 7 | 0 | 2 | 0 | 5 | 2 | 18 | 63 |
| 09:00:00 | 2 | 9 | 0 | 0 | 11 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 2 | 0 | 15 | 64 |
| 09:15:00 | 0 | 7 | 0 | 1 | 7 | 5 | 0 | 0 | 0 | 5 | 0 | 1 | 0 | 1 | 1 | 13 | 64 |
| ***BREAK*** | | | | | | | | | | | | | | | | | |
| 16:00:00 | 0 | 10 | 0 | 0 | 10 | 7 | 0 | 0 | 5 | 7 | 0 | 2 | 0 | 5 | 2 | 19 | |
| 16:15:00 | 0 | 8 | 0 | 1 | 8 | 6 | 0 | 0 | 1 | 6 | 1 | 0 | 0 | 2 | 1 | 15 | |
| 16:30:00 | 0 | 10 | 0 | 1 | 10 | 12 | 0 | 0 | 1 | 12 | 0 | 0 | 0 | 4 | 0 | 22 | |
| 16:45:00 | 0 | 3 | 0 | 0 | 3 | 12 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 4 | 0 | 15 | 71 |
| 17:00:00 | 0 | 7 | 0 | 1 | 7 | 9 | 0 | 0 | 1 | 9 | 1 | 0 | 0 | 12 | 1 | 17 | 69 |
| 17:15:00 | 1 | 12 | 0 | 0 | 13 | 8 | 0 | 0 | 3 | 8 | 0 | 0 | 0 | 9 | 0 | 21 | 75 |
| 17:30:00 | 0 | 11 | 0 | 2 | 11 | 12 | 0 | 0 | 2 | 12 | 0 | 1 | 0 | 9 | 1 | 24 | 77 |
| 17:45:00 | 1 | 7 | 0 | 0 | 8 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 11 | 0 | 11 | 73 |
| **Grand Total** | 6 | 118 | 0 | 8 | 124 | 121 | 0 | 0 | 15 | 121 | 2 | 6 | 0 | 88 | 8 | **253** | - |
| **Approach%** | 4.8% | 95.2% | 0% | | - | 100% | 0% | 0% | | - | 25% | 75% | 0% | | - | - | - |
| **Totals %** | 2.4% | 46.6% | 0% | | 49% | 47.8% | 0% | 0% | | 47.8% | 0.8% | 2.4% | 0% | | 3.2% | - | - |
| **Heavy** | 0 | 6 | 0 | | - | 1 | 0 | 0 | | - | 0 | 0 | 0 | | - | - | - |
| **Heavy %** | 0% | 5.1% | 0% | | - | 0.8% | 0% | 0% | | - | 0% | 0% | 0% | | - | - | - |
| **Bicycles** | 0 | 5 | 1 | | - | 4 | 4 | 0 | | - | 4 | 0 | 0 | | - | - | - |
| **Bicycle %** | 0% | 4.2% | 0% | | - | 3.3% | 0% | 0% | | - | 200% | 0% | 0% | | - | - | - |

Spectrum

Turning Movement Count
Location Name: WESTLAKE AVE & COSMO PROF ACCESS
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

## Peak Hour: 08:30 AM - 09:30 AM Weather: Clear Sky (13.64 °C)

| Start Time | N Approach WESTLAKE AVE | | | | | S Approach WESTLAKE AVE | | | | | W Approach 2407 DANFORTH AVE (COSMO PROF ACCESS) | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Thru | UTurn | Peds | Approach Total | Thru | Left | UTurn | Peds | Approach Total | Right | Left | UTurn | Peds | Approach Total | |
| 08:30:00 | 1 | 10 | 0 | 0 | 11 | 7 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 9 | 0 | 18 |
| 08:45:00 | 1 | 8 | 0 | 0 | 9 | 7 | 0 | 0 | 1 | 7 | 0 | 2 | 0 | 5 | 2 | 18 |
| 09:00:00 | 2 | 9 | 0 | 0 | 11 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 2 | 0 | 15 |
| 09:15:00 | 0 | 7 | 0 | 1 | 7 | 5 | 0 | 0 | 0 | 5 | 0 | 1 | 0 | 1 | 1 | 13 |
| **Grand Total** | 4 | 34 | 0 | 1 | 38 | 23 | 0 | 0 | 1 | 23 | 0 | 3 | 0 | 17 | 3 | **64** |
| **Approach%** | 10.5% | 89.5% | 0% | | - | 100% | 0% | 0% | | - | 0% | 100% | 0% | | - | - |
| **Totals %** | 6.3% | 53.1% | 0% | | 59.4% | 35.9% | 0% | 0% | | 35.9% | 0% | 4.7% | 0% | | 4.7% | - |
| **PHF** | 0.5 | 0.85 | 0 | | 0.86 | 0.82 | 0 | 0 | | 0.82 | 0 | 0.38 | 0 | | 0.38 | - |
| **Heavy** | 0 | 1 | 0 | | 1 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Heavy %** | 0% | 2.9% | 0% | | 2.6% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Lights** | 4 | 33 | 0 | | 37 | 23 | 0 | 0 | | 23 | 0 | 3 | 0 | | 3 | - |
| **Lights %** | 100% | 97.1% | 0% | | 97.4% | 100% | 0% | 0% | | 100% | 0% | 100% | 0% | | 100% | - |
| **Single-Unit Trucks** | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Single-Unit Trucks %** | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Buses** | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Buses %** | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Articulated Trucks** | 0 | 1 | 0 | | 1 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Articulated Trucks %** | 0% | 2.9% | 0% | | 2.6% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Pedestrians** | - | - | - | 1 | - | - | - | - | 1 | - | - | - | - | 17 | - | - |
| **Pedestrians%** | - | - | - | 5.3% | | - | - | - | 5.3% | | - | - | - | 89.5% | | - |
| **Bicycles on Road** | 0 | 1 | 1 | 0 | - | 0 | 2 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | 0% | | - | - | - | 0% | | - | - | - | 0% | | - |

Spectrum

Turning Movement Count
Location Name: WESTLAKE AVE & COSMO PROF ACCESS
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

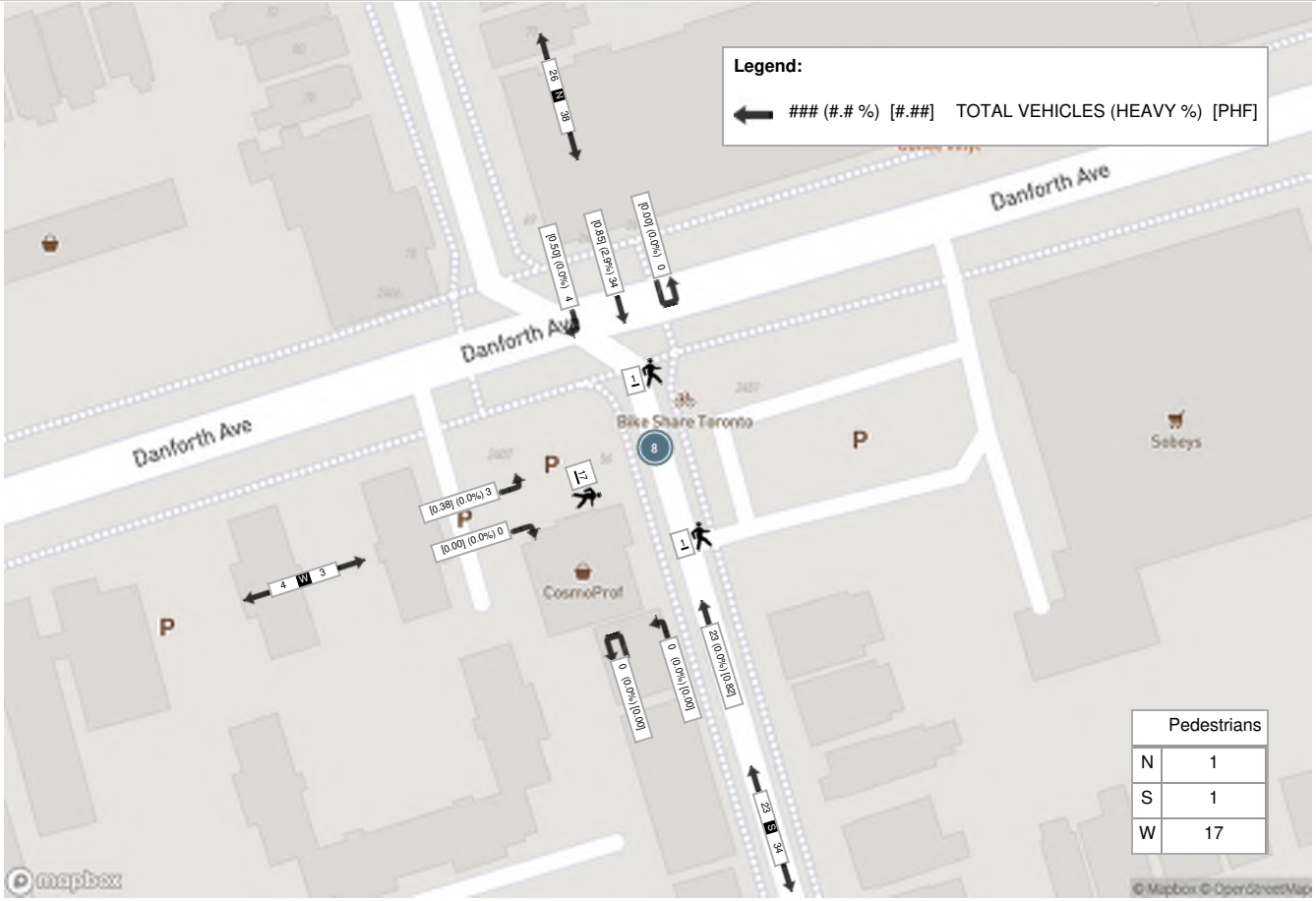
**Peak Hour: 04:45 PM - 05:45 PM Weather: Clear Sky (19.95 °C)**

| Start Time | N Approach WESTLAKE AVE | | | | | S Approach WESTLAKE AVE | | | | | W Approach 2407 DANFORTH AVE (COSMO PROF ACCESS) | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Thru | UTurn | Peds | Approach Total | Thru | Left | UTurn | Peds | Approach Total | Right | Left | UTurn | Peds | Approach Total | |
| 16:45:00 | 0 | 3 | 0 | 0 | 3 | 12 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 4 | 0 | 15 |
| 17:00:00 | 0 | 7 | 0 | 1 | 7 | 9 | 0 | 0 | 1 | 9 | 1 | 0 | 0 | 12 | 1 | 17 |
| 17:15:00 | 1 | 12 | 0 | 0 | 13 | 8 | 0 | 0 | 3 | 8 | 0 | 0 | 0 | 9 | 0 | 21 |
| 17:30:00 | 0 | 11 | 0 | 2 | 11 | 12 | 0 | 0 | 2 | 12 | 0 | 1 | 0 | 9 | 1 | 24 |
| **Grand Total** | 1 | 33 | 0 | 3 | 34 | 41 | 0 | 0 | 6 | 41 | 1 | 1 | 0 | 34 | 2 | **77** |
| **Approach%** | 2.9% | 97.1% | 0% | | - | 100% | 0% | 0% | | - | 50% | 50% | 0% | | - | - |
| **Totals %** | 1.3% | 42.9% | 0% | | 44.2% | 53.2% | 0% | 0% | | 53.2% | 1.3% | 1.3% | 0% | | 2.6% | - |
| **PHF** | 0.25 | 0.69 | 0 | | 0.65 | 0.85 | 0 | 0 | | 0.85 | 0.25 | 0.25 | 0 | | 0.5 | - |
| **Heavy** | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Heavy %** | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Lights** | 1 | 33 | 0 | | 34 | 41 | 0 | 0 | | 41 | 1 | 1 | 0 | | 2 | - |
| **Lights %** | 100% | 100% | 0% | | 100% | 100% | 0% | 0% | | 100% | 100% | 100% | 0% | | 100% | - |
| **Single-Unit Trucks** | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Single-Unit Trucks %** | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Buses** | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Buses %** | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Articulated Trucks** | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | - |
| **Articulated Trucks %** | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | | 0% | - |
| **Pedestrians** | - | - | - | 3 | - | - | - | - | 6 | - | - | - | - | 34 | - | - |
| **Pedestrians%** | - | - | - | 7% | | - | - | - | 14% | | - | - | - | 79.1% | | - |
| **Bicycles on Road** | 0 | 1 | 0 | 0 | - | 2 | 0 | 0 | 0 | - | 1 | 0 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | 0% | | - | - | - | 0% | | - | - | - | 0% | | - |

Turning Movement Count
Location Name: WESTLAKE AVE & COSMO PROF ACCESS
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:30 AM - 09:30 AM Weather: Clear Sky (13.64 °C)**

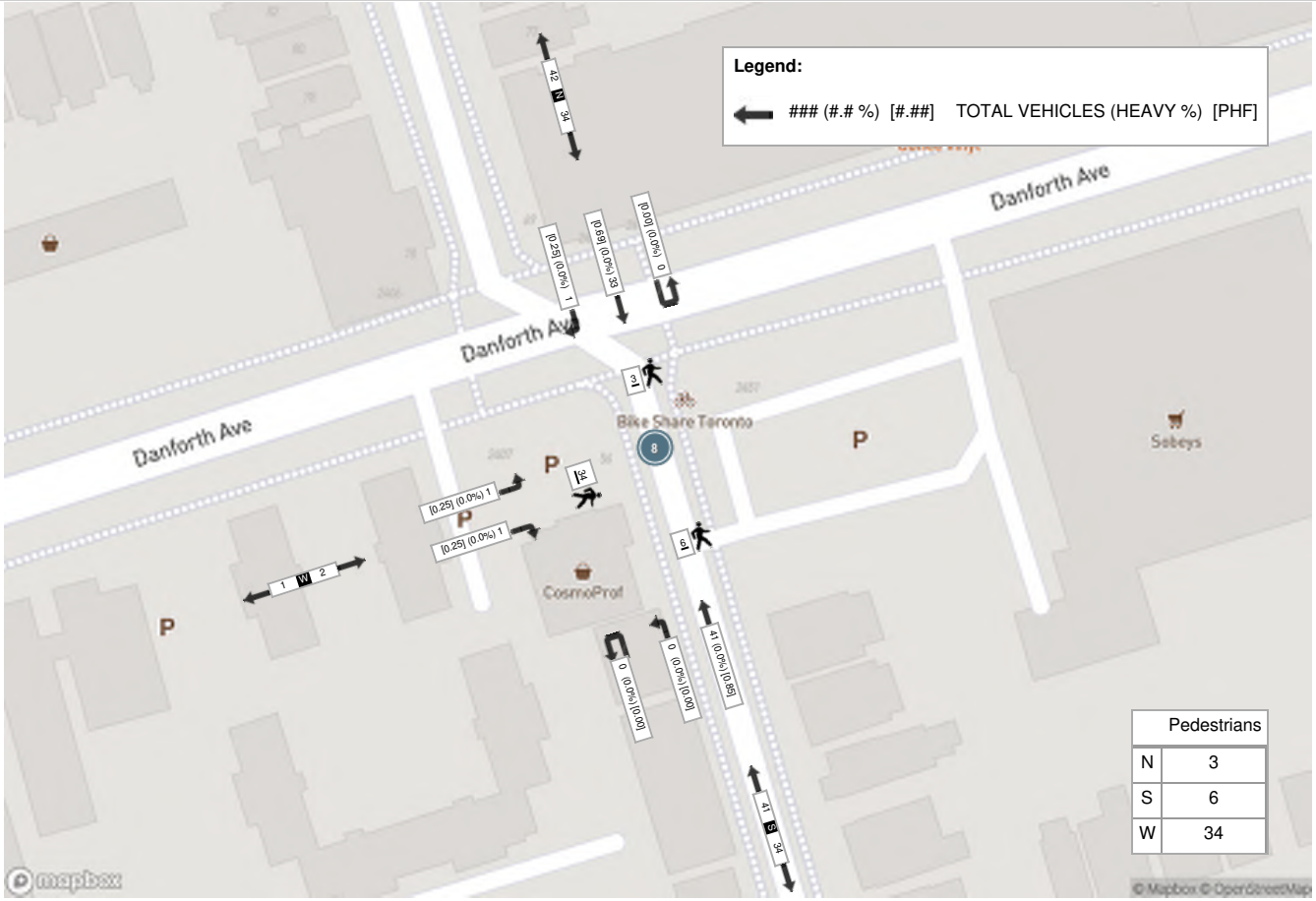


Spectrum

Turning Movement Count
Location Name: WESTLAKE AVE & COSMO PROF ACCESS
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 04:45 PM - 05:45 PM Weather: Clear Sky (19.95 °C)**



Spectrum

Turning Movement Count
Location Name: WESTLAKE AVE & STEPHENSON AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

## Turning Movement Count (10 . WESTLAKE AVE & STEPHENSON AVE)

| Start Time | N Approach WESTLAKE AVE | | | | | | E Approach STEPHENSON AVE | | | | | | S Approach WESTLAKE AVE | | | | | | W Approach STEPHENSON AVE | | | | | | Int. Total (15 min) | Int. Total (1 hr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right N:W | Thru N:S | Left N:E | UTurn N:N | Peds N: | Approach Total | Right E:N | Thru E:W | Left E:S | UTurn E:E | Peds E: | Approach Total | Right S:E | Thru S:N | Left S:W | UTurn S:S | Peds S: | Approach Total | Right W:S | Thru W:E | Left W:N | UTurn W:W | Peds W: | Approach Total | | |
| 07:30:00 | 0 | 1 | 1 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 3 | 1 | 2 | 0 | 0 | 7 | 3 | 0 | 0 | 1 | 0 | 6 | 1 | 9 | |
| 07:45:00 | 0 | 3 | 1 | 0 | 1 | 4 | 4 | 1 | 1 | 0 | 3 | 6 | 2 | 1 | 0 | 0 | 2 | 3 | 0 | 0 | 1 | 0 | 1 | 1 | 14 | |
| 08:00:00 | 1 | 1 | 2 | 0 | 5 | 4 | 3 | 2 | 1 | 0 | 0 | 6 | 0 | 5 | 0 | 0 | 8 | 5 | 0 | 3 | 0 | 0 | 5 | 3 | 18 | |
| 08:15:00 | 0 | 0 | 3 | 0 | 16 | 3 | 6 | 0 | 1 | 1 | 7 | 8 | 3 | 3 | 1 | 0 | 7 | 7 | 0 | 3 | 1 | 0 | 6 | 4 | 22 | 63 |
| 08:30:00 | 3 | 3 | 3 | 1 | 14 | 10 | 3 | 3 | 1 | 0 | 3 | 7 | 0 | 1 | 0 | 0 | 6 | 1 | 0 | 5 | 0 | 0 | 5 | 5 | 23 | 77 |
| 08:45:00 | 1 | 2 | 2 | 0 | 12 | 5 | 3 | 5 | 1 | 0 | 5 | 9 | 0 | 1 | 0 | 0 | 8 | 1 | 0 | 3 | 0 | 0 | 10 | 3 | 18 | 81 |
| 09:00:00 | 1 | 2 | 2 | 0 | 2 | 5 | 2 | 1 | 0 | 0 | 4 | 3 | 0 | 1 | 0 | 0 | 5 | 1 | 1 | 1 | 0 | 0 | 3 | 2 | 11 | 74 |
| 09:15:00 | 2 | 1 | 4 | 0 | 5 | 7 | 3 | 1 | 1 | 0 | 6 | 5 | 1 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 66 |
| ***BREAK*** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16:00:00 | 2 | 2 | 3 | 0 | 12 | 7 | 6 | 4 | 1 | 0 | 7 | 11 | 4 | 1 | 0 | 0 | 8 | 5 | 0 | 6 | 1 | 0 | 7 | 7 | 30 | |
| 16:15:00 | 0 | 2 | 4 | 0 | 9 | 6 | 4 | 6 | 1 | 0 | 5 | 11 | 5 | 2 | 0 | 0 | 3 | 7 | 1 | 6 | 1 | 0 | 2 | 8 | 32 | |
| 16:30:00 | 1 | 3 | 6 | 0 | 4 | 10 | 4 | 2 | 3 | 0 | 5 | 9 | 5 | 3 | 0 | 0 | 5 | 8 | 1 | 2 | 1 | 0 | 4 | 4 | 31 | |
| 16:45:00 | 1 | 1 | 2 | 0 | 4 | 4 | 8 | 2 | 3 | 0 | 5 | 13 | 3 | 1 | 0 | 0 | 6 | 4 | 0 | 10 | 0 | 0 | 1 | 10 | 31 | 124 |
| 17:00:00 | 1 | 3 | 4 | 0 | 11 | 8 | 3 | 4 | 3 | 0 | 12 | 10 | 4 | 2 | 0 | 0 | 5 | 6 | 1 | 8 | 3 | 0 | 5 | 12 | 36 | 130 |
| 17:15:00 | 4 | 3 | 4 | 0 | 9 | 11 | 5 | 9 | 2 | 0 | 8 | 16 | 5 | 2 | 0 | 0 | 16 | 7 | 1 | 4 | 2 | 0 | 9 | 7 | 41 | 139 |
| 17:30:00 | 0 | 2 | 6 | 0 | 9 | 8 | 4 | 4 | 4 | 0 | 16 | 12 | 3 | 4 | 1 | 0 | 17 | 8 | 0 | 7 | 1 | 0 | 8 | 8 | 36 | 144 |
| 17:45:00 | 1 | 1 | 4 | 0 | 7 | 6 | 1 | 3 | 0 | 0 | 7 | 4 | 4 | 2 | 4 | 0 | 4 | 10 | 0 | 11 | 0 | 1 | 13 | 12 | 32 | 145 |
| **Grand Total** | 18 | 30 | 51 | 1 | 122 | 100 | 61 | 48 | 23 | 1 | 93 | 133 | 40 | 32 | 6 | 0 | 108 | 78 | 5 | 69 | 12 | 1 | 85 | 87 | **398** | - |
| **Approach%** | 18% | 30% | 51% | 1% | | - | 45.9% | 36.1% | 17.3% | 0.8% | | - | 51.3% | 41% | 7.7% | 0% | | - | 5.7% | 79.3% | 13.8% | 1.1% | | - | - | - |
| **Totals %** | 4.5% | 7.5% | 12.8% | 0.3% | | 25.1% | 15.3% | 12.1% | 5.8% | 0.3% | | 33.4% | 10.1% | 8% | 1.5% | 0% | | 19.6% | 1.3% | 17.3% | 3% | 0.3% | | 21.9% | - | - |
| **Heavy** | 1 | 2 | 1 | 0 | | - | 0 | 1 | 1 | 0 | | - | 0 | 1 | 0 | 0 | | - | 0 | 0 | 0 | 0 | | - | - | - |
| **Heavy %** | 5.6% | 6.7% | 2% | 0% | | - | 0% | 2.1% | 4.3% | 0% | | - | 0% | 3.1% | 0% | 0% | | - | 0% | 0% | 0% | 0% | | - | - | - |
| **Bicycles** | 2 | 0 | 4 | 0 | | - | 3 | 3 | 3 | 0 | | - | 3 | 4 | 0 | 0 | | - | 0 | 2 | 0 | 0 | | - | - | - |
| **Bicycle %** | 11.1% | 0% | 7.8% | 0% | | - | 4.9% | 6.3% | 13% | 0% | | - | 7.5% | 12.5% | 0% | 0% | | - | 0% | 2.9% | 0% | 0% | | - | - | - |

Turning Movement Count
Location Name: WESTLAKE AVE & STEPHENSON AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:00 AM - 09:00 AM Weather: Clear Sky (13.64 °C)**

| Start Time | N Approach WESTLAKE AVE | | | | | | E Approach STEPHENSON AVE | | | | | | S Approach WESTLAKE AVE | | | | | | W Approach STEPHENSON AVE | | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | |
| 08:00:00 | 1 | 1 | 2 | 0 | 5 | 4 | 3 | 2 | 1 | 0 | 0 | 6 | 0 | 5 | 0 | 0 | 8 | 5 | 0 | 3 | 0 | 0 | 5 | 3 | 18 |
| 08:15:00 | 0 | 0 | 3 | 0 | 16 | 3 | 6 | 0 | 1 | 1 | 7 | 8 | 3 | 3 | 1 | 0 | 7 | 7 | 0 | 3 | 1 | 0 | 6 | 4 | 22 |
| 08:30:00 | 3 | 3 | 3 | 1 | 14 | 10 | 3 | 3 | 1 | 0 | 3 | 7 | 0 | 1 | 0 | 0 | 6 | 1 | 0 | 5 | 0 | 0 | 5 | 5 | 23 |
| 08:45:00 | 1 | 2 | 2 | 0 | 12 | 5 | 3 | 5 | 1 | 0 | 5 | 9 | 0 | 1 | 0 | 0 | 8 | 1 | 0 | 3 | 0 | 0 | 10 | 3 | 18 |
| **Grand Total** | 5 | 6 | 10 | 1 | 47 | 22 | 15 | 10 | 4 | 1 | 15 | 30 | 3 | 10 | 1 | 0 | 29 | 14 | 0 | 14 | 1 | 0 | 26 | 15 | **81** |
| **Approach%** | 22.7% | 27.3% | 45.5% | 4.5% | | - | 50% | 33.3% | 13.3% | 3.3% | | - | 21.4% | 71.4% | 7.1% | 0% | | - | 0% | 93.3% | 6.7% | 0% | | - | - |
| **Totals %** | 6.2% | 7.4% | 12.3% | 1.2% | | 27.2% | 18.5% | 12.3% | 4.9% | 1.2% | | 37% | 3.7% | 12.3% | 1.2% | 0% | | 17.3% | 0% | 17.3% | 1.2% | 0% | | 18.5% | - |
| **PHF** | 0.42 | 0.5 | 0.83 | 0.25 | | 0.55 | 0.63 | 0.5 | 1 | 0.25 | | 0.83 | 0.25 | 0.5 | 0.25 | 0 | | 0.5 | 0 | 0.7 | 0.25 | 0 | | 0.75 | - |
| **Heavy** | 1 | 0 | 1 | 0 | | 2 | 0 | 1 | 1 | 0 | | 2 | 0 | 1 | 0 | 0 | | 1 | 0 | 0 | 0 | 0 | | 0 | - |
| **Heavy %** | 20% | 0% | 10% | 0% | | 9.1% | 0% | 10% | 25% | 0% | | 6.7% | 0% | 10% | 0% | 0% | | 7.1% | 0% | 0% | 0% | 0% | | 0% | - |
| **Lights** | 4 | 6 | 9 | 1 | | 20 | 15 | 9 | 3 | 1 | | 28 | 3 | 9 | 1 | 0 | | 13 | 0 | 14 | 1 | 0 | | 15 | - |
| **Lights %** | 80% | 100% | 90% | 100% | | 90.9% | 100% | 90% | 75% | 100% | | 93.3% | 100% | 90% | 100% | 0% | | 92.9% | 0% | 100% | 100% | 0% | | 100% | - |
| **Single-Unit Trucks** | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | - |
| **Single-Unit Trucks %** | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | - |
| **Buses** | 1 | 0 | 1 | 0 | | 2 | 0 | 1 | 1 | 0 | | 2 | 0 | 1 | 0 | 0 | | 1 | 0 | 0 | 0 | 0 | | 0 | - |
| **Buses %** | 20% | 0% | 10% | 0% | | 9.1% | 0% | 10% | 25% | 0% | | 6.7% | 0% | 10% | 0% | 0% | | 7.1% | 0% | 0% | 0% | 0% | | 0% | - |
| **Pedestrians** | - | - | - | - | 47 | - | - | - | - | - | 15 | - | - | - | - | - | 28 | - | - | - | - | - | 26 | - | - |
| **Pedestrians%** | - | - | - | - | 40.2% | | - | - | - | - | 12.8% | | - | - | - | - | 23.9% | | - | - | - | - | 22.2% | | - |
| **Bicycles on Road** | 0 | 0 | 2 | 0 | 0 | - | 0 | 2 | 1 | 0 | 0 | - | 0 | 1 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | - | 0% | | - | - | - | - | 0% | | - | - | - | - | 0% | | - | - | - | - | 0% | | - |
| **Bicycles on Crosswalk** | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - |
| **Bicycles on Crosswalk%** | - | - | - | - | 0% | | - | - | - | - | 0% | | - | - | - | - | 0.9% | | - | - | - | - | 0% | | - |

Spectrum

Turning Movement Count
Location Name: WESTLAKE AVE & STEPHENSON AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 05:00 PM - 06:00 PM Weather: Clear Sky (19.95 °C)**

| Start Time | N Approach WESTLAKE AVE | | | | | | E Approach STEPHENSON AVE | | | | | | S Approach WESTLAKE AVE | | | | | | W Approach STEPHENSON AVE | | | | | | Int. Total (15 min) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | Right | Thru | Left | UTurn | Peds | Approach Total | |
| 17:00:00 | 1 | 3 | 4 | 0 | 11 | 8 | 3 | 4 | 3 | 0 | 12 | 10 | 4 | 2 | 0 | 0 | 5 | 6 | 1 | 8 | 3 | 0 | 5 | 12 | 36 |
| 17:15:00 | 4 | 3 | 4 | 0 | 9 | 11 | 5 | 9 | 2 | 0 | 8 | 16 | 5 | 2 | 0 | 0 | 16 | 7 | 1 | 4 | 2 | 0 | 9 | 7 | 41 |
| 17:30:00 | 0 | 2 | 6 | 0 | 9 | 8 | 4 | 4 | 4 | 0 | 16 | 12 | 3 | 4 | 1 | 0 | 17 | 8 | 0 | 7 | 1 | 0 | 8 | 8 | 36 |
| 17:45:00 | 1 | 1 | 4 | 0 | 7 | 6 | 1 | 3 | 0 | 0 | 7 | 4 | 4 | 2 | 4 | 0 | 4 | 10 | 0 | 11 | 0 | 1 | 13 | 12 | 32 |
| **Grand Total** | 6 | 9 | 18 | 0 | 36 | 33 | 13 | 20 | 9 | 0 | 43 | 42 | 16 | 10 | 5 | 0 | 42 | 31 | 2 | 30 | 6 | 1 | 35 | 39 | **145** |
| **Approach%** | 18.2% | 27.3% | 54.5% | 0% | | - | 31% | 47.6% | 21.4% | 0% | | - | 51.6% | 32.3% | 16.1% | 0% | | - | 5.1% | 76.9% | 15.4% | 2.6% | | - | - |
| **Totals %** | 4.1% | 6.2% | 12.4% | 0% | | 22.8% | 9% | 13.8% | 6.2% | 0% | | 29% | 11% | 6.9% | 3.4% | 0% | | 21.4% | 1.4% | 20.7% | 4.1% | 0.7% | | 26.9% | - |
| **PHF** | 0.38 | 0.75 | 0.75 | 0 | | 0.75 | 0.65 | 0.56 | 0.56 | 0 | | 0.66 | 0.8 | 0.63 | 0.31 | 0 | | 0.78 | 0.5 | 0.68 | 0.5 | 0.25 | | 0.81 | - |
| **Heavy** | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | - |
| **Heavy %** | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | - |
| **Lights** | 6 | 9 | 18 | 0 | | 33 | 13 | 20 | 9 | 0 | | 42 | 16 | 10 | 5 | 0 | | 31 | 2 | 30 | 6 | 1 | | 39 | - |
| **Lights %** | 100% | 100% | 100% | 0% | | 100% | 100% | 100% | 100% | 0% | | 100% | 100% | 100% | 100% | 0% | | 100% | 100% | 100% | 100% | 100% | | 100% | - |
| **Single-Unit Trucks** | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | - |
| **Single-Unit Trucks %** | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | - |
| **Buses** | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | - |
| **Buses %** | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | - |
| **Pedestrians** | - | - | - | - | 35 | - | - | - | - | - | 41 | - | - | - | - | - | 42 | - | - | - | - | - | 35 | - | - |
| **Pedestrians%** | - | - | - | - | 22.4% | | - | - | - | - | 26.3% | | - | - | - | - | 26.9% | | - | - | - | - | 22.4% | | - |
| **Bicycles on Road** | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 | 0 | 0 | 0 | - | 0 | 1 | 0 | 0 | 0 | - | - |
| **Bicycles on Road%** | - | - | - | - | 0% | | - | - | - | - | 0% | | - | - | - | - | 0% | | - | - | - | - | 0% | | - |
| **Bicycles on Crosswalk** | - | - | - | - | 1 | - | - | - | - | - | 2 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| **Bicycles on Crosswalk%** | - | - | - | - | 0.6% | | - | - | - | - | 1.3% | | - | - | - | - | 0% | | - | - | - | - | 0% | | - |

Turning Movement Count
Location Name: WESTLAKE AVE & STEPHENSON AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

**Peak Hour: 08:00 AM - 09:00 AM Weather: Clear Sky (13.64 °C)**


| | Bicycles on Crosswalk | Pedestrians |
|---|---|---|
| N | 0 | 47 |
| S | 1 | 28 |
| E | 0 | 15 |
| W | 0 | 26 |

Turning Movement Count
Location Name: WESTLAKE AVE & STEPHENSON AVE
Date: Thu, May 16, 2024 Deployment Lead: David Chu

BA Group
300 45 ST. CLAIR AVE W
TORONTO ONTARIO, M4V 1K9
CANADA

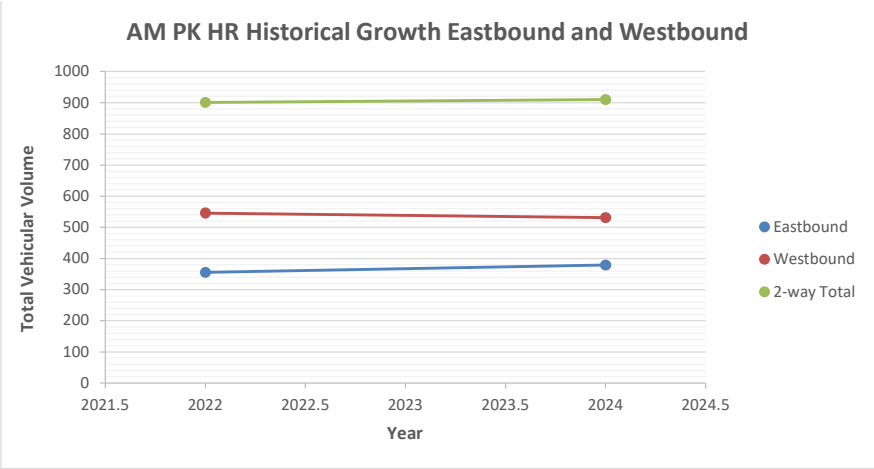
**Peak Hour: 05:00 PM - 06:00 PM Weather: Clear Sky (19.95 °C)**


| | Bicycles on Crosswalk | Pedestrians |
|---|---|---|
| N | 1 | 35 |
| S | 0 | 42 |
| E | 2 | 41 |
| W | 0 | 35 |

# Appendix F:
# Corridor Growth Rate

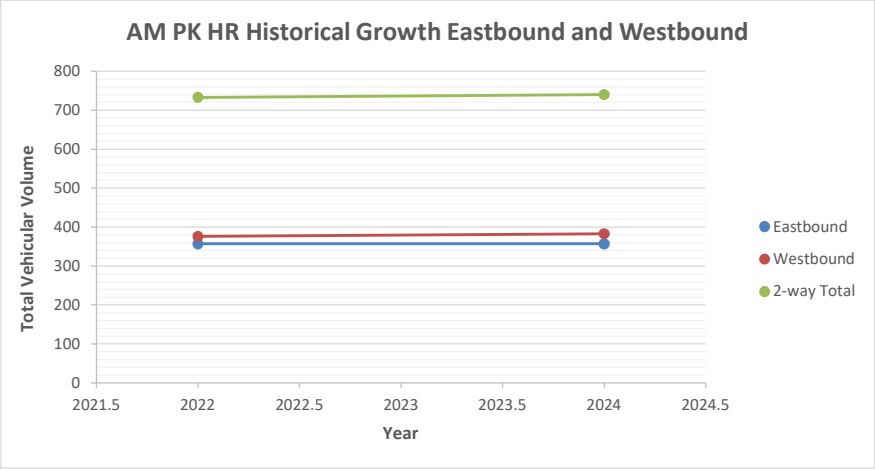
| | |
|---|---|
| **Project:** | 2451 Danforth Ave |
| **Project ID:** | 7036-35 |
| **Intersection:** | Danforth Ave / Main St |
| **Peak Hour:** | AM |

| Count Information | | East of Danforth Ave / Main St | | |
|---|---|---|---|---|
| **Date** | **Year** | **Eastbound** | **Westbound** | **2-way** |
| September 1, 2022 | 2022 | 355 | 546 | 901 |
| May 25, 2024 | 2024 | 379 | 531 | 910 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Existing | 2024 | 379 | 531 | 910 |
| Slope | | 12.00 | -7.50 | 4.50 |
| **Annual Growth** | | **3.17%** | **-1.41%** | **0.49%** |



| | |
|---|---|
| **Project:** | 2451 Danforth Ave |
| **Project ID:** | 7036-35 |
| **Intersection:** | Danforth Ave / Main Street |
| **Peak Hour:** | PM |

| Count Information | | East of Danforth Ave / Main Street | | |
|---|---|---|---|---|
| **Date** | **Year** | **Eastbound** | **Westbound** | **2-way** |
| September 1, 2022 | 2022 | 357 | 376 | 733 |
| May 25, 2024 | 2024 | 357 | 383 | 740 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Existing | 2024 | 357 | 383 | 740 |
| Slope | | 0.00 | 3.50 | 3.50 |
| **Annual Growth** | | **0.00%** | **0.91%** | **0.47%** |



# Appendix G:
# Signal Timing Plans (STPs)

# List of Abbreviations for Traffic Signal Operations

January 25, 2021

**System**
TransSuite TCS
SCOOT
SCATS

**Intersection Identification**

| | |
|---|---|
| TCS# | Intersection Number |
| SCN | UTC/SCOOT Number |

**Special Facility (SCOOT)**

| | |
|---|---|
| SF#1 | Special Facility #1 |
| SF#2 | Special Facility #2 |
| SF#3 | Special Facility #3 |
| SF#4 | Special Facility #4 |

**Signal Mode of Operation**

| | |
|---|---|
| FA | Fully Actuated |
| FT | Fixed Time |
| SA1 | Semi Actuated 1 (Pedestrian Fixed Time) |
| SA2 | Semi-Actuated 2 (with vehicle extensions) |
| SAP | Semi-Actuated Pedestrian (without vehicle extensions) |
| SAV | Semi-Actuated Vehicle (no side street pedestrians phase) |
| PA-IPS | Pedestrian Actuated at Intersection Pedestrian Signals |
| PA-MPS | Pedestrian Actuated at Midblock Pedestrian Signals |

**Communication**

| | |
|---|---|
| AC | Awaiting Communication |
| LOCAL | Not On Computer Control |

**Intersection Features**

| | |
|---|---|
| APS | Accessible Pedestrian Signal |
| AAWB | Active Advanced Warning Beacons |
| LBI | Leading Bicycle Interval |
| LBO | LED Blank-Out Sign |
| LPI | Leading Pedestrian Interval |
| PE | Pre-emption |
| PPP | Pedestrian Priority Phase |
| PR | Pedestrian Recycle |
| TSP | Transit Signal Priority |
| WRM | Walk Rest Modifier |

| Phase Aspect | | All Directions | North/South | East/West | Northbound | Southbound | Eastbound | Westbound |
|---|---|---|---|---|---|---|---|---|
| **1. Normal Phase** | | | | | | | | |
| | Green | | NSG | EWG | NBG | SBG | EBG | WBG |
| | Amber (Yellow) | | NSY | EWY | NBY | SBY | EBY | WBY |
| | Red | | NSR | EWR | NBR | SBR | EBR | WBR |
| | All | ALR | | | | | | |
| **2. Priority Phase (Arrow)** | | | | | | | | |
| | Straight-Through Green | | NSSA | EWSA | NBSA | SBSA | EBSA | WBSA |
| | Left-Turn Green | | NSLA | EWLA | NBLA | SBLA | EBLA | WBLA |
| | Left-Turn Amber | | NSYA | EWYA | NBYA | SBYA | EBYA | WBYA |
| | Left-Turn Amber Ball | | NSLY | EWLY | NBLY | SBLY | EBLY | WBLY |
| | Left-Turn Red Ball | | NSLR | EWLR | NBLR | SBLR | EBLR | WBLR |
| | Right-Turn Green | | | | NBRA | SBRA | EBRA | WBRA |
| | Right-Turn Amber | | | | NRYA | SRYA | ERYA | WRYA |
| | Right-Turn Amber Ball | | | | NBRY | SBRY | EBRY | WBRY |
| | Right-Turn Red Ball | | | | NBRR | SBRR | EBRR | WBRR |
| **3. Pedestrian** | | | | | | | | |
| | Walk | WK | NSWK | EWWK | NBWK | SBWK | EBWK | WBWK |
| | Flashing Don't Walk | FDW | NSFDW | EWFDW | NBFDW | SBFDW | EBFDW | WBFDW |
| | Don't Walk | DW | NSDW | EWDW | NBDW | SBDW | EBDW | WBDW |
| **4. Transit** | | | | | | | | |
| | Green | | NSTG | EWTG | NBTG | SBTG | EBTG | WBTG |
| | Straight-Through Green Arrow | | NSTGA | EWTGA | NBTGA | SBTGA | EBTGA | WBTGA |
| | Amber (Yellow) | | NSTY | EWTY | NBTY | SBTY | EBTY | WBTY |
| | Bar | | NSTB | EWTB | NBTB | SBTB | EBTB | WBTB |
| | Red | | NSTR | EWTR | NBTR | SBTR | EBTR | WBTR |
| **5. Bike** | | | | | | | | |
| | Green | | NSBG | EWBG | NBBG | SBBG | EBBG | WBBG |
| | Amber (Yellow) | | NSBY | EWBY | NBBY | SBBY | EBBY | WBBY |
| | Red | | NSBR | EWBR | NBBR | SBBR | EBBR | WBBR |

| | | | |
|---|---|---|---|
| ***LOCATION:*** | **Danforth Ave & Gledhill Ave/Patricia Dr** | ***ATO (DISTRICT) / WARD:*** | **1 (Toronto & East York) / 19** |
| ***MODE/COMMENT:*** | **SAP with PR & LPI** | ***COMPUTER SYSTEM:*** | **TransSuite** |
| ***TCS:*** | **352** | ***CONTROLLER / CABINET TYPE:*** | **Peek ATC-1000 / TS2T1** |
| ***PREPARED BY/DATE:*** | **HDR / Jacky Chan / January 27, 2023** | ***CONFLICT FLASH:*** | **Red & Red** |
| ***CHECKED BY/DATE:*** | **HDR / Dan Lu / January 31, 2023** | ***DESIGN WALK SPEED:*** | **1.0 m/s (FDW based on full crossing at 1.2 m/s)** |
| ***CITY STAFF:*** | **Syed Qasim** | ***CHANNEL/DROP:*** | **4008/30** |
| ***IMPLEMENTATION DATE:*** | **March 20, 2023** | ***CONTROLLER FIRMWARE:*** | **3.018.1.2976** |

**N**

| **NEMA Phase** | | | **OFF All Other Times** | **AM 06:30-09:30 M-F** | **PM 15:00-19:00 M-F** | **NIGHT 23:00-06:30 Daily** | **WKND 10:00-19:00 Sat & Sun** | **DVP Closure** | **Phase Mode (Fixed/Demanded/Callable)** | **Remarks** |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Local Plan** | | Pattern 1 | Pattern 2 | Pattern 3 | Pattern 4 | Pattern 5 | Pattern 16 | | |
| | **Split Table** | | Split 1 | Split 2 | Split 3 | Split 4 | Split 5 | Split 16 | | |
| 1 NOT USED | WLK | | | | | | | | | Pedestrian Minimums: EWWK = 12 sec, EWFD = 12 sec NSWK = 12 sec, NSFD = 16 sec NS phase is callable by vehicle or pedestrian actuation. The NSWK & NSFD are displayed on the pedestrian signal heads if a vehicle and/or pedestrian call is received. Side street passage time = 3 sec |
| | FDW | | | | | | | | | |
| | MIN | | | | | | | | | |
| | MAX1 | | | | | | | | | |
| | AMB | | | | | | | | | |
| | ALR | | | | | | | | | |
| | SPLIT | | | | | | | | | |
| 2 Danforth Ave | DLY GRN | 5 | | | | | | | Fixed Split shown includes 5 sec EW LPI | EW Leading Pedestrian Interval - EWWK comes up 5 sec before EW vehicle green NS Leading Pedestrian Interval - NSWK comes up 5 sec before NS vehicle green The following grades were used to calculate the AMB intervals: East Leg = -1.0% West Leg = -1.1% North Leg = -1.1% South Leg = -1.8% |
| | WLK | 12 | | | | | | | | |
| | FDW | 12 | | | | | | | | |
| | MIN | 19 | | | | | | | | |
| | MAX1 | 37 | | | | | | | | |
| | AMB | 3.0 | | | | | | | | |
| | ALR | 2.9 | | | | | | | | |
| | SPLIT | | 48 | 54 | 54 | 36 | 48 | 58 | | |
| 3 NOT USED | WLK | | | | | | | | | |
| | FDW | | | | | | | | | |
| | MIN | | | | | | | | | |
| | MAX1 | | | | | | | | | |
| | AMB | | | | | | | | | |
| | ALR | | | | | | | | | |
| | SPLIT | | | | | | | | | |
| 4 Gledhill Ave | DLY GRN | 5 | | | | | | | Callable by Stopbar Loop and/or Push Button Split shown includes 5 sec NS LPI | |
| | WLK | 12 | | | | | | | | |
| | FDW | 16 | | | | | | | | |
| | MIN | 23 | | | | | | | | |
| | MAX1 | 23 | | | | | | | | |
| | AMB | 3.0 | | | | | | | | |
| | ALR | 4.1 | | | | | | | | |
| | SPLIT | | 36 | 36 | 36 | 36 | 36 | 36 | | |
| 5 NOT USED | WLK | | | | | | | | | |
| | FDW | | | | | | | | | |
| | MIN | | | | | | | | | |
| | MAX1 | | | | | | | | | |
| | AMB | | | | | | | | | |
| | ALR | | | | | | | | | |
| | SPLIT | | | | | | | | | |
| 6 Danforth Ave | DLY GRN | 5 | | | | | | | Fixed Split shown includes 5 sec EW LPI | |
| | WLK | 12 | | | | | | | | |
| | FDW | 12 | | | | | | | | |
| | MIN | 19 | | | | | | | | |
| | MAX1 | 37 | | | | | | | | |
| | AMB | 3.0 | | | | | | | | |
| | ALR | 2.9 | | | | | | | | |
| | SPLIT | | 48 | 54 | 54 | 36 | 48 | 58 | | |
| 7 NOT USED | WLK | | | | | | | | | |
| | FDW | | | | | | | | | |
| | MIN | | | | | | | | | |
| | MAX1 | | | | | | | | | |
| | AMB | | | | | | | | | |
| | ALR | | | | | | | | | |
| | SPLIT | | | | | | | | | |
| 8 Patricia Dr | DLY GRN | 5 | | | | | | | Callable by Stopbar Loop and/or Push Button Split shown includes 5 sec NS LPI | |
| | WLK | 12 | | | | | | | | |
| | FDW | 16 | | | | | | | | |
| | MIN | 23 | | | | | | | | |
| | MAX1 | 23 | | | | | | | | |
| | AMB | 3.0 | | | | | | | | |
| | ALR | 4.1 | | | | | | | | |
| | SPLIT | | 36 | 36 | 36 | 36 | 36 | 36 | | |
| | CL | | 84 | 90 | 90 | 72 | 84 | 94 | | |
| | OF | | 79 | 63 | 43 | 26 | 26 | 44 | | |

Notes: NS Amber and All-red values updated to reflect NS speed limit reduction to 30 km/h.

| | |
|---|---|
| *LOCATION:* | Main St & Danforth Ave |
| *MODE/COMMENT:* | SA1 with 2 wire Polara APS & TSP* & LPI |
| *TCS:* | 353 |
| *PREPARED BY/DATE:* | Lina Elmorshedy / April 17, 2024 |
| *CHECKED BY/DATE:* | Ihtesham Ahmed / April 17, 2024 |
| *CITY STAFF:* | |
| *IMPLEMENTATION DATE:* | |
| *ATO (DISTRICT) / WARD:* | 1 (Toronto & East York) / 19 |
| *COMPUTER SYSTEM:* | TransSuite |
| *CONTROLLER/CABINET TYPE:* | Peek ATC-1000 / TS2T1 |
| *CONFLICT FLASH:* | Red & Red |
| *DESIGN WALK SPEED:* | 0.9 m/s (FDW based on full crossing at 1.1 m/s) |
| *CHANNEL/DROP:* | 4008/24 |
| *CONTROLLER FIRMWARE:* | 3.018.1.2976 |

N

| NEMA Phase | | | OFF | AM | PM | NIGHT | WKND | Special Event | DVP Closure | Phase Mode (Fixed/Demanded/Callable) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | All Other Times | 06:30-09:30 M-F | 15:00-19:00 M-F | 23:00-06:30 Daily | 10:00-19:00 Sat & Sun | TBD | | | |
| | Local Plan | | Pattern 1 | Pattern 2 | Pattern 3 | Pattern 4 | Pattern 5 | Pattern 15 | Pattern 16 | | |
| | Split Table | | Split 1 | Split 2 | Split 3 | Split 4 | Split 5 | Split 15 | Split 16 | | |
| 1 NOT USED | WLK | | | | | | | | | | Pedestrian Minimums:<br>EWWK = 8 sec, EWFD = 17 sec<br>NSWK = 8 sec, NSFD = 22 sec<br>Left Turn Passage = 2 sec<br>*See back for TSP instructions<br>TSP enabled for NB on November 7, 2017. The SB enabled on September 5, 2019.<br>Actuated APS on during EWWK & NSWK when no left turn arrows are displayed.<br>Extended APS Push Activation = 3 sec<br>NS Leading Pedestrian Interval - NSWK comes up 5 seconds before NS vehicle green.<br>The following grades were used to calculate the AMB intervals:<br>East Leg = -2.0%<br>West Leg = 0.0%<br>North Leg = -0.4%<br>South Leg = -2.3% |
| | FDW | | | | | | | | | | |
| | MIN | | | | | | | | | | |
| | MAX1 | | | | | | | | | | |
| | AMB | | | | | | | | | | |
| | ALR | | | | | | | | | | |
| | SPLIT | | | | | | | | | | |
| 2 Main St | WLK DLY | 5 | | | | | | | | Fixed<br>Split shown includes 5 sec of NS LPI<br>POZ activated by Request Loop<br>(max extension of 16 secs in Green/SDW) | |
| | WLK | 8 | | | | | | | | | |
| | FDW | 17 | | | | | | | | | |
| | MIN | 20 | | | | | | | | | |
| | MAX1 | 20 | | | | | | | | | |
| | AMB | 3.0 | | | | | | | | | |
| | ALR | 3.7 | | | | | | | | | |
| | SPLIT | | 32 | 34 | 33 | 33 | 32 | 35 | 37 | | |
| 3 | WLK | | | | | | | | | Callable by 9m Setback Loop | |
| | FDW | | | | | | | | | | |
| | MIN | 6 | | | | | | | | | |
| | MAX1 | 6 | | | | | | | | | |
| | AMB | 3.0 | | | | | | | | | |
| | ALR | 4.4 | | | | | | | | | |
| | SPLIT | | 14 | 18 | 14 | | 14 | 14 | 15 | | |
| 4 Danforth Ave | WLK | 8 | | | | | | | | Fixed<br>(Truncation allowable) | |
| | FDW | 22 | | | | | | | | | |
| | MIN | 30 | | | | | | | | | |
| | MAX1 | 31 | | | | | | | | | |
| | AMB | 3.0 | | | | | | | | | |
| | ALR | 3.7 | | | | | | | | | |
| | SPLIT | | 38 | 38 | 43 | 39 | 38 | 45 | 42 | | |
| 5 NOT USED | WLK | | | | | | | | | | |
| | FDW | | | | | | | | | | |
| | MIN | | | | | | | | | | |
| | MAX1 | | | | | | | | | | |
| | AMB | | | | | | | | | | |
| | ALR | | | | | | | | | | |
| | SPLIT | | | | | | | | | | |
| 6 Main St | WLK DLY | 5 | | | | | | | | Fixed<br>Split shown includes 5 sec of NS LPI<br>POZ activated by Request Loop<br>(max extension of 16 secs in Green/SDW) | |
| | WLK | 8 | | | | | | | | | |
| | FDW | 17 | | | | | | | | | |
| | MIN | 20 | | | | | | | | | |
| | MAX1 | 20 | | | | | | | | | |
| | AMB | 3.0 | | | | | | | | | |
| | ALR | 3.7 | | | | | | | | | |
| | SPLIT | | 32 | 34 | 33 | 33 | 32 | 35 | 37 | | |
| 7 NOT USED | WLK | | | | | | | | | | |
| | FDW | | | | | | | | | | |
| | MIN | | | | | | | | | | |
| | MAX1 | | | | | | | | | | |
| | AMB | | | | | | | | | | |
| | ALR | | | | | | | | | | |
| | SPLIT | | | | | | | | | | |
| 8 Danforth Ave | WLK | 8 | | | | | | | | Fixed<br>(Truncation allowable) | |
| | FDW | 22 | | | | | | | | | |
| | MIN | 30 | | | | | | | | | |
| | MAX1 | 45 | | | | | | | | | |
| | AMB | 3.0 | | | | | | | | | |
| | ALR | 3.7 | | | | | | | | | |
| | SPLIT | | 52 | 56 | 57 | 39 | 52 | 59 | 57 | | |
| | CL | | 84 | 90 | 90 | 72 | 84 | 94 | 94 | | |
| | OF | | 31 | 89 | 70 | 53 | 48 | 55 | 31 | | |

Notes:

**LOC:** Main St & Danforth Ave
**MODE:** FT with 2 wire Polara APS & TSP* & LPI
**TCS:** 353 **PREPARATION DATE (TIMING CARD):** December 23, 2022

## OFFSET CORRECTION PARAMETERS

### 2.3.4 O.C. Extend / Reduce

*(Max. time added & subtracted in sec.)*

| | | Ø 1 | Ø 2 | Ø 3 | Ø 4 | Ø 5 | Ø 6 | Ø 7 | Ø 8 | From page 1 [Cycle] | From page 1 [Slop] | 2.3.2.x O.C. Thres. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF | | | | | | | | | | | | Pattern 1 |
| Split 1 | Ext. | -- | 21 | -- | 21 | -- | 21 | -- | 21 | 84 | 1 | 1 s |
| | Rdc. | -- | -- | 1 | -- | -- | -- | -- | 1 | | | [1 %] |
| AM | | | | | | | | | | | | Pattern 2 |
| Split 2 | Ext. | -- | 19 | -- | 20 | -- | 19 | -- | 20 | 90 | 7 | 12 s |
| | Rdc. | -- | -- | 4 | -- | -- | -- | -- | 4 | | | [13 %] |
| PM | | | | | | | | | | | | Pattern 3 |
| Split 3 | Ext. | -- | 18 | -- | 19 | -- | 18 | -- | 19 | 90 | 7 | 16 s |
| | Rdc. | -- | -- | 1 | 5 | -- | -- | -- | 6 | | | [18 %] |
| EVE | | | | | | | | | | | | Pattern 4 |
| Split 4 | Ext. | -- | 17 | -- | 18 | -- | 17 | -- | 18 | 72 | 3 | 3 s |
| | Rdc. | -- | -- | -- | 1 | -- | -- | -- | 1 | | | [4 %] |
| WKND | | | | | | | | | | | | Pattern 5 |
| Split 5 | Ext. | -- | 21 | -- | 21 | -- | 21 | -- | 21 | 84 | 1 | 1 s |
| | Rdc. | -- | -- | 1 | -- | -- | -- | -- | 1 | | | [1 %] |
| Special Events | | | | | | | | | | | | Pattern 15 |
| Split 15 | Ext. | -- | 19 | -- | 20 | -- | 19 | -- | 20 | 94 | 7 | 20 s |
| | Rdc. | -- | -- | -- | 7 | -- | -- | -- | 7 | | | [21 %] |
| DVP | | | | | | | | | | | | Pattern 16 |
| Split 16 | Ext. | -- | 19 | -- | 20 | -- | 19 | -- | 20 | 94 | 11 | 16 s |
| | Rdc. | -- | -- | 2 | 4 | -- | -- | -- | 6 | | | [17 %] |

OC Thresholds set to 3x OC Rdc due to limited slop. The controller could take up to three cycles to get back in sync from -TSP Recovery.

OC Rdc set to reduce to fractions of a second due to limit time available.

Phase 2/6 cannot be reduced due to firmware 3.18.1.2976 issue with LPIs and TSP.

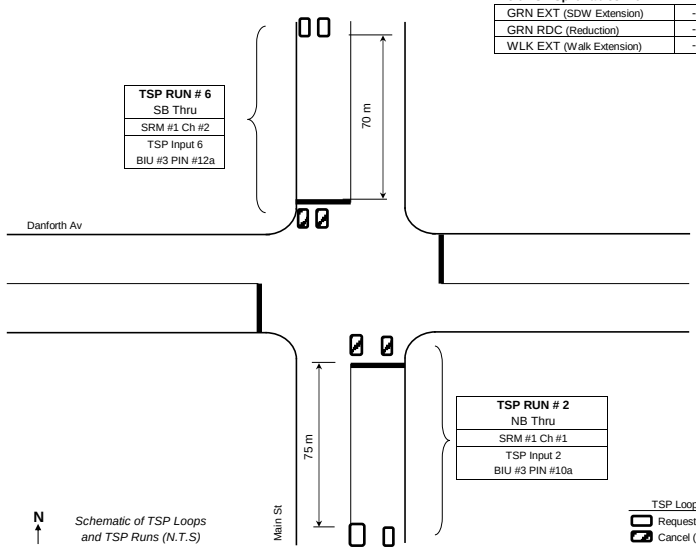
Phase 4/8 cannot be reduced to the minimum due to a firmware 3.18.1.2976 issue with long left turn clearances.

## T.S.P. PARAMETERS

***PREPARED:*** *JC*

| | TSP RUN # 2 NB Thru | TSP RUN # 6 SB Thru |
|---|---|---|
| **2.8.2 Transit Run Parameters** | | |
| ATC Green Extend Mode (Equivalent TTC Algorithm) | Mode 0 B-2 | Mode 0 B-2 |
| **2.8.3 Transit Action Plan 1 (used for pattern 1, 4, 5 ,15, 16)** | | |
| Run Enable (X = Yes) | X | X |
| Run Config = **1** | Recovery = 2 (O.C. with delay) | |
| **2.8.3 Transit Action Plan 2 (used for pattern 2&3)** | | |
| Run Enable (X = Yes) | X | X |
| Run Config = **2** | Recovery = 2 (O.C. with delay) | |
| **2.8.4 Transit Run Configuration 1** | | |
| Delay / Extend / Fail | 13 / -- / 235 | 24 / -- / 235 |
| Max Req During Offset Corr | 1 | 1 |
| **CALLS (and Extends)** | **Ø 2/6** | **Ø 2/6** |
| Skips | -- | -- |
| Reduces (Truncates) | **Ø 4/8** | **Ø 4/8** |
| **2.8.4 Transit Run Configuration 2** | | |
| Delay / Extend / Fail | 13 / -- / 235 | 5 / -- / 235 |
| Max Req During Offset Corr | 1 | 1 |
| **CALLS (and Extends)** | **Ø 2/6** | **Ø 2/6** |
| Skips | -- | -- |
| Reduces (Truncates) | **Ø 4/8** | **Ø 4/8** |

| | Ø 1 | Ø 2 | Ø 3 | Ø 4 | Ø 5 | Ø 6 | Ø 7 | Ø 8 |
|---|---|---|---|---|---|---|---|---|
| **2.8.6 TSP Split Tables: 1, 2 & 5** | | | | | | | | |
| GRN EXT (SDW Extension) | -- | 16 | -- | -- | -- | 16 | -- | -- |
| GRN RDC (Reduction) | -- | -- | -- | -- | -- | -- | -- | -- |
| WLK EXT (Walk Extension) | -- | -- | -- | -- | -- | -- | -- | -- |
| **2.8.6 TSP Split Tables: 3** | | | | | | | | |
| GRN EXT (SDW Extension) | -- | 16 | -- | -- | -- | 16 | -- | -- |
| GRN RDC (Reduction) | -- | -- | -- | 5 | -- | -- | -- | 5 |
| WLK EXT (Walk Extension) | -- | -- | -- | -- | -- | -- | -- | -- |
| **2.8.6 TSP Split Tables: 4** | | | | | | | | |
| GRN EXT (SDW Extension) | -- | 16 | -- | -- | -- | 16 | -- | -- |
| GRN RDC (Reduction) | -- | -- | -- | 1 | -- | -- | -- | 1 |
| WLK EXT (Walk Extension) | -- | -- | -- | -- | -- | -- | -- | -- |
| **2.8.6 TSP Split Tables: 15** | | | | | | | | |
| GRN EXT (SDW Extension) | -- | 16 | -- | -- | -- | 16 | -- | -- |
| GRN RDC (Reduction) | -- | -- | -- | 7 | -- | -- | -- | 7 |
| WLK EXT (Walk Extension) | -- | -- | -- | -- | -- | -- | -- | -- |
| **2.8.6 TSP Split Tables: 16** | | | | | | | | |
| GRN EXT (SDW Extension) | -- | 16 | -- | -- | -- | 16 | -- | -- |
| GRN RDC (Reduction) | -- | -- | -- | 4 | -- | -- | -- | 4 |
| WLK EXT (Walk Extension) | -- | -- | -- | -- | -- | -- | -- | -- |







*Schematic of TSP Loops and TSP Runs (N.T.S)*

TSP Loop Legend
Request (Thru)
Cancel (Thru)

| ATC Mode | 0 | 2 | 3 | 4 |
|---|---|---|---|---|
| TTC Algor'm | **B-2** | **A** | **C** | **D** |
| Extensions | SDW | Walk | W/SDW | W/SDW |

**TSP SUMMARY**

Maximum Green Extensions:
NSG:16 s Green/SDW
EW Truncation allowable to PED min by TOD

| | | | |
|---|---|---|---|
| ***LOCATION:*** | **Danforth Ave & Westlake Ave** | ***ATO (DISTRICT) / WARD:*** | **1 (Toronto & East York) / 19** |
| ***MODE/COMMENT:*** | **SAP with PR and 2-Wire Polara APS & LPI** | ***COMPUTER SYSTEM:*** | **TransSuite** |
| ***TCS:*** | **1267** | ***CONTROLLER/CABINET TYPE:*** | **Econolite ASC/3-2100 / TS2T1** |
| ***PREPARED BY/DATE:*** | **Lina Elmorshedy / April 15, 2024** | ***CONFLICT FLASH:*** | **Red & Red** |
| ***CHECKED BY/DATE:*** | **Ihtesham Ahmad / April 16, 2024** | ***DESIGN WALK SPEED:*** | **0.9 m/s (FDW based on full crossing at 1.1 m/s)** |
| ***CITY STAFF:*** | | ***CHANNEL/DROP:*** | **4008/8** |
| ***IMPLEMENTATION DATE:*** | **April 16, 2024** | ***CONTROLLER FIRMWARE:*** | **2.47.10** |

**N**

| **NEMA Phase** | | | **OFF All Other Times** | **AM 06:30-09:30 M-F** | **PM 15:00-19:00 M-F** | **NIGHT 23:00-06:30 M-F** | **WKND 10:00-19:00 Sat & Sun** | **TTC Closure** | **DVP Closure** | **Phase Mode (Fixed/Demanded/Callable)** | **Remarks** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Local Plan | | Pattern 1 | Pattern 2 | Pattern 3 | Pattern 4 | Pattern 5 | Pattern 6 | Pattern 16 | | |
| | System Plan | | Plan 1 | Plan 2 | Plan 3 | Plan 4 | Plan 5 | Plan 6 | Plan 16 | | |
| 1 NOT USED | WLK | | | | | | | | | | Pedestrian Minimums: EWWK = 8 sec, EWFD = 11 sec NSWK = 8 sec, NSFD = 17 sec |
| | FDW | | | | | | | | | | NS phase is callable by vehicle and/or pedestrian actuation. If a vehicle and/or pedestrian call is received, the maximum NSG would be served. The NSWK & NSFD are only displayed on the pedestrian signal heads if a vehicle and/or pedestrian call is received. |
| | MIN | | | | | | | | | | |
| | MAX1 | | | | | | | | | | |
| | AMB | | | | | | | | | | |
| | ALR | | | | | | | | | | |
| | SPLIT | | | | | | | | | | |
| 2 Danforth Ave | DLY GRN | 5 | | | | | | | | Fixed Split shown includes 5 sec of EW LPI | Side Street Passage Time = 3 sec |
| | WLK | 8 | | | | | | | | | APS on during 7 secs of EWWK & NSWK when activated by pushbuttons. |
| | FDW | 11 | | | | | | | | | |
| | MIN | 14 | | | | | | | | | Leading Pedestrian Interval in all directions - EWWK comes up 5 seconds before EW vehicle green. NSWK comes up 5 seconds before NS vehicle green. |
| | MAX1 | 39 | | | | | | | | | |
| | AMB | 3.0 | | | | | | | | | |
| | ALR | 4.0 | | | | | | | | | |
| | SPLIT | | 51 | 57 | 57 | 39 | 51 | 61 | 58 | | |
| 3 NOT USED | WLK | | | | | | | | | | The following grades were used to calculate the AMB intervals: East Leg = 0.6% West Leg = 0.0% North Leg = -0.6% South Leg = -2.0% |
| | FDW | | | | | | | | | | |
| | MIN | | | | | | | | | | |
| | MAX1 | | | | | | | | | | |
| | AMB | | | | | | | | | | |
| | ALR | | | | | | | | | | |
| | SPLIT | | | | | | | | | | |
| 4 Westlake Ave | DLY GRN | 5 | | | | | | | | Callable by Stopbar Loop and/or Push Button Split shown includes 5 sec of NS LPI | |
| | WLK | 8 | | | | | | | | | |
| | FDW | 17 | | | | | | | | | |
| | MIN | 20 | | | | | | | | | |
| | MAX1 | 20 | | | | | | | | | |
| | AMB | 3.0 | | | | | | | | | |
| | ALR | 4.7 | | | | | | | | | |
| | SPLIT | | 33 | 33 | 33 | 33 | 33 | 33 | 36 | | |
| 5 NOT USED | WLK | | | | | | | | | | |
| | FDW | | | | | | | | | | |
| | MIN | | | | | | | | | | |
| | MAX1 | | | | | | | | | | |
| | AMB | | | | | | | | | | |
| | ALR | | | | | | | | | | |
| | SPLIT | | | | | | | | | | |
| 6 Danforth Ave | DLY GRN | 5 | | | | | | | | Fixed Split shown includes 5 sec of EW LPI | |
| | WLK | 8 | | | | | | | | | |
| | FDW | 11 | | | | | | | | | |
| | MIN | 14 | | | | | | | | | |
| | MAX1 | 39 | | | | | | | | | |
| | AMB | 3.0 | | | | | | | | | |
| | ALR | 4.0 | | | | | | | | | |
| | SPLIT | | 51 | 57 | 57 | 39 | 51 | 61 | 58 | | |
| 7 NOT USED | WLK | | | | | | | | | | |
| | FDW | | | | | | | | | | |
| | MIN | | | | | | | | | | |
| | MAX1 | | | | | | | | | | |
| | AMB | | | | | | | | | | |
| | ALR | | | | | | | | | | |
| | SPLIT | | | | | | | | | | |
| 8 Westlake Ave | DLY GRN | 5 | | | | | | | | Callable by Stopbar Loop and/or Push Button Split shown includes 5 sec of NS LPI | |
| | WLK | 8 | | | | | | | | | |
| | FDW | 17 | | | | | | | | | |
| | MIN | 20 | | | | | | | | | |
| | MAX1 | 20 | | | | | | | | | |
| | AMB | 3.0 | | | | | | | | | |
| | ALR | 4.7 | | | | | | | | | |
| | SPLIT | | 33 | 33 | 33 | 33 | 33 | 33 | 36 | | |
| | CL | | 84 | 90 | 90 | 72 | 84 | 94 | 94 | | |
| | OF | | 37 | 28 | 85 | 57 | 66 | 1 | 66 | | |

NOTES: NS Amber and All-red values updated to reflect NS speed limit reduction to 30 km/h.

# Appendix H:
# Synchro Analysis Reports

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 10 | 380 | 180 | 540 | 65 | 80 | 240 | 45 | 205 |
| Future Volume (vph) | 10 | 380 | 180 | 540 | 65 | 80 | 240 | 45 | 205 |
| Turn Type | Perm | NA | pm+pt | NA | Perm | Perm | NA | Perm | NA |
| Protected Phases | | 4 | 3 | 8 | | | 2 | | 6 |
| Permitted Phases | 4 | | 8 | | 8 | 2 | | 6 | |
| Detector Phase | 4 | 4 | 3 | 8 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 30.0 | 30.0 | 6.0 | 30.0 | 30.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 36.7 | 36.7 | 13.4 | 36.7 | 36.7 | 31.7 | 31.7 | 31.7 | 31.7 |
| Total Split (s) | 38.0 | 38.0 | 18.0 | 56.0 | 56.0 | 34.0 | 34.0 | 34.0 | 34.0 |
| Total Split (%) | 42.2% | 42.2% | 20.0% | 62.2% | 62.2% | 37.8% | 37.8% | 37.8% | 37.8% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 3.7 | 3.7 | 4.4 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 6.7 | 6.7 | 7.4 | 6.7 | 6.7 | | 6.7 | | 6.7 |
| Lead/Lag | Lag | Lag | Lead | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | | | |
| Recall Mode | Min | Min | Min | None | None | C-Min | C-Min | C-Min | C-Min |
| Act Effct Green (s) | 31.1 | 31.1 | 47.8 | 48.5 | 48.5 | | 28.1 | | 28.1 |
| Actuated g/C Ratio | 0.35 | 0.35 | 0.53 | 0.54 | 0.54 | | 0.31 | | 0.31 |
| v/c Ratio | 0.04 | 0.82 | 0.56 | 0.57 | 0.11 | | 0.64 | | 0.38 |
| Control Delay | 15.8 | 40.8 | 17.8 | 16.3 | 3.0 | | 26.7 | | 25.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 15.8 | 40.8 | 17.8 | 16.3 | 3.0 | | 26.7 | | 25.5 |
| LOS | B | D | B | B | A | | C | | C |
| Approach Delay | | 40.3 | | 15.5 | | | 26.7 | | 25.5 |
| Approach LOS | | D | | B | | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 89 (99%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green | |
| Natural Cycle: 85 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.82 | |
| Intersection Signal Delay: 25.5 | Intersection LOS: C |
| Intersection Capacity Utilization 117.4% | ICU Level of Service H |
| Analysis Period (min) 15 | |

Splits and Phases: 1: Main Street & Danforth Avenue

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBT |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 10 | 490 | 186 | 557 | 67 | 478 | 278 |
| v/c Ratio | 0.04 | 0.82 | 0.56 | 0.57 | 0.11 | 0.64 | 0.38 |
| Control Delay | 15.8 | 40.8 | 17.8 | 16.3 | 3.0 | 26.7 | 25.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 15.8 | 40.8 | 17.8 | 16.3 | 3.0 | 26.7 | 25.5 |
| Queue Length 50th (m) | 1.7 | 93.0 | 16.5 | 62.0 | 0.0 | 32.5 | 20.0 |
| Queue Length 95th (m) | m3.3 | #135.9 | 28.1 | 92.3 | 5.8 | 50.4 | 31.6 |
| Internal Link Dist (m) | | 68.6 | | 134.2 | | 339.1 | 295.4 |
| Turn Bay Length (m) | 30.0 | | | | | | |
| Base Capacity (vph) | 253 | 604 | 342 | 1011 | 599 | 763 | 754 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.04 | 0.81 | 0.54 | 0.55 | 0.11 | 0.63 | 0.37 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 10 | 380 | 95 | 180 | 540 | 65 | 80 | 240 | 145 | 45 | 205 | 20 |
| Future Volume (vph) | 10 | 380 | 95 | 180 | 540 | 65 | 80 | 240 | 145 | 45 | 205 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 6.7 | 6.7 | | 7.4 | 6.7 | 6.7 | | 6.7 | | | 6.7 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.95 | | | 0.95 | |
| Frpb, ped/bikes | 1.00 | 0.97 | | 1.00 | 1.00 | 0.82 | | 0.92 | | | 0.95 | |
| Flpb, ped/bikes | 0.92 | 1.00 | | 0.99 | 1.00 | 1.00 | | 0.92 | | | 0.98 | |
| Frt | 1.00 | 0.97 | | 1.00 | 1.00 | 0.85 | | 0.95 | | | 0.99 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.99 | | | 0.99 | |
| Satd. Flow (prot) | 1498 | 1690 | | 1687 | 1827 | 1028 | | 2682 | | | 2896 | |
| Flt Permitted | 0.46 | 1.00 | | 0.20 | 1.00 | 1.00 | | 0.82 | | | 0.80 | |
| Satd. Flow (perm) | 718 | 1690 | | 355 | 1827 | 1028 | | 2221 | | | 2347 | |
| Peak-hour factor, PHF | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Adj. Flow (vph) | 10 | 392 | 98 | 186 | 557 | 67 | 82 | 247 | 149 | 46 | 211 | 21 |
| RTOR Reduction (vph) | 0 | 10 | 0 | 0 | 0 | 31 | 0 | 57 | 0 | 0 | 7 | 0 |
| Lane Group Flow (vph) | 10 | 480 | 0 | 186 | 557 | 36 | 0 | 421 | 0 | 0 | 271 | 0 |
| Confl. Peds. (#/hr) | 185 | | 173 | 173 | | 185 | 768 | | 139 | 139 | | 768 |
| Confl. Bikes (#/hr) | | | 6 | | | 2 | | | | | | 6 |
| Heavy Vehicles (%) | 10% | 6% | 3% | 5% | 4% | 28% | 3% | 8% | 5% | 40% | 7% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 0 | 6 | 6 |
| Turn Type | Perm | NA | | pm+pt | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | 3 | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | 8 | 2 | | | 6 | | |
| Actuated Green, G (s) | 31.2 | 31.2 | | 48.5 | 48.5 | 48.5 | | 28.1 | | | 28.1 | |
| Effective Green, g (s) | 31.2 | 31.2 | | 48.5 | 48.5 | 48.5 | | 28.1 | | | 28.1 | |
| Actuated g/C Ratio | 0.35 | 0.35 | | 0.54 | 0.54 | 0.54 | | 0.31 | | | 0.31 | |
| Clearance Time (s) | 6.7 | 6.7 | | 7.4 | 6.7 | 6.7 | | 6.7 | | | 6.7 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 248 | 585 | | 337 | 984 | 553 | | 693 | | | 732 | |
| v/s Ratio Prot | | c0.28 | | 0.06 | c0.30 | | | | | | | |
| v/s Ratio Perm | 0.01 | | | 0.24 | | 0.04 | | c0.19 | | | 0.12 | |
| v/c Ratio | 0.04 | 0.82 | | 0.55 | 0.57 | 0.07 | | 0.61 | | | 0.37 | |
| Uniform Delay, d1 | 19.5 | 26.8 | | 14.4 | 13.8 | 9.9 | | 26.3 | | | 24.1 | |
| Progression Factor | 0.80 | 1.07 | | 1.00 | 1.00 | 1.00 | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.1 | 8.7 | | 2.0 | 0.8 | 0.1 | | 3.9 | | | 1.4 | |
| Delay (s) | 15.6 | 37.3 | | 16.4 | 14.5 | 10.0 | | 30.2 | | | 25.5 | |
| Level of Service | B | D | | B | B | A | | C | | | C | |
| Approach Delay (s) | | 36.9 | | | 14.6 | | | 30.2 | | | 25.5 | |
| Approach LOS | | D | | | B | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 25.1 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.74 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 20.8 |
| Intersection Capacity Utilization | 117.4% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 15 | 475 | 600 | 40 | 10 | 30 |
| Future Volume (Veh/h) | 15 | 475 | 600 | 40 | 10 | 30 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 16 | 500 | 632 | 42 | 11 | 32 |
| Pedestrians | | 6 | 2 | | 125 | |
| Lane Width (m) | | 3.6 | 3.5 | | 3.6 | |
| Walking Speed (m/s) | | 1.2 | 1.2 | | 1.2 | |
| Percent Blockage | | 1 | 0 | | 10 | |
| Right turn flare (veh) | | | | | | |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | 172 | 93 | | | |
| pX, platoon unblocked | 0.80 | | | | 0.85 | 0.80 |
| vC, conflicting volume | 799 | | | | 1291 | 763 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 620 | | | | 982 | 575 |
| tC, single (s) | 4.1 | | | | 6.5 | 6.3 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.6 | 3.4 |
| p0 queue free % | 98 | | | | 94 | 91 |
| cM capacity (veh/h) | 692 | | | | 199 | 362 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | SB 1 |
|---|---|---|---|---|
| Volume Total | 516 | 632 | 42 | 43 |
| Volume Left | 16 | 0 | 0 | 11 |
| Volume Right | 0 | 0 | 42 | 32 |
| cSH | 692 | 1700 | 1700 | 299 |
| Volume to Capacity | 0.02 | 0.37 | 0.02 | 0.14 |
| Queue Length 95th (m) | 0.6 | 0.0 | 0.0 | 4.0 |
| Control Delay (s) | 0.6 | 0.0 | 0.0 | 19.0 |
| Lane LOS | A | | | C |
| Approach Delay (s) | 0.6 | 0.0 | | 19.0 |
| Approach LOS | | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.9 | | |
| Intersection Capacity Utilization | 48.9% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 470 | 15 | 20 | 610 | 10 | 20 |
| Future Volume (Veh/h) | 470 | 15 | 20 | 610 | 10 | 20 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Hourly flow rate (vph) | 505 | 16 | 22 | 656 | 11 | 22 |
| Pedestrians | 7 | | | 9 | 149 | |
| Lane Width (m) | 3.6 | | | 3.6 | 3.6 | |
| Walking Speed (m/s) | 1.2 | | | 1.2 | 1.2 | |
| Percent Blockage | 1 | | | 1 | 12 | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | 136 | | | 128 | | |
| pX, platoon unblocked | | | 0.89 | | 0.85 | 0.89 |
| vC, conflicting volume | | | 670 | | 1369 | 671 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 564 | | 1048 | 565 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 97 | | 94 | 95 |
| cM capacity (veh/h) | | | 790 | | 184 | 407 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 521 | 678 | 33 |
| Volume Left | 0 | 22 | 11 |
| Volume Right | 16 | 0 | 22 |
| cSH | 1700 | 790 | 290 |
| Volume to Capacity | 0.31 | 0.03 | 0.11 |
| Queue Length 95th (m) | 0.0 | 0.7 | 3.0 |
| Control Delay (s) | 0.0 | 0.7 | 19.0 |
| Lane LOS | | A | C |
| Approach Delay (s) | 0.0 | 0.7 | 19.0 |
| Approach LOS | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.9 | | |
| Intersection Capacity Utilization | 60.8% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 480 | 5 | 0 | 620 | 0 | 5 |
| Future Volume (Veh/h) | 480 | 5 | 0 | 620 | 0 | 5 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Hourly flow rate (vph) | 516 | 5 | 0 | 667 | 0 | 5 |
| Pedestrians | 2 | | | | | |
| Lane Width (m) | 3.6 | | | | | |
| Walking Speed (m/s) | 1.2 | | | | | |
| Percent Blockage | 0 | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | 49 | | | 215 | | |
| pX, platoon unblocked | | | 0.88 | | 0.86 | 0.88 |
| vC, conflicting volume | | | 521 | | 1188 | 518 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 392 | | 833 | 389 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 100 | | 100 | 99 |
| cM capacity (veh/h) | | | 1040 | | 294 | 586 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 521 | 667 | 5 |
| Volume Left | 0 | 0 | 0 |
| Volume Right | 5 | 0 | 5 |
| cSH | 1700 | 1040 | 586 |
| Volume to Capacity | 0.31 | 0.00 | 0.01 |
| Queue Length 95th (m) | 0.0 | 0.0 | 0.2 |
| Control Delay (s) | 0.0 | 0.0 | 11.2 |
| Lane LOS | | | B |
| Approach Delay (s) | 0.0 | 0.0 | 11.2 |
| Approach LOS | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.0 | | |
| Intersection Capacity Utilization | 42.6% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 0 | 5 | 30 | 0 | 5 | 25 |
| Future Volume (Veh/h) | 0 | 5 | 30 | 0 | 5 | 25 |
| Sign Control | Stop | | Free | | | Free |
| Grade | 0% | | 0% | | | 0% |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 5 | 33 | 0 | 5 | 27 |
| Pedestrians | 20 | | 7 | | | 2 |
| Lane Width (m) | 3.6 | | 3.6 | | | 3.6 |
| Walking Speed (m/s) | 1.2 | | 1.2 | | | 1.2 |
| Percent Blockage | 2 | | 1 | | | 0 |
| Right turn flare (veh) | | | | | | |
| Median type | | | None | | | None |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | | | | | 43 |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 97 | 55 | | | 53 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 97 | 55 | | | 53 | |
| tC, single (s) | 6.4 | 6.2 | | | 4.3 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | | | 2.4 | |
| p0 queue free % | 100 | 99 | | | 100 | |
| cM capacity (veh/h) | 884 | 999 | | | 1421 | |

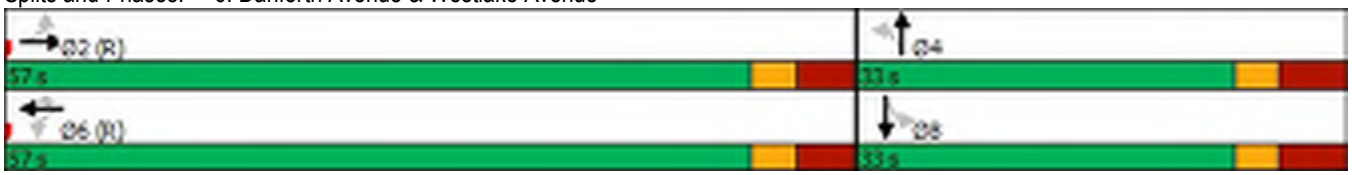
| Direction, Lane # | WB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 5 | 33 | 32 |
| Volume Left | 0 | 0 | 5 |
| Volume Right | 5 | 0 | 0 |
| cSH | 999 | 1700 | 1421 |
| Volume to Capacity | 0.01 | 0.02 | 0.00 |
| Queue Length 95th (m) | 0.1 | 0.0 | 0.1 |
| Control Delay (s) | 8.6 | 0.0 | 1.2 |
| Lane LOS | A | | A |
| Approach Delay (s) | 8.6 | 0.0 | 1.2 |
| Approach LOS | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 1.2 | | |
| Intersection Capacity Utilization | 18.8% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 20 | 455 | 15 | 585 | 20 | 20 | 10 | 20 | 5 |
| Future Volume (vph) | 20 | 455 | 15 | 585 | 20 | 20 | 10 | 20 | 5 |
| Turn Type | Perm | NA | Perm | NA | Perm | Perm | NA | Perm | NA |
| Protected Phases | | 2 | | 6 | | | 4 | | 8 |
| Permitted Phases | 2 | | 6 | | 6 | 4 | | 8 | |
| Detector Phase | 2 | 2 | 6 | 6 | 6 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 14.0 | 14.0 | 14.0 | 14.0 | 14.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 32.7 | 32.7 | 32.7 | 32.7 |
| Total Split (s) | 57.0 | 57.0 | 57.0 | 57.0 | 57.0 | 33.0 | 33.0 | 33.0 | 33.0 |
| Total Split (%) | 63.3% | 63.3% | 63.3% | 63.3% | 63.3% | 36.7% | 36.7% | 36.7% | 36.7% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.7 | 4.7 | 4.7 | 4.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.7 | | 7.7 |
| Lead/Lag | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | |
| Recall Mode | C-Min | C-Min | C-Min | C-Min | C-Min | None | None | None | None |
| Act Effct Green (s) | 69.2 | 69.2 | 69.2 | 69.2 | 69.2 | | 20.0 | | 20.0 |
| Actuated g/C Ratio | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 | | 0.22 | | 0.22 |
| v/c Ratio | 0.04 | 0.37 | 0.03 | 0.44 | 0.02 | | 0.14 | | 0.16 |
| Control Delay | 15.4 | 17.5 | 11.6 | 12.9 | 11.1 | | 23.9 | | 18.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 15.4 | 17.5 | 11.6 | 12.9 | 11.1 | | 23.9 | | 18.3 |
| LOS | B | B | B | B | B | | C | | B |
| Approach Delay | | 17.4 | | 12.8 | | | 23.8 | | 18.3 |
| Approach LOS | | B | | B | | | C | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 28 (31%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | |
| Natural Cycle: 65 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.44 | |
| Intersection Signal Delay: 15.3 | Intersection LOS: B |
| Intersection Capacity Utilization 64.8% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Danforth Avenue & Westlake Avenue



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBT |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 21 | 500 | 16 | 622 | 21 | 43 | 53 |
| v/c Ratio | 0.04 | 0.37 | 0.03 | 0.44 | 0.02 | 0.14 | 0.16 |
| Control Delay | 15.4 | 17.5 | 11.6 | 12.9 | 11.1 | 23.9 | 18.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 15.4 | 17.5 | 11.6 | 12.9 | 11.1 | 23.9 | 18.3 |
| Queue Length 50th (m) | 2.9 | 87.0 | 1.5 | 75.2 | 2.0 | 4.7 | 3.8 |
| Queue Length 95th (m) | m6.7 | 109.3 | m2.9 | 95.1 | m3.8 | 13.6 | 13.6 |
| Internal Link Dist (m) | | 139.2 | | 25.3 | | 0.7 | 152.8 |
| Turn Bay Length (m) | 35.0 | | 20.0 | | 20.0 | | |
| Base Capacity (vph) | 468 | 1361 | 526 | 1404 | 893 | 393 | 401 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.04 | 0.37 | 0.03 | 0.44 | 0.02 | 0.11 | 0.13 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 20 | 455 | 15 | 15 | 585 | 20 | 20 | 10 | 10 | 20 | 5 | 25 |
| Future Volume (vph) | 20 | 455 | 15 | 15 | 585 | 20 | 20 | 10 | 10 | 20 | 5 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.7 | | | 7.7 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.99 | | 1.00 | 1.00 | 0.77 | | 0.98 | | | 0.95 | |
| Flpb, ped/bikes | 0.93 | 1.00 | | 0.91 | 1.00 | 1.00 | | 0.97 | | | 0.98 | |
| Frt | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 0.97 | | | 0.93 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.98 | | | 0.98 | |
| Satd. Flow (prot) | 1491 | 1770 | | 1406 | 1827 | 1162 | | 1637 | | | 1562 | |
| Flt Permitted | 0.38 | 1.00 | | 0.46 | 1.00 | 1.00 | | 0.82 | | | 0.85 | |
| Satd. Flow (perm) | 598 | 1770 | | 674 | 1827 | 1162 | | 1372 | | | 1356 | |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 21 | 484 | 16 | 16 | 622 | 21 | 21 | 11 | 11 | 21 | 5 | 27 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 23 | 0 |
| Lane Group Flow (vph) | 21 | 499 | 0 | 16 | 622 | 21 | 0 | 33 | 0 | 0 | 30 | 0 |
| Confl. Peds. (#/hr) | 90 | | 87 | 87 | | 90 | 38 | | 28 | 28 | | 38 |
| Confl. Bikes (#/hr) | | | | | | | | | 3 | | | 1 |
| Heavy Vehicles (%) | 11% | 6% | 8% | 15% | 4% | 6% | 8% | 0% | 0% | 5% | 0% | 4% |
| Turn Type | Perm | NA | | Perm | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 4 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | 6 | 4 | | | 8 | | |
| Actuated Green, G (s) | 63.3 | 63.3 | | 63.3 | 63.3 | 63.3 | | 12.0 | | | 12.0 | |
| Effective Green, g (s) | 63.3 | 63.3 | | 63.3 | 63.3 | 63.3 | | 12.0 | | | 12.0 | |
| Actuated g/C Ratio | 0.70 | 0.70 | | 0.70 | 0.70 | 0.70 | | 0.13 | | | 0.13 | |
| Clearance Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.7 | | | 7.7 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 420 | 1244 | | 474 | 1284 | 817 | | 182 | | | 180 | |
| v/s Ratio Prot | | 0.28 | | | c0.34 | | | | | | | |
| v/s Ratio Perm | 0.04 | | | 0.02 | | 0.02 | | c0.02 | | | 0.02 | |
| v/c Ratio | 0.05 | 0.40 | | 0.03 | 0.48 | 0.03 | | 0.18 | | | 0.16 | |
| Uniform Delay, d1 | 4.1 | 5.5 | | 4.1 | 6.0 | 4.0 | | 34.6 | | | 34.6 | |
| Progression Factor | 2.23 | 2.39 | | 1.68 | 1.55 | 1.67 | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.2 | 0.9 | | 0.1 | 1.2 | 0.1 | | 0.5 | | | 0.4 | |
| Delay (s) | 9.4 | 14.1 | | 7.0 | 10.5 | 6.8 | | 35.1 | | | 35.0 | |
| Level of Service | A | B | | A | B | A | | D | | | C | |
| Approach Delay (s) | | 13.9 | | | 10.3 | | | 35.1 | | | 35.0 | |
| Approach LOS | | B | | | B | | | D | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 13.6 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.44 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 14.7 |
| Intersection Capacity Utilization | 64.8% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 0 | 15 | 0 | 5 | 10 | 15 | 0 | 15 | 5 | 10 | 10 | 5 |
| Future Volume (vph) | 0 | 15 | 0 | 5 | 10 | 15 | 0 | 15 | 5 | 10 | 10 | 5 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 16 | 0 | 5 | 11 | 16 | 0 | 16 | 5 | 11 | 11 | 5 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 16 | 32 | 21 | 27 |
| Volume Left (vph) | 0 | 5 | 0 | 11 |
| Volume Right (vph) | 0 | 16 | 5 | 5 |
| Hadj (s) | 0.00 | -0.14 | -0.01 | 0.10 |
| Departure Headway (s) | 4.0 | 3.9 | 4.0 | 4.1 |
| Degree Utilization, x | 0.02 | 0.03 | 0.02 | 0.03 |
| Capacity (veh/h) | 875 | 912 | 873 | 858 |
| Control Delay (s) | 7.1 | 7.0 | 7.1 | 7.3 |
| Approach Delay (s) | 7.1 | 7.0 | 7.1 | 7.3 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 7.1 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 30.2% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBR | SEL | SER |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 475 | 10 | 15 | 600 | 15 | 5 | 15 | 0 | 0 |
| Future Volume (Veh/h) | 0 | 475 | 10 | 15 | 600 | 15 | 5 | 15 | 0 | 0 |
| Sign Control | | Free | | | Free | | Stop | | Stop | |
| Grade | | 0% | | | 0% | | 0% | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 516 | 11 | 16 | 652 | 16 | 5 | 16 | 0 | 0 |
| Pedestrians | | | | | | | 90 | | 150 | |
| Lane Width (m) | | | | | | | 3.6 | | 3.6 | |
| Walking Speed (m/s) | | | | | | | 1.2 | | 1.2 | |
| Percent Blockage | | | | | | | 8 | | 12 | |
| Right turn flare (veh) | | | | | | | | | | |
| Median type | | None | | | None | | | | | |
| Median storage veh) | | | | | | | | | | |
| Upstream signal (m) | | 143 | | | 163 | | | | | |
| pX, platoon unblocked | 0.83 | | | 0.86 | | | 0.90 | 0.86 | 0.90 | 0.90 |
| vC, conflicting volume | 818 | | | 617 | | | 1462 | 612 | 1382 | 1459 |
| vC1, stage 1 conf vol | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | |
| vCu, unblocked vol | 681 | | | 476 | | | 1115 | 470 | 1027 | 1112 |
| tC, single (s) | 4.1 | | | 4.2 | | | 6.5 | 6.3 | 7.1 | 6.5 |
| tC, 2 stage (s) | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.3 | | | 4.0 | 3.4 | 3.5 | 4.0 |
| p0 queue free % | 100 | | | 98 | | | 97 | 97 | 100 | 100 |
| cM capacity (veh/h) | 671 | | | 846 | | | 150 | 465 | 133 | 149 |

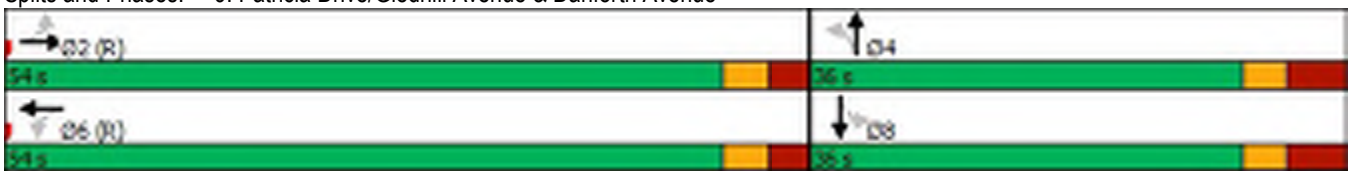
| Direction, Lane # | EB 1 | WB 1 | NB 1 | SE 1 |
|---|---|---|---|---|
| Volume Total | 527 | 684 | 21 | 0 |
| Volume Left | 0 | 16 | 0 | 0 |
| Volume Right | 11 | 16 | 16 | 0 |
| cSH | 671 | 846 | 310 | 1700 |
| Volume to Capacity | 0.00 | 0.02 | 0.07 | 0.00 |
| Queue Length 95th (m) | 0.0 | 0.5 | 1.7 | 0.0 |
| Control Delay (s) | 0.0 | 0.5 | 17.4 | 0.0 |
| Lane LOS | | A | C | A |
| Approach Delay (s) | 0.0 | 0.5 | 17.4 | 0.0 |
| Approach LOS | | | C | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.6 | | |
| Intersection Capacity Utilization | 54.8% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 30 | 440 | 10 | 615 | 60 | 20 | 30 | 10 |
| Future Volume (vph) | 30 | 440 | 10 | 615 | 60 | 20 | 30 | 10 |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | NA |
| Protected Phases | | 2 | | 6 | | 4 | | 8 |
| Permitted Phases | 2 | | 6 | | 4 | | 8 | |
| Detector Phase | 2 | 2 | 6 | 6 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 19.0 | 19.0 | 19.0 | 19.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Minimum Split (s) | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 |
| Total Split (s) | 54.0 | 54.0 | 54.0 | 54.0 | 36.0 | 36.0 | 36.0 | 36.0 |
| Total Split (%) | 60.0% | 60.0% | 60.0% | 60.0% | 40.0% | 40.0% | 40.0% | 40.0% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 2.9 | 2.9 | 2.9 | 2.9 | 4.1 | 4.1 | 4.1 | 4.1 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 5.9 | 5.9 | 5.9 | | 7.1 | | 7.1 |
| Lead/Lag | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | |
| Recall Mode | C-Min | C-Min | C-Min | C-Min | None | None | None | None |
| Act Effct Green (s) | 61.2 | 61.2 | 61.2 | 61.2 | | 23.0 | | 23.0 |
| Actuated g/C Ratio | 0.68 | 0.68 | 0.68 | 0.68 | | 0.26 | | 0.26 |
| v/c Ratio | 0.09 | 0.43 | 0.02 | 0.31 | | 0.33 | | 0.25 |
| Control Delay | 8.5 | 10.4 | 3.4 | 5.1 | | 27.4 | | 18.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 8.5 | 10.4 | 3.4 | 5.1 | | 27.4 | | 18.0 |
| LOS | A | B | A | A | | C | | B |
| Approach Delay | | 10.3 | | 5.0 | | 27.4 | | 18.0 |
| Approach LOS | | B | | A | | C | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 63 (70%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.43 | |
| Intersection Signal Delay: 9.3 | Intersection LOS: A |
| Intersection Capacity Utilization 59.1% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Patricia Drive/Gledhill Avenue & Danforth Avenue



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 33 | 511 | 11 | 716 | 101 | 83 |
| v/c Ratio | 0.09 | 0.43 | 0.02 | 0.31 | 0.33 | 0.25 |
| Control Delay | 8.5 | 10.4 | 3.4 | 5.1 | 27.4 | 18.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 8.5 | 10.4 | 3.4 | 5.1 | 27.4 | 18.0 |
| Queue Length 50th (m) | 2.4 | 47.7 | 0.4 | 28.7 | 13.1 | 6.2 |
| Queue Length 95th (m) | 6.6 | 72.2 | m0.8 | 25.2 | 27.7 | 18.4 |
| Internal Link Dist (m) | | 219.0 | | 119.1 | 113.2 | 112.4 |
| Turn Bay Length (m) | 30.0 | | 20.0 | | | |
| Base Capacity (vph) | 377 | 1189 | 461 | 2322 | 384 | 410 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.09 | 0.43 | 0.02 | 0.31 | 0.26 | 0.20 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 30 | 440 | 20 | 10 | 615 | 30 | 60 | 20 | 15 | 30 | 10 | 35 |
| Future Volume (vph) | 30 | 440 | 20 | 10 | 615 | 30 | 60 | 20 | 15 | 30 | 10 | 35 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 5.9 | 5.9 | | 5.9 | 5.9 | | | 7.1 | | | 7.1 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | 1.00 | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.99 | | 1.00 | 0.98 | | | 0.98 | | | 0.91 | |
| Flpb, ped/bikes | 0.86 | 1.00 | | 0.94 | 1.00 | | | 0.90 | | | 0.97 | |
| Frt | 1.00 | 0.99 | | 1.00 | 0.99 | | | 0.98 | | | 0.94 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.97 | | | 0.98 | |
| Satd. Flow (prot) | 1433 | 1746 | | 1518 | 3413 | | | 1489 | | | 1398 | |
| Flt Permitted | 0.36 | 1.00 | | 0.42 | 1.00 | | | 0.76 | | | 0.84 | |
| Satd. Flow (perm) | 549 | 1746 | | 675 | 3413 | | | 1173 | | | 1197 | |
| Peak-hour factor, PHF | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.97 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 33 | 489 | 22 | 11 | 683 | 33 | 62 | 22 | 17 | 33 | 11 | 39 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 10 | 0 | 0 | 31 | 0 |
| Lane Group Flow (vph) | 33 | 510 | 0 | 11 | 713 | 0 | 0 | 91 | 0 | 0 | 52 | 0 |
| Confl. Peds. (#/hr) | 214 | | 81 | 81 | | 214 | 192 | | 56 | 56 | | 192 |
| Confl. Bikes (#/hr) | | | 2 | | | 3 | | | | | | |
| Heavy Vehicles (%) | 7% | 7% | 14% | 10% | 3% | 4% | 3% | 11% | 15% | 6% | 22% | 10% |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 4 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Actuated Green, G (s) | 58.6 | 58.6 | | 58.6 | 58.6 | | | 18.4 | | | 18.4 | |
| Effective Green, g (s) | 58.6 | 58.6 | | 58.6 | 58.6 | | | 18.4 | | | 18.4 | |
| Actuated g/C Ratio | 0.65 | 0.65 | | 0.65 | 0.65 | | | 0.20 | | | 0.20 | |
| Clearance Time (s) | 5.9 | 5.9 | | 5.9 | 5.9 | | | 7.1 | | | 7.1 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 357 | 1136 | | 439 | 2222 | | | 239 | | | 244 | |
| v/s Ratio Prot | | c0.29 | | | 0.21 | | | | | | | |
| v/s Ratio Perm | 0.06 | | | 0.02 | | | | c0.08 | | | 0.04 | |
| v/c Ratio | 0.09 | 0.45 | | 0.03 | 0.32 | | | 0.38 | | | 0.21 | |
| Uniform Delay, d1 | 5.8 | 7.7 | | 5.6 | 6.9 | | | 30.9 | | | 29.8 | |
| Progression Factor | 1.00 | 1.00 | | 0.44 | 0.60 | | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.5 | 1.3 | | 0.1 | 0.4 | | | 1.0 | | | 0.4 | |
| Delay (s) | 6.3 | 9.0 | | 2.5 | 4.5 | | | 31.9 | | | 30.2 | |
| Level of Service | A | A | | A | A | | | C | | | C | |
| Approach Delay (s) | | 8.9 | | | 4.5 | | | 31.9 | | | 30.2 | |
| Approach LOS | | A | | | A | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 9.5 | HCM 2000 Level of Service | A |
| HCM 2000 Volume to Capacity ratio | 0.43 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 13.0 |
| Intersection Capacity Utilization | 59.1% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 5 | 0 | 0 | 35 | 30 | 5 |
| Future Volume (Veh/h) | 5 | 0 | 0 | 35 | 30 | 5 |
| Sign Control | Stop | | | Free | Free | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 5 | 0 | 0 | 38 | 33 | 5 |
| Pedestrians | 1 | | | 1 | 17 | |
| Lane Width (m) | 3.6 | | | 3.6 | 3.6 | |
| Walking Speed (m/s) | 1.2 | | | 1.2 | 1.2 | |
| Percent Blockage | 0 | | | 0 | 1 | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | None | None | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | | | | 25 | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 92 | 38 | 39 | | | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 92 | 38 | 39 | | | |
| tC, single (s) | 6.4 | 6.2 | 4.1 | | | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | 2.2 | | | |
| p0 queue free % | 99 | 100 | 100 | | | |
| cM capacity (veh/h) | 900 | 1039 | 1583 | | | |

| Direction, Lane # | EB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 5 | 38 | 38 |
| Volume Left | 5 | 0 | 0 |
| Volume Right | 0 | 0 | 5 |
| cSH | 900 | 1583 | 1700 |
| Volume to Capacity | 0.01 | 0.00 | 0.02 |
| Queue Length 95th (m) | 0.1 | 0.0 | 0.0 |
| Control Delay (s) | 9.0 | 0.0 | 0.0 |
| Lane LOS | A | | |
| Approach Delay (s) | 9.0 | 0.0 | 0.0 |
| Approach LOS | A | | |

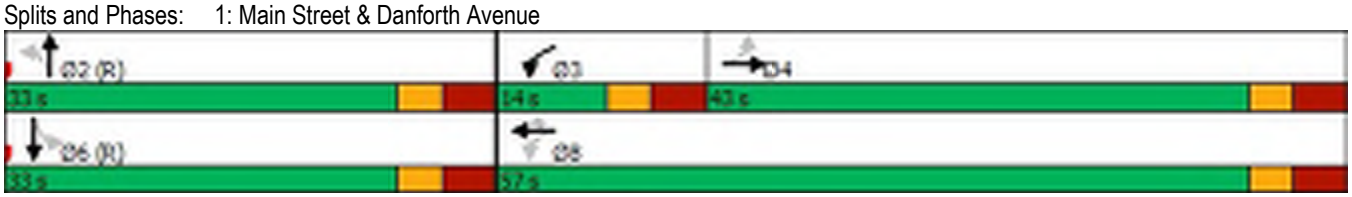
| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.6 | | |
| Intersection Capacity Utilization | 14.0% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 25 | 375 | 155 | 375 | 75 | 90 | 225 | 50 | 245 |
| Future Volume (vph) | 25 | 375 | 155 | 375 | 75 | 90 | 225 | 50 | 245 |
| Turn Type | Perm | NA | pm+pt | NA | Perm | Perm | NA | Perm | NA |
| Protected Phases | | 4 | 3 | 8 | | | 2 | | 6 |
| Permitted Phases | 4 | | 8 | | 8 | 2 | | 6 | |
| Detector Phase | 4 | 4 | 3 | 8 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 30.0 | 30.0 | 6.0 | 30.0 | 30.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 36.7 | 36.7 | 12.7 | 36.7 | 36.7 | 28.7 | 28.7 | 28.7 | 28.7 |
| Total Split (s) | 43.0 | 43.0 | 14.0 | 57.0 | 57.0 | 33.0 | 33.0 | 33.0 | 33.0 |
| Total Split (%) | 47.8% | 47.8% | 15.6% | 63.3% | 63.3% | 36.7% | 36.7% | 36.7% | 36.7% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | | 6.7 | | 6.7 |
| Lead/Lag | Lag | Lag | Lead | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | | | |
| Recall Mode | None | None | Min | None | None | C-Min | C-Min | C-Min | C-Min |
| Act Effct Green (s) | 31.9 | 31.9 | 46.8 | 46.8 | 46.8 | | 29.8 | | 29.8 |
| Actuated g/C Ratio | 0.35 | 0.35 | 0.52 | 0.52 | 0.52 | | 0.33 | | 0.33 |
| v/c Ratio | 0.09 | 0.77 | 0.52 | 0.41 | 0.12 | | 0.70 | | 0.43 |
| Control Delay | 28.8 | 44.4 | 17.2 | 14.4 | 4.9 | | 24.6 | | 25.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 28.8 | 44.4 | 17.2 | 14.4 | 4.9 | | 24.6 | | 25.6 |
| LOS | C | D | B | B | A | | C | | C |
| Approach Delay | | 43.6 | | 13.9 | | | 24.6 | | 25.6 |
| Approach LOS | | D | | B | | | C | | C |

## Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 70 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 26.1 — Intersection LOS: C
Intersection Capacity Utilization 109.0% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 1: Main Street & Danforth Avenue



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBT |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 26 | 469 | 161 | 391 | 78 | 536 | 328 |
| v/c Ratio | 0.09 | 0.77 | 0.52 | 0.41 | 0.12 | 0.70 | 0.43 |
| Control Delay | 28.8 | 44.4 | 17.2 | 14.4 | 4.9 | 24.6 | 25.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 28.8 | 44.4 | 17.2 | 14.4 | 4.9 | 24.6 | 25.6 |
| Queue Length 50th (m) | 4.4 | 89.2 | 14.8 | 41.1 | 2.1 | 31.1 | 23.5 |
| Queue Length 95th (m) | 11.8 | 119.7 | 23.5 | 56.7 | 8.2 | #55.5 | 38.4 |
| Internal Link Dist (m) | | 68.6 | | 134.2 | | 339.1 | 295.4 |
| Turn Bay Length (m) | 30.0 | | | | | | |
| Base Capacity (vph) | 346 | 696 | 312 | 1031 | 700 | 764 | 769 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.08 | 0.67 | 0.52 | 0.38 | 0.11 | 0.70 | 0.43 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 25 | 375 | 75 | 155 | 375 | 75 | 90 | 225 | 200 | 50 | 245 | 20 |
| Future Volume (vph) | 25 | 375 | 75 | 155 | 375 | 75 | 90 | 225 | 200 | 50 | 245 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 6.7 | 6.7 | | 6.7 | 6.7 | 6.7 | | 6.7 | | | 6.7 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.95 | | | 0.95 | |
| Frpb, ped/bikes | 1.00 | 0.96 | | 1.00 | 1.00 | 0.77 | | 0.83 | | | 0.96 | |
| Flpb, ped/bikes | 0.87 | 1.00 | | 0.98 | 1.00 | 1.00 | | 0.92 | | | 0.97 | |
| Frt | 1.00 | 0.98 | | 1.00 | 1.00 | 0.85 | | 0.94 | | | 0.99 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.99 | | | 0.99 | |
| Satd. Flow (prot) | 1535 | 1707 | | 1642 | 1845 | 1211 | | 2450 | | | 2940 | |
| Flt Permitted | 0.53 | 1.00 | | 0.23 | 1.00 | 1.00 | | 0.80 | | | 0.78 | |
| Satd. Flow (perm) | 858 | 1707 | | 401 | 1845 | 1211 | | 1987 | | | 2309 | |
| Peak-hour factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Adj. Flow (vph) | 26 | 391 | 78 | 161 | 391 | 78 | 94 | 234 | 208 | 52 | 255 | 21 |
| RTOR Reduction (vph) | 0 | 8 | 0 | 0 | 0 | 25 | 0 | 106 | 0 | 0 | 5 | 0 |
| Lane Group Flow (vph) | 26 | 461 | 0 | 161 | 391 | 53 | 0 | 430 | 0 | 0 | 323 | 0 |
| Confl. Peds. (#/hr) | 251 | | 260 | 260 | | 251 | 689 | | 212 | 212 | | 689 |
| Confl. Bikes (#/hr) | | | 1 | | | 2 | | | 3 | | | 2 |
| Heavy Vehicles (%) | 1% | 1% | 20% | 7% | 3% | 1% | 2% | 8% | 0% | 31% | 7% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 0 | 6 | 6 |
| Turn Type | Perm | NA | | pm+pt | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | 3 | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | 8 | 2 | | | 6 | | |
| Actuated Green, G (s) | 31.9 | 31.9 | | 46.8 | 46.8 | 46.8 | | 29.8 | | | 29.8 | |
| Effective Green, g (s) | 31.9 | 31.9 | | 46.8 | 46.8 | 46.8 | | 29.8 | | | 29.8 | |
| Actuated g/C Ratio | 0.35 | 0.35 | | 0.52 | 0.52 | 0.52 | | 0.33 | | | 0.33 | |
| Clearance Time (s) | 6.7 | 6.7 | | 6.7 | 6.7 | 6.7 | | 6.7 | | | 6.7 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 304 | 605 | | 321 | 959 | 629 | | 657 | | | 764 | |
| v/s Ratio Prot | | c0.27 | | 0.05 | c0.21 | | | | | | | |
| v/s Ratio Perm | 0.03 | | | 0.21 | | 0.04 | | c0.22 | | | 0.14 | |
| v/c Ratio | 0.09 | 0.76 | | 0.50 | 0.41 | 0.08 | | 0.65 | | | 0.42 | |
| Uniform Delay, d1 | 19.3 | 25.7 | | 14.4 | 13.2 | 10.8 | | 25.7 | | | 23.4 | |
| Progression Factor | 1.53 | 1.42 | | 1.00 | 1.00 | 1.00 | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.1 | 5.5 | | 1.2 | 0.3 | 0.1 | | 5.0 | | | 1.7 | |
| Delay (s) | 29.6 | 42.1 | | 15.6 | 13.4 | 10.9 | | 30.7 | | | 25.1 | |
| Level of Service | C | D | | B | B | B | | C | | | C | |
| Approach Delay (s) | | 41.4 | | | 13.7 | | | 30.7 | | | 25.1 | |
| Approach LOS | | D | | | B | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 27.1 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.70 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 20.1 |
| Intersection Capacity Utilization | 109.0% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 15 | 455 | 455 | 30 | 20 | 25 |
| Future Volume (Veh/h) | 15 | 455 | 455 | 30 | 20 | 25 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 16 | 495 | 495 | 33 | 22 | 27 |
| Pedestrians | | 4 | 6 | | 192 | |
| Lane Width (m) | | 3.6 | 3.5 | | 3.6 | |
| Walking Speed (m/s) | | 1.2 | 1.2 | | 1.2 | |
| Percent Blockage | | 0 | 0 | | 16 | |
| Right turn flare (veh) | | | | | | |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | 172 | 93 | | | |
| pX, platoon unblocked | 0.87 | | | | 0.92 | 0.87 |
| vC, conflicting volume | 720 | | | | 1220 | 691 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 607 | | | | 989 | 574 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 98 | | | | 89 | 93 |
| cM capacity (veh/h) | 720 | | | | 206 | 376 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | SB 1 |
|---|---|---|---|---|
| Volume Total | 511 | 495 | 33 | 49 |
| Volume Left | 16 | 0 | 0 | 22 |
| Volume Right | 0 | 0 | 33 | 27 |
| cSH | 720 | 1700 | 1700 | 275 |
| Volume to Capacity | 0.02 | 0.29 | 0.02 | 0.18 |
| Queue Length 95th (m) | 0.5 | 0.0 | 0.0 | 5.1 |
| Control Delay (s) | 0.6 | 0.0 | 0.0 | 20.9 |
| Lane LOS | A | | | C |
| Approach Delay (s) | 0.6 | 0.0 | | 20.9 |
| Approach LOS | | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 1.2 | | |
| Intersection Capacity Utilization | 47.3% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 445 | 10 | 10 | 470 | 10 | 25 |
| Future Volume (Veh/h) | 445 | 10 | 10 | 470 | 10 | 25 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 468 | 11 | 11 | 495 | 11 | 26 |
| Pedestrians | 3 | | | 13 | 295 | |
| Lane Width (m) | 3.6 | | | 3.6 | 3.6 | |
| Walking Speed (m/s) | 1.2 | | | 1.2 | 1.2 | |
| Percent Blockage | 0 | | | 1 | 25 | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | 136 | | | 128 | | |
| pX, platoon unblocked | | | 0.91 | | 0.92 | 0.91 |
| vC, conflicting volume | | | 774 | | 1288 | 782 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 701 | | 1050 | 710 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 98 | | 94 | 91 |
| cM capacity (veh/h) | | | 621 | | 173 | 296 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 479 | 506 | 37 |
| Volume Left | 0 | 11 | 11 |
| Volume Right | 11 | 0 | 26 |
| cSH | 1700 | 621 | 245 |
| Volume to Capacity | 0.28 | 0.02 | 0.15 |
| Queue Length 95th (m) | 0.0 | 0.4 | 4.2 |
| Control Delay (s) | 0.0 | 0.5 | 22.3 |
| Lane LOS | | A | C |
| Approach Delay (s) | 0.0 | 0.5 | 22.3 |
| Approach LOS | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 1.1 | | |
| Intersection Capacity Utilization | 46.3% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 450 | 5 | 5 | 475 | 0 | 5 |
| Future Volume (Veh/h) | 450 | 5 | 5 | 475 | 0 | 5 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Hourly flow rate (vph) | 469 | 5 | 5 | 495 | 0 | 5 |
| Pedestrians | 4 | | | 2 | | |
| Lane Width (m) | 3.6 | | | 3.6 | | |
| Walking Speed (m/s) | 1.2 | | | 1.2 | | |
| Percent Blockage | 0 | | | 0 | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | 49 | | | 215 | | |
| pX, platoon unblocked | | | 0.90 | | 0.94 | 0.90 |
| vC, conflicting volume | | | 474 | | 980 | 474 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 365 | | 720 | 365 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.4 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.5 |
| p0 queue free % | | | 100 | | 100 | 99 |
| cM capacity (veh/h) | | | 1089 | | 372 | 585 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 474 | 500 | 5 |
| Volume Left | 0 | 5 | 0 |
| Volume Right | 5 | 0 | 5 |
| cSH | 1700 | 1089 | 585 |
| Volume to Capacity | 0.28 | 0.00 | 0.01 |
| Queue Length 95th (m) | 0.0 | 0.1 | 0.2 |
| Control Delay (s) | 0.0 | 0.1 | 11.2 |
| Lane LOS | | A | B |
| Approach Delay (s) | 0.0 | 0.1 | 11.2 |
| Approach LOS | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.1 | | |
| Intersection Capacity Utilization | 39.6% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 5 | 10 | 35 | 5 | 10 | 20 |
| Future Volume (Veh/h) | 5 | 10 | 35 | 5 | 10 | 20 |
| Sign Control | Stop | | Free | | | Free |
| Grade | 0% | | 0% | | | 0% |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 5 | 11 | 38 | 5 | 11 | 22 |
| Pedestrians | 34 | | 6 | | | 6 |
| Lane Width (m) | 3.6 | | 3.6 | | | 3.6 |
| Walking Speed (m/s) | 1.2 | | 1.2 | | | 1.2 |
| Percent Blockage | 3 | | 1 | | | 1 |
| Right turn flare (veh) | | | | | | |
| Median type | | | None | | | None |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | | | | | 43 |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 124 | 80 | | | 77 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 124 | 80 | | | 77 | |
| tC, single (s) | 6.4 | 6.2 | | | 4.1 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | | | 2.2 | |
| p0 queue free % | 99 | 99 | | | 99 | |
| cM capacity (veh/h) | 840 | 952 | | | 1491 | |

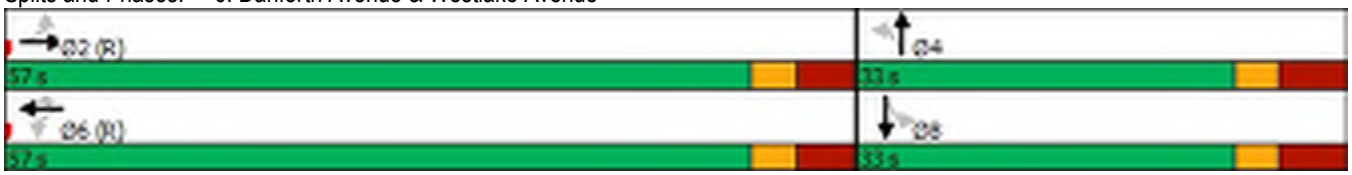
| Direction, Lane # | WB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 16 | 43 | 33 |
| Volume Left | 5 | 0 | 11 |
| Volume Right | 11 | 5 | 0 |
| cSH | 914 | 1700 | 1491 |
| Volume to Capacity | 0.02 | 0.03 | 0.01 |
| Queue Length 95th (m) | 0.4 | 0.0 | 0.2 |
| Control Delay (s) | 9.0 | 0.0 | 2.5 |
| Lane LOS | A | | A |
| Approach Delay (s) | 9.0 | 0.0 | 2.5 |
| Approach LOS | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 2.5 | | |
| Intersection Capacity Utilization | 21.9% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 40 | 415 | 10 | 445 | 20 | 25 | 10 | 30 | 5 |
| Future Volume (vph) | 40 | 415 | 10 | 445 | 20 | 25 | 10 | 30 | 5 |
| Turn Type | Perm | NA | Perm | NA | Perm | Perm | NA | Perm | NA |
| Protected Phases | | 2 | | 6 | | | 4 | | 8 |
| Permitted Phases | 2 | | 6 | | 6 | 4 | | 8 | |
| Detector Phase | 2 | 2 | 6 | 6 | 6 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 14.0 | 14.0 | 14.0 | 14.0 | 14.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 32.7 | 32.7 | 32.7 | 32.7 |
| Total Split (s) | 57.0 | 57.0 | 57.0 | 57.0 | 57.0 | 33.0 | 33.0 | 33.0 | 33.0 |
| Total Split (%) | 63.3% | 63.3% | 63.3% | 63.3% | 63.3% | 36.7% | 36.7% | 36.7% | 36.7% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.7 | 4.7 | 4.7 | 4.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.7 | | 7.7 |
| Lead/Lag | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | |
| Recall Mode | C-Min | C-Min | C-Min | C-Min | C-Min | None | None | None | None |
| Act Effct Green (s) | 69.2 | 69.2 | 69.2 | 69.2 | 69.2 | | 20.0 | | 20.0 |
| Actuated g/C Ratio | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 | | 0.22 | | 0.22 |
| v/c Ratio | 0.07 | 0.32 | 0.02 | 0.32 | 0.02 | | 0.15 | | 0.19 |
| Control Delay | 5.1 | 7.2 | 8.4 | 9.7 | 7.9 | | 24.9 | | 23.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 5.1 | 7.2 | 8.4 | 9.7 | 7.9 | | 24.9 | | 23.8 |
| LOS | A | A | A | A | A | | C | | C |
| Approach Delay | | 7.0 | | 9.6 | | | 24.9 | | 23.8 |
| Approach LOS | | A | | A | | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 85 (94%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.32 | |
| Intersection Signal Delay: 9.8 | Intersection LOS: A |
| Intersection Capacity Utilization 65.9% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Danforth Avenue & Westlake Avenue



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBT |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 41 | 443 | 10 | 459 | 21 | 46 | 51 |
| v/c Ratio | 0.07 | 0.32 | 0.02 | 0.32 | 0.02 | 0.15 | 0.19 |
| Control Delay | 5.1 | 7.2 | 8.4 | 9.7 | 7.9 | 24.9 | 23.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 5.1 | 7.2 | 8.4 | 9.7 | 7.9 | 24.9 | 23.8 |
| Queue Length 50th (m) | 3.9 | 54.8 | 1.0 | 57.9 | 2.1 | 5.3 | 5.3 |
| Queue Length 95th (m) | 7.0 | 79.6 | m2.7 | 86.1 | m5.5 | 14.5 | 15.2 |
| Internal Link Dist (m) | | 139.2 | | 25.3 | | 0.7 | 152.8 |
| Turn Bay Length (m) | 35.0 | | 20.0 | | 20.0 | | |
| Base Capacity (vph) | 597 | 1395 | 610 | 1432 | 880 | 385 | 342 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.32 | 0.02 | 0.32 | 0.02 | 0.12 | 0.15 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 40 | 415 | 15 | 10 | 445 | 20 | 25 | 10 | 10 | 30 | 5 | 15 |
| Future Volume (vph) | 40 | 415 | 15 | 10 | 445 | 20 | 25 | 10 | 10 | 30 | 5 | 15 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.7 | | | 7.7 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.99 | | 1.00 | 1.00 | 0.72 | | 0.98 | | | 0.96 | |
| Flpb, ped/bikes | 0.87 | 1.00 | | 0.84 | 1.00 | 1.00 | | 0.93 | | | 0.96 | |
| Frt | 1.00 | 0.99 | | 1.00 | 1.00 | 0.85 | | 0.97 | | | 0.96 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.97 | | | 0.97 | |
| Satd. Flow (prot) | 1502 | 1813 | | 1499 | 1863 | 1145 | | 1641 | | | 1454 | |
| Flt Permitted | 0.48 | 1.00 | | 0.49 | 1.00 | 1.00 | | 0.80 | | | 0.79 | |
| Satd. Flow (perm) | 762 | 1813 | | 777 | 1863 | 1145 | | 1344 | | | 1180 | |
| Peak-hour factor, PHF | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Adj. Flow (vph) | 41 | 428 | 15 | 10 | 459 | 21 | 26 | 10 | 10 | 31 | 5 | 15 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 13 | 0 |
| Lane Group Flow (vph) | 41 | 442 | 0 | 10 | 459 | 21 | 0 | 37 | 0 | 0 | 38 | 0 |
| Confl. Peds. (#/hr) | 113 | | 131 | 131 | | 113 | 70 | | 36 | 36 | | 70 |
| Confl. Bikes (#/hr) | | | | | | 2 | | | 3 | | | 2 |
| Heavy Vehicles (%) | 3% | 3% | 6% | 0% | 2% | 0% | 0% | 0% | 0% | 20% | 0% | 0% |
| Turn Type | Perm | NA | | Perm | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 4 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | 6 | 4 | | | 8 | | |
| Actuated Green, G (s) | 63.3 | 63.3 | | 63.3 | 63.3 | 63.3 | | 12.0 | | | 12.0 | |
| Effective Green, g (s) | 63.3 | 63.3 | | 63.3 | 63.3 | 63.3 | | 12.0 | | | 12.0 | |
| Actuated g/C Ratio | 0.70 | 0.70 | | 0.70 | 0.70 | 0.70 | | 0.13 | | | 0.13 | |
| Clearance Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.7 | | | 7.7 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 535 | 1275 | | 546 | 1310 | 805 | | 179 | | | 157 | |
| v/s Ratio Prot | | 0.24 | | | c0.25 | | | | | | | |
| v/s Ratio Perm | 0.05 | | | 0.01 | | 0.02 | | 0.03 | | | c0.03 | |
| v/c Ratio | 0.08 | 0.35 | | 0.02 | 0.35 | 0.03 | | 0.21 | | | 0.24 | |
| Uniform Delay, d1 | 4.2 | 5.2 | | 4.0 | 5.3 | 4.0 | | 34.8 | | | 34.9 | |
| Progression Factor | 0.73 | 0.99 | | 1.20 | 1.37 | 1.19 | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.3 | 0.7 | | 0.1 | 0.7 | 0.1 | | 0.6 | | | 0.8 | |
| Delay (s) | 3.3 | 5.9 | | 4.9 | 7.9 | 4.8 | | 35.3 | | | 35.7 | |
| Level of Service | A | A | | A | A | A | | D | | | D | |
| Approach Delay (s) | | 5.7 | | | 7.7 | | | 35.3 | | | 35.7 | |
| Approach LOS | | A | | | A | | | D | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 9.3 | HCM 2000 Level of Service | A |
| HCM 2000 Volume to Capacity ratio | 0.33 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 14.7 |
| Intersection Capacity Utilization | 65.9% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 5 | 30 | 0 | 10 | 20 | 15 | 5 | 20 | 15 | 20 | 0 | 5 |
| Future Volume (vph) | 5 | 30 | 0 | 10 | 20 | 15 | 5 | 20 | 15 | 20 | 0 | 5 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 5 | 33 | 0 | 11 | 22 | 16 | 5 | 22 | 16 | 22 | 0 | 5 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 38 | 49 | 43 | 27 |
| Volume Left (vph) | 5 | 11 | 5 | 22 |
| Volume Right (vph) | 0 | 16 | 16 | 5 |
| Hadj (s) | 0.03 | -0.15 | -0.20 | 0.05 |
| Departure Headway (s) | 4.1 | 3.9 | 3.9 | 4.2 |
| Degree Utilization, x | 0.04 | 0.05 | 0.05 | 0.03 |
| Capacity (veh/h) | 852 | 893 | 889 | 838 |
| Control Delay (s) | 7.3 | 7.2 | 7.1 | 7.3 |
| Approach Delay (s) | 7.3 | 7.2 | 7.1 | 7.3 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 7.2 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 29.2% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBR | SEL | SER |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 460 | 15 | 10 | 445 | 30 | 10 | 10 | 0 | 0 |
| Future Volume (Veh/h) | 0 | 460 | 15 | 10 | 445 | 30 | 10 | 10 | 0 | 0 |
| Sign Control | | Free | | | Free | | Stop | | Stop | |
| Grade | | 0% | | | 0% | | 0% | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 500 | 16 | 11 | 484 | 33 | 11 | 11 | 0 | 0 |
| Pedestrians | | | | | 9 | | 122 | | 107 | |
| Lane Width (m) | | | | | 3.6 | | 3.6 | | 3.6 | |
| Walking Speed (m/s) | | | | | 1.2 | | 1.2 | | 1.2 | |
| Percent Blockage | | | | | 1 | | 10 | | 9 | |
| Right turn flare (veh) | | | | | | | | | | |
| Median type | | None | | | None | | | | | |
| Median storage veh) | | | | | | | | | | |
| Upstream signal (m) | | 143 | | | 163 | | | | | |
| pX, platoon unblocked | 0.90 | | | 0.87 | | | 0.92 | 0.87 | 0.92 | 0.92 |
| vC, conflicting volume | 624 | | | 638 | | | 1276 | 639 | 1163 | 1268 |
| vC1, stage 1 conf vol | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | |
| vCu, unblocked vol | 528 | | | 513 | | | 1017 | 514 | 894 | 1008 |
| tC, single (s) | 4.1 | | | 4.1 | | | 6.5 | 6.3 | 7.1 | 6.5 |
| tC, 2 stage (s) | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 4.0 | 3.4 | 3.5 | 4.0 |
| p0 queue free % | 100 | | | 99 | | | 94 | 97 | 100 | 100 |
| cM capacity (veh/h) | 861 | | | 826 | | | 178 | 423 | 173 | 179 |

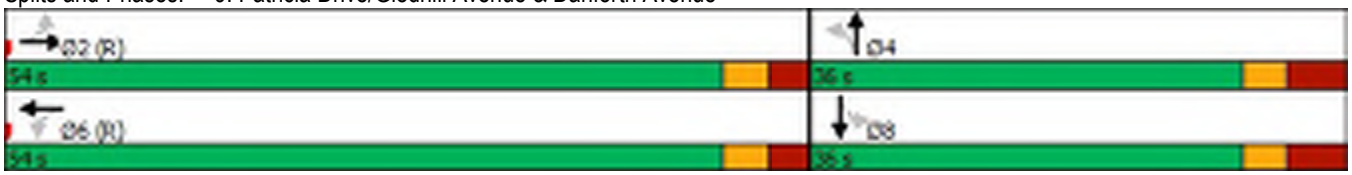
| Direction, Lane # | EB 1 | WB 1 | NB 1 | SE 1 |
|---|---|---|---|---|
| Volume Total | 516 | 528 | 22 | 0 |
| Volume Left | 0 | 11 | 0 | 0 |
| Volume Right | 16 | 33 | 11 | 0 |
| cSH | 861 | 826 | 251 | 1700 |
| Volume to Capacity | 0.00 | 0.01 | 0.09 | 0.00 |
| Queue Length 95th (m) | 0.0 | 0.3 | 2.3 | 0.0 |
| Control Delay (s) | 0.0 | 0.4 | 20.7 | 0.0 |
| Lane LOS | | A | C | A |
| Approach Delay (s) | 0.0 | 0.4 | 20.7 | 0.0 |
| Approach LOS | | | C | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.6 | | |
| Intersection Capacity Utilization | 46.3% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 35 | 440 | 15 | 465 | 50 | 10 | 30 | 15 |
| Future Volume (vph) | 35 | 440 | 15 | 465 | 50 | 10 | 30 | 15 |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | NA |
| Protected Phases | | 2 | | 6 | | 4 | | 8 |
| Permitted Phases | 2 | | 6 | | 4 | | 8 | |
| Detector Phase | 2 | 2 | 6 | 6 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 19.0 | 19.0 | 19.0 | 19.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Minimum Split (s) | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 |
| Total Split (s) | 54.0 | 54.0 | 54.0 | 54.0 | 36.0 | 36.0 | 36.0 | 36.0 |
| Total Split (%) | 60.0% | 60.0% | 60.0% | 60.0% | 40.0% | 40.0% | 40.0% | 40.0% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 2.9 | 2.9 | 2.9 | 2.9 | 4.1 | 4.1 | 4.1 | 4.1 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 5.9 | 5.9 | 5.9 | | 7.1 | | 7.1 |
| Lead/Lag | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | |
| Recall Mode | C-Min | C-Min | C-Min | C-Min | None | None | None | None |
| Act Effct Green (s) | 61.2 | 61.2 | 61.2 | 61.2 | | 23.0 | | 23.0 |
| Actuated g/C Ratio | 0.68 | 0.68 | 0.68 | 0.68 | | 0.26 | | 0.26 |
| v/c Ratio | 0.07 | 0.41 | 0.03 | 0.21 | | 0.21 | | 0.16 |
| Control Delay | 8.1 | 10.0 | 15.0 | 13.9 | | 26.8 | | 23.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 8.1 | 10.0 | 15.0 | 13.9 | | 26.8 | | 23.8 |
| LOS | A | B | B | B | | C | | C |
| Approach Delay | | 9.9 | | 13.9 | | 26.8 | | 23.8 |
| Approach LOS | | A | | B | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 43 (48%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.41 | |
| Intersection Signal Delay: 13.3 | Intersection LOS: B |
| Intersection Capacity Utilization 62.7% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Patricia Drive/Gledhill Avenue & Danforth Avenue



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 36 | 500 | 16 | 500 | 67 | 57 |
| v/c Ratio | 0.07 | 0.41 | 0.03 | 0.21 | 0.21 | 0.16 |
| Control Delay | 8.1 | 10.0 | 15.0 | 13.9 | 26.8 | 23.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 8.1 | 10.0 | 15.0 | 13.9 | 26.8 | 23.8 |
| Queue Length 50th (m) | 2.5 | 45.3 | 2.2 | 38.0 | 8.9 | 6.6 |
| Queue Length 95th (m) | 6.7 | 68.5 | m7.1 | 52.5 | 20.0 | 16.6 |
| Internal Link Dist (m) | | 219.0 | | 119.1 | 113.2 | 112.4 |
| Turn Bay Length (m) | 30.0 | | 20.0 | | | |
| Base Capacity (vph) | 500 | 1228 | 504 | 2374 | 403 | 440 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.41 | 0.03 | 0.21 | 0.17 | 0.13 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 35 | 440 | 40 | 15 | 465 | 15 | 50 | 10 | 5 | 30 | 15 | 10 |
| Future Volume (vph) | 35 | 440 | 40 | 15 | 465 | 15 | 50 | 10 | 5 | 30 | 15 | 10 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 5.9 | 5.9 | | 5.9 | 5.9 | | | 7.1 | | | 7.1 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | 1.00 | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.98 | | 1.00 | 0.99 | | | 0.99 | | | 0.99 | |
| Flpb, ped/bikes | 0.86 | 1.00 | | 0.91 | 1.00 | | | 0.96 | | | 0.98 | |
| Frt | 1.00 | 0.99 | | 1.00 | 1.00 | | | 0.99 | | | 0.98 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.96 | | | 0.97 | |
| Satd. Flow (prot) | 1483 | 1803 | | 1623 | 3490 | | | 1629 | | | 1618 | |
| Flt Permitted | 0.47 | 1.00 | | 0.43 | 1.00 | | | 0.74 | | | 0.81 | |
| Satd. Flow (perm) | 732 | 1803 | | 734 | 3490 | | | 1246 | | | 1352 | |
| Peak-hour factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Adj. Flow (vph) | 36 | 458 | 42 | 16 | 484 | 16 | 52 | 10 | 5 | 31 | 16 | 10 |
| RTOR Reduction (vph) | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 4 | 0 | 0 | 8 | 0 |
| Lane Group Flow (vph) | 36 | 497 | 0 | 16 | 498 | 0 | 0 | 63 | 0 | 0 | 49 | 0 |
| Confl. Peds. (#/hr) | 154 | | 111 | 111 | | 154 | 63 | | 30 | 30 | | 63 |
| Confl. Bikes (#/hr) | | | | | | 3 | | | 1 | | | |
| Heavy Vehicles (%) | 3% | 2% | 3% | 0% | 2% | 0% | 2% | 18% | 20% | 13% | 0% | 3% |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 4 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Actuated Green, G (s) | 58.6 | 58.6 | | 58.6 | 58.6 | | | 18.4 | | | 18.4 | |
| Effective Green, g (s) | 58.6 | 58.6 | | 58.6 | 58.6 | | | 18.4 | | | 18.4 | |
| Actuated g/C Ratio | 0.65 | 0.65 | | 0.65 | 0.65 | | | 0.20 | | | 0.20 | |
| Clearance Time (s) | 5.9 | 5.9 | | 5.9 | 5.9 | | | 7.1 | | | 7.1 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 476 | 1173 | | 477 | 2272 | | | 254 | | | 276 | |
| v/s Ratio Prot | | c0.28 | | | 0.14 | | | | | | | |
| v/s Ratio Perm | 0.05 | | | 0.02 | | | | c0.05 | | | 0.04 | |
| v/c Ratio | 0.08 | 0.42 | | 0.03 | 0.22 | | | 0.25 | | | 0.18 | |
| Uniform Delay, d1 | 5.8 | 7.6 | | 5.6 | 6.4 | | | 30.0 | | | 29.6 | |
| Progression Factor | 1.00 | 1.00 | | 1.97 | 1.85 | | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.3 | 1.1 | | 0.1 | 0.2 | | | 0.5 | | | 0.3 | |
| Delay (s) | 6.1 | 8.7 | | 11.1 | 12.0 | | | 30.5 | | | 29.9 | |
| Level of Service | A | A | | B | B | | | C | | | C | |
| Approach Delay (s) | | 8.5 | | | 12.0 | | | 30.5 | | | 29.9 | |
| Approach LOS | | A | | | B | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 12.3 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.38 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 13.0 |
| Intersection Capacity Utilization | 62.7% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 45 | 30 | 0 |
| Future Volume (Veh/h) | 0 | 0 | 0 | 45 | 30 | 0 |
| Sign Control | Stop | | | Free | Free | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 0 | 0 | 49 | 33 | 0 |
| Pedestrians | 6 | | | 3 | 34 | |
| Lane Width (m) | 3.6 | | | 3.6 | 3.6 | |
| Walking Speed (m/s) | 1.2 | | | 1.2 | 1.2 | |
| Percent Blockage | 1 | | | 0 | 3 | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | None | None | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | | | | 25 | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 122 | 42 | 39 | | | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 122 | 42 | 39 | | | |
| tC, single (s) | 6.4 | 6.2 | 4.1 | | | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | 2.2 | | | |
| p0 queue free % | 100 | 100 | 100 | | | |
| cM capacity (veh/h) | 849 | 1027 | 1576 | | | |

| Direction, Lane # | EB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 0 | 49 | 33 |
| Volume Left | 0 | 0 | 0 |
| Volume Right | 0 | 0 | 0 |
| cSH | 1700 | 1576 | 1700 |
| Volume to Capacity | 0.01 | 0.00 | 0.02 |
| Queue Length 95th (m) | 0.0 | 0.0 | 0.0 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 |
| Lane LOS | A | | |
| Approach Delay (s) | 0.0 | 0.0 | 0.0 |
| Approach LOS | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.0 | | |
| Intersection Capacity Utilization | 16.1% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 20 | 410 | 245 | 710 | 80 | 80 | 265 | 45 | 225 |
| Future Volume (vph) | 20 | 410 | 245 | 710 | 80 | 80 | 265 | 45 | 225 |
| Turn Type | Perm | NA | pm+pt | NA | Perm | Perm | NA | Perm | NA |
| Protected Phases | | 4 | 3 | 8 | | | 2 | | 6 |
| Permitted Phases | 4 | | 8 | | 8 | 2 | | 6 | |
| Detector Phase | 4 | 4 | 3 | 8 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 30.0 | 30.0 | 6.0 | 30.0 | 30.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 36.7 | 36.7 | 13.4 | 36.7 | 36.7 | 31.7 | 31.7 | 31.7 | 31.7 |
| Total Split (s) | 38.0 | 38.0 | 18.0 | 56.0 | 56.0 | 34.0 | 34.0 | 34.0 | 34.0 |
| Total Split (%) | 42.2% | 42.2% | 20.0% | 62.2% | 62.2% | 37.8% | 37.8% | 37.8% | 37.8% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 3.7 | 3.7 | 4.4 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 6.7 | 6.7 | 7.4 | 6.7 | 6.7 | | 6.7 | | 6.7 |
| Lead/Lag | Lag | Lag | Lead | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | | | |
| Recall Mode | Min | Min | Min | None | None | C-Min | C-Min | C-Min | C-Min |
| Act Effct Green (s) | 31.2 | 31.2 | 49.2 | 49.9 | 49.9 | | 26.7 | | 26.7 |
| Actuated g/C Ratio | 0.35 | 0.35 | 0.55 | 0.55 | 0.55 | | 0.30 | | 0.30 |
| v/c Ratio | 0.10 | 0.87 | 0.75 | 0.72 | 0.14 | | 0.72 | | 0.43 |
| Control Delay | 19.1 | 43.7 | 28.6 | 20.0 | 2.9 | | 29.9 | | 27.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 19.1 | 43.7 | 28.6 | 20.0 | 2.9 | | 29.9 | | 27.4 |
| LOS | B | D | C | B | A | | C | | C |
| Approach Delay | | 42.8 | | 20.7 | | | 29.9 | | 27.4 |
| Approach LOS | | D | | C | | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 89 (99%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green | |
| Natural Cycle: 85 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.87 | |
| Intersection Signal Delay: 28.4 | Intersection LOS: C |
| Intersection Capacity Utilization 126.4% | ICU Level of Service H |
| Analysis Period (min) 15 | |

Splits and Phases: 1: Main Street & Danforth Avenue

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBT |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 21 | 521 | 253 | 732 | 82 | 525 | 299 |
| v/c Ratio | 0.10 | 0.87 | 0.75 | 0.72 | 0.14 | 0.72 | 0.43 |
| Control Delay | 19.1 | 43.7 | 28.6 | 20.0 | 2.9 | 29.9 | 27.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.1 | 43.7 | 28.6 | 20.0 | 2.9 | 29.9 | 27.4 |
| Queue Length 50th (m) | 2.8 | 75.1 | 20.8 | 83.7 | 0.0 | 39.3 | 23.5 |
| Queue Length 95th (m) | m5.3 | #150.7 | #57.9 | 140.6 | 6.3 | 56.0 | 34.3 |
| Internal Link Dist (m) | | 68.6 | | 134.2 | | 339.1 | 295.4 |
| Turn Bay Length (m) | 30.0 | | | | | | |
| Base Capacity (vph) | 204 | 605 | 339 | 1021 | 611 | 753 | 715 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.10 | 0.86 | 0.75 | 0.72 | 0.13 | 0.70 | 0.42 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 20 | 410 | 95 | 245 | 710 | 80 | 80 | 265 | 165 | 45 | 225 | 20 |
| Future Volume (vph) | 20 | 410 | 95 | 245 | 710 | 80 | 80 | 265 | 165 | 45 | 225 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 6.7 | 6.7 | | 7.4 | 6.7 | 6.7 | | 6.7 | | | 6.7 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.95 | | | 0.95 | |
| Frpb, ped/bikes | 1.00 | 0.97 | | 1.00 | 1.00 | 0.82 | | 0.91 | | | 0.95 | |
| Flpb, ped/bikes | 0.94 | 1.00 | | 0.99 | 1.00 | 1.00 | | 0.93 | | | 0.98 | |
| Frt | 1.00 | 0.97 | | 1.00 | 1.00 | 0.85 | | 0.95 | | | 0.99 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.99 | | | 0.99 | |
| Satd. Flow (prot) | 1528 | 1696 | | 1690 | 1827 | 1028 | | 2695 | | | 2930 | |
| Flt Permitted | 0.36 | 1.00 | | 0.17 | 1.00 | 1.00 | | 0.83 | | | 0.78 | |
| Satd. Flow (perm) | 581 | 1696 | | 303 | 1827 | 1028 | | 2241 | | | 2302 | |
| Peak-hour factor, PHF | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Adj. Flow (vph) | 21 | 423 | 98 | 253 | 732 | 82 | 82 | 273 | 170 | 46 | 232 | 21 |
| RTOR Reduction (vph) | 0 | 9 | 0 | 0 | 0 | 37 | 0 | 65 | 0 | 0 | 6 | 0 |
| Lane Group Flow (vph) | 21 | 512 | 0 | 253 | 732 | 45 | 0 | 460 | 0 | 0 | 293 | 0 |
| Confl. Peds. (#/hr) | 185 | | 173 | 173 | | 185 | 768 | | 139 | 139 | | 768 |
| Confl. Bikes (#/hr) | | | 6 | | | 2 | | | | | | 6 |
| Heavy Vehicles (%) | 10% | 6% | 3% | 5% | 4% | 28% | 3% | 8% | 5% | 40% | 7% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 0 | 6 | 6 |
| Turn Type | Perm | NA | | pm+pt | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | 3 | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | 8 | 2 | | | 6 | | |
| Actuated Green, G (s) | 31.2 | 31.2 | | 49.9 | 49.9 | 49.9 | | 26.7 | | | 26.7 | |
| Effective Green, g (s) | 31.2 | 31.2 | | 49.9 | 49.9 | 49.9 | | 26.7 | | | 26.7 | |
| Actuated g/C Ratio | 0.35 | 0.35 | | 0.55 | 0.55 | 0.55 | | 0.30 | | | 0.30 | |
| Clearance Time (s) | 6.7 | 6.7 | | 7.4 | 6.7 | 6.7 | | 6.7 | | | 6.7 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 201 | 587 | | 342 | 1012 | 569 | | 664 | | | 682 | |
| v/s Ratio Prot | | c0.30 | | 0.09 | c0.40 | | | | | | | |
| v/s Ratio Perm | 0.04 | | | 0.32 | | 0.04 | | c0.21 | | | 0.13 | |
| v/c Ratio | 0.10 | 0.87 | | 0.74 | 0.72 | 0.08 | | 0.69 | | | 0.43 | |
| Uniform Delay, d1 | 19.9 | 27.5 | | 15.3 | 14.9 | 9.3 | | 28.0 | | | 25.5 | |
| Progression Factor | 0.89 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.2 | 12.8 | | 8.1 | 2.6 | 0.1 | | 5.9 | | | 2.0 | |
| Delay (s) | 17.9 | 40.3 | | 23.5 | 17.5 | 9.4 | | 33.9 | | | 27.5 | |
| Level of Service | B | D | | C | B | A | | C | | | C | |
| Approach Delay (s) | | 39.5 | | | 18.3 | | | 33.9 | | | 27.5 | |
| Approach LOS | | D | | | B | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 27.5 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.83 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 20.8 |
| Intersection Capacity Utilization | 126.4% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 15 | 515 | 770 | 40 | 10 | 30 |
| Future Volume (Veh/h) | 15 | 515 | 770 | 40 | 10 | 30 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 16 | 542 | 811 | 42 | 11 | 32 |
| Pedestrians | | 6 | 2 | | 125 | |
| Lane Width (m) | | 3.6 | 3.5 | | 3.6 | |
| Walking Speed (m/s) | | 1.2 | 1.2 | | 1.2 | |
| Percent Blockage | | 1 | 0 | | 10 | |
| Right turn flare (veh) | | | | | | |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | 172 | 93 | | | |
| pX, platoon unblocked | 0.69 | | | | 0.75 | 0.69 |
| vC, conflicting volume | 978 | | | | 1512 | 942 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 746 | | | | 1153 | 694 |
| tC, single (s) | 4.1 | | | | 6.5 | 6.3 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.6 | 3.4 |
| p0 queue free % | 97 | | | | 92 | 88 |
| cM capacity (veh/h) | 540 | | | | 138 | 269 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | SB 1 |
|---|---|---|---|---|
| Volume Total | 558 | 811 | 42 | 43 |
| Volume Left | 16 | 0 | 0 | 11 |
| Volume Right | 0 | 0 | 42 | 32 |
| cSH | 540 | 1700 | 1700 | 217 |
| Volume to Capacity | 0.03 | 0.48 | 0.02 | 0.20 |
| Queue Length 95th (m) | 0.7 | 0.0 | 0.0 | 5.8 |
| Control Delay (s) | 0.8 | 0.0 | 0.0 | 25.7 |
| Lane LOS | A | | | D |
| Approach Delay (s) | 0.8 | 0.0 | | 25.7 |
| Approach LOS | | | | D |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 1.1 | | |
| Intersection Capacity Utilization | 52.3% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 510 | 15 | 20 | 780 | 10 | 20 |
| Future Volume (Veh/h) | 510 | 15 | 20 | 780 | 10 | 20 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Hourly flow rate (vph) | 548 | 16 | 22 | 839 | 11 | 22 |
| Pedestrians | 7 | | | 9 | 149 | |
| Lane Width (m) | 3.6 | | | 3.6 | 3.6 | |
| Walking Speed (m/s) | 1.2 | | | 1.2 | 1.2 | |
| Percent Blockage | 1 | | | 1 | 12 | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | 136 | | | 128 | | |
| pX, platoon unblocked | | | 0.87 | | 0.76 | 0.87 |
| vC, conflicting volume | | | 713 | | 1595 | 714 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 594 | | 1233 | 595 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 97 | | 91 | 94 |
| cM capacity (veh/h) | | | 755 | | 126 | 383 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 564 | 861 | 33 |
| Volume Left | 0 | 22 | 11 |
| Volume Right | 16 | 0 | 22 |
| cSH | 1700 | 755 | 228 |
| Volume to Capacity | 0.33 | 0.03 | 0.14 |
| Queue Length 95th (m) | 0.0 | 0.7 | 4.0 |
| Control Delay (s) | 0.0 | 0.8 | 23.5 |
| Lane LOS | | A | C |
| Approach Delay (s) | 0.0 | 0.8 | 23.5 |
| Approach LOS | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 1.0 | | |
| Intersection Capacity Utilization | 69.7% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 520 | 5 | 0 | 790 | 0 | 5 |
| Future Volume (Veh/h) | 520 | 5 | 0 | 790 | 0 | 5 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Hourly flow rate (vph) | 559 | 5 | 0 | 849 | 0 | 5 |
| Pedestrians | 2 | | | | | |
| Lane Width (m) | 3.6 | | | | | |
| Walking Speed (m/s) | 1.2 | | | | | |
| Percent Blockage | 0 | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | 49 | | | 215 | | |
| pX, platoon unblocked | | | 0.87 | | 0.76 | 0.87 |
| vC, conflicting volume | | | 564 | | 1412 | 562 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 419 | | 986 | 416 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 100 | | 100 | 99 |
| cM capacity (veh/h) | | | 997 | | 209 | 555 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 564 | 849 | 5 |
| Volume Left | 0 | 0 | 0 |
| Volume Right | 5 | 0 | 5 |
| cSH | 1700 | 997 | 555 |
| Volume to Capacity | 0.33 | 0.00 | 0.01 |
| Queue Length 95th (m) | 0.0 | 0.0 | 0.2 |
| Control Delay (s) | 0.0 | 0.0 | 11.5 |
| Lane LOS | | | B |
| Approach Delay (s) | 0.0 | 0.0 | 11.5 |
| Approach LOS | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.0 | | |
| Intersection Capacity Utilization | 51.6% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 0 | 5 | 40 | 0 | 5 | 30 |
| Future Volume (Veh/h) | 0 | 5 | 40 | 0 | 5 | 30 |
| Sign Control | Stop | | Free | | | Free |
| Grade | 0% | | 0% | | | 0% |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 5 | 43 | 0 | 5 | 33 |
| Pedestrians | 20 | | 7 | | | 2 |
| Lane Width (m) | 3.6 | | 3.6 | | | 3.6 |
| Walking Speed (m/s) | 1.2 | | 1.2 | | | 1.2 |
| Percent Blockage | 2 | | 1 | | | 0 |
| Right turn flare (veh) | | | | | | |
| Median type | | | None | | | None |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | | | | | 43 |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 113 | 65 | | | 63 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 113 | 65 | | | 63 | |
| tC, single (s) | 6.4 | 6.2 | | | 4.3 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | | | 2.4 | |
| p0 queue free % | 100 | 99 | | | 100 | |
| cM capacity (veh/h) | 865 | 986 | | | 1409 | |

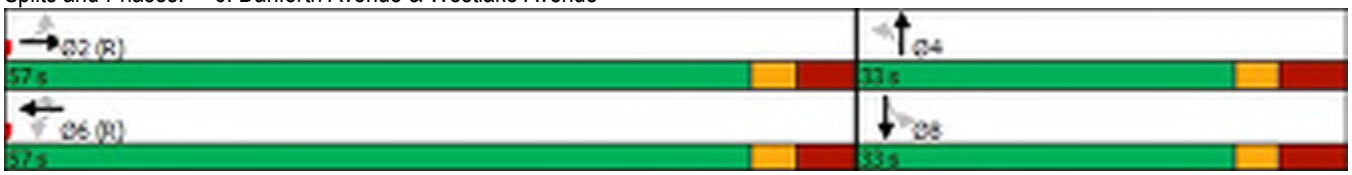
| Direction, Lane # | WB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 5 | 43 | 38 |
| Volume Left | 0 | 0 | 5 |
| Volume Right | 5 | 0 | 0 |
| cSH | 986 | 1700 | 1409 |
| Volume to Capacity | 0.01 | 0.03 | 0.00 |
| Queue Length 95th (m) | 0.1 | 0.0 | 0.1 |
| Control Delay (s) | 8.7 | 0.0 | 1.0 |
| Lane LOS | A | | A |
| Approach Delay (s) | 8.7 | 0.0 | 1.0 |
| Approach LOS | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 1.0 | | |
| Intersection Capacity Utilization | 18.8% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 20 | 495 | 15 | 755 | 20 | 30 | 10 | 20 | 5 |
| Future Volume (vph) | 20 | 495 | 15 | 755 | 20 | 30 | 10 | 20 | 5 |
| Turn Type | Perm | NA | Perm | NA | Perm | Perm | NA | Perm | NA |
| Protected Phases | | 2 | | 6 | | | 4 | | 8 |
| Permitted Phases | 2 | | 6 | | 6 | 4 | | 8 | |
| Detector Phase | 2 | 2 | 6 | 6 | 6 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 14.0 | 14.0 | 14.0 | 14.0 | 14.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 32.7 | 32.7 | 32.7 | 32.7 |
| Total Split (s) | 57.0 | 57.0 | 57.0 | 57.0 | 57.0 | 33.0 | 33.0 | 33.0 | 33.0 |
| Total Split (%) | 63.3% | 63.3% | 63.3% | 63.3% | 63.3% | 36.7% | 36.7% | 36.7% | 36.7% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.7 | 4.7 | 4.7 | 4.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.7 | | 7.7 |
| Lead/Lag | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | |
| Recall Mode | C-Min | C-Min | C-Min | C-Min | C-Min | None | None | None | None |
| Act Effct Green (s) | 69.2 | 69.2 | 69.2 | 69.2 | 69.2 | | 20.0 | | 20.0 |
| Actuated g/C Ratio | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 | | 0.22 | | 0.22 |
| v/c Ratio | 0.06 | 0.40 | 0.03 | 0.57 | 0.02 | | 0.18 | | 0.17 |
| Control Delay | 12.6 | 13.0 | 9.9 | 11.5 | 9.5 | | 25.6 | | 18.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 12.6 | 13.0 | 9.9 | 11.5 | 9.5 | | 25.6 | | 18.3 |
| LOS | B | B | A | B | A | | C | | B |
| Approach Delay | | 12.9 | | 11.4 | | | 25.6 | | 18.3 |
| Approach LOS | | B | | B | | | C | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 28 (31%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.57 | |
| Intersection Signal Delay: 12.7 | Intersection LOS: B |
| Intersection Capacity Utilization 71.6% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Danforth Avenue & Westlake Avenue



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBT |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 21 | 548 | 16 | 803 | 21 | 54 | 53 |
| v/c Ratio | 0.06 | 0.40 | 0.03 | 0.57 | 0.02 | 0.18 | 0.17 |
| Control Delay | 12.6 | 13.0 | 9.9 | 11.5 | 9.5 | 25.6 | 18.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 12.6 | 13.0 | 9.9 | 11.5 | 9.5 | 25.6 | 18.3 |
| Queue Length 50th (m) | 2.1 | 68.4 | 1.3 | 87.4 | 1.7 | 6.3 | 3.8 |
| Queue Length 95th (m) | m5.2 | 97.1 | m2.0 | 100.5 | m2.6 | 16.4 | 13.6 |
| Internal Link Dist (m) | | 139.2 | | 25.3 | | 0.7 | 152.8 |
| Turn Bay Length (m) | 35.0 | | 20.0 | | 20.0 | | |
| Base Capacity (vph) | 363 | 1358 | 496 | 1404 | 893 | 377 | 398 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.40 | 0.03 | 0.57 | 0.02 | 0.14 | 0.13 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 20 | 495 | 20 | 15 | 755 | 20 | 30 | 10 | 10 | 20 | 5 | 25 |
| Future Volume (vph) | 20 | 495 | 20 | 15 | 755 | 20 | 30 | 10 | 10 | 20 | 5 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.7 | | | 7.7 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.99 | | 1.00 | 1.00 | 0.77 | | 0.98 | | | 0.95 | |
| Flpb, ped/bikes | 0.96 | 1.00 | | 0.92 | 1.00 | 1.00 | | 0.96 | | | 0.98 | |
| Frt | 1.00 | 0.99 | | 1.00 | 1.00 | 0.85 | | 0.97 | | | 0.93 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.97 | | | 0.98 | |
| Satd. Flow (prot) | 1539 | 1766 | | 1421 | 1827 | 1162 | | 1623 | | | 1562 | |
| Flt Permitted | 0.28 | 1.00 | | 0.43 | 1.00 | 1.00 | | 0.79 | | | 0.85 | |
| Satd. Flow (perm) | 452 | 1766 | | 636 | 1827 | 1162 | | 1316 | | | 1349 | |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 21 | 527 | 21 | 16 | 803 | 21 | 32 | 11 | 11 | 21 | 5 | 27 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 23 | 0 |
| Lane Group Flow (vph) | 21 | 547 | 0 | 16 | 803 | 21 | 0 | 44 | 0 | 0 | 30 | 0 |
| Confl. Peds. (#/hr) | 90 | | 87 | 87 | | 90 | 38 | | 28 | 28 | | 38 |
| Confl. Bikes (#/hr) | | | | | | | | | 3 | | | 1 |
| Heavy Vehicles (%) | 11% | 6% | 8% | 15% | 4% | 6% | 8% | 0% | 0% | 5% | 0% | 4% |
| Turn Type | Perm | NA | | Perm | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 4 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | 6 | 4 | | | 8 | | |
| Actuated Green, G (s) | 63.3 | 63.3 | | 63.3 | 63.3 | 63.3 | | 12.0 | | | 12.0 | |
| Effective Green, g (s) | 63.3 | 63.3 | | 63.3 | 63.3 | 63.3 | | 12.0 | | | 12.0 | |
| Actuated g/C Ratio | 0.70 | 0.70 | | 0.70 | 0.70 | 0.70 | | 0.13 | | | 0.13 | |
| Clearance Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.7 | | | 7.7 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 317 | 1242 | | 447 | 1284 | 817 | | 175 | | | 179 | |
| v/s Ratio Prot | | 0.31 | | | c0.44 | | | | | | | |
| v/s Ratio Perm | 0.05 | | | 0.03 | | 0.02 | | c0.03 | | | 0.02 | |
| v/c Ratio | 0.07 | 0.44 | | 0.04 | 0.63 | 0.03 | | 0.25 | | | 0.17 | |
| Uniform Delay, d1 | 4.2 | 5.7 | | 4.1 | 7.1 | 4.0 | | 35.0 | | | 34.6 | |
| Progression Factor | 1.75 | 1.65 | | 1.42 | 1.10 | 1.43 | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.4 | 1.0 | | 0.1 | 1.8 | 0.0 | | 0.8 | | | 0.4 | |
| Delay (s) | 7.6 | 10.5 | | 5.9 | 9.5 | 5.8 | | 35.8 | | | 35.0 | |
| Level of Service | A | B | | A | A | A | | D | | | C | |
| Approach Delay (s) | | 10.4 | | | 9.4 | | | 35.8 | | | 35.0 | |
| Approach LOS | | B | | | A | | | D | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 11.6 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.57 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 14.7 |
| Intersection Capacity Utilization | 71.6% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 0 | 15 | 0 | 5 | 15 | 25 | 0 | 15 | 5 | 15 | 10 | 5 |
| Future Volume (vph) | 0 | 15 | 0 | 5 | 15 | 25 | 0 | 15 | 5 | 15 | 10 | 5 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 16 | 0 | 5 | 16 | 27 | 0 | 16 | 5 | 16 | 11 | 5 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 16 | 48 | 21 | 32 |
| Volume Left (vph) | 0 | 5 | 0 | 16 |
| Volume Right (vph) | 0 | 27 | 5 | 5 |
| Hadj (s) | 0.00 | -0.22 | -0.01 | 0.14 |
| Departure Headway (s) | 4.1 | 3.8 | 4.1 | 4.2 |
| Degree Utilization, x | 0.02 | 0.05 | 0.02 | 0.04 |
| Capacity (veh/h) | 867 | 925 | 862 | 840 |
| Control Delay (s) | 7.1 | 7.0 | 7.1 | 7.4 |
| Approach Delay (s) | 7.1 | 7.0 | 7.1 | 7.4 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 7.2 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 30.5% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBR | SEL | SER |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 520 | 10 | 15 | 780 | 15 | 5 | 15 | 0 | 0 |
| Future Volume (Veh/h) | 0 | 520 | 10 | 15 | 780 | 15 | 5 | 15 | 0 | 0 |
| Sign Control | | Free | | | Free | | Stop | | Stop | |
| Grade | | 0% | | | 0% | | 0% | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 565 | 11 | 16 | 848 | 16 | 5 | 16 | 0 | 0 |
| Pedestrians | | | | | | | 90 | | 150 | |
| Lane Width (m) | | | | | | | 3.6 | | 3.6 | |
| Walking Speed (m/s) | | | | | | | 1.2 | | 1.2 | |
| Percent Blockage | | | | | | | 8 | | 12 | |
| Right turn flare (veh) | | | | | | | | | | |
| Median type | | None | | | None | | | | | |
| Median storage veh) | | | | | | | | | | |
| Upstream signal (m) | | 143 | | | 163 | | | | | |
| pX, platoon unblocked | 0.73 | | | 0.84 | | | 0.81 | 0.84 | 0.81 | 0.81 |
| vC, conflicting volume | 1014 | | | 666 | | | 1706 | 660 | 1627 | 1704 |
| vC1, stage 1 conf vol | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | |
| vCu, unblocked vol | 835 | | | 506 | | | 1308 | 499 | 1210 | 1305 |
| tC, single (s) | 4.1 | | | 4.2 | | | 6.5 | 6.3 | 7.1 | 6.5 |
| tC, 2 stage (s) | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.3 | | | 4.0 | 3.4 | 3.5 | 4.0 |
| p0 queue free % | 100 | | | 98 | | | 95 | 96 | 100 | 100 |
| cM capacity (veh/h) | 516 | | | 802 | | | 104 | 436 | 88 | 103 |

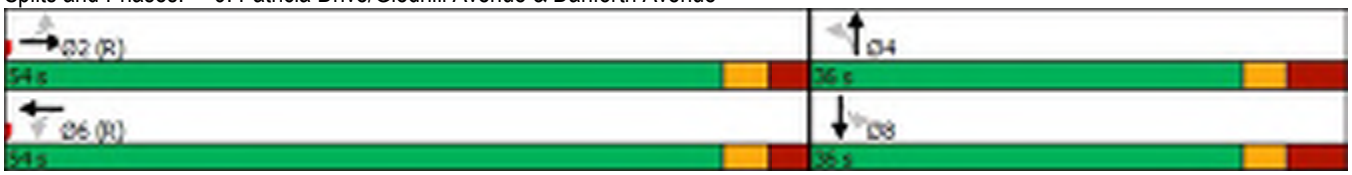
| Direction, Lane # | EB 1 | WB 1 | NB 1 | SE 1 |
|---|---|---|---|---|
| Volume Total | 576 | 880 | 21 | 0 |
| Volume Left | 0 | 16 | 0 | 0 |
| Volume Right | 11 | 16 | 16 | 0 |
| cSH | 516 | 802 | 247 | 1700 |
| Volume to Capacity | 0.00 | 0.02 | 0.08 | 0.00 |
| Queue Length 95th (m) | 0.0 | 0.5 | 2.2 | 0.0 |
| Control Delay (s) | 0.0 | 0.6 | 20.9 | 0.0 |
| Lane LOS | | A | C | A |
| Approach Delay (s) | 0.0 | 0.6 | 20.9 | 0.0 |
| Approach LOS | | | C | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.6 | | |
| Intersection Capacity Utilization | 64.1% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 30 | 485 | 10 | 795 | 60 | 20 | 30 | 10 |
| Future Volume (vph) | 30 | 485 | 10 | 795 | 60 | 20 | 30 | 10 |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | NA |
| Protected Phases | | 2 | | 6 | | 4 | | 8 |
| Permitted Phases | 2 | | 6 | | 4 | | 8 | |
| Detector Phase | 2 | 2 | 6 | 6 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 19.0 | 19.0 | 19.0 | 19.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Minimum Split (s) | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 |
| Total Split (s) | 54.0 | 54.0 | 54.0 | 54.0 | 36.0 | 36.0 | 36.0 | 36.0 |
| Total Split (%) | 60.0% | 60.0% | 60.0% | 60.0% | 40.0% | 40.0% | 40.0% | 40.0% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 2.9 | 2.9 | 2.9 | 2.9 | 4.1 | 4.1 | 4.1 | 4.1 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 5.9 | 5.9 | 5.9 | | 7.1 | | 7.1 |
| Lead/Lag | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | |
| Recall Mode | C-Min | C-Min | C-Min | C-Min | None | None | None | None |
| Act Effct Green (s) | 61.2 | 61.2 | 61.2 | 61.2 | | 23.0 | | 23.0 |
| Actuated g/C Ratio | 0.68 | 0.68 | 0.68 | 0.68 | | 0.26 | | 0.26 |
| v/c Ratio | 0.11 | 0.47 | 0.03 | 0.39 | | 0.33 | | 0.25 |
| Control Delay | 9.0 | 11.1 | 3.1 | 4.6 | | 27.4 | | 18.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 9.0 | 11.1 | 3.1 | 4.6 | | 27.4 | | 18.0 |
| LOS | A | B | A | A | | C | | B |
| Approach Delay | | 10.9 | | 4.6 | | 27.4 | | 18.0 |
| Approach LOS | | B | | A | | C | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 63 (70%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.47 | |
| Intersection Signal Delay: 8.8 | Intersection LOS: A |
| Intersection Capacity Utilization 61.1% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Patricia Drive/Gledhill Avenue & Danforth Avenue



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 33 | 561 | 11 | 916 | 101 | 83 |
| v/c Ratio | 0.11 | 0.47 | 0.03 | 0.39 | 0.33 | 0.25 |
| Control Delay | 9.0 | 11.1 | 3.1 | 4.6 | 27.4 | 18.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.0 | 11.1 | 3.1 | 4.6 | 27.4 | 18.0 |
| Queue Length 50th (m) | 2.4 | 54.6 | 0.1 | 8.0 | 13.1 | 6.2 |
| Queue Length 95th (m) | 6.9 | 82.4 | m0.5 | 13.7 | 27.7 | 18.4 |
| Internal Link Dist (m) | | 219.0 | | 119.1 | 113.2 | 112.4 |
| Turn Bay Length (m) | 30.0 | | 20.0 | | | |
| Base Capacity (vph) | 306 | 1191 | 429 | 2336 | 384 | 410 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.11 | 0.47 | 0.03 | 0.39 | 0.26 | 0.20 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 30 | 485 | 20 | 10 | 795 | 30 | 60 | 20 | 15 | 30 | 10 | 35 |
| Future Volume (vph) | 30 | 485 | 20 | 10 | 795 | 30 | 60 | 20 | 15 | 30 | 10 | 35 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 5.9 | 5.9 | | 5.9 | 5.9 | | | 7.1 | | | 7.1 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | 1.00 | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.99 | | 1.00 | 0.99 | | | 0.98 | | | 0.91 | |
| Flpb, ped/bikes | 0.90 | 1.00 | | 0.94 | 1.00 | | | 0.90 | | | 0.97 | |
| Frt | 1.00 | 0.99 | | 1.00 | 0.99 | | | 0.98 | | | 0.94 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.97 | | | 0.98 | |
| Satd. Flow (prot) | 1502 | 1749 | | 1529 | 3433 | | | 1489 | | | 1398 | |
| Flt Permitted | 0.28 | 1.00 | | 0.39 | 1.00 | | | 0.76 | | | 0.84 | |
| Satd. Flow (perm) | 446 | 1749 | | 627 | 3433 | | | 1173 | | | 1197 | |
| Peak-hour factor, PHF | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.97 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 33 | 539 | 22 | 11 | 883 | 33 | 62 | 22 | 17 | 33 | 11 | 39 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 10 | 0 | 0 | 31 | 0 |
| Lane Group Flow (vph) | 33 | 560 | 0 | 11 | 914 | 0 | 0 | 91 | 0 | 0 | 52 | 0 |
| Confl. Peds. (#/hr) | 214 | | 81 | 81 | | 214 | 192 | | 56 | 56 | | 192 |
| Confl. Bikes (#/hr) | | | 2 | | | 3 | | | | | | |
| Heavy Vehicles (%) | 7% | 7% | 14% | 10% | 3% | 4% | 3% | 11% | 15% | 6% | 22% | 10% |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 4 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Actuated Green, G (s) | 58.6 | 58.6 | | 58.6 | 58.6 | | | 18.4 | | | 18.4 | |
| Effective Green, g (s) | 58.6 | 58.6 | | 58.6 | 58.6 | | | 18.4 | | | 18.4 | |
| Actuated g/C Ratio | 0.65 | 0.65 | | 0.65 | 0.65 | | | 0.20 | | | 0.20 | |
| Clearance Time (s) | 5.9 | 5.9 | | 5.9 | 5.9 | | | 7.1 | | | 7.1 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 290 | 1138 | | 408 | 2235 | | | 239 | | | 244 | |
| v/s Ratio Prot | | c0.32 | | | 0.27 | | | | | | | |
| v/s Ratio Perm | 0.07 | | | 0.02 | | | | c0.08 | | | 0.04 | |
| v/c Ratio | 0.11 | 0.49 | | 0.03 | 0.41 | | | 0.38 | | | 0.21 | |
| Uniform Delay, d1 | 5.9 | 8.1 | | 5.6 | 7.5 | | | 30.9 | | | 29.8 | |
| Progression Factor | 1.00 | 1.00 | | 0.40 | 0.48 | | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.8 | 1.5 | | 0.1 | 0.5 | | | 1.0 | | | 0.4 | |
| Delay (s) | 6.7 | 9.6 | | 2.3 | 4.1 | | | 31.9 | | | 30.2 | |
| Level of Service | A | A | | A | A | | | C | | | C | |
| Approach Delay (s) | | 9.4 | | | 4.1 | | | 31.9 | | | 30.2 | |
| Approach LOS | | A | | | A | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 8.9 | HCM 2000 Level of Service | A |
| HCM 2000 Volume to Capacity ratio | 0.47 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 13.0 |
| Intersection Capacity Utilization | 61.1% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 5 | 0 | 0 | 45 | 35 | 5 |
| Future Volume (Veh/h) | 5 | 0 | 0 | 45 | 35 | 5 |
| Sign Control | Stop | | | Free | Free | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 5 | 0 | 0 | 49 | 38 | 5 |
| Pedestrians | 1 | | | 1 | 17 | |
| Lane Width (m) | 3.6 | | | 3.6 | 3.6 | |
| Walking Speed (m/s) | 1.2 | | | 1.2 | 1.2 | |
| Percent Blockage | 0 | | | 0 | 1 | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | None | None | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | | | | 25 | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 108 | 42 | 44 | | | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 108 | 42 | 44 | | | |
| tC, single (s) | 6.4 | 6.2 | 4.1 | | | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | 2.2 | | | |
| p0 queue free % | 99 | 100 | 100 | | | |
| cM capacity (veh/h) | 881 | 1032 | 1576 | | | |

| Direction, Lane # | EB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 5 | 49 | 43 |
| Volume Left | 5 | 0 | 0 |
| Volume Right | 0 | 0 | 5 |
| cSH | 881 | 1576 | 1700 |
| Volume to Capacity | 0.01 | 0.00 | 0.03 |
| Queue Length 95th (m) | 0.1 | 0.0 | 0.0 |
| Control Delay (s) | 9.1 | 0.0 | 0.0 |
| Lane LOS | A | | |
| Approach Delay (s) | 9.1 | 0.0 | 0.0 |
| Approach LOS | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.5 | | |
| Intersection Capacity Utilization | 14.0% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 20 | 410 | 245 | 710 | 80 | 80 | 265 | 45 | 225 |
| Future Volume (vph) | 20 | 410 | 245 | 710 | 80 | 80 | 265 | 45 | 225 |
| Turn Type | Perm | NA | pm+pt | NA | Perm | Perm | NA | Perm | NA |
| Protected Phases | | 4 | 3 | 8 | | | 2 | | 6 |
| Permitted Phases | 4 | | 8 | | 8 | 2 | | 6 | |
| Detector Phase | 4 | 4 | 3 | 8 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 30.0 | 30.0 | 6.0 | 30.0 | 30.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 36.7 | 36.7 | 13.4 | 36.7 | 36.7 | 31.7 | 31.7 | 31.7 | 31.7 |
| Total Split (s) | 38.0 | 38.0 | 18.0 | 56.0 | 56.0 | 34.0 | 34.0 | 34.0 | 34.0 |
| Total Split (%) | 42.2% | 42.2% | 20.0% | 62.2% | 62.2% | 37.8% | 37.8% | 37.8% | 37.8% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 3.7 | 3.7 | 4.4 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 6.7 | 6.7 | 7.4 | 6.7 | 6.7 | | 6.7 | | 6.7 |
| Lead/Lag | Lag | Lag | Lead | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | | | |
| Recall Mode | Min | Min | Min | None | None | C-Min | C-Min | C-Min | C-Min |
| Act Effct Green (s) | 31.2 | 31.2 | 49.2 | 49.9 | 49.9 | | 26.7 | | 26.7 |
| Actuated g/C Ratio | 0.35 | 0.35 | 0.55 | 0.55 | 0.55 | | 0.30 | | 0.30 |
| v/c Ratio | 0.10 | 0.87 | 0.75 | 0.72 | 0.14 | | 0.72 | | 0.43 |
| Control Delay | 19.1 | 43.7 | 28.6 | 20.0 | 2.9 | | 29.9 | | 27.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 19.1 | 43.7 | 28.6 | 20.0 | 2.9 | | 29.9 | | 27.4 |
| LOS | B | D | C | B | A | | C | | C |
| Approach Delay | | 42.8 | | 20.7 | | | 29.9 | | 27.4 |
| Approach LOS | | D | | C | | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 89 (99%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green | |
| Natural Cycle: 85 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.87 | |
| Intersection Signal Delay: 28.4 | Intersection LOS: C |
| Intersection Capacity Utilization 126.4% | ICU Level of Service H |
| Analysis Period (min) 15 | |

Splits and Phases: 1: Main Street & Danforth Avenue

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBT |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 21 | 521 | 253 | 732 | 82 | 525 | 299 |
| v/c Ratio | 0.10 | 0.87 | 0.75 | 0.72 | 0.14 | 0.72 | 0.43 |
| Control Delay | 19.1 | 43.7 | 28.6 | 20.0 | 2.9 | 29.9 | 27.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.1 | 43.7 | 28.6 | 20.0 | 2.9 | 29.9 | 27.4 |
| Queue Length 50th (m) | 2.8 | 75.1 | 20.8 | 83.7 | 0.0 | 39.3 | 23.5 |
| Queue Length 95th (m) | m5.3 | #150.7 | #57.9 | 140.6 | 6.3 | 56.0 | 34.3 |
| Internal Link Dist (m) | | 68.6 | | 134.2 | | 339.1 | 295.4 |
| Turn Bay Length (m) | 30.0 | | | | | | |
| Base Capacity (vph) | 204 | 605 | 339 | 1021 | 611 | 753 | 715 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.10 | 0.86 | 0.75 | 0.72 | 0.13 | 0.70 | 0.42 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 20 | 410 | 95 | 245 | 710 | 80 | 80 | 265 | 165 | 45 | 225 | 20 |
| Future Volume (vph) | 20 | 410 | 95 | 245 | 710 | 80 | 80 | 265 | 165 | 45 | 225 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 6.7 | 6.7 | | 7.4 | 6.7 | 6.7 | | 6.7 | | | 6.7 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.95 | | | 0.95 | |
| Frpb, ped/bikes | 1.00 | 0.97 | | 1.00 | 1.00 | 0.82 | | 0.91 | | | 0.95 | |
| Flpb, ped/bikes | 0.94 | 1.00 | | 0.99 | 1.00 | 1.00 | | 0.93 | | | 0.98 | |
| Frt | 1.00 | 0.97 | | 1.00 | 1.00 | 0.85 | | 0.95 | | | 0.99 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.99 | | | 0.99 | |
| Satd. Flow (prot) | 1528 | 1696 | | 1690 | 1827 | 1028 | | 2695 | | | 2930 | |
| Flt Permitted | 0.36 | 1.00 | | 0.17 | 1.00 | 1.00 | | 0.83 | | | 0.78 | |
| Satd. Flow (perm) | 581 | 1696 | | 303 | 1827 | 1028 | | 2241 | | | 2302 | |
| Peak-hour factor, PHF | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Adj. Flow (vph) | 21 | 423 | 98 | 253 | 732 | 82 | 82 | 273 | 170 | 46 | 232 | 21 |
| RTOR Reduction (vph) | 0 | 9 | 0 | 0 | 0 | 37 | 0 | 65 | 0 | 0 | 6 | 0 |
| Lane Group Flow (vph) | 21 | 512 | 0 | 253 | 732 | 45 | 0 | 460 | 0 | 0 | 293 | 0 |
| Confl. Peds. (#/hr) | 185 | | 173 | 173 | | 185 | 768 | | 139 | 139 | | 768 |
| Confl. Bikes (#/hr) | | | 6 | | | 2 | | | | | | 6 |
| Heavy Vehicles (%) | 10% | 6% | 3% | 5% | 4% | 28% | 3% | 8% | 5% | 40% | 7% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 0 | 6 | 6 |
| Turn Type | Perm | NA | | pm+pt | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | 3 | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | 8 | 2 | | | 6 | | |
| Actuated Green, G (s) | 31.2 | 31.2 | | 49.9 | 49.9 | 49.9 | | 26.7 | | | 26.7 | |
| Effective Green, g (s) | 31.2 | 31.2 | | 49.9 | 49.9 | 49.9 | | 26.7 | | | 26.7 | |
| Actuated g/C Ratio | 0.35 | 0.35 | | 0.55 | 0.55 | 0.55 | | 0.30 | | | 0.30 | |
| Clearance Time (s) | 6.7 | 6.7 | | 7.4 | 6.7 | 6.7 | | 6.7 | | | 6.7 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 201 | 587 | | 342 | 1012 | 569 | | 664 | | | 682 | |
| v/s Ratio Prot | | c0.30 | | 0.09 | c0.40 | | | | | | | |
| v/s Ratio Perm | 0.04 | | | 0.32 | | 0.04 | | c0.21 | | | 0.13 | |
| v/c Ratio | 0.10 | 0.87 | | 0.74 | 0.72 | 0.08 | | 0.69 | | | 0.43 | |
| Uniform Delay, d1 | 19.9 | 27.5 | | 15.3 | 14.9 | 9.3 | | 28.0 | | | 25.5 | |
| Progression Factor | 0.89 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.2 | 12.8 | | 8.1 | 2.6 | 0.1 | | 5.9 | | | 2.0 | |
| Delay (s) | 17.9 | 40.3 | | 23.5 | 17.5 | 9.4 | | 33.9 | | | 27.5 | |
| Level of Service | B | D | | C | B | A | | C | | | C | |
| Approach Delay (s) | | 39.5 | | | 18.3 | | | 33.9 | | | 27.5 | |
| Approach LOS | | D | | | B | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 27.5 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.83 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 20.8 |
| Intersection Capacity Utilization | 126.4% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 15 | 515 | 770 | 40 | 10 | 30 |
| Future Volume (Veh/h) | 15 | 515 | 770 | 40 | 10 | 30 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 16 | 542 | 811 | 42 | 11 | 32 |
| Pedestrians | | 6 | 2 | | 125 | |
| Lane Width (m) | | 3.6 | 3.5 | | 3.6 | |
| Walking Speed (m/s) | | 1.2 | 1.2 | | 1.2 | |
| Percent Blockage | | 1 | 0 | | 10 | |
| Right turn flare (veh) | | | | | | |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | 172 | 93 | | | |
| pX, platoon unblocked | 0.69 | | | | 0.75 | 0.69 |
| vC, conflicting volume | 978 | | | | 1512 | 942 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 746 | | | | 1153 | 694 |
| tC, single (s) | 4.1 | | | | 6.5 | 6.3 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.6 | 3.4 |
| p0 queue free % | 97 | | | | 92 | 88 |
| cM capacity (veh/h) | 540 | | | | 138 | 269 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | SB 1 |
|---|---|---|---|---|
| Volume Total | 558 | 811 | 42 | 43 |
| Volume Left | 16 | 0 | 0 | 11 |
| Volume Right | 0 | 0 | 42 | 32 |
| cSH | 540 | 1700 | 1700 | 217 |
| Volume to Capacity | 0.03 | 0.48 | 0.02 | 0.20 |
| Queue Length 95th (m) | 0.7 | 0.0 | 0.0 | 5.8 |
| Control Delay (s) | 0.8 | 0.0 | 0.0 | 25.7 |
| Lane LOS | A | | | D |
| Approach Delay (s) | 0.8 | 0.0 | | 25.7 |
| Approach LOS | | | | D |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 1.1 | | |
| Intersection Capacity Utilization | 52.3% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 510 | 15 | 20 | 780 | 10 | 20 |
| Future Volume (Veh/h) | 510 | 15 | 20 | 780 | 10 | 20 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Hourly flow rate (vph) | 548 | 16 | 22 | 839 | 11 | 22 |
| Pedestrians | 7 | | | 9 | 149 | |
| Lane Width (m) | 3.6 | | | 3.6 | 3.6 | |
| Walking Speed (m/s) | 1.2 | | | 1.2 | 1.2 | |
| Percent Blockage | 1 | | | 1 | 12 | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | 136 | | | 128 | | |
| pX, platoon unblocked | | | 0.87 | | 0.76 | 0.87 |
| vC, conflicting volume | | | 713 | | 1595 | 714 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 594 | | 1233 | 595 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 97 | | 91 | 94 |
| cM capacity (veh/h) | | | 755 | | 126 | 383 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 564 | 861 | 33 |
| Volume Left | 0 | 22 | 11 |
| Volume Right | 16 | 0 | 22 |
| cSH | 1700 | 755 | 228 |
| Volume to Capacity | 0.33 | 0.03 | 0.14 |
| Queue Length 95th (m) | 0.0 | 0.7 | 4.0 |
| Control Delay (s) | 0.0 | 0.8 | 23.5 |
| Lane LOS | | A | C |
| Approach Delay (s) | 0.0 | 0.8 | 23.5 |
| Approach LOS | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 1.0 | | |
| Intersection Capacity Utilization | 69.7% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 520 | 5 | 0 | 790 | 0 | 5 |
| Future Volume (Veh/h) | 520 | 5 | 0 | 790 | 0 | 5 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Hourly flow rate (vph) | 559 | 5 | 0 | 849 | 0 | 5 |
| Pedestrians | 2 | | | | | |
| Lane Width (m) | 3.6 | | | | | |
| Walking Speed (m/s) | 1.2 | | | | | |
| Percent Blockage | 0 | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | 49 | | | 215 | | |
| pX, platoon unblocked | | | 0.87 | | 0.76 | 0.87 |
| vC, conflicting volume | | | 564 | | 1412 | 562 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 419 | | 986 | 416 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 100 | | 100 | 99 |
| cM capacity (veh/h) | | | 997 | | 209 | 555 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 564 | 849 | 5 |
| Volume Left | 0 | 0 | 0 |
| Volume Right | 5 | 0 | 5 |
| cSH | 1700 | 997 | 555 |
| Volume to Capacity | 0.33 | 0.00 | 0.01 |
| Queue Length 95th (m) | 0.0 | 0.0 | 0.2 |
| Control Delay (s) | 0.0 | 0.0 | 11.5 |
| Lane LOS | | | B |
| Approach Delay (s) | 0.0 | 0.0 | 11.5 |
| Approach LOS | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.0 | | |
| Intersection Capacity Utilization | 51.6% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 0 | 5 | 40 | 0 | 5 | 30 |
| Future Volume (Veh/h) | 0 | 5 | 40 | 0 | 5 | 30 |
| Sign Control | Stop | | Free | | | Free |
| Grade | 0% | | 0% | | | 0% |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 5 | 43 | 0 | 5 | 33 |
| Pedestrians | 20 | | 7 | | | 2 |
| Lane Width (m) | 3.6 | | 3.6 | | | 3.6 |
| Walking Speed (m/s) | 1.2 | | 1.2 | | | 1.2 |
| Percent Blockage | 2 | | 1 | | | 0 |
| Right turn flare (veh) | | | | | | |
| Median type | | | None | | | None |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | | | | | 43 |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 113 | 65 | | | 63 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 113 | 65 | | | 63 | |
| tC, single (s) | 6.4 | 6.2 | | | 4.3 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | | | 2.4 | |
| p0 queue free % | 100 | 99 | | | 100 | |
| cM capacity (veh/h) | 865 | 986 | | | 1409 | |

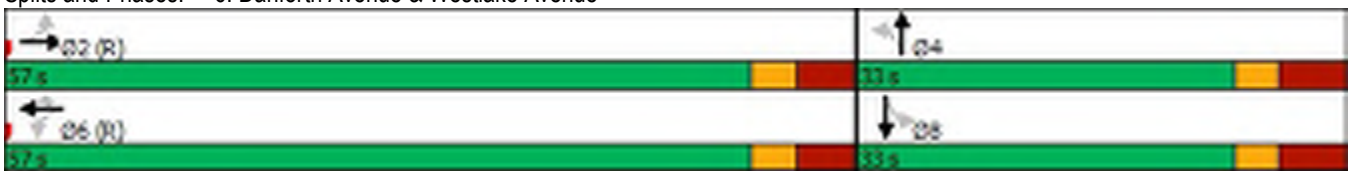
| Direction, Lane # | WB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 5 | 43 | 38 |
| Volume Left | 0 | 0 | 5 |
| Volume Right | 5 | 0 | 0 |
| cSH | 986 | 1700 | 1409 |
| Volume to Capacity | 0.01 | 0.03 | 0.00 |
| Queue Length 95th (m) | 0.1 | 0.0 | 0.1 |
| Control Delay (s) | 8.7 | 0.0 | 1.0 |
| Lane LOS | A | | A |
| Approach Delay (s) | 8.7 | 0.0 | 1.0 |
| Approach LOS | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 1.0 | | |
| Intersection Capacity Utilization | 18.8% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 20 | 495 | 15 | 755 | 20 | 30 | 10 | 20 | 5 |
| Future Volume (vph) | 20 | 495 | 15 | 755 | 20 | 30 | 10 | 20 | 5 |
| Turn Type | Perm | NA | Perm | NA | Perm | Perm | NA | Perm | NA |
| Protected Phases | | 2 | | 6 | | | 4 | | 8 |
| Permitted Phases | 2 | | 6 | | 6 | 4 | | 8 | |
| Detector Phase | 2 | 2 | 6 | 6 | 6 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 14.0 | 14.0 | 14.0 | 14.0 | 14.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 32.7 | 32.7 | 32.7 | 32.7 |
| Total Split (s) | 57.0 | 57.0 | 57.0 | 57.0 | 57.0 | 33.0 | 33.0 | 33.0 | 33.0 |
| Total Split (%) | 63.3% | 63.3% | 63.3% | 63.3% | 63.3% | 36.7% | 36.7% | 36.7% | 36.7% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.7 | 4.7 | 4.7 | 4.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.7 | | 7.7 |
| Lead/Lag | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | |
| Recall Mode | C-Min | C-Min | C-Min | C-Min | C-Min | None | None | None | None |
| Act Effct Green (s) | 69.2 | 69.2 | 69.2 | 69.2 | 69.2 | | 20.0 | | 20.0 |
| Actuated g/C Ratio | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 | | 0.22 | | 0.22 |
| v/c Ratio | 0.06 | 0.40 | 0.03 | 0.57 | 0.02 | | 0.18 | | 0.17 |
| Control Delay | 12.6 | 13.0 | 9.9 | 11.5 | 9.5 | | 25.6 | | 18.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 12.6 | 13.0 | 9.9 | 11.5 | 9.5 | | 25.6 | | 18.3 |
| LOS | B | B | A | B | A | | C | | B |
| Approach Delay | | 12.9 | | 11.4 | | | 25.6 | | 18.3 |
| Approach LOS | | B | | B | | | C | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 28 (31%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.57 | |
| Intersection Signal Delay: 12.7 | Intersection LOS: B |
| Intersection Capacity Utilization 71.6% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Danforth Avenue & Westlake Avenue



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBT |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 21 | 548 | 16 | 803 | 21 | 54 | 53 |
| v/c Ratio | 0.06 | 0.40 | 0.03 | 0.57 | 0.02 | 0.18 | 0.17 |
| Control Delay | 12.6 | 13.0 | 9.9 | 11.5 | 9.5 | 25.6 | 18.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 12.6 | 13.0 | 9.9 | 11.5 | 9.5 | 25.6 | 18.3 |
| Queue Length 50th (m) | 2.1 | 68.4 | 1.3 | 87.4 | 1.7 | 6.3 | 3.8 |
| Queue Length 95th (m) | m5.2 | 97.1 | m2.0 | 100.5 | m2.6 | 16.4 | 13.6 |
| Internal Link Dist (m) | | 139.2 | | 25.3 | | 0.7 | 152.8 |
| Turn Bay Length (m) | 35.0 | | 20.0 | | 20.0 | | |
| Base Capacity (vph) | 363 | 1358 | 496 | 1404 | 893 | 377 | 398 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.40 | 0.03 | 0.57 | 0.02 | 0.14 | 0.13 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 20 | 495 | 20 | 15 | 755 | 20 | 30 | 10 | 10 | 20 | 5 | 25 |
| Future Volume (vph) | 20 | 495 | 20 | 15 | 755 | 20 | 30 | 10 | 10 | 20 | 5 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.7 | | | 7.7 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.99 | | 1.00 | 1.00 | 0.77 | | 0.98 | | | 0.95 | |
| Flpb, ped/bikes | 0.96 | 1.00 | | 0.92 | 1.00 | 1.00 | | 0.96 | | | 0.98 | |
| Frt | 1.00 | 0.99 | | 1.00 | 1.00 | 0.85 | | 0.97 | | | 0.93 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.97 | | | 0.98 | |
| Satd. Flow (prot) | 1539 | 1766 | | 1421 | 1827 | 1162 | | 1623 | | | 1562 | |
| Flt Permitted | 0.28 | 1.00 | | 0.43 | 1.00 | 1.00 | | 0.79 | | | 0.85 | |
| Satd. Flow (perm) | 452 | 1766 | | 636 | 1827 | 1162 | | 1316 | | | 1349 | |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 21 | 527 | 21 | 16 | 803 | 21 | 32 | 11 | 11 | 21 | 5 | 27 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 23 | 0 |
| Lane Group Flow (vph) | 21 | 547 | 0 | 16 | 803 | 21 | 0 | 44 | 0 | 0 | 30 | 0 |
| Confl. Peds. (#/hr) | 90 | | 87 | 87 | | 90 | 38 | | 28 | 28 | | 38 |
| Confl. Bikes (#/hr) | | | | | | | | | 3 | | | 1 |
| Heavy Vehicles (%) | 11% | 6% | 8% | 15% | 4% | 6% | 8% | 0% | 0% | 5% | 0% | 4% |
| Turn Type | Perm | NA | | Perm | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 4 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | 6 | 4 | | | 8 | | |
| Actuated Green, G (s) | 63.3 | 63.3 | | 63.3 | 63.3 | 63.3 | | 12.0 | | | 12.0 | |
| Effective Green, g (s) | 63.3 | 63.3 | | 63.3 | 63.3 | 63.3 | | 12.0 | | | 12.0 | |
| Actuated g/C Ratio | 0.70 | 0.70 | | 0.70 | 0.70 | 0.70 | | 0.13 | | | 0.13 | |
| Clearance Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.7 | | | 7.7 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 317 | 1242 | | 447 | 1284 | 817 | | 175 | | | 179 | |
| v/s Ratio Prot | | 0.31 | | | c0.44 | | | | | | | |
| v/s Ratio Perm | 0.05 | | | 0.03 | | 0.02 | | c0.03 | | | 0.02 | |
| v/c Ratio | 0.07 | 0.44 | | 0.04 | 0.63 | 0.03 | | 0.25 | | | 0.17 | |
| Uniform Delay, d1 | 4.2 | 5.7 | | 4.1 | 7.1 | 4.0 | | 35.0 | | | 34.6 | |
| Progression Factor | 1.75 | 1.65 | | 1.42 | 1.10 | 1.43 | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.4 | 1.0 | | 0.1 | 1.8 | 0.0 | | 0.8 | | | 0.4 | |
| Delay (s) | 7.6 | 10.5 | | 5.9 | 9.5 | 5.8 | | 35.8 | | | 35.0 | |
| Level of Service | A | B | | A | A | A | | D | | | C | |
| Approach Delay (s) | | 10.4 | | | 9.4 | | | 35.8 | | | 35.0 | |
| Approach LOS | | B | | | A | | | D | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 11.6 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.57 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 14.7 |
| Intersection Capacity Utilization | 71.6% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 0 | 15 | 0 | 5 | 15 | 25 | 0 | 15 | 5 | 15 | 10 | 5 |
| Future Volume (vph) | 0 | 15 | 0 | 5 | 15 | 25 | 0 | 15 | 5 | 15 | 10 | 5 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 16 | 0 | 5 | 16 | 27 | 0 | 16 | 5 | 16 | 11 | 5 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 16 | 48 | 21 | 32 |
| Volume Left (vph) | 0 | 5 | 0 | 16 |
| Volume Right (vph) | 0 | 27 | 5 | 5 |
| Hadj (s) | 0.00 | -0.22 | -0.01 | 0.14 |
| Departure Headway (s) | 4.1 | 3.8 | 4.1 | 4.2 |
| Degree Utilization, x | 0.02 | 0.05 | 0.02 | 0.04 |
| Capacity (veh/h) | 867 | 925 | 862 | 840 |
| Control Delay (s) | 7.1 | 7.0 | 7.1 | 7.4 |
| Approach Delay (s) | 7.1 | 7.0 | 7.1 | 7.4 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 7.2 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 30.5% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBR | SEL | SER |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 520 | 10 | 15 | 780 | 15 | 5 | 15 | 0 | 0 |
| Future Volume (Veh/h) | 0 | 520 | 10 | 15 | 780 | 15 | 5 | 15 | 0 | 0 |
| Sign Control | | Free | | | Free | | Stop | | Stop | |
| Grade | | 0% | | | 0% | | 0% | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 565 | 11 | 16 | 848 | 16 | 5 | 16 | 0 | 0 |
| Pedestrians | | | | | | | 90 | | 150 | |
| Lane Width (m) | | | | | | | 3.6 | | 3.6 | |
| Walking Speed (m/s) | | | | | | | 1.2 | | 1.2 | |
| Percent Blockage | | | | | | | 8 | | 12 | |
| Right turn flare (veh) | | | | | | | | | | |
| Median type | | None | | | None | | | | | |
| Median storage veh) | | | | | | | | | | |
| Upstream signal (m) | | 143 | | | 163 | | | | | |
| pX, platoon unblocked | 0.73 | | | 0.84 | | | 0.81 | 0.84 | 0.81 | 0.81 |
| vC, conflicting volume | 1014 | | | 666 | | | 1706 | 660 | 1627 | 1704 |
| vC1, stage 1 conf vol | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | |
| vCu, unblocked vol | 835 | | | 506 | | | 1308 | 499 | 1210 | 1305 |
| tC, single (s) | 4.1 | | | 4.2 | | | 6.5 | 6.3 | 7.1 | 6.5 |
| tC, 2 stage (s) | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.3 | | | 4.0 | 3.4 | 3.5 | 4.0 |
| p0 queue free % | 100 | | | 98 | | | 95 | 96 | 100 | 100 |
| cM capacity (veh/h) | 516 | | | 802 | | | 104 | 436 | 88 | 103 |

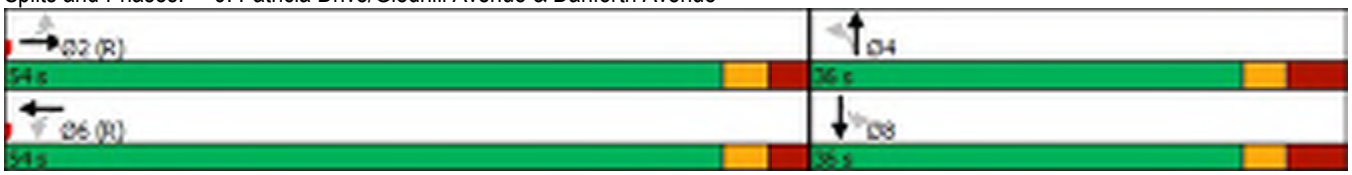
| Direction, Lane # | EB 1 | WB 1 | NB 1 | SE 1 |
|---|---|---|---|---|
| Volume Total | 576 | 880 | 21 | 0 |
| Volume Left | 0 | 16 | 0 | 0 |
| Volume Right | 11 | 16 | 16 | 0 |
| cSH | 516 | 802 | 247 | 1700 |
| Volume to Capacity | 0.00 | 0.02 | 0.08 | 0.00 |
| Queue Length 95th (m) | 0.0 | 0.5 | 2.2 | 0.0 |
| Control Delay (s) | 0.0 | 0.6 | 20.9 | 0.0 |
| Lane LOS | | A | C | A |
| Approach Delay (s) | 0.0 | 0.6 | 20.9 | 0.0 |
| Approach LOS | | | C | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.6 | | |
| Intersection Capacity Utilization | 64.1% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 30 | 485 | 10 | 795 | 60 | 20 | 30 | 10 |
| Future Volume (vph) | 30 | 485 | 10 | 795 | 60 | 20 | 30 | 10 |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | NA |
| Protected Phases | | 2 | | 6 | | 4 | | 8 |
| Permitted Phases | 2 | | 6 | | 4 | | 8 | |
| Detector Phase | 2 | 2 | 6 | 6 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 19.0 | 19.0 | 19.0 | 19.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Minimum Split (s) | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 |
| Total Split (s) | 54.0 | 54.0 | 54.0 | 54.0 | 36.0 | 36.0 | 36.0 | 36.0 |
| Total Split (%) | 60.0% | 60.0% | 60.0% | 60.0% | 40.0% | 40.0% | 40.0% | 40.0% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 2.9 | 2.9 | 2.9 | 2.9 | 4.1 | 4.1 | 4.1 | 4.1 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 5.9 | 5.9 | 5.9 | | 7.1 | | 7.1 |
| Lead/Lag | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | |
| Recall Mode | C-Min | C-Min | C-Min | C-Min | None | None | None | None |
| Act Effct Green (s) | 61.2 | 61.2 | 61.2 | 61.2 | | 23.0 | | 23.0 |
| Actuated g/C Ratio | 0.68 | 0.68 | 0.68 | 0.68 | | 0.26 | | 0.26 |
| v/c Ratio | 0.11 | 0.47 | 0.03 | 0.39 | | 0.33 | | 0.25 |
| Control Delay | 9.0 | 11.1 | 3.1 | 4.6 | | 27.4 | | 18.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 9.0 | 11.1 | 3.1 | 4.6 | | 27.4 | | 18.0 |
| LOS | A | B | A | A | | C | | B |
| Approach Delay | | 10.9 | | 4.6 | | 27.4 | | 18.0 |
| Approach LOS | | B | | A | | C | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 63 (70%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.47 | |
| Intersection Signal Delay: 8.8 | Intersection LOS: A |
| Intersection Capacity Utilization 61.1% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Patricia Drive/Gledhill Avenue & Danforth Avenue



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 33 | 561 | 11 | 916 | 101 | 83 |
| v/c Ratio | 0.11 | 0.47 | 0.03 | 0.39 | 0.33 | 0.25 |
| Control Delay | 9.0 | 11.1 | 3.1 | 4.6 | 27.4 | 18.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.0 | 11.1 | 3.1 | 4.6 | 27.4 | 18.0 |
| Queue Length 50th (m) | 2.4 | 54.6 | 0.1 | 8.0 | 13.1 | 6.2 |
| Queue Length 95th (m) | 6.9 | 82.4 | m0.5 | 13.7 | 27.7 | 18.4 |
| Internal Link Dist (m) | | 219.0 | | 119.1 | 113.2 | 112.4 |
| Turn Bay Length (m) | 30.0 | | 20.0 | | | |
| Base Capacity (vph) | 306 | 1191 | 429 | 2336 | 384 | 410 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.11 | 0.47 | 0.03 | 0.39 | 0.26 | 0.20 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 30 | 485 | 20 | 10 | 795 | 30 | 60 | 20 | 15 | 30 | 10 | 35 |
| Future Volume (vph) | 30 | 485 | 20 | 10 | 795 | 30 | 60 | 20 | 15 | 30 | 10 | 35 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 5.9 | 5.9 | | 5.9 | 5.9 | | | 7.1 | | | 7.1 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | 1.00 | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.99 | | 1.00 | 0.99 | | | 0.98 | | | 0.91 | |
| Flpb, ped/bikes | 0.90 | 1.00 | | 0.94 | 1.00 | | | 0.90 | | | 0.97 | |
| Frt | 1.00 | 0.99 | | 1.00 | 0.99 | | | 0.98 | | | 0.94 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.97 | | | 0.98 | |
| Satd. Flow (prot) | 1502 | 1749 | | 1529 | 3433 | | | 1489 | | | 1398 | |
| Flt Permitted | 0.28 | 1.00 | | 0.39 | 1.00 | | | 0.76 | | | 0.84 | |
| Satd. Flow (perm) | 446 | 1749 | | 627 | 3433 | | | 1173 | | | 1197 | |
| Peak-hour factor, PHF | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.97 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 33 | 539 | 22 | 11 | 883 | 33 | 62 | 22 | 17 | 33 | 11 | 39 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 10 | 0 | 0 | 31 | 0 |
| Lane Group Flow (vph) | 33 | 560 | 0 | 11 | 914 | 0 | 0 | 91 | 0 | 0 | 52 | 0 |
| Confl. Peds. (#/hr) | 214 | | 81 | 81 | | 214 | 192 | | 56 | 56 | | 192 |
| Confl. Bikes (#/hr) | | | 2 | | | 3 | | | | | | |
| Heavy Vehicles (%) | 7% | 7% | 14% | 10% | 3% | 4% | 3% | 11% | 15% | 6% | 22% | 10% |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 4 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Actuated Green, G (s) | 58.6 | 58.6 | | 58.6 | 58.6 | | | 18.4 | | | 18.4 | |
| Effective Green, g (s) | 58.6 | 58.6 | | 58.6 | 58.6 | | | 18.4 | | | 18.4 | |
| Actuated g/C Ratio | 0.65 | 0.65 | | 0.65 | 0.65 | | | 0.20 | | | 0.20 | |
| Clearance Time (s) | 5.9 | 5.9 | | 5.9 | 5.9 | | | 7.1 | | | 7.1 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 290 | 1138 | | 408 | 2235 | | | 239 | | | 244 | |
| v/s Ratio Prot | | c0.32 | | | 0.27 | | | | | | | |
| v/s Ratio Perm | 0.07 | | | 0.02 | | | | c0.08 | | | 0.04 | |
| v/c Ratio | 0.11 | 0.49 | | 0.03 | 0.41 | | | 0.38 | | | 0.21 | |
| Uniform Delay, d1 | 5.9 | 8.1 | | 5.6 | 7.5 | | | 30.9 | | | 29.8 | |
| Progression Factor | 1.00 | 1.00 | | 0.40 | 0.48 | | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.8 | 1.5 | | 0.1 | 0.5 | | | 1.0 | | | 0.4 | |
| Delay (s) | 6.7 | 9.6 | | 2.3 | 4.1 | | | 31.9 | | | 30.2 | |
| Level of Service | A | A | | A | A | | | C | | | C | |
| Approach Delay (s) | | 9.4 | | | 4.1 | | | 31.9 | | | 30.2 | |
| Approach LOS | | A | | | A | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 8.9 | HCM 2000 Level of Service | A |
| HCM 2000 Volume to Capacity ratio | 0.47 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 13.0 |
| Intersection Capacity Utilization | 61.1% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

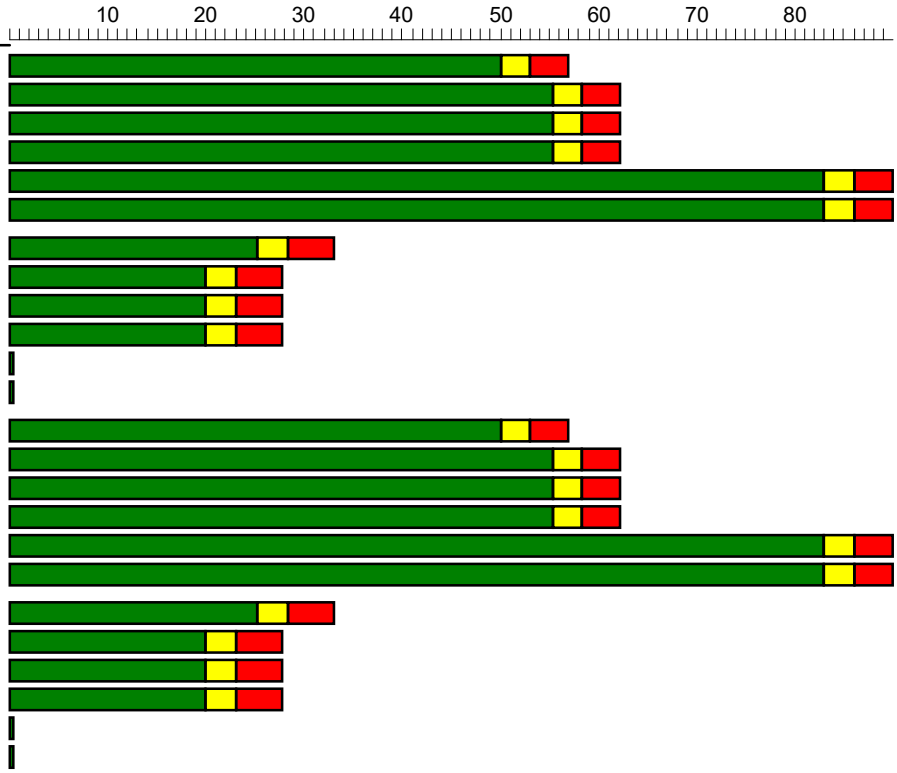
c Critical Lane Group

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 5 | 0 | 0 | 45 | 35 | 5 |
| Future Volume (Veh/h) | 5 | 0 | 0 | 45 | 35 | 5 |
| Sign Control | Stop | | | Free | Free | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 5 | 0 | 0 | 49 | 38 | 5 |
| Pedestrians | 1 | | | 1 | 17 | |
| Lane Width (m) | 3.6 | | | 3.6 | 3.6 | |
| Walking Speed (m/s) | 1.2 | | | 1.2 | 1.2 | |
| Percent Blockage | 0 | | | 0 | 1 | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | None | None | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | | | | 25 | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 108 | 42 | 44 | | | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 108 | 42 | 44 | | | |
| tC, single (s) | 6.4 | 6.2 | 4.1 | | | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | 2.2 | | | |
| p0 queue free % | 99 | 100 | 100 | | | |
| cM capacity (veh/h) | 881 | 1032 | 1576 | | | |

| Direction, Lane # | EB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 5 | 49 | 43 |
| Volume Left | 5 | 0 | 0 |
| Volume Right | 0 | 0 | 5 |
| cSH | 881 | 1576 | 1700 |
| Volume to Capacity | 0.01 | 0.00 | 0.03 |
| Queue Length 95th (m) | 0.1 | 0.0 | 0.0 |
| Control Delay (s) | 9.1 | 0.0 | 0.0 |
| Lane LOS | A | | |
| Approach Delay (s) | 9.1 | 0.0 | 0.0 |
| Approach LOS | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.5 | | |
| Intersection Capacity Utilization | 14.0% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Phase | %ile | Green | Termination |
|---|---|---|---|
| | Max | 50.0 | Max |
| | 90th | 55.3 | Coordinated |
| | 70th | 55.3 | Coordinated |
| | 50th | 55.3 | Coordinated |
| 2 EBTL | 30th | 83.0 | Coordinated |
| | 10th | 83.0 | Coordinated |
| | Max | 25.3 | Max |
| | 90th | 20.0 | Min |
| | 70th | 20.0 | Min |
| | 50th | 20.0 | Min |
| 4 NBTL | 30th | 0.0 | Skip |
| | 10th | 0.0 | Skip |
| | Max | 50.0 | Max |
| | 90th | 55.3 | Coordinated |
| | 70th | 55.3 | Coordinated |
| | 50th | 55.3 | Coordinated |
| 6 WBTL | 30th | 83.0 | Coordinated |
| | 10th | 83.0 | Coordinated |
| | Max | 25.3 | Max |
| | 90th | 20.0 | Min |
| | 70th | 20.0 | Min |
| | 50th | 20.0 | Min |
| 8 SBTL | 30th | 0.0 | Skip |
| | 10th | 0.0 | Skip |

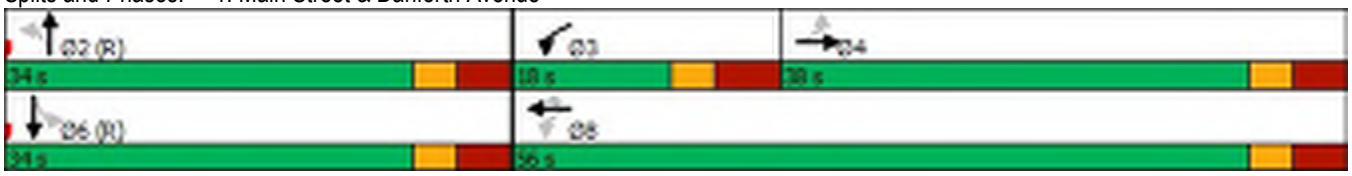



Cycle Length: 90

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 25 | 415 | 95 | 245 | 710 | 80 | 80 | 265 | 165 | 45 | 225 | 20 |
| Future Volume (vph) | 25 | 415 | 95 | 245 | 710 | 80 | 80 | 265 | 165 | 45 | 225 | 20 |
| Satd. Flow (prot) | 1623 | 1697 | 0 | 1700 | 1827 | 1248 | 0 | 2895 | 0 | 0 | 2977 | 0 |
| Flt Permitted | 0.363 | | | 0.165 | | | | 0.825 | | | 0.779 | |
| Satd. Flow (perm) | 585 | 1697 | 0 | 282 | 1827 | 1028 | 0 | 2240 | 0 | 0 | 2299 | 0 |
| Satd. Flow (RTOR) | | 14 | | | | 82 | | 92 | | | 9 | |
| Lane Group Flow (vph) | 26 | 526 | 0 | 253 | 732 | 82 | 0 | 525 | 0 | 0 | 299 | 0 |
| Turn Type | Perm | NA | | pm+pt | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | 3 | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | 8 | 2 | | | 6 | | |
| Total Split (s) | 38.0 | 38.0 | | 18.0 | 56.0 | 56.0 | 34.0 | 34.0 | | 34.0 | 34.0 | |
| Total Lost Time (s) | 6.7 | 6.7 | | 7.4 | 6.7 | 6.7 | | 6.7 | | | 6.7 | |
| Act Effct Green (s) | 31.2 | 31.2 | | 49.3 | 50.0 | 50.0 | | 26.6 | | | 26.6 | |
| Actuated g/C Ratio | 0.35 | 0.35 | | 0.55 | 0.56 | 0.56 | | 0.30 | | | 0.30 | |
| v/c Ratio | 0.13 | 0.88 | | 0.76 | 0.72 | 0.14 | | 0.72 | | | 0.44 | |
| Control Delay | 18.2 | 41.0 | | 29.6 | 19.9 | 2.9 | | 30.0 | | | 27.4 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | | 0.0 | |
| Total Delay | 18.2 | 41.0 | | 29.6 | 19.9 | 2.9 | | 30.0 | | | 27.4 | |
| LOS | B | D | | C | B | A | | C | | | C | |
| Approach Delay | | 40.0 | | | 20.9 | | | 30.0 | | | 27.4 | |
| Approach LOS | | D | | | C | | | C | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 89 (99%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.88 | |
| Intersection Signal Delay: 28.0 | Intersection LOS: C |
| Intersection Capacity Utilization 126.4% | ICU Level of Service H |
| Analysis Period (min) 15 | |

Splits and Phases: 1: Main Street & Danforth Avenue



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBT |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 26 | 526 | 253 | 732 | 82 | 525 | 299 |
| v/c Ratio | 0.13 | 0.88 | 0.76 | 0.72 | 0.14 | 0.72 | 0.44 |
| Control Delay | 18.2 | 41.0 | 29.6 | 19.9 | 2.9 | 30.0 | 27.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 18.2 | 41.0 | 29.6 | 19.9 | 2.9 | 30.0 | 27.4 |
| Queue Length 50th (m) | 3.4 | 80.5 | 20.8 | 83.4 | 0.0 | 39.3 | 23.5 |
| Queue Length 95th (m) | m4.9 | #153.3 | #59.4 | 140.6 | 6.3 | 56.0 | 34.3 |
| Internal Link Dist (m) | | 68.6 | | 134.2 | | 339.1 | 295.4 |
| Turn Bay Length (m) | 30.0 | | | | | | |
| Base Capacity (vph) | 205 | 606 | 336 | 1022 | 611 | 753 | 714 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.13 | 0.87 | 0.75 | 0.72 | 0.13 | 0.70 | 0.42 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 25 | 415 | 95 | 245 | 710 | 80 | 80 | 265 | 165 | 45 | 225 | 20 |
| Future Volume (vph) | 25 | 415 | 95 | 245 | 710 | 80 | 80 | 265 | 165 | 45 | 225 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 6.7 | 6.7 | | 7.4 | 6.7 | 6.7 | | 6.7 | | | 6.7 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.95 | | | 0.95 | |
| Frpb, ped/bikes | 1.00 | 0.97 | | 1.00 | 1.00 | 0.82 | | 0.91 | | | 0.95 | |
| Flpb, ped/bikes | 0.94 | 1.00 | | 0.99 | 1.00 | 1.00 | | 0.93 | | | 0.98 | |
| Frt | 1.00 | 0.97 | | 1.00 | 1.00 | 0.85 | | 0.95 | | | 0.99 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.99 | | | 0.99 | |
| Satd. Flow (prot) | 1528 | 1697 | | 1691 | 1827 | 1028 | | 2695 | | | 2930 | |
| Flt Permitted | 0.36 | 1.00 | | 0.17 | 1.00 | 1.00 | | 0.83 | | | 0.78 | |
| Satd. Flow (perm) | 585 | 1697 | | 294 | 1827 | 1028 | | 2242 | | | 2299 | |
| Peak-hour factor, PHF | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Adj. Flow (vph) | 26 | 428 | 98 | 253 | 732 | 82 | 82 | 273 | 170 | 46 | 232 | 21 |
| RTOR Reduction (vph) | 0 | 9 | 0 | 0 | 0 | 36 | 0 | 65 | 0 | 0 | 6 | 0 |
| Lane Group Flow (vph) | 26 | 517 | 0 | 253 | 732 | 46 | 0 | 460 | 0 | 0 | 293 | 0 |
| Confl. Peds. (#/hr) | 185 | | 173 | 173 | | 185 | 768 | | 139 | 139 | | 768 |
| Confl. Bikes (#/hr) | | | 6 | | | 2 | | | | | | 6 |
| Heavy Vehicles (%) | 10% | 6% | 3% | 5% | 4% | 28% | 3% | 8% | 5% | 40% | 7% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 0 | 6 | 6 |
| Turn Type | Perm | NA | | pm+pt | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | 3 | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | 8 | 2 | | | 6 | | |
| Actuated Green, G (s) | 31.2 | 31.2 | | 50.0 | 50.0 | 50.0 | | 26.6 | | | 26.6 | |
| Effective Green, g (s) | 31.2 | 31.2 | | 50.0 | 50.0 | 50.0 | | 26.6 | | | 26.6 | |
| Actuated g/C Ratio | 0.35 | 0.35 | | 0.56 | 0.56 | 0.56 | | 0.30 | | | 0.30 | |
| Clearance Time (s) | 6.7 | 6.7 | | 7.4 | 6.7 | 6.7 | | 6.7 | | | 6.7 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 202 | 588 | | 340 | 1015 | 571 | | 662 | | | 679 | |
| v/s Ratio Prot | | c0.30 | | 0.09 | c0.40 | | | | | | | |
| v/s Ratio Perm | 0.04 | | | 0.32 | | 0.04 | | c0.21 | | | 0.13 | |
| v/c Ratio | 0.13 | 0.88 | | 0.74 | 0.72 | 0.08 | | 0.70 | | | 0.43 | |
| Uniform Delay, d1 | 20.1 | 27.6 | | 15.4 | 14.8 | 9.3 | | 28.1 | | | 25.6 | |
| Progression Factor | 0.83 | 0.90 | | 1.00 | 1.00 | 1.00 | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.3 | 12.6 | | 8.5 | 2.6 | 0.1 | | 5.9 | | | 2.0 | |
| Delay (s) | 16.9 | 37.4 | | 24.0 | 17.4 | 9.4 | | 34.0 | | | 27.6 | |
| Level of Service | B | D | | C | B | A | | C | | | C | |
| Approach Delay (s) | | 36.5 | | | 18.3 | | | 34.0 | | | 27.6 | |
| Approach LOS | | D | | | B | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 26.9 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.83 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 20.8 |
| Intersection Capacity Utilization | 126.4% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 15 | 525 | 770 | 40 | 10 | 30 |
| Future Volume (Veh/h) | 15 | 525 | 770 | 40 | 10 | 30 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 16 | 553 | 811 | 42 | 11 | 32 |
| Pedestrians | | 6 | 2 | | 125 | |
| Lane Width (m) | | 3.6 | 3.5 | | 3.6 | |
| Walking Speed (m/s) | | 1.2 | 1.2 | | 1.2 | |
| Percent Blockage | | 1 | 0 | | 10 | |
| Right turn flare (veh) | | | | | | |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | 172 | 93 | | | |
| pX, platoon unblocked | 0.69 | | | | 0.78 | 0.69 |
| vC, conflicting volume | 978 | | | | 1523 | 942 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 747 | | | | 1032 | 695 |
| tC, single (s) | 4.1 | | | | 6.5 | 6.3 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.6 | 3.4 |
| p0 queue free % | 97 | | | | 94 | 88 |
| cM capacity (veh/h) | 541 | | | | 169 | 269 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | SB 1 |
|---|---|---|---|---|
| Volume Total | 569 | 811 | 42 | 43 |
| Volume Left | 16 | 0 | 0 | 11 |
| Volume Right | 0 | 0 | 42 | 32 |
| cSH | 541 | 1700 | 1700 | 234 |
| Volume to Capacity | 0.03 | 0.48 | 0.02 | 0.18 |
| Queue Length 95th (m) | 0.7 | 0.0 | 0.0 | 5.3 |
| Control Delay (s) | 0.8 | 0.0 | 0.0 | 23.8 |
| Lane LOS | A | | | C |
| Approach Delay (s) | 0.8 | 0.0 | | 23.8 |
| Approach LOS | | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 1.0 | | |
| Intersection Capacity Utilization | 52.3% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 10 | 90 | 40 | 0 | 60 | 30 |
| Future Volume (Veh/h) | 10 | 90 | 40 | 0 | 60 | 30 |
| Sign Control | Stop | | Free | | | Free |
| Grade | 0% | | 0% | | | 0% |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 11 | 98 | 43 | 0 | 65 | 33 |
| Pedestrians | 20 | | 7 | | | 2 |
| Lane Width (m) | 3.6 | | 3.6 | | | 3.6 |
| Walking Speed (m/s) | 1.2 | | 1.2 | | | 1.2 |
| Percent Blockage | 2 | | 1 | | | 0 |
| Right turn flare (veh) | | | | | | |
| Median type | | | None | | | None |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | | | | | 43 |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 233 | 65 | | | 63 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 233 | 65 | | | 63 | |
| tC, single (s) | 6.4 | 6.2 | | | 4.3 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | | | 2.4 | |
| p0 queue free % | 98 | 90 | | | 95 | |
| cM capacity (veh/h) | 708 | 986 | | | 1409 | |

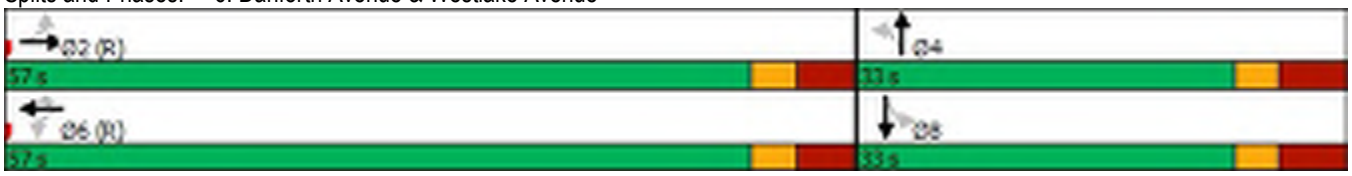
| Direction, Lane # | WB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 109 | 43 | 98 |
| Volume Left | 11 | 0 | 65 |
| Volume Right | 98 | 0 | 0 |
| cSH | 949 | 1700 | 1409 |
| Volume to Capacity | 0.11 | 0.03 | 0.05 |
| Queue Length 95th (m) | 3.1 | 0.0 | 1.2 |
| Control Delay (s) | 9.3 | 0.0 | 5.2 |
| Lane LOS | A | | A |
| Approach Delay (s) | 9.3 | 0.0 | 5.2 |
| Approach LOS | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 6.1 | | |
| Intersection Capacity Utilization | 25.0% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 20 | 475 | 55 | 35 | 745 | 20 | 80 | 10 | 45 | 20 | 5 | 25 |
| Future Volume (vph) | 20 | 475 | 55 | 35 | 745 | 20 | 80 | 10 | 45 | 20 | 5 | 25 |
| Satd. Flow (prot) | 1608 | 1719 | 0 | 1552 | 1827 | 1507 | 0 | 1641 | 0 | 0 | 1593 | 0 |
| Flt Permitted | 0.231 | | | 0.380 | | | | 0.788 | | | 0.842 | |
| Satd. Flow (perm) | 391 | 1719 | 0 | 580 | 1827 | 1162 | 0 | 1282 | 0 | 0 | 1346 | 0 |
| Satd. Flow (RTOR) | | 11 | | | | | | 28 | | | 27 | |
| Lane Group Flow (vph) | 21 | 564 | 0 | 37 | 793 | 21 | 0 | 144 | 0 | 0 | 53 | 0 |
| Turn Type | Perm | NA | | Perm | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 4 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | 6 | 4 | | | 8 | | |
| Total Split (s) | 57.0 | 57.0 | | 57.0 | 57.0 | 57.0 | 33.0 | 33.0 | | 33.0 | 33.0 | |
| Total Lost Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.7 | | | 7.7 | |
| Act Effct Green (s) | 55.2 | 55.2 | | 55.2 | 55.2 | 55.2 | | 20.1 | | | 20.1 | |
| Actuated g/C Ratio | 0.61 | 0.61 | | 0.61 | 0.61 | 0.61 | | 0.22 | | | 0.22 | |
| v/c Ratio | 0.09 | 0.53 | | 0.10 | 0.71 | 0.03 | | 0.47 | | | 0.17 | |
| Control Delay | 14.8 | 19.6 | | 11.3 | 19.1 | 10.2 | | 30.0 | | | 18.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | | 0.0 | |
| Total Delay | 14.8 | 19.6 | | 11.3 | 19.1 | 10.2 | | 30.0 | | | 18.2 | |
| LOS | B | B | | B | B | B | | C | | | B | |
| Approach Delay | | 19.5 | | | 18.5 | | | 30.0 | | | 18.2 | |
| Approach LOS | | B | | | B | | | C | | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 28 (31%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.71 | |
| Intersection Signal Delay: 19.9 | Intersection LOS: B |
| Intersection Capacity Utilization 71.1% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Danforth Avenue & Westlake Avenue



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBT |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 21 | 564 | 37 | 793 | 21 | 144 | 53 |
| v/c Ratio | 0.09 | 0.53 | 0.10 | 0.71 | 0.03 | 0.47 | 0.17 |
| Control Delay | 14.8 | 19.6 | 11.3 | 19.1 | 10.2 | 30.0 | 18.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 14.8 | 19.6 | 11.3 | 19.1 | 10.2 | 30.0 | 18.2 |
| Queue Length 50th (m) | 2.2 | 77.3 | 3.3 | 88.7 | 1.7 | 18.2 | 3.8 |
| Queue Length 95th (m) | m5.5 | 107.0 | m4.5 | 99.1 | m2.5 | 36.9 | 13.5 |
| Internal Link Dist (m) | | 139.2 | | 25.3 | | 0.7 | 152.8 |
| Turn Bay Length (m) | 35.0 | | 20.0 | | 20.0 | | |
| Base Capacity (vph) | 240 | 1059 | 356 | 1121 | 712 | 380 | 397 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.09 | 0.53 | 0.10 | 0.71 | 0.03 | 0.38 | 0.13 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 20 | 475 | 55 | 35 | 745 | 20 | 80 | 10 | 45 | 20 | 5 | 25 |
| Future Volume (vph) | 20 | 475 | 55 | 35 | 745 | 20 | 80 | 10 | 45 | 20 | 5 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.7 | | | 7.7 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.98 | | 1.00 | 1.00 | 0.77 | | 0.98 | | | 0.95 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 0.93 | 1.00 | 1.00 | | 0.96 | | | 0.98 | |
| Frt | 1.00 | 0.98 | | 1.00 | 1.00 | 0.85 | | 0.95 | | | 0.93 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.97 | | | 0.98 | |
| Satd. Flow (prot) | 1608 | 1720 | | 1440 | 1827 | 1162 | | 1580 | | | 1568 | |
| Flt Permitted | 0.23 | 1.00 | | 0.38 | 1.00 | 1.00 | | 0.79 | | | 0.84 | |
| Satd. Flow (perm) | 390 | 1720 | | 576 | 1827 | 1162 | | 1282 | | | 1346 | |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 21 | 505 | 59 | 37 | 793 | 21 | 85 | 11 | 48 | 21 | 5 | 27 |
| RTOR Reduction (vph) | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 21 | 0 |
| Lane Group Flow (vph) | 21 | 560 | 0 | 37 | 793 | 21 | 0 | 122 | 0 | 0 | 32 | 0 |
| Confl. Peds. (#/hr) | 90 | | 87 | 87 | | 90 | 38 | | 28 | 28 | | 38 |
| Confl. Bikes (#/hr) | | | | | | | | | 3 | | | 1 |
| Heavy Vehicles (%) | 11% | 6% | 8% | 15% | 4% | 6% | 8% | 0% | 0% | 5% | 0% | 4% |
| Turn Type | Perm | NA | | Perm | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 4 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | 6 | 4 | | | 8 | | |
| Actuated Green, G (s) | 55.2 | 55.2 | | 55.2 | 55.2 | 55.2 | | 20.1 | | | 20.1 | |
| Effective Green, g (s) | 55.2 | 55.2 | | 55.2 | 55.2 | 55.2 | | 20.1 | | | 20.1 | |
| Actuated g/C Ratio | 0.61 | 0.61 | | 0.61 | 0.61 | 0.61 | | 0.22 | | | 0.22 | |
| Clearance Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.7 | | | 7.7 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 239 | 1054 | | 353 | 1120 | 712 | | 286 | | | 300 | |
| v/s Ratio Prot | | 0.33 | | | c0.43 | | | | | | | |
| v/s Ratio Perm | 0.05 | | | 0.06 | | 0.02 | | c0.10 | | | 0.02 | |
| v/c Ratio | 0.09 | 0.53 | | 0.10 | 0.71 | 0.03 | | 0.43 | | | 0.11 | |
| Uniform Delay, d1 | 7.1 | 10.0 | | 7.2 | 11.9 | 6.9 | | 30.0 | | | 27.8 | |
| Progression Factor | 1.88 | 1.76 | | 1.44 | 1.30 | 1.45 | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.7 | 1.7 | | 0.4 | 2.8 | 0.1 | | 1.0 | | | 0.2 | |
| Delay (s) | 14.0 | 19.3 | | 10.8 | 18.3 | 10.0 | | 31.0 | | | 28.0 | |
| Level of Service | B | B | | B | B | B | | C | | | C | |
| Approach Delay (s) | | 19.1 | | | 17.7 | | | 31.0 | | | 28.0 | |
| Approach LOS | | B | | | B | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 19.7 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.63 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 14.7 |
| Intersection Capacity Utilization | 71.1% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 0 | 15 | 0 | 5 | 15 | 25 | 0 | 15 | 5 | 25 | 10 | 5 |
| Future Volume (vph) | 0 | 15 | 0 | 5 | 15 | 25 | 0 | 15 | 5 | 25 | 10 | 5 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 16 | 0 | 5 | 16 | 27 | 0 | 16 | 5 | 27 | 11 | 5 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 16 | 48 | 21 | 43 |
| Volume Left (vph) | 0 | 5 | 0 | 27 |
| Volume Right (vph) | 0 | 27 | 5 | 5 |
| Hadj (s) | 0.00 | -0.22 | -0.01 | 0.20 |
| Departure Headway (s) | 4.1 | 3.8 | 4.1 | 4.3 |
| Degree Utilization, x | 0.02 | 0.05 | 0.02 | 0.05 |
| Capacity (veh/h) | 860 | 917 | 859 | 829 |
| Control Delay (s) | 7.2 | 7.0 | 7.2 | 7.5 |
| Approach Delay (s) | 7.2 | 7.0 | 7.2 | 7.5 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 7.2 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 30.7% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBR | SEL | SER |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 535 | 10 | 15 | 820 | 15 | 5 | 15 | 0 | 0 |
| Future Volume (Veh/h) | 0 | 535 | 10 | 15 | 820 | 15 | 5 | 15 | 0 | 0 |
| Sign Control | | Free | | | Free | | Stop | | Stop | |
| Grade | | 0% | | | 0% | | 0% | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 582 | 11 | 16 | 891 | 16 | 5 | 16 | 0 | 0 |
| Pedestrians | | | | | | | 90 | | 150 | |
| Lane Width (m) | | | | | | | 3.6 | | 3.6 | |
| Walking Speed (m/s) | | | | | | | 1.2 | | 1.2 | |
| Percent Blockage | | | | | | | 8 | | 12 | |
| Right turn flare (veh) | | | | | | | | | | |
| Median type | | None | | | None | | | | | |
| Median storage veh) | | | | | | | | | | |
| Upstream signal (m) | | 143 | | | 163 | | | | | |
| pX, platoon unblocked | 0.67 | | | 0.83 | | | 0.75 | 0.83 | 0.75 | 0.75 |
| vC, conflicting volume | 1057 | | | 683 | | | 1766 | 678 | 1687 | 1764 |
| vC1, stage 1 conf vol | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | |
| vCu, unblocked vol | 837 | | | 516 | | | 1347 | 509 | 1242 | 1344 |
| tC, single (s) | 4.1 | | | 4.2 | | | 6.5 | 6.3 | 7.1 | 6.5 |
| tC, 2 stage (s) | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.3 | | | 4.0 | 3.4 | 3.5 | 4.0 |
| p0 queue free % | 100 | | | 98 | | | 95 | 96 | 100 | 100 |
| cM capacity (veh/h) | 471 | | | 787 | | | 91 | 425 | 78 | 91 |

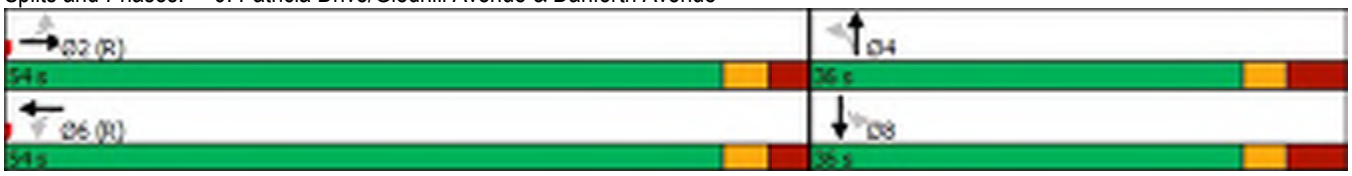
| Direction, Lane # | EB 1 | WB 1 | NB 1 | SE 1 |
|---|---|---|---|---|
| Volume Total | 593 | 923 | 21 | 0 |
| Volume Left | 0 | 16 | 0 | 0 |
| Volume Right | 11 | 16 | 16 | 0 |
| cSH | 471 | 787 | 227 | 1700 |
| Volume to Capacity | 0.00 | 0.02 | 0.09 | 0.00 |
| Queue Length 95th (m) | 0.0 | 0.5 | 2.4 | 0.0 |
| Control Delay (s) | 0.0 | 0.6 | 22.5 | 0.0 |
| Lane LOS | | A | C | A |
| Approach Delay (s) | 0.0 | 0.6 | 22.5 | 0.0 |
| Approach LOS | | | C | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.7 | | |
| Intersection Capacity Utilization | 66.2% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 30 | 500 | 20 | 10 | 835 | 30 | 60 | 20 | 15 | 30 | 10 | 35 |
| Future Volume (vph) | 30 | 500 | 20 | 10 | 835 | 30 | 60 | 20 | 15 | 30 | 10 | 35 |
| Satd. Flow (prot) | 1668 | 1749 | 0 | 1623 | 3437 | 0 | 0 | 1656 | 0 | 0 | 1443 | 0 |
| Flt Permitted | 0.266 | | | 0.379 | | | | 0.764 | | | 0.840 | |
| Satd. Flow (perm) | 429 | 1749 | 0 | 616 | 3437 | 0 | 0 | 1172 | 0 | 0 | 1197 | 0 |
| Satd. Flow (RTOR) | | 3 | | | 6 | | | 12 | | | 36 | |
| Lane Group Flow (vph) | 33 | 578 | 0 | 11 | 961 | 0 | 0 | 101 | 0 | 0 | 83 | 0 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 4 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Total Split (s) | 54.0 | 54.0 | | 54.0 | 54.0 | | 36.0 | 36.0 | | 36.0 | 36.0 | |
| Total Lost Time (s) | 5.9 | 5.9 | | 5.9 | 5.9 | | | 7.1 | | | 7.1 | |
| Act Effct Green (s) | 61.2 | 61.2 | | 61.2 | 61.2 | | | 23.0 | | | 23.0 | |
| Actuated g/C Ratio | 0.68 | 0.68 | | 0.68 | 0.68 | | | 0.26 | | | 0.26 | |
| v/c Ratio | 0.11 | 0.49 | | 0.03 | 0.41 | | | 0.33 | | | 0.25 | |
| Control Delay | 9.1 | 11.3 | | 3.3 | 4.0 | | | 27.4 | | | 18.8 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | 9.1 | 11.3 | | 3.3 | 4.0 | | | 27.4 | | | 18.8 | |
| LOS | A | B | | A | A | | | C | | | B | |
| Approach Delay | | 11.2 | | | 3.9 | | | 27.4 | | | 18.8 | |
| Approach LOS | | B | | | A | | | C | | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 63 (70%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.49 | |
| Intersection Signal Delay: 8.5 | Intersection LOS: A |
| Intersection Capacity Utilization 61.9% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Patricia Drive/Gledhill Avenue & Danforth Avenue



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 33 | 578 | 11 | 961 | 101 | 83 |
| v/c Ratio | 0.11 | 0.49 | 0.03 | 0.41 | 0.33 | 0.25 |
| Control Delay | 9.1 | 11.3 | 3.3 | 4.0 | 27.4 | 18.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.1 | 11.3 | 3.3 | 4.0 | 27.4 | 18.8 |
| Queue Length 50th (m) | 2.4 | 57.2 | 0.2 | 16.2 | 13.1 | 6.6 |
| Queue Length 95th (m) | 7.0 | 86.3 | m0.6 | 17.3 | 27.7 | 18.9 |
| Internal Link Dist (m) | | 219.0 | | 119.1 | 113.2 | 112.4 |
| Turn Bay Length (m) | 30.0 | | 20.0 | | | |
| Base Capacity (vph) | 291 | 1190 | 418 | 2339 | 384 | 408 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.11 | 0.49 | 0.03 | 0.41 | 0.26 | 0.20 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 30 | 500 | 20 | 10 | 835 | 30 | 60 | 20 | 15 | 30 | 10 | 35 |
| Future Volume (vph) | 30 | 500 | 20 | 10 | 835 | 30 | 60 | 20 | 15 | 30 | 10 | 35 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 5.9 | 5.9 | | 5.9 | 5.9 | | | 7.1 | | | 7.1 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | 1.00 | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.99 | | 1.00 | 0.99 | | | 0.98 | | | 0.91 | |
| Flpb, ped/bikes | 0.91 | 1.00 | | 0.94 | 1.00 | | | 0.90 | | | 0.97 | |
| Frt | 1.00 | 0.99 | | 1.00 | 0.99 | | | 0.98 | | | 0.94 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.97 | | | 0.98 | |
| Satd. Flow (prot) | 1515 | 1750 | | 1533 | 3436 | | | 1489 | | | 1398 | |
| Flt Permitted | 0.27 | 1.00 | | 0.38 | 1.00 | | | 0.76 | | | 0.84 | |
| Satd. Flow (perm) | 424 | 1750 | | 611 | 3436 | | | 1173 | | | 1197 | |
| Peak-hour factor, PHF | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.97 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 33 | 556 | 22 | 11 | 928 | 33 | 62 | 22 | 17 | 33 | 11 | 39 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 10 | 0 | 0 | 29 | 0 |
| Lane Group Flow (vph) | 33 | 577 | 0 | 11 | 959 | 0 | 0 | 91 | 0 | 0 | 54 | 0 |
| Confl. Peds. (#/hr) | 214 | | 81 | 81 | | 214 | 192 | | 56 | 56 | | 192 |
| Confl. Bikes (#/hr) | | | 2 | | | 3 | | | | | | |
| Heavy Vehicles (%) | 7% | 7% | 14% | 10% | 3% | 4% | 3% | 11% | 15% | 6% | 22% | 10% |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 4 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Actuated Green, G (s) | 58.6 | 58.6 | | 58.6 | 58.6 | | | 18.4 | | | 18.4 | |
| Effective Green, g (s) | 58.6 | 58.6 | | 58.6 | 58.6 | | | 18.4 | | | 18.4 | |
| Actuated g/C Ratio | 0.65 | 0.65 | | 0.65 | 0.65 | | | 0.20 | | | 0.20 | |
| Clearance Time (s) | 5.9 | 5.9 | | 5.9 | 5.9 | | | 7.1 | | | 7.1 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 276 | 1139 | | 397 | 2237 | | | 239 | | | 244 | |
| v/s Ratio Prot | | c0.33 | | | 0.28 | | | | | | | |
| v/s Ratio Perm | 0.08 | | | 0.02 | | | | c0.08 | | | 0.05 | |
| v/c Ratio | 0.12 | 0.51 | | 0.03 | 0.43 | | | 0.38 | | | 0.22 | |
| Uniform Delay, d1 | 5.9 | 8.2 | | 5.6 | 7.6 | | | 30.9 | | | 29.8 | |
| Progression Factor | 1.00 | 1.00 | | 0.42 | 0.40 | | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.9 | 1.6 | | 0.1 | 0.5 | | | 1.0 | | | 0.5 | |
| Delay (s) | 6.8 | 9.8 | | 2.5 | 3.5 | | | 31.9 | | | 30.3 | |
| Level of Service | A | A | | A | A | | | C | | | C | |
| Approach Delay (s) | | 9.6 | | | 3.5 | | | 31.9 | | | 30.3 | |
| Approach LOS | | A | | | A | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 8.5 | HCM 2000 Level of Service | A |
| HCM 2000 Volume to Capacity ratio | 0.48 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 13.0 |
| Intersection Capacity Utilization | 61.9% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 5 | 0 | 0 | 130 | 90 | 5 |
| Future Volume (Veh/h) | 5 | 0 | 0 | 130 | 90 | 5 |
| Sign Control | Stop | | | Free | Free | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 5 | 0 | 0 | 141 | 98 | 5 |
| Pedestrians | 1 | | | 1 | 17 | |
| Lane Width (m) | 3.6 | | | 3.6 | 3.6 | |
| Walking Speed (m/s) | 1.2 | | | 1.2 | 1.2 | |
| Percent Blockage | 0 | | | 0 | 1 | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | None | None | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | | | | 25 | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 260 | 102 | 104 | | | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 260 | 102 | 104 | | | |
| tC, single (s) | 6.4 | 6.2 | 4.1 | | | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | 2.2 | | | |
| p0 queue free % | 99 | 100 | 100 | | | |
| cM capacity (veh/h) | 723 | 956 | 1499 | | | |

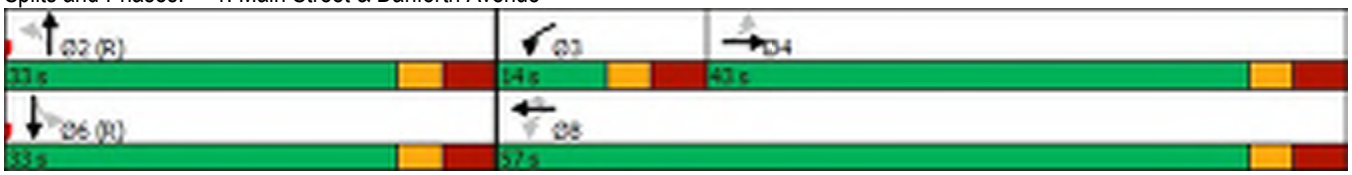
| Direction, Lane # | EB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 5 | 141 | 103 |
| Volume Left | 5 | 0 | 0 |
| Volume Right | 0 | 0 | 5 |
| cSH | 723 | 1499 | 1700 |
| Volume to Capacity | 0.01 | 0.00 | 0.06 |
| Queue Length 95th (m) | 0.2 | 0.0 | 0.0 |
| Control Delay (s) | 10.0 | 0.0 | 0.0 |
| Lane LOS | B | | |
| Approach Delay (s) | 10.0 | 0.0 | 0.0 |
| Approach LOS | B | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.2 | | |
| Intersection Capacity Utilization | 17.2% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 65 | 460 | 190 | 515 | 80 | 95 | 245 | 50 | 270 |
| Future Volume (vph) | 65 | 460 | 190 | 515 | 80 | 95 | 245 | 50 | 270 |
| Turn Type | Perm | NA | pm+pt | NA | Perm | Perm | NA | Perm | NA |
| Protected Phases | | 4 | 3 | 8 | | | 2 | | 6 |
| Permitted Phases | 4 | | 8 | | 8 | 2 | | 6 | |
| Detector Phase | 4 | 4 | 3 | 8 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 30.0 | 30.0 | 6.0 | 30.0 | 30.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 36.7 | 36.7 | 12.7 | 36.7 | 36.7 | 28.7 | 28.7 | 28.7 | 28.7 |
| Total Split (s) | 43.0 | 43.0 | 14.0 | 57.0 | 57.0 | 33.0 | 33.0 | 33.0 | 33.0 |
| Total Split (%) | 47.8% | 47.8% | 15.6% | 63.3% | 63.3% | 36.7% | 36.7% | 36.7% | 36.7% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | | 6.7 | | 6.7 |
| Lead/Lag | Lag | Lag | Lead | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | | | |
| Recall Mode | None | None | Min | None | None | C-Min | C-Min | C-Min | C-Min |
| Act Effct Green (s) | 33.4 | 33.4 | 48.1 | 48.1 | 48.1 | | 28.5 | | 28.5 |
| Actuated g/C Ratio | 0.37 | 0.37 | 0.53 | 0.53 | 0.53 | | 0.32 | | 0.32 |
| v/c Ratio | 0.24 | 0.86 | 0.73 | 0.54 | 0.12 | | 0.81 | | 0.50 |
| Control Delay | 23.1 | 44.0 | 29.3 | 16.0 | 5.3 | | 28.7 | | 28.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 23.1 | 44.0 | 29.3 | 16.0 | 5.3 | | 28.7 | | 28.1 |
| LOS | C | D | C | B | A | | C | | C |
| Approach Delay | | 41.7 | | 18.1 | | | 28.7 | | 28.1 |
| Approach LOS | | D | | B | | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 70 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green | |
| Natural Cycle: 80 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.86 | |
| Intersection Signal Delay: 28.4 | Intersection LOS: C |
| Intersection Capacity Utilization 113.9% | ICU Level of Service H |
| Analysis Period (min) 15 | |

Splits and Phases: 1: Main Street & Danforth Avenue



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBT |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 68 | 557 | 198 | 536 | 83 | 620 | 354 |
| v/c Ratio | 0.24 | 0.86 | 0.73 | 0.54 | 0.12 | 0.81 | 0.50 |
| Control Delay | 23.1 | 44.0 | 29.3 | 16.0 | 5.3 | 28.7 | 28.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 23.1 | 44.0 | 29.3 | 16.0 | 5.3 | 28.7 | 28.1 |
| Queue Length 50th (m) | 11.5 | 98.9 | 17.9 | 60.2 | 2.9 | 36.4 | 26.8 |
| Queue Length 95th (m) | m18.2 | #144.2 | #37.7 | 84.4 | 9.3 | #70.8 | 42.4 |
| Internal Link Dist (m) | | 68.6 | | 134.2 | | 339.1 | 295.4 |
| Turn Bay Length (m) | 30.0 | | | | | | |
| Base Capacity (vph) | 310 | 705 | 270 | 1031 | 697 | 765 | 702 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.22 | 0.79 | 0.73 | 0.52 | 0.12 | 0.81 | 0.50 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 65 | 460 | 75 | 190 | 515 | 80 | 95 | 245 | 255 | 50 | 270 | 20 |
| Future Volume (vph) | 65 | 460 | 75 | 190 | 515 | 80 | 95 | 245 | 255 | 50 | 270 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 6.7 | 6.7 | | 6.7 | 6.7 | 6.7 | | 6.7 | | | 6.7 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.95 | | | 0.95 | |
| Frpb, ped/bikes | 1.00 | 0.97 | | 1.00 | 1.00 | 0.77 | | 0.81 | | | 0.96 | |
| Flpb, ped/bikes | 0.89 | 1.00 | | 0.99 | 1.00 | 1.00 | | 0.93 | | | 0.98 | |
| Frt | 1.00 | 0.98 | | 1.00 | 1.00 | 0.85 | | 0.94 | | | 0.99 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.99 | | | 0.99 | |
| Satd. Flow (prot) | 1578 | 1734 | | 1655 | 1845 | 1211 | | 2412 | | | 2981 | |
| Flt Permitted | 0.46 | 1.00 | | 0.17 | 1.00 | 1.00 | | 0.80 | | | 0.73 | |
| Satd. Flow (perm) | 771 | 1734 | | 292 | 1845 | 1211 | | 1950 | | | 2201 | |
| Peak-hour factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Adj. Flow (vph) | 68 | 479 | 78 | 198 | 536 | 83 | 99 | 255 | 266 | 52 | 281 | 21 |
| RTOR Reduction (vph) | 0 | 7 | 0 | 0 | 0 | 22 | 0 | 147 | 0 | 0 | 5 | 0 |
| Lane Group Flow (vph) | 68 | 550 | 0 | 198 | 536 | 61 | 0 | 473 | 0 | 0 | 349 | 0 |
| Confl. Peds. (#/hr) | 251 | | 260 | 260 | | 251 | 689 | | 212 | 212 | | 689 |
| Confl. Bikes (#/hr) | | | 1 | | | 2 | | | 3 | | | 2 |
| Heavy Vehicles (%) | 1% | 1% | 20% | 7% | 3% | 1% | 2% | 8% | 0% | 31% | 7% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 0 | 6 | 6 |
| Turn Type | Perm | NA | | pm+pt | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | 3 | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | 8 | 2 | | | 6 | | |
| Actuated Green, G (s) | 33.4 | 33.4 | | 48.1 | 48.1 | 48.1 | | 28.5 | | | 28.5 | |
| Effective Green, g (s) | 33.4 | 33.4 | | 48.1 | 48.1 | 48.1 | | 28.5 | | | 28.5 | |
| Actuated g/C Ratio | 0.37 | 0.37 | | 0.53 | 0.53 | 0.53 | | 0.32 | | | 0.32 | |
| Clearance Time (s) | 6.7 | 6.7 | | 6.7 | 6.7 | 6.7 | | 6.7 | | | 6.7 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 286 | 643 | | 277 | 986 | 647 | | 617 | | | 696 | |
| v/s Ratio Prot | | c0.32 | | 0.06 | c0.29 | | | | | | | |
| v/s Ratio Perm | 0.09 | | | 0.32 | | 0.05 | | c0.24 | | | 0.16 | |
| v/c Ratio | 0.24 | 0.86 | | 0.71 | 0.54 | 0.09 | | 0.77 | | | 0.50 | |
| Uniform Delay, d1 | 19.5 | 26.1 | | 15.8 | 13.7 | 10.3 | | 27.8 | | | 25.0 | |
| Progression Factor | 1.11 | 1.22 | | 1.00 | 1.00 | 1.00 | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.4 | 9.6 | | 8.5 | 0.6 | 0.1 | | 8.8 | | | 2.6 | |
| Delay (s) | 22.1 | 41.5 | | 24.3 | 14.4 | 10.3 | | 36.6 | | | 27.6 | |
| Level of Service | C | D | | C | B | B | | D | | | C | |
| Approach Delay (s) | | 39.4 | | | 16.4 | | | 36.6 | | | 27.6 | |
| Approach LOS | | D | | | B | | | D | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 29.2 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.82 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 20.1 |
| Intersection Capacity Utilization | 113.9% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 15 | 580 | 600 | 30 | 20 | 25 |
| Future Volume (Veh/h) | 15 | 580 | 600 | 30 | 20 | 25 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 16 | 630 | 652 | 33 | 22 | 27 |
| Pedestrians | | 4 | 6 | | 192 | |
| Lane Width (m) | | 3.6 | 3.5 | | 3.6 | |
| Walking Speed (m/s) | | 1.2 | 1.2 | | 1.2 | |
| Percent Blockage | | 0 | 0 | | 16 | |
| Right turn flare (veh) | | | | | | |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | 172 | 93 | | | |
| pX, platoon unblocked | 0.81 | | | | 0.90 | 0.81 |
| vC, conflicting volume | 877 | | | | 1512 | 848 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 728 | | | | 1029 | 692 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 97 | | | | 88 | 91 |
| cM capacity (veh/h) | 600 | | | | 191 | 298 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | SB 1 |
|---|---|---|---|---|
| Volume Total | 646 | 652 | 33 | 49 |
| Volume Left | 16 | 0 | 0 | 22 |
| Volume Right | 0 | 0 | 33 | 27 |
| cSH | 600 | 1700 | 1700 | 238 |
| Volume to Capacity | 0.03 | 0.38 | 0.02 | 0.21 |
| Queue Length 95th (m) | 0.7 | 0.0 | 0.0 | 6.0 |
| Control Delay (s) | 0.7 | 0.0 | 0.0 | 24.0 |
| Lane LOS | A | | | C |
| Approach Delay (s) | 0.7 | 0.0 | | 24.0 |
| Approach LOS | | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 1.2 | | |
| Intersection Capacity Utilization | 53.8% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 5 | 85 | 40 | 5 | 85 | 30 |
| Future Volume (Veh/h) | 5 | 85 | 40 | 5 | 85 | 30 |
| Sign Control | Stop | | Free | | | Free |
| Grade | 0% | | 0% | | | 0% |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 5 | 92 | 43 | 5 | 92 | 33 |
| Pedestrians | 34 | | 6 | | | 6 |
| Lane Width (m) | 3.6 | | 3.6 | | | 3.6 |
| Walking Speed (m/s) | 1.2 | | 1.2 | | | 1.2 |
| Percent Blockage | 3 | | 1 | | | 1 |
| Right turn flare (veh) | | | | | | |
| Median type | | | None | | | None |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | | | | | 43 |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 302 | 86 | | | 82 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 302 | 86 | | | 82 | |
| tC, single (s) | 6.4 | 6.2 | | | 4.1 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | | | 2.2 | |
| p0 queue free % | 99 | 90 | | | 94 | |
| cM capacity (veh/h) | 629 | 946 | | | 1485 | |

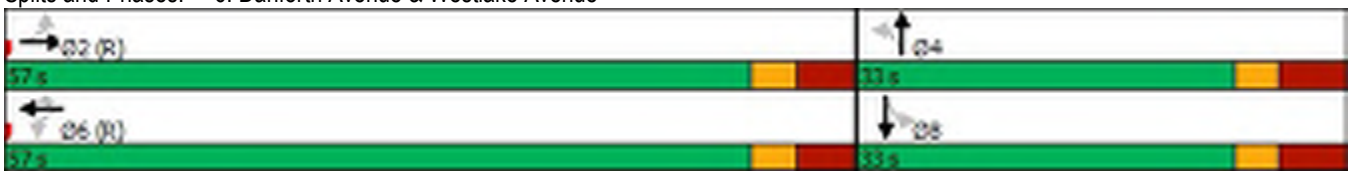
| Direction, Lane # | WB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 97 | 48 | 125 |
| Volume Left | 5 | 0 | 92 |
| Volume Right | 92 | 5 | 0 |
| cSH | 922 | 1700 | 1485 |
| Volume to Capacity | 0.11 | 0.03 | 0.06 |
| Queue Length 95th (m) | 2.8 | 0.0 | 1.6 |
| Control Delay (s) | 9.4 | 0.0 | 5.7 |
| Lane LOS | A | | A |
| Approach Delay (s) | 9.4 | 0.0 | 5.7 |
| Approach LOS | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 6.0 | | |
| Intersection Capacity Utilization | 27.1% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 40 | 520 | 25 | 580 | 20 | 70 | 10 | 30 | 5 |
| Future Volume (vph) | 40 | 520 | 25 | 580 | 20 | 70 | 10 | 30 | 5 |
| Turn Type | Perm | NA | Perm | NA | Perm | Perm | NA | Perm | NA |
| Protected Phases | | 2 | | 6 | | | 4 | | 8 |
| Permitted Phases | 2 | | 6 | | 6 | 4 | | 8 | |
| Detector Phase | 2 | 2 | 6 | 6 | 6 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 14.0 | 14.0 | 14.0 | 14.0 | 14.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 32.7 | 32.7 | 32.7 | 32.7 |
| Total Split (s) | 57.0 | 57.0 | 57.0 | 57.0 | 57.0 | 33.0 | 33.0 | 33.0 | 33.0 |
| Total Split (%) | 63.3% | 63.3% | 63.3% | 63.3% | 63.3% | 36.7% | 36.7% | 36.7% | 36.7% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.7 | 4.7 | 4.7 | 4.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.7 | | 7.7 |
| Lead/Lag | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | |
| Recall Mode | C-Min | C-Min | C-Min | C-Min | C-Min | None | None | None | None |
| Act Effct Green (s) | 55.3 | 55.3 | 55.3 | 55.3 | 55.3 | | 20.0 | | 20.0 |
| Actuated g/C Ratio | 0.61 | 0.61 | 0.61 | 0.61 | 0.61 | | 0.22 | | 0.22 |
| v/c Ratio | 0.11 | 0.59 | 0.07 | 0.52 | 0.03 | | 0.41 | | 0.19 |
| Control Delay | 5.2 | 13.6 | 13.4 | 19.8 | 12.2 | | 27.1 | | 23.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 5.2 | 13.6 | 13.4 | 19.8 | 12.2 | | 27.1 | | 23.9 |
| LOS | A | B | B | B | B | | C | | C |
| Approach Delay | | 13.1 | | 19.3 | | | 27.1 | | 23.9 |
| Approach LOS | | B | | B | | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 85 (94%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | |
| Natural Cycle: 65 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.59 | |
| Intersection Signal Delay: 17.4 | Intersection LOS: B |
| Intersection Capacity Utilization 66.2% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Danforth Avenue & Westlake Avenue



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | SBT |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 41 | 624 | 26 | 598 | 21 | 128 | 51 |
| v/c Ratio | 0.11 | 0.59 | 0.07 | 0.52 | 0.03 | 0.41 | 0.19 |
| Control Delay | 5.2 | 13.6 | 13.4 | 19.8 | 12.2 | 27.1 | 23.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 5.2 | 13.6 | 13.4 | 19.8 | 12.2 | 27.1 | 23.9 |
| Queue Length 50th (m) | 2.8 | 89.8 | 2.9 | 90.8 | 2.3 | 14.9 | 5.3 |
| Queue Length 95th (m) | m4.0 | 132.2 | m6.1 | m118.7 | m4.7 | 32.0 | 15.3 |
| Internal Link Dist (m) | | 139.2 | | 25.3 | | 0.7 | 152.8 |
| Turn Bay Length (m) | 35.0 | | 20.0 | | 20.0 | | |
| Base Capacity (vph) | 369 | 1060 | 360 | 1144 | 703 | 388 | 335 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.11 | 0.59 | 0.07 | 0.52 | 0.03 | 0.33 | 0.15 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 40 | 520 | 85 | 25 | 580 | 20 | 70 | 10 | 45 | 30 | 5 | 15 |
| Future Volume (vph) | 40 | 520 | 85 | 25 | 580 | 20 | 70 | 10 | 45 | 30 | 5 | 15 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.7 | | | 7.7 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.95 | | 1.00 | 1.00 | 0.72 | | 0.97 | | | 0.96 | |
| Flpb, ped/bikes | 0.91 | 1.00 | | 0.91 | 1.00 | 1.00 | | 0.93 | | | 0.97 | |
| Frt | 1.00 | 0.98 | | 1.00 | 1.00 | 0.85 | | 0.95 | | | 0.96 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.97 | | | 0.97 | |
| Satd. Flow (prot) | 1585 | 1716 | | 1622 | 1863 | 1145 | | 1590 | | | 1462 | |
| Flt Permitted | 0.36 | 1.00 | | 0.34 | 1.00 | 1.00 | | 0.80 | | | 0.77 | |
| Satd. Flow (perm) | 596 | 1716 | | 580 | 1863 | 1145 | | 1303 | | | 1154 | |
| Peak-hour factor, PHF | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Adj. Flow (vph) | 41 | 536 | 88 | 26 | 598 | 21 | 72 | 10 | 46 | 31 | 5 | 15 |
| RTOR Reduction (vph) | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 12 | 0 |
| Lane Group Flow (vph) | 41 | 618 | 0 | 26 | 598 | 21 | 0 | 104 | 0 | 0 | 39 | 0 |
| Confl. Peds. (#/hr) | 113 | | 131 | 131 | | 113 | 70 | | 36 | 36 | | 70 |
| Confl. Bikes (#/hr) | | | | | | 2 | | | 3 | | | 2 |
| Heavy Vehicles (%) | 3% | 3% | 6% | 0% | 2% | 0% | 0% | 0% | 0% | 20% | 0% | 0% |
| Turn Type | Perm | NA | | Perm | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 4 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | 6 | 4 | | | 8 | | |
| Actuated Green, G (s) | 55.3 | 55.3 | | 55.3 | 55.3 | 55.3 | | 20.0 | | | 20.0 | |
| Effective Green, g (s) | 55.3 | 55.3 | | 55.3 | 55.3 | 55.3 | | 20.0 | | | 20.0 | |
| Actuated g/C Ratio | 0.61 | 0.61 | | 0.61 | 0.61 | 0.61 | | 0.22 | | | 0.22 | |
| Clearance Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.7 | | | 7.7 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 366 | 1054 | | 356 | 1144 | 703 | | 289 | | | 256 | |
| v/s Ratio Prot | | c0.36 | | | 0.32 | | | | | | | |
| v/s Ratio Perm | 0.07 | | | 0.04 | | 0.02 | | c0.08 | | | 0.03 | |
| v/c Ratio | 0.11 | 0.59 | | 0.07 | 0.52 | 0.03 | | 0.36 | | | 0.15 | |
| Uniform Delay, d1 | 7.2 | 10.5 | | 7.0 | 9.9 | 6.8 | | 29.6 | | | 28.2 | |
| Progression Factor | 0.62 | 1.08 | | 1.79 | 1.80 | 1.75 | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.5 | 2.1 | | 0.3 | 1.5 | 0.1 | | 0.8 | | | 0.3 | |
| Delay (s) | 5.0 | 13.4 | | 12.9 | 19.2 | 12.0 | | 30.4 | | | 28.5 | |
| Level of Service | A | B | | B | B | B | | C | | | C | |
| Approach Delay (s) | | 12.9 | | | 18.7 | | | 30.4 | | | 28.5 | |
| Approach LOS | | B | | | B | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 17.5 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.53 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 14.7 |
| Intersection Capacity Utilization | 66.2% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 5 | 30 | 0 | 10 | 25 | 20 | 5 | 20 | 15 | 30 | 0 | 5 |
| Future Volume (vph) | 5 | 30 | 0 | 10 | 25 | 20 | 5 | 20 | 15 | 30 | 0 | 5 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 5 | 33 | 0 | 11 | 27 | 22 | 5 | 22 | 16 | 33 | 0 | 5 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 38 | 60 | 43 | 38 |
| Volume Left (vph) | 5 | 11 | 5 | 33 |
| Volume Right (vph) | 0 | 22 | 16 | 5 |
| Hadj (s) | 0.03 | -0.18 | -0.20 | 0.09 |
| Departure Headway (s) | 4.2 | 3.9 | 3.9 | 4.2 |
| Degree Utilization, x | 0.04 | 0.07 | 0.05 | 0.04 |
| Capacity (veh/h) | 842 | 892 | 878 | 824 |
| Control Delay (s) | 7.3 | 7.2 | 7.1 | 7.4 |
| Approach Delay (s) | 7.3 | 7.2 | 7.1 | 7.4 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 7.3 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 30.1% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBR | SEL | SER |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 635 | 15 | 10 | 625 | 30 | 10 | 10 | 0 | 0 |
| Future Volume (Veh/h) | 0 | 635 | 15 | 10 | 625 | 30 | 10 | 10 | 0 | 0 |
| Sign Control | | Free | | | Free | | Stop | | Stop | |
| Grade | | 0% | | | 0% | | 0% | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 690 | 16 | 11 | 679 | 33 | 11 | 11 | 0 | 0 |
| Pedestrians | | | | | 9 | | 122 | | 107 | |
| Lane Width (m) | | | | | 3.6 | | 3.6 | | 3.6 | |
| Walking Speed (m/s) | | | | | 1.2 | | 1.2 | | 1.2 | |
| Percent Blockage | | | | | 1 | | 10 | | 9 | |
| Right turn flare (veh) | | | | | | | | | | |
| Median type | | None | | | None | | | | | |
| Median storage veh) | | | | | | | | | | |
| Upstream signal (m) | | 143 | | | 163 | | | | | |
| pX, platoon unblocked | 0.80 | | | 0.78 | | | 0.88 | 0.78 | 0.88 | 0.88 |
| vC, conflicting volume | 819 | | | 828 | | | 1661 | 829 | 1548 | 1652 |
| vC1, stage 1 conf vol | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | |
| vCu, unblocked vol | 651 | | | 641 | | | 1179 | 643 | 1050 | 1169 |
| tC, single (s) | 4.1 | | | 4.1 | | | 6.5 | 6.3 | 7.1 | 6.5 |
| tC, 2 stage (s) | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 4.0 | 3.4 | 3.5 | 4.0 |
| p0 queue free % | 100 | | | 98 | | | 92 | 97 | 100 | 100 |
| cM capacity (veh/h) | 690 | | | 663 | | | 136 | 320 | 126 | 137 |

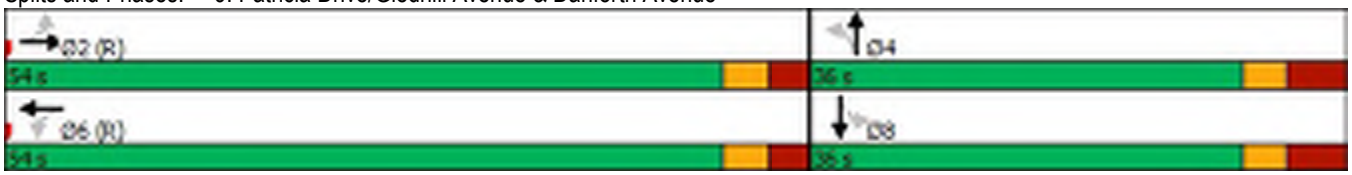
| Direction, Lane # | EB 1 | WB 1 | NB 1 | SE 1 |
|---|---|---|---|---|
| Volume Total | 706 | 723 | 22 | 0 |
| Volume Left | 0 | 11 | 0 | 0 |
| Volume Right | 16 | 33 | 11 | 0 |
| cSH | 690 | 663 | 191 | 1700 |
| Volume to Capacity | 0.00 | 0.02 | 0.12 | 0.00 |
| Queue Length 95th (m) | 0.0 | 0.4 | 3.1 | 0.0 |
| Control Delay (s) | 0.0 | 0.5 | 26.3 | 0.0 |
| Lane LOS | | A | D | A |
| Approach Delay (s) | 0.0 | 0.5 | 26.3 | 0.0 |
| Approach LOS | | | D | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.6 | | |
| Intersection Capacity Utilization | 55.6% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 35 | 615 | 15 | 645 | 50 | 10 | 30 | 15 |
| Future Volume (vph) | 35 | 615 | 15 | 645 | 50 | 10 | 30 | 15 |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | NA |
| Protected Phases | | 2 | | 6 | | 4 | | 8 |
| Permitted Phases | 2 | | 6 | | 4 | | 8 | |
| Detector Phase | 2 | 2 | 6 | 6 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 19.0 | 19.0 | 19.0 | 19.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Minimum Split (s) | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 |
| Total Split (s) | 54.0 | 54.0 | 54.0 | 54.0 | 36.0 | 36.0 | 36.0 | 36.0 |
| Total Split (%) | 60.0% | 60.0% | 60.0% | 60.0% | 40.0% | 40.0% | 40.0% | 40.0% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 2.9 | 2.9 | 2.9 | 2.9 | 4.1 | 4.1 | 4.1 | 4.1 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 5.9 | 5.9 | 5.9 | | 7.1 | | 7.1 |
| Lead/Lag | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | |
| Recall Mode | C-Min | C-Min | C-Min | C-Min | None | None | None | None |
| Act Effct Green (s) | 61.2 | 61.2 | 61.2 | 61.2 | | 23.0 | | 23.0 |
| Actuated g/C Ratio | 0.68 | 0.68 | 0.68 | 0.68 | | 0.26 | | 0.26 |
| v/c Ratio | 0.09 | 0.55 | 0.04 | 0.29 | | 0.21 | | 0.16 |
| Control Delay | 8.4 | 12.3 | 13.5 | 15.0 | | 26.8 | | 23.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 8.4 | 12.3 | 13.5 | 15.0 | | 26.8 | | 23.8 |
| LOS | A | B | B | B | | C | | C |
| Approach Delay | | 12.2 | | 14.9 | | 26.8 | | 23.8 |
| Approach LOS | | B | | B | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 90 | |
| Offset: 43 (48%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.55 | |
| Intersection Signal Delay: 14.5 | Intersection LOS: B |
| Intersection Capacity Utilization 68.8% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Patricia Drive/Gledhill Avenue & Danforth Avenue



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT |
|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 36 | 683 | 16 | 688 | 67 | 57 |
| v/c Ratio | 0.09 | 0.55 | 0.04 | 0.29 | 0.21 | 0.16 |
| Control Delay | 8.4 | 12.3 | 13.5 | 15.0 | 26.8 | 23.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 8.4 | 12.3 | 13.5 | 15.0 | 26.8 | 23.8 |
| Queue Length 50th (m) | 2.6 | 72.2 | 2.3 | 56.2 | 8.9 | 6.6 |
| Queue Length 95th (m) | 6.8 | 108.0 | m4.3 | 70.2 | 20.0 | 16.6 |
| Internal Link Dist (m) | | 219.0 | | 119.1 | 113.2 | 112.4 |
| Turn Bay Length (m) | 30.0 | | 20.0 | | | |
| Base Capacity (vph) | 421 | 1238 | 381 | 2384 | 403 | 440 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.09 | 0.55 | 0.04 | 0.29 | 0.17 | 0.13 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 35 | 615 | 40 | 15 | 645 | 15 | 50 | 10 | 5 | 30 | 15 | 10 |
| Future Volume (vph) | 35 | 615 | 40 | 15 | 645 | 15 | 50 | 10 | 5 | 30 | 15 | 10 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| Total Lost time (s) | 5.9 | 5.9 | | 5.9 | 5.9 | | | 7.1 | | | 7.1 | |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 0.95 | | | 1.00 | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.99 | | 1.00 | 0.99 | | | 0.99 | | | 0.99 | |
| Flpb, ped/bikes | 0.89 | 1.00 | | 0.94 | 1.00 | | | 0.96 | | | 0.98 | |
| Frt | 1.00 | 0.99 | | 1.00 | 1.00 | | | 0.99 | | | 0.98 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.96 | | | 0.97 | |
| Satd. Flow (prot) | 1549 | 1819 | | 1681 | 3504 | | | 1629 | | | 1618 | |
| Flt Permitted | 0.38 | 1.00 | | 0.31 | 1.00 | | | 0.74 | | | 0.81 | |
| Satd. Flow (perm) | 614 | 1819 | | 554 | 3504 | | | 1246 | | | 1352 | |
| Peak-hour factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Adj. Flow (vph) | 36 | 641 | 42 | 16 | 672 | 16 | 52 | 10 | 5 | 31 | 16 | 10 |
| RTOR Reduction (vph) | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 4 | 0 | 0 | 8 | 0 |
| Lane Group Flow (vph) | 36 | 681 | 0 | 16 | 687 | 0 | 0 | 63 | 0 | 0 | 49 | 0 |
| Confl. Peds. (#/hr) | 154 | | 111 | 111 | | 154 | 63 | | 30 | 30 | | 63 |
| Confl. Bikes (#/hr) | | | | | | 3 | | | 1 | | | |
| Heavy Vehicles (%) | 3% | 2% | 3% | 0% | 2% | 0% | 2% | 18% | 20% | 13% | 0% | 3% |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 4 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Actuated Green, G (s) | 58.6 | 58.6 | | 58.6 | 58.6 | | | 18.4 | | | 18.4 | |
| Effective Green, g (s) | 58.6 | 58.6 | | 58.6 | 58.6 | | | 18.4 | | | 18.4 | |
| Actuated g/C Ratio | 0.65 | 0.65 | | 0.65 | 0.65 | | | 0.20 | | | 0.20 | |
| Clearance Time (s) | 5.9 | 5.9 | | 5.9 | 5.9 | | | 7.1 | | | 7.1 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | | | 3.0 | |
| Lane Grp Cap (vph) | 399 | 1184 | | 360 | 2281 | | | 254 | | | 276 | |
| v/s Ratio Prot | | c0.37 | | | 0.20 | | | | | | | |
| v/s Ratio Perm | 0.06 | | | 0.03 | | | | c0.05 | | | 0.04 | |
| v/c Ratio | 0.09 | 0.58 | | 0.04 | 0.30 | | | 0.25 | | | 0.18 | |
| Uniform Delay, d1 | 5.8 | 8.8 | | 5.6 | 6.8 | | | 30.0 | | | 29.6 | |
| Progression Factor | 1.00 | 1.00 | | 1.73 | 1.87 | | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.4 | 2.0 | | 0.2 | 0.3 | | | 0.5 | | | 0.3 | |
| Delay (s) | 6.3 | 10.8 | | 10.0 | 13.0 | | | 30.5 | | | 29.9 | |
| Level of Service | A | B | | A | B | | | C | | | C | |
| Approach Delay (s) | | 10.6 | | | 12.9 | | | 30.5 | | | 29.9 | |
| Approach LOS | | B | | | B | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 13.2 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.50 | | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 13.0 |
| Intersection Capacity Utilization | 68.8% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

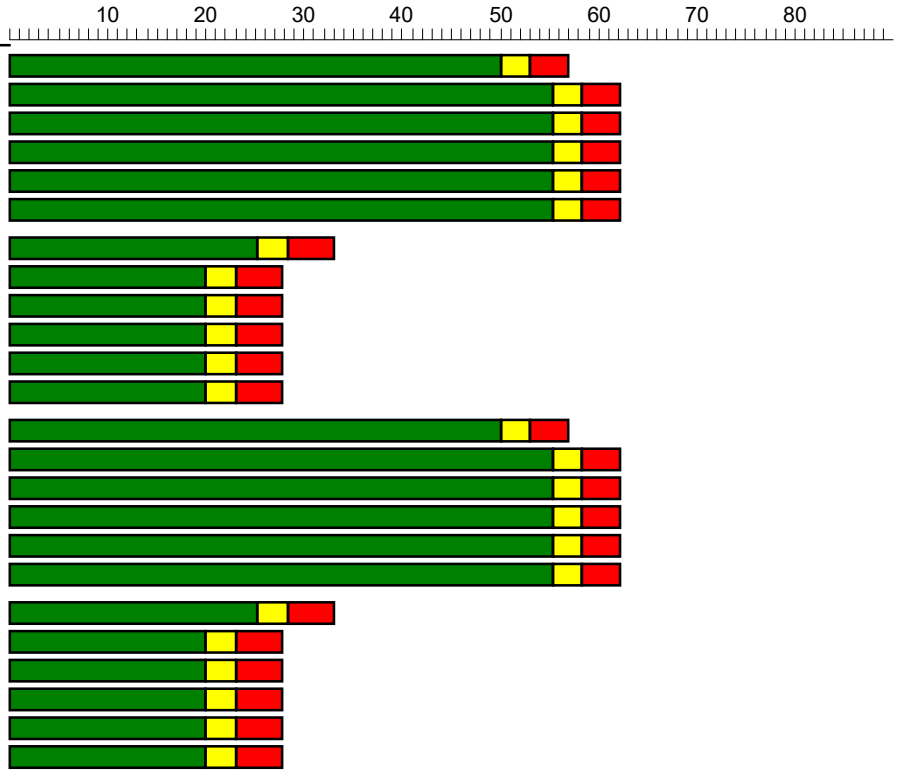
c Critical Lane Group

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 125 | 115 | 0 |
| Future Volume (Veh/h) | 0 | 0 | 0 | 125 | 115 | 0 |
| Sign Control | Stop | | | Free | Free | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 0 | 0 | 0 | 136 | 125 | 0 |
| Pedestrians | 6 | | | 3 | 34 | |
| Lane Width (m) | 3.6 | | | 3.6 | 3.6 | |
| Walking Speed (m/s) | 1.2 | | | 1.2 | 1.2 | |
| Percent Blockage | 1 | | | 0 | 3 | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | None | None | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | | | | 25 | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 301 | 134 | 131 | | | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 301 | 134 | 131 | | | |
| tC, single (s) | 6.4 | 6.2 | 4.1 | | | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | 2.2 | | | |
| p0 queue free % | 100 | 100 | 100 | | | |
| cM capacity (veh/h) | 672 | 913 | 1459 | | | |

| Direction, Lane # | EB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 0 | 136 | 125 |
| Volume Left | 0 | 0 | 0 |
| Volume Right | 0 | 0 | 0 |
| cSH | 1700 | 1459 | 1700 |
| Volume to Capacity | 0.00 | 0.00 | 0.07 |
| Queue Length 95th (m) | 0.0 | 0.0 | 0.0 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 |
| Lane LOS | A | | |
| Approach Delay (s) | 0.0 | 0.0 | 0.0 |
| Approach LOS | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.0 | | |
| Intersection Capacity Utilization | 18.3% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Phase | %ile | Green | Termination |
|---|---|---|---|
| 2 EBTL | Max | 50.0 | Max |
| | 90th | 55.3 | Coordinated |
| | 70th | 55.3 | Coordinated |
| | 50th | 55.3 | Coordinated |
| | 30th | 55.3 | Coordinated |
| | 10th | 55.3 | Coordinated |
| 4 NBTL | Max | 25.3 | Max |
| | 90th | 20.0 | Min |
| | 70th | 20.0 | Min |
| | 50th | 20.0 | Min |
| | 30th | 20.0 | Min |
| | 10th | 20.0 | Min |
| 6 WBTL | Max | 50.0 | Max |
| | 90th | 55.3 | Coordinated |
| | 70th | 55.3 | Coordinated |
| | 50th | 55.3 | Coordinated |
| | 30th | 55.3 | Coordinated |
| | 10th | 55.3 | Coordinated |
| 8 SBTL | Max | 25.3 | Max |
| | 90th | 20.0 | Min |
| | 70th | 20.0 | Min |
| | 50th | 20.0 | Min |
| | 30th | 20.0 | Hold |
| | 10th | 20.0 | Hold |




Cycle Length: 90