PUBLIC ATTACHMENT 15

520 Industrial Parkway South, Suite 201 Aurora ON L4G 6W8

> Phone: 905-503-2563 www.nextrans.ca



NextEng Consulting Group Inc.

April 13, 2023

Attention: Josh Marlowe

Berkshire Axis Development 75 Scarsdale Road, Suite 201 Toronto, ON M3B 2R2

Re: Additional Transportation Analysis Letter Proposed Residential Development 15-23 Toryork Drive, City of Toronto

Our Project No. NT-20-121

This Letter is prepared to address the City of Toronto additional transportation related comments in support of the proposed residential development.

The subject site is located at 15-23 Toryork Drive, west of Weston Road and south of Toryork Drive, in the City of Toronto. The proposed development is located adjacent to the future Finch West LRT Station. The proposed development consists of four high-rise towers in three development blocks, with a total of 1,275 residential dwelling units and approximately 1,024 m² of ground related retail gross floor area. The proposed development will provide a total of 968 bicycle parking spaces and some 819 vehicle parking spaces. As part of the proposed development, a north-south and an east-west public roads will be constructed, and the proposed site accesses will be provided via these proposed public roads to service the proposed development.

This Letter will address the following transportation related comments provided by the City of Toronto:

- 1. Provide truck turning movement templates to demonstrate that the proposed street elbow can accommodate two Medium-Single-Unit trucks concurrently.
- 2. Provide queuing analysis at Toryork Drive and the new proposed public street to demonstrate that queue will not block the proposed new public street.
- Provide proxy site parking utilization survey results to support the proposed parking rates for the proposed development.

The detailed analysis is provided below. The latest site plan is included in **Appendix A**.

1.0 TRUCK TURNING MOVEMENTS

As requested by the City staff, Nextrans has tested the truck turning movements at the proposed public road elbow. The tested vehicle dimensions are provided below:

Medium-Single-Unit Truck (TAC-MSU) – 10.0 m length and 2.6 m width

AutoTURN software was utilized to generate the vehicle turning movement templates as illustrated in **Figure 1**. The analysis indicates that the proposed public street elbow can accommodate both trucks concurrently.



2.0 QUEUING ANALYSIS

The City staff has requested that queueing analysis be provided to demonstrate that the estimated queues along Toryork Drive will not block the new public street. It should be noted that through the Traffic Impact Study Update dated March, 2023, Nextrans has provided queuing analysis for the Weston Road/Toryork Drive intersection. The analysis results outlined in Table 12, Page 27, of this the Study indicates that 95th percentile queue for the eastbound left turn and eastbound shared through/right is 39 m, whereas the available storage length is 45 m. It should be noted that Nextrans has measured the effective storage length for the eastbound using available AutoCAD/Survey drawing and confirmed that the effective storage length can be approximately 55 m. Based on this information, both the eastbound left turn or the eastbound shared through/right queue will not block the proposed public road.

To address the City comment, Nextrans has undertaken additional SimTraffic microsimulation to demonstrate that the queue will not block the proposed new public road intersection. Nextrans has conducted SimTraffic simulations with 5 runs for each peak period, 15 minutes seeding and 60 minutes run time. **Table 1** summarizes the queue lengths based on 5 runs for morning and afternoon peak periods, total of 10 runs. SimTraffic reports for the morning and afternoon peak periods are included in **Appendix B**.

Weekday PM Peak Hour Weekday AM Peak Hour Key Approx. Available 95th Queue Intersection Average Maximum Average Maximum 95th Queue Movement Storage (m) Queue (m) Queue (m) (m) Queue (m) Queue (m) (m) ~30 Weston Rd/ EB – L 23 16 13 23 27 Toryork Drive EB - TR ~55 32 42 48 45 41 46

Table 1 – SimTraffic Microsimulation Analysis Summary (Based on 5 Runs)

Based on the SimTraffic analysis with 5 runs per peak hour, as summarized in **Table 1**, the available storage length (55 m) can accommodate the average queues, maximum queues and 95th percentile queues. **Figure 2** illustrates the queuing diagram.

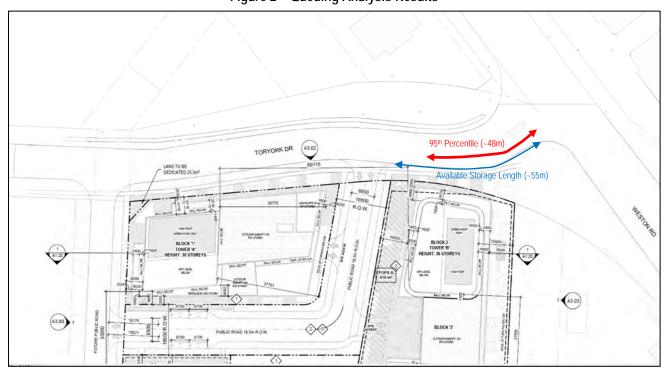


Figure 2 - Queuing Analysis Results

It should be noted that the analysis indicates that there are no potential queueing issues at the west future public road intersection with Toryork Drive.



3.0 PARKING RATE JUSTIFICATIONS

3.1. Recommended Parking Rates

Based on the comprehensive parking justifications provided in the Transportation Impact Study Update dated March, 2023, Nextrans has recommended that the parking requirement for the proposed development be reduced to support major transit investment by the City and Metrolinx on the future Finch West LRT. **Table 2** summarizes the recommended parking rates for the proposed development.

Based on these recommended parking rates, the proposed development will provide a total of 661 vehicle parking spaces. This is about 49% reduction from the maximum allowable vehicle parking spaces for this proposed development. Given that the existing transit modal split based on 2016 TTS data is already at 41% during the morning peak periods and 32% during the afternoon peak periods for the area without the Finch West LRT, the proposed reduction is justified on this basis alone.

Maximum Allowable Vehicle Parking Spaces Land Use Unit Type No. of Unit / GFA Parking Rates Visitor 393 units 0.10 spaces/unit 1-Bedroom 219 units 0.40 spaces/unit 88 2-Bedroom 155 units 0.40 spaces/unit 62 Block 1 3-Bedroom 19 units 0.40 spaces/unit 8 Retail 598 m² 1.30 space/100 m² 8 Sub-total 215 spaces 601 units 0.10 spaces/unit Visitor 60 Studio 3 units 0.40 spaces/unit 1 1-Bedroom 353 units 0.40 spaces/unit 141 185 units 0.40 spaces/unit 74 Block 2 2-Bedroom 3-Bedroom 60 units 0.40 spaces/unit 24 Retail $426 \, m^2$ 1.30 space/100 m² 6 Sub-total 306 spaces Visitor 281 units 0.10 spaces/unit 28 146 units 1-Bedroom 0.40 spaces/unit 58 Block 3 2-Bedroom 107 units 0.40 spaces/unit 43 3-Bedroom 28 units 0.40 spaces/unit 11

Table 2 – Recommended Blended Parking Rates for the Proposed Development

3.2. Proxy Site Parking Utilization Survey Results

Total Parking Requirement for the Proposed Development

Sub-total

835 St. Clair Avenue W, City of Toronto

Nextrans has undertaken parking survey for a proxy site located at 835 St. Clair Avenue West, located on the south side of St. Clair Avenue West, between Dufferin Street and Christie Street, in the City of Toronto. The existing development has similar development size and land use characteristics as the subject development. The proxy site is also located adjacent to higher order transit (i.e. St. Clair LRT). **Figure 3** illustrates the 835 St. Clair Avenue W site location.

140 spaces

661 spaces



Figure 3 – 835 St. Clair Avenue W Site Location



Source: Google Map

The existing building located at 835 St. Clair Avenue W consists of:

- Total of 117 residential dwelling units (approximately 98% utilized or 115 units occupied)
- Ground related retail space; and
- Total of 80 parking spaces (72 residential and 8 visitor spaces)

Parking utilization surveys were conducted on Friday September 28, 2018 from 5:00 pm to 12:00 am and Saturday September 29, 2018 from 2:00 pm to 12:30 am. The survey results are summarized in **Tables 3** and **4** below.

Table 3 – Parking Utilization Survey for 835 St. Clair Avenue West (Friday September 28, 2018)

| Time | Resident (72 spaces) | Utilization Percentage | Visitor (8 spaces) | Utilization Percentage | Residential Parking Rate (115 units) | Visitor Parking Rate (115 units) |
|----------|-------------------------|---------------------------|-----------------------|---------------------------|--------------------------------------|-------------------------------------|
| | (12 Spaces) | rereemage | | September 28, 20 | , , | (110 dilits) |
| 5:00 PM | 31 | 43% | 1 | 13% | 0.27 | 0.01 |
| 5:30 PM | 36 | 50% | 1 | 13% | 0.31 | 0.01 |
| 6:00 PM | 37 | 51% | 1 | 13% | 0.32 | 0.01 |
| 6:30 PM | 43 | 60% | 2 | 25% | 0.37 | 0.02 |
| 7:00 PM | 48 | 67% | 3 | 38% | 0.42 | 0.03 |
| 7:30 PM | 49 | 68% | 3 | 38% | 0.43 | 0.03 |
| 8:00 PM | 49 | 68% | 4 | 50% | 0.43 | 0.03 |
| 8:30 PM | 50 | 69% | 5 | 63% | 0.43 | 0.04 |
| 9:00 PM | 52 | 72% | 6 | 75% | 0.45 | 0.05 |
| 9:30 PM | 53 | 74% | 6 | 75% | 0.46 | 0.05 |
| 10:00 PM | 56 | 78% | 6 | 75% | 0.49 | 0.05 |
| 10:30 PM | 57 | 79% | 6 | 75% | 0.50 | 0.05 |
| 11:00 PM | 60 | 83% | 5 | 63% | 0.52 | 0.04 |
| 11:30 PM | 60 | 83% | 4 | 50% | 0.52 | 0.03 |
| 12:00 AM | 61 | 85% | 4 | 50% | 0.53 | 0.03 |



Table 4 – Parking Utilization Survey for 835 St. Clair Avenue West (Saturday September 29, 2018)

| Time | Resident (72 spaces) | Utilization Percentage | Visitor (8 spaces) | Utilization Percentage | Residential Parking Rate (115 units) | Visitor Parking Rate (115 units) |
|----------|-------------------------|---------------------------|-----------------------|---------------------------|--------------------------------------|-------------------------------------|
| 2:00 PM | 39 | 54% | 3 | 38% | 0.34 | 0.03 |
| 2:30 PM | 39 | 54% | 3 | 38% | 0.34 | 0.03 |
| 3:00 PM | 41 | 57% | 3 | 38% | 0.36 | 0.03 |
| 3:30 PM | 41 | 57% | 3 | 38% | 0.36 | 0.03 |
| 4:00 PM | 41 | 57% | 3 | 38% | 0.36 | 0.03 |
| 4:30 PM | 40 | 56% | 2 | 25% | 0.35 | 0.02 |
| 5:00 PM | 42 | 58% | 3 | 38% | 0.37 | 0.03 |
| 5:30 PM | 47 | 65% | 4 | 50% | 0.41 | 0.03 |
| 6:00 PM | 46 | 64% | 3 | 38% | 0.40 | 0.03 |
| 6:30 PM | 50 | 69% | 4 | 50% | 0.43 | 0.03 |
| 7:00 PM | 50 | 69% | 3 | 38% | 0.43 | 0.03 |
| 7:30 PM | 50 | 69% | 3 | 38% | 0.43 | 0.03 |
| 8:00 PM | 50 | 69% | 3 | 38% | 0.43 | 0.03 |
| 8:30 PM | 47 | 65% | 3 | 38% | 0.41 | 0.03 |
| 9:00 PM | 49 | 68% | 2 | 25% | 0.43 | 0.02 |
| 9:30 PM | 49 | 68% | 2 | 25% | 0.43 | 0.02 |
| 10:00 PM | 51 | 71% | 3 | 38% | 0.44 | 0.03 |
| 10:30 PM | 54 | 75% | 2 | 25% | 0.47 | 0.02 |
| 11:00 PM | 54 | 75% | 2 | 25% | 0.47 | 0.02 |
| 11:30 PM | 54 | 75% | 2 | 25% | 0.47 | 0.02 |
| 12:00 AM | 54 | 75% | 2 | 25% | 0.47 | 0.02 |
| 12:30 AM | 54 | 75% | 2 | 25% | 0.47 | 0.02 |

The parking utilization survey results indicate that the maximum blended vehicle parking rates for 835 St. Clair Avenue W are 0.53 spaces/unit for residential and 0.05 spaces/unit for visitor.

Three Other Sites, City of Mississauga

Most recently, Nextrans has conducted parking utilization study for the following two sites in the City of Mississauga (two sites are close to the City of Toronto border on Lakeshore Road E):

- 1051-1061 Seneca Avenue, Mississauga (located north side of Lakeshore Road E, between Hurontario Street and Cawthra Road) – Total of 180 fully occupied residential units (7-storey), with 197 vehicle parking spaces for resident and 15 spaces for visitor. The approved blended rates are: 1.09 spaces/unit for resident and 0.08 spaces/unit for visitor.
- 2. 1015 Roosevelt Road and 1020 Shaw Drive, Mississauga (located north side of Lakeshore Road E, between Hurontario Street and Cawthra Road) Total of 152 fully occupied residential units (8-storey), with 86 vehicle parking spaces for resident and 14 spaces for visitor. The approved blended rates are: 0.57 spaces/unit for resident and 0.09 spaces/unit for visitor.

The parking utilization surveys for the first two site were conducted on:

- Friday February 24th, 2023 from 6:00pm to 12:00am
- Saturday February 25th, 2023 from 6:00pm to 12:00am
- Sunday February 26th, 2023 from 3:00pm to 9:00pm

The parking utilization survey for the third site was conducted on:

- Friday November 18th, 2022 from 6:00pm to 12:00am
- Saturday November 19th, 2022 from 6:00pm to 12:00am
- Sunday November 20th, 2022 from 3:00pm to 9:00pm



The parking survey results are summarized in **Appendix C**. Based on the parking survey results, the following observations are made:

1051-1061 Seneca Avenue, Mississauga

- The highest visitor parking rate is 0.04 spaces/unit and lowest is 0.00 spaces/unit (three-day average is 0.02 spaces/unit)
- The highest visitor parking utilization rate is 53% and lowest is 0% (three-day average is 24%)
- The highest residential rate is 0.58 spaces/unit and lowest is 0.52 spaces/unit (three-day average is 0.56 spaces/unit)
- The highest residential parking utilization is 53% and lowest is 41% (three-day average is 51%)

1015 Roosevelt Road and 1020 Shaw Drive, Mississauga

- The highest visitor parking rate is 0.04 spaces/unit and lowest is 0.01 spaces/unit (three-day average is 0.03 spaces/unit)
- The highest visitor parking utilization rate is 43% and lowest is 7% (three-day average is 27%)
- The highest residential rate is 0.36 spaces/unit and lowest is 0.18 spaces/unit (three-day average is 0.28 spaces/unit)
- The highest residential parking utilization is 64% and lowest is 33% (three-day average is 57%)

4.0 APPROVED PARKING RATES IN THE CITY OF TORONTO

A summary of the applications that have been approved in the last few years with associated zoning by-law numbers, along with the detailed breakdown of tenure and unit mix is provided below and LPAT decisions are included in **Appendix D**.

8-30 Widmer Street – By-law 74-2019, LPAT issued date Sept 28, 2018

- a. the maximum number of dwelling units shall be 665 as follows:
 - i. A maximum of 225 dwelling units shall be permitted in Tower 1; and
 - ii. A maximum of 434 dwelling units shall be permitted in Tower 2, excluding the six (6) existing heritage townhouse dwelling units;
 - iii. at least ten percent (10 percent) of the total number of *dwelling units* in *Tower 1* shall have three (3) *bedrooms*;
 - iv. at least fifteen percent (15 percent) of the total number of *dwelling units* in *Tower 2* shall have three (3) *bedrooms*;
 - v. at least forty percent (40 percent) of the total number of *dwelling units* in *Tower 2* shall have two (2) *bedrooms*;
- b. *parking spaces* shall be provided and maintained in a parking garage located below *grade* within the *lot* as follows:
 - 0.17 parking spaces per dwelling unit for residents;
 - 0.06 parking spaces per dwelling unit for residential visitors;
 - A minimum of 18 *parking spaces* shall be provided for the *hotel*, of which at least one (1) such *parking space* shall be designated only for use by a taxi;
 - The *parking spaces* provided for in subsection (ii) and (iii) above, may be provided in a *commercial parking garage* within the building on the *lot*;
 - Notwithstanding subsection (i) and (ii) above, parking spaces are not required to be provided for the six (6) existing heritage townhouse dwelling units



2. 50 Wellesley Street E and 31 to 35 Dundonald Street – By-law 974-2017, OMB issued date June 14, 2016

- a. the lot consists of Parcel A and Parcel B;
- b. the combined residential gross floor area and non-residential gross floor area on the lot, exclusive of those portions of the building used for the purposes of a commercial parking garage, shall not exceed 27,500 square metres, provided:
- c. The maximum residential gross floor area shall not exceed 27,250 square metres; and
- d. A minimum of 250 square metres of non-residential gross floor area shall be provided on the lot;
- e. a minimum of 0.3 parking spaces per dwelling unit shall be provided and maintained on the lot for the exclusive use of residents;
- f. no parking spaces shall be required for residential visitors and non-residential uses;

3. 85-91 Broadway Avenue and 198 Redpath Avenue - By-law 1345-2018, LPAT issued date June 28, 2018

- a. A maximum of 385 dwelling units are permitted
- b. A minimum 5 percent of the dwelling units must be three-bedroom dwelling units;
- c. Despite clause 200.5.10, a minimum of 80 parking spaces must be provided on the lot in accordance with the following:
 - i. A minimum of 70 parking spaces must be provided for residents; and
 - ii. A minimum of 10 parking spaces must be provided for the use of visitors

4. <u>50 Eglinton Avenue E and 39-41 Roehampton Avenue – By-law 1482-2019, LPAT issued date August 19, 2019</u>

- a. The permitted maximum number of dwelling units is 440;
- b. A minimum of ten percent of the total number of dwelling units constructed in the building must contain three bedrooms or more;
- c. Despite Regulation 200.5.10.1(1), parking spaces must be provided and maintained as follows:
 - a minimum of 88 parking spaces for tenants of dwelling units;
 - a minimum of 12 parking spaces for visitors of dwelling units; and
 - a maximum of 4 "car-share" parking spaces, which, for the purpose of this exception, are parking spaces used exclusively for the parking of a motor vehicle that is available for short-term rental, including an option for hourly rental, for the use of at least the occupants of a building erected on the lot;

5. 170 Spadina Avenue and 1-7 Cameron Street – By-law 1548-2019, LPAT issued date October 10, 2019

- a. 10 percent of the total number of residential units on the lot as three-bedroom dwelling units; and
- b. 37 percent of the total number of residential units on the lot as two-bedroom dwelling units.
- c. Despite Regulation 200.5.10.1(1) and Table 200.5.10.1, parking spaces for the mixed-use building must be provided and maintained on the lot in accordance with the following:
- a minimum of 0.15 parking spaces per dwelling unit for residents;
- a minimum of 0.06 parking spaces per dwelling unit for residential visitors; and
- no parking is required for non-residential uses

Table 5 summarizes the parking requirement for each of the approved development application noted above.



Table 5 - Approved Parking Rates in the City of Toronto

| Development | Zoning By-Law No. and | | Parking Rates | | Distance to |
|-----------------------------|---|------------------|-------------------|-------------------|-------------------------------|
| Location | Approval Date | Residential | Visitor | Total | Rapid Transit |
| 8-30 Widmer Street | 74-2019 LPAT issued date September 28, 2018 | 0.17 spaces/unit | 0.06 spaces/unit | 0.23 spaces/unit | Approx. 650 m |
| 50 Wellesley Street East | By-law 974-2017, OMB issued date June 14, 2016 | 0.30 spaces/unit | 0.00 spaces/unit | 0.30 spaces/unit | Approx. 110 m |
| 170 Spadina Avenue | By-law 1548-2019, LPAT issued date October 10, 2019 | 0.15 spaces/unit | 0.06 spaces/unit | 0.21 spaces/unit | Approx. 900 m |
| 50 Eglinton Avenue E | By-law 1482-2019, LPAT issued date August 19, 2019 | 0.20 spaces/unit | 0.027 spaces/unit | 0.227 spaces/unit | Approx. 500 m |
| 85 Broadway Avenue | By-law 1345-2018, LPAT issued date June 28, 2018 | 0.18 spaces/unit | 0.02 spaces/unit | 0.20 spaces/unit | Approx. 850 m |
| | Average | 0.2 spaces/unit | 0.04 spaces/unit | 0.23 spaces/unit | Approx. 600 m |
| | posed Development 5-23 Toryork Drive | 0.40 spaces/unit | 0.10 spaces/unit | 0.50 spaces/unit | Adjacent to Finch West LRT |

Based on the information provided above, it is indicated that the subject development provides the highest parking rates given that the proposed development is located adjacent to the future Finch West LRT rapid transit.

Therefore, this information is sufficient to support the recommended parking rates provided in Section 3.0 of this Letter.

5.0 SUMMARY AND CONCLUSION

The additional analysis provided in this Letter indicates that:

- The analysis indicates that the proposed public road intersection with Toryork Drive will not be blocked by the future queues. It should be noted that the forecast volumes were not adjusted (i.e. reduced) due to the future Finch West LRT project. Even if in the future that the intersection is blocked, installation of signage such as "Do Not Block Intersection" can be provided to mitigate any potential issues. Therefore, this comment has been addressed.
- AutoTURN software was utilized to generate the vehicle turning templates. The analysis indicates that two MSU can use the public road elbow concurrently. Therefore, this comment has been addressed.
- Nextrans has recommended the following parking rates for the proposed development:
 - 0.10 spaces/unit for visitor component for all blocks;
 - 0.40 spaces/unit for residential component for all;
 - The proxy site parking utilization survey results indicates that:
 - 0.36 spaces/unit for residential and 0.04 spaces/unit for visitor (1015 Roosevelt Road and 1020 Shaw Drive, Mississauga)
 - > 0.53 spaces/unit for residential and 0.05 spaces/unit for visitor (835 St. Clair Ave W, Toronto)
 - ➤ 0.58 spaces/unit for residential and 0.04 spaces/unit for visitor (1051-1061 Seneca Avenue, Mississauga)
 - ➤ Based on these proxy site parking utilization survey results, the analysis indicates that the recommended vehicle parking rates for the proposed development are reasonable and justified.
 - The analysis also indicates that the recommended vehicle parking rates for the proposed development are also higher than the rates that were approved by the OMB/LPAT in the last few years in the City of Toronto.
 - Therefore, this comment has been addressed.



We trust the enclosed sufficiently addresses your needs. Should you have any questions, please do not hesitate to contact the undersigned.

Yours truly,

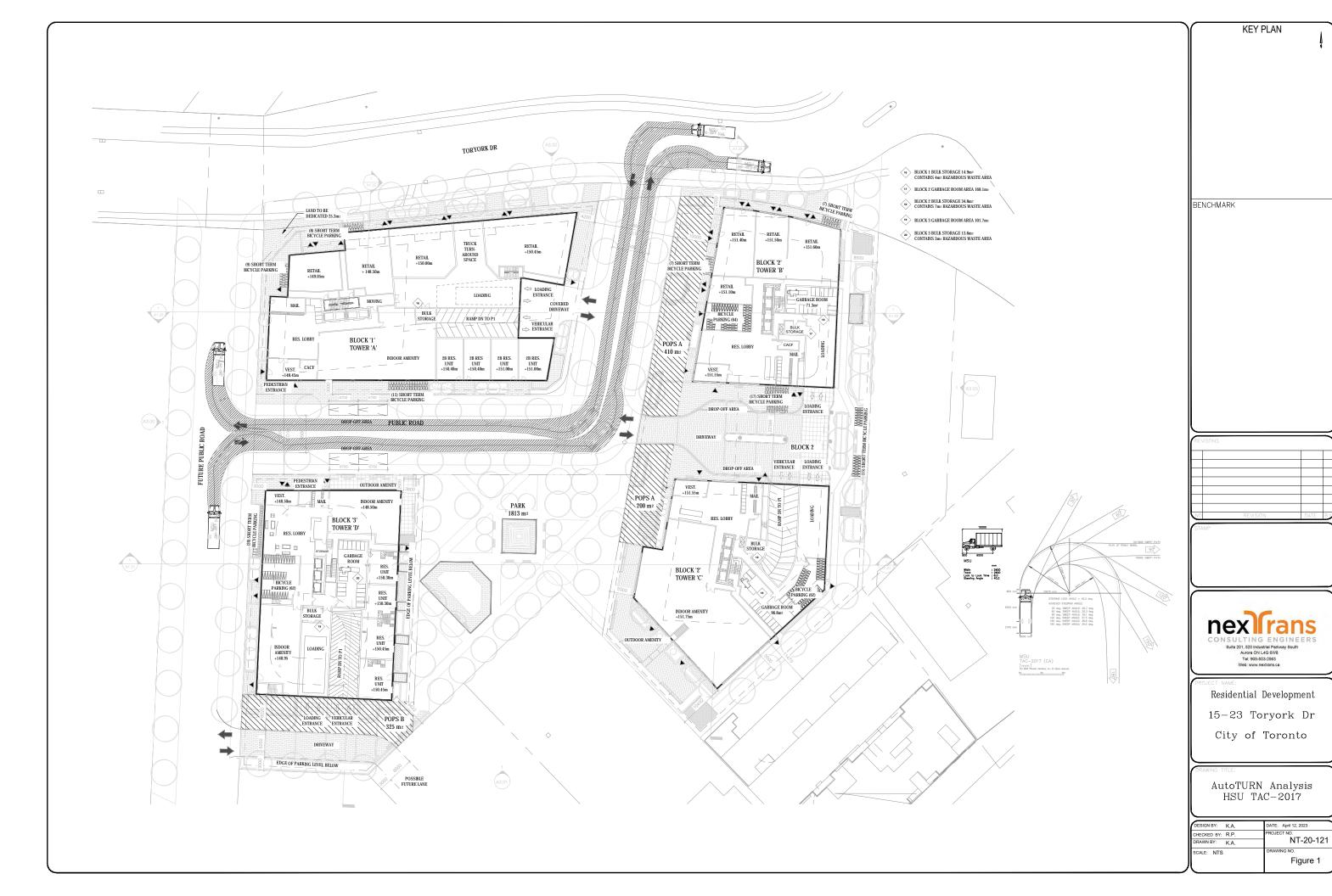
Nextrans Consulting Engineers A Division of NextEng Consulting Group Inc.

Prepared by:

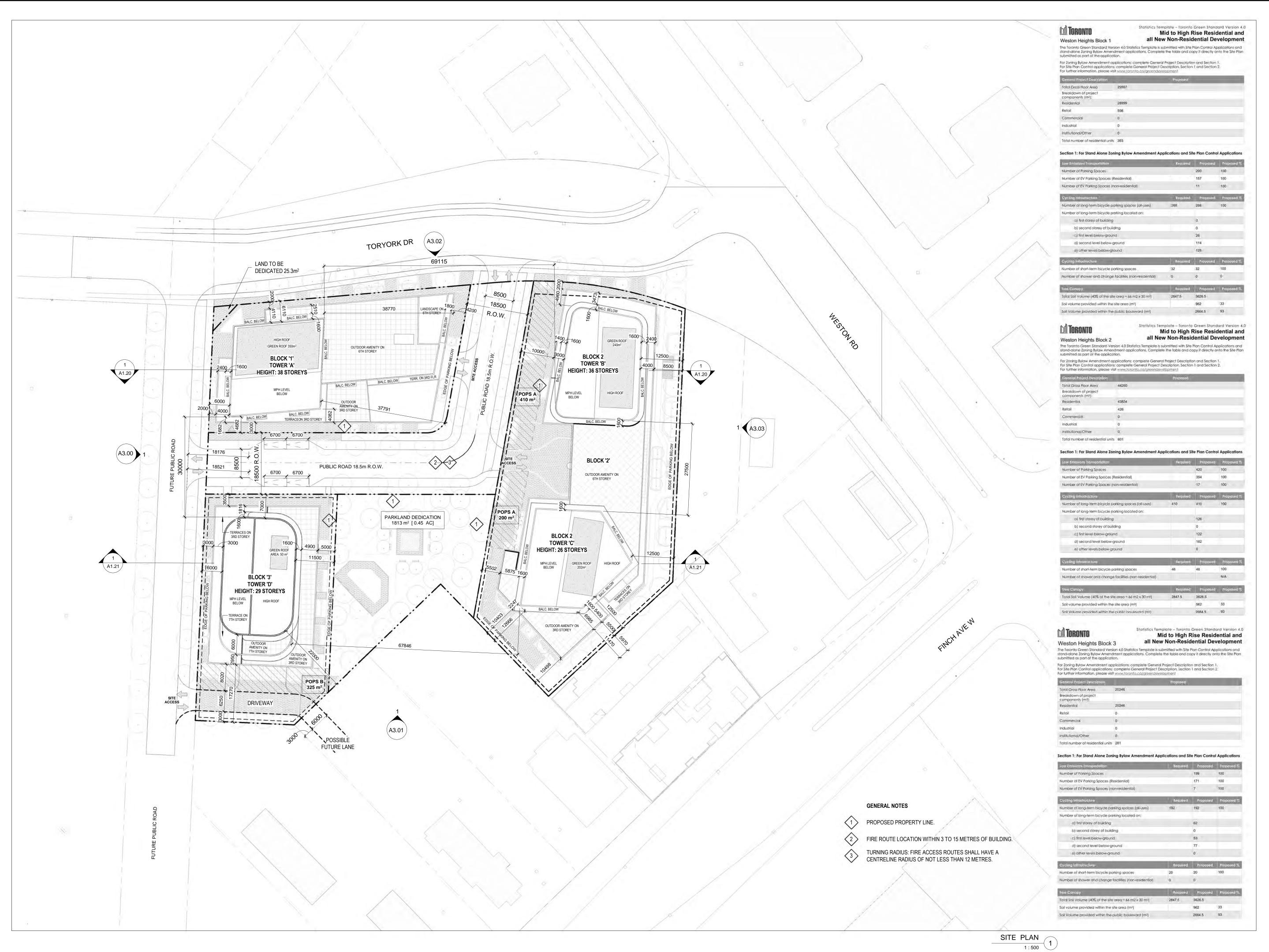
Sam Nguyen, Dipl. Transportation Analyst Reviewed and Approved by:

Richard Pernicky, MITE

Principal



Appendix A Current Site Plan



All drawings, specifications, related documents and design are the copyright property of the architect and must be returned upon request. Reproduction of the drawings, specifications, related documents and design in whole or in part is strictly forbidden without the architect's written permission.

Revision

NOT FOR CONSTRUCTION

Revision

TRUE PROJECT
NORTH NORTH

23.03.03

21.09.02

RE-ISSUED FOR ZBA

ISSUED FOR ZBA

giannone petricone associates

Giannone Petricone Associates Inc. Architects
462 Wellington Street West, Toronto, Canada M5V 1E3,
T 416.591.7788 F 416.591.1293 E mail@gpaia.com

Architect Inc.
GIOVANNI A. TASSONE

- - - - - - - - IN ASSOCIATION WITH - - - - - - -

185 BridgelandAve., Suite 107
Toronto, Ontario M6A 1Y7
(416) 784-5020
(416) 783-3100 fax

WESTON HEIGHTS

15-23 TORYORK DR TORONTO, ON

SHEET TITLE

CONCEPT SITE PLAN & T.G.S.

DRAWN BY: HA / VM

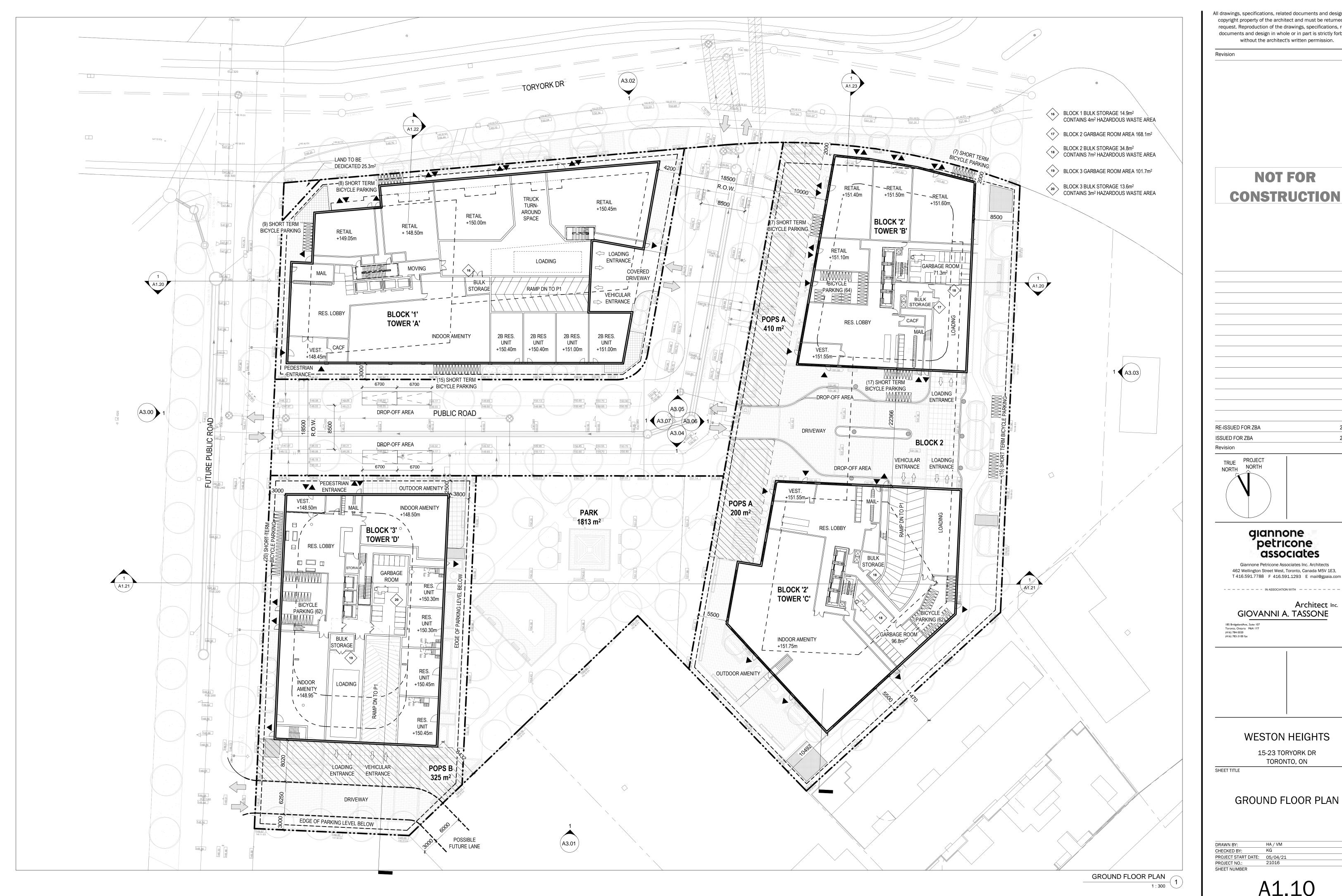
CHECKED BY: KG

PROJECT START DATE: 08/11/21

PROJECT NO.: 21016

SHEET NUMBER

40.11



All drawings, specifications, related documents and design are the copyright property of the architect and must be returned upon request. Reproduction of the drawings, specifications, related documents and design in whole or in part is strictly forbidden without the architect's written permission.

NOT FOR CONSTRUCTION

23.03.03 RE-ISSUED FOR ZBA ISSUED FOR ZBA 21.09.02 Revision

giannone petricone

NORTH

associates Giannone Petricone Associates Inc. Architects 462 Wellington Street West, Toronto, Canada M5V 1E3, T 416.591.7788 F 416.591.1293 E mail@gpaia.com

Architect Inc.
GIOVANNI A. TASSONE

185 BridgelandAve., Suite 107 Toronto, Ontario M6A 1Y7 (416) 784-5020 (416) 783-3100 fax

WESTON HEIGHTS

15-23 TORYORK DR TORONTO, ON

GROUND FLOOR PLAN

HA / VM DRAWN BY: CHECKED BY: PROJECT START DATE: 05/04/21
PROJECT NO.: 21016

Appendix BSimTraffic Queuing Analysis

Intersection: 3: Weston Road & Finch Avenue W

| Movement | EB | EB | EB | WB | WB | WB | WB | NB | NB | NB | NB | SB |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|------|
| Directions Served | L | T | TR | L | T | T | R | L | T | T | R | |
| Maximum Queue (m) | 82.4 | 211.5 | 213.0 | 107.4 | 182.3 | 178.4 | 50.2 | 37.3 | 150.6 | 141.3 | 68.0 | 57.4 |
| Average Queue (m) | 66.3 | 139.2 | 140.2 | 84.5 | 90.1 | 86.7 | 21.9 | 32.8 | 94.1 | 79.6 | 16.1 | 50.9 |
| 95th Queue (m) | 100.1 | 217.5 | 223.9 | 121.1 | 165.8 | 156.8 | 42.4 | 46.6 | 143.9 | 128.8 | 43.3 | 70.9 |
| Link Distance (m) | | 237.4 | 237.4 | | 563.4 | 563.4 | 563.4 | | 415.9 | 415.9 | | |
| Upstream Blk Time (%) | | 0 | 0 | | | | | | | | | |
| Queuing Penalty (veh) | | 0 | 0 | | | | | | | | | |
| Storage Bay Dist (m) | 75.0 | | | 100.0 | | | | 30.0 | | | 100.0 | 50.0 |
| Storage Blk Time (%) | 5 | 47 | | 12 | 1 | | | 31 | 44 | 2 | 0 | 19 |
| Queuing Penalty (veh) | 23 | 87 | | 51 | 3 | | | 85 | 62 | 2 | 0 | 60 |

Intersection: 3: Weston Road & Finch Avenue W

| Movement | SB | SB |
|-----------------------|-------|-------|
| Directions Served | T | TR |
| Maximum Queue (m) | 124.3 | 124.2 |
| Average Queue (m) | 108.5 | 108.4 |
| 95th Queue (m) | 138.4 | 140.6 |
| Link Distance (m) | 119.0 | 119.0 |
| Upstream Blk Time (%) | 15 | 16 |
| Queuing Penalty (veh) | 63 | 65 |
| Storage Bay Dist (m) | | |
| Storage Blk Time (%) | 41 | |
| Queuing Penalty (veh) | 71 | |

Intersection: 4: Weston Road & Fenmar Drive

| Movement | EB | EB | B10 | WB | WB | B11 | NB | NB | NB | NB | SB | SB |
|-----------------------|------|-------|-------|------|-------|-------|------|-------|-------|------|------|-------|
| Directions Served | L | TR | Т | L | TR | T | L | Т | T | R | L | T |
| Maximum Queue (m) | 37.2 | 150.9 | 35.8 | 37.2 | 113.4 | 49.2 | 42.3 | 71.1 | 77.7 | 47.4 | 23.1 | 53.5 |
| Average Queue (m) | 4.4 | 93.3 | 11.7 | 12.4 | 55.9 | 27.5 | 22.1 | 27.8 | 32.4 | 10.2 | 6.2 | 26.4 |
| 95th Queue (m) | 20.9 | 154.0 | 65.7 | 34.6 | 129.2 | 149.3 | 42.9 | 61.8 | 66.8 | 34.2 | 17.6 | 46.4 |
| Link Distance (m) | | 131.0 | 212.3 | | 135.1 | 226.7 | | 458.0 | 458.0 | | | 162.6 |
| Upstream Blk Time (%) | | 11 | | | 11 | 9 | | | | | | |
| Queuing Penalty (veh) | | 0 | | | 0 | 0 | | | | | | |
| Storage Bay Dist (m) | 30.0 | | | 30.0 | | | 35.0 | | | 40.0 | 85.0 | |
| Storage Blk Time (%) | 0 | 55 | | 11 | 29 | | 2 | 4 | 5 | 0 | | |
| Queuing Penalty (veh) | 0 | 6 | | 24 | 6 | | 5 | 5 | 4 | 0 | | |

Intersection: 4: Weston Road & Fenmar Drive

| Movement | SB |
|-----------------------|-------|
| Directions Served | Ţ |
| Maximum Queue (m) | 45.3 |
| Average Queue (m) | 14.1 |
| 95th Queue (m) | 33.7 |
| Link Distance (m) | 162.6 |
| Upstream Blk Time (%) | |
| Queuing Penalty (veh) | |
| Storage Bay Dist (m) | |
| Storage Blk Time (%) | 0 |
| Queuing Penalty (veh) | 0 |

Intersection: 6: Weston Road & Toryork Drive/Retail Access

| Movement | EB | EB | B8 | WB | WB | NB | NB | NB | SB | SB | SB | SB |
|-----------------------|------|------|------|------|------|------|-------|-------|------|-------|-------|------|
| Directions Served | L | TR | T | L | TR | L | Т | TR | L | Т | T | R |
| Maximum Queue (m) | 23.1 | 42.3 | 49.4 | 12.1 | 11.8 | 32.4 | 103.8 | 96.3 | 31.6 | 141.1 | 143.5 | 37.5 |
| Average Queue (m) | 16.4 | 32.2 | 13.4 | 2.3 | 2.4 | 26.3 | 40.3 | 36.4 | 4.6 | 61.6 | 61.5 | 9.2 |
| 95th Queue (m) | 25.8 | 48.1 | 42.1 | 8.8 | 9.6 | 39.0 | 91.8 | 82.5 | 20.2 | 149.1 | 151.0 | 31.6 |
| Link Distance (m) | | 21.3 | 30.4 | | 44.5 | | 119.0 | 119.0 | | 458.0 | 458.0 | |
| Upstream Blk Time (%) | 10 | 32 | 9 | | | | 0 | 0 | | | | |
| Queuing Penalty (veh) | 0 | 96 | 26 | | | | 0 | 0 | | | | |
| Storage Bay Dist (m) | 30.0 | | | 10.0 | | 25.0 | | | 25.0 | | | 30.0 |
| Storage Blk Time (%) | 10 | 32 | | 9 | 6 | 12 | 6 | | 0 | 32 | 29 | 0 |
| Queuing Penalty (veh) | 20 | 29 | | 1 | 1 | 47 | 11 | | 0 | 3 | 11 | 0 |

Intersection: 10: Bend

| Movement | WB |
|-----------------------|-------|
| Directions Served | T |
| Maximum Queue (m) | 25.7 |
| Average Queue (m) | 0.9 |
| 95th Queue (m) | 18.1 |
| Link Distance (m) | 131.0 |
| Upstream Blk Time (%) | 0 |
| Queuing Penalty (veh) | 0 |
| Storage Bay Dist (m) | |
| Storage Blk Time (%) | |
| Queuing Penalty (veh) | |

Intersection: 14: Rumike Road/Milvan Drive & Finch Avenue W

| Movement | EB | EB | EB | WB | WB | WB | NB | NB | SB | SB | SB | |
|-----------------------|------|-------|-------|------|-------|-------|------|-------|------|-------|-------|--|
| Directions Served | L | T | TR | L | Т | TR | L | TR | L | T | R | |
| Maximum Queue (m) | 37.3 | 151.8 | 147.1 | 32.9 | 124.9 | 130.7 | 22.4 | 56.7 | 48.6 | 22.2 | 23.3 | |
| Average Queue (m) | 20.6 | 79.7 | 71.1 | 6.5 | 65.9 | 73.5 | 17.9 | 22.5 | 20.9 | 7.7 | 7.9 | |
| 95th Queue (m) | 40.8 | 128.8 | 122.0 | 22.4 | 118.6 | 123.9 | 26.6 | 49.2 | 40.3 | 19.5 | 19.1 | |
| Link Distance (m) | | 241.2 | 241.2 | | 253.3 | 253.3 | | 184.4 | | 162.4 | 162.4 | |
| Upstream Blk Time (%) | | | | | | | | | | | | |
| Queuing Penalty (veh) | | | | | | | | | | | | |
| Storage Bay Dist (m) | 30.0 | | | 30.0 | | | 15.0 | | 70.0 | | | |
| Storage Blk Time (%) | 6 | 30 | | 0 | 23 | | 29 | 8 | | | | |
| Queuing Penalty (veh) | 32 | 20 | | 0 | 4 | | 21 | 11 | | | | |

Intersection: 18: Jayzel Drive/Retail Access & Finch Avenue W

| Movement | EB | EB | EB | WB | WB | WB | NB | NB | SB | |
|-----------------------|------|-------|-------|------|-------|-------|------|-------|------|--|
| Directions Served | L | Т | TR | L | Т | TR | L | TR | LTR | |
| Maximum Queue (m) | 13.5 | 113.3 | 119.4 | 37.3 | 144.0 | 146.7 | 22.6 | 55.9 | 22.7 | |
| Average Queue (m) | 1.7 | 57.6 | 60.0 | 22.3 | 47.3 | 50.3 | 15.3 | 20.8 | 4.8 | |
| 95th Queue (m) | 8.1 | 109.2 | 112.4 | 38.5 | 116.6 | 119.4 | 24.8 | 44.2 | 15.3 | |
| Link Distance (m) | | 253.3 | 253.3 | | 283.1 | 283.1 | | 189.5 | 45.2 | |
| Upstream Blk Time (%) | | | | | | | | | | |
| Queuing Penalty (veh) | | | | | | | | | | |
| Storage Bay Dist (m) | 15.0 | | | 30.0 | | | 15.0 | | | |
| Storage Blk Time (%) | 0 | 27 | | 7 | 7 | | 24 | 8 | | |
| Queuing Penalty (veh) | 2 | 2 | | 36 | 7 | | 21 | 6 | | |

Intersection: 21: Finch Avenue W & Street 2A

| Movement | EB | EB | EB | WB | WB | SB | SB | |
|-----------------------|------|-------|-------|-------|-------|------|------|--|
| Directions Served | L | Т | T | T | TR | L | R | |
| Maximum Queue (m) | 37.4 | 131.0 | 134.2 | 86.0 | 88.8 | 28.1 | 35.3 | |
| Average Queue (m) | 18.3 | 68.5 | 71.2 | 33.7 | 37.8 | 8.8 | 12.6 | |
| 95th Queue (m) | 35.4 | 121.1 | 121.5 | 63.4 | 69.0 | 21.5 | 24.5 | |
| Link Distance (m) | | 283.1 | 283.1 | 237.4 | 237.4 | | 72.0 | |
| Upstream Blk Time (%) | | | | | | | | |
| Queuing Penalty (veh) | | | | | | | | |
| Storage Bay Dist (m) | 30.0 | | | | | 30.0 | | |
| Storage Blk Time (%) | 4 | 23 | | | | 0 | 1 | |
| Queuing Penalty (veh) | 22 | 12 | | | | 0 | 0 | |

Intersection: 23: Street 2A & Toryork Drive

| Movement | EB | WB | NB |
|-----------------------|-------|------|------|
| Directions Served | TR | LT | LR |
| Maximum Queue (m) | 1.8 | 13.1 | 22.4 |
| Average Queue (m) | 0.1 | 1.5 | 12.2 |
| 95th Queue (m) | 1.3 | 7.8 | 20.1 |
| Link Distance (m) | 222.3 | 63.3 | 36.4 |
| Upstream Blk Time (%) | | | |
| Queuing Penalty (veh) | | | |
| Storage Bay Dist (m) | | | |
| Storage Blk Time (%) | | | |
| Queuing Penalty (veh) | | | |

Intersection: 24: Street 2A & Street 1

| Movement | WB | NB | SB |
|-----------------------|------|------|------|
| Directions Served | LR | TR | LT |
| Maximum Queue (m) | 19.2 | 14.1 | 7.0 |
| Average Queue (m) | 10.0 | 1.1 | 0.3 |
| 95th Queue (m) | 16.9 | 7.4 | 2.9 |
| Link Distance (m) | 65.2 | 36.6 | 36.4 |
| Upstream Blk Time (%) | | | |
| Queuing Penalty (veh) | | | |
| Storage Bay Dist (m) | | | |
| Storage Blk Time (%) | | | |
| Queuing Penalty (veh) | | | |

seline 04-11-2023

Intersection: 26: Street 1 & Toryork Drive

| Movement | EB | WB | NB | B25 |
|-----------------------|------|------|------|------|
| Directions Served | TR | LT | LR | Т |
| Maximum Queue (m) | 34.6 | 18.2 | 29.3 | 1.1 |
| Average Queue (m) | 4.6 | 1.5 | 11.8 | 0.0 |
| 95th Queue (m) | 27.5 | 8.6 | 24.9 | 0.8 |
| Link Distance (m) | 63.3 | 30.4 | 31.4 | 65.2 |
| Upstream Blk Time (%) | 0 | 0 | 2 | |
| Queuing Penalty (veh) | 1 | 0 | 1 | |
| Storage Bay Dist (m) | | | | |
| Storage Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |

Intersection: 27: Street 2A & Block 3 Access

| Movement | WB | NB | SB |
|-----------------------|------|------|------|
| Directions Served | LR | TR | LT |
| Maximum Queue (m) | 15.1 | 8.6 | 8.8 |
| Average Queue (m) | 5.5 | 0.3 | 0.5 |
| 95th Queue (m) | 13.5 | 3.5 | 3.8 |
| Link Distance (m) | 37.9 | 83.8 | 36.6 |
| Upstream Blk Time (%) | | | |
| Queuing Penalty (veh) | | | |
| Storage Bay Dist (m) | | | |
| Storage Blk Time (%) | | | |
| Queuing Penalty (veh) | | | |

Network Summary

Network wide Queuing Penalty: 1067

Intersection: 3: Weston Road & Finch Avenue W

| Movement | EB | EB | EB | WB | WB | WB | WB | NB | NB | NB | NB | SB |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|------|
| Directions Served | L | T | TR | L | T | T | R | L | T | T | R | |
| Maximum Queue (m) | 82.4 | 256.5 | 260.0 | 107.5 | 571.8 | 561.5 | 477.1 | 37.3 | 429.1 | 427.2 | 107.4 | 57.4 |
| Average Queue (m) | 69.1 | 209.0 | 188.2 | 104.7 | 358.7 | 345.2 | 106.4 | 29.9 | 386.5 | 375.3 | 15.5 | 38.2 |
| 95th Queue (m) | 106.3 | 308.8 | 336.9 | 127.0 | 603.8 | 592.5 | 425.6 | 54.0 | 504.0 | 507.5 | 55.2 | 77.2 |
| Link Distance (m) | | 250.8 | 250.8 | | 563.4 | 563.4 | 563.4 | | 415.9 | 415.9 | | |
| Upstream Blk Time (%) | | 9 | 10 | | 15 | 8 | 3 | | 68 | 37 | | |
| Queuing Penalty (veh) | | 49 | 55 | | 0 | 0 | 0 | | 0 | 0 | | |
| Storage Bay Dist (m) | 75.0 | | | 100.0 | | | | 30.0 | | | 100.0 | 50.0 |
| Storage Blk Time (%) | 27 | 47 | | 73 | 10 | | | 72 | 31 | 2 | 0 | 5 |
| Queuing Penalty (veh) | 117 | 101 | | 329 | 40 | | | 161 | 60 | 2 | 0 | 21 |

Intersection: 3: Weston Road & Finch Avenue W

| Movement | SB | SB |
|-----------------------|-------|-------|
| Directions Served | Т | TR |
| Maximum Queue (m) | 127.0 | 124.4 |
| Average Queue (m) | 95.9 | 95.8 |
| 95th Queue (m) | 177.0 | 176.5 |
| Link Distance (m) | 119.0 | 119.0 |
| Upstream Blk Time (%) | 25 | 31 |
| Queuing Penalty (veh) | 166 | 204 |
| Storage Bay Dist (m) | | |
| Storage Blk Time (%) | 44 | |
| Queuing Penalty (veh) | 98 | |

Intersection: 4: Weston Road & Fenmar Drive

| Movement | EB | EB | B10 | WB | WB | B11 | NB | NB | NB | NB | SB | SB |
|-----------------------|------|-------|-------|------|-------|-------|------|-------|-------|------|------|-------|
| Directions Served | L | TR | T | L | TR | T | L | Т | Т | R | L | T |
| Maximum Queue (m) | 25.8 | 155.2 | 154.3 | 37.3 | 162.9 | 226.6 | 42.2 | 77.0 | 69.8 | 41.6 | 92.2 | 175.5 |
| Average Queue (m) | 3.8 | 94.7 | 45.0 | 27.4 | 91.2 | 64.5 | 14.3 | 18.4 | 20.0 | 4.7 | 26.3 | 131.6 |
| 95th Queue (m) | 19.2 | 169.5 | 182.1 | 45.8 | 179.7 | 221.5 | 37.0 | 53.9 | 51.8 | 21.2 | 91.0 | 217.0 |
| Link Distance (m) | | 131.0 | 212.3 | | 135.1 | 226.7 | | 458.0 | 458.0 | | | 162.6 |
| Upstream Blk Time (%) | | 29 | 16 | | 35 | 20 | | | | | | 49 |
| Queuing Penalty (veh) | | 0 | 0 | | 0 | 0 | | | | | | 0 |
| Storage Bay Dist (m) | 30.0 | | | 30.0 | | | 35.0 | | | 40.0 | 85.0 | |
| Storage Blk Time (%) | | 61 | | 49 | 16 | | 4 | 2 | 3 | 0 | 0 | 62 |
| Queuing Penalty (veh) | | 9 | | 136 | 13 | | 10 | 3 | 1 | 0 | 0 | 31 |

Intersection: 4: Weston Road & Fenmar Drive

| Movement | SB | SB |
|-----------------------|-------|------|
| Directions Served | Ţ | R |
| Maximum Queue (m) | 177.6 | 34.0 |
| Average Queue (m) | 127.8 | 8.1 |
| 95th Queue (m) | 221.5 | 35.6 |
| Link Distance (m) | 162.6 | |
| Upstream Blk Time (%) | 55 | |
| Queuing Penalty (veh) | 0 | |
| Storage Bay Dist (m) | | 35.0 |
| Storage Blk Time (%) | 68 | 0 |
| Queuing Penalty (veh) | 20 | 0 |

Intersection: 6: Weston Road & Toryork Drive/Retail Access

| Movement | EB | EB | B8 | WB | WB | NB | NB | NB | SB | SB | SB | SB |
|-----------------------|------|------|------|------|------|------|-------|-------|------|-------|-------|------|
| Directions Served | L | TR | T | L | TR | L | Т | TR | L | Т | T | R |
| Maximum Queue (m) | 22.6 | 46.4 | 56.8 | 17.7 | 49.6 | 32.3 | 114.1 | 98.8 | 32.3 | 468.8 | 468.3 | 37.5 |
| Average Queue (m) | 13.2 | 40.7 | 47.3 | 12.1 | 27.2 | 26.8 | 61.0 | 30.3 | 7.5 | 422.6 | 423.4 | 21.9 |
| 95th Queue (m) | 26.6 | 44.6 | 60.7 | 20.8 | 57.1 | 38.4 | 129.7 | 74.6 | 27.5 | 564.1 | 561.9 | 48.3 |
| Link Distance (m) | | 21.1 | 31.4 | | 44.5 | | 119.0 | 119.0 | | 458.0 | 458.0 | |
| Upstream Blk Time (%) | 11 | 89 | 81 | | 29 | | 21 | 0 | | 40 | 44 | |
| Queuing Penalty (veh) | 0 | 289 | 262 | | 0 | | 77 | 0 | | 228 | 248 | |
| Storage Bay Dist (m) | 30.0 | | | 10.0 | | 25.0 | | | 25.0 | | | 30.0 |
| Storage Blk Time (%) | 11 | 89 | | 63 | 38 | 43 | 4 | | 0 | 81 | 81 | 2 |
| Queuing Penalty (veh) | 29 | 52 | | 37 | 23 | 111 | 8 | | 0 | 27 | 93 | 12 |

Intersection: 14: Rumike Road/Milvan Drive & Finch Avenue W

| Movement | EB | EB | EB | WB | WB | WB | NB | NB | SB | SB | SB | |
|-----------------------|------|-------|-------|------|-------|-------|------|-------|------|-------|-------|--|
| Directions Served | L | Т | TR | L | T | TR | L | TR | L | Т | R | |
| Maximum Queue (m) | 37.3 | 197.8 | 185.0 | 31.7 | 194.8 | 196.0 | 22.4 | 111.8 | 75.0 | 98.2 | 41.7 | |
| Average Queue (m) | 22.1 | 117.2 | 108.2 | 6.7 | 108.5 | 114.4 | 16.5 | 46.5 | 41.1 | 37.0 | 16.5 | |
| 95th Queue (m) | 45.1 | 229.3 | 220.4 | 24.2 | 228.1 | 231.6 | 29.2 | 128.6 | 74.3 | 121.9 | 34.5 | |
| Link Distance (m) | | 241.2 | 241.2 | | 253.3 | 253.3 | | 184.4 | | 162.4 | 162.4 | |
| Upstream Blk Time (%) | | 14 | 10 | | 1 | 1 | | 9 | | 12 | | |
| Queuing Penalty (veh) | | 0 | 0 | | 4 | 5 | | 0 | | 0 | | |
| Storage Bay Dist (m) | 30.0 | | | 30.0 | | | 15.0 | | 70.0 | | | |
| Storage Blk Time (%) | 17 | 41 | | 0 | 40 | | 28 | 22 | 14 | | | |
| Queuing Penalty (veh) | 87 | 36 | | 0 | 8 | | 29 | 35 | 20 | | | |

Intersection: 18: Jayzel Drive/Retail Access & Finch Avenue W

| Movement | EB | EB | EB | WB | WB | WB | NB | NB | SB | |
|-----------------------|------|-------|-------|------|-------|-------|------|-------|------|--|
| Directions Served | L | Т | TR | L | T | TR | L | TR | LTR | |
| Maximum Queue (m) | 22.2 | 189.3 | 185.0 | 37.4 | 131.2 | 159.5 | 22.4 | 129.0 | 39.8 | |
| Average Queue (m) | 7.5 | 114.1 | 113.8 | 20.7 | 68.3 | 85.8 | 16.0 | 52.6 | 18.1 | |
| 95th Queue (m) | 19.8 | 226.7 | 225.7 | 40.9 | 112.9 | 188.8 | 28.5 | 145.5 | 38.9 | |
| Link Distance (m) | | 253.3 | 253.3 | | 269.7 | 269.7 | | 189.5 | 45.2 | |
| Upstream Blk Time (%) | | 15 | 15 | | | 2 | | 11 | 10 | |
| Queuing Penalty (veh) | | 99 | 99 | | | 13 | | 0 | 0 | |
| Storage Bay Dist (m) | 15.0 | | | 30.0 | | | 15.0 | | | |
| Storage Blk Time (%) | 15 | 46 | | 7 | 29 | | 38 | 26 | | |
| Queuing Penalty (veh) | 90 | 12 | | 44 | 27 | | 31 | 33 | | |

Intersection: 21: Finch Avenue W & Street 2A

| Movement | EB | EB | EB | WB | WB | SB | SB | B22 | |
|-----------------------|------|-------|-------|-------|-------|------|------|-------|--|
| Directions Served | L | T | T | T | TR | L | R | T | |
| Maximum Queue (m) | 37.3 | 231.6 | 230.0 | 213.8 | 216.5 | 27.2 | 36.7 | 21.2 | |
| Average Queue (m) | 31.1 | 106.8 | 104.8 | 79.2 | 84.6 | 9.3 | 11.4 | 3.0 | |
| 95th Queue (m) | 44.3 | 275.7 | 274.7 | 240.3 | 241.4 | 24.8 | 37.2 | 29.4 | |
| Link Distance (m) | | 269.7 | 269.7 | 250.8 | 250.8 | | 59.8 | 103.7 | |
| Upstream Blk Time (%) | | 17 | 17 | 9 | 11 | | 4 | 1 | |
| Queuing Penalty (veh) | | 107 | 110 | 61 | 69 | | 4 | 1 | |
| Storage Bay Dist (m) | 30.0 | | | | | 30.0 | | | |
| Storage Blk Time (%) | 40 | 16 | | | | 5 | 5 | | |
| Queuing Penalty (veh) | 215 | 17 | | | | 3 | 2 | | |

Intersection: 23: Street 2A & Toryork Drive

| Movement | EB | WB | NB |
|-----------------------|-------|------|------|
| Directions Served | TR | LT | LR |
| Maximum Queue (m) | 218.7 | 26.0 | 45.2 |
| Average Queue (m) | 125.3 | 2.4 | 25.2 |
| 95th Queue (m) | 278.0 | 13.7 | 56.0 |
| Link Distance (m) | 227.1 | 57.2 | 47.4 |
| Upstream Blk Time (%) | 31 | 0 | 33 |
| Queuing Penalty (veh) | 0 | 0 | 22 |
| Storage Bay Dist (m) | | | |
| Storage Blk Time (%) | | | |
| Queuing Penalty (veh) | | | |

Intersection: 24: Street 2A & Street 1

| Movement | WB | NB | SB |
|-----------------------|------|------|------|
| Directions Served | LR | TR | LT |
| Maximum Queue (m) | 11.8 | 21.8 | 20.7 |
| Average Queue (m) | 4.3 | 11.7 | 2.4 |
| 95th Queue (m) | 11.5 | 29.1 | 16.8 |
| Link Distance (m) | 58.3 | 21.5 | 47.4 |
| Upstream Blk Time (%) | | 48 | 2 |
| Queuing Penalty (veh) | | 56 | 2 |
| Storage Bay Dist (m) | | | |
| Storage Blk Time (%) | | | |
| Queuing Penalty (veh) | | | |

Intersection: 26: Street 1 & Toryork Drive

| Movement | EB | WB | B8 | NB | B25 | |
|-----------------------|------|------|------|------|------|--|
| Directions Served | TR | LT | T | LR | Т | |
| Maximum Queue (m) | 65.9 | 54.2 | 40.1 | 61.8 | 36.1 | |
| Average Queue (m) | 53.7 | 30.4 | 16.6 | 37.3 | 19.0 | |
| 95th Queue (m) | 77.9 | 62.3 | 45.4 | 77.7 | 60.6 | |
| Link Distance (m) | 57.2 | 31.4 | 21.1 | 47.3 | 58.3 | |
| Upstream Blk Time (%) | 60 | 42 | 34 | 43 | 17 | |
| Queuing Penalty (veh) | 191 | 136 | 113 | 25 | 10 | |
| Storage Bay Dist (m) | | | | | | |
| Storage Blk Time (%) | | | | | | |
| Queuing Penalty (veh) | | | | | | |

seline 04-11-2023

Intersection: 27: Street 2A & Block 3 Access

| Movement | WB | NB | B22 | SB |
|-----------------------|------|-------|------|------|
| Directions Served | LR | TR | Ţ | LT |
| Maximum Queue (m) | 31.6 | 100.2 | 60.4 | 12.3 |
| Average Queue (m) | 12.2 | 52.6 | 22.7 | 0.7 |
| 95th Queue (m) | 34.1 | 141.8 | 73.7 | 5.8 |
| Link Distance (m) | 42.0 | 103.7 | 59.8 | 21.5 |
| Upstream Blk Time (%) | 13 | 38 | 30 | 0 |
| Queuing Penalty (veh) | 0 | 52 | 42 | 0 |
| Storage Bay Dist (m) | | | | |
| Storage Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |

Network Summary

Network wide Queuing Penalty: 5034

Appendix C Proxy Site Parking Utilization Surveys

1051-1061 Seneca Avenue, Mississauga

Total Units 180
Total Resident Spaces: 197
Total Visitor Spaces: 15

Friday, February 24th, 2023

| Time | Resident | Visitor | Resident Utilization | Visitor Utilization | Resident Rate | Visitor Rate |
|-------------|----------|---------|----------------------|---------------------|---------------|--------------|
| 6:00:00 PM | 102 | 3 | 52% | 20% | 0.57 | 0.02 |
| 6:30:00 PM | 101 | 2 | 51% | 13% | 0.56 | 0.01 |
| 7:00:00 PM | 105 | 3 | 53% | 20% | 0.58 | 0.02 |
| 7:30:00 PM | 104 | 3 | 53% | 20% | 0.58 | 0.02 |
| 8:00:00 PM | 99 | 3 | 50% | 20% | 0.55 | 0.02 |
| 8:30:00 PM | 94 | 3 | 48% | 20% | 0.52 | 0.02 |
| 9:00:00 PM | 103 | 2 | 52% | 13% | 0.57 | 0.01 |
| 9:30:00 PM | 100 | 3 | 51% | 20% | 0.56 | 0.02 |
| 10:00:00 PM | 101 | 2 | 51% | 13% | 0.56 | 0.01 |
| 10:30:00 PM | 100 | 2 | 51% | 13% | 0.56 | 0.01 |
| 11:00:00 PM | 105 | 2 | 53% | 13% | 0.58 | 0.01 |
| 11:30:00 PM | 105 | 0 | 53% | 0% | 0.58 | 0.00 |
| 12:00:00 AM | 105 | 0 | 53% | 0% | 0.58 | 0.00 |
| Averag | ne | | 52% | 14% | 0.566 | 0.012 |

Saturday, February 25th, 2023

| Time | Resident | Visitor | Resident Utilization | Visitor Utilization | Resident Rate | Visitor Rate |
|-------------|----------|---------|----------------------|---------------------|---------------|--------------|
| 6:00:00 PM | 98 | 2 | 50% | 13% | 0.54 | 0.01 |
| 6:30:00 PM | 98 | 1 | 50% | 7% | 0.54 | 0.01 |
| 7:00:00 PM | 101 | 1 | 51% | 7% | 0.56 | 0.01 |
| 7:30:00 PM | 105 | 1 | 53% | 7% | 0.58 | 0.01 |
| 8:00:00 PM | 104 | 1 | 53% | 7% | 0.58 | 0.01 |
| 8:30:00 PM | 100 | 2 | 51% | 13% | 0.56 | 0.01 |
| 9:00:00 PM | 99 | 3 | 50% | 20% | 0.55 | 0.02 |
| 9:30:00 PM | 102 | 3 | 52% | 20% | 0.57 | 0.02 |
| 10:00:00 PM | 101 | 3 | 51% | 20% | 0.56 | 0.02 |
| 10:30:00 PM | 97 | 3 | 49% | 20% | 0.54 | 0.02 |
| 11:00:00 PM | 103 | 2 | 52% | 13% | 0.57 | 0.01 |
| 11:30:00 PM | 105 | 1 | 53% | 7% | 0.58 | 0.01 |
| 12:00:00 AM | 104 | 1 | 53% | 7% | 0.58 | 0.01 |
| Averag | e | · | 51% | 12% | 0.563 | 0.010 |

Sunday, February 26th, 2023

| Time | Resident | Visitor | Resident Utilization | Visitor Utilization | Resident Rate | Visitor Rate |
|------------|----------|---------|----------------------|---------------------|---------------|--------------|
| 3:00:00 PM | 80 | 5 | 41% | 33% | 0.44 | 0.03 |
| 3:30:00 AM | 85 | 6 | 43% | 40% | 0.47 | 0.03 |
| 4:00:00 PM | 87 | 6 | 44% | 40% | 0.48 | 0.03 |
| 4:30:00 AM | 95 | 6 | 48% | 40% | 0.53 | 0.03 |
| 5:00:00 PM | 97 | 8 | 49% | 53% | 0.54 | 0.04 |
| 5:30:00 AM | 100 | 6 | 51% | 40% | 0.56 | 0.03 |
| 6:00:00 PM | 100 | 7 | 51% | 47% | 0.56 | 0.04 |
| 6:30:00 AM | 103 | 8 | 52% | 53% | 0.57 | 0.04 |
| 7:00:00 PM | 104 | 8 | 53% | 53% | 0.58 | 0.04 |
| 7:30:00 AM | 105 | 8 | 53% | 53% | 0.58 | 0.04 |
| 8:00:00 PM | 102 | 8 | 52% | 53% | 0.57 | 0.04 |
| 8:30:00 AM | 101 | 8 | 51% | 53% | 0.56 | 0.04 |
| 9:00:00 PM | 98 | 7 | 50% | 47% | 0.54 | 0.04 |
| Avera | ge | | 49% | 47% | 0.54 | 0.04 |
| | | | | | | |
| Three day | average | | 51% | 24% | 0.555 | 0.02 |

1015 Roosevelt Road and 1020 Shaw Drive, Mississauga

Total Units 152 Total Resident Spaces: 86 **Total Visitor Spaces:** 14

Friday, February 24th, 2023

| Time | Resident | Visitor | Resident Utilization | Visitor Utilization | Resident Rate | Visitor Rate |
|-------------|----------|---------|----------------------|---------------------|---------------|--------------|
| 6:00:00 PM | 36 | 4 | 42% | 29% | 0.24 | 0.03 |
| 6:30:00 PM | 38 | 4 | 44% | 29% | 0.25 | 0.03 |
| 7:00:00 PM | 39 | 4 | 45% | 29% | 0.26 | 0.03 |
| 7:30:00 PM | 41 | 4 | 48% | 29% | 0.27 | 0.03 |
| 8:00:00 PM | 43 | 4 | 50% | 29% | 0.28 | 0.03 |
| 8:30:00 PM | 46 | 3 | 53% | 21% | 0.30 | 0.02 |
| 9:00:00 PM | 46 | 3 | 53% | 21% | 0.30 | 0.02 |
| 9:30:00 PM | 45 | 3 | 52% | 21% | 0.30 | 0.02 |
| 10:00:00 PM | 47 | 4 | 55% | 29% | 0.31 | 0.03 |
| 10:30:00 PM | 50 | 3 | 58% | 21% | 0.33 | 0.02 |
| 11:00:00 PM | 52 | 2 | 60% | 14% | 0.34 | 0.01 |
| 11:30:00 PM | 55 | 1 | 64% | 7% | 0.36 | 0.01 |
| 12:00:00 AM | 55 | 1 | 64% | 7% | 0.36 | 0.01 |
| Averag | e | | 53% | 22% | 0.30 | 0.02 |

Saturday, February 25th, 2023

| Time | Resident | Visitor | Resident Utilization | Visitor Utilization | Resident Rate | Visitor Rate |
|-------------|----------|---------|----------------------|---------------------|---------------|--------------|
| 6:00:00 PM | 30 | 5 | 35% | 36% | 0.20 | 0.03 |
| 6:30:00 PM | 32 | 5 | 37% | 36% | 0.21 | 0.03 |
| 7:00:00 PM | 35 | 4 | 41% | 29% | 0.23 | 0.03 |
| 7:30:00 PM | 35 | 5 | 41% | 36% | 0.23 | 0.03 |
| 8:00:00 PM | 36 | 4 | 42% | 29% | 0.24 | 0.03 |
| 8:30:00 PM | 40 | 4 | 47% | 29% | 0.26 | 0.03 |
| 9:00:00 PM | 42 | 4 | 49% | 29% | 0.28 | 0.03 |
| 9:30:00 PM | 46 | 4 | 53% | 29% | 0.30 | 0.03 |
| 10:00:00 PM | 45 | 3 | 52% | 21% | 0.30 | 0.02 |
| 10:30:00 PM | 49 | 2 | 57% | 14% | 0.32 | 0.01 |
| 11:00:00 PM | 50 | 2 | 58% | 14% | 0.33 | 0.01 |
| 11:30:00 PM | 50 | 2 | 58% | 14% | 0.33 | 0.01 |
| 12:00:00 AM | 51 | 2 | 59% | 14% | 0.34 | 0.01 |
| Averag | e | | 48% | 25% | 0.27 | 0.02 |

Sunday, February 26th, 2023

| Time | Resident | Visitor | Resident Utilization | Visitor Utilization | Resident Rate | Visitor Rate |
|--------------|----------|---------|----------------------|---------------------|---------------|--------------|
| 3:00:00 PM | 52 | 3 | 60% | 21% | 0.34 | 0.02 |
| 3:30:00 AM | 52 | 4 | 60% | 29% | 0.34 | 0.03 |
| 4:00:00 PM | 51 | 4 | 59% | 29% | 0.34 | 0.03 |
| 4:30:00 AM | 48 | 4 | 56% | 29% | 0.32 | 0.03 |
| 5:00:00 PM | 43 | 4 | 50% | 29% | 0.28 | 0.03 |
| 5:30:00 AM | 40 | 5 | 47% | 36% | 0.26 | 0.03 |
| 6:00:00 PM | 38 | 5 | 44% | 36% | 0.25 | 0.03 |
| 6:30:00 AM | 38 | 6 | 44% | 43% | 0.25 | 0.04 |
| 7:00:00 PM | 35 | 5 | 41% | 36% | 0.23 | 0.03 |
| 7:30:00 AM | 32 | 6 | 37% | 43% | 0.21 | 0.04 |
| 8:00:00 PM | 32 | 6 | 37% | 43% | 0.21 | 0.04 |
| 8:30:00 AM | 31 | 6 | 36% | 43% | 0.20 | 0.04 |
| 9:00:00 PM | 28 | 6 | 33% | 43% | 0.18 | 0.04 |
| Averag | e | | 47% | 35% | 0.26 | 0.03 |
| | | | | | | |
| Three day as | verage | | 49% | 27% | 0.279 | 0.03 |

| | Survey Date: Friday November 18, 2022 (8 Nahani Way, Mississauga) | | | | | | | | | | |
|-------------|---|------------------|-----------------------|-----------------------------|------------------|----------------------|--|--|--|--|--|
| Units | 404 | Resident Parking | 428 | Visitor Parkir | ng | 36 | | | | | |
| | | | | | | | | | | | |
| Time | Resident Parking Utilization | Utilization Rate | Resident Parking Rate | Visitor Parking Utilization | Utilization Rate | Visitor Parking Rate | | | | | |
| 6:00:00 PM | 201 | 47% | 0.50 | 33 | 92% | 0.08 | | | | | |
| 6:30:00 PM | 208 | 49% | 0.51 | 32 | 89% | 0.08 | | | | | |
| 7:00:00 PM | 216 | 50% | 0.53 | 33 | 92% | 0.08 | | | | | |
| 7:30:00 PM | 221 | 52% | 0.55 | 33 | 92% | 0.08 | | | | | |
| 8:00:00 PM | 225 | 53% | 0.56 | 32 | 89% | 0.08 | | | | | |
| 8:30:00 PM | 232 | 54% | 0.57 | 33 | 92% | 0.08 | | | | | |
| 9:00:00 PM | 230 | 54% | 0.57 | 34 | 94% | 0.08 | | | | | |
| 9:30:00 PM | 235 | 55% | 0.58 | 33 | 92% | 0.08 | | | | | |
| 10:00:00 PM | 240 | 56% | 0.59 | 33 | 92% | 0.08 | | | | | |
| 10:30:00 PM | 244 | 57% | 0.60 | 32 | 89% | 0.08 | | | | | |
| 11:00:00 PM | 245 | 57% | 0.61 | 30 | 83% | 0.07 | | | | | |
| 11:30:00 PM | 245 | 57% | 0.61 | 28 | 78% | 0.07 | | | | | |
| 12:00:00 AM | 245 | 57% | 0.61 | 25 | 69% | 0.06 | | | | | |
| | | F 40/ | 2 53 | | 000/ | 0.00 | | | | | |

Average 54% 0.57 88% 0.08

| | Survey Date: Saturday November 19, 2022 (8 Nahani Way, Mississauga) | | | | | | | | | |
|-------------|---|------------------|-----------------------|-----------------------------|------------------|----------------------|--|--|--|--|
| Units | 404 | Resident Parking | 428 | Visitor Parkin | g | 36 | | | | |
| | | | | | | | | | | |
| Time | Resident Parking Utilization | Utilization Rate | Resident Parking Rate | Visitor Parking Utilization | Utilization Rate | Visitor Parking Rate | | | | |
| 6:00:00 PM | 188 | 44% | 0.47 | 33 | 92% | 0.08 | | | | |
| 6:30:00 PM | 195 | 46% | 0.48 | 33 | 92% | 0.08 | | | | |
| 7:00:00 PM | 208 | 49% | 0.51 | 33 | 92% | 0.08 | | | | |
| 7:30:00 PM | 217 | 51% | 0.54 | 32 | 89% | 0.08 | | | | |
| 8:00:00 PM | 220 | 51% | 0.54 | 33 | 92% | 0.08 | | | | |
| 8:30:00 PM | 226 | 53% | 0.56 | 33 | 92% | 0.08 | | | | |
| 9:00:00 PM | 230 | 54% | 0.57 | 33 | 92% | 0.08 | | | | |
| 9:30:00 PM | 235 | 55% | 0.58 | 33 | 92% | 0.08 | | | | |
| 10:00:00 PM | 238 | 56% | 0.59 | 34 | 94% | 0.08 | | | | |
| 10:30:00 PM | 238 | 56% | 0.59 | 32 | 89% | 0.08 | | | | |
| 11:00:00 PM | 240 | 56% | 0.59 | 32 | 89% | 0.08 | | | | |
| 11:30:00 PM | 240 | 56% | 0.59 | 32 | 89% | 0.08 | | | | |
| 12:00:00 AM | 240 | 56% | 0.59 | 30 | 83% | 0.07 | | | | |

Average 52% 0.56 90% 0.08

| Survey Date: Sunday November 20, 2022 (8 Nahani Way, Mississauga) | | | | | | |
|---|------------------------------|------------------|-----------------------|-----------------------------|------------------|----------------------|
| Units | 404 | Resident Parking | 428 | Visitor Parkin | ıg | 36 |
| | | | | | | |
| Time | Resident Parking Utilization | Utilization Rate | Resident Parking Rate | Visitor Parking Utilization | Utilization Rate | Visitor Parking Rate |
| 3:00:00 PM | 206 | 48% | 0.51 | 33 | 92% | 0.08 |
| 3:30:00 AM | 204 | 48% | 0.50 | 30 | 83% | 0.07 |
| 4:00:00 PM | 205 | 48% | 0.51 | 32 | 89% | 0.08 |
| 4:30:00 AM | 201 | 47% | 0.50 | 33 | 92% | 0.08 |
| 5:00:00 PM | 197 | 46% | 0.49 | 33 | 92% | 0.08 |
| 5:30:00 AM | 193 | 45% | 0.48 | 33 | 92% | 0.08 |
| 6:00:00 PM | 190 | 44% | 0.47 | 33 | 92% | 0.08 |
| 6:30:00 AM | 199 | 46% | 0.49 | 34 | 94% | 0.08 |
| 7:00:00 PM | 215 | 50% | 0.53 | 32 | 89% | 0.08 |
| 7:30:00 AM | 220 | 51% | 0.54 | 33 | 92% | 0.08 |
| 8:00:00 PM | 228 | 53% | 0.56 | 33 | 92% | 0.08 |
| 8:30:00 AM | 235 | 55% | 0.58 | 33 | 92% | 0.08 |
| 9:00:00 PM | 235 | 55% | 0.58 | 33 | 92% | 0.08 |

Average 49% 0.52 91% 0.08

Three day average 52% 0.55 90% 0.08

Appendix D Approved Vehicle Parking Rates in the City of Toronto

Authority:

Ontario Municipal Board Decisions/Orders issued March 17, 2017, April 5, 2017 and February 12, 2018 and Local Planning Appeal Tribunal Order issued September 28, 2018 in Board Files PL161031 and PL151191

CITY OF TORONTO

BY-LAW 74-2019(LPAT)

To amend former City of Toronto Zoning By-law 438-86, as amended, with respect to the lands municipally known in the year 2017 as 8-30 Widmer Street.

Whereas the Ontario Municipal Board Decisions/Orders issued March 17, 2017, April 5, 2017 and February 12, 2018 and Local Planning Appeal tribunal Order issued September 28, 2018, in Board Files PL161031 and PL15119, upon hearing an appeal under Section 34(11) of the Planning Act, R.S.O. 1990, c. P.13, as amended, deems it advisable to amend By-law 438-86, as amended, for the former City of Toronto with respect to lands municipally known as 30 Widmer Street and 309-315 Adelaide Street West; and

Whereas the Official Plan for the City of Toronto contains such provisions relating to the authorization of increases in height and density of development; and

Whereas pursuant to Section 37 of the Planning Act, a by-law under Section 34 of the Planning Act may authorize increases in the height or density of development beyond those otherwise permitted by the by-law and that will be permitted in return for the provisions of such facilities, services or matters as are set out in the by-law; and

Whereas subsection 37(3) of the Planning Act provides that where an owner of land elects to provide facilities, services or matters in return for an increase in height or density of development, the municipality may require the owner to enter into one or more agreements with the municipality dealing with the facilities, services or matters; and

Whereas the owner of the aforesaid lands has elected to provide the facilities, services and matters hereinafter set out; and

Whereas the increase in the density or height permitted beyond that otherwise permitted on the aforesaid lands by By-law 438-86, as amended, are to be permitted in return for the provision of the facilities, services and matters set out in this By-law, and are to be secured by one or more agreements between the owner of such lands and the City of Toronto);

The Local Planning Appeal Tribunal orders:

- 1. Pursuant to Section 37 of the Planning Act, and subject to compliance with this By-law, the increase in height and density of development permitted is permitted beyond that otherwise permitted on the lands shown on Map 1 in return for the provision by the owner, at the owner's expense of the facilities, services and matters set out in Appendix 1 and which are secured by one or more agreements pursuant to Section 37(3) of the Planning Act that are in a form and registered on title to the lands, to the satisfaction of the City Solicitor.
- 2. Where Appendix 1 of this By-law requires the owner to provide certain facilities, services or matters prior to the issuance of a building permit, the issuance of such permit shall be dependent on satisfaction of same.

- 3. The owner shall not use, or permit the use of, a building or structure erected with an increase in height and density pursuant to this By-law unless all provisions of Appendix 1 are satisfied.
- **4.** Except as otherwise provided herein, the provisions of By-law 438-86, as amended shall continue to apply to the lot.
- Solutions of Section 2(1) with respect to the definitions of bicycle parking space visitor, grade, height, lot, non-residential gross floor area and residential gross floor area, Sections 4(2)(a), 4(5)(b), 4(8), 4(9)(a)(v), 4(10), 4(11), 4(12), 4(13), 4(14), 4(16), 4(17)(a), 7(3) Part I, 7(3) Part IV 1, 12(2)(132), 12(2)(246), 12(2)270, and 12(2)380 of By-law 438-86 of the former City of Toronto, as amended, shall apply to prevent the erection or use of a mixed-use building that may contain dwelling units, a hotel, a commercial parking garage below grade, and the retention of six (6) existing heritage townhouse dwelling units on the lot provided that:
 - (a) the *lot* comprises the lands delineated by heavy lines on Map 1 attached to and forming part of this By-law;
 - (b) the combined total *gross floor area* of all buildings erected or used on the *lot* for residential and non-residential uses shall not exceed 62,000 square metres;
 - (c) the area of the buildings occupied by residential uses does not exceed a *gross* floor area 45,500 square metres, including the *gross floor area* of the *existing* heritage townhouse dwelling units;
 - (d) the area of the buildings occupied by non-residential uses does not exceed a gross floor area of 16,500 square metres, and shall exclude the gross floor area associated with the commercial parking garage;
 - (e) the maximum number of *dwelling units* shall be 665 as follows:
 - (i) A maximum of 225 dwelling units shall be permitted in Tower 1; and
 - (ii) A maximum of 434 *dwelling units* shall be permitted in *Tower 2*, excluding the six (6) *existing heritage townhouse dwelling units*;
 - (f) one (1) home occupation is permitted in each existing heritage townhouse dwelling unit;
 - (g) notwithstanding subsection (e) above and (p) below, a guest suite shall not be considered as a *dwelling unit* for the purposes of determining the total number of permitted *dwelling units* and the calculation of *amenity space*;
 - (h) at least ten percent (10 percent) of the total number of *dwelling units* in *Tower 1* shall have three (3) *bedrooms*;
 - (i) at least fifteen percent (15 percent) of the total number of *dwelling units* in *Tower 2* shall have three (3) *bedrooms*;

- (j) at least forty percent (40 percent) of the total number of *dwelling units* in *Tower 2* shall have two (2) *bedrooms*;
- (k) no portion of a building or structure to be erected on the *lot* above finished ground is located otherwise than wholly within the areas delineated by heavy lines on the attached Map 2, with the exception of the following:
 - (i) Lighting fixtures, cornices, sills, eaves, canopies, parapets, and window washing equipment attached to a building or structure may project a maximum distance of 3.0 metres beyond the heavy lines shown on Map 2;
 - (ii) Lighting fixtures, railings, privacy screens, balustrades, bollards, stairs and related enclosures, fences, safety railings, wind mitigation elements, trellises, guards, guardrails, wheel chair ramps, air intakes and vents, ventilating equipment, bike share facilities, ornamental or architectural features, landscape features, including planters, green energy and renewable energy elements, and art installations may be located at ground level beyond the heavy lines shown on Map 2, in accordance with the *height* limits set out in subsection (l) below;
 - (iii) Balconies on the north façade of *Tower 1* may project a maximum distance of 1.8 metres beyond the heavy lines shown on Map 2;
 - (iv) Balconies on the south façade of *Tower 2* may project a maximum distance of 1.8 metres beyond the heavy lines shown on Map 2;
 - (v) Architectural fins on the podium portions of Tower 1 and Tower 2 may project a maximum distance of 0.3 metres beyond the heavy lines, including the dashed line fronting Adelaide Street East at the Ground Level, shown on Map 2; and
 - (vi) Structures, elements and enclosures permitted by subsection (l) below;
- (l) the *height* of any building or structure or portion thereof above *grade* to be erected on the *lot* shall not exceed those heights as indicated by the H symbol on Map 2, with the exception of the following:
 - (i) The structures, elements and enclosures set out in Section 5(k) above of this By-law, as applicable, shall be permitted;
 - (ii) Parapets provided the maximum *height* of such elements are no higher than 1.5 metres above the portion of the building to which they are attached;
 - (iii) Canopies provided the maximum *height* of such elements is no higher than 4.0 metres above ground level;
 - (iv) Window washing equipment provided the maximum *height* of such elements is no higher than 2.5 metres above the portion of the building to which it is attached:

- (v) Structures used for outdoor *residential amenity space* or open air recreation, wind screens, privacy screens or vestibules providing access to outdoor amenity space provided the maximum *height* of such elements is no higher than 1.8 metres above the *height* limits specified on Map 2;
- (vi) Structures on any roof used for maintenance, safety, or green roof purposes, chimneys, vents, stacks, shafts, mechanical fans, elevators, elevator machine rooms, and related structural elements, or associated with green energy and renewable energy facilities, provided the maximum height of such elements is no higher than 2.5 metres above the height limits specified on Map 2;
- (vii) Structures at ground level, including bollards, guards, guardrails, wheel chair ramps, green energy and renewable energy facilities, air intakes and vents, and ventilating equipment provided the maximum *height* of such elements is no higher than 1.2 metres above ground level;
- (viii) Structures at ground level, including railings, privacy screens, balustrades, stairs and related enclosures, fences, bike share facilities, and safety railings provided the maximum *height* of such elements is no higher than 2.0 metres above ground level;
- (ix) Structures at ground level, including lighting fixtures, ornamental or architectural features, wind mitigation elements, trellises, landscape features, including planters, and art installations provided the maximum *height* of such elements is no higher than 4.0 metres above ground level; and
- (x) Architectural fins on the podium portions of Tower 1 and Tower 2 provided the maximum height is no higher than 1.5 metre above that portion of the building to which they are attached;
- (m) parking spaces shall be provided and maintained in a parking garage located below grade within the lot as follows:
 - (i) 0.17 parking spaces per dwelling unit for residents;
 - (ii) 0.06 parking spaces per dwelling unit for residential visitors;
 - (iii) A minimum of 18 parking spaces shall be provided for the hotel, of which at least one (1) such parking space shall be designated only for use by a taxi;
 - (iv) The *parking spaces* provided for in subsection (ii) and (iii) above, may be provided in a *commercial parking garage* within the building on the *lot*;
 - (v) Notwithstanding subsection (i) and (ii) above, *parking spaces* are not required to be provided for the six (6) *existing heritage townhouse dwelling units*; and

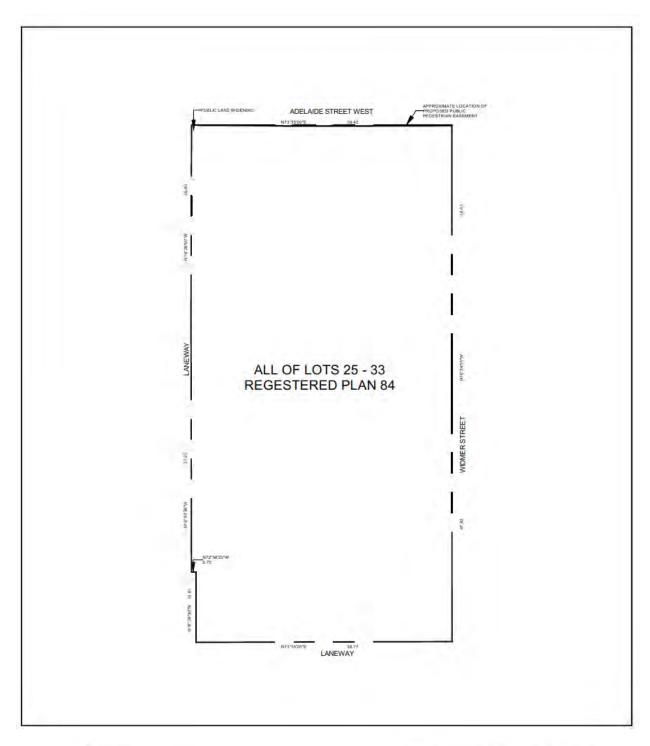
- (vi) A maximum of 10 percent of the total number of *parking spaces* provided and maintained in a parking garage may have the following dimensions, with or without a fixed object or obstruction within 0.30 metres of the side of the *parking space*:
 - A. Length: 5.4 metres;
 - B. Width: 2.4 metres; and
 - C. Height: 1.8 metres;
- (n) *loading spaces* shall be provided as follows:
 - (i) One (1) loading space Type G;
 - (ii) One (1) loading space Type B; and
 - (iii) One (1) loading space Type C;
- (o) *bicycle parking spaces* shall be provided and maintained within the *lot* in accordance with the following minimum requirements:
 - (i) For residential uses: a minimum of 1.0 bicycle parking space per dwelling unit, in accordance with the following ratio: 0.90 bicycle parking spaces-occupant per dwelling unit and 0.10 bicycle parking spaces visitor per dwelling unit;
 - (ii) Bicycle parking spaces may be provided in a stacked formation provided that the minimum vertical clearance or each bicycle parking space is 1.2 metres; and
 - (iii) Bicycle parking spaces visitors may be located in a secured room;
- (p) residential amenity space shall be provided and maintained as follows:
 - (i) A minimum of 1.00 square metres per *dwelling unit* of indoor *residential amenity space* shall be provided in a multi-purpose room or rooms that collectively contain a kitchen and a washroom;
 - (ii) A minimum of 1.00 square metres per *dwelling unit* of outdoor *residential amenity space* shall be provided of which at least 40 square metres of outdoor *residential amenity space* must be provided in a location directly accessible from an area containing indoor *residential amenity space*, and of which up to 25 percent may be green roof area; and
 - (iii) residential amenity space must be available for use by the occupants of the building for recreational and/or social activities and may also be available for use by residential visitors and guests to the building;
- (q) a temporary sales office shall be permitted on the lot; and

- (r) the owner of the *lot* has entered into an agreement with the City, pursuant to Section 37(3) of the Planning Act, to secure the facilities, services and matters required by and referred to in Appendix 1 of this By-law, and that such agreement has been registered on title to the *lot*, all to the satisfaction of the City Solicitor.
- 6. For the purposes of this By-law, all italicized words and expressions have the same meanings as defined in By-law 438-86, as amended, with the exception of the following:
 - (a) "architectural fins" mean vertical, non-structural ornamental elements that are attached to and project from the main walls of the buildings, and have a maximum width of 0.50 metres;
 - (b) "existing heritage townhouse dwelling unit" means one (1) of the six (6) heritage townhouse dwelling units existing on the lands on the date of the passing of this By-law, as shown on Map 2, and may be altered provided such alteration is in accordance with a Heritage Easement Agreement entered into between the City and the owner pursuant to Section 37 of the Ontario Heritage Act and registered to the satisfaction of the City;
 - (c) "grade" means 87.15 metres Canadian Geodetic Datum;
 - (d) "gross floor area" means the sum of the total area of each floor level of a building or structure above and below finished ground level, measured from the exterior main wall of each floor level, exclusive of any areas in a building or structure used for:
 - (i) Parking spaces and loading facilities below grade;
 - (ii) Required loading facilities at the ground level;
 - (iii) Storage rooms, washrooms, electrical, utility, mechanical and ventilation rooms below *grade*;
 - (iv) Facilities for bicycle parking, including but not limited to the area occupied by *bicycle parking spaces* and required shower and change facilities:
 - (v) Indoor residential amenity space;
 - (vi) Elevator shafts, garbage shafts;
 - (vii) Mechanical penthouses; and
 - (viii) Exit stairwells in the building or structure;
 - (e) "height" means the vertical distance between grade and the highest point of the building roof shown on Map 2 except for those elements otherwise expressly prescribed in this By-law;

- (f) "home occupation" means a business use within a dwelling unit, where the dwelling unit is the principal residence of the business operator that may also:
 - (i) Sell, rent or lease physical goods directly from the *dwelling unit*;
 - (ii) Be a personal grooming establishment;
 - (iii) Be an office or medical office for a professional regulated under the College of Physicians and Surgeons of Ontario;
 - (iv) Be an office or medical office for a professional regulated under the Regulated Health Professions Act, 1991, S.O. 1991, c. 18, as amended;
 - (v) Have clients or customers attending the premises, other than one for an education use, for:
 - A. consultations;
 - B. receiving services; or
 - C. obtaining physical goods;
 - (vi) Have one (1) employee working in the *dwelling unit* who is not the business operator;
- (g) "lot" means at least those lands delineated by heavy lines on Map 1;
- (h) "temporary sales office" means a building, structure, facility or trailer on the lot used for the purpose of the sale of dwelling units to be erected on the lot;
- (i) "Tower 1" means the building identified as Tower 1 on Map 2; and
- (j) "*Tower 2*" means the building identified as Tower 2 on Map 2.
- 7. Despite any existing or future severance, partition or division of the lot, the provisions of this by-law shall apply to the whole lot as if no severance, partition or division occurred.
- **8.** Except as otherwise provided herein, the provision of By-law 438-86, as amended, shall continue to apply to the *lot* as well as the buildings and structures on the *lot*.
- 9. Within the lands shown on Map 1, no person shall use any land or erect or use any building or structure unless the following municipal services are provided to the lot line and the following provisions are complied with:
 - (a) all new public roads have been constructed to a minimum of base curb and base asphalt and are connected to an existing public highway; and
 - (b) all water mains and sanitary sewers, and appropriate appurtenances, have been installed and are operational.

10. Except as otherwise provided herein, the provisions of Zoning By-law 438-86 shall continue to apply to the lot.

Ontario Municipal Board Decisions/Orders issued March 17, 2017, April 5, 2017 and February 12, 2018 and Local Planning Appeal Tribunal Order issued September 28, 2018 in Board Files PL161031 and PL151191

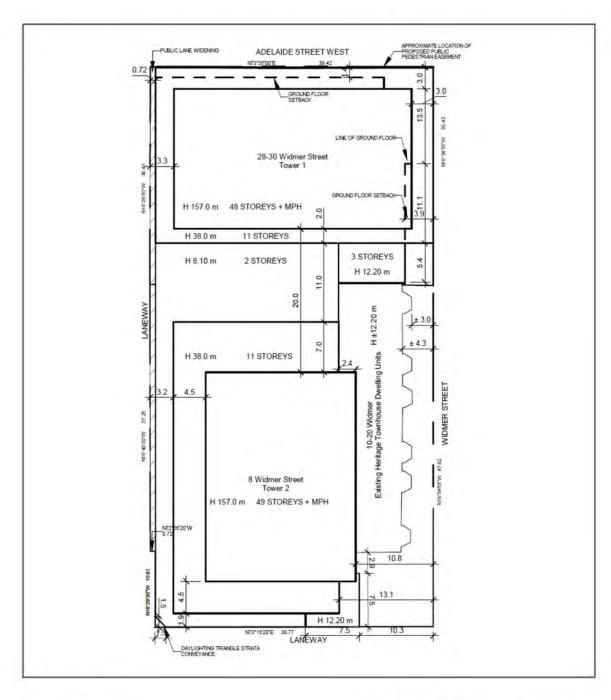




8-28 & 30 Widmer Street

File # 14 235297 STE 20 OZ





Map 2

8-28 & 30 Widmer Street

File # 14 235297 STE 20 OZ



Appendix 1

Section 37 Provisions

The facilities, services and matters set out below are required to be provided to the City at the owner's expense in return for the increase in height and density of the proposed development on the Lands as shown on Diagram 1 of the By-law, subject to and as secured in an registered agreement or agreements under Section 37(3) of the Planning Act, whereby the owner agrees as follows:

- 1. Prior to the issuance of the first above-grade building permit, the owner of the Lands shall provide an indexed cash contribution to the City in the amount of \$4,000,000.00, as follows:
 - (a) \$2,000,000.00 to be allocated, at the discretion of the Chief Planner and Executive Director, City Planning, in consultation with the Ward Councillor, between:
 - i. The YMCA facility at 505 Richmond Street West; and/or
 - ii. Capital improvements that will benefit the community in the vicinity of the Site, such as, but not limited to, community services and facilities in the King-Spadina area in the discretion of the Chief Planner and Executive Director, City Planning, in consultation with the Ward Councillor, local streetscape improvements to the satisfaction of the Chief Planner and Executive Director, City Planning, in consultation with the Ward Councillor, and improvements to public parks in the area or for parkland acquisition in the Local Ward to the satisfaction of the General Manager, Parks, Forestry and Recreation, in consultation with the Ward Councillor;
 - (b) \$1,100,000.00 to the John Street Cultural Corridor; and
 - (c) \$900,000.00 to Queen Street West BIA streetscape improvements,

such amount to be indexed upwardly in accordance with the Statistics Canada Non-Residential Building Construction Price Index for Toronto, calculated from the date of the Section 37 Agreement to the date of payment.

- 2. Upon the site-specific zoning by-law amendments to By-law 569-2013 and By-law 438-86 respectively becoming final and binding, the owner shall within 30 days provide a cash contribution to the City in the amount of \$1,000,000.00 to be allocated as follows:
 - (a) \$500,000.00 (50 percent) to Toronto Community Housing Corporation Revolving Fund for capital repairs to Toronto Community Housing Corporation units in the Local Ward; and
 - (b) \$500,000.00 (50 percent) to new affordable rental housing units as part of the Alexandra Park Revitalization in the Local Ward, to be directed to the Capital Revolving Fund for Affordable Housing.

- 3. The owner shall provide and maintain the following:
 - (a) construction of a publicly accessible pedestrian walkway and conveyance of a public pedestrian surface access easement to the City, on terms and conditions satisfactory to the City Solicitor, in the location shown on Diagram 1 and identified as "Proposed Public Pedestrian Easement" at the north limit of the Lands with details to be determined in the context of site plan approval for the development and such easement lands to be maintained by the owner;
 - (b) conveyance of an approximate 0.72 metre strip of land at the west limit of the Lands for a public lane widening in the location shown on Map 1 and identified as "Public Lane Widening" with details to be determined in the context of site plan approval for the development;
 - strata conveyance of a surface daylighting triangle at southwest corner of the Property to the City in the location shown on Map 1 and identified as "Daylighting Triangle Strata Conveyance";
 - (d) all conveyances to the City, including the easement in subsection (a) above, shall be for nominal consideration, free and clear of encumbrances, other than those otherwise acceptable to the City Solicitor, and at no cost to the City to the satisfaction of the City Solicitor and, in addition, the owner shall be responsible to prepare, submit to the City for approval and deposit all required reference plans to describe all lands being conveyed;
 - (e) a minimum of 10 percent of the dwelling units shall be constructed on the *lot* in Tower 1 as three-bedroom units;
 - (f) a minimum of 15 percent of the dwelling units shall be constructed on the *lot* in Tower 2 as three-bedroom units; and
 - (g) a minimum of 40 percent of the dwelling units shall be constructed on the *lot* in Tower 2 as two-bedroom units.
- 4. Prior to issuance of an Ontario Municipal Board Order (Case No. PL161031) in connection with the Zoning By-law Amendment appeal for the properties at 8-20 Widmer Street the owner shall:
 - (a) enter into a Heritage Easement Agreement for the property at 8 Widmer Street and 10-20 Widmer Street in accordance with the plans and drawings dated March 8, 2018 prepared by Quadrangle Architects Limited and on file with the Senior Manager, Heritage Preservation Services, the Heritage Impact Assessment, prepared by ERA Architects Inc., dated February 9, 2018 and revised March 14, 2018, and in accordance with the Conservation Plan required in subsection (b) below, to the satisfaction of the Senior Manager, Heritage Preservation Services including registration of such agreement to the satisfaction of the City Solicitor; and

- (b) provide a detailed Conservation Plan, prepared by a qualified heritage consultant, that is consistent with the conservation strategy set out in the Heritage Impact Assessment for 8 Widmer Street and 10-20 Widmer Street and 30 Widmer Street prepared by ERA Architects Inc., dated February 9, 2018 and revised March 14, 2018, to the satisfaction of the Senior Manager, Heritage Preservation Services; with such Conservation Plan to include a detailed interpretive Lighting Plan, a plan for the treatment of exterior brick, including consideration of the appropriateness of painting the restored surfaces, and an improved interface between old and new on the north and south elevations, all subject to further review to the satisfaction of the Senior Manager, Heritage Preservation Services.
- 5. Prior to final Site Plan approval for the proposed Zoning By-law Amendment by City Council, for the property located at 8 Widmer Street and 10-20 Widmer Street and 30 Widmer Street the owner shall:
 - (a) provide final site plan drawings substantially in accordance with the approved Conservation Plan required in Section 4(b) above, to the satisfaction of the Senior Manager, Heritage Preservation Services;
 - (b) have obtained final approval for the necessary Zoning By-law Amendment required for the subject property, such Amendment to have come into full force and effect;
 - (c) provide a Lighting Plan that describes how the exterior of the heritage properties will be sensitively illuminated to enhance their heritage character to the satisfaction of the Senior Manager, Heritage Preservation Services and shall implement such Plan to the satisfaction of the Senior Manager Heritage Preservation Services:
 - (d) provide an Interpretation Plan for the heritage properties, to the satisfaction of the Senior Manager, Heritage Preservation Services and shall implement such Plan to the satisfaction of the Senior Manager, Heritage Preservation Services; and
 - (e) submit a Signage Plan to the satisfaction of the Senior Manager, Heritage Preservation Services.
- 6. Prior to the issuance of any permit for all or any part of the property at 8 Widmer Street and 10-20 Widmer Street and 30 Widmer Street, including a heritage permit or a building permit, but excluding permits for repairs and maintenance and usual and minor works for the existing heritage building, or any permits for demolition of the Rear Additions to the Heritage Townhouses, as are acceptable to the Senior Manager, Heritage Preservation Services, the owner shall:
 - (a) have obtained final approval for the necessary Zoning By-law Amendment required for the subject property, such Amendment to have come into full force and effect;
 - (b) provide building permit drawings, including notes and specifications for the conservation and protective measures keyed to the approved Conservation Plan

- required in Section 4(b) above including a description of materials and finishes, to be prepared by the project architect and a qualified heritage consultant to the satisfaction of the Senior Manager, Heritage Preservation Services;
- (c) provide a Letter of Credit, including provision for upwards indexing, in a form and amount and from a bank satisfactory to the Senior Manager, Heritage Preservation Services to secure all work included in the approved Conservation Plan, Heritage Lighting Plan, and Interpretation Plan; and
- (d) provide full documentation of the existing heritage properties, including two (2) printed sets of archival quality 8 inches x 10 inches colour photographs with borders in a glossy or semi-glossy finish and one (1) digital set on a CD in tiff format and 600 dpi resolution keyed to a location map, elevations and measured drawings, and copies of all existing interior floor plans and original drawings as may be available, to the satisfaction of the Senior Manager, Heritage Preservation Services.
- 7. Prior to the release of the Letter of Credit required in Section 6(c) above, the owner shall:
 - (a) provide a letter of substantial completion prepared and signed by a qualified heritage consultant confirming that the required conservation work and the required interpretive work has been completed in accordance with the Conservation Plan, Interpretation Plan and Heritage Lighting Plan, and that an appropriate standard of conservation has been maintained, all to the satisfaction of the Senior Manager, Heritage Preservation Services; and
 - (b) provide replacement Heritage Easement Agreement photographs for the properties at 8 Widmer Street and 10-20 Widmer Street to the satisfaction of the Senior Manager, Heritage Preservation Services.

Authority: Ontario Municipal Board Decision/Order issued December 3, 2015 as amended

June 14, 2016 in Board File PL141139

CITY OF TORONTO

BY-LAW 974-2017(OMB)

To amend former City of Toronto Zoning By-law 438-86, as amended, with respect to the lands municipally known in the year 2014 as 50 Wellesley Street East and 31 to 35 Dundonald Street.

Whereas the Ontario Municipal Board pursuant to its Decision/Order issued December 3, 2015, as amended June 14, 2016, deems it advisable to amend By-law 438-86, as amended, for the former City of Toronto with respect to the Lands known municipally as 50 Wellesley Street East and 31 to 35 Dundonald Street; and

Whereas the Official Plan for the City of Toronto contains such provisions relating to the authorization of increases in height and density of development; and

Whereas pursuant to Section 37 of the *Planning Act*, a by-law under Section 34 of the *Planning Act*, authorize increases in the height or density of development beyond those otherwise permitted by the by-law and that will be permitted in return for the provision of such facilities, services or matter as are set out in the by-law; and

Whereas subsection 37(3) of the *Planning Act* provides that where an owner of land elects to provide facilities, services and matters in return for an increase in the height or density of development, a municipality may require the owner to enter into one or more agreements with the municipality dealing with the facilities, services and matters; and

Whereas the owner of the aforesaid lands has elected to provide the facilities, services and matters hereinafter set out; and

Whereas the increase in height and density permitted beyond that otherwise permitted on the aforesaid lands by By-law 438-86, as amended, are to be permitted in return for the provision of the facilities, services and matters set out in this By-law which are secured by one or more agreements between the owner of the land and the City of Toronto;

By-law 438-86, as amended, of the former City of Toronto is amended by the Ontario Municipal Board as follows:

- Pursuant to Section 37 of the *Planning Act*, the heights and density of development permitted by this By-law on the *lot* are permitted subject to compliance with the conditions set out in this By-law and in return for the provision by the *owner* of the *lot* of the facilities, services and matters set out in Appendix 1 of this By-law, the provisions of which shall be secured by an agreement or agreements pursuant to Section 37(3) of the *Planning Act*.
- 2. Upon execution and registration of an agreement or agreements with the *owner* of the *lot* pursuant to Section 37 of the *Planning Act*, securing the provision of the facilities, services and matters set out in Appendix 1 of this By-law, the *lot* is subject to the provisions of this By-law, provided that in the event the said agreement(s) requires the provision of a facility, service or matter as a precondition to the issuance of a building

permit, the *owner* may not erect or use such building until the *owner* has satisfied the said requirements.

- 3. None of the provisions of Sections 2(1) with respect to the definition of *bicycle parking space--occupant*, *bicycle parking space—visitor*, *grade*, *height*, *lot*, *non-residential gross floor area*, *residential amenity space*, Sections 4(2)(a), 4(5), 4(8), 4(11), 4(12), 4(13), 4(16), 4(17), 6(1), 6(3)PART I, 6(3)Part II, 6(3)Part III, 6(3)Part IV1.(e), 6(3)PART IV3., 6(3)PART IV4., 6(3)Part IX1.(b) and 12(2)132., of By-law 438-86, of the former City of Toronto, as amended being "A By-law to regulate the use of land and the erection, use, bulk, height, spacing and other matters relating to buildings and structures and to prohibit certain uses of lands and the erection and use of certain buildings and structures in various areas of the City of Toronto", as amended shall apply to prevent the erection or use of a *mixed-use building*, *row houses*, *semi-detached houses*, and a *commercial parking garage*, including uses *accessory* to the foregoing uses, on the *lot* provided that:
 - (a) the *lot* consists of Parcel A and Parcel B as shown on the attached Map 1;
 - (b) the combined *residential gross floor area* and *non-residential gross floor area* on the *lot*, exclusive of those portions of the building used for the purposes of a *commercial parking garage*, shall not exceed 27,500 square metres, provided:
 - (i) The maximum *residential gross floor area* shall not exceed 27,250 square metres; and
 - (ii) A minimum of 250 square metres of *non-residential gross floor area* shall be provided on the *lot*;
 - (c) permitted uses on the *lot* shall be as follows:
 - (i) Residential uses as set out in Section 6(1)(a) of By-law 438-86, as amended, including *dwelling units* provided in the residential portion of a *mixed-use building*;
 - (ii) Non-residential uses shall only be permitted within the *mixed-use building* and such uses shall be limited to one or more of the following uses: automated bank machine, office, *personal grooming establishment*, *restaurant*, *retail store*, *take-out restaurant*, outdoor patios *accessory* to a permitted use; and
 - (iii) Notwithstanding subsection (ii) above, a *commercial parking garage* is a permitted use on the *lot*, provided it is located below finished ground level, with the exception of *accessory* uses such as elevators, lobbies, stairs, stair enclosures and enclosed garbage chutes;
 - (d) on Parcel B, *dwelling units* shall only be permitted within *row houses* and *semi-detached houses*;
 - (e) a maximum of ten (10) dwelling units are permitted on Parcel B;

- (f) no portion of a building erected on the *lot* may be located above finished ground level other than wholly within the *building envelope* areas delineated by heavy lines on the attached Map 2 with the exception of the following:
 - (i) Lighting fixtures, cornices, sills, eaves, canopies, window washing equipment, parapets, railings, privacy screens, patios, decks, cabanas, swimming pool, swimming pool equipment enclosures, planters, balustrades, bollards, stairs, covered stairs or stair enclosures, elevator enclosures and elevator lobbies associated with an entrance or exit from an underground parking garage, awnings, fences and safety railings, trellises, underground garage ramps and associated structures, mechanical and architectural screens, guards, guardrails, chimneys, vents, stacks, retaining walls, wheel chair ramps, landscape features, and art installations may extend beyond the heavy lines shown on the attached Map 2;
 - (ii) Balconies and associated architectural structures may project to a maximum of 1.5 metres beyond the heavy lines shown on Map 2;
 - (iii) Ornamental or architectural features to a maximum horizontal projection of 3.0 metres beyond the heavy lines shown on Map 2; and
 - (iv) The erection and use of the structures, elements and enclosures permitted by Section 3(g) of this By-law;
- (g) the *height* of each portion of a building or structure erected above *grade* on the *lot*, in respect of each *building envelope* area, shall have a maximum *height* in metres as shown following the symbol H on Map 2 for the corresponding *building envelope* area, including mechanical and roof top elements, except for:
 - (i) The erection or use of the structures, elements and enclosures permitted by Section 3(f) of this By-law; and
 - (ii) The erection or use of structures on any roof used for outside or open air recreation, maintenance, safety, wind protection or green roof purposes;
- (h) notwithstanding any provision of this By-law to the contrary, no portion of any building or structure above finished ground level shall be located within the hatched area shown on the attached Map 2 with the exception of the following:
 - (i) Vents, grills, and manhole covers flush with finished ground level;
- (i) the number of *storeys* in the *mixed-use building* on the *lot* must not exceed the numbers shown following the symbol ST on Map 2 for the corresponding *building envelope* area, excluding mechanical and roof top elements;
- (j) row houses and semi-detached houses are limited to a maximum of three (3) storeys, excluding mechanical and roof top elements, stairs, stair enclosures and enclosed areas providing access to a roof top terrace;

- (k) residential amenity space for dwelling units within the mixed-use building shall be provided in accordance with the following:
 - (i) A minimum of 2.0 square metres of indoor *residential amenity space* for each *dwelling* unit shall be provided in a multi-purpose room or rooms, at least one of which shall contain a kitchen and a washroom:
 - (ii) A minimum of 2.0 square metres of outdoor *residential amenity space* for each *dwelling* unit shall be provided of which at least 40 square metres is to be provided in a location adjoining or directly accessible from indoor *residential amenity space*; and
 - (iii) Required indoor *residential amenity space* may include up to two (2) guest suites, containing either a kitchen or a bathroom, provided the combined *total floor area* of the suites does not exceed 65 square metres;
- (l) *bicycle parking spaces* shall be provided and maintained for the *mixed-use building* in accordance with the following requirements:
 - (i) A minimum of 0.9 *bicycle parking spaces occupant* per *dwelling unit* shall be provided and maintained on the *lot*; and
 - (ii) A minimum of 0.1 *bicycle parking spaces visitors* per *dwelling unit* shall be provided and maintained on the *lot*;
- (m) a minimum of 0.3 parking spaces per dwelling unit shall be provided and maintained on the lot for the exclusive use of residents;
- (n) no *parking spaces* shall be required for residential visitors and non-residential uses;
- the requirements of Section 4(17) shall apply with the exception that a *parking space*, accessed by a one-way or two-way drive aisle having a minimum width of 7.0 metres or more, notwithstanding that such *parking spaces* may be obstructed on one or two sides in accordance with Section 4(17)(e) of By-law 438-86, as amended, shall have the following minimum dimensions:
 - (i) Length -5.2 metres;
 - (ii) Width -2.6 metres; and
 - (iii) Vertical clearance 2.0 metres:

and up to ten (10) percent of the parking spaces provided on the *lot* for residents may be provided as *small car parking spaces*;

(p) a minimum of three (3) *parking spaces* on the *lot* shall be provided as accessible *parking spaces*, and, notwithstanding that such accessible *parking spaces* maybe obstructed on one or two sides in accordance with Section 4(17)(e) of By-law 438-86, as amended, shall have the following minimum dimensions:

- (i) Length -5.2 metres;
- (ii) Width 3.9 metres; and
- (iii) Vertical Clearance 2.0 metres;
- (q) a minimum of one *loading space type* 'G' shall be provided and maintained on the *lot*; and
- (r) vehicular access to the *lot* shall only be provided via Wellesley Street.
- **4.** None of the provisions of this By-law or By-law 438-86, as amended, as of the date of the passing of this By-law, shall apply to prevent a *sales office* on Parcel A.

5. Definitions:

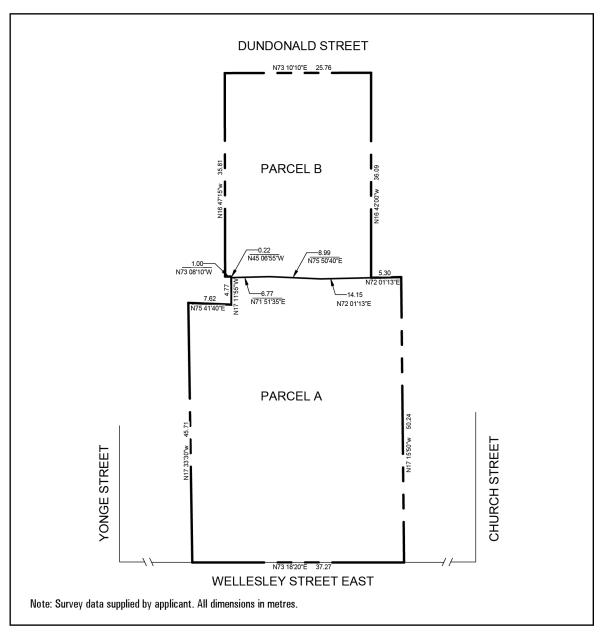
For the purposes of this By-law, each word or expression that is italicized in this By-law shall have the **same** meaning as each such word or expression as defined in the said By-law 438-86, as amended, except for the following:

- (a) "bicycle parking space occupant" means an area that is equipped with a bicycle rack, stacker or locker for the purpose of parking and securing bicycles and:
 - (i) Where the bicycles are to be parked on a horizontal surface, has horizontal dimensions of at least 0.6 metres by 1.8 metres and vertical dimension of at least 1.9 metres;
 - (ii) Where the bicycles are to be parked in a vertical position, has horizontal dimensions of at least 0.6 metres by 1.2 metres and a vertical dimension of at least 1.9 metres; and
 - (iii) Notwithstanding (i) and (ii) above, where the bicycles are to be parking in a stacker, being a device that allows parking spaces to be positioned above or below one another with the aid of an elevating mechanism, the parking space within the stacker shall have horizontal dimensions of at least 1.4 metres by 0.4 metres, and the stacker shall be located in an area with a vertical dimension of at least 2.4 metres;
- (b) "bicycle parking space visitor" means an area that is equipped with a bicycle rack, stacker or locker for the purpose of parking and securing bicycles and:
 - (i) Where the bicycles are to be parked on a horizontal surface, has horizontal dimensions of at least 0.6 metres by 1.8 metres and vertical dimension of at least 1.9 metres;
 - (ii) Where the bicycles are to be parked in a vertical position, has horizontal dimensions of at least 0.6 metres by 1.2 metres and a vertical dimension of at least 1.9 metres;

- (iii) Notwithstanding (i) and (ii) above, where the bicycles are to be parking in a stacker, being a device that allows parking spaces to be positioned above or below one another with the aid of an elevating mechanism, the parking space within the stacker shall have horizontal dimensions of at least 1.4 metres by 0.4 metres, and the stacker shall be located in an area with a vertical dimension of at least 2.4 metres;
- (c) "building envelope" means a building envelope for each height area as shown by an H, and as delineated by the heavy lines on Map 2 attached hereto;
- (d) "grade" for the purpose of a mixed-use building on the lot means 107.87 metres Canadian Geodetic Datum and for the purposes of row houses and semi-detached houses on the lot means 110.32 Canadian Geodetic Datum;
- (e) "height" means the vertical distance between grade and the highest point of the building or structure, except for those elements otherwise expressly permitted by this By-law;
- (f) "owner" means the registered owner of the lot;
- (g) "Parcel A" means the parcel of land identified as Parcel A on Map 1 attached hereto:
- (h) "Parcel B" means the parcel of land identified as Parcel B on Map 1 attached hereto;
- (i) "row house" means one of a series of more than two attached buildings:
 - (i) Each building comprising one *dwelling unit*; and
 - (ii) Each building is divided vertically from another by a party wall;
- (j) "semi-detached house" means one of a pair of attached buildings:
 - (i) Each building comprising one *dwelling unit*; and
 - (ii) Each building divided vertically from the other by a party wall;
- (k) "*small car parking space*" means a clear area that has minimum dimensions of 5.0 metres in length, 2.4 metres in width and a vertical height of 1.84 metres;
- (l) "storey" means a level of a building, located between any floor and the floor, ceiling or roof immediately above it, with the first storey being that storey with a floor closest in elevation to grade; and
- (m) "sales office" means an office within a building, structure, facility or trailer used for the purpose of the initial rental, sale or marketing of dwelling units to be erected on the *lot* and/or the administration and management of construction activity related to construction on the *lot*.

- **6.** Despite any existing or future severance, partition, or division of the *lot*, the provisions of this B**y**-law shall apply to the whole of the *lot* as if no severance, partition or division occurred.
- **7.** By-law 675-2005 is repealed.

Ontario Municipal Board Decision/Order issued December 3, 2015 as amended June 14, 2016 in Board File PL141139

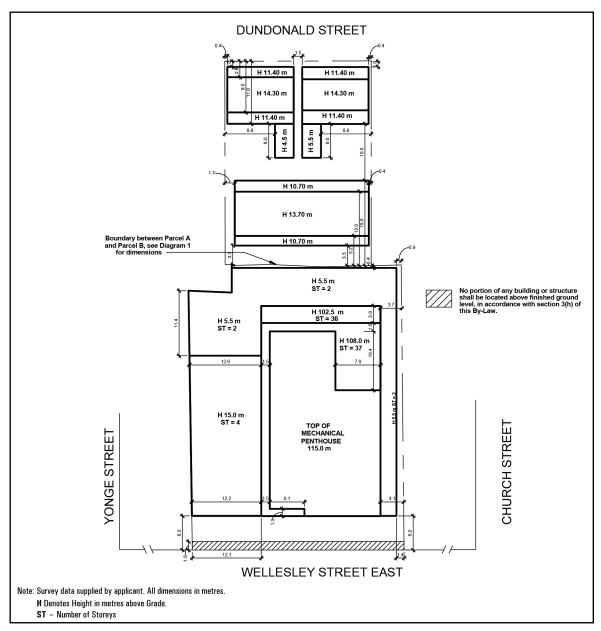




50 Wellesley Street East and 31-35 Dundonald Street

Map 1 File # 14 159828 STE 27 0Z







50 Wellesley Street East and 31-35 Dundonald Street

Map 2 File # 14 159828 STE 27 0Z



APPENDIX 1 Section 37 Provisions

The facilities, services and matters set out below are required to be provided by the *owner* of the *lot* at their expense to the City in accordance with one or more agreements pursuant to Section 37(3) of the *Planning Act*, in a form satisfactory to the City with conditions providing for indexing escalation of both the financial contributions and letters of credit, development charges, indemnity, insurance, GST, HST, termination and unwinding, and registration and priority of agreement:

- 1. Prior to the issuance of the first above-grade building permit, other than for a temporary sales office, the *owner* shall make a cash contribution to the City in the amount of \$1 million dollars, which will be used by the City for the following:
 - (a) \$200,000 for one or more of the more of the following in Ward 27:
 - (i) New community and/or cultural space;
 - (ii) Capital improvements for Toronto Community Housing; and
 - (iii) The City's Capital Revolving Fund for Affordable Housing for the purpose of maintaining and constructing affordable rental housing units in Ward 27;
 - (b) \$800,000 for local parks and streetscape improvements for lands located in Ward 27;

with such cash amounts to be applied as determined by the Chief Planner and Executive Director, City Planning Division, in consultation with the local Councillor.

- 2. The cash amounts identified in Sections 1(a) and (b) above shall be indexed upwardly in accordance with the Non-Residential Construction Price Index for the Toronto CMA, reported quarterly by Statistics Canada in Construction Price Statistics Publication No. 62-007-XPB, or its successor, calculated from the date of execution of the Section 37 Agreement by both parties to the date of submission of the funds by the *owner* to the City.
- 3. A minimum of fifteen 15 *dwelling units* located within the building on the *lot* shall be three (3) *bedroom dwelling units* or greater, having a minimum size of 83.6 square metres, of which ten (10) may be grade-related units.
- 4. The construction of a public pedestrian walkway and a conveyance of a public access easement to the City along the entire Wellesley Street frontage, having a minimum depth of 1.5 metres, and over the walkway to be located on the east side of the site to provide access to the commercial parking garage entrance, the location and details to be secured in the context of site plan approval for the development.
- 5. The provision of a short term parking space on the ground floor for deliveries.

City of Toronto By-law 974-2017(OMB)

- 6. The Owner shall pay for and construct any improvements to the municipal infrastructure in connection with the site servicing assessment, should it be determined that upgrades are required to the infrastructure to support this development, to the satisfaction of the Executive Director, Engineering and Construction, which the details of such if required to be secured in a Site Plan Agreement with the City.
- 7. The Owner shall provide a tree replanting guarantee deposit payment or letter of credit associated with the white oak tree identified as tree No. 6 in the Owner's application to injure and destroy trees, as established through the Private Tree By-law permit process.

Authority:

Ontario Municipal Board Decision issued on November 23, 2017 and Local Planning Appeal Tribunal Order issued June 25, 2018 in Tribunal File PL170407

CITY OF TORONTO

BY-LAW 1345-2018(LPAT)

To amend Zoning By-law 569-2013, as amended, with respect to the lands known municipally in the year 2017 as 85-91 Broadway Avenue and 198 Redpath Avenue.

Whereas the Ontario Municipal Board/Local Planning Appeal Tribunal pursuant to its Decision/Orders issued on November 23, 2017, and on June 25, 2018 in respect of Tribunal File PL170407, upon hearing an appeal under Section 34(11) of the Planning Act, R.S.O. 1990, c. P.13, as amended, deems it advisable to amend the Zoning By-law for the City of Toronto, being By-law 569-2013, as amended, with respect to lands known as 85-91 Broadway Avenue and 198 Redpath Avenue; and

Whereas pursuant to Section 37 of the Planning Act, a by-law under Section 34 of the Planning Act, may authorize increases in the height and/or density of development beyond those otherwise permitted by the by-law and that will be permitted in return for the provision of such facilities, services or matters as are set out in the by-law; and

Whereas the Official Plan for the City of Toronto contains provisions relating to the authorization of increases in height and density of development; and

Whereas pursuant to Section 37 of the Planning Act, a by-law under Section 34 of the Planning Act, may authorize increases in the height and/or density of development beyond those otherwise permitted by the by-law and that will be permitted in return for the provision of such facilities, services or matters as are set out in the by-law; and

Whereas subsection 37(3) of the Planning Act provides that where an owner of land elects to provide facilities, services and matters in return for an increase in the height and/or density of development, the municipality may require the owner to enter into one or more agreements with the municipality dealing with the facilities, services and matters; and

Whereas the owner of the aforesaid lands has elected to provide the facilities, services and matters hereinafter set out; and

Whereas the increase in height and density permitted beyond that otherwise permitted on the aforesaid lands by By-law 569-2013 as amended, is permitted in return for the provision of the facilities, services and matters set out in this By-law which is secured by one or more agreements between the owner of the land and the City of Toronto;

The Local Planning Appeal Tribunal Orders:

- 1. The lands subject to this By-law are outlined by heavy lines on Diagram 1, attached to this By-law.
- Zoning By-law 569-2013, as amended, is further amended by amending the zone label on the Zoning By-law Map in Section 990.10 respecting the lands outlined by heavy lines to "R (d2.0) (xR53)", as shown on Diagram 2 attached to this By-law.

3. Zoning 569-2013, as amended, is further amended by adding Article 900.2.10 Exception Number R 53 so that it reads:

Exception R53

The lands, or a portion thereof as noted below, are subject to the following Site Specific Provisions, Prevailing By-laws and Prevailing Sections.

Site Specific Provisions:

- (A) On 85-91 Broadway Avenue and 198 Redpath Avenue, if the requirements of Section 5 and Schedule A of By-law 1345-2018(LPAT) are satisfied none of the provisions of regulations 10.10.40.10(1) and 10.10.40.40 apply to prevent the erection or use of a **building, structure,** addition or enlargement permitted in compliance with (B) to (S) below;
- (B) Despite Section 5.10.40.70(1), the underground garage may be set back 0.0 metres from all **lot lines**;
- (C) Despite regulation 10.10.40.40(1), the permitted maximum **gross floor area** is 23,900 square metres;
- (D) Despite regulation 10.5.40.10(1), the height of the **building** is the distance between the Canadian Geodetic Datum elevation of 160.15 metres and the elevation of the highest point of the **building**;
- (E) Despite regulation 10.10.40.10(1), the permitted maximum height of a **building** or **structure** is the height in metres specified by the numbers following the symbol HT on Diagram 3 of By-law 1345-2018(LPAT);
- (F) Despite clauses 10.5.40.10 and 10.10.40.10, the following **building** elements and **structures** are permitted to project vertically beyond the height limits specified in (E) above:
 - (i) Safety railings and fences located at each of the roof levels of the building provided the maximum vertical distance of any such railing does not exceed 1.8 metres;
 - (ii) A parapet, including roof drainage, thermal insulation and roof ballast at each of the roof levels of the building provided the maximum vertical dimension of any such parapet does not exceed 1.8 metres;
 - (iii) Structures on the roof of any part of the building used for outside or open air recreation, wind mitigation elements, landscape features, architectural elements, elevator overruns, public art features, mechanical equipment, telecommunications equipment and antennae, window washing equipment, stair towers, partitions dividing outdoor recreation areas, trellises or a fence, planters, landscape features, wall or structure enclosing

- such elements, lightning rods and exhaust flues provided the maximum vertical distance of such does not exceed 6.0 metres; and
- (iv) Green roof elements provided the maximum vertical distance of such does not exceed 2.0 metres;
- (G) Despite clause 10.10.40.70 and regulation 10.5.40.70(1), the required minimum **building setbacks** are as shown on Diagram 3 of By-law 1345-2018(LPAT), with the exception of the following:
 - (i) Except for structural support elements, the **storeys** within a portion of the **building** or **structure** must be set back a minimum of 7.5 metres from the north **lot line** between 0 metres and 12.5 metres above the Canadian Geodetic Datum Elevation of 160.15 metres; and
 - (ii) Except for structural support elements, the **storeys** within a portion of the **building** or **structure** must be set back a minimum of 2 metres from the east **lot line** between 0 metres and 5 metres above the Canadian Geodetic Datum Elevation of 160.15 metres;
- (H) Despite clause 10.5.40.60 and regulation 10.5.40.50(2), the following **building** elements are permitted to encroach into the required **building setbacks**:
 - (i) Balconies may be located only within the areas identified on Diagram 4 of By-law 1345-2018(LPAT), attached to and forming part of this By-law; and
 - (ii) Landscape and public art features provided that the encroachment does not exceed 7.5 metres;
- (I) Despite regulation 10.10.40.50(1), a minimum of 652 square metres of indoor **amenity space** and 669 square metres of outdoor **amenity space** must be provided;
- (J) Despite clause 200.5.10, a minimum of 80 **parking spaces** must be provided on the **lot** in accordance with the following:
 - (i) A minimum of 70 **parking spaces** must be provided for residents; and
 - (ii) A minimum of 10 **parking spaces** must be provided for the use of visitors;
- (K) For each car-share **parking space** provided on the **lot**, the minimum number of **parking spaces** required by (I) above may be reduced by 4 **parking spaces**, up to a maximum of 5 car-share **parking spaces**;

- (L) Despite regulation 230.5.1.10(9) and 230.5.10.1, 316 bicycle parking spaces must be provided for residents and 36 bicycle parking spaces must be provided for visitors;
- (M) Despite regulation 230.5.1.10(4), where bicycles are to be parked in a **stacked bicycle parking space**, the minimum dimension of a **bicycle parking space** must be at least 0.45 metres wide by 1.8 metres in length with a vertical clearance of 1.2 metres for each **bicycle parking space**;
- (N) Despite regulations 230.5.1.10(6) and 230.5.1.10(9) **bicycle parking spaces** may be located indoors or outdoors including within a secured room or enclosure;
- (O) Regulation 230.10.1.20(1) respecting storage location of **bicycle parking spaces** does not apply;
- (P) A maximum of 385 **dwelling units** are permitted;
- (Q) A minimum 5 percent of the **dwelling units** must be three bedroom **dwelling units**;
- (R) Regulations 10.5.100.1(5), 10.5.50.10(4)(A) and (B), 10.5.50.10(5), 10.5.80.30 and 10.10.40.30(1) do not apply; and
- (S) None of the provisions of By-law 569-2013, as amended, or this By-law shall apply to prevent a **temporary sales office** on the **lot** as of the date of passing of this By-law.

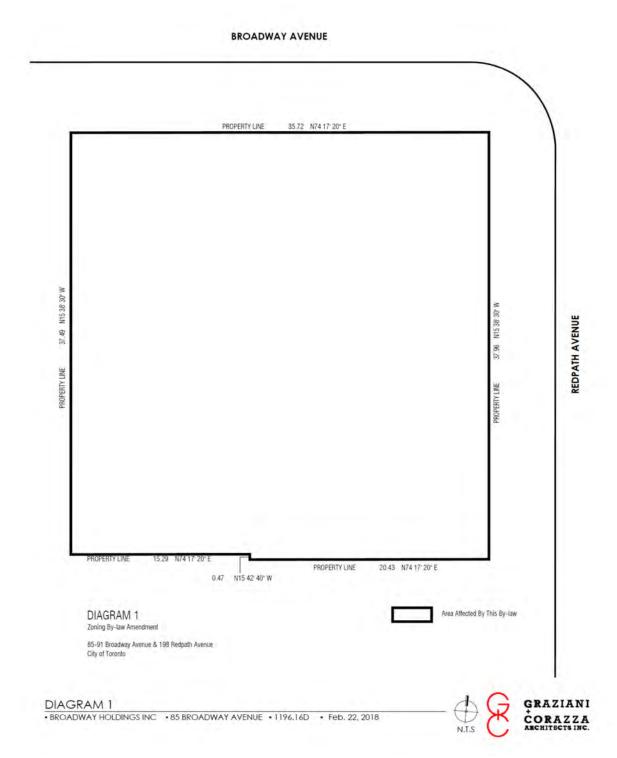
Prevailing By-laws and Prevailing Sections: (None Apply)

- 4. The words highlighted in bold type in this By-law have the meaning provided in Zoning By-law 569-2013, as amended, except that the following definitions shall apply:
 - (A) **Car-share** means the practice where a number of people share the use of one or more cars that are owned by a profit or non-profit car-sharing organization and where such organization may require that use of cars be reserved in advance, charge fees based on time and/or kilometres driven, and set membership requirements of the car-sharing organization, including the payment of a membership fee that may or not be refundable;
 - (B) **Car-share parking space** means a **parking space** that is reserved for car-sharing;
 - (C) **Temporary sales office** means a **building**, **structure**, trailer or facility on a **lot** used exclusively for the sales, marketing, display and promotion of **dwelling units** on the **lot**.

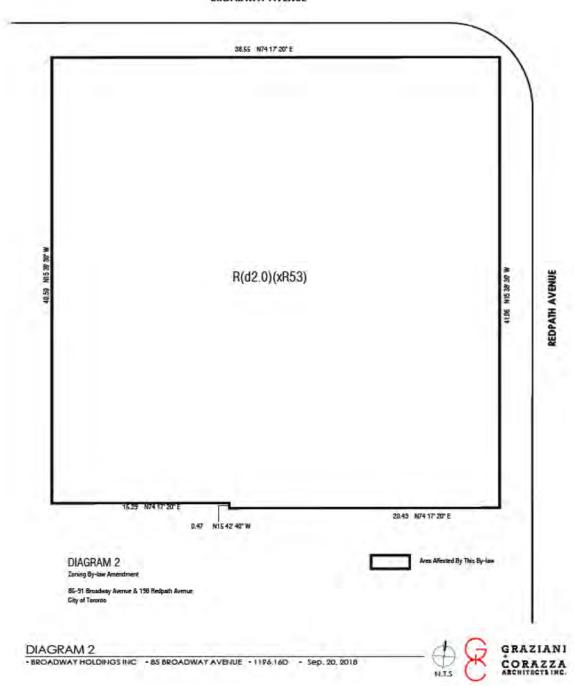
5. Section 37 Provisions

- (A) Pursuant to Section 37 of the Planning Act, and subject to compliance with this By-law, the increase in height and density of the development is permitted beyond that otherwise permitted on the lands shown on Diagram 1 in return for the provision by the owner, at the owner's expense of the facilities, services and matters set out in Schedule A and which are secured by one or more agreements pursuant to Section 37(3) of the Planning Act that are in a form and registered on title to the lands, to the satisfaction of the City Solicitor.
- (B) Where Schedule A of this By-law requires the owner to provide certain facilities, services or matters prior to the issuance of a building permit, the issuance of such permit shall be dependent on satisfaction of the same.
- (C) The owner shall not use, or permit the use of, a **building** or **structure** on the site erected with an increase in height and density pursuant to this By-law unless all provisions of Schedule A are satisfied.

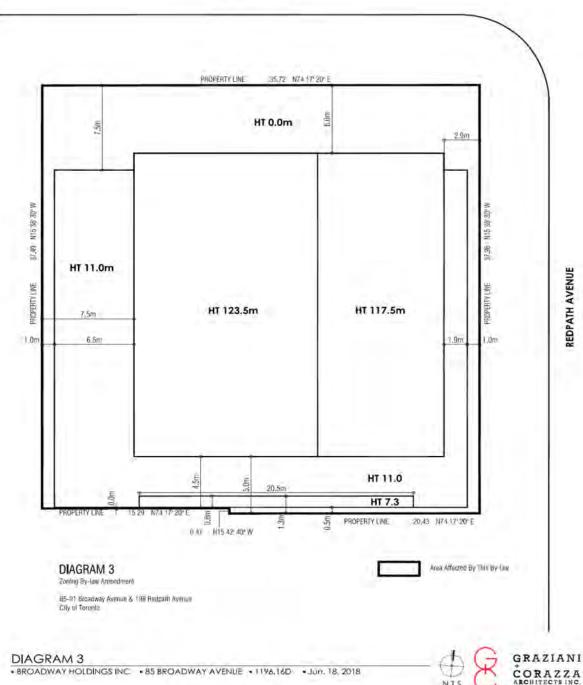
Pursuant to Ontario Municipal Board/Local Planning Appeal Tribunal Decisions/Orders issued on November 23, 2017 and on June 25, 2018 in Tribunal File PL170407.



BROADWAY AVENUE

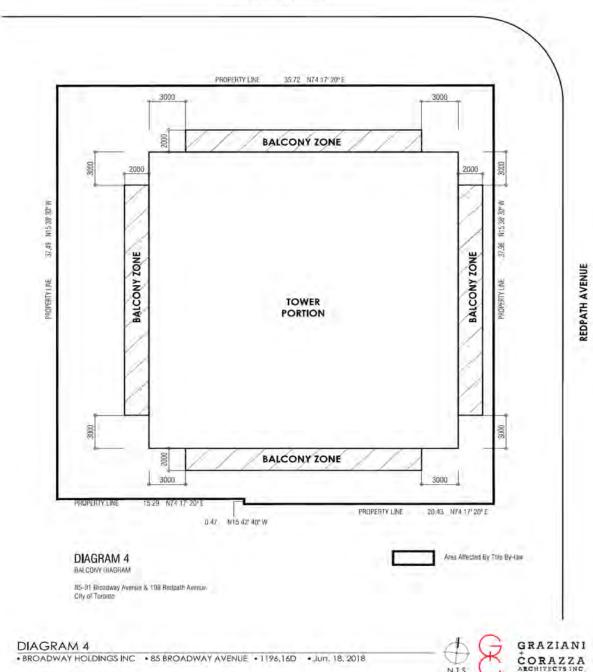


BROADWAY AVENUE





BROADWAY AVENUE





SCHEDULE A

Section 37 Provisions

The facilities, services and matters set out herein are the matters required to be provided by the *owner* of the *lot* at its expense to the City in accordance with an agreement or agreements, pursuant to Section 37(3) of the Planning Act, in a form satisfactory to the *City* and the *owner* with conditions providing for indexing escalation of both the financial contributions, and letters of credit, indemnity, insurance, GST, termination and unwinding, and registration and priority of agreement:

- 1. Prior to the issuance of the first above *grade* building permit the *owner* shall provide a cash contribution of \$1,300,000, and indexed upwardly in accordance with the Statistics Canada Non-residential Construction Price Index for Toronto, calculated from the date of the Section 37 Agreement to the date the payment is made towards:
 - a. Public realm improvements in the Yonge-Eglinton Secondary Plan area; and
 - b. Additional community services and facilities in the Yonge-Eglinton Secondary Plan Area in accordance with emerging infrastructure priorities identified in the Yonge-Eglinton Secondary Plan Review.
- 2. In the event the cash contributions referred to in Section 1 have not been used for the intended purpose within three (3) years of this By-law coming into full force and effect, the cash contribution may be redirected for another purpose, at the discretion of the Chief Planner and Executive Director, City Planning Division, in consultation with the Ward Councillor, provided that the purposes are identified in the Toronto Official Plan and will benefit the community in the vicinity of the *lot*.
- 3. The following matters are required to be secured in the Section 37 Agreement as a matter of legal convenience. The replacement rental dwelling units shall be provided by the Owner in accordance with the following conditions:
 - a. The Owner shall provide and maintain nine (9) replacement rental dwelling units and two (2) new market rental dwelling units, comprised of two (2) bachelor units, two (2) one-bedroom units, six (6) two-bedroom units and one (1) three-bedroom unit, on the subject site for a period of at least twenty (20) years, as generally shown on the plans submitted to the City Planning Division dated November 2, 2017. Any revision to these plans must be to the satisfaction of the Chief Planner and Executive Director, City Planning Division;
 - b. The Owner shall provide and maintain at least two (2) bachelor and one (1) two-bedroom replacement rental dwelling units at affordable rents and five (5) two-bedroom and one (1) three-bedroom replacement rental dwelling units at midrange rents for at least ten (10) years, beginning from the date of first occupancy. The Owner shall also provide and maintain at least two (2) one-bedroom new market rental dwelling units at unrestricted rents for at least ten (10) years, beginning from the date of first occupancy;

City of Toronto By-law 1345-2018(LPAT)

- c. The owner shall provide ensuite laundry in all replacement rental dwelling units and new market rental dwelling units;
- d. The owner shall provide tenants of the replacement rental dwelling units and new rental dwelling units with access to all indoor and outdoor amenities and bicycle parking on the same terms and conditions as condominium residents;
- e. The owner shall provide at least two (2) vehicle parking spaces for rent to tenants of the replacement rental dwelling units and new market rental dwelling units;
- f. The owner shall provide at least seven (7) of the replacement rental dwelling units with a balcony or terrace; and
- g. The owner shall provide tenant relocation and assistance plan to all eligible tenants, including the right to return to a replacement rental dwelling unit, to the satisfaction of the Chief Planner and Executive Director, City Planning Division.

Authority: Local Planning Appeal Tribunal Decision issued on April 16, 2019 and Order issued on August 19, 2019 in Tribunal File No. PL171269

CITY OF TORONTO

BY-LAW 1482-2019(LPAT)

To amend Zoning By-law 569-2013, as amended, with respect to the lands municipally known in the year 2018 as 39-41 Roehampton Avenue and 50 Eglinton Avenue East.

Whereas the Local Planning Appeal Tribunal, by its decision issued on April 16, 2019 and Order issued on August 19, 2019, in Tribunal Case No. PL171269 approved amendments to the City of Toronto Zoning By-law 569-2013, as amended, with respect to the lands; and

Whereas the Official Plan for the City of Toronto contains provisions relating to the authorization of increases in height and density of development; and

Whereas pursuant to Section 37 of the Planning Act, a by-law under Section 34 of the Planning Act may authorize increases in the height and density of development beyond those otherwise permitted by the by-law and that will be permitted in return for the provision of such facilities, services or matters as are set out in the by-law; and

Whereas subsection 37(3) of the Planning Act provides that where an owner of land elects to provide facilities, services and matters in return for an increase in the height or density of development, the municipality may require the owner to enter into one or more agreements with the municipality dealing with the facilities, services and matters; and

Whereas the owner of the aforesaid lands has elected to provide the facilities, services and matters hereinafter set out; and

Whereas the increase in height and density permitted beyond that otherwise permitted on the aforesaid lands by By-law 569-2013, as amended, are to be permitted in return for the provision of the facilities, services and matters set out in this By-law which is secured by one or more agreements between the owner of the land and the City of Toronto;

Now therefore pursuant to the Order of the Local Planning Appeal Tribunal, By-law 569-2013 is further amended as follows:

- 1. The lands subject to this By-law are outlined by heavy black lines on Diagram 1 attached to this By-law.
- 2. The words highlighted in bold type in this By-law have the meaning provided in Zoning By-law No. 569-2013, Chapter 800 Definitions.
- Zoning By-law No. 569-2013, as amended, is further amended by amending the zone label on the Zoning By-law Map in Section 990.10 respecting the lands outlined by heavy black lines to R (d2.0) (x66) and R (d2.0) (x67) as shown on Diagram 2 attached to this By-law.

4. Zoning By-law No. 569-2013, as amended, is further amended by adding Article 900.2.10 Exception Number 66 so that it reads:

(66) Exception R 66

The lands, or a portion thereof as noted below, are subject to the following Site Specific Provisions, Prevailing By-laws and Prevailing Sections.

Site Specific Provisions:

- (A) On Block A, as identified on Diagram 3 of By-law 1482-2019(LPAT), if the requirements of Section 6 and Schedule A of By-law 1482-2019(LPAT) are complied with, a **building**, **structure**, addition or enlargement may be constructed or erected in compliance with regulations (B) to (T) below;
- (B) For purposes of this exception, **established grade** is the Canadian Geodetic Datum elevation of 165.65 metres;
- (C) Despite Regulation 10.10.40.10(1), no portion of any **building** or **structure** may exceed the height in metres specified by the numbers following the symbol HT and number of storeys following the symbol ST on Diagram 4 of By-law 1482-2019(LPAT);
- (D) Despite (C) above and Regulations 10.5.40.10(3) and (4), the following **building** elements may exceed the permitted maximum height:
 - (i) Parapets and elements of a **green roof** up to a maximum of 1.5 metres;
 - (ii) Elements or structures on the roof of a **building** used for outside or open air recreation, outdoor **amenity space**, fixed outdoor furniture, trellises, privacy screens, terrace or balcony dividers, railings, guardrails, fences, roof access hatches, transformer vaults, stairs, covered stairs or stair enclosures, stair landings, landscape elements or features, ramps or elevating device providing barrier free access, chimneys, vents, flues, stacks, public art features, fire safety equipment and servicing, gas metres and associated privacy screens and window washing equipment up to a maximum of 3.0 metres; and
 - (iii) Light fixtures up to a maximum of 5.0 metres;
- (E) Despite Regulation 10.5.40.70(1) and Clause 10.10.40.70, the required minimum **building setbacks** are shown on Diagram 4 of By-law 1482-2019(LPAT);
- (F) Despite Clause 10.5.40.60, the following **building** elements may encroach into the required minimum **building setbacks**:
 - (i) Balconies, balcony cladding, balcony screens and associated structures up to a maximum of 1.8 metres;

- (ii) Canopies and awnings and ornamental elements up to a maximum of 2.1 metres; and
- (iii) Architectural wall assemblies not creating enclosed spaces, architectural curtain wall projections, ornamental elements, sun shades and louvres and their associated **structures**, and window washing equipment are permitted to encroach into a required **building setback** if such elements:
 - (a) remain entirely within the areas delineated by dashed lines on Diagram 4 and Diagram 5 of By-law 1482-2019(LPAT);
 - (b) are located at a minimum height of 5.0 metres and do not exceed a maximum height of 21.5 metres; and
 - (c) do not enclose space to form a room or rooms;
- (iv) Privacy screens, terrace or balcony dividers, railings, guardrails, fences, transformer vaults, ramps or elevating device providing barrier free access, public art features, chimneys, vents, flues, stacks, lighting fixtures, and fire safety equipment and servicing, up to a maximum depth of 3.0 metres; and
- (v) Gas meters and associated privacy screens;
- (G) Despite Regulations 10.5.50.10(4)(A) and 10.5.50.10(4)(B), a minimum of 23 percent of the area of the **lot** must be **landscaping**, of which a minimum of 13 percent must be **soft landscaping**;
- (H) Despite Regulation 10.5.50.10(5), a minimum 1.5 metre wide strip of **soft landscaping** is not required along any part of a **lot line** abutting another **lot** in the Residential Zone category;
- (I) Despite Regulation 10.10.40.50(1), **amenity space** must be provided at a minimum rate of 4.13 square metres for each **dwelling unit**, of which:
 - (i) at least 2.0 square metres for each **dwelling unit** is indoor **amenity space**, of which a minimum of 25 percent must be in a multi-purpose room or multi-purpose rooms;
 - (ii) at least 40.0 square metres is outdoor **amenity space** in a location adjoining or directly accessible to an indoor **amenity space**;
 - (iii) no more than 25 percent of the outdoor component may be a **green roof**; and
 - (iv) a minimum of one indoor **amenity space** must contain food preparation facilities and sanitary facilities;

- (J) Regulation 10.10.40.30(1)(B) restricting the maximum **building depth** of an **apartment building** does not apply;
- (K) Despite Regulation 10.10.40.40(1), the total permitted maximum **gross floor area** of all **buildings** and **structures** is 33,300 square;
- (L) The permitted maximum number of **dwelling units** is 440;
- (M) A minimum of ten percent of the total number of **dwelling units** constructed in the **building** must contain three bedrooms or more;
- (N) Despite Regulation 200.5.1(3)(A), the minimum width for a two **lane drive aisle** is 5.5 metres if the centreline of a **parking space** is at an interior angle of 70 to 90 degrees to the centreline of the **drive aisle** providing **vehicle** access;
- (O) Despite Regulation 200.5.10.1(1), **parking spaces** must be provided and maintained as follows:
 - (i) a minimum of 88 parking spaces for tenants of dwelling units;
 - (ii) a minimum of 12 parking spaces for visitors of dwelling units; and
 - (iii) a maximum of 4 "car-share" **parking spaces**, which, for the purpose of this exception, are **parking spaces** used exclusively for the parking of a motor vehicle that is available for short-term rental, including an option for hourly rental, for the use of at least the occupants of a **building** erected on the **lot**;
- (P) Despite Regulation 200.5.1.10(2)(i), a maximum of 3 **parking spaces** may be provided and maintained with a minimum length of 4.75 metres;
- (Q) Despite Regulations 200.15(1) and 200.15(3) and clause 200.15.10, a minimum of 6 accessible **parking spaces** must be provided and maintained, with the following minimum dimensions:
 - (i) length of 5.6 metres;
 - (ii) width of 3.4 metres;
 - (iii) vertical clearance of 2.1 metres; and
 - (iv) the entire length of an accessible **parking space** must be adjacent to a 1.5-metre-wide accessible barrier free aisle or path, except for 1.0 metre, measured at a right angle, from the rear of the accessible **parking space**. The rear being the furthest point of **parking space** from access to **drive** aisle.

- (R) Despite Regulation 220.5.10.1(2), a minimum of 1 Type "G" **loading space** must be provided and maintained;
- (S) Despite Regulation 230.5.1.10(9)(B), a required "long-term" bicycle parking space for a dwelling unit in an apartment building may be located on the first storey of the building, the second storey of the building, or on levels of the building below-ground;
- (T) Despite any existing or future severances, partition, or division of the lands subject to this Exception, the provisions of this Exception will apply to the whole of the lands as if no severance, partition, or division had occurred.

Prevailing By-laws and Prevailing Sections: (None Apply)

5. Zoning By-law No. 569-2013, as amended, is further amended by adding Article 900.2.10 Exception Number 67 so that it reads:

(67) Exception R 67

The lands, or a portion thereof as noted below, are subject to the following Site Specific Provisions, Prevailing By-laws and Prevailing Sections.

Site Specific Provisions:

- (A) On Block B, as identified on Diagram 3 of By-law 1482-2019(LPAT), if the requirements of By-law 1482-2019(LPAT) are complied with, a **building**, **structure**, addition or enlargement may be constructed or erected in compliance with regulations (B) to (E) below;
- (B) For purposes of this exception, **established grade** is the Canadian Geodetic Datum elevation of 165.65 metres;
- (C) Despite Regulations 10.10.40.10(1) and 10.10.40.10(3), the height of any **building** erected on the lands must not exceed the maximum height in metres permitted as indicated by the numbers following the letter "HT" as shown on Diagram 5 of By-law 1482-2019(LPAT);
- (D) Despite Regulation 10.5.40.70(1) and Clause 10.10.40.70, the required minimum **building setbacks** are shown on Diagram 5 of By-law 1482-2019(LPAT), except as permitted by Clause 10.5.40.60; and
- (E) Despite (C) and (D) above, if the requirements of Section 6 and Schedule A of By-law 1482-2019(LPAT) are complied with, then **building** elements attached to a **building** on Block A, as identified on Diagram 3 of By-law 1482-2019(LPAT), pursuant to Exception R 66, are permitted to encroach within the area of Block B delineated by dashed lines, as identified on Diagram 5 of By-law 1482-2019(LPAT), if such elements comply with the requirements of Regulation (F)(iii) within the Site Specific Provisions of Exception R 66.

Prevailing By-laws and Prevailing Sections: (None Apply)

6. Section 37 Provisions

- (A) Pursuant to Section 37 of the Planning Act, and subject to compliance with this By-law, the increase in height and density of the development is permitted beyond that otherwise permitted on the lands shown on Block A on Diagram 3 in return for the provision by the owner, at the owner's expense of the facilities, services and matters set out in Schedule A hereof and which are secured by one or more agreements pursuant to Section 37(3) of the Planning Act that are in a form and registered on title to the lands, to the satisfaction of the City Solicitor;
- (B) Where Schedule A of this By-law requires the owner to provide certain facilities, services or matters prior to the issuance of a building permit, the issuance of such permit shall be dependent on satisfaction of the same; and
- (C) The owner shall not use, or permit the use of, a building or structure erected with an increase in height and density pursuant to this By-law unless all provisions of Schedule A are satisfied.

Local Planning Appeal Tribunal Decision issued on April 16, 2019 and Order issued on August 19, 2019 in Tribunal File No. PL171269

Schedule A

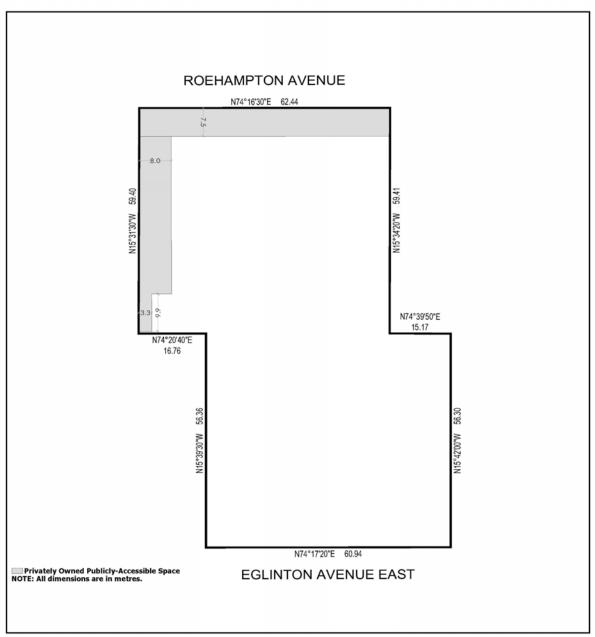
Section 37 Provisions

The facilities, services and matters set out below are required to be provided to the City at the Owner's expense in return for the increase in height and density of the proposed development on the lot and secured in an agreement or agreements under Section 37(3) of the Planning Act whereby the owner agrees as follows:

- 1. Prior to the issuance of the first above-grade building permit for all or part of the lands, the owner shall provide a financial contribution to the City of \$1,700,000.00 to be allocated as follows:
 - a. \$790,000.00 for upgrades to the privately-owned publicly accessible open space (POPS), as detailed in landscape plans provided to the City; and
 - b. \$910,000.00 for public realm improvements, public art and/or additional community services and facilities in the Yonge-Eglinton Secondary Plan area in accordance with the infrastructure priorities identified for the area through the Yonge-Eglinton Secondary Plan Review;
- 2. The owner shall provide a privately-owned publicly-accessible open space (POPS), with a minimum area of 442 square metres, on the *lot* as part of the redevelopment of the *lot*, as generally located on the landscape plans provided to the City, with the final location, configuration and design to be determined through the site plan approval process pursuant to Section 114 of the *City of Toronto Act*, 2006 and secured in a site plan agreement with the City, including but not limited to an obligation on the owner to install and maintain a sign, at its own expense, stating that members of the public shall be entitled to use the privately-owned publicly-accessible open space (POPS) between 6:00 a.m. and 1:30 a.m., 365 days of the year;
- 3. Prior to the occurrence of the earlier of condominium registration or first occupancy for the proposed development on the *lot*, the owner shall convey a surface easement to the City over the lands that shall constitute the privately-owned publicly accessible open space (POPS);
- 4. The owner shall secure the following matters with respect to the lands on the abutting lot known municipally as 15 Roehampton Avenue:
 - a. Prior to the issuance of the first above-grade building permit for all or part of the lands on the *lot*, the owner shall execute and register on title to of the *lot* of a shared facilities and cost sharing agreement with the owner of the abutting lot regarding the ongoing operation, maintenance and repair of the privately-owned publicly-accessible open space (POPS) and ensure that same is registered on title to the abutting lot; and
 - b. Prior to the occurrence of the earlier of condominium registration or the first occupancy for the proposed development on the *lot*, the owner shall provide

proof, to the satisfaction of the City Solicitor, that a surface easement has been conveyed to the City over a minimum total area of 242 square metres on the abutting lot, which shall constitute the privately-owned publicly accessible open space (POPS) on the abutting land, as generally located on the landscape plans provided to the City.

- 5. The owner shall, at its own expense, design and construct an entrance connection to the below-grade pedestrian path to the Yonge/Eglinton station located on the lands known municipally as 15 Roehampton Avenue and 8 Eglinton Avenue East, which connection will provide access from the development to the publicly accessible pathway leading through the 15 Roehampton Avenue and 8 Eglinton Avenue East, thereby linking the development to the Eglinton Subway Station.
- 6. Prior to the occurrence of the earlier of condominium registration or first occupancy for the proposed development on the *lot*, the owner shall convey publicly accessible easement to the City to and over that portion of the development that leads to the belowgrade pedestrian path, located on the lands known municipally as 15 Roehampton Avenue and 8 Eglinton Avenue East, for use by the general public and the City.

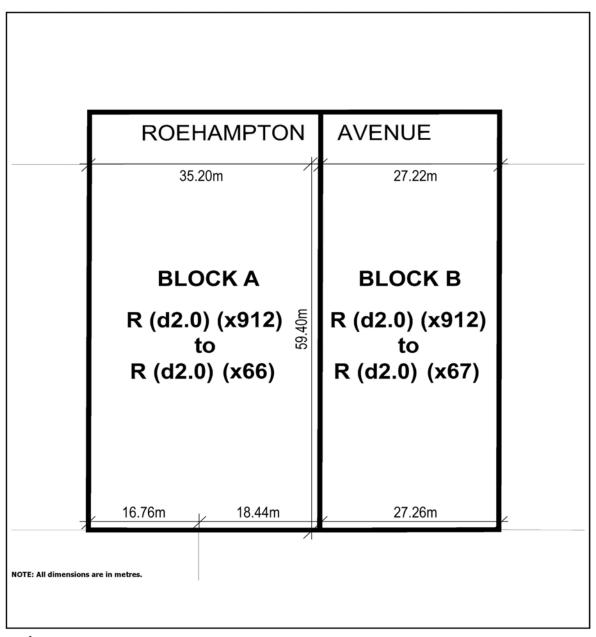


TorontoDiagram 1

39-41 Roehampton Avenue and 50 Eglinton Avenue East



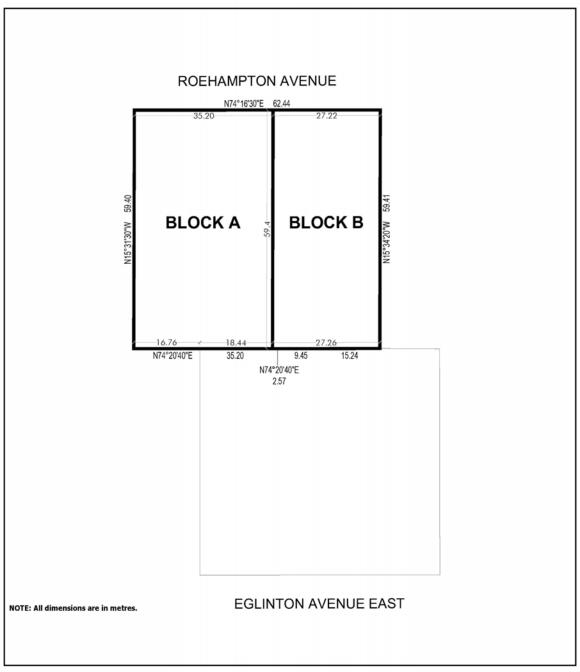
Diagram 2



Toronto Diagram 2

39-41 Roehampton Avenue and 50 Eglinton Avenue East

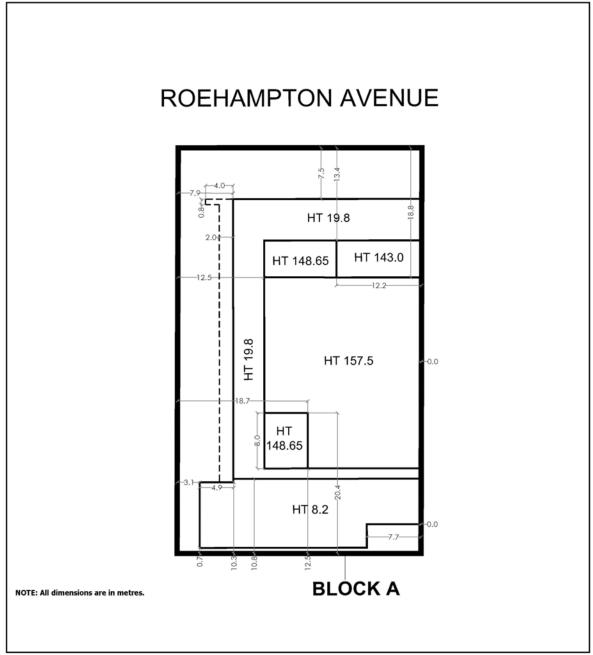




Toronto Diagram 3

39-41 Roehampton Avenue and 50 Eglinton Avenue East

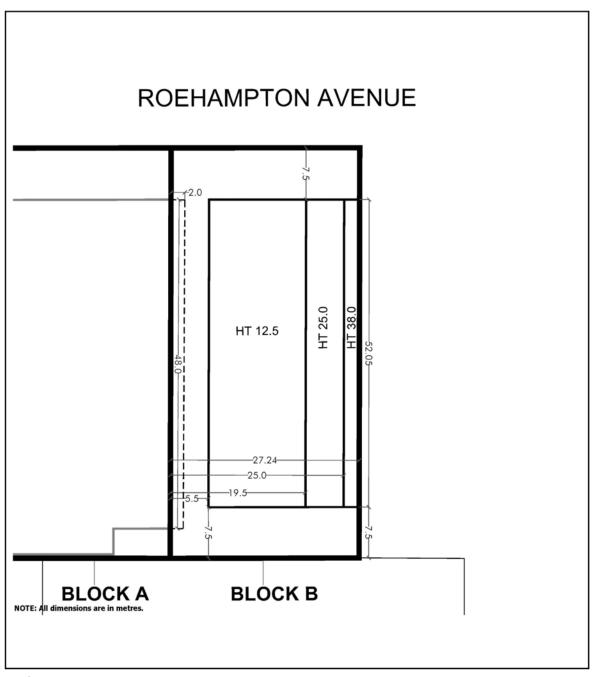






39-41 Roehampton Avenue and 50 Eglinton Avenue East







39-41 Roehampton Avenue and 50 Eglinton Avenue East



Authority: Local Planning Appeal Tribunal Decision issued February 8, 2019 and Local Planning Appeal Tribunal Order issued on October 10, 2019 in File PL140705

CITY OF TORONTO

BY-LAW 1548-2019(LPAT)

To amend Zoning By-law 569-2013, as amended, with respect to the lands municipally known in the year 2019 as, 170 Spadina Avenue and 1-7 Cameron Street.

Whereas the Local Planning Appeal Tribunal Decision issued February 8, 2019 and Local Planning Appeal Tribunal Order issued October 10, 2019, in File PL140705, upon hearing an appeal under Section 34(11) of the Planning Act R.S.O. 1990, c. P.13, as amended, deems it advisable to amend By-law 569-2013, as amended, for the City of Toronto for the lands municipally known as 170 Spadina Avenue and 1-7 Cameron Street; and

Whereas pursuant to Section 37 of the Planning Act, a by-law under Section 34 of the Planning Act, may authorize increases in the height and density of development beyond those otherwise permitted by the by-law and that will be permitted in return for the provision of such facilities, services or matters as are set out in the by-law; and

Whereas subsection 37(3) of the Planning Act provides that where an owner of land elects to provide facilities, services and matters in return for an increase in the height or density of development, the municipality may require the owner to enter into one or more agreements with the municipality dealing with the facilities, services and matters; and

Whereas the owner of the aforesaid lands has elected to provide the facilities, services and matters hereinafter set out; and

Whereas the increase in height and density permitted beyond that otherwise permitted on the aforesaid lands by By-law 569-2013 as amended, is permitted in return for the provision of the facilities, services and matters set out in this By-law which is secured by one or more agreements between the owner of the land and the City of Toronto;

The Local Planning Appeal Tribunal enacts:

- 1. The lands subject to this By-law are outlined by heavy black lines on Diagram 1 attached to this By-law.
- 2. The words highlighted in bold type in this By-law have the meaning provided in Zoning By-law 569-2013, Chapter 800 Definitions.
- Zoning By-law 569-2013, as amended, is further amended by adding the lands subject to this By-law to the Zoning By-law Map in Section 990.10, and applying the following zone label to these lands: CR 5.0 (c2.5; r4.0) SS2 (x194) as shown on Diagram 2 attached to this By-law.
- **4.** Zoning By-law 569-2013, as amended, is further amended by adding the lands subject to this By-law to the Policy Areas Overlay Map in Section 995.10.1 and applying the

following Policy Area label to these lands: PA1, as shown on Diagram 3 attached to this Bylaw.

- 5. Zoning By-law 569 -2013, as amended, is further amended by adding the lands subject to this By-law to the Height Overlay Map in Section 995.20.1 and applying the following height label to these lands: HT 28.0 as shown on Diagram 4 attached to this Bylaw.
- **6.** Zoning By-law 569-2013, as amended, is further amended by adding the lands subject to this By-law to the Lot Coverage Overlay Map in Section 995.30.1 as shown on Diagram 5 attached to this By-law.
- 7. Zoning By-law 569-2013, as amended, is further amended by adding the lands subject to this By-law to the Rooming House Overlay Map in Section 995.40.1 and applying the following label to these lands: B3 as shown on Diagram 6 attached to this Bylaw.
- **8.** Zoning By-law 569-2013, as amended, is further amended by adding Article 900.11.10 Exception Number 194 so that it reads:

(194) Exception CR 194

The lands, or a portion thereof as noted below, are subject to the following Site Specific Provisions, Prevailing By-laws and Prevailing Sections.

Site Specific Provisions:

- (A) On 170 Spadina Avenue and 1-7 Cameron Street, if the requirements of Section 9 and Schedule A of By-law 1548-2019(LPAT) are complied with, a **building**, **structure**, addition or enlargement may be erected or constructed in compliance with (B) to (M) below;
- (B) Despite Regulation 40.10.40.40(1), the **gross floor area** of the **mixed use building** must not exceed 12,650 square metres, of which a maximum of 450 square metres may be used for non-residential uses;
- (C) Despite Regulation 40.5.40.10(1), the height of a **building** or **structure**, is the distance between the Canadian Geodetic Datum elevation of 92.25 metres and the elevation of the highest point of the **building**;
- (D) Despite Regulation 40.10.40.10(2), the height of a **building** or **structure** must not exceed the height in metres specified by the numbers following the symbol HT as shown on Diagram 7 of By-law 1548-2019(LPAT);
- (E) Despite (C) and (D) above, the following projections are permitted above the maximum height as shown on Diagram 7 of By-law 1548-2019(LPAT):
 - i. elements and **structures** identified in (G)(i) below, which may project a maximum of 1.1 metres;

- ii. **structures** on any roof used for outside or open-air recreation, maintenance, safety or wind protection purposes, landscape garden amenities, **green roofs**, parapets, terrace guards, landscape planters, vents, stacks, ladders which may project a maximum of 1.1 metres;
- iii. privacy fencing between units which may project a maximum of 2.1 metres; and
- iv. window washing equipment may project a maximum of 3.0 metres;
- F. Despite Regulations 5.10.40.70(1) and (4), and 40.10.40.70(2), the minimum required **building setbacks** for each level of the **building** are as shown on Diagram 7 of By-law 1548-2019(LPAT);
- G. Despite Clause 40.10.40.60 and (F) above, the following are permitted to encroach into a required **building setback** up to 1.6 metres:
 - i. cornices, lighting, fixtures, awnings, canopies, ornamental elements, parapets, trellises, eaves, window sills, guardrails, balconies, balustrades, railings, wheel chair ramps, vents, fences, screens, landscape and public art features, planter boxes and exhaust vents;
 - ii. elements and structured identified in (E)(ii) and (iii) above; and
 - iii. notwithstanding i and ii above, nothing shall encroach into the area identified by hatched shading on Diagram 7 to By-law 1548-2019(LPAT);
- H. Despite Regulation 40.10.40.50(1), **amenity space** must be provided at a minimum rate of:
 - i. 1.2 square metres of indoor amenity space per dwelling unit; and
 - ii. 2.0 square metres of outdoor amenity space per dwelling unit;
- I. Despite Regulation 200.5.10.1(1) and Table 200.5.10.1, **parking spaces** for the **mixed use building** must be provided and maintained on the **lot** in accordance with the following:
 - i. a minimum of 0.15 **parking spaces** per **dwelling unit** for residents;
 - ii. a minimum of 0.06 **parking spaces** per **dwelling unit** for residential visitors; and
 - iii. no parking is required for non-residential uses;

- J. Despite Regulation 200.5.1.10(2), a **parking space**, accessed by a one-way or two-way **drive aisle** having a minimum width of 6.0 metres, may:
 - i. be obstructed on one or two sides in accordance with Regulation 200.5.1.10(2); and
 - ii. must have the following minimum dimensions:
 - a. Length -5.6 metres;
 - b. Width -2.6 metres; and
 - c. Vertical clearance 2.0 metres;
- K. Despite (J) above, up to ten (10) percent of the **parking spaces** provided for residents may have the following minimum dimensions:
 - i. Length -5.0 metres;
 - ii. Width -2.4 metres; and
 - iii. Vertical clearance: 1.84 metres;
- L. A minimum of 37 percent of the total **dwelling units** on the **lot** must contain two bedroom in accordance with Schedule A of By-law 1548-2019(LPAT); and
- M. A minimum of 10 percent of the total number of **dwelling units** on the **lot** must contain three or more bedrooms in accordance with Schedule A of By-law 1548-2019(LPAT);

Prevailing By-laws and Prevailing Sections: (None apply)

- **9.** Section 37 Provisions
 - A. Pursuant to Section 37 of the Planning Act, and subject to compliance with this By-law, the increase in height and density of the development is permitted beyond that otherwise permitted on the lands shown on Diagrams 4 and 5 in return for the provision by the owner, at the owner's expense of the facilities, services and matters set out in Schedule A hereof and which are secured by one or more agreements pursuant to Section 37(3) of the Planning Act that are in a form and registered on title to the lands, to the satisfaction of the City Solicitor;
 - B. Where Schedule A of this By-law requires the owner to provide certain facilities, services or matters prior to the issuance of a building permit, the issuance of such permit shall be dependent on satisfaction of the same; and

C. The owner shall not use, or permit the use of, a building or structure erected with an increase in height and density pursuant to this By-law unless all provisions of Schedule A are satisfied.

Local Planning Appeal Decision issued February 8, 2019 and Local Planning Appeal Tribunal Order issued on October 10, 2019 in File PL140705.

SCHEDULE A Section 37 Provisions

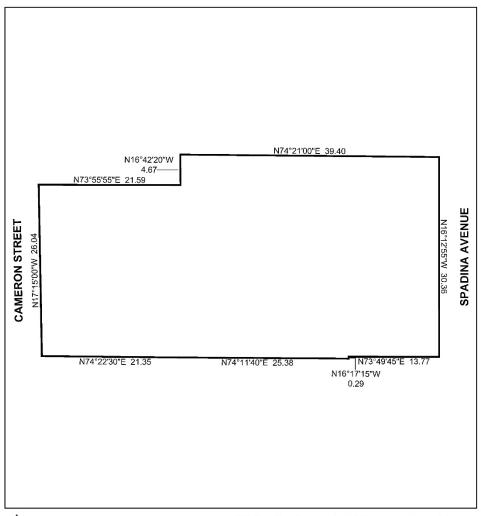
The facilities, services and matters set out below are required to be provided to the City at the owner's expense in return for the increase in height and density of the proposed development on the lands as shown in Diagrams 4 and 5 in this By-law and secured in an agreement or agreements under Section 37(3) of the Planning Act whereby the owner agrees as follows:

- 1. Prior to issuance of the first above-grade building permit for a building on the **lot**, the owner shall make a cash contribution in the amount of five hundred and seventy five thousand dollars (\$575,000.00), indexed upwardly in accordance with the Statistics Canada Non-Residential Construction Price Index for Toronto for the period from the date of the execution of the Section 37 Agreement to the date of payment, to be used toward the provision of affordable rental housing within Ward 10, in the vicinity of the site, to the satisfaction of the Chief Planner and Executive Director, City Planning, in consultation with the Ward Councillor.
- 2. In the event the financial contribution referred to in Section 1 of this Schedule has not been used for the intended purpose within five (5) years of this By-law coming into full force and effect, the financial contribution may be redirected for another purpose, at the discretion of the Chief Planner and Executive Director, City Planning, in consultation with the Ward Councillor, provided that the purpose(s) is/are identified in the Toronto Official Plan and will benefit the community in the vicinity of the **lot**.
- 3. Prior to the issuance of the first above-grade building permit, the owner shall submit a Wind Study to the satisfaction of the Chief Planner and Executive Director, City Planning that will identify recommendations for the pedestrian realm and the outdoor areas of the podiums to mitigate wind impacts year-round. The owner shall implement and maintain any recommendations from such Wind Study to the satisfaction of the Chief Planner and Executive Director, City Planning.
- 4. The Owner shall submit a revised Functional Servicing Report to the City for review and acceptance by the Chief Engineer & Executive Director, Engineering & Construction Services, prior to the issuance of a Building Permit. The owner shall design and construct the required improvements to municipal infrastructure as identified in the revised Functional Servicing and Stormwater Management Report to the satisfaction of the Chief Engineer & Executive Director, Engineering & Construction Services.
- 5. Prior to the issuance of a permit for excavation and shoring work, the owner shall submit a Construction Management Plan, to the satisfaction of the Chief Planner and Executive Director, City Planning, the General Manager, Transportation Services, and the Chief Building Official, in consultation with the Ward Councillor, and thereafter will implement the plan during the course of construction. The Construction Management Plan shall include the size and location of construction staging areas, dates of significant concrete pouring, lighting details, construction vehicle parking and queuing locations, refuse storage, site security, site supervisor contact information, a communication strategy with the surrounding community, and any other matters requested by the

Chief Planner and Executive Director, City Planning, the General Manager, Transportation Services, in consultation with the Ward Councillor.

- 6. The owner shall provide and maintain ten (10) replacement rental **dwelling units** on the **lot**, comprised of eight one-bedroom and two three-bedroom rental **dwelling units**, for a period of at least twenty (20) years, beginning from the date that each such replacement rental dwelling unit is first occupied, as generally illustrated in the plans provided to the City Planning dated April 2, 2018 and in accordance with the following terms:
 - a. the two three-bedroom replacement rental **dwelling units** shall have unrestricted rents;
 - b. the owner shall provide and maintain at least four one-bedroom replacement rental **dwelling units** at affordable rents and four one-bedroom replacement rental **dwelling units** at mid-range rents, for a period of at least ten (10) years, beginning from the date that each such replacement rental **dwelling unit** is first occupied;
 - c. the owner shall provide and maintain ensuite laundry facilities in each replacement rental **dwelling unit**;
 - d. the owner shall provide tenants of the replacement rental **dwelling units** with access to all indoor and outdoor amenities on the **lot** and access and use of these amenities shall be on the same terms and conditions as any resident of the non-replacement **dwelling units**; and
 - e. the owner shall provide a minimum of two (2) vehicle **parking spaces** to tenants of the replacement rental **dwelling units**.
- 7. The owner shall provide and maintain on the **lot**, a minimum of:
 - a. 10 percent of the total number of residential units on the **lot** as three-bedroom dwelling units; and
 - b. 37 percent of the total number of residential units on the **lot** as two-bedroom dwelling units.

All to the satisfaction of the Chief Planner and Executive Director, City Planning.

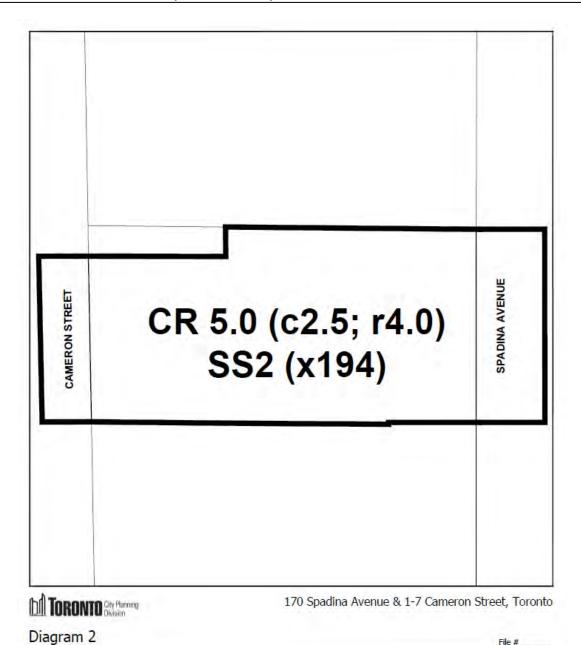




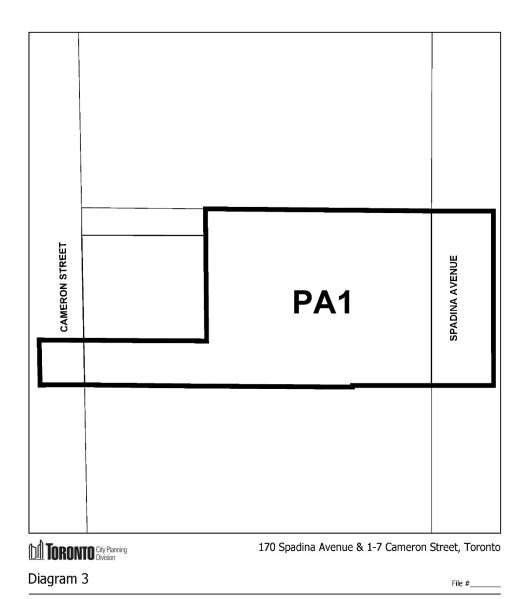
170 Spadina Avenue & 1-7 Cameron Street, Toronto

Diagram 1 File #___

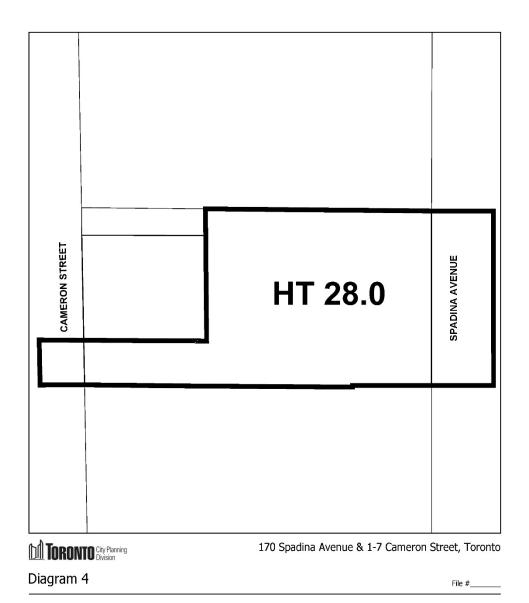




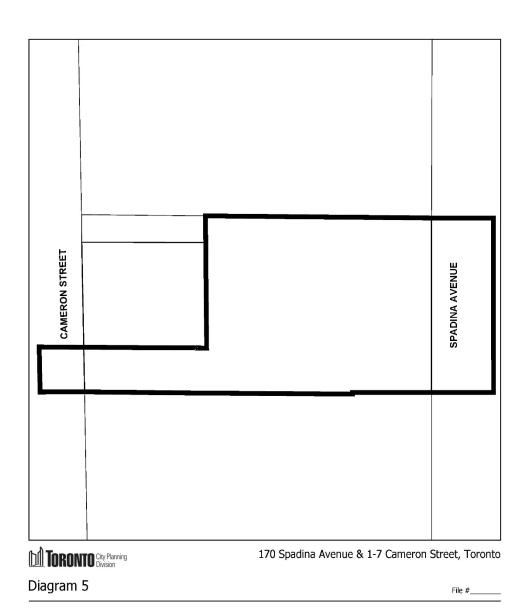




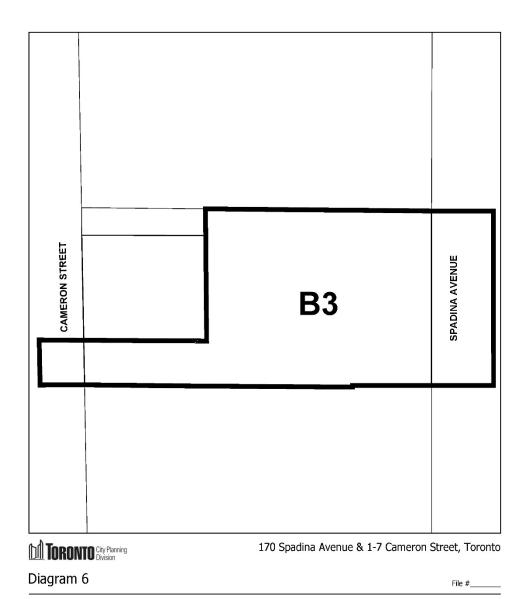




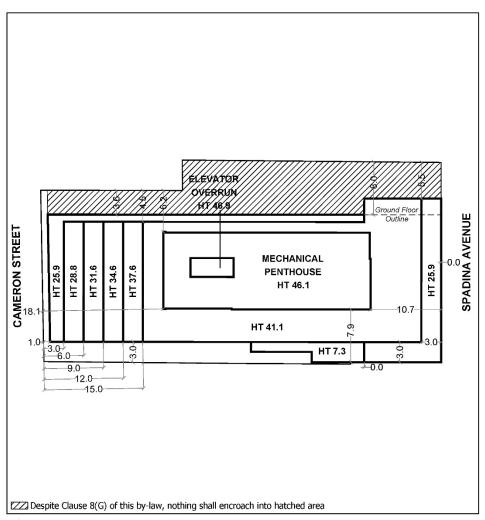














170 Spadina Avenue & 1-7 Cameron Street, Toronto

Diagram 7

File #____





nextrans.ca

Transportation Impact Study Addendum

PROPOSED RESIDENTIAL DEVELOPMENT

15-23 Toryork Drive TORONTO, ONTARIO

March 2023

Project No: NT-20-121

520 Industrial Parkway South, Suite 201 Aurora ON L4G 6W8

Phone: 905-503-2563 www.nextrans.ca



March 6, 2023

Attention: Josh Marlowe

Berkshire Axis Development 75 Scarsdale Road, Suite 201 Toronto, ON M3B 2R2

Re: Transportation Impact Study Addendum

Proposed Residential Development 15-23 Toryork Drive, City of Toronto

Our Project No. NT-20-121

Nextrans Consulting Engineers (a Division of NextEng Consulting Group Inc.) is pleased to present the enclosed Transportation Impact Study Addendum for the above noted site in support of Official Plan Amendment and Zoning By-law Amendment applications. Nextrans has provided a comprehensive Transportation Impact Study dated August 2021 to support the previous development proposal. The purposes of this Addendum Study are to address the City's comments on the previous study and to assess the latest development proposal and site plan statistics.

The subject site is located at 15-23 Toryork Drive, west of Weston Road and south of Toryork Drive, in the City of Toronto. The proposed development is also located adjacent to the future Finch West LRT Station. The proposed development consists of four high-rise towers in three development blocks, with a total of 1,275 residential dwelling units and approximately 1,024 m² of ground related retail gross floor area. The proposed development will provide a total of 968 bicycle parking spaces and some 819 vehicle parking spaces. As part of the proposed development, a north-south and an east-west public roads will be constructed, and the proposed site accesses will be provided via these proposed public roads to service the proposed development.

The Addendum Study concludes that the proposed development can adequately be accommodated by the existing transportation network, excellent TTC Service including Line 1 Yonge-University Subway (at Finch and Keele), existing TTC Bus Routes and future Finch West Light Rail Transit (LRT), as well as the Transportation Demand Management measures and incentives recommended in this report.

We trust the enclosed sufficiently addresses your needs. Should you have any questions, please do not hesitate to contact the undersigned.

Yours truly,

Nextrans Consulting Engineers

A Division of NextEng Consulting Group Inc.

Prepared by:

Sam Nguyen, Dipl.

Transportation Analyst

Approved by:

Richard Pernicky, MITE

Principal

Reviewed and Approved by:

Richard Pernicky, MITE

Principal

Report Submission Record

| Identification | Date | Description of issued and/or revision |
|----------------|---------------|---------------------------------------|
| Final Report | March 6, 2023 | For Final Submission |
| | | |

EXECUTIVE SUMMARY

Nextrans Consulting Engineers (A Division of NextEng Consulting Group Inc.) was retained by Berkshire Axis Development (the 'Client') to undertake a Transportation Impact Study Addendum in support of Official Plan Amendment and Zoning By-law Amendment applications. The subject site is located at 15-23 Toryork Drive, west of Weston Road and south of Toryork Drive, in the City of Toronto. The proposed development is also located adjacent to the future Finch West LRT.

Nextrans has provided a comprehensive Transportation Impact Study dated August 2021 to support the previous development proposal. The purposes of this Addendum Study are to address the City's comments on the previous study and to provide an assessment the latest development proposal and site plan statistics.

Proposed Development

The existing site consists of two vacant commercial buildings, which will be demolished for future redevelopment of the site. The proposed development consists of four high-rise towers in three development blocks, with a total of 1,275 residential dwelling units and approximately 1,024 m² of ground related retail gross floor area. The followings are the detailed breakdown of the proposed development:

- Tower A 393 dwelling units (Block 1) and 598 m² retail GFA
- Towers B and C 601 dwelling units (Block 2) and 426 m² of retail GFA
- Tower D 281 dwelling units (Block 3)
- Total Development 1,275 dwelling units and 1,024 m² of retail GFA

Proposed Development Access

Currently, the subject site has six direct full moves access onto Toryork Drive. As part of the proposed redevelopment of site, a north-south to east-west public road (Street 1) will be constructed by the proposed development and Future Road 2A will be constructed by the City of Toronto. The two proposed site accesses for Block 1 and Block 2 will be provided via these proposed public roads, with Block 3 access will be provided onto Future Road 2A. The proposed road network is consistent with the Emery Village Secondary Plan Structure Plan.

It is Nextrans' understanding that the City of Toronto is in the process of initiating the work for Road 2A. The anticipated completion of this Road 2A is 2025. This timeline coincides with the completion of the proposed development. As an option, if Road 2A is not completed at the same time as the proposed development, the first portion of Road 2A from Toryork Drive to the southerly limit of the proposed development can be construction in the interim to accommodate the proposed development. The remaining segment from the proposed development to Finch Avenue W can be constructed shortly after. However, for the purposes of this assessment, it is assumed that Road 2A will be completed at the same time or very close to the anticipated development completion.

The analysis indicates that the site accesses are expected to operate at acceptable levels of service with minimum delay or queue. The configuration includes:

Toryork Drive/Future Road 2A

- One shared eastbound through/right lane
- One shared westbound through/left lane;
- One southbound lane and one northbound lane with shared northbound left/right lane at the intersection; and
- Stop-controlled on Future Road 2A and free-flow on Toryork Drive

Toryork Drive/Proposed Street 1

- One shared eastbound through/right lane
- One shared westbound through/left lane;
- One southbound lane and one northbound lane with shared northbound left/right lane at the intersection; and
- Stop-controlled on Street 1 and free-flow on Toryork Drive

Future Road 2A/Proposed Street 1

- One shared northbound through/right lane
- One shared southbound through/left lane;
- One eastbound lane and one westbound lane with shared westbound left/right lane at the intersection; and
- Stop-controlled on Street 1 and free-flow on Future Road 2A

Future Road 2A/Proposed Block 3 Access

- One shared northbound through/right lane
- One shared southbound through/left lane;
- One eastbound lane and one westbound lane with shared westbound left/right lane at the intersection; and
- Stop-controlled on Block 3 Access and free-flow on Future Road 2A

Capacity Analysis

The proposed development is expected to generate:

- 278 total two-way auto trips (44 inbound and 234 outbound) and 285 total two-way auto trips (186 inbound and 99 outbound) during the AM and PM peak hours, respectively; and
- If a 20% modal split (non-auto) is applied, the proposed development is expected to generate 56 total two-way non-auto trips (9 inbound and 47 outbound) and 57 total two-way non-auto trips (37 inbound and 20 outbound) during the AM and PM peak hours, respectively.

Auto Mode Assessment

Under the existing, all the intersections considered are expected to operate at acceptable levels of service, with the exception of the westbound left turn at the Weston Road/Toryork Drive/Private Access intersection. However, this critical movement can be addressed by simple signal timing optimization, such as adding an advance green phase to this movement.

Under the 2026 future background and future total traffic conditions, with the Finch West LRT and Future Road 2A, all the intersections considered are expected to operate at acceptable levels of service, with the exception of the through movements during the afternoon peak hours at the Finch Avenue W/Weston Road intersection. It should be noted that the proposed development will only add approximately 1 second to the through movement at this intersection.

This is due to the fact that the signal will be prioritize for the future Finch West LRT and U-turn movements (fully protected phase) and the elimination of the existing third shared through/lane at the Finch Avenue W/Weston Road intersection.

Nextrans has conducted a sensitivity analysis with an anticipated 20% reduction of the car trips along the Finch Avenue W corridor with the completion of the Finch West LRT by 2023, which is well within the 2026 horizon year assessment. The analysis indicates that the intersection of Finch Avenue W/Weston Road is expected to operate at acceptable levels

of service with all v/c ratio for critical movements are below 1.0. This confirms that the lane configurations for this intersection is appropriate.

Therefore, the proposed lane configurations for the Finch Avenue W/Weston Road, Finch Avenue W/Future Road 2A and Toryork Drive/Future Road 2A intersections are acceptable and appropriate.

The analysis indicates that advance green arrows in the east-west direction will be required for the Toryork Drive/Weston Road intersection.

The analysis indicates that the site accesses are expected to operate at acceptable levels of service with minimum delay or queue.

Active Transportation Mode Assessment

Walking

The area is currently well-serviced by a sufficient network of sidewalks, with sidewalks are available on both sides of Toryork Drive, Finch Avenue W and Weston Road. The sidewalks are reasonably maintained. However, from operational and safety perspective, the frequency of accesses on Finch Avenue W, Weston Road and Toryork Drive can be reduced to provide better pedestrian experience by reducing the numbers of potential car turning that will interfere with pedestrians.

It Nextrans' understanding that some of the guiding principles and objectives of the Emery Village Secondary Plan include: a connected, attractive, safe and comfortable system of pedestrian bicycle routes. These guiding principles will help guide the developments in the area to meet and implement some of these requirements within the control of the developments.

As part of the proposed development, sidewalks will be provided along proposed public Street 1 to connect the proposed development with the existing sidewalks on Toryork Drive and Future Road 2A. Sidewalk will be also provided along the proposed Block 3 access. Direct pedestrian connections from the proposed building onto public streets will be provided, where appropriate, to facilitate pedestrian movements.

The proposed development will also provide and enhance sidewalk on the south side of Toryork Drive between Future Road 2A and Weston Road to improve pedestrian connections in this area.

Cycling

Under the existing conditions, dedicated bicycle lanes are not currently available in the immediate area. However, there are existing multi-use trails along Rowntree Mills Park, Humber River and Emery Creek. Through the guiding principles and recommendations of the Emery Village Secondary Plan, the cycling network in the area will improve significantly through the implementation of the land uses in the area, as well as major capital projects by the City of Toronto and Metrolinx.

It is Nextrans understanding that cycle facility will be provided on both sides of Finch Avenue W west of Weston Road, however, only multiuse boulevard trail will be provided on the south side of Finch Avenue W east of Weston Road to Northfinch Drive.

As per the City of Toronto cycling network plan (illustrated in **Figure 10** of this Study), the multiuse boulevard trail will continue on Weston Road south of Finch Avenue W to connect with the existing trails west of Weston Road.

The analysis indicates that the future cycling network proposed in the area is sufficient to accommodate the Emery Village Secondary Plan and new developments in the area. As part of the proposed development, Nextrans recommends the following:

- The proposed development provides a total of 968 bicycle parking spaces; and
- The proposed development provides three bicycle repair stations (one for each block)

Figure 24 of this Addendum Study illustrates the potential bicycle repair station on site. The final locations will be addressed as part of the site plan application, where appropriate.

Transit Mode Assessment

As indicated, if a 20% modal split (non-auto) is applied, the proposed development is expected to generate 56 total two-way non-auto trips (9 inbound and 47 outbound) and 57 total two-way non-auto trips (37 inbound and 20 outbound) during the AM and PM peak hours, respectively.

The proposed development is located adjacent to TTC Bus Routes 36 Finch West (A, B, D and F), 165 Weston Road North and 989 Weston Express to Steeles bus stops located in the vicinity of the Finch Avenue West/Weston Road intersection. The proposed development is located adjacent to Emery LRT Station (Finch West LRT), which is scheduled to be completed by 2023. The proposed development is also located approximately 4.3 km from the existing Finch West Subway Station on Line 1 Yonge-University. Once the Finch West LRT is opened, it will take approximately 10 minutes from the proposed development to the Finch West Station.

The analysis indicates that the transit passenger demands generated by the proposed development per transit vehicle can be accommodated by the future Finch West LRT (with maximum of 40 passengers per 10 transit vehicle or 4 passengers per vehicle). No improvements are required beyond what have been proposed for the area.

Vehicle Parking Review

Based on the current Zoning By-law requirements, the *maximum allowable vehicle parking* for the proposed development is 1,302 vehicle parking spaces (including resident, visitor and retail). This is a significant amount of vehicle parking supply and it is not sustainable nor supportive of the sustainable visions and objectives in the City's Official Plan.

Based on comprehensive parking justifications provided in this Addendum Study, the proposed development will provide a total of 819 vehicle parking spaces. This is about 37% reduction from the maximum allowable vehicle parking spaces for this proposed development. Given that the existing transit modal split based on 2016 TTS data is already at 41% during the morning peak periods and 32% during the afternoon peak periods, the proposed reduction is justified on this basis alone.

It should be noted that the surplus parking spaces, if any, can be used for carshare spaces or additional bicycle parking spaces, if appropriate.

Bicycle Parking Review

The proposed development will require a total of 968 bicycle parking spaces, including 98 short-term spaces and 870 long-term spaces. The proposed development provides a minimum of 968 bicycle parking spaces, inclusive of short-term and long-term spaces, which meets the Zoning By-law requirements.

<u>Transportation Demand Management Measures and Incentives</u>

The TDM measures and incentives related to the proposed development have been assessed and recommended in Section 11 of this report to support active transportation and transit, to meet the objectives and requirements of the City of Toronto's transportation policies and Emery Village Secondary Plan community plan objectives and principles.

Toronto Green Standards

Based on Nextrans' review of the Toronto Green Standard V4 2022, it is required that the proposed development provides:

- 1. Tier 1 AQ 1.1 Single-Occupant Vehicle (SOV) Trips
 - Reduce single occupancy auto vehicle trips generated by the proposed development by 25% through a variety of multimodal infrastructure strategies and Transportation Demand Management (TDM) measures

This requirement has been addressed through various recommended measures in this Study, which include but not limited to:

- Reduced vehicle parking requirement by 37%
- Unbundled parking from unit sale target 5% SOV reduction
- Provide pedestrian/cycling friendly infrastructures such as direct pedestrian connections target 5% SOV reduction
- Provide enhanced lighting/security and sidewalk experience along the frontage of the site on proposed Street
 1, Future Road 2A, Toryork Drive and Weston Road target 5% SOV reduction
- Provide three bicycle repair stations target 5% SOV reduction
- Provide three carshare parking spaces target 5% SOV reduction

Based on the assessment provided above, the City's Green Standard requirements have been addressed through various measures provided in this Study with a minimum of 25% to a maximum of 62% single-occupant-vehicle trip reduction.

The proposed development will also provide energized outlets for every resident parking spaces. In addition, a minimum of 15% of the bicycle parking spaces will be provided with energized outlet, based on the TGS requirement.

Loading Requirement

Under the City's By-Law 569-2013, 3 Type "G" loading spaces (13 m Length, 4.0 m Width and 6.1 m Vertical), one Type "B" loading space (11 m Length, 3.5 m Width and 4.0 m Vertical) and one Type "C" loading space (6 m Length, 3.5 m Width and 3 m Vertical) are required for the proposed development. It is Nextrans' understanding the City of Toronto current Zoning By-law allows shared loading space for proposed uses that are located within the same building. Given that the proposed residential and commercial are located within the same building, one Type "G" loading space is required for each Block as loading Type "G" is largest type of loading space.

Based on this assessment, Nextrans recommends that the proposed development only requires to provide one Type "G" loading space for each Block. The vehicle turning templates (AutoTURN software) has been provided to demonstrate the accessibility for the types of vehicles that will access the site.

Study Conclusions and Recommendations

Based on the assessment outlined in this Study, the following recommendations are provided:

- The proposed development implements the TDM measures and incentives identified in this report to support
 active transportation and transit and to reduce the numbers of single-occupant-vehicle trips to and from the
 proposed development;
- The proposed development implements the recommended vehicle parking rates provided in this Study, to support alternative modes of transportation;
- The proposed development provides three carshare parking spaces:
- The proposed development provides three bicycle repair stations on-site at convenient locations;
- Provide direct shared pedestrian and cycling connections from the proposed development to Weston Road, Toryork Drive, Future Road 2A and proposed public streets, where appropriate. For example, provide the main building entrances directly to the streets;
- No additional physical improvements for the area road network and intersection at this time under the future background and future total conditions other than the street network identified in the Emery Village Secondary

Plan and improvements at the Finch West Avenue/Weston Road, Finch Avenue W/Future Road 2A and Toryork Drive/Future Road 2A intersections:

- The City considers adding advance green arrow phases for the east-west direction at the Toryork Drive/Weston Road intersection; and
- The recommended lane configurations and traffic control types for the proposed site accesses and intersections include:

Toryork Drive/Proposed Street A

- o One shared eastbound through/right lane
- One shared westbound through/left lane; and
- o One southbound lane and one northbound lane with shared northbound left/right lane at the intersection
- Stop controlled on the proposed Street A

Future Road 2A/Proposed Street B

- o One shared northbound through/right lane
- One shared southbound through/left lane; and
- One eastbound lane and one westbound lane with shared westbound left/right lane at the intersection
- Stop controlled on the proposed Street B

Future Road 2A/Proposed Block 3 Access

- One shared northbound through/right lane
- One shared southbound through/left lane; and
- One eastbound lane and one westbound lane with shared westbound left/right lane at the intersection
- Stop controlled on the proposed Block 3 site access

TABLE OF CONTENTS

| 1.0 | INTRODUCTION | 1 |
|-----|--|----|
| 2.0 | EXISTING TRAFFIC CONDITIONS | 3 |
| | 2.1. Existing Road Network | 3 |
| | 2.2. Existing Active Transportation Network Assessment | 4 |
| | 2.3. Existing Toronto Transit Commission (TTC) System | 4 |
| | 2.3. Existing Transit Assessment | 6 |
| | 2.4. Existing Traffic Volumes | 6 |
| | 2.5. Existing Traffic Assessment | 6 |
| 3.0 | TRANSPORTATION PLANNING CONTEXT IN THE AREA | 8 |
| | 3.1. Emery Village Secondary Plan | 8 |
| | 3.2. Humbermede Neighbourhood Improvement | 10 |
| | 3.3. Land Use Context | 10 |
| | 3.4. Transportation Planning Context | 11 |
| | 3.4.1. Transit | 11 |
| | 3.4.2. Future Finch West LRT | 11 |
| | 3.4.3. Active Transportation | 11 |
| | 3.4.4. Emery Village Road 2A Municipal Class EA Study | 13 |
| | 3.4.5. Future and Assumed Lane Configurations Along Finch Avenue W | 14 |
| 4.0 | FUTURE BACKGROUND CONDITIONS | 15 |
| | 4.1. Analysis Horizon | 15 |
| | 4.2. Future Background Corridor Growth | 15 |
| | 4.3. Future Traffic Diversion Due to Road 2A and Finch West LRT | 16 |
| | 4.4. Background Development Applications | 17 |
| | 4.5. Future Background Traffic Assessment | 19 |
| 5.0 | SITE TRAFFIC | 21 |
| | 5.1. Proposed Development | 21 |
| | 5.2. Modes of Travel Assessment in the Area | 21 |
| | 5.3. Site Trip Generation | 22 |
| | 5.4. Site Trip Distribution and Assignment | 23 |
| 6.0 | FUTURE TOTAL TRAFFIC CONDITIONS | 24 |
| | 6.1. Future Total Traffic Assessment for Auto Mode | 24 |
| | 6.2. Active Transportation Assessment | 29 |
| | 6.3. Transit Mode Assessment | 31 |
| 7.0 | SITE PLAN REVIEW | 31 |
| | 7.1. Loading Requirement | 31 |

| | 7.2. Proposed Site Access | 32 |
|------|--|-----------|
| 8.0 | PARKING ASSESSMENT | 33 |
| | 8.1. Vehicle Parking Requirement | 33 |
| | 8.1.1. Recommended Parking Rates for the Proposed Development | 34 |
| 9.0 | VEHICLE PARKING JUSTIFICATION | 35 |
| | 9.1.1. Development Proposal Context | 35 |
| | 9.2. Subject Site Walk Score | 36 |
| | 9.3. City of Toronto Amended Zoning By-law No Minimum Parking Requirement | 36 |
| | 9.4. Housing Crisis and Affordability | 36 |
| | 9.5. Covid-19 Pandemic and Working from Home | 37 |
| | 9.6. A Reduction to the Minimum Vehicle Parking Requirements Will Help Supporting Local Businesses | |
| | 9.7. A Reduction to the Minimum Vehicle Parking Requirements has a Number of General B | enefits37 |
| | 9.7.1. City of Toronto Official Plan (2019) | 38 |
| | 9.7.2. Existing Mode Share | 38 |
| | 9.7.3. Household Demographic and Car Ownership | 38 |
| | 9.7.4. TTC Service | 39 |
| | 9.7.5. Transportation Demand Management Measures | 39 |
| 10.0 | BICYCLE PARKING ASSESSMENT | 39 |
| 11.0 | TRANSPORTATION DEMAND MANAGEMENT AND TGS | 40 |
| | 11.1. TDM Opportunities and Directions | 40 |
| | 11.2. Recommended TDM Measures and Incentives for the Proposed Development | 41 |
| | 11.3. Toronto Green Standard | 41 |
| 12.0 | CONCLUSIONS / FINDINGS | 42 |
| | 12.1. Study Conclusions | 42 |
| | 12.2 Study Recommendations | 41 |

LIST OF FIGURES

- Figure 1 Proposed Development Location
- Figure 2 Proposed Concept Site Plan
- Figure 3 Existing Lane Configuration and Traffic Control
- Figure 4 Existing Active Transportation Network in the Study Area
- Figure 5 Existing Transit Network in the Study Area
- Figure 6 Existing Traffic Volumes
- Figure 7 Emery Secondary Plan Structure Plan
- Figure 8 Neighbourhood Improvement Areas
- Figure 9 Future Finch West LRT Project Map
- Figure 10 Cycling Network Plan
- Figure 11 Recommended Plan and Cross-Section for Road 2A
- Figure 12 Preferred Lane Configurations and Intersection Control
- Figure 13 2026 Future Lane Configurations and Intersection Control Devices
- Figure 14 Traffic Growth Analysis for Finch Avenue W and Weston Road
- Figure 15 2026 Background Through Growth Traffic Volumes
- Figure 16 Future Traffic Diversion Due to Road 2A and Finch West LRT
- Figure 17 Background Development Traffic Volumes
- Figure 18 2026 Future Background Traffic Volumes
- Figure 19 Site Traffic Volumes
- Figure 20 2026 Future Total Traffic Volumes
- Figure 21 Finch Avenue W/Weston Road Intersection Proposed Signal Timing Plan
- Figure 22 Weston Road/Toryork Drive Proposed Signal Timing Plan
- Figure 23 Finch Avenue W/Future Road 2A Intersection Proposed Signal Timing Plan
- Figure 24 Potential Bicycle Repair Station
- Figure 25 Proposed Traffic Control and Pavement Marking
- Figure 26 AutoTURN Analysis (Garbage Trucks)
- Figure 27 AutoTURN Analysis (Passenger Vehicles)

LIST OF TABLES

- Table 1 Walk Score for 23 Toryork Drive
- Table 2 Existing Transit Ridership for existing Finch West Subway Station/Line 1 Yonge-University
- Table 3 Existing Transit Ridership for existing TTC Service (Bus Routes)
- Table 4 Existing Levels of Service
- Table 5 Background Developments in the Area
- Table 6 2026 Future Background Levels of Service
- Table 7 Modes of Travel based on 2016 TTS Data for Traffic Zones
- Table 8 Trip Generation Rates Comparison
- Table 9 Site Trip Generation
- Table 10 Site Trip Distribution
- Table 11 Site Trip Assignment
- Table 12 2026 Future Total Levels of Service for Signalized Intersections
- Table 13 2026 Future Total Levels of Service for Unsignalized Intersections
- Table 14 Future Transit Passenger Demand from the Proposed Development
- Table 15 City of Toronto Zoning By-law No. 569-2013 Loading Requirements
- Table 16 Maximum Allowable Vehicle Parking Requirements
- Table 17 Recommended Blended Parking Rates for the Proposed Development
- Table 18 Walk Score for 23 Toryork Drive
- Table 19 Modes of Travel based on 2016 TTS Data for Traffic Zones
- Table 20 Vehicle Ownership for Ward 8 Based on 2016 TTS Data
- Table 21 City of Toronto Zoning By-law No. 569-2013 (Zone 2) Bicycle Parking Requirements

APPENDICES

- Appendix A Existing Traffic Data
- Appendix B Existing Traffic Level of Service Calculations
- Appendix C Background Development Traffic Volumes
- Appendix D Future Background Traffic Level of Service Calculations
- Appendix E 2016 TTS Data Analysis
- Appendix F Trip Generation Rate Calculations
- Appendix G Future Total Traffic Level of Service Calculations



1.0 INTRODUCTION

Nextrans Consulting Engineers (A Division of NextEng Consulting Group Inc.) was retained by Berkshire Axis Development (the 'Client') to undertake a Transportation Impact Study Addendum in support of Official Plan Amendment and Zoning By-law Amendment applications. The subject site is located at 15-23 Toryork Drive, west of Weston Road and south of Toryork Drive, in the City of Toronto. The proposed development is also located adjacent to the future Finch West LRT.

Nextrans has provided a comprehensive Transportation Impact Study dated August 2021 to support the previous development proposal. The purposes of this Addendum Study are to address the City's comments on the previous study and to provide an assessment the latest development proposal and site plan statistics.

The location of the proposed development is illustrated in Figure 1.

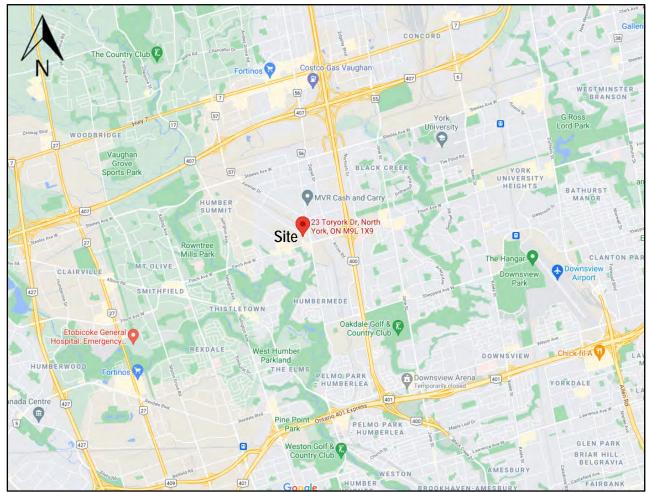


Figure 1 – Proposed Development Location

Source: Google Map

The existing site consists of two vacant commercial buildings, which will be demolished for future redevelopment of the site. The proposed development consists of four high-rise towers in three development blocks, with a total of 1,275 residential dwelling units and approximately 1,024 m^2 of ground related retail gross floor area. The followings are the detailed breakdown of the proposed development:



- Tower A 393 dwelling units (Block 1) and 598 m² retail GFA
- Towers B and C 601 dwelling units (Block 2) and 426 m² of retail GFA
- Tower D 281 dwelling units (Block 3)
- Total Development 1,275 dwelling units and 1,024 m² of retail GFA

The proposed development will provide a total of 968 bicycle parking spaces and some 819 vehicle parking spaces. Figure 2 illustrates the proposed development site plan.

Currently, the subject site has six direct full moves access onto Toryork Drive. As part of the proposed redevelopment of site, a north-south to east-west public road (Street A and Street B) will be constructed by the proposed development and Future Road 2A will be constructed by the City of Toronto. The two proposed site accesses for Block 1 and Block 2will be provided via these proposed public roads, with Block 3 access will be provided onto Future Road 2A. The proposed road network is consistent with the Emery Village Secondary Plan Structure Plan.

It is Nextrans' understanding that the City of Toronto is in the process of initiating the work for Road 2A. The anticipated completion of this Road 2A is 2025. This timeline coincides with the completion of the proposed development. As an option, if Road 2A is not completed at the same time as the proposed development, the first portion of Road 2A from Toryork Drive to the southerly limit of the proposed development can be construction in the interim to accommodate the proposed development. The remaining segment from the proposed development to Finch Avenue W can be constructed shortly after. However, for the purposes of this assessment, it is assumed that Road 2A will be completed at the same time or very close to the anticipated development completion.

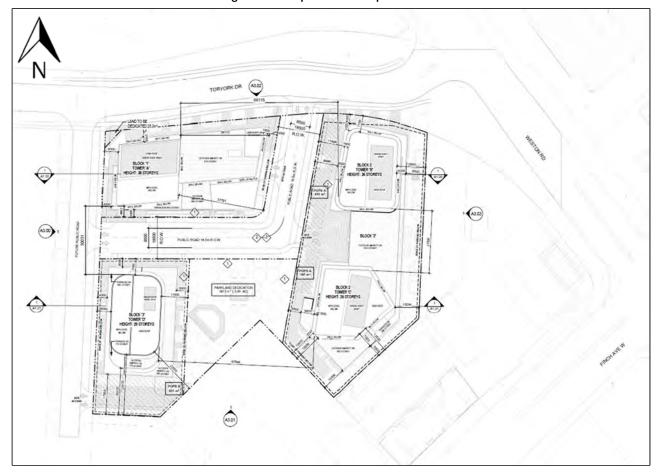


Figure 2 - Proposed Concept Site Plan



2.0 EXISTING TRAFFIC CONDITIONS

2.1. Existing Road Network

The existing road network, lane configuration and existing traffic control for the study area are shown in **Figure 3** (Existing Lane Configurations). The details area described below:

- Finch Avenue W: is an east-west major arterial as per the City of Toronto Road Classification System map. It generally has a six-lane cross-section at the intersection of Finch Avenue W and Weston Road, and maintains a posted speed limit of 50 km/h near the subject site.
- Weston Road: is a north-south major arterial road north as per the City of Toronto Road Classification System map. It has four general purpose lanes and maintains a posted speed limit of 50 km/h near the subject site.
- Toryork Drive: is an east-west collector road as per the City of Toronto Road Classification System map. It has two general purpose lanes. There is no posted speed sign along this road, therefore, it is assumed that it has a speed limit of 50 km/h.
- Fenmar Drive: is an east-west minor arterial road between Steeles Avenue and Weston Road, and is an east-west collector road east of Weston Road, as per the City of Toronto Road Classification System map. It generally has a two-lane cross-section both east and west of Weston Road. There is no posted speed sign along this road, therefore, it is assumed that it has a speed limit of 50 km/h.
- **Jayzel Drive**: is a north-south collector road as per the City of Toronto Road Classification System map. It has two general purpose lanes and a posted speed limit of 40 km/h.
- Rumike Road/Milvan Drive: is a north-south collector road as per the City of Toronto Road Classification System map. It has two general purpose lanes and a posted speed limit of 40 km/h.

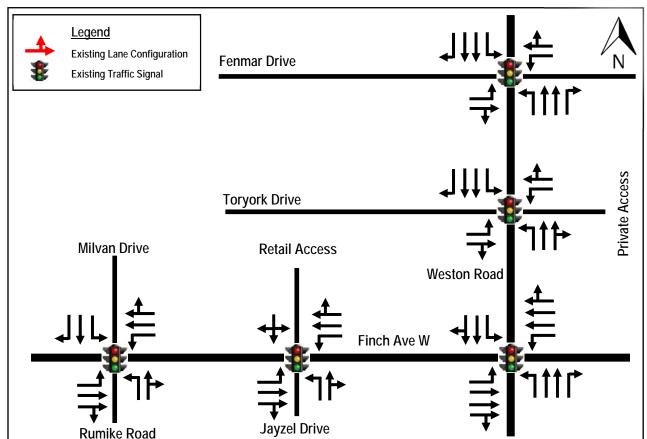


Figure 3 – Existing Lane Configuration and Traffic Control



2.2. Existing Active Transportation Network Assessment

Nextrans has conducted a comprehensive review of the existing active transportation network in the study area. **Figure 4** illustrates the existing active transportation network in the study area with a brief description of the network is provided below.

Walking

ModeScoreDescriptionWalking60Somewhat walkable – some errands can be accomplished on footPublic Transit68Good transit – many nearby public transportation optionsCycling53Bikeable – some bike infrastructure

Table 1 - Walk Score for 23 Toryork Drive

Based on the information outlined in the table above, the area currently has good walking and cycling options, as well as good transit options. However, this will change in the future with the completion of the Finch West LRT and MTSA. It is anticipated that these scores will be much higher in the future.

Cycling

Under the existing conditions, dedicated bicycle lanes are not currently available in the immediate area. However, there are existing multi-use trails along Rowntree Mills Park, Humber River and Emery Creek. Through the guiding principles and recommendations of the Emery Village Secondary Plan, the cycling network in the area will improve significantly through the implementation of the land uses in the area, as well as major capital projects by the City of Toronto and Metrolinx.

2.3. Existing Toronto Transit Commission (TTC) System

The proposed development is located adjacent to TTC Bus Routes 36 Finch West (A, B, D and F), 165 Weston Road North and 989 Weston Express to Steeles bus stops located in the vicinity of the Finch Avenue West/Weston Road intersection. The proposed development is located adjacent to Emery LRT Station (Finch West LRT), which is scheduled to be completed by 2023. The proposed development is also located approximately 4.3 km from the existing Finch West Subway Station on Line 1 Yonge-University. Once the Finch West LRT is opened, it will take approximately 10 minutes from the proposed development to the Finch West Station. The existing transit network in the area is illustrated in **Figure 5**. TTC Service descriptions are provided below:

- 36 Finch West The 36 Finch West bus route generally operates in the east-west direction, between Finch Station on Line 1 Yonge-University and the Humberwood Boulevard area. It also serves Finch West Station on Line 1 Yonge-University. The service frequency is approximately 3 minutes during the weekday AM and 5-6 minutes during the PM peak hours.
- 165 Weston Road North The 165 Weston Rd North bus route generally operates in the east-west direction between York Mills Station on Line 1 Yonge-University and the area of Weston Road and Steeles Avenue West. It also connects with Wilson Station Line 1 Yonge-University. The service frequency is approximately 5-6 minutes during the weekday AM and 7-8 minutes during the PM peak hours.



• The 989 Weston Express to Steeles - The 989 Weston Express bus route generally operates in a north-south direction between Keele Station on Line 2 Bloor-Danforth and the area of Weston Road and Steeles Avenue West. One single service is operated (6 AM to 9AM and 3 PM to 7 PM). The 989 (Keele Station-Steeles Express) branch operates during the peak periods, from Monday to Friday only. The service frequency is approximately 4-5 minutes during the weekday AM and 13-14 minutes during the PM peak hours.

WEST HUMBER

SILVERSTONE

SILVE

Figure 4 – Existing Active Transportation Network in the Study Area

Source: City of Toronto Cycling Map/Google Map



Figure 5 - Existing Transit Network in the Study Area

Source: TTC website (www.ttc.ca)



2.3. Existing Transit Assessment

A comprehensive review of the transit data provided by TTC (2018 ridership has been conducted for the existing conditions. **Table 2** summarizes the existing transit ridership for the TTC Finch West Subway Station/Line 1 Yonge/Spadina/University, with **Table 3** summarizes the TTC Bus Routes for the area (weekday peak periods).

Table 2 – Existing Transit Ridership for existing Finch West Subway Station/Line 1 Yonge-University

| Route | Route Stop | | PM (pass) | Train Capacity (pass/train) | Peak Hour Capacity (pass/hour) | |
|-------------------------|------------|-------|-----------|-----------------------------|--------------------------------|--|
| Line 1 Yonge-University | Finch West | 4,086 | 5,703 | 1,080 | ~ 36,000 | |

As indicated in the table above, there are existing residual capacities during the peak hour at the Finch West Subway Station for Line 1 Yonge-University Subway. As indicated in the table below, there is residual passenger capacity on TTC Bus Routes for the study area. With the future Finch West LRT, the capacity will be increased significantly as the residents can take shorter trip and shorter time to connects with other routes.

Table 3 – Existing Transit Ridership for existing TTC Service (Bus Routes)

| Route | Period | Stop | Ons | Offs | Accum. | Vehicles | Peak Hour capacity | Peak Period capacity |
|---------------------|--------|------|-----|------|--------|----------|--------------------|----------------------|
| 36 Finch West | AM | #32 | 38 | 37 | 630 | 20 | 1,540 | 4,620 |
| Eastbound | PM | #32 | 87 | 52 | 1,142 | 15 | 1,155 | 3,465 |
| 36 Finch West | AM | #40 | 56 | 103 | 486 | 20 | 1,540 | 4,620 |
| Westbound | PM | #40 | 110 | 211 | 1,065 | 15 | 1,155 | 3,465 |
| 165 Weston Rd North | AM | #16 | 61 | 19 | 64 | 10 | 550 | 1,650 |
| Northbound | PM | #16 | 152 | 68 | 250 | 8 | 440 | 1,320 |
| 165 Weston Rd North | AM | #56 | 39 | 61 | 159 | 10 | 550 | 1,650 |
| Southbound | PM | #56 | 23 | 56 | 52 | 8 | 440 | 1,320 |

Note:

Articulated bus capacity on Route 36 (77 passenger/bus)

Conventional bus on Route 165 (55 passengers/bus)

Number of buses are based on the TTC schedule (www.ttc.ca)

2.4. Existing Traffic Volumes

Existing traffic volumes at the study area intersections were undertaken by Spectrum on Thursday March 28, 2019 during the morning (7:00 a.m. to 10:00 a.m.) and afternoon (4:00 p.m. to 7:00 p.m.) peak periods for all intersections considered in the analysis. It should be noted that the intersections of Weston Road/Fenmar Drive, Finch Avenue W/Milvan Drive/Rumike Road and Finch Avenue W/Jayzel Drive were also included in the analysis, as per the City's request, based on the comments provided for the previous assessment. The signal timing plans for the signalized intersections were obtained from the City of Toronto and incorporated into the analysis. Some very minor adjustments may be made, where appropriate, but well within the allowable parameters of the SCOOT system. Turning movement counts are summarized in **Appendix A**. The existing volumes are illustrated in **Figure 6**.

2.5. Existing Traffic Assessment

The existing volumes in **Figure 6** were analyzed using Synchro Version 11 software. It should be noted that the printouts for signalized intersections are based on Synchro Lanes, Volumes and Timings so that queues and more detailed information are provided. The detailed results are provided in **Appendix B** and summarized in **Table 4**.

Based on the intersection capacity analysis, under the existing traffic conditions, all the intersections considered are currently operating at acceptable levels of service. The existing westbound left turn out of the existing industrial/commercial plaza located opposite Toryork Drive is currently operating at slightly higher v/c ratio during the afternoon peak hour due to high eastbound right turn volume from Toryork Drive. It is anticipated that with a minor signal timing optimization (i.e. allocated couple seconds of green time to the westbound, or an advance phase for this movement), it will improve this movement. For the purposes of this assessment, Nextrans has provided a potential advance phase for this movement, as summarized in **Table 4**. This potential signal timing modifications will be carried forward for the future horizon year, as this type of adjustment is the most cost effective and responsible way to spend tax payer monies.



Figure 6 – Existing Traffic Volumes

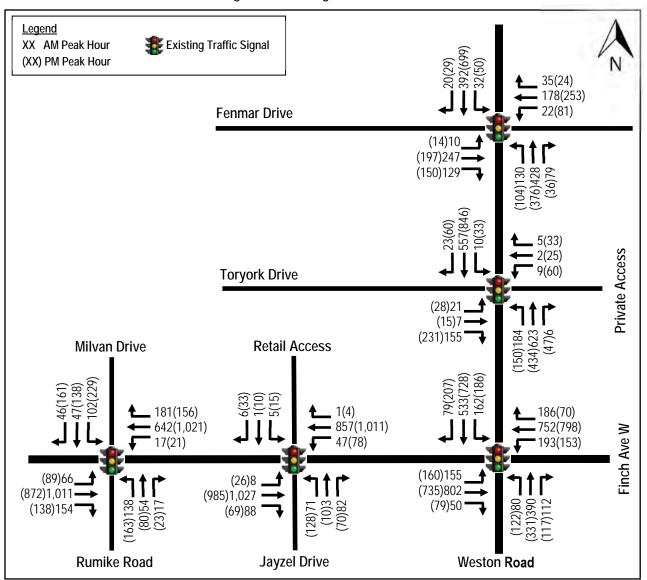


Table 4 – Existing Levels of Service

| | Kay | Week | day AM Peal | Hour | Week | day PM Peak | Hour | Available |
|-----------------|-----------------|-----------|-------------|-------------------------------|-----------|-------------|-------------------------------|-------------------|
| Intersection | Key Movement | LOS (v/c) | Delay (s) | Queue 95 th (m) | LOS (v/c) | Delay (s) | Queue 95 th (m) | Storage Length |
| | Overall | C (0.74) | 33 | | D (0.86) | 36 | | |
| | EB – L | B (0.45) | 18 | 33 | C (0.63) | 33 | 48 | ~75 |
| | EB – TR | C (0.46) | 28 | 80 | C (0.54) | 34 | 78 | ~550 |
| Finch Avenue W/ | WB – L | B (0.50) | 18 | 41 | C (0.56) | 29 | 40 | ~100 |
| Weston Road | WB – TR | C (0.50) | 26 | 85 | C (0.59) | 35 | 84 | ~580 |
| | NB – L | C (0.34) | 27 | 21 | C (0.62) | 31 | 27 | ~30 |
| (signalized) | NB – T | D (0.62) | 47 | 59 | C (0.34) | 31 | 46 | ~430 |
| | NB – R | A (0.31) | 5 | 8 | A (0.23) | 4 | 9 | ~100 |
| | SB – L | D (0.52) | 42 | 53 | C (0.41) | 24 | 52 | ~50 |
| | SB – TR | D (0.74) | 45 | 100 | D (0.86) | 50 | 146 | `150 |
| | Overall | C (0.89) | 25 | | C (0.82) | 26 | | |
| Weston Road/ | EB – L | C (0.05) | 32 | 6 | C (0.09) | 31 | 8 | ~30 |
| Fenmar Drive | EB – TR | E (0.89) | 63 | 138 | D (0.82) | 51 | 108 | ~150 |
| | WB – L | D (0.24) | 41 | 13 | F (0.79) | 83 | 44 | ~30 |
| (signalized) | WB – TR | D (0.53) | 41 | 69 | D (0.67) | 46 | 88 | ~160 |
| | NB – L | B (0.24) | 11 | 25 | B (0.32) | 15 | 29 | ~35 |



| r | | | _ | | | | | |
|----------------------|-------------------|----------|----------|----------|----------|-----|----------|------|
| | NB – T | A (0.21) | 9 | 31 | A (0.19) | 10 | 34 | ~450 |
| | NB – R | A (0.08) | 2 | 6 | A (0.04) | 3 | 5 | ~40 |
| | SB – L | A (0.07) | 9 | 7 | B (0.10) | 11 | 13 | ~85 |
| | SB – T | A (0.20) | 9 | 29 | B (0.35) | 11 | 67 | ~180 |
| | SB – R | A (0.02) | 2 | 2 | A (0.04) | 4 | 5 | ~35 |
| | Overall | A (0.60) | 7 | | B (1.06) | 17 | | |
| | EB – L | D (0.17) | 50 | 13 | D (0.18) | 43 | 15 | ~30 |
| | EB – TR | B (0.60) | 17 | 23 | B (0.61) | 13 | 27 | ~45 |
| Weston Road/ | WB – L | D (0.15) | 51 | 8 | F (1.06) | 185 | 40 | ~10 |
| | WB – TR | C (0.05) | 32 | 5 | C (0.23) | 23 | 17 | ~50 |
| Toryork Drive | NB – L | A (0.32) | 2 | 12 | A (0.38) | 11 | 33 | ~25 |
| (signalized) | NB – TR | A (0.26) | 2 | 4 | A (0.21) | 9 | 47 | ~145 |
| | SB – L | A (0.02) | 7 | 3 | B (0.07) | 11 | 10 | ~25 |
| | SB – T | A (0.28) | 8 | 43 | B (0.43) | 12 | 88 | ~475 |
| | SB – R | A (0.03) | 0 | 0 | A (0.08) | 3 | 6 | ~30 |
| | Overall | (0.00) | | - | B (0.69) | 16 | | |
| | EB – L | | | | D (0.24) | 51 | 16 | ~15 |
| | EB – TR | | | | B (0.69) | 17 | 29 | ~27 |
| Weston Road/ | WB – L | | | | D (0.42) | 55 | 24 | ~40 |
| Toryork Drive with a | WB – TR | Not | Not | Not | C (0.20) | 21 | 17 | ~17 |
| potential westbound | NB – L | required | required | required | B (0.39) | 14 | 36 | ~19 |
| left turn phase | NB – TR | required | required | required | B (0.22) | 13 | 50 50 | ~28 |
| (signalized) | SB – L | | | | B (0.22) | 12 | 10 | ~10 |
| | SB – T | | | | B (0.45) | 14 | 93 | ~88 |
| | SB – R | | | | A (0.08) | 1 | 2 | ~6 |
| | Overall | B (0.62) | 12 | | B (0.73) | 18 | | ~0 |
| | EB – L | A (0.24) | 9 | 14 | C (0.58) | 33 | 42 | 20 |
| | EB – L EB – TR | | 9 | 91 | | | | ~30 |
| Finale Assentes M/ | | A (0.56) | | | B (0.52) | 12 | 90 | ~250 |
| Finch Avenue W/ | WB – L | A (0.09) | 8 7 | 5 | B (0.09) | 12 | 7 | ~30 |
| Milvan Drive/ | WB – TR | A (0.41) | | 54 | B (0.61) | 14 | 114 | ~270 |
| Rumike Road | NB – L | D (0.62) | 44 | 42 | C (0.54) | 33 | 40 | ~15 |
| (signalized) | NB – TR | C (0.26) | 24 | 19 | B (0.21) | 19 | 21 | ~200 |
| | SB – L | D (0.54) | 41 | 33 | D (0.73) | 42 | 58 | ~70 |
| | SB – T | C (0.14) | 28 | 16 | C (0.28) | 25 | 31 | ~175 |
| | SB – R | A (0.17) | 9 | 9 | C (0.41) | 22 | 32 | ~100 |
| | Overall | B (0.59) | 11 | _ | C (0.94) | 28 | | |
| | EB – L | A (0.02) | 10 | 3 | C (0.20) | 22 | 10 | ~15 |
| Finch Avenue W/ | EB – TR | A (0.47) | 10 | 115 | C (0.67) | 23 | 121 | ~270 |
| Jayzel Drive/ | WB – L | B (0.19) | 12 | 15 | D (0.64) | 49 | 41 | ~30 |
| (unsignalized) | WB – TR | A (0.36) | 9 | 81 | C (0.64) | 23 | 115 | ~550 |
| (unsignalizeu) | NB – L | E (0.59) | 56 | 26 | F (0.94) | 98 | 64 | ~15 |
| | NB – TR | A (0.27) | 10 | 12 | A (0.16) | 8 | 12 | ~200 |
| | SB – LTR | C (0.09) | 33 | 7 | C (0.43) | 33 | 19 | ~60 |

3.0 TRANSPORTATION PLANNING CONTEXT IN THE AREA

3.1. Emery Village Secondary Plan

The subject site is located within the Emery Village Secondary Plan which was adopted by City Council in 2002 and approved by Ontario Municipal Board in 2002. The Emery Village Secondary Plan envisions the re-urbanization of the community to facilitate mixed-use development, reduce automobile dependency and increase streetscape improvements. The key objectives of the Secondary Plan include:

- to re-urbanize the Emery Village Community by providing new mixed-use development on an incremental basis consistent with the capacity of existing or planned infrastructure;
- to create a balance of high-quality commercial, residential, institutional and open space uses that reduce automobile dependency and meets the needs of the local community;
- to locate and mass new buildings to emphasize the intersection of Finch Avenue and Weston Road, and provide transitions between areas of different development intensity and scale;
- to enhance and extend the existing open space network;



- to provide a connected, attractive, safe and comfortable system of pedestrian bicycle routes;
- to improve streetscapes to create an attractive pedestrian environment; and
- to develop a new system of roads, to provide alternative routes to the Finch/Weston intersection, to create new development parcels and provide access to an enhanced open space network.

Figure 7 illustrates the Emery Secondary Plan Structure Plan.

Figure 7 – Emery Secondary Plan Structure Plan



Source: Map 26-2 Structure Plan – 26 Emery Village Secondary Plan



3.2. Humbermede Neighbourhood Improvement

The subject site is also located within the Humbermede Neighbourhood Improvement Area. This is one of the 31 neighbourhoods identified as part of the Toronto Strong Neighbourhoods Strategy 2020 as falling below the Neighbourhood Equity Score and requiring special attention. Neighbourhood Improvement Areas are supported by Neighbourhood Action Teams to help strengthen the social, economic and physical conditions. **Figure 8** illustrates the Neighbourhood Improvement Areas in the City of Toronto.

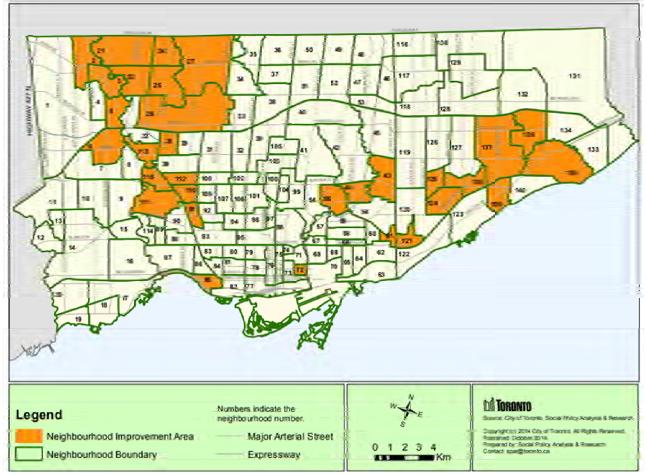


Figure 8 - Neighbourhood Improvement Areas

Source: https://www.toronto.ca/wp-content/uploads/2017/11/9112-TSNS2020actionplan-access-FINAL-s.pdf

3.3. Land Use Context

This area is recognized as a culturally diverse with a rich history of immigrant entrepreneurship. There are existing midrise rental apartment buildings located west of the subject site and existing high-rise mixed-use buildings (some are under construction) on Weston Road south of Finch Avenue. There are also existing low-rise development to the south and east of the site. Employment areas are located to the north of the site, as well as south of the site along the Hwy 400 and Weston Road corridors. Existing commercial plazas are located along both sides of Weston Road between the existing CP rails and Islington Avenue.

The proposed redevelopment of the site will help revitalize the area and capitalize on the major transit infrastructure investments in the area including future Finch West LRT and Major Transit Station Area designation at the intersection of Finch Avenue W and Weston Road.



3.4. Transportation Planning Context

3.4.1. Transit

As indicated in Section 2.3, the proposed development is located adjacent to several existing TTC Bus Routes, and most importantly it is located adjacent to Finch West LRT and MTSA, which is currently under construction. The proposed development is also located approximately 4.5 km from the existing Finch West Subway Station on Line 1 Yonge-University at Keele Station. In addition, the site is located adjacent to TTC Bus Routes 106 Sentinel and about 250 m (less than 4 minute-walk) to TTC Bus Route 36 Finch West.

3.4.2. Future Finch West LRT

Based on the information provided on the Metrolinx website, the Finch West light rail transit (LRT project will bring 11 kilometres of modern, reliable rapid transit to northwest Toronto. It will have 18 stops, including 16 surface stops, plus an underground interchange station at Finch West (connecting to the new Toronto-York-Spadina Subway Extension), and one below-grade terminal stop at Humber College, connecting to other local transit services like GO, Miway, Viva, and Züm. It will provide rapid transit for the Jamestown, Rexdale and Black Creek neighbourhoods, providing vital connections between communities and supporting growth in northwest Toronto. In May 2018, Mosaic Transit Group was awarded a contract by Infrastructure Ontario (IO) and Metrolinx to design, build, finance and maintain the new Finch West LRT line.

The Finch West LRT will provide the economic boost Northwest Toronto needs. It's going to cut travel and connection times, fuel economic growth and make the community a better place to live and play. It is also expected to provide environmental benefits by reducing car emissions and fossil fuel consumption with less cars travelling in the area. When in operation, the Finch West LRT is expected to move 46,000 passengers each weekday. Metrolinx and Mosaic Transit Group are committed to hiring from the community, providing opportunities for apprentices, as well as supporting small and medium-sized businesses and social enterprises.

There will be a proposed LRT Station at the Finch Avenue W/Weston Road intersection (Emery Station). The proposed development is located a few minutes walk to the future Emery LRT Station. The construction is underway and the anticipated project completion date is 2023. **Figure 9** illustrates the Finch West LRT Project Map.



Figure 9 – Future Finch West LRT Project Map

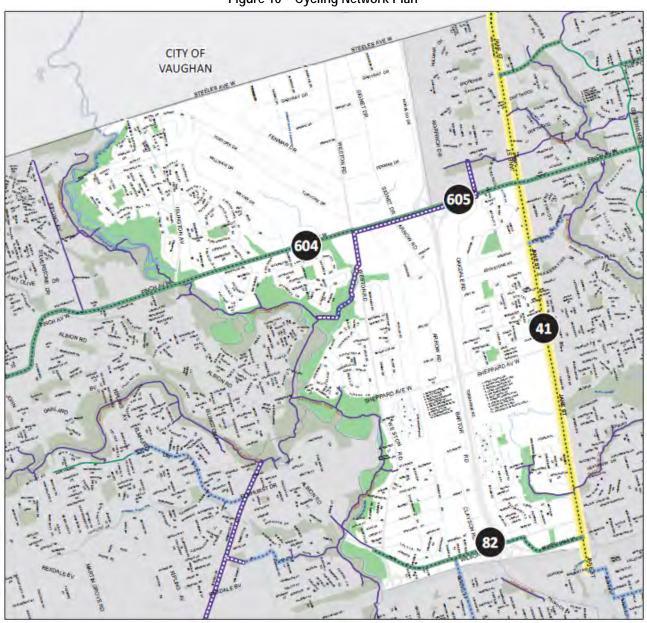
Source: www.Metrolinx.com

3.4.3. Active Transportation

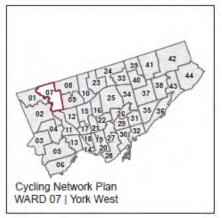
As indicated in Section 2.2, the area is currently well-serviced by a complete network of sidewalk, however, the existing cycling network is limited to multi-use trails and there are no dedicated cycling lanes along Finch Avenue W or Weston Road. In the future, a cycling network has been identified in the City of Toronto Cycling Network to accommodate the active transportation needs in the area with bicycle lanes along Finch Avenue W and boulevard trails along Weston Road south of Finch Avenue W. **Figure 10** illustrates the existing and planned cycling network in the area.



Figure 10 – Cycling Network Plan







Source: City of Toronto Cycling Network Plan Maps by Ward



3.4.4. Emery Village Road 2A Municipal Class EA Study

Nextrans has reviewed the Staff Report dated March 30, 2016 entitled Emery Village Road 2A Municipal Class Environmental Assessment Study. The following information was obtained from this Staff Report and Cole Engineering November 3, 2016 Class Environmental Assessment Study Report Summary.

Road 2A is a new road link between Finch Avenue West and Toryork Drive, west of Weston Road, as identified in the Emery Village Secondary Plan Study. This road will alleviate congestion at the Finch Avenue West/Weston Road intersection and provide improved access for heavy trucks to/from the industrial area in the northwest quadrant. Operational improvements to the Finch Avenue West/Weston Road intersection will also improve the future Finch West LRT operations.

The Environmental Assessment (EA) was carried out in accordance with the requirements for Schedule 'C' Projects, completing Phases 3 and 4 in accordance with the Municipal Class EA. The recommended plan includes a new 20 metre (m) wide north/south public road right-of-way that consists of 2.9 m wide boulevards and 2.1 m wide sidewalks on both sides of the street. Road 2A will form a new signalized intersection with Finch Avenue West and a new stop-controlled intersection with Toryork Drive. Figure 11 illustrates the recommended plan and cross-section for Road 2A (Attachment 5 of the Staff Report dated March 30, 2016), with Figure 12 illustrates the preferred intersection layout based on Cole Engineering November 3, 2016 ESR Summary Letter. These configurations will be reflected in the analysis.



Figure 11 - Recommended Plan and Cross-Section for Road 2A



TANANA ANALAMAN ANALA

Figure 12 - Preferred Lane Configurations and Intersection Control

3.4.5. Future and Assumed Lane Configurations Along Finch Avenue W

The future and assumed lane configurations along Finch Avenue W are illustrated in **Figure 13** based on the Finch West LRT design templates and Road 2A lane configurations illustrated in **Figure 12**. These lanes configurations are consistent with other background transportation studies in the area.

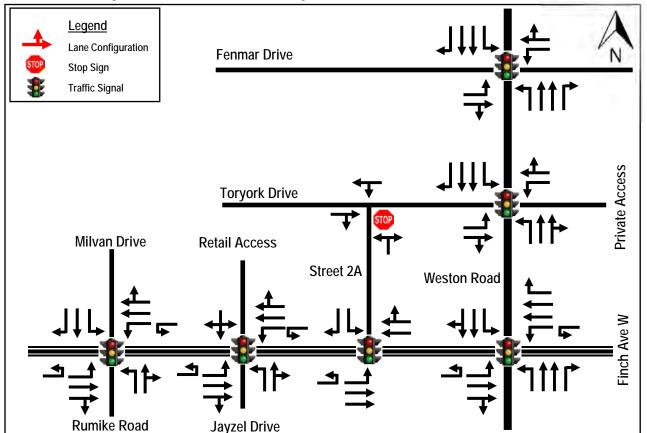


Figure 13 – 2026 Future Lane Configurations and Intersection Control Devices



4.0 FUTURE BACKGROUND CONDITIONS

4.1. Analysis Horizon

For the purposes of this assessment and to be consistent with the previous assessment, a five-year horizon (2021 to 2026) has been carried out for analysis. This is consistent with the City of Toronto's Traffic Impact Study Guidelines and background studies conducted in the area.

4.2. Future Background Corridor Growth

Historical data review and regression analysis were conducted in the area to determine a potential corridor traffic growth for the intersections considered in the analysis. The assessment indicates that there is a stagnant traffic growth trend on Finch Avenue W and Weston Road corridors.

This could be explained by the fact that there were significant transit services and improvements in the area, the opening of the new Toronto-York Spadina Subway Extension (Finch West Station), and the changes in land uses in the area (i.e. more rental developments).

For the purposes of this assessment and consistent with other background studies in the area, 1% growth per annum (compounded) or a total of 7% (2019 to 2026) will be applied to the through movements on Finch Avenue W, Weston Road and Toryork Drive.

This assessment is conservative given the future diversion of commuter to the Finch West LRT, as well as an inclusion of the background developments in the area.

Figure 14 illustrates the historical data analysis.

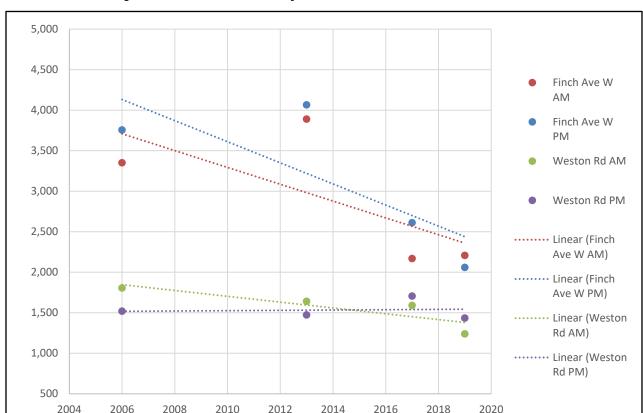


Figure 14 - Traffic Growth Analysis for Finch Avenue W and Weston Road



Figure 15 illustrates the background through growth for the area road network.

Legend Stop Sign XX AM Peak Hour (XX) PM Peak Hour Traffic Signal 35(24) 178(253) 22(81) Fenmar Drive (14)10(197)247 -(150)129 10(33) 5(33) Private Access 2(25)9(60) Toryork Drive (28)21(15)7(41)6 (231)155 Milvan Drive Retail Access 162(186) 181(156) 1(4) 186(70) 696(1,079) 958(1,147) 806(856) 17(21) 47(78) 193(153) Finch Ave W 0(0)0(0)(0)0(0)0(160)155 (89)66 (26)8(798)875 (935)1,084 (1,089)1,113(79)50(69)88 (138)154Rumike Road Jayzel Drive Weston Road

Figure 15 – 2026 Background Through Growth Traffic Volumes

4.3. Future Traffic Diversion Due to Road 2A and Finch West LRT

As indicated in the previous section of this Study, the transportation network in the area will be changed significantly with the completion of the Finch West LRT by 2023, as well as the construction of Road 2A to divert the heavy truck traffic from the Weston Road and Finch Avenue W intersection to improve the LRT operation and facilitate pedestrian/cyclist crossing the intersection. Given that there will be centre dedicated transit lanes along Finch Avenue W through this area, all existing unsignalized full moves accesses onto Finch Avenue W will be restricted to right-in/right-out and some of the existing left turn traffic in and out of these sites will be required to make U-turns at the signalized intersections. For the purposes of this assessment and to be consistent with other background transportation studies in the area, this information is obtained from LEA Consulting TIS dated December 18, 2020. In addition, with the completion of Road 2A to support LRT operation along Finch Avenue W, the existing heavy truck traffic that are currently making left turns at the Finch Avenue W/Weston Road and Weston Road/Toryork Drive intersections will be diverted to Road 2A. Since this information was not included in any of the background transportation studies in the area, for the purposes of this assessment, the following methodology was utilized with regards to the diversion of traffic from the Finch Avenue



W/Weston Road intersection to Road 2A. Figure 16 illustrates the future traffic diversion due to Road 2A and Finch West LRT.

- Based on Nextrans review of the truck traffic volumes for the Finch Avenue W/Weston Road intersection, the
 truck volume percentage is ranging from 1% to 16% for the eastbound left, northbound through and westbound
 right turns;
- The diversion distribution and assignment are based on the 2016 TTS data outlined in Section 5 of this Study;
- Some typical/normal traffic will be diverted to Road 2A, based on the capacity constrains at the Weston Road/Toryork Drive and Finch Avenue W/Weston Road intersection. Therefore, a total of 20% diversion (both trucks and normal traffic) is assumed to Road 2A

Legend Stop Sign XX AM Peak Hour Traffic Signal (XX) PM Peak Hour 35(24) 178(253) 22(81) Fenmar Drive (14)10(197)247 (150)129214(235) **1**0(15) **Toryork Drive** (233)156 (28)21(60)40(15)7(231)155Milvan Drive Retail Access Road 2A 181(156) 186(70) 1(4) 696(1,079) 806(856) 958(1,147) 17(21) 193(153) 47(78) 37(14) 965(1,185) Finch Ave W (45)27(0)0(19)4(160)155(26)8 (89)66 (40)38(80)54(1,089)1,113(798)875 (935)1,084 (1,027)1,065 (69)88(138)154Rumike Road **Jayzel Drive** Weston Road

Figure 16 - Future Traffic Diversion Due to Road 2A and Finch West LRT

4.4. Background Development Applications

A full review of active developments within the study area was conducted based on the information extracted from the City of Toronto's Development Portal and background transportation studies conducted in the area. Nextrans' review indicates that there several rental redevelopment project applications in the area. **Table 5** below summarizes the



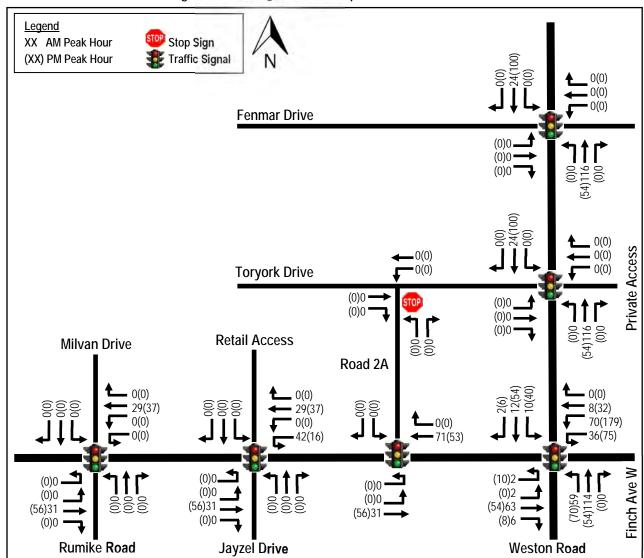
background developments in the area.

Table 5 - Background Developments in the Area

| Proposed Development Location | Development Descriptions | Trip Generation and Sources | | |
|--|---|--|--|--|
| 3400 Weston Road | 480 residential dwelling units and a daycare | LEA Consulting TIS Dated August 20, 2020 | | |
| 3400 Weston Road subsequent phases | 514 Residential Units | LEA Consulting TIS Dated May, 2017 | | |
| 2345 Finch Avenue W & 3415-3499 Weston Road | 2,237 residential dwelling units and 1,203 m ² retail GFA | LEA Consulting TIS Dated December 18, 2020 | | |
| 2440 Finch Avenue W | Proposed gas station with 6 fuelling stations and a 76.5 m ² convenience store | Trans-Plan TIS Dated October 25, 2019 | | |
| 2370 Finch Avenue W | 194 residential dwelling units and 3,575 ft ² of commercial GFA | C.F. Crozier & Associates Inc. Dated June, 2019 | | |

For the purposes of this assessment, the background development traffic volumes were extracted from the three Transportation Impact Studies noted above (Appendix C). Figure 17 illustrates the background development site generated traffic volumes in the study area, with Figure 18 illustrating the 2026 future background traffic volumes.

Figure 17 - Background Development Traffic Volumes





Legend XX AM Peak Hour Stop Sign (XX) PM Peak Hour Traffic Signal 444(849 35(24) 178(253) 22(81) **Fenmar Drive** (14)10(197)247 (150)129 10(33) Private Access 2(25) **214(235)** 9(60) **-**10(15) **Toryork Drive** (233)156 (28)21(60)40(15)7(231)155 (512)767**Retail Access** Milvan Drive Road 2A 81(213) 181(156) 186(70) 725(1,116) 814(888) 987(1,184) 17(21) 263(332) 47(78) 37(14) 38(81) 42(16) **-**1,036(1,238) Finch Ave W (89)66 (55)29(0)0(19)4 (991)1,115 (160)157(26)8(117)112 (40)38(80)54 (23)17 (128)71 (138)154(852)938 (1,145)1,144(1,083)1,096 -(69)88 Rumike Road Weston Road **Jayzel Drive**

Figure 18 – 2026 Future Background Traffic Volumes

4.5. Future Background Traffic Assessment

The estimated 2026 future background traffic volumes are illustrated in **Figure 12**, and were analyzed using Synchro Version 11 software. The detailed calculations are provided in **Appendix D** and summarized in **Table 6**.

Weekday AM Peak Hour Weekday PM Peak Hour Available Key Intersection Queue 95th Queue 95th Storage Movement LOS (v/c) Delay (s) LOS (v/c) Delay (s) Length (m) (m) D (0.90) 50 F (1.28) 97 Overall EB-L F (0.75) 81 85 F (0.81) 88 97 ~75 EB - TR D (0.87) 185 F (1.28) 178 239 ~550 42 WB - L F (0.89) 81 137 F (1.05) 107 207 ~100 Finch Avenue W/ WB-T D (0.61) 36 130 E (0.89) 58 185 ~580 Weston Road WB - R A (0.29) 5 17 A (0.19) 2 ~100 (signalized) NB - L D (0.73) 55 48 F (1.05) 114 101 ~30 NB – T E (0.74) 58 99 D (0.46) 43 73 ~430 NB - R 9 A (0.31) 8 ~100 14 A (0.25) 4 SB-L E (0.78) 58 C (0.59) 31 65 ~50 60 E (0.90) SB - TR 67 129 F (1.08) 104 233 ~150

Table 6 - 2026 Future Background Levels of Service



| | Overall | | | | E (0.99) | 77 | | |
|-------------------|----------|----------------------|----|-----|----------|-----|-----|------|
| | EB – L | | | | F (0.80) | 84 | 104 | ~75 |
| Finch Avenue W/ | EB – TR | | | | F (0.96) | 81 | 186 | ~550 |
| Weston Road with | WB – L | | | | F (0.98) | 98 | 221 | ~100 |
| 20% traffic | WB – T | | | | D (0.64) | 49 | 143 | ~580 |
| reduction due to | WB – R | | | | A (0.20) | 9 | 13 | ~100 |
| future Finch West | NB – L | | | | F (0.96) | 96 | 108 | ~30 |
| | | | | | | | | |
| LRT | NB – T | | | | D (0.37) | 47 | 66 | ~430 |
| (signalized) | NB – R | | | | A (0.27) | 8 | 17 | ~100 |
| | SB – L | | | | D (0.59) | 40 | 76 | ~50 |
| | SB – TR | | | | F (0.99) | 118 | 210 | ~150 |
| | Overall | C (0.89) | 24 | | C (0.82) | 25 | | |
| | EB – L | C (0.05) | 32 | 6 | C (0.09) | 31 | 8 | ~30 |
| | EB – TR | E (0.89) | 63 | 138 | D (0.82) | 51 | 108 | ~150 |
| | WB – L | D (0.24) | 41 | 130 | F (0.79) | 83 | 44 | ~30 |
| Weston Road/ | WB – TR | | 41 | 69 | | | 88 | ~160 |
| | | D (0.53) | | | D (0.67) | 46 | | |
| Fenmar Drive | NB – L | B (0.26) | 11 | 26 | B (0.40) | 18 | 34 | ~35 |
| (signalized) | NB – T | A (0.28) | 10 | 43 | B (0.23) | 10 | 42 | ~450 |
| | NB – R | A (0.08) | 2 | 6 | A (0.04) | 3 | 5 | ~40 |
| | SB – L | A (0.08) | 9 | 8 | B (0.11) | 11 | 13 | ~85 |
| | SB – T | A (0.22) | 9 | 33 | B (0.42) | 12 | 86 | ~180 |
| | SB – R | A (0.02) | 2 | 2 | A (0.04) | 4 | 5 | ~35 |
| | Overall | A (0.60) | 8 | | B (0.69) | 14 | J | ~33 |
| | | | | 10 | | | 1/ | 20 |
| | EB – L | D (0.17) | 50 | 13 | D (0.24) | 51 | 16 | ~30 |
| | EB – TR | B (0.60) | 17 | 23 | B (0.69) | 17 | 29 | ~45 |
| Weston Road/ | WB – L | D (0.15) | 51 | 8 | D (0.42) | 45 | 24 | ~10 |
| | WB – TR | C (0.05) | 32 | 5 | C (0.20) | 21 | 17 | ~50 |
| Toryork Drive | NB – L | A (0.34) | 4 | 16 | A (0.45) | 9 | 20 | ~25 |
| (signalized) | NB – TR | A (0.32) | 4 | 38 | A (0.26) | 6 | 38 | ~145 |
| | SB – L | A (0.03) | 7 | 3 | B (0.08) | 13 | 11 | ~25 |
| | SB – T | A (0.03) A (0.31) | 8 | 48 | | 16 | | ~475 |
| | | | | | B (0.53) | | 120 | |
| | SB – R | A (0.03) | 0 | 0 | A (0.08) | 1 | 2 | ~30 |
| | Overall | B (0.66) | 19 | | C (0.88) | 27 | | |
| | EB – L | D (0.40) | 42 | 25 | D (0.51) | 50 | 45 | ~30 |
| | EB – TR | B (0.66) | 15 | 155 | B (0.63) | 18 | 145 | ~250 |
| Finch Avenue W/ | WB – L | D (0.13) | 40 | 10 | D (0.16) | 41 | 11 | ~30 |
| Milvan Drive/ | WB – TR | B (0.56) | 16 | 102 | C (0.88) | 32 | 178 | ~270 |
| Rumike Road | NB – L | D (0.62) | 44 | 42 | C (0.55) | 33 | 41 | ~15 |
| (signalized) | NB – TR | C (0.22) | 24 | 19 | B (0.21) | 19 | 22 | ~200 |
| (Signalizeu) | SB – L | | 41 | 33 | | 42 | 58 | ~70 |
| | | D (0.54) | | | D (0.73) | | | |
| | SB – T | C (0.14) | 28 | 16 | C (0.28) | 25 | 31 | ~175 |
| | SB – R | A (0.16) | 3 | 4 | A (0.34) | 7 | 16 | ~100 |
| | Overall | B (0.67) | 19 | | D (0.96) | 45 | | |
| | EB – L | D (0.06) | 44 | 6 | D (0.26) | 51 | 14 | ~15 |
| Finals Access 147 | EB – TR | C (0.67) | 21 | 192 | D (0.96) | 49 | 192 | ~270 |
| Finch Avenue W/ | WB – L | D (0.45) | 49 | 35 | F (0.78) | 86 | 53 | ~30 |
| Jayzel Drive/ | WB – TR | B (0.43) | 12 | 121 | C (0.84) | 34 | 185 | ~550 |
| (unsignalized) | NB – L | E (0.59) | 56 | 27 | F (0.96) | 103 | 65 | ~15 |
| | | | 10 | 12 | | | 13 | |
| | NB – TR | A (0.27) | | | A (0.17) | 9 | | ~200 |
| | SB – LTR | C (0.09) | 33 | 7 | C (0.43) | 33 | 19 | ~60 |
| | Overall | C (0.71) | 22 | _ | A (0.50) | 7 | _ | |
| Finch Avenue W/ | EB – L | E (0.37) | 69 | 26 | E (0.45) | 70 | 33 | ~30 |
| | EB – T | C (0.61) | 23 | 141 | A (0.39) | 3 | 47 | ~290 |
| Street 2A/ | WB – TR | B (0.71) | 19 | 193 | A (0.50) | 4 | 39 | ~275 |
| (unsignalized) | SB – L | C (0.04) | 30 | 12 | E (0.27) | 66 | 23 | ~30 |
| | SB – R | A (0.06) | 10 | 7 | C (0.31) | 23 | 12 | ~80 |
| Toryork Drive/ | EB – TR | A (0.00) | 0 | 0 | A (0.19) | 0 | 0 | ~250 |
| Future Road 2A | WB – TL | | | | | | | |
| | | A (0.01) | 0 | 0 | A (0.01) | 1 | 0 | ~250 |
| (unsignalized) | NB – LR | B (0.14) | 12 | 4 | B (0.12) | 13 | 3 | ~55 |

Under the 2026 future background traffic conditions, with the Finch West LRT and Future Road 2A, all the intersections considered are expected to operate at acceptable levels of service, with the exception of the through movements during the afternoon peak hour at the Finch Avenue W/Weston Road intersection.



This is due to the fact that the signal will be prioritized for the future Finch West LRT and U-turn movements (fully protected phase) and the elimination of the existing third shared through/lane at the Finch Avenue W/Weston Road intersection. The potential mitigation measures include adding exclusive right turn lane for the eastbound and southbound at the Finch Avenue W/Weston Road intersection.

However, Nextrans does not recommend these improvements because it will add additional crossing distance for pedestrians and cyclists at the intersection. There are potential physical constraints at the intersection to obtain additional lands to build these additional lanes. In addition, as per Emery Village Secondary Plan objective and policy, the area should provide a connected, attractive, safe and comfortable system of pedestrian bicycle routes, and not prioritize private vehicle traffic.

Therefore, the analysis indicates that the proposed lane configurations for both the Finch Avenue W/Weston Road and Finch Avenue W/Future Road 2A intersections are appropriate to prioritize other modes of transportation rather than private automobiles. Instead of physical intersection improvements such as addition turning lanes, Nextrans recommends the following measures:

- All new developments in the area should reduce vehicle parking supply to discourage private car ownership and encourage alternative modes of transportation such as transit, walking, cycling and carpooling; and
- All new developments should provide Transportation Demand Management measures and incentives, where appropriate, to encourage alternative modes of transportation to and from the area

Nextrans has conducted a sensitivity analysis for the afternoon peak hour with a potential reduction of 20% through traffic at the Finch Avenue W/Weston Road intersection as a result of the future Finch West LRT. With this provision and potential signal timing optimization, this intersection is expected to operate at acceptable levels of service.

5.0 SITE TRAFFIC

5.1. Proposed Development

As indicated, the proposed development consists of four high-rise towers in three development blocks, with a total of 1,275 residential dwelling units and approximately 1,024 m² (11,022 m²) of ground related retail gross floor area. The followings are the detailed breakdown of the proposed development:

- Tower A 393 dwelling units (Block 1) and 598 m² retail GFA
- Towers B and C 601 dwelling units (Block 2) and 426 m² of retail GFA
- Tower D 281 dwelling units (Block 3)
- Total Development 1,275 dwelling units and 1,024 m² of retail GFA

To be consistent with the previous assessment, the 2016 Transportation Tomorrow Survey (TTS), background transportation study trip rates, *Trip Generation Manual*, *10th Edition* published by the Institute of Transportation Engineers (ITE) were reviewed to estimate the trip distribution and site trip generation for the proposed development.

It should be noted that given there are various trip generation rates used in the background transportation impact studies for the area, Nextrans will provide a comparison for various rates used in the area against ITE rates and will utilize the most appropriate rates based on the analysis.

5.2. Modes of Travel Assessment in the Area

Table 7 summarizes the travel mode split information, based on the review of the 2016 Transportation Tomorrow Survey data, for Traffic Zones 385, 402 and 403. Given that not all traffic zones contain residential and some contain both employment and residential, it is appropriate to review several traffic zones instead of just one Traffic Zone 402. The detailed 2016 TTS data extraction is included in **Appendix E**.



Table 7 – Modes of Travel based on 2016 TTS Data for Traffic Zones

| Ī | Туре | Time | Trips Made by Traffic Zones 396, 397, 398 and 399 | | | | | | | |
|---|-------------|------------------------------|---|----------------|---------|-------|------|--|--|--|
| | | Auto Driver | | Auto Passenger | Transit | Cycle | Walk | | | |
| | Residential | AM Peak Period (6:00 – 9:00) | 35% | 7% | 41% | 0% | 17% | | | |
| | | PM Peak Period (4:00 – 7:00) | 48% | 19% | 32% | 0% | 1% | | | |

Based on the information outlines in the table above, for the residential land use, the predominant modes of travel in the area are non-auto modes (walking, cycling, transit and carpooling), which account for nearly 65% during the morning and 52% during the afternoon peak periods. It should be noted that the information noted above is based on the 2016 TTS, which does not include the opening of the Finch West Subway Station in December 2017. It is anticipated that the non-auto mode share would be significantly higher in the next Transportation Tomorrow Survey cycle.

5.3. Site Trip Generation

Nextrans has reviewed various background traffic impact studies prepared for various active background developments in the area. **Table 8** summarizes the various trip generations in these studies.

It should be noted that for the ITE trip rates, the trip generation forecasts were undertaken using the information contained in the *Trip Generation Manual, 10th Edition* published by the Institute of Transportation Engineers (ITE). For the purposes of this assessment, the ITE Land Use Codes (LUC) 222 "Multifamily Housing High-Rise Dense Multiuse Urban" average rates and fitted curve equations have been utilized. This is similar to the methodologies used in the background transportation study prepared for 2370 Finch Avenue by C.F. Crozier.

It should be noted that the "Multifamily Housing High-Rise with First Floor Commercial" Land Use Category can also be used, however, the sample size is very small and may not representative. The detail calculations are included in **Appendix F**, including the ITE Trip Generation Manual excerpts, as requested by the City staff.

Based on the information outlined in the table below, it appears that LEA Consulting utilized trip generation rates that are higher than the ITE trip rates and that are based on proxy site survey. However, given that the Emery Village Secondary Plan is going through a major transformation with the future Finch West LRT, new road connections, new and enhanced active transportation network, therefore, the existing trip generation and trip patterns in the area will change significantly in the future.

Table 8 – Trip Generation Rates Comparison

| Packground Dovolonment TIS | Magnitude (units) | Parameters | Mor | ning Peak I | Hour | After | noon Peak | Hour |
|---|---|----------------------------|------|-------------|-------|-------|-----------|-------|
| Background Development TIS | ourid Development 115 Magnitude (units) | | ln | Out | Total | ln | Out | Total |
| 2345 Finch Ave W (LEA TIS Dec, 2020) | 2,237 units | Trip Rates (Proxy site) | 0.06 | 0.22 | 0.27 | 0.17 | 0.13 | 0.30 |
| 3400 Weston Road (LEA TIS Aug, 2020) | 480 units | Trip Rates (Proxy site) | 0.14 | 0.25 | 0.39 | 0.16 | 0.11 | 0.27 |
| 2370 Finch Ave W (Crozier TIS Jul, 2019) | 194 units | Trips Rates (ITE) | 0.03 | 0.20 | 0.23 | 0.13 | 0.05 | 0.18 |
| ITE Trip Rates for LUC 222 | Average of 264 units | Average Trip Rates | 0.03 | 0.18 | 0.21 | 0.13 | 0.06 | 0.19 |
| ITE Trip Rates for LUC 222 | Proposed development with 1,275 units | Fitted curve equations | 0.02 | 0.17 | 0.19 | 0.10 | 0.04 | 0.14 |

As there appears to be two different set of proxy trip rates were utilized in the LEA Consulting transportation studies and Nextrans cannot verified it, for the purposes of this assessment, the average ITE trip rates will be utilized in this Study. The fitted curve equations appear to be sensitive to the numbers of proposed units, in this case, the more unit, the lower the trip rates. Based on the comparison above, the average trip rates are higher than the fitted curve equations for the proposed development, therefore, the use of average ITE trip rates are appropriate and justified. To be conservative, a no transit modal split will be applied to the average ITE Trip rates.

For the purposes of this assessment, the ITE Land Use Code (LUC) 820 "Shopping Centre General Urban/Suburban" average equations have been utilized for the proposed development. Given that the proposed retail/commercial



component is quite small and located at the bottom of the fitted curb equation where the average rate is similar to the fitted curve. For this reason, the average rates were utilized in the analysis.

It is anticipated that the small-scale ground related retail of only 1,024 m² (11,022 ft²) gross floor area will only serve the new residents who live in the proposed buildings, or in the immediate area residents who can walk or bicycle to shop at the proposed development. It is not anticipated to serve larger catchment area and therefore is expected to generate minimal car trips to and from the proposed retail/commercial development.

However, for the purposes of this assessment and to be conservative, the retail/commercial component has been included in the analysis. The site trip generation is summarized in **Table 9**.

Afternoon Peak Hour Magnitude Morning Peak Hour ITE Land Use **Parameters** (units/GFA) ln Out Total ln Out Total Multifamily Housing 0.13 0.06 Average Trip Rates 0.03 0.18 0.21 0.19 (High-Rise) LUC 222 1,275 units General Dense **Sub-total New Auto Trips** 38 230 268 166 77 243 Multi-use Urban Shopping Centre 0.58 0.36 0.94 1.98 3.81 Trip Rates - Average Rates 1.83 11,022 ft² LUC 820 General Urban/Suburban Sub-total New Auto Trips 6 4 10 20 22 42 Total New Auto Trips 44 234 278 186 99 285

Table 9 – Site Trip Generation

Based on the analysis noted above, the proposed development is expected to generate:

- 278 total two-way auto trips (44 inbound and 234 outbound) and 285 total two-way auto trips (186 inbound and 99 outbound) during the AM and PM peak hours, respectively; and
- If a 20% modal split (non-auto) is applied, the proposed development is expected to generate 56 total two-way non-auto trips (9 inbound and 47 outbound) and 57 total two-way non-auto trips (37 inbound and 20 outbound) during the AM and PM peak hours, respectively.

5.4. Site Trip Distribution and Assignment

The 2016 Transportation Tomorrow Survey (TTS) data was reviewed for Traffic Zones 385, 402 and 403 in order to estimate the general trip distribution for the proposed development. **Table 10** summarizes the planning district/traffic zones distribution based on the 2016 TTS data, with **Table 11** summarizing the site trip assignment based on the 2016 TTS and existing transportation network in the area for the residential component of proposed development.

Toronto Toronto Toronto Toronto York Peel Halton Durham Mode Total South West East North Region Region Region Region Auto 29% 14% 21% 14% 36% 1% 1% 100% 3% Transit 39% 15% 30% 13% 2% 1% 0% 0% 100%

Table 10 - Site Trip Distribution

Table 11 – Site Trip Assignment

| General Direction (To/From) | | Residential | | |
|------------------------------|------|--------------------------------|--|--|
| General Direction (10/F1011) | Auto | Transit | | |
| North (Weston Road, Hwy 400) | 45% | | | |
| South (Weston Road, Hwy 400) | 20% | Finch West LRT Eastbound – 85% | | |
| East (Finch Avenue W) | 10% | | | |
| West (Finch Avenue W) | 25% | Finch West LRT Westbound - 15% | | |
| Total | 100% | 100% | | |



Figure 19 illustrates the development generated traffic volumes. It should be noted that the auto site trip distribution and assignment have been taken into consideration the TTS information, existing turning restrictions, existing intersection operations and capacity constraints, future Finch West LRT and Road 2A.

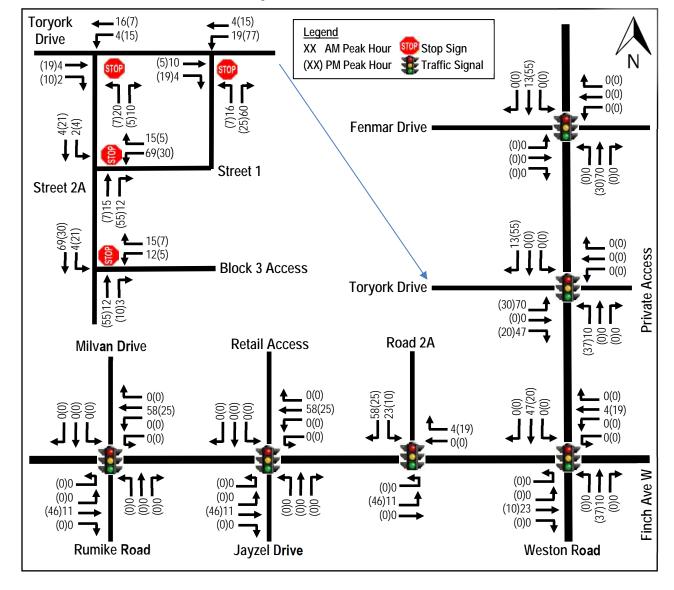


Figure 19 – Site Traffic Volumes

6.0 FUTURE TOTAL TRAFFIC CONDITIONS

6.1. Future Total Traffic Assessment for Auto Mode

The estimated future total traffic volumes (future background traffic volumes plus site generated traffic volumes) are illustrated in **Figure 20**, and were analyzed using Synchro Version 11 software. The detailed calculations are provided in **Appendix G** and summarized in **Table 12** for the signalized intersections and **Table 13** for the unsignalized intersections.



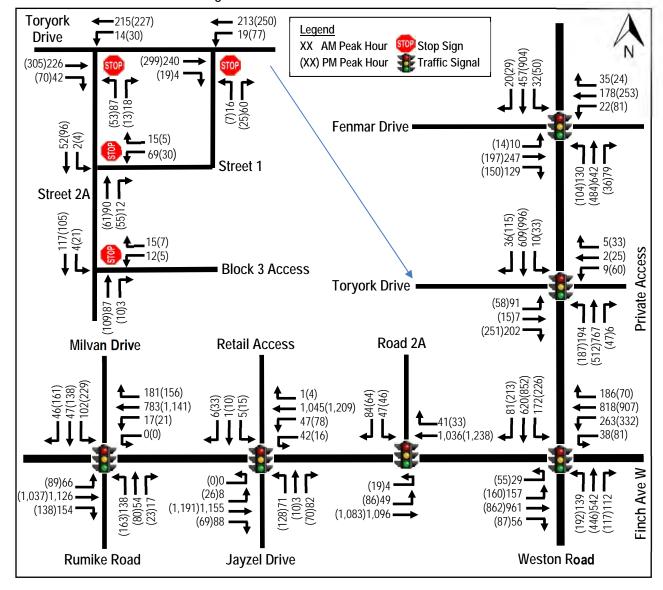


Figure 20 – 2026 Future Total Traffic Volumes

Under the 2026 future total traffic conditions, with the Finch West LRT and Future Road 2A, all the intersections considered are expected to operate at acceptable levels of service, with the exception of the through movements during the afternoon peak hour at the Finch Avenue W/Weston Road intersection. This is very similar to the future background traffic conditions as the proposed development will only add approximately 1 second to the through movement at this intersection.

This is due to the fact that the signal will be prioritize for the future Finch West LRT and U-turn movements (fully protected phase) and the elimination of the existing third shared through/lane at the Finch Avenue W/Weston Road intersection.

Similar to the future background analysis, Nextrans has conducted a sensitivity analysis with an anticipated 20% reduction of the car trips along the Finch Avenue W corridor with the completion of the Finch West LRT by 2023, which is well within the 2026 horizon year assessment. The analysis indicates that the intersection of Finch Avenue W/Weston Road is expected to operate at acceptable levels of service with all v/c ratio for critical movements are below 1.0. This confirms that the lane configurations for this intersection is appropriate.



Other potential mitigation measures include adding exclusive right turn lane for the eastbound and southbound at the Finch Avenue W/Weston Road intersection and an exclusive right turn lane for the westbound at the Finch Avenue W/Future Road 2A intersection.

However, Nextrans does not recommend these improvements because it will add additional crossing distance for pedestrians and cyclists at the intersection. There are physical constraints at the intersection to obtain additional lands to build these additional lanes. In addition, as per Emery Village Secondary Plan objective and policy, the area should provide a connected, attractive, safe and comfortable system of pedestrian bicycle routes, and not prioritize private vehicle traffic.

Therefore, the proposed lane configurations for both the Finch Avenue W/Weston Road and Finch Avenue W/Future Road 2A intersections are appropriate. Instead of physical intersection improvements such as addition turning lanes, Nextrans recommends the following measures:

- All new developments in the area should reduce vehicle parking supply to discourage private car ownership and
 encourage alternative modes of transportation such as transit, walking, cycling and carpooling; and
- All new developments should provide Transportation Demand Management measures and incentives, where appropriate, to encourage alternative modes of transportation.

Some signal timing optimizations are also required for the Finch Avenue W/Weston Road, which are provided below for the City/Metrolinx consideration.

Table 12 – 2026 Future Total Levels of Service for Signalized Intersections

| | Key | Weel | kday AM Peak | | Week | kday PM Peak | | Available |
|-----------------------|----------|-----------|--------------|-------------------------------|-----------|--------------|-------------------------------|-----------------------|
| Intersection | Movement | LOS (v/c) | Delay (s) | Queue 95 th (m) | LOS (v/c) | Delay (s) | Queue 95 th (m) | Storage Length (m) |
| | Overall | D (0.94) | 52 | | F (1.30) | 93 | | |
| | EB – L | F (0.75) | 81 | 85 | E (0.86) | 76 | 113 | ~75 |
| | EB – TR | D (0.91) | 45 | 193 | F (1.04) | 112 | 215 | ~550 |
| | WB – L | F (0.89) | 81 | 137 | F (1.11) | 128 | 215 | ~100 |
| Finch Avenue W/ | WB – T | D (0.62) | 37 | 131 | D (0.77) | 45 | 160 | ~580 |
| Weston Road | WB – R | A (0.29) | 5 | 17 | A (0.17) | 1 | 1 | ~100 |
| (signalized) | NB – L | E (0.77) | 59 | 54 | F (1.30) | 202 | 112 | ~30 |
| | NB – T | E (0.74) | 57 | 101 | D (0.59) | 50 | 84 | ~430 |
| | NB – R | A (0.31) | 8 | 14 | A (0.28) | 4 | 9 | ~100 |
| | SB – L | E (0.77) | 56 | 60 | D (0.69) | 41 | 71 | ~50 |
| | SB – TR | E (0.94) | 72 | 145 | F (1.18) | 132 | 250 | ~150 |
| | Overall | | | | E (0.99) | 78 | | |
| | EB – L | | | | F (0.80) | 85 | 104 | ~75 |
| Electric Access AM | EB – TR | | | | F (0.98) | 85 | 192 | ~550 |
| Finch Avenue W/ | WB – L | | | | F (0.99) | 100 | 224 | ~100 |
| Weston Road with | WB – T | | | | D (0.66) | 50 | 148 | ~580 |
| 20% traffic reduction | WB – R | | | | A (0.20) | 9 | 13 | ~100 |
| due to future Finch | NB – L | | | | F (0.97) | 98 | 108 | ~30 |
| West LRT | NB – T | | | | D (0.39) | 46 | 71 | ~430 |
| (signalized) | NB – R | | | | A (0.26) | 8 | 17 | ~100 |
| | SB – L | | | | D (0.61) | 38 | 76 | ~50 |
| | SB – TR | | | | F (0.99) | 118 | 215 | ~150 |
| | Overall | C (0.89) | 23 | | C (0.82) | 24 | | |
| | EB – L | C (0.05) | 32 | 6 | C (0.09) | 31 | 8 | ~30 |
| | EB – TR | E (0.89) | 63 | 138 | D (0.82) | 51 | 108 | ~150 |
| | WB – L | D (0.24) | 41 | 13 | F (0.79) | 83 | 44 | ~30 |
| Weston Road/ | WB – TR | D (0.53) | 41 | 69 | D (0.67) | 46 | 88 | ~160 |
| Fenmar Drive | NB – L | B (0.26) | 11 | 26 | B (0.43) | 19 | 36 | ~35 |
| (signalized) | NB – T | A (0.28) | 10 | 49 | B (0.25) | 10 | 45 | ~450 |
| | NB – R | A (0.08) | 2 | 6 | A (0.04) | 3 | 5 | ~40 |
| | SB – L | A (0.09) | 10 | 8 | B (0.11) | 11 | 13 | ~85 |
| | SB – T | A (0.23) | 10 | 34 | B (0.45) | 12 | 93 | ~180 |
| | SB – R | A (0.02) | 2 | 2 | A (0.04) | 4 | 5 | ~35 |



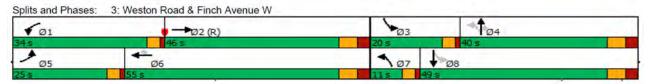
| | Overall | B (0.61) | 11 | | B (0.71) | 16 | | |
|------------------------------|-------------------|----------------------|----|-----|----------|---------|-----------|------|
| | EB – L | E (0.56) | 59 | 39 | E (0.46) | 57 | 28 | ~30 |
| | EB – TR | B (0.61) | 14 | 25 | B (0.71) | 19 | 35 | ~45 |
| | WB – L | D (0.01) | 48 | 7 | D (0.71) | 44 | 24 | ~10 |
| Weston Road/ | WB – TR | C (0.04) | 28 | 5 | C (0.19) | 20 | 16 | ~50 |
| Toryork Drive | NB – IX | A (0.37) | 5 | 21 | B (0.54) | 11 | 26 | ~25 |
| (signalized) | NB – TR | A (0.37) | 6 | 46 | A (0.26) | 7 | 39 | ~145 |
| | SB – L | A (0.34) A (0.03) | 10 | 40 | B (0.20) | , 15 | 12 | ~25 |
| | SB - T | B (0.33) | 10 | 56 | B (0.55) | 18 | 134 | ~475 |
| | SB – R | A (0.05) | 10 | 1 | A (0.16) | 4 | 134 | ~30 |
| | Overall | B (0.67) | 19 | 1 | · · · / | 27 | 13 | ~30 |
| | EB – L | | 42 | 25 | C (0.89) | 50 | 45 | ~30 |
| | EB – L EB – TR | D (0.40) | | | D (0.51) | 19 | | |
| Finch Avenue W/ | | B (0.67) | 15 | 159 | B (0.65) | | 155 11 | ~250 |
| | WB – L | D (0.13) | 40 | 10 | D (0.16) | 41 | | ~30 |
| Milvan Drive/ | WB – TR | B (0.60) | 17 | 112 | C (0.89) | 33 | 183 | ~270 |
| Rumike Road | NB – L | D (0.62) | 44 | 42 | C (0.55) | 33 | 41 | ~15 |
| (signalized) | NB – TR | C (0.22) | 24 | 19 | B (0.21) | 19 | 22 | ~200 |
| | SB – L | D (0.54) | 41 | 33 | D (0.73) | 42 | 58 | ~70 |
| | SB – T | C (0.14) | 28 | 16 | C (0.28) | 25 | 31 | ~175 |
| | SB – R | A (0.16) | 3 | 4 | A (0.35) | 7 | 16 | ~100 |
| | Overall | B (0.68) | 19 | _ | D (0.94) | 40 | | |
| | EB – L | D (0.06) | 44 | 6 | E (0.36) | 79 | 19 | ~15 |
| Finch Avenue W/ | EB – TR | C (0.68) | 22 | 195 | D (0.85) | 42 | 237 | ~270 |
| Jayzel Drive/ | WB – L | D (0.45) | 49 | 35 | F (0.83) | 117 | 68 | ~30 |
| (unsignalized) | WB – TR | B (0.45) | 12 | 131 | C (0.74) | 25 | 141 | ~550 |
| (unsignalized) | NB – L | E (0.59) | 56 | 27 | F (0.94) | 109 | 81 | ~15 |
| | NB – TR | A (0.27) | 10 | 12 | B (0.16) | 10 | 15 | ~200 |
| | SB – LTR | C (0.09) | 33 | 7 | D (0.56) | 52 | 24 | ~60 |
| | Overall | C (0.72) | 22 | | A (0.59) | 8 | | |
| Finch Avenue W/ | EB – L | E (0.42) | 70 | 31 | E (0.59) | 71 | 43 | ~30 |
| | EB – T | C (0.61) | 23 | 141 | A (0.41) | 1 | 6 | ~290 |
| Street 2A/ (unsignalized) | WB – TR | B (0.72) | 19 | 195 | A (0.57) | 6 | 44 | ~275 |
| | SB – L | C (0.08) | 30 | 20 | E (0.34) | 67 | 28 | ~30 |
| | SB – R | A (0.17) | 7 | 12 | C (0.43) | 21 | 16 | ~80 |

The proposed signal timing plan for the Finch Avenue W/Weston Road intersection is illustrated in **Figure 21**, with **Figure 22** illustrating the proposed signal timing plan for the Finch Avenue W/Future Road 2A intersection.

Figure 21 – Finch Avenue W/Weston Road Intersection Proposed Signal Timing Plan
AM Peak Periods



PM Peak Periods/PM Peak Periods with Sensitivity Analysis



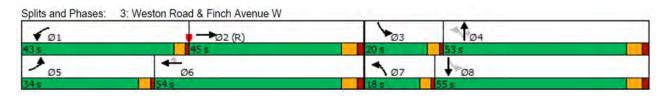




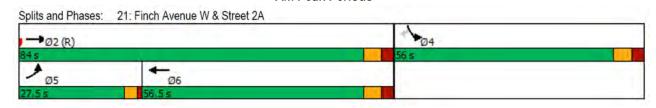
Figure 22 – Weston Road/Toryork Drive Proposed Signal Timing Plan AM Peak Periods



PM Peak Periods



Figure 23 – Finch Avenue W/Future Road 2A Intersection Proposed Signal Timing Plan AM Peak Periods



PM Peak Periods



Table 13 – 2026 Future Total Levels of Service for Unsignalized Intersections

| | Vov | Week | day AM Peak | Hour | Week | day PM Peak | Hour | Available |
|----------------|-----------------|-----------|-------------|-------------------------------|-----------|-------------|-------------------------------|-----------------------|
| Intersection | Key Movement | LOS (v/c) | Delay (s) | Queue 95 th (m) | LOS (v/c) | Delay (s) | Queue 95 th (m) | Storage Length (m) |
| Toryork Drive/ | EB – TR | A (0.17) | 0 | 0 | A (0.24) | 0 | 0 | ~230 |
| Future Road 2A | WB – TL | A (0.01) | 1 | 0 | A (0.03) | 1 | 1 | ~80 |
| (unsignalized) | NB – LR | B (0.24) | 15 | 7 | C (0.18) | 16 | 5 | ~50 |
| Road 2A/ | WB – LR | B (0.13) | 11 | 4 | B (0.06) | 11 | 2 | ~80 |
| Street 1 | NB – TR | A (0.07) | 0 | 0 | A (0.07) | 0 | 0 | ~50 |
| (unsignalized) | SB – TL | A (0.00) | 0 | 0 | A (0.00) | 0 | 0 | ~50 |
| Toryork Drive/ | EB – TR | A (0.16) | 0 | 0 | A (0.20) | 0 | 0 | ~80 |
| Street 1 | WB – TL | A (0.02) | 1 | 0 | A (0.08) | 3 | 2 | ~40 |
| (unsignalized) | NB – LR | B (0.13) | 12 | 4 | B (0.07) | 13 | 2 | ~45 |
| Road 2A/ | EB – LR | B (0.04) | 10 | 1 | B (0.02) | 10 | 1 | ~45 |
| Block 3 Access | NB – TL | A (0.06) | 0 | 0 | A (0.08) | 0 | 0 | ~100 |
| (unsignalized) | SB – TR | A (0.00) | 0 | 0 | A (0.00) | 0 | 0 | ~53 |



The analysis indicates that the Future Road 2A/Toryork Drive intersection and site intersections are expected to operate at acceptable levels of service with minimum delay and queues. The proposed lane configurations for each unsignalized intersection are outlined below:

Toryork Drive/Future Road 2A

- One shared eastbound through/right lane
- One shared westbound through/left lane;
- One southbound lane and one northbound lane with shared northbound left/right lane at the intersection; and
- Stop-controlled on Future Road 2A and free-flow on Toryork Drive

Toryork Drive/Proposed Street 1

- One shared eastbound through/right lane
- One shared westbound through/left lane;
- One southbound lane and one northbound lane with shared northbound left/right lane at the intersection; and
- Stop-controlled on Street 1 and free-flow on Toryork Drive

Future Road 2A/Proposed Street 1

- One shared northbound through/right lane
- One shared southbound through/left lane;
- One eastbound lane and one westbound lane with shared westbound left/right lane at the intersection; and
- Stop-controlled on Street 1 and free-flow on Future Road 2A

Future Road 2A/Proposed Block 3 Access

- One shared northbound through/right lane
- One shared southbound through/left lane;
- One eastbound lane and one westbound lane with shared westbound left/right lane at the intersection; and
- Stop-controlled on Block 3 Access and free-flow on Future Road 2A

6.2. Active Transportation Assessment

Walking

The area is currently well-serviced by a sufficient network of sidewalks, with sidewalks are available on both sides of Toryork Drive, Finch Avenue W and Weston Road. The sidewalks are reasonably maintained. However, from operational and safety perspective, the frequency of accesses on Finch Avenue W, Weston Road and Toryork Drive can be reduced to provide better pedestrian experience by reducing the numbers of potential car turning that will interfere with pedestrians.

It Nextrans' understanding that some of the guiding principles and objectives of the Emery Village Secondary Plan include: a connected, attractive, safe and comfortable system of pedestrian bicycle routes. These guiding principles will help guide the developments in the area to meet and implement some of these requirements within the control of the developments.

As part of the proposed development, sidewalks will be provided along proposed public Street 1 to connect the proposed development with the existing sidewalks on Toryork Drive and Future Road 2A. Sidewalk will be also provided along the proposed Block 3 access. Direct pedestrian connections from the proposed building onto public streets will be provided, where appropriate, to facilitate pedestrian movements.

The proposed development will also provide and enhance sidewalk on the south side of Toryork Drive between Future Road 2A and Weston Road to improve pedestrian connections in this area.



Cycling

Under the existing conditions, dedicated bicycle lanes are not currently available in the immediate area. However, there are existing multi-use trails along Rowntree Mills Park, Humber River and Emery Creek. Through the guiding principles and recommendations of the Emery Village Secondary Plan, the cycling network in the area will improve significantly through the implementation of the land uses in the area, as well as major capital projects by the City of Toronto and Metrolinx.

It is Nextrans understanding that cycle facility will be provided on both sides of Finch Avenue W west of Weston Road, however, only multiuse boulevard trail will be provided on the south side of Finch Avenue W east of Weston Road to Northfinch Drive.

As per the City of Toronto cycling network plan (illustrated in **Figure 10** of this Study), the multiuse boulevard trail will continue on Weston Road south of Finch Avenue W to connect with the existing trails west of Weston Road.

The analysis indicates that the future cycling network proposed in the area is sufficient to accommodate the Emery Village Secondary Plan and new developments in the area.

As part of the proposed development, Nextrans recommends the following:

- The proposed development provides a total of 968 bicycle parking spaces; and
- The proposed development provides three bicycle repair stations (one for each block)

Figure 24 illustrates the potential bicycle repair station on site. The final locations will be addressed as part of the site plan application, where appropriate.

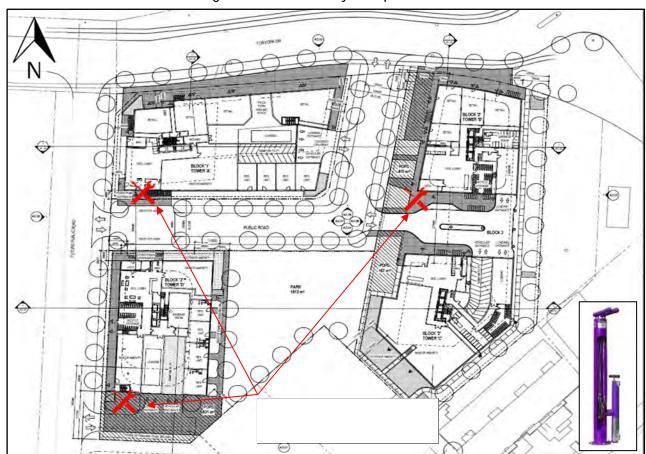


Figure 24 – Potential Bicycle Repair Station



6.3. Transit Mode Assessment

As indicated, if a 20% modal split (non-auto) is applied, the proposed development is expected to generate 56 total two-way non-auto trips (9 inbound and 47 outbound) and 57 total two-way non-auto trips (37 inbound and 20 outbound) during the AM and PM peak hours, respectively.

The proposed development is located adjacent to TTC Bus Routes 36 Finch West (A, B, D and F), 165 Weston Road North and 989 Weston Express to Steeles bus stops located in the vicinity of the Finch Avenue West/Weston Road intersection. The proposed development is located adjacent to Emery LRT Station (Finch West LRT), which is scheduled to be completed by 2023. The proposed development is also located approximately 4.3 km from the existing Finch West Subway Station on Line 1 Yonge-University. Once the Finch West LRT is opened, it will take approximately 10 minutes from the proposed development to the Finch West Station.

It is anticipated that most of the future residents will walk directly to the Finch West LRT Emery Station to use the LRT for east-west or connect to Line 1 Yonge-University for north-south direction trips. For the purposes of this assessment, it is assumed that the majority of the transit trips would be LRT.

Table 14 summarizes the transit trip assignments based on the transit trip generation and distribution estimated from the 2016 Transportation Tomorrow Survey data and existing TTC service in the area.

Weekday AM Peak Hour Weekday PM Peak Hour **Transit Route** Inbound Outbound Inbound Outbound Transit Trips Transit Trips **Transit Trips** Transit Trips Future Finch West LRT Eastbound 17 40 6 Future Finch West LRT Westbound

Table 14 – Future Transit Passenger Demand from the Proposed Development

As indicated in the table above, the transit passenger demands generated by the proposed development per transit vehicle is low (with maximum of 40 passengers per 10 transit vehicle or 4 passengers per vehicle). Therefore, the proposed development impact on transit service is negligible and the future Finch West LRT can accommodate the proposed development.

7.0 SITE PLAN REVIEW

7.1. Loading Requirement

As indicated, the proposed development consists of several high-rise buildings for rental purposes, with a total of 1,275 residential dwelling units and approximately 1,024 m² of ground related retail gross floor area. The City's consolidated By-Law 569-2013 was reviewed to determine the loading requirement for the proposed development. **Table 15** summarizes the loading requirement.

Spaces Required Land Use Magnitude **Loading Rates** 393 residential units 31 - 399 dwelling units 1 Type "G" Block 1 598 m² retail 500 - 1,999 m² 1 Type "B" 601 residential units 400 dwelling units or more 1 Type "G" and 1 Type "C" Block 2 $0 - 499 \text{ m}^2$ None required 426 m² retail 281 residential units 31 - 399 dwelling units 1 Type "G" Block 3

Table 15 – City of Toronto Zoning By-law No. 569-2013 Loading Requirements

Under the City's By-Law 569-2013, 3 Type "G" loading spaces (13 m Length, 4.0 m Width and 6.1 m Vertical), one Type "B" loading space (11 m Length, 3.5 m Width and 4.0 m Vertical) and one Type "C" loading space (6 m Length, 3.5 m Width and 3 m Vertical) are required for the proposed development. It is Nextrans' understanding the City of Toronto



current Zoning By-law allows shared loading space for proposed uses that are located within the same building. Given that the proposed residential and commercial are located within the same building, one Type "G" loading space is required for Block 1 and Block 2 as loading Type "G" is largest type of loading space.

Based on this assessment, Nextrans recommends that the proposed development only requires to provide one Type "G" loading space for each Block. The vehicle turning templates (AutoTURN software) has been provided in **Figure 26** to demonstrate the accessibility for the types of vehicles that will access the site, with **Figure 27** illustrating the vehicle turning movements in and out of the underground parking spaces and ramps.

7.2. Proposed Site Access

Currently, the subject site has six direct full moves access onto Toryork Drive. As part of the proposed redevelopment of site, a north-south to east-west public road (Street 1) will be constructed by the proposed development and Future Road 2A will be constructed by the City of Toronto. The two proposed site accesses for Block 1 and Block 2 will be provided via these proposed public roads, with Block 3 access will be provided onto Future Road 2A. The proposed road network is consistent with the Emery Village Secondary Plan Structure Plan.

It is Nextrans' understanding that the City of Toronto is in the process of initiating the work for Road 2A. The anticipated completion of this Road 2A is 2025. This timeline coincides with the completion of the proposed development. As an option, if Road 2A is not completed at the same time as the proposed development, the first portion of Road 2A from Toryork Drive to the southerly limit of the proposed development can be construction in the interim to accommodate the proposed development. The remaining segment from the proposed development to Finch Avenue W can be constructed shortly after. However, for the purposes of this assessment, it is assumed that Road 2A will be completed at the same time or very close to the anticipated development completion.

The analysis indicates that the site accesses are expected to operate at acceptable levels of service with minimum delay or queue. The configuration includes:

Toryork Drive/Future Road 2A

- One shared eastbound through/right lane
- One shared westbound through/left lane;
- One southbound lane and one northbound lane with shared northbound left/right lane at the intersection; and
- Stop-controlled on Future Road 2A and free-flow on Toryork Drive

Toryork Drive/Proposed Street 1

- One shared eastbound through/right lane
- One shared westbound through/left lane:
- One southbound lane and one northbound lane with shared northbound left/right lane at the intersection; and
- Stop-controlled on Street 1 and free-flow on Toryork Drive

Future Road 2A/Proposed Street 1

- One shared northbound through/right lane
- One shared southbound through/left lane;
- One eastbound lane and one westbound lane with shared westbound left/right lane at the intersection; and
- Stop-controlled on Street 1 and free-flow on Future Road 2A

Future Road 2A/Proposed Block 3 Access

- One shared northbound through/right lane
- One shared southbound through/left lane;
- One eastbound lane and one westbound lane with shared westbound left/right lane at the intersection; and
- Stop-controlled on Block 3 Access and free-flow on Future Road 2A

Figure 25 illustrates the proposed traffic control devices and pavement markings.



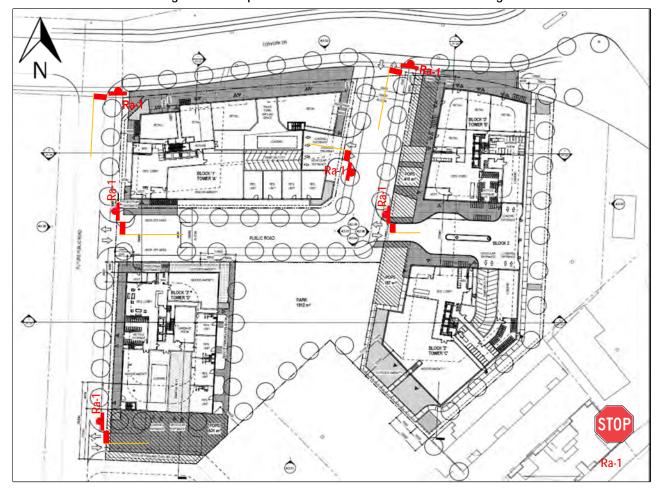


Figure 25 – Proposed Traffic Control and Pavement Marking

8.0 PARKING ASSESSMENT

8.1. Vehicle Parking Requirement

The City's Zoning By-Law No. 89-2022 (Parking Zone A or PZA of the parking map boundary 25) was reviewed to determine the vehicle parking requirement for the proposed development. It is Nextrans' understanding that there is no minimum parking requirement for residential parking component, however, the proposed development shall not exceed the maximum parking rates outlined in Table 200.5.10.1 of the Zoning By-law. **Table 16** below summarizes the maximum vehicle parking spaces allowed for the proposed development based on the current Zoning By-law 89-2022 (PZA).

Based on the analysis indicated in the table below, the *maximum allowable vehicle parking* for the proposed development is 1,302 vehicle parking spaces (including resident, visitor and retail). This is a significant amount of vehicle parking supply and it is not sustainable nor supportive of the sustainable visions and objectives in the City's Official Plan.

Given this area will be serviced by the future Finch West LRT that will provide direct connection to the Line 1 Yonge-University Subway Line and other east-west and north-south transit routes, the analysis indicates that vehicle parking should be reduced to support alternative modes of transportation and to comply with the City's sustainability objectives and requirements.



| Land Use | Unit Type | No. of Unit / GFA | Parking Rates | Maximum Allowable Vehicle Parking Spaces | | | |
|----------|---------------------|-----------------------|-------------------------------|--|--|--|--|
| | Visitor | 393 units | 0.15 spaces/unit | 59 | | | |
| | 1-Bedroom | 219 units | 0.80 spaces/unit | 175 | | | |
| Block 1 | 2-Bedroom | 155 units | 0.90 spaces/unit | 140 | | | |
| DIUCK I | 3-Bedroom | 19 units | 1.10 spaces/unit | 21 | | | |
| | Retail | 598 m ² | 1.50 space/100 m ² | 9 | | | |
| | | Sub-total | | 404 spaces | | | |
| | | | | | | | |
| | Visitor | 601 units | 0.15 spaces/unit | 90 | | | |
| | Studio | 3 units | 0.30 spaces/unit | 1 | | | |
| | 1-Bedroom | 353 units | 0.80 spaces/unit | 282 | | | |
| Block 2 | 2-Bedroom | 185 units | 0.90 spaces/unit | 167 | | | |
| | 3-Bedroom | 60 units | 1.10 spaces/unit | 66 | | | |
| | Retail | 426 m ² | 1.50 space/100 m ² | 6 | | | |
| | | Sub-total | | 612 spaces | | | |
| | | | | | | | |
| | Visitor | 281 units | 0.15 spaces/unit | 42 | | | |
| | 1-Bedroom | 146 units | 0.80 spaces/unit | 117 | | | |
| Block 3 | 2-Bedroom | 107 units | 0.90 spaces/unit | 96 | | | |
| | 3-Bedroom | 28 units | 1.10 spaces/unit | 31 | | | |
| | | Sub-total | | 286 spaces | | | |
| To | tal Darkina Doguis | romant for the Proper | cod Dovolonmont | 1 202 chacas | | | |
| 10 | iai raikiily keyuli | rement for the Propos | 1,302 spaces | | | | |

8.1.1. Recommended Parking Rates for the Proposed Development

As indicated in Section 2.3, the proposed development is located adjacent to several existing TTC Bus Routes, and most importantly it is located adjacent to Finch West LRT and MTSA, which is currently under construction. The proposed development is also located approximately 4.5 km from the existing Finch West Subway Station on Line 1 Yonge-University at Keele Station. In addition, the site is located adjacent to TTC Bus Routes 106 Sentinel and about 250 m (less than 4 minute-walk) to TTC Bus Route 36 Finch West. The proposed development is also located within the Emery Village Secondary Plan and the Humbermede Neighbourhood Improvement Area. This is one of the 31 neighbourhoods identified as part of the Toronto Strong Neighbourhoods Strategy 2020 as falling below the Neighbourhood Equity Score and requiring special attention. Neighbourhood Improvement Areas are supported by Neighbourhood Action Teams to help strengthen the social, economic and physical conditions.

With the extensive transit investment by all levels of government along with the lack of redevelopment activities in the area, appropriate parking management should be considered to promote higher ridership and incentivize future developments. Appropriate parking management is also required to support sustainable objectives as outlined in the City of Toronto Official Plan. For these reasons, the analysis indicates that there are more viable and convenient modes of transportation to and from the proposed development instead of driving private vehicles. As such, there is no need for the future residents to own a vehicle and they can keep the housings cost down. The analysis indicates that these recommended parking rates are required to support transportation demand management measures and to encourage more active mode of transportation such as walking and cycling, as well as public transit to and from the proposed development. Based on various research and our experience, parking management is one of the most important Transportation Demand Management (TDM) measures.

Nextrans recommended that the parking requirement for the proposed development should be reduced base on justifications provided in this Study. **Table 17** summarizes the recommended parking rates for the proposed development.

Based on these recommended parking rates, the proposed development will provide a total of 819 vehicle parking spaces. This is about 37% reduction from the maximum allowable vehicle parking spaces for this proposed development. Given



that the existing transit modal split based on 2016 TTS data is already at 41% during the morning peak periods and 32% during the afternoon peak periods, the proposed reduction is justified on this basis alone.

It should be noted that the surplus parking spaces, if any, can be used for carshare spaces or additional bicycle parking spaces, if appropriate.

The justifications to support these recommended parking rates for the proposed development are based on:

- Proposed development context;
- The City's amended Zoning By-law No. 89-2022 with no minimum residential parking requirement;
- City of Toronto Official Plan (2019);
- Background research and relevant policies;
- The existing 2016 non-auto modal share for the area;
- Household demographic and car ownership in the area;
- Transportation Demand Management measures

The detailed justifications are included below.

Table 17 – Recommended Blended Parking Rates for the Proposed Development

| Land Use | Unit Type | No. of Unit / GFA | Parking Rates | Maximum Allowable Vehicle Parking Spaces | | | | | |
|----------|--------------------|-----------------------|-------------------------------|--|--|--|--|--|--|
| | Visitor | 393 units | 0.09 spaces/unit | 35 | | | | | |
| | 1-Bedroom | 219 units | 0.40 spaces/unit | 87 | | | | | |
| Block 1 | 2-Bedroom | 155 units | 0.40 spaces/unit | 62 | | | | | |
| DIUCK I | 3-Bedroom | 19 units | 0.40 spaces/unit | 8 | | | | | |
| | Retail | 598 m ² | 1.30 space/100 m ² | 8 | | | | | |
| | | Sub-total | | 200 spaces | | | | | |
| | | | | | | | | | |
| | Visitor | 601 units | 0.10 spaces/unit | 60 | | | | | |
| | Studio | 3 units | 0.59 spaces/unit | 2 | | | | | |
| | 1-Bedroom | 353 units | 0.59 spaces/unit | 208 | | | | | |
| Block 2 | 2-Bedroom | 185 units | 0.59 spaces/unit | 109 | | | | | |
| | 3-Bedroom | 60 units | 0.59 spaces/unit | 35 | | | | | |
| | Retail | 426 m ² | 1.50 space/100 m ² | 6 | | | | | |
| | | Sub-total | | 420 spaces | | | | | |
| | | | | | | | | | |
| | Visitor | 281 units | 0.10 spaces/unit | 28 | | | | | |
| | 1-Bedroom | 146 units | 0.61 spaces/unit | 89 | | | | | |
| Block 3 | 2-Bedroom | 107 units | 0.61 spaces/unit | 65 | | | | | |
| | 3-Bedroom | 28 units | 0.61 spaces/unit | 17 | | | | | |
| | | Sub-total | | 199 spaces | | | | | |
| | | | | | | | | | |
| То | tal Parking Requii | rement for the Propos | 819 spaces | | | | | | |

9.0 VEHICLE PARKING JUSTIFICATION

9.1.1. Development Proposal Context

As indicated, the subject site is located within the Emery Village Secondary Plan which was adopted by City Council in 2002 and approved by OMB in 2002. The Emery Village Secondary Plan envisions the re-urbanization of the community to facilitate mixed-use development, reduce automobile dependency and increase streetscape improvements. The key objectives related to trip reduction of the Secondary Plan include:



- to create a balance of high-quality commercial, residential, institutional and open space uses that reduce automobile dependency and meets the needs of the local community;
- to provide a connected, attractive, safe and comfortable system of pedestrian bicycle routes; and
- to improve streetscapes to create an attractive pedestrian environment

The proposed redevelopment will also help revitalize the area and capitalize on the major transit infrastructure investments in the area including future Finch West LRT and existing Line 1 Yonge-University Finch West Subway Station. In order to achieve this objective, the reduce parking supply must be implemented and the analysis indicates that the reduced parking rates are reasonable and justified.

9.2. Subject Site Walk Score

Nextrans has reviewed the walk score for the subject site using the information in www.walkscore.com website. **Table**18 below summarizes the walk score for the subject site.

| Mode | Score | Description | | | | | | |
|----------------|-------|--|--|--|--|--|--|--|
| Walking | 60 | Somewhat walkable – some errands can be accomplished on foot | | | | | | |
| Public Transit | 68 | Good transit – many nearby public transportation options | | | | | | |
| Cycling | 53 | Bikeable – some bike infrastructure | | | | | | |

Table 18 – Walk Score for 23 Toryork Drive

Based on the information outlined in the table above, the area currently has good walking and cycling options, as well as good transit options. However, this will change in the future with the completion of the Finch West LRT and MTSA. It is anticipated that these scores will be much higher in the future.

9.3. City of Toronto Amended Zoning By-law No Minimum Parking Requirement

As indicated, the City of Toronto has recognized that the requirement of excessive parking is a barrier to achieving the City's housing needs and objectives, auto-independence and promoting other modes of transportation such as public transit, walking and cycling.

In December 2021, the City of Toronto Council has adopted Zoning By-Law Amendments that will remove the minimum parking requirement for residential development. It is Nextrans' understanding that the parking policy amendment to the current Zoning By-law No. 569-2013 has been updated in March, 2022, which has removed the minimum parking rate requirement for residential development across the City.

This is an excellent news to address housing affordability and housing crisis in the City of Toronto. The no minimum parking requirement for residential should be applied to the proposed development as it is located adjacent to the existing rail transit with short distance to Line 1 Yonge-University-Spadina Subway. This provision must be implemented to support the major transit infrastructure improvements by TTC.

9.4. Housing Crisis and Affordability

The Greater Toronto Area, including the City of Toronto, is currently facing a housing shortage and affordability crisis. Demand for new housing is high; especially during the COVID-19 pandemic. Once the pandemic is over, housing availability and affordability are expected to further decline. One component that increases the cost of new units in multistorey buildings, is the requirement to provide a minimum rate of parking; even in areas well serviced by transit with historically low vehicle ownership and use rates. The cost of providing one underground parking space is in the range of \$48,000 to \$160,000 per space due to the aggregate impact of land costs, constructability, site constraints and other factors leading to high construction costs (*Source: City of Toronto Presentation: Review of Parking Requirements for New Development - Sept 2021*).



Furthermore, the more residential or visitor parking spaces that a proposed development has to provide, the more expensive the maintenance costs will be for the owners. Monthly maintenance cost for a parking space could be up to \$100 per month, on top of the capital costs of a parking space. The provision of less parking can reduce overall maintenance costs and result in lower housing costs/greater housing affordability.

9.5. Covid-19 Pandemic and Working from Home

As the COVID-19 pandemic is still impacting globally, in Canada, the Province of Ontario, and particularly, the City of Mississauga and Peel Region, this pandemic will permanently alter the way people work and travel in the future. For example, since the lockdown in March, 2020, the City experienced a significant decrease in peak hour travel on both private vehicles and other trips in general. This is due to the fact that many office employees and employers elected to work from home. This trend has continued into November 2022; at the time of the preparation of this Study.

Based on various reporting from media, this working from home trend for office workers may continue even when the pandemic is over as both employees and employers have invested significantly in remote working equipment and infrastructures, as well as faster internet and online meeting platforms such as Zoom, Microsoft Teams and Skype for business.

9.6. A Reduction to the Minimum Vehicle Parking Requirements Will Help Supporting Local Businesses

A lower parking rate can help to support local businesses and improve the overall vibrancy of the community. When tenants are encouraged to use alternative forms of transportation, they are more likely to walk or bike to local shops, restaurants, and other businesses. This can help to support the local economy and create a more vibrant and dynamic community. A study from London England found that implementing policies aimed at reducing auto-dependence and encouraging transportation alternatives to automobiles, increased retail spend by 30% in local town centres and on main streets. And over a month, people who walk to the main street spend up to 40% more than people who drive there. (Source: https://content.tfl.gov.uk/town-centres-report-13.pdf).

This is consistent with other policy and design interventions implemented in other cities like the City of Toronto, New York City and Seattle. For example, the introduction of bike lanes, and the recent removal of parking minimums, on Vanderbilt Avenue, in New York City, led to a 102% increase in retails sales and, similarly, on Latona Avenue and 65 Street, in Seattle, a similar intervention increased retail sales by 400%.

(Source: https://www.toronto.ca/wp-content/uploads/2019/11/8fd3-Bloor-Bike-Lane-Economic-Impact-Research-Summary-2019.pdf).

9.7. A Reduction to the Minimum Vehicle Parking Requirements has a Number of General Benefits

A reduction in the minimum parking requirements which decreases vehicle trips and increases transit usage (as proven via the UCLA study above) also provides the following benefits:

- Reduced traffic congestion in the area. Refer to Section 3.2 (2016 TTS Mode Share) of this report which demonstrates that a reduction in vehicle parking reduces the number single-occupancy trips.
- Reduced GHG emissions. The grams of CO2 per person kilometer traveled for a car is 243.8 grams, 20 grams for a streetcar, and zero grams for walking and biking.
 - (Source: https://sensibletransport.org.au/project/transport-and-climate-change/)
- Safer streets for all road users, other drivers, bicyclists, pedestrians. A new controlled study from the Department
 of Safety and the Environment Institute of Transport Economics in Oslo, Norway showed that the more bikes
 there were, the more drivers saw bikes and were able to coexist safely with riders. The number of accidents
 between cars and bicycles decreased substantially as the number of people riding bicycles increased.



9.7.1. City of Toronto Official Plan (2019)

Over the last several decades, the City of Toronto growth has relied on the public transit system such as TTC, GO Transit and other modes of transportation. The integration of transportation and land use planning allows the City to enjoy its success today without widening or building more roads to accommodate population growth.

As indicated in Section 2.2 of the Official Plan, future growth within Toronto will be focused in the areas which are well served by the existing public transit system, the existing road network and that have a number of properties with redevelopment potential. The growth areas are generally the locations where good transit access can be provided along bus and streetcar routes, subway and GO Train stations.

The Official Plan also indicates that "The integration of transportation and land use planning is critical to achieving the overall aim of increasing accessibility throughout the City. Accessibility has two components: mobility (transportation) and proximity (land use). Increasing mobility by providing modal choice, and/or increasing the speed of travel allows more trips to be made within a given time, whereas increasing proximity through greater mixing of uses and/or higher densities achieves the same effect by shortening trip lengths. The policies of this Plan reflect the importance of mutually supportive transportation and land use policies that combine the mechanisms of mobility and proximity to maximize accessibility."

Our review of the Official Plan Transportation Policies and directions indicate that there is a need to reduce automobile trips by managing parking in the City in order to reduce single-occupant-vehicle trips and to support other modes of transportation such as public transit and active transportation.

9.7.2. Existing Mode Share

Table 19 summarizes the travel mode split information, based on the review of the 2016 Transportation Tomorrow Survey data, for Traffic Zones 385, 402 and 403. The detailed 2016 TTS data extraction is included in **Appendix E**.

| | | Trips Made by Traffic Zones 396, 397, 398 and 399 | | | | | | | |
|-------------|---------------------------------|---|--|---------|-------|------|--|--|--|
| Туре | Time | Auto Driver (including motorcycle) | Auto Passenger (including paid rideshare and taxi) | Transit | Cycle | Walk | | | |
| Residential | AM Peak Period (6:00 – 9:00) | 35% | 7% | 41% | 0% | 17% | | | |
| | PM Peak Period (4:00 – 7:00) | 48% | 19% | 32% | 0% | 1% | | | |

Table 19 – Modes of Travel based on 2016 TTS Data for Traffic Zones

Based on the information outlines in the table above, for the residential land use, the predominant modes of travel in the area are non-auto modes (walking, cycling, transit and carpooling), which account for nearly 65% during the morning and 52% during the afternoon peak periods. It should be noted that the information noted above is based on the 2016 TTS, which does not include the opening of the Finch West Subway Station in December 2017. It is anticipated that the non-auto mode share would be significantly higher in the next Transportation Tomorrow Survey.

The information above also indicates that the recommended vehicle parking reduction of 37% for the proposed development is reasonable and justified even under today conditions.

9.7.3. Household Demographic and Car Ownership

Nextrans also reviewed the vehicle ownership for the City of Toronto Ward 7. The analysis indicates that the characteristics of entire Ward 7 is vary similar to the Finch/Weston area. **Table 20** summarizes the vehicle ownership based on the 2016 Transportation Tomorrow Survey data, while the detailed 2016 TTS data extraction is included in **Appendix E**.



Table 20 - Vehicle Ownership for Ward 8 Based on 2016 TTS Data

| Household Type | | | Household Size | | | | Number of Available Vehicles | | | | | |
|----------------|-----------|-----------|----------------|-----|-----|-----|------------------------------|-----|-----|-----|----|----|
| House | Townhouse | Apartment | 1 | 2 | 3 | 4 | 5+ | 0 | 1 | 2 | 3 | 4+ |
| 42% | 7% | 51% | 18% | 26% | 20% | 19% | 18% | 18% | 51% | 25% | 5% | 1% |

As indicated, there is a large percentage of apartment household in the area (51%), about 44% of the households with a single or two persons and 18% of households do not own a car and 51% own only one car.

Therefore, based on the existing data, it is indicated that currently 18% of the household does not own a car, and 51% owns only one car, which 50% of this could be easily converted to a more sustainable mode of transportation. For this reason, it is anticipated that 43% (18% no car with 25% diversion) of the future residents will not own a car and this justifies the proposed parking reduction of 37% for the proposed development.

Parking management could help increase the number of households that do not own a car, as parking management is the best Transportation Demand Management measure that helps reducing the number single-occupant-vehicle trips to and from the proposed development, which is consistent with the City of Toronto Official Plan policies and sustainability objectives. This information also suggested that the recommended blended parking rate of 0.40 to 0.61 spaces/unit for the proposed development is reasonable and justified today.

9.7.4. TTC Service

The proposed development is located adjacent to Emery LRT Station (Finch West LRT), which is scheduled to be completed by 2023. The proposed development is located adjacent to existing TTC Bus Routes 36 Finch West (A, B, D and F), 165 Weston Road North and 989 Weston Express to Steeles bus stops located in the vicinity of the Finch Avenue West/Weston Road intersection.

The proposed development is also located approximately 4.3 km from the existing Finch West Subway Station on Line 1 Yonge-University. Once the Finch West LRT is opened, it will take approximately 10 minutes from the proposed development to the Finch West Station.

Therefore, there are more convenient and cost-effective modes of transportation in the are that will help resident mobility without the dependent on private automobiles. Typically, the modal split for LRT will be in the order of 20% to 30%, therefore, a proposed reduction of 12% vehicle parking supply is reasonable and justified.

9.7.5. Transportation Demand Management Measures

The main objective of the Transportation Demand Management (TDM) is to encourage residents to take alternative modes of transportation such as public transit, walking, cycling and carpooling.

Based on Nextrans' experience in conducting transportation impact studies in various jurisdictions in the Great Toronto and Hamilton Area (GTHA), parking management is the best Transportation Demand Management measure that helps reducing the number single-occupant-vehicle trips to and from the proposed development, which is consistent with the City of Toronto Official Plan policies and sustainability objectives.

Nextrans provides additional recommendations for the TDM measures in Section 11 of this Study, to support the recommended parking rates reduction for the proposed development.

10.0 BICYCLE PARKING ASSESSMENT

The proposed development is located within 'Bicycle Zone 2' of the City of Toronto Zoning By-law 569-2013, and the applicable bicycle parking rates are summarized below, and detailed calculations are provided in **Table 21**.



The proposed development will require a total of 968 bicycle parking spaces, including 98 short-term spaces and 870 long-term spaces. The proposed development provides a minimum of 968 bicycle parking spaces, inclusive of short-term and long-term spaces, which meets the Zoning By-law requirements.

Table 21 – City of Toronto Zoning By-law No. 569-2013 (Zone 2) Bicycle Parking Requirements

| Proposed Development | Magnitude | Bicycle Parking Rates | Short-Term | Long-term | Total |
|-------------------------|--------------------|---|------------|-----------|-------|
| | 393 units | 0.07 spaces/unit short-term 0.68 spaces/ unit long-term | 28 | 267 | 295 |
| Block 1 | 598 m ² | 3 + 0.25 spaces/100 m ² short-term 0.13 spaces/100 m ² long-term | 4 | 1 | 5 |
| | | Sub-total | 32 | 268 | 300 |
| | | | | | |
| | 601 units | 0.07 spaces/unit short-term 0.68 spaces/ unit long-term | 42 | 409 | 451 |
| Block 2 | 426 m ² | 3 + 0.25 spaces/100 m ² short-term 0.13 spaces/100 m ² long-term | 4 | 1 | 5 |
| | | Sub-total | 46 | 410 | 456 |
| | | | | | |
| Block 3 | 281 units | 0.07 spaces/unit short-term 0.68 spaces/ unit long-term | 20 | 192 | 212 |
| | | | | | |
| Total Bicyci | le Parking Require | ment for Proposed Development | 98 | 870 | 968 |

11.0 TRANSPORTATION DEMAND MANAGEMENT AND TGS

11.1. TDM Opportunities and Directions

Transportation Demand Management (TDM) is a co-ordinated series of actions aimed at maximizing the people moving capability of the transportation system. It is intended help reduce single-occupant auto use. Potential TDM measures may include but not limited to: TDM supportive land use, bicycle and pedestrian programs and facilities, public transit improvements, preferential treatments for buses and high occupancy vehicles (if applicable), ridesharing, and employee incentives.

Given that this area will be transforming into a vibrant village that will meet the sustainable transportation objectives and directions of the Emery Village Secondary Plan which include:

- to re-urbanize the Emery Village Community by providing new mixed-use development on an incremental basis consistent with the capacity of existing or planned infrastructure;
- to create a balance of high-quality commercial, residential, institutional and open space uses that reduce automobile dependency and meets the needs of the local community;
- to locate and mass new buildings to emphasize the intersection of Finch Avenue and Weston Road, and provide transitions between areas of different development intensity and scale;
- to enhance and extend the existing open space network;
- to provide a connected, attractive, safe and comfortable system of pedestrian bicycle routes;
- to improve streetscapes to create an attractive pedestrian environment; and
- to develop a new system of roads, to provide alternative routes to the Finch/Weston intersection, to create new development parcels and provide access to an enhanced open space network.

Based on these objectives, Nextrans recommends the following TDM principles to be considered as part of the overall Emery Village Secondary Plan:



- 1. Provide opportunity for carshare parking spaces for each building, where applicable (i.e. the size of the building);
- Consider mobility services for people with disabilities;
- 3. Ensure that each proposed development meet or exceed minimum bicycle parking Zoning By-law requirement;
- 4. Each building or development should have at least one bike repair station;
- 5. Provide opportunity for EV charging stations, where appropriate;
- 6. Providing convenient access to public transport interchanges with new streets or pathways that will bring more ridership to existing or future transit facilities;
- 7. Introducing complete street design, safer crossing, comfortable walking and cycling experience that will further enhance mobility options for the residents;
- 8. Advancing intelligent traffic management systems and mobility options with solutions based on smart technologies to provide relief to existing congestion and other transportation challenges;
- 9. Exploring smart parking management strategies that could alleviate current nature of shifting usage and surface parking issues; and
- 10. Promoting creative design ideas that can be advanced to inform approaches to site planning that maximize opportunities for sustainable transportation modes.

11.2. Recommended TDM Measures and Incentives for the Proposed Development

Based on the review of the context of the proposed development in relation to the TDM requirements in the City's Transportation Impact Study Guidelines (2013) and Emery Village Secondary Plan, the following TDM measures and incentives are recommended for the proposed development, which are more realistic and implementable as part of the proposed development:

- Unbundle vehicle space from unit sale;
- Provide more bicycle parking spaces than the minimum Zoning By-law requirements, if appropriate;
- Provide direct shared pedestrian and cycling connections from the proposed development to Weston Road, Toryork Drive, Future Road 2A and proposed public streets, where appropriate. For example, provide the main building entrances directly to the streets;
- Implement the recommended vehicle parking rates in this Study to encourage alternative modes of transportation;
- Provide 3 carshare parking spaces and engage with carshare company for future implementation;
- Provides 3 bicycle repair stations on site; and
- Provide information package for new residents. The information package can be an electronic letter that includes TTC schedules, GO Transit Schedules, community and cycling maps, where appropriate. The Information Package can be distributed at the sale office or email; and

In the future, residents who will be living and moving into the proposed development are making smart choices about the community that they move in which is readily supportive by excellence transit services and active transportation network. Therefore, the proposed TDM measures and incentives above are sufficient to support the proposed development.

11.3. Toronto Green Standard

Based on Nextrans' review of the Toronto Green Standard V4 2022, it is required that the proposed development provides:

2. Tier 1 - AQ 1.1 Single-Occupant Vehicle (SOV) Trips



 Reduce single occupancy auto vehicle trips generated by the proposed development by 25% through a variety of multimodal infrastructure strategies and Transportation Demand Management (TDM) measures

This requirement has been addressed through various recommended measures in this Study, which include but not limited to:

- Reduced vehicle parking requirement by 37%
- Unbundled parking from unit sale target 5% SOV reduction
- Provide pedestrian/cycling friendly infrastructures such as direct pedestrian connections target 5% SOV reduction
- Provide enhanced lighting/security and sidewalk experience along the frontage of the site on proposed
 Street 1, Future Road 2A, Toryork Drive and Weston Road target 5% SOV reduction
- Provide three bicycle repair stations target 5% SOV reduction
- Provide three carshare parking spaces target 5% SOV reduction

Based on the assessment provided above, the City's Green Standard requirements have been addressed through various measures provided in this Study with a minimum of 25% to a maximum of 62% single-occupant-vehicle trip reduction.

The proposed development will also provide energized outlets for every resident parking spaces. In addition, a minimum of 15% of the bicycle parking spaces will be provided with energized outlet, based on the TGS requirement.

12.0 CONCLUSIONS / FINDINGS

12.1. Study Conclusions

The findings and conclusions of the analysis are as follows:

- The proposed development is expected to generate:
 - o 278 total two-way auto trips (44 inbound and 234 outbound) and 285 total two-way auto trips (186 inbound and 99 outbound) during the AM and PM peak hours, respectively; and
 - o If a 20% modal split (non-auto) is applied, the proposed development is expected to generate 56 total two-way non-auto trips (9 inbound and 47 outbound) and 57 total two-way non-auto trips (37 inbound and 20 outbound) during the AM and PM peak hours, respectively.
- Under the existing, all the intersections considered are expected to operate at acceptable levels of service, with
 the exception of the westbound left turn at the Weston Road/Toryork Drive/Private Access intersection.
 However, this critical movement can be addressed by simple signal timing optimization, such as adding an
 advance green phase to this movement.
- Under the 2026 future background and future total traffic conditions, with the Finch West LRT and Future Road 2A, all the intersections considered are expected to operate at acceptable levels of service, with the exception of the through movements during the afternoon peak hours at the Finch Avenue W/Weston Road intersection. It should be noted that the proposed development will only add approximately 1 second to the through movement at this intersection.

This is due to the fact that the signal will be prioritize for the future Finch West LRT and U-turn movements (fully protected phase) and the elimination of the existing third shared through/lane at the Finch Avenue W/Weston Road intersection.



Nextrans has conducted a sensitivity analysis with an anticipated 20% reduction of the car trips along the Finch Avenue W corridor with the completion of the Finch West LRT by 2023, which is well within the 2026 horizon year assessment. The analysis indicates that the intersection of Finch Avenue W/Weston Road is expected to operate at acceptable levels of service with all v/c ratio for critical movements are below 1.0. This confirms that the lane configurations for this intersection is appropriate.

Therefore, the proposed lane configurations for the Finch Avenue W/Weston Road, Finch Avenue W/Future Road 2A and Toryork Drive/Future Road 2A intersections are acceptable and appropriate.

- The analysis indicates that advance green arrows in the east-west direction will be required for the Toryork Drive/Weston Road intersection.
- The analysis indicates that the site accesses are expected to operate at acceptable levels of service with minimum delay or queue.
- The analysis indicates that the transit passenger demands generated by the proposed development per transit vehicle can be accommodated by the future Finch West LRT (with maximum of 40 passengers per 10 transit vehicle or 4 passengers per vehicle). No improvements are required beyond what have been proposed for the area.
- Based on the current Zoning By-law requirements, the maximum allowable vehicle parking for the proposed
 development is 1,302 vehicle parking spaces (including resident, visitor and retail). This is a significant amount
 of vehicle parking supply and it is not sustainable nor supportive of the sustainable visions and objectives in the
 City's Official Plan.

Based on comprehensive parking justifications provided in this Addendum Study, the proposed development will provide a total of 819 vehicle parking spaces. This is about 37% reduction from the maximum allowable vehicle parking spaces for this proposed development. Given that the existing transit modal split based on 2016 TTS data is already at 41% during the morning peak periods and 32% during the afternoon peak periods, the proposed reduction is justified on this basis alone.

It should be noted that the surplus parking spaces, if any, can be used for carshare spaces or additional bicycle parking spaces, if appropriate.

- The proposed development will require a total of 968 bicycle parking spaces, including 98 short-term spaces and 870 long-term spaces. The proposed development provides a minimum of 968 bicycle parking spaces, inclusive of short-term and long-term spaces, which meets the Zoning By-law requirements.
- Currently, the subject site has six direct full moves access onto Toryork Drive. As part of the proposed redevelopment of site, a north-south to east-west public road (Street 1) will be constructed by the proposed development and Future Road 2A will be constructed by the City of Toronto. The two proposed site accesses for Block 1 and Block 2 will be provided via these proposed public roads, with Block 3 access will be provided onto Future Road 2A. The proposed road network is consistent with the Emery Village Secondary Plan Structure Plan.
- Under the City's By-Law 569-2013, 3 Type "G" loading spaces (13 m Length, 4.0 m Width and 6.1 m Vertical), one Type "B" loading space (11 m Length, 3.5 m Width and 4.0 m Vertical) and one Type "C" loading space (6 m Length, 3.5 m Width and 3 m Vertical) are required for the proposed development.

It is Nextrans' understanding the City of Toronto current Zoning By-law allows shared loading space for proposed uses that are located within the same building. Given that the proposed residential and commercial are located within the same building, one Type "G" loading space is required for each Block as loading Type "G" is largest type of loading space.



Based on this assessment, Nextrans recommends that the proposed development only requires to provide one Type "G" loading space for each Block. The vehicle turning templates (AutoTURN software) has been provided to demonstrate the accessibility for the types of vehicles that will access the site.

12.2. Study Recommendations

Based on the assessment outlined in this Study, the following recommendations are provided:

- The proposed development implements the TDM measures and incentives identified in this report to support
 active transportation and transit and to reduce the numbers of single-occupant-vehicle trips to and from the
 proposed development;
- The proposed development implements the recommended vehicle parking rates provided in this Study, to support alternative modes of transportation;
- The proposed development provides three carshare parking spaces;
- The proposed development provides three bicycle repair stations on-site at convenient locations;
- Provide direct shared pedestrian and cycling connections from the proposed development to Weston Road, Toryork Drive, Future Road 2A and proposed public streets, where appropriate. For example, provide the main building entrances directly to the streets;
- No additional physical improvements for the area road network and intersection at this time under the future background and future total conditions other than the street network identified in the Emery Village Secondary Plan and improvements at the Finch West Avenue/Weston Road, Finch Avenue W/Future Road 2A and Toryork Drive/Future Road 2A intersections;
- The City considers adding advance green arrow phases for the east-west direction at the Toryork Drive/Weston Road intersection; and
- The recommended lane configurations and traffic control types for the proposed site accesses and intersections include:

Toryork Drive/Proposed Street A

- One shared eastbound through/right lane
- One shared westbound through/left lane; and
- o One southbound lane and one northbound lane with shared northbound left/right lane at the intersection
- Stop controlled on the proposed Street A

Future Road 2A/Proposed Street B

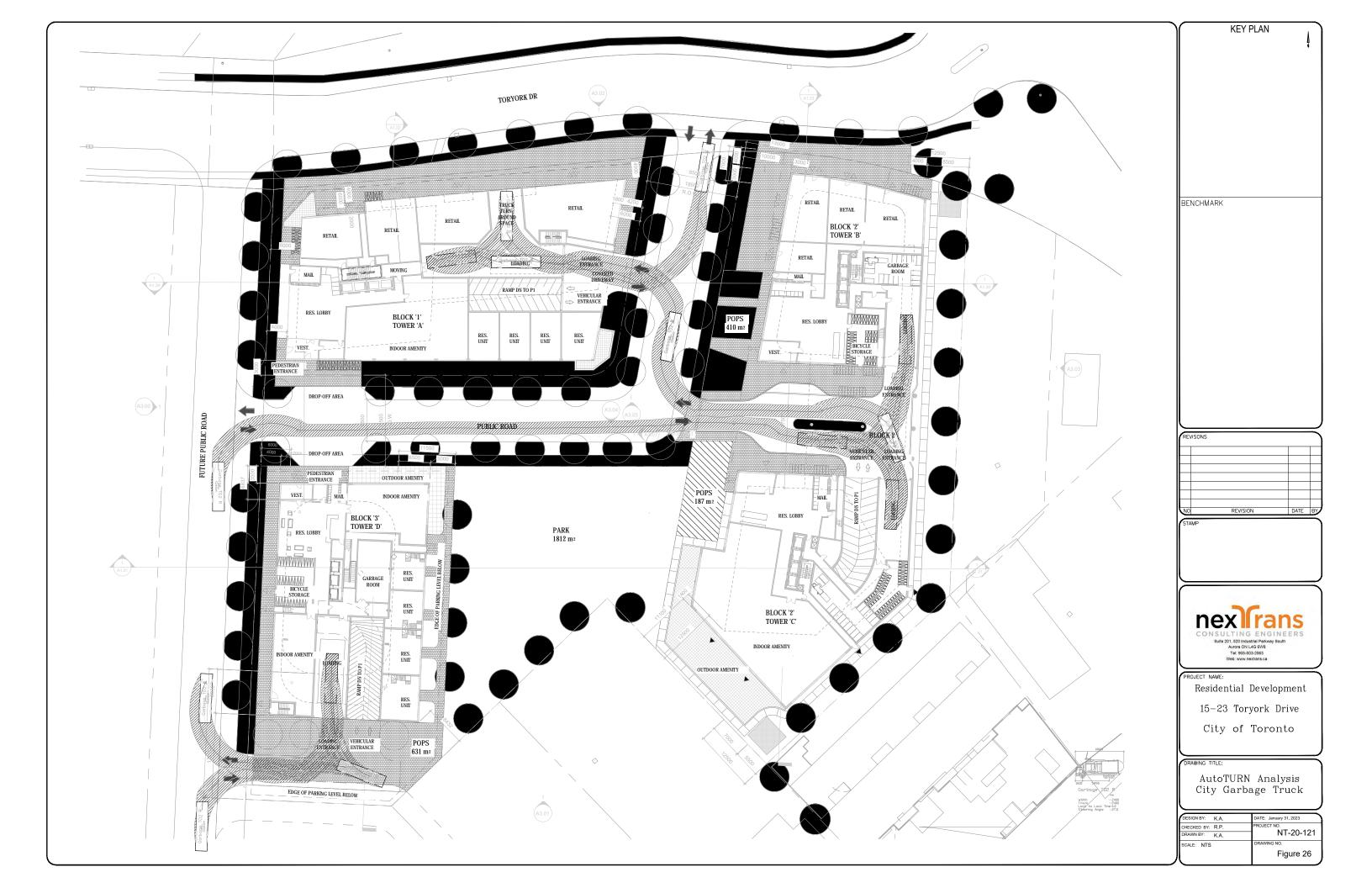
- One shared northbound through/right lane
- One shared southbound through/left lane; and
- One eastbound lane and one westbound lane with shared westbound left/right lane at the intersection
- Stop controlled on the proposed Street B

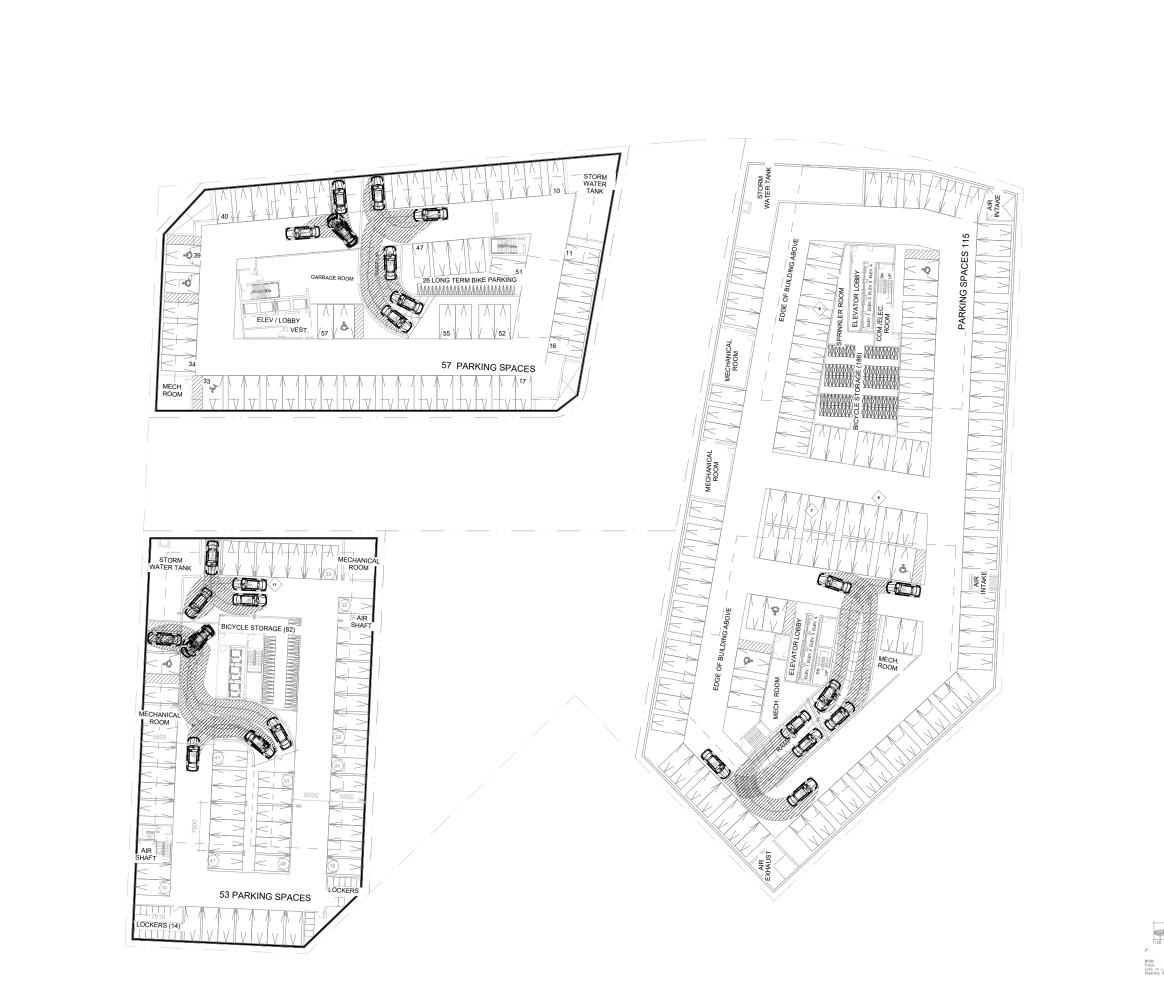
Future Road 2A/Proposed Block 3 Access

- One shared northbound through/right lane
- o One shared southbound through/left lane; and



- o One eastbound lane and one westbound lane with shared westbound left/right lane at the intersection
- Stop controlled on the proposed Block 3 site access







BENCHMARK

REVISO

REVISONS

STAM

NEXITADS
CONSULTING ENGINEERS
Suite 201, 520 Industrial Parkway South
Aurora On L4G 6W8
Tel: 905-503-2863
Web: www.nextrans.ca

PROJECT

Residential Development 15-23 Toryork Drive City of Toronto

DRAWING TITLE:

AutoTURN Analysis P TAC-2017

| ~ | |
|------------------|------------------------|
| DESIGN BY: K.A. | DATE: February 8, 2023 |
| CHECKED BY: R.P. | PROJECT NO. |
| DRAWN BY: K.A. | NT-20-121 |
| SCALE: NTS | DRAWING NO. |
| | Figure 27 |
| (| |

Appendix A Existing Traffic Data and Signal Timing Plans

LOCATION: Weston Rd & Toryork Rd DISTRICT: **Etobicoke York** Ν SA2-VMG with PR, Fire Hall PE (EBLA) MODE/COMMENT: COMPUTER SYSTEM: **TransSuite** 393 CONTROLLER/CABINET TYPE: Econolite ASC/3-2100 / TS2 T1 TCS: PREPARED/CHECKED BY: IBI / PV CONFLICT FLASH: Red & Red PREPARATION DATE: March 9, 2017 DESIGN WALK SPEED: 1.0m/s (FDW based on full crossing at 1.2 m/s)

CHANNEL/DROP:

4035/5

| IMPLEMENTATION DATE: | March 15 | , 2017 | | | | | | CHANNEL/DROP: CONTROLLER FIRMWARE: | 4035/5 2.47.10 |
|---|-----------------|--|---------|--------------|----------------|-------------|-----------|--------------------------------------|--|
| | Тт | P1 TP: | TP3 | OFF | AM | PM | NIGHT | CONTROLLER FIRMWARE: | 2.47:10 |
| | Backup Free | _ | | All Other | | 15:30-18:30 | | Phase Mode | Remarks |
| NEMA Phase | Plans 1 & 4 | 2 | 3 | Times | M-F | M-F | Daily | (Fixed/Demanded/Callable) | |
| | | al Plan | | Pattern 1 | Pattern 2 | Pattern 3 | Pattern 4 | (i ixea/bemanaca/banabic) | |
| | Syst | em Pla | n T | Plan 1 | Plan 2 | Plan 3 | Plan 4 | | Pedestrian Minimums: |
| 1 | WLK | | | | | | | | NSWK = 7 sec, NSFD = 21 sec |
| | FDW | | | | | | | | EWWK = 7 sec, EWFD = 20 sec |
| NOT USED | MIN | | | | | | | | EW phase is callable by vehicle or pedestrian |
| | MAX1 AMB | | | | | | | | actuation. If a vehicle call is received, the minimum EWG is 7 seconds. If ongoing vehicle |
| | ALR | | | | | | | | demand exists on the stopbar loop, the EWG is |
| | SPLIT | | | | | | | | capable of providing vehicle extensions up to the |
| Weston Rd | \A/I I/ | , , | 7 | | | | | | maximum. If a pedestrian call is received, the |
| | WLK 7 | | 7 21 | | | | | | maximum would be served. The EWWK & EWFD are only displayed on the pedestrian signal heads |
| (T) | | 8 28 | | | | | | Fixed. | if a pedestrian call is received. Extension time is |
| | MAX1 7 | The second secon | | | | | | | based on vehicle demand and is taken from the |
| | | 4 3 3 | 3 | | | | | | NSG. Unused extension time is given to the NSG. |
| | ALR SPLIT | 3 | 3 | 81 | 79 | 79 | 81 | | The side street decision point is at the end of |
| | 5, 511 | | | - 51 | , 5 | | 31 | | NSFD. |
| 3 | WLK | | | | | | | | Side Street Passage Time = 3 sec |
| / \ | FDW | | | | | | | | Left-Turn Passage Time = 2 sec |
| NOT USED | MIN MAX1 | | | | | | | | <u>Firehall Preemption Instructions:</u> Preemption Sequence 1: |
| | AMB | | | | | | | | Delay to start of PE = 30 sec |
| | ALR | | | | | | | | |
| Tor <u>yor</u> k Rd | SPLIT | - | | | | | | | If preemption is received in phase 2/5/6: Time to Pre-emption Sequence = 0 - 35 sec |
| 4 | WLK 7 | 7 7 | 9 | | | | | | Time to Fre-emption Sequence – 0 - 33 sec |
| | FDW 2 | 0 20 | 20 | | | | | Callable by stopbar loop | If preemption is received in phase 4/8: |
| | | 7 7 | 7 | | | | | and/or pushbutton; | Time to Pre-emption Sequence = 0 - 34 sec |
| \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | MAX1 2 AMB 4 | 7 29 1 4 | 29 4 | | | | | Extendable by stopbar loop. | Serve 70.0 seconds EBLA/EBG/EWDW |
| | | 3 3 | 3 | | | | | | Serve 4.0 seconds EBY/EWDW |
| | SPLIT | | | 35 | 37 | 37 | 35 | | Serve 3.0 second ALLR |
| 5 | \A/I \/ | | | | | | | | 'Return to normal operation in NSG |
| | WLK FDW | | | | | | | Callable/Extendable | Signal goes to ALLR before going into pre- |
| | MIN 6 | 6 | 6 | | | | | by 9m setback loop | emption sequences. |
| | MAX1 1 | | | | | | | | |
| | II. | 3 1 | 3 | | | | | | |
| | SPLIT | | | 23 | 23 | 23 | | | |
| Weston Rd | \A // 1/ | | _ | | | | | | |
| 6 | WLK 7 | | 7 21 | | | | | | |
| | MIN 2 | | 28 | | | | | Fixed. | |
| \ | MAX1 5 | 2 50 | 50 | | | | | | |
| \ | | 1 4 | 4 | | | | | | |
| | ALR SPLIT | 3 | 3 | 58 | 56 | 56 | 81 | | |
| | | | | 30 | - 50 | - 50 | J | | |
| 7 | WLK | | | | | | | 5 | |
| | FDW MIN | | | | | | | Display only during Fire Hall PE. | |
|) | MAX1 | | | | | | | File Hall PE. | |
| | AMB | | | | | | | | |
| | ALR | | | | | | | | |
| Industrial Plaza Ent. | SPLIT | + | + | | - | | | | |
| 8 | WLK 7 | 7 7 | 9 | | | | | Callable by stopbar loop | |
| \ | FDW 2 | 0 20 | 20 | | | | | and/or pushbutton; | |
| | | 7 7 | 7 | | | | | Extendable by stopbar loop. | |
| | MAX1 2 AMB 4 | 7 29 1 4 | 29 4 | | | | | | |
| | | 3 3 | 3 | | | | | | |
| | SPLIT | | | 35 | 37 | 37 | 35 | | |
| | CI | | | 116 | 116 | 116 | 116 | | |
| | CL OF | | | 116 99 | 116 31 | 116 111 | 116 52 | | |
| | VP | | | 21 | 21 | 21 | 21 | | |
| NOTES: Picked up under Tra | and Cooker Cook | ctom o | Anril ' | 04 2012 at a | anrovimatoly 1 | 2.51 | | | |

IMPLEMENTATION DATE:

March 15, 2017

LOCATION: Weston Rd & Finch Ave W MODE/COMMENT: SA1 with 2-wire Polara APS, TSP, & Firehall PE (SBLA)

PREPARED BY/DATE: Tony Zhao/ January 07, 2019

589

CHECKED BY/ DATE: IMPLEMENTATION DATE:

January 07, 2019

ATO / DISTRICT / WARD: COMPUTER SYSTEM: CONTROLLER/CABINET TYPE: CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL/DROP:

FIRMWARE VERSION:

Area 2 / Etobicoke York / Ward 7 TransSuite PEEK ATC - 1000 / TS2 T1 Red & Red

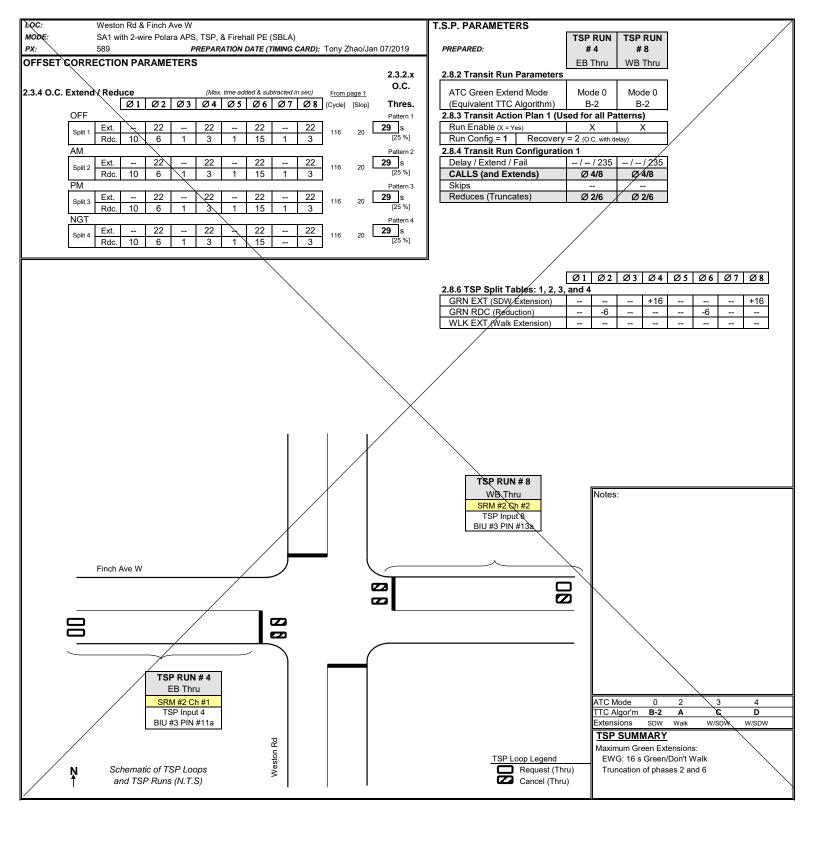
1.0 m/s (FDW based on full crossing at 1.2 m/s) 4085/15

Ν

3.018.2976

SIGNAL HANDED OVER TO METROLINY AS OF OCTOBER 26, 2020.

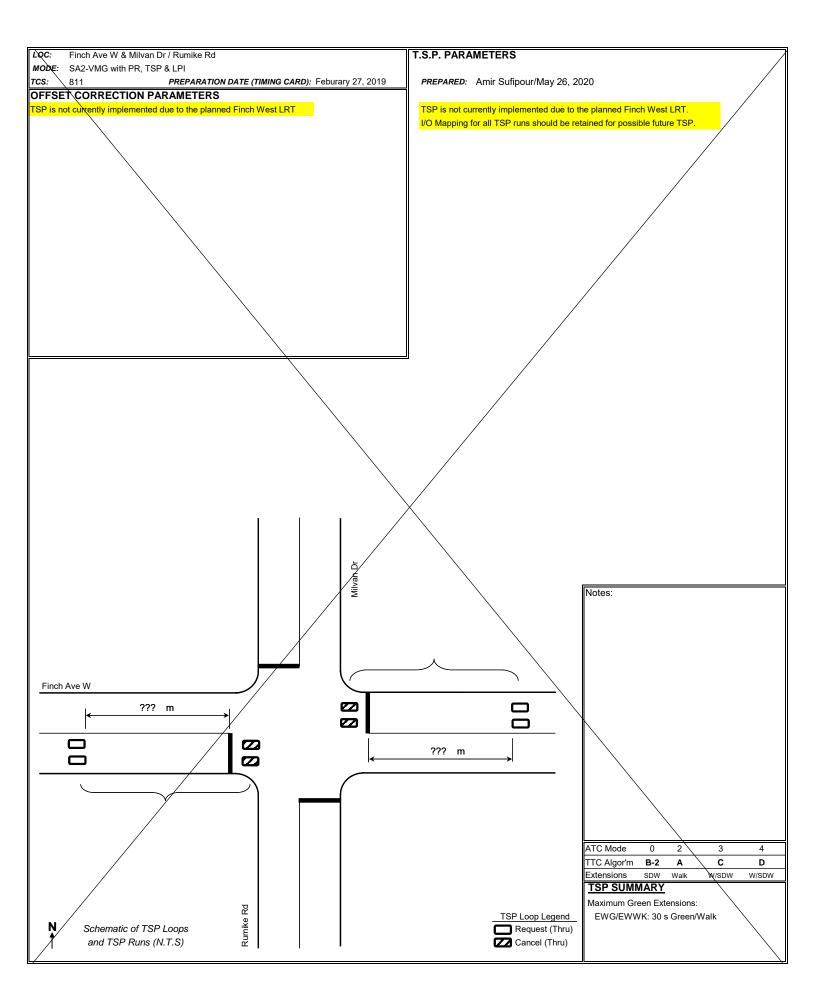
| SIC | GNAL H | ANDED | OVER | IO ME I | ROLIN | X AS OF OCTO | BER 26, 2020 |
|-------------|--|---------------------------|---------------------------|---------------------------|-----------------------------|---|---|
| NEW BLOOM | | OFF All Other Times | AM 06:30-09:30 M- F | PM 15:30-18:30 M- F | NGT 22:00-06:00 Daily | Phase Mode | |
| NEMA Phase | Local Plan Split Table | Pattern 1 Split 1 | Pattern 2 Split 2 | Pattern 3 Split 3 | Pattern 4 Split 4 | (Fixed/Demanded/Callable) | Remarks |
| 1 | WLK FDW MIN 6 | орик : | op.n. 2 | Spire 0 | Эрис - | SBLA Callable by 9m setback loop, | Pedestrian Minimums: NSWK = 7 sec NSFD = 24 sec EWWK = 7 sec EWFD = 24 sec |
| | MAX1 16 AMB 3 ALR 1 SPLIT | 20 | 20 | 20 | 20 | Displayed during Firehall Pre-emption | APS on during NSWK & EWWK when activated by pubutton and no arrows are displayed. Extended Push Activation = 3 sec |
| Weston Rd | WLK 7 | 20 | 20 | 20 | 20 | | Firehall Preemption Instructions: Delay to start of PE = 40 seconds |
| | FDW 24 MIN 31 MAX1 37 AMB 4 ALR 3 SPLIT | 34 | 44 | 44 | 44 | Fixed. (Truncation to Ped Min) | If pre-emption is received in phase 1/2/5/6: Time to Pre-emption Sequence = 0 - 38 sec If pre-emption is received in phase 3/4/7/8: Time to Pre-emption Sequence = 0 - 38 sec |
| 3 | WLK | | | | | | Signals go to ALLR display before going into pre-emption sequences. |
| | FDW MIN 6 MAX1 7 AMB 3 ALR 1 | 44 | | 44 | 44 | WBLA Callable by 9m setback /foop, | Pre-emption Sequence: Serve 65.0 seconds SBLA/SBG/NSDW Serve 4.0 seconds SBYA/SBY/NSDW Serve 3.0 seconds ALLR |
| Finch Ave W | SPLIT WLK 7 | 11 | 11 | 11 | 11 | Fixed. | Return to normal operation in WBLA/WBG. TSP disabled - TSP activation pending new firmw testing & field validation. |
| | FDW 24 MIN 31 MAX1 34 AMB 4 ALR 3 | | | | | POZ activated by Request Loop. (Transit max. extension of 16 secs. in Green/ Don't Walk) | "See back for TSP Instructions. During APS walk when pre-emption is active, "Emergency vehicle approaching clear intersectionimmediately" should be emitted. |
| | SPLIT | 41 | 41 | 41 | 41 | | |
| 5 | WLK FDW MIN 6 MAX1 7 AMB 3 ALR 1 | 44 | 44 | | 11 | NBLA Callable by 9m setback loop, | |
| Weston Rd | SPLIT WLK 7 | 11 | 11 | 11 | 11 | | |
| | FDW 24 MIN 31 | | | | | Fixed. | |
| • | MAX1 46 AMB 4 ALR 3 SPLIT | 53 | 53 | 53 | 53 | (Truncation to Ped Min) | |
| 7 | WLK FDW MIN 6 MAX1 7 AMB 3 | | | | | EBLA Callable by 9m setback loop, | |
| Finch Ave W | ALR 1 SPLIT | 11 | 11 | 11 | | | |
| 8 | WLK 7 FDW 24 MIN 31 MAX1 34 | | | | | Fixed. POZ activated by Request Loop. | |
| | AMB 4 ALR 3 SPLIT | 41 | 41 | 41 | 52 | (Transit max. extension of 16 secs. in Green/ Don't Walk) | |
| | CL OF | 116 91 | 116 34 | 116 102 | 116 62 | | |



Finch Ave W & Milvan Dr / Rumike Rd LOCATION DISTRICT: Etobicoke - York Ν MODE/COMMENT: SA2-VMG with PR, TSP & LPI COMPUTER SYSTEM: **TransSuite** TCS: 811 CONTROLLER/CABINET TYPE: Peek ATC 1000 / TS2 T1 PREPARED BY/DATE: Amir Sufipour/May 26, 2020 CONFLICT FLASH: Red & Red CHECKED BY/ DATE: Tony Zhao/Masoud Ramezani/July 14, 2020 DESIGN WALK SPEED: 1.0 m/s (FDW based on full crossing at 1.2 m/s) CHANNEL/DROP: IMPLEMENTATION DATE: August 17, 2020 4084/68

CONTROLLER FIRMWARE: 3.018.1.2976 SIGNAL HANDED OVER TO METROLINX AS OF OCTOBER 26, 2020 OFF All Other AM PM 06:30-09:15 15:45-18:30 Remarks **Phase Mode NEMA Phase** M-F Times M-F (Fixed/Demanded or Callable) Local Plan Pattern 1 Pattern 2 Pattern 3 Split Table Split 1 Split 2 Split 3 Pedestrian Minimums: WLK EWWK = 12 sec, EWFD = 17 sec 1 NSWK = 12 sec, NSFD = 22 se FDW MIN NOT USED NS phase is callable by vehicle or pedestrian MAX1 actuation. If a vehicle call is received, the minimum AMB NSG is 7 seconds. If ongoing vehicle demand exists ALR on the stopbar loop, the NSG is capable of providing SPLIT vehicle extensions up to the maximum green split. If Finch Ave W a pedestrian call is received, the pedestrian WLK 12 Fixed minimums will be served. The NSWK & NSFD are 17 FDW only displayed on the pedestrian signal heads if a иж 24 pedestrian call is received. Extension time is based MAX1 28 on vehicle demand. Unused extension time is given AMB 3.3 to the EWG. ALR Split shown includes 5 sec of 49 49 EW LPI SPLIT Side Street Passage Time = 3 sec City disabled TSP at this location on March 8, 2019 3 WLK at the request of the TTC because of detection FDW equipment issues. Due to the implementation of the MIN NOT USED Finch West LRT, TSP is not planned to be re-enabled MAX1 AMB Leading Pedestrian Interval - NSWK & EWWK ALR SPLIT comes up 5 seconds before NS & EW vehicle green Rumike Rd NIKI Callable by Stopbar loop 4 WI K 12 FDW 22 and/or Pushbutton; Extendable by Stopbar loop. MIN 7 MAX1 29 AMB ALR Split shown includes 5 sec of SPLIT NS LPI 5 WLK FDW MIN NOT USED MAX1 AMB ALR SPLIT Finch Ave W 6 WLK 12 Fixed FDW 17 MIN 24 MAX1 28 AMB 3.3 ALR Split shown includes 5 sec of SPLIT 39 49 49 EW LPI 7 WLK FDW, MIM NOT USED MAX1 AMB ALR SPLIT Milvan Dr WLK D 8 WIK 12 Callable by Stopbar loop and/or Pushbutton; FDW 22 MIN 7 Extendable by Stopbar loop. MAX1 29 AMB 3.3 ALR 3.1 Split shown includes 5 sec of SPLIT 41 NS LPI CL 80 90 90 OF 51 62 36

TCS0811.XLS 10/26/2020



TCS0811.XLS 10/26/2020

| LOCATION: MODE/COMMENT: | Weston Rd & | | | | | | ATO / DISTRICT / WARD: COMPUTER SYSTEM: | 2 (Etobicoke York) / 7 TransSuite |
|--|--|-----------------------------|--------------------------|--------------------------|------------------------------|----------------------------------|---|--|
| TCS: PREPARED BY/DATE: CHECKED BY/DATE: IMPLEMENTATION DATE: | 1149 IBI / Decembe | r 3, 2021 khar & Ihtesha | ım Ahmad / Ded | cember 08, 202 | 1 | | CONTROLLER/CABINET TYPE: CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL/DROP: | Econolite ASC/3 - 1000 / TS2 T1 Red & Red 1.0 m/s (FDW based on full crossing at 1.2 m/s) 4035/3 |
| | 1 | 055 | A 84 | DM | NOUT | WIZND | CONTROLLER FIRMWARE: | Т |
| NEMA Phase | | OFF All Other Times | AM 06:30-09:30 M-F | PM 14:30-18:30 M-F | NGHT 22:00-06:30 Daily | WKND 11:00-19:00 Sat & Sun | Phase Mode | Remarks |
| | Local Plan System Plan | Pattern 1 Plan 1 | Pattern 2 Plan 2 | Pattern 3 Plan 3 | Pattern 4 Plan 4 | Pattern 5 Plan 5 | (Fixed/Demanded/Callable) | |
| 1 NOT USED | WLK FDW MIN MAX1 AMB ALR SPLIT | | | | | | | Pedestrian Minimums: NSWK = 12 seconds, NSFD = 18 seconds EWWK = 12 seconds, EWFD = 19 seconds Leading Pedestrian Interval – NSWK & EWWK comes up 5 seconds before vehicle green The following grades were used to calculate the AMB intervals: North Leg = 1.1% |
| Weston Rd 2 | DLY GI 5 WLK 12 FDW 18 MIN 25 MAX1 59 AMB 3.2 ALR 2.7 SPLIT | 70 | 80 | 73 | 46 | 72 | Fixed. Split shown includes 5 seconds of NS LPI | South Leg = 3.9% East Leg = -1.1% West Leg = 1.9% |
| 3 NOT USED | WLK FDW MIN MAX1 AMB ALR SPLIT | | | | | | | |
| Fenmar Dr 4 | DLY GI 5 WLK 12 FDW 19 MIN 26 MAX1 28 AMB 3.4 ALR 3.0 SPLIT | 40 | 40 | 47 | 38 | 38 | Fixed. Split shown includes 5 seconds of EW LPI | |
| 5 NOT USED | WLK FDW MIN MAX1 AMB ALR SPLIT | | | | | | | |
| Weston Rd | DLY GI 5 WLK 12 FDW 18 MIN 25 MAX1 59 AMB 3.2 ALR 2.7 SPLIT | 70 | 80 | 73 | 46 | 72 | Fixed. Split shown includes 5 seconds of NS LPI | |
| 7 NOT USED | WLK FDW MIN MAX1 AMB ALR SPLIT | | | | | | | |
| Fenmar Dr 8 | DLY GI 5 WLK 12 FDW 19 MIN 26 MAX1 28 AMB 3.4 ALR 3.0 SPLIT | 40 | 40 | 47 | 38 | 38 | Fixed. Split shown includes 5 seconds of EW LPI | |
| NOTES: | CL OF | 110 23 | 120 102 | 120 102 | 84 80 | 110 92 | | |

TCS1149.XLS 1/17/2022 LOCATION: Finch Ave W & Jayzel Ave/Private Access

MODE/COMMENT: SA2-VMG with PR and TSP*

 TCS:
 1663

 PREPARED/CHECKED BY:
 AR/DS

 PREPARATION DATE:
 May 10, 2018

 IMPLEMENTATION DATE:
 May 11, 2018

DISTRICT:
COMPUTER SYSTEM:
CONTROLLER/CABINET TYPE:

CONTROLLER/CABINET TYPE: CONFLICT FLASH: DESIGN WALK SPEED: CHANNEL/DROP: Etobicoke York TransSuite

PEEK ATC - 1000 / TS2 T1 Red & Red

Ν

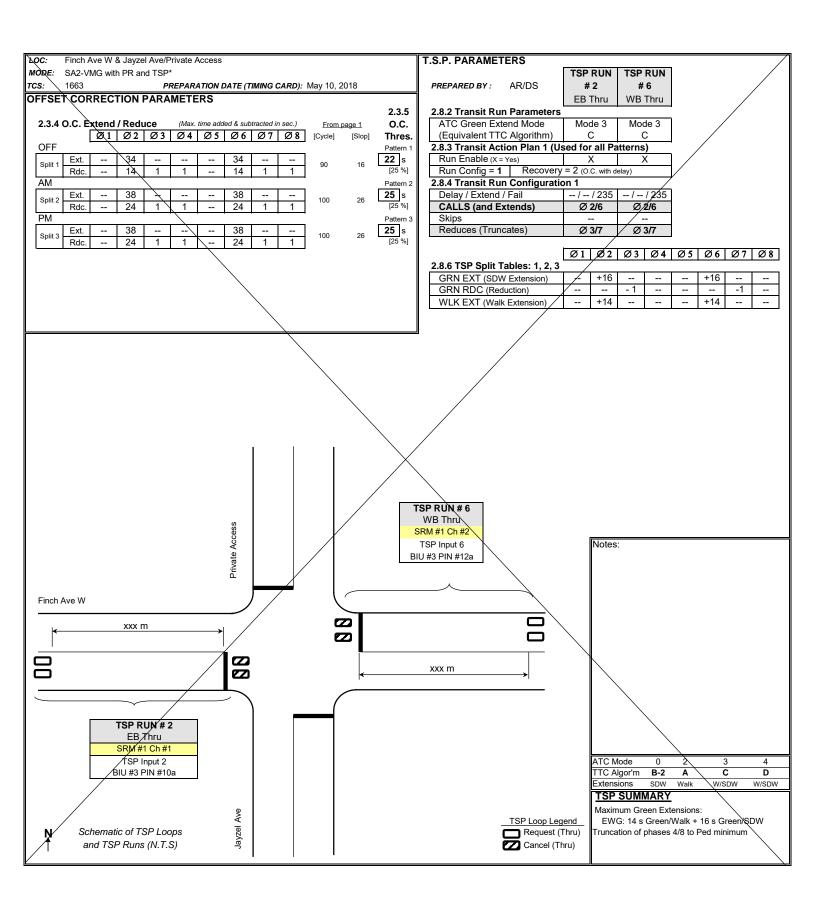
1.0 m/s (FDW based on full crossing @1.2m/s)

4084/63 3.018.1.2976

| | May 11, 2018 | | | | CHANNEL/DROP: CONTROLLER FIRMWARE: | 3.018.1.2976 |
|------------------|---|---------------------|----------------------------|----------------------------|---|--|
| | CICNAL | HANDED | OVED TO | METRO | | |
| | SIGNAL | | | | LINX AS OF OCTO | BER 26, 2020 |
| NEMA Phase | | OFF All Other Times | AM 06:30 - 09:15 M-F | PM 15:45 - 18:30 M-F | Phase Mode (Fixed/Demanded or Callable) | Remarks |
| | Local Plan | Pattern 1 | Pattern 2 | Pattern 3 | Callable) | |
| | Split Table | Split 1 | Split 2 | Split 3 | | Pedestrian Minimums: |
| 1 NOT USED | WLK FDW MIN MAX1 AMB | | | | | EWWK = 7 sec. EWFD = 12 sec. NSWK = 7 sec. NSFD = 22 sec. NBG phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum NBG is 7 seconds. If ongoing vehicle demand exists on the stopbar loop, the NBG |
| | ALR SPLIT | | | | | is capable of providing vehicle extensions up to the maximum green split. If a pedestrian call is received, the |
| Finch Ave W | WLK 7 FDW 12 MIN 19 MAX1 34 AMB 4 | | | | POZ activated by Request Loop (max extension of 14 secs in Green/Walk & 16 secs in | maximum would be served. The NSWK & NSFD are only displayed on the pedestrian signal heads if a pedestrian call is received Extension time based on vehicle demand and is taken from the EWG. Unused extension time is given to the EWG. |
| | ALR 2 SPLIT | 39 | 49 | 49 | Green/Don't Walk) | réceived, the minimum SBG is 7 seconds. If NB and SB detectors are both active at the end of the EW |
| 3 ACTIVATED | WLK 7 FDW 22 MIN 7 MAX1 29 AMB 4 | 39 | 43 | 43 | / | phase, the NB phase is served first followed by the SB phase. If only the NB detector is active at the end of the EW phase, only the NB phase is served and unused SBG time is given to EWG and EWWK. Any late SB demand will only be served the following cycle. Side Street Passage Time = 3 seconds. |
| | ALR 3 | 07 | 27 | 27 | | NB and SB phases are called independently of each other. |
| _ | SPLIT | 37 | 37 | 37 | / | *See back for TSP instructions. TSP disabled - TSP activation pending new |
| 4 ACTIVATED | WLK FDW MIN 7 MAX1 7 AMB 3 ALR 3 SPLIT | 14 | 14 | 14 | Callable by stopbar loop. | firmware testing & field validation. Ring Structure: 2 3 4 6 7 8 |
| 5 NOT USED | WLK FDW MIN MAX1 AMB ALR SPLIT | | | | | |
| Finch Ave W | WLK 7 FDW 12 MIN 19 MAX1 35 AMB 4 ALR 2 SPLIT | 39 | 49 | 49 | Fixed. POZ activated by Request Loop (max extension of 14 secs in Green/Walk & 16 secs in Green/Don't Walk) | |
| 7 A | WLK 7 FDW 22 MM 7 MAX1 29 AMB 4 ALR 3 SPLIT | 37 | 37 | 37 | | |
| 8 Private Access | WLK FDW MIN 7 MAX1 7 AMB 3 ALR 3 SPLIT | 14 | 14 | 14 | | |
| | CL OF | 90 1 | 100 1 | 100 1 | | |

NOTES: N/S Ped crossing on West side only.

TCS1663.XLS 10/27/2020



TCS1663.XLS 10/27/2020



Turning Movement Count Location Name: WESTON RD & FINCH AVE W Date: Thu, Mar 28, 2019 Deployment Lead: Peter Ilias

| | | | | | | | | | | Turn | ing Mo | vement Count (| 23 . WE | STON F | RD & FI | NCH AV | EW) | | | | | | | | | |
|--------------------|-------------|---------------|--------------|---------------|------|----------------|-------------|-------------|--------------|------------------------|------------|----------------|-------------|-------------|--------------|---------------|------------|----------------|-------------|-------------|--------------|---------------|------------|----------------|------------------------|----------------------|
| | | | , | N Approac | :h | | | | | E Approac FINCH AVE | h W | | | | | S Approact | h RD | | | | | W Approac | ch W | | Int. Total (15 min) | Int. Total (1 hr) |
| Start Time | Left N:E | Thru N:S | Right N:W | U-Turn N:N | | Approach Total | Left E:S | Thru E:W | Right E:N | U-Turn E:E | Peds E: | Approach Total | Left S:W | Thru S:N | Right S:E | U-Turn S:S | Peds S: | Approach Total | Left W:N | Thru W:E | Right W:S | U-Turn W:W | Peds W: | Approach Total | | (, |
| 06:00:00 | 32 | 41 | 5 | 0 | 17 | 78 | 15 | 95 | 31 | 0 | 20 | 141 | 16 | 93 | 33 | 0 | 6 | 142 | 26 | 116 | 11 | 0 | 15 | 153 | 514 | |
| 06:15:00 | 25 | 63 | 9 | 0 | 21 | 97 | 20 | 149 | 45 | 0 | 19 | 214 | 36 | 103 | 31 | 0 | 4 | 170 | 41 | 161 | 8 | 0 | 21 | 210 | 691 | |
| 06:30:00 | 33 | 63 | 16 | 0 | 26 | 112 | 19 | 156 | 52 | 0 | 32 | 227 | 25 | 119 | 30 | 0 | 10 | 174 | 43 | 195 | 17 | 0 | 26 | 255 | 768 | |
| 06:45:00 | 26 | 59 | 15 | 0 | 28 | 100 | 27 | 155 | 58 | 0 | 31 | 240 | 23 | 112 | 27 | 0 | 14 | 162 | 50 | 206 | 28 | 0 | 26 | 284 | 786 | 2759 |
| 07:00:00 | 27 | 98 | 12 | 1 | 13 | 138 | 30 | 179 | 36 | 0 | 23 | 245 | 28 | 124 | 21 | 0 | 18 | 173 | 38 | 181 | 17 | 1 | 17 | 237 | 793 | 3038 |
| 07:15:00 | 43 | 128 | 24 | 1 | 8 | 196 | 50 | 166 | 42 | 0 | 21 | 258 | 23 | 108 | 29 | 0 | 16 | 160 | 40 | 196 | 18 | 2 | 18 | 256 | 870 | 3217 |
| 07:30:00 | 36 | 142 | 20 | 0 | 4 | 198 | 50 | 215 | 55 | 0 | 42 | 320 | 17 | 88 | 30 | 0 | 34 | 135 | 40 | 210 | 7 | 0 | 32 | 257 | 910 | 3359 |
| 07:45:00 | 52 | 134 | 18 | 0 | 6 | 204 | 48 | 183 | 51 | 0 | 35 | 282 | 20 | 99 | 22 | 0 | 29 | 141 | 39 | 206 | 8 | 0 | 19 | 253 | 880 | 3453 |
| 08:00:00 | 31 | 129 | 17 | 0 | 18 | 177 | 45 | 188 | 38 | 0 | 44 | 271 | 20 | 95 | 31 | 0 | 14 | 146 | 36 | 190 | 17 | 0 | 33 | 243 | 837 | 3497 |
| 08:15:00 | 39 | 112 | 10 | 0 | 12 | 161 | 38 | 135 | 47 | 0 | 31 | 220 | 14 | 105 | 39 | 0 | 20 | 158 | 27 | 179 | 4 | 0 | 55 | 210 | 749 | 3376 |
| 08:30:00 | 34 | 107 | 18 | 1 | 16 | 160 | 40 | 173 | 39 | 0 | 54 | 252 | 24 | 74 | 34 | 0 | 9 | 132 | 25 | 201 | 6 | 1 | 31 | 233 | 777 | 3243 |
| 08:45:00 | 28 | 102 | 21 | 1 | 21 | 152 | 27 | 168 | 33 | 0 | 29 | 228 | 20 | 90 | 25 | 0 | 4 | 135 | 42 | 219 | 6 | 1 | 34 | 268 | 783 | 3146 |
| 09:00:00 | 44 | 95 | 20 | 0 | 24 | 159 | 29 | 122 | 16 | 0 | 34 | 167 | 23 | 68 | 23 | 0 | 7 | 114 | 33 | 166 | 5 | 0 | 28 | 204 | 644 | 2953 |
| 09:15:00 | 47 | 95 | 23 | 0 | 31 | 165 | 14 | 85 | 6 | 0 | 31 | 105 | 31 | 77 | 26 | 0 | 8 | 134 | 42 | 175 | 12 | 1 | 33 | 230 | 634 | 2838 |
| 09:30:00 | 38 | 100 | 26 | 0 | 9 | 164 | 21 | 85 | 9 | 0 | 12 | 115 | 25 | 87 | 26 | 0 | 5 | 138 | 39 | 180 | 9 | 0 | 25 | 228 | 645 | 2706 |
| 09:45:00 | 46 | 108 | 33 | 0 | 27 | 187 | 33 | 100 | 7 | 0 | 26 | 140 | 23 | 88 | 28 | 0 | 6 | 139 | 37 | 130 | 16 | 0 | 30 | 183 | 649 | 2572 |
| ***BREAK | *** | ************* | | | | | | | | | | | | | | | | | | | | | | | | |
| 15:00:00 | 62 | 144 | 43 | 0 | 46 | 249 | 22 | 104 | 5 | 0 | 63 | 131 | 21 | 53 | 26 | 0 | 0 | 100 | 46 | 201 | 11 | 0 | 70 | 258 | 738 | |
| 15:15:00 | 51 | 140 | 40 | 0 | 106 | 231 | 18 | 100 | 4 | 0 | 105 | 122 | 16 | 28 | 22 | 0 | 6 | 66 | 34 | 148 | 6 | 0 | 93 | 188 | 607 | |
| 15:30:00 | 68 | 145 | 36 | 0 | 55 | 249 | 33 | 101 | 6 | 0 | 43 | 140 | 13 | 54 | 21 | 0 | 0 | 88 | 46 | 173 | 9 | 0 | 57 | 228 | 705 | |
| 15:45:00 | 69 | 147 | 50 | 0 | 31 | 266 | 20 | 113 | 3 | 0 | 40 | 136 | 8 | 53 | 16 | 0 | 5 | 77 | 36 | 166 | 9 | 0 | 44 | 211 | 690 | 2740 |
| 16:00:00 | 50 | 199 | 39 | 0 | 44 | 288 | 29 | 102 | 6 | 0 | 61 | 137 | 23 | 80 | 20 | 0 | 8 | 123 | 40 | 172 | 7 | 0 | 57 | 219 | 767 | 2769 |
| 16:15:00 | 55 | 166 | 45 | 0 | 50 | 266 | 35 | 155 | 18 | 0 | 49 | 208 | 15 | 81 | 22 | 0 | 2 | 118 | 40 | 213 | 18 | 0 | 49 | 271 | 863 | 3025 |
| 16:30:00 | 50 | 171 | 41 | 1 | 54 | 263 | 34 | 193 | 14 | 0 | 25 | 241 | 24 | 91 | 24 | 0 | 0 | 139 | 43 | 210 | 7 | 0 | 50 | 260 | 903 | 3223 |
| 16:45:00 | 47 | 144 | 54 | 0 | 48 | 245 | 28 | 212 | 18 | 0 | 21 | 258 | 30 | 78 | 25 | 0 | 4 | 133 | 41 | 192 | 20 | 0 | 79 | 253 | 889 | 3422 |
| 17:00:00 | 52 | 210 | 58 | 0 | 27 | 320 | 48 | 187 | 19 | 0 | 18 | 254 | 26 | 75 | 30 | 0 | 0 | 131 | 41 | 170 | 16 | 0 | 55 | 227 | 932 | 3587 |
| 17:15:00 | 47 | 203 | 43 | 0 | 50 | 293 | 29 | 192 | 16 | 0 | 28 | 237 | 30 | 94 | 29 | 0 | 2 | 153 | 41 | 204 | 16 | 0 | 60 | 261 | 944 | 3668 |
| 17:30:00 | 40 | 171 | 52 | 0 | 66 | 263 | 48 | 207 | 17 | 0 | 44 | 272 | 36 | 84 | 33 | 0 | 6 | 153 | 37 | 169 | 27 | 0 | 63 | 233 | 921 | 3686 |
| 17:45:00 | 41 | 161 | 56 | 0 | 44 | 258 | 45 | 196 | 13 | 0 | 36 | 254 | 27 | 68 | 29 | 0 | 15 | 124 | 32 | 143 | 24 | 0 | 44 | 199 | 835 | 3632 |
| 18:00:00 | 62 | 173 | 53 | 0 | 19 | 288 | 42 | 196 | 22 | 0 | 37 | 260 | 22 | 93 | 29 | 0 | 18 | 144 | 34 | 183 | 9 | 1 | 41 | 227 | 919 | 3619 |
| 18:15:00 | 48 | 163 | 44 | 1 | 30 | 256 | 42 | 207 | 15 | 0 | 22 | 264 | 35 | 93 | 34 | 0 | 23 | 162 | 33 | 217 | 14 | 0 | 54 | 264 | 946 | 3621 |
| 18:30:00 | 56 | 135 | 36 | 0 | 34 | 227 | 48 | 182 | 17 | 0 | 32 | 247 | 23 | 93 | 27 | 0 | 23 | 143 | 46 | 189 | 9 | 1 | 48 | 245 | 862 | 3562 |
| 18:45:00 | 41 | 107 | 32 | 0 | 19 | 180 | 39 | 211 | 23 | 0 | 15 | 273 | 38 | 80 | 36 | 1 | 24 | 155 | 36 | 180 | 11 | 0 | 36 | 227 | 835 | 3562 |
| Grand Total | 1420 | 4155 | 1009 | 6 | 1004 | 6590 | 1066 | 5012 | 781 | 0 | 1123 | 6859 | 755 | 2728 | 878 | 1 | 340 | 4362 | 1224 | 5841 | 402 | 8 | 1343 | 7475 | 25286 | - |
| Approach% | 21.5% | 63.1% | 15.3% | 0.1% | | - | 15.5% | 73.1% | 11.4% | 0% | | - | 17.3% | 62.5% | 20.1% | 0% | | - | 16.4% | 78.1% | 5.4% | 0.1% | | - | - | - |
| Totals % | 5.6% | 16.4% | 4% | 0% | | 26.1% | 4.2% | 19.8% | 3.1% | 0% | | 27.1% | 3% | 10.8% | 3.5% | 0% | | 17.3% | 4.8% | 23.1% | 1.6% | 0% | | 29.6% | - | - |
| Heavy | 156 | 308 | 80 | 0 | | - | 39 | 239 | 126 | 0 | | - | 29 | 207 | 37 | 0 | | - | 51 | 335 | 23 | 0 | | - | - | - |
| Heavy % | 11% | 7.4% | 7.9% | 0% | | - | 3.7% | 4.8% | 16.1% | 0% | | - | 3.8% | 7.6% | 4.2% | 0% | | - | 4.2% | 5.7% | 5.7% | 0% | | - | - | - |
| Bicycles Bicycle % | - | - | - | - | | - | - | - | - | - | | - | - | - | - | - | | - | - | - | - | - | | - | - | - |
| Dicycle % | - | - | - | - | | - | - | - | - | - | | - | - | - | - | - | | - | - | - | - | - | | - | - | - |



Turning Movement Count Location Name: WESTON RD & FINCH AVE W Date: Thu, Mar 28, 2019 Deployment Lead: Peter Ilias

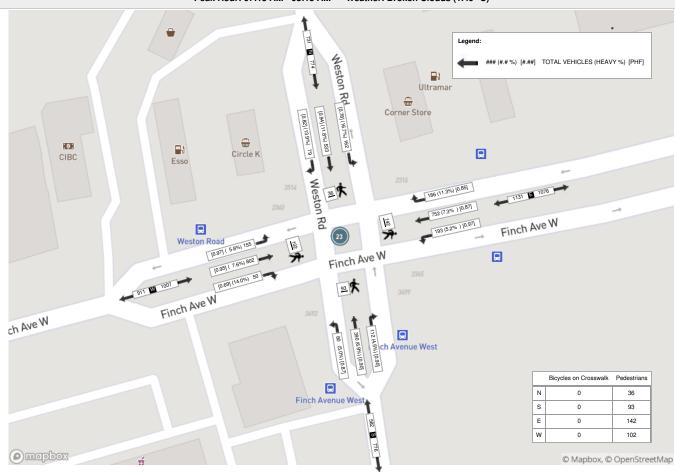
Peak Hour: 07:15 AM - 08:15 AM Weather: Broken Clouds (1.49 °C) W Approach FINCH AVE W N Approach WESTON RD E Approach FINCH AVE W S Approach WESTON RD Int. Total (15 min) Start Time Right Left Thru Right U-Turn Approach Total Left Thru Right U-Turn Peds Approach Total Left Thru Right U-Turn Peds Approach Total Left Thru U-Turn Approach Total 07:15:00 43 128 24 196 50 166 42 0 21 258 23 108 29 0 16 160 40 196 18 2 18 256 870 07:30:00 36 50 320 17 88 30 135 32 257 910 142 20 4 198 215 55 0 42 34 40 210 7 0 0 0 07:45:00 52 134 18 0 6 204 48 183 51 Ω 35 282 20 99 22 0 29 141 39 206 8 0 19 253 880 08:00:00 31 129 17 0 18 177 45 188 38 0 44 271 20 95 31 0 14 146 36 190 17 0 33 243 837 **Grand Total** 162 533 79 36 775 193 752 186 0 142 1131 80 390 112 0 93 582 155 802 50 2 102 1009 3497 Approach% 20.9% 68.8% 10.2% 0.1% 17.1% 66.5% 16.4% 0% 13.7% 67% 19.2% 0% 15.4% 79.5% 5% 0.2% Totals % 4.6% 15.2% 2 3% 0% 22 2% 5.5% 21 5% 5.3% 0% 32.3% 2.3% 11 2% 3 2% 0% 16.6% 4 4% 22 9% 0.1% 28 9% 1 4% PHF 0.78 0.94 0.82 0.25 0.95 0.97 0.87 0.85 0.88 0.87 0.9 0.91 0.97 0.25 0.98 0.9 0.95 0.69 77 27 63 11 101 10 55 21 86 27 36 q 61 Heavy Ω 16.7% 11.8% 13.9% 0% 13% 5.2% 7.3% 11.3% 0% 7.6% 5% 6.9% 4.5% 0% 6.2% 5.8% 7.6% 14% 0% 7.6% Heavy % Liahts 120 431 65 617 176 662 156 994 73 352 100 525 140 711 40 893 Lights % 74.1% 80.9% 82.3% 100% 79.6% 91.2% 83.9% 87.9% 91.3% 90.3% 89.3% 90.2% 90.3% 80% 88.5% **Light Goods Vehicles** 15 39 57 7 35 51 3 11 21 6 30 39 7.3% 7 4% 4 5% 3.6% Light Goods Vehicles % 9.3% 3.8% 0% 3.6% 4 7% 4.8% 0% 3.8% 2.8% 6.3% 0% 3.9% 3.7% 6% 3 9% 23 q 68 16 12 34 2 11 16 4 20 2 26 Single-Unit Trucks 36 6 Λ 3 Single-Unit Trucks % 14.2% 6.8% 11.4% 0% 8.8% 3.1% 2.1% 6.5% 0% 3% 2.5% 2.8% 2.7% 0% 2.7% 2.6% 2.5% 4% 2.6% 27 2 15 3 Buses % 0% 3.2% 2.5% 0% 2.5% 1.6% 3.6% 3.2% 0% 3.2% 2.5% 3.8% 1.8% 3.3% 1.9% 5% 10% 0% 4.8% 4 14 1 12 0 0 2 0 Articulated Trucks 10 0 3 Λ 16 3 Articulated Trucks % 1.8% 0% 2.5% 1.9% 0% 0% 0.5% 1.6% 1.6% 0% 1.4% 0% 0.3% 0% 0.2% 1.3% 0.1% 0% 0% 0.3% Bicycles on Road 0 0 0 0 0 0 0 0 0 0 0 0% 0% 0% 0% 0% Pedestrians 36 142 93 102 Pedestrians% 38 1% 24 9% 27.3% Bicycles on Crosswalk Bicycles on Crosswalk%



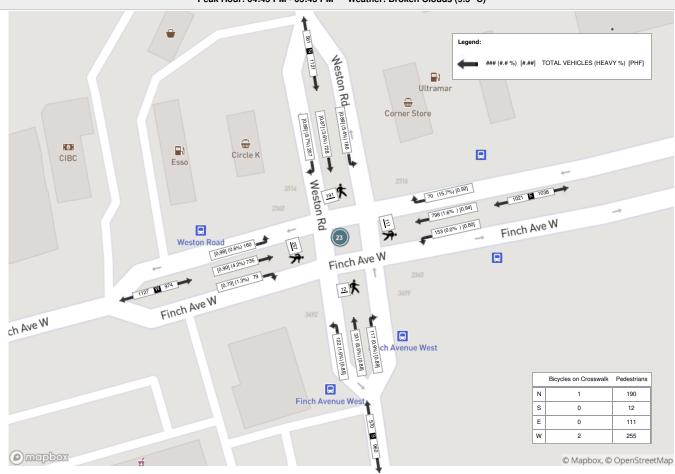
Turning Movement Count Location Name: WESTON RD & FINCH AVE W Date: Thu, Mar 28, 2019 Deployment Lead: Peter Ilias

| 16:45:00 47 17:00:00 56 17:15:00 47 17:30:00 40 Grand Total 18 Approach% 16.4 Totals % 59 PHF 0.6 | Left 47 52 47 40 1186 6.6% | Thru 144 210 203 171 728 | Flight 54 58 43 52 207 | U-Turn 0 0 0 | Peds 48 27 50 | Approach Total 245 320 | Left 28 | Thru 212 | Right | E Approac FINCH AVE U-Turn | h W Peds | Peak Hour: 04:45 PM - 05:45 PM Weather: Broken Clouds (9.5 °C) N Approach WESTON RD E Approach FINCH AVE W STON RD WESTON RD WESTON RD FINCH AVE W (15 mi | | | | | | | | | | | | | |
|---|-------------------------------------|---------------------------------|------------------------|--------------|---------------|------------------------|---------|-------------|-------|----------------------------------|----------------|--|-------|-------|-------|--------|------|----------------|-------|-------|-------|--------------|-------|----------------|---------|
| Le 16:45:00 | 47 52 47 40 186 6.6% | 144 210 203 171 728 | 54 58 43 52 | 0 0 | 48 27 | 245 | 28 | | _ | U-Turn | Peds | | | | | WESTON | U | | | | | · IIIOII AVE | vv | | (15 min |
| 17:00:00 52 17:15:00 47 17:15:00 40 17:30:00 40 Grand Total 18 Approach% 16.6 Totals % 59 PHF 0.6 | 52 47 40 186 6.6% | 210 203 171 728 | 58 43 52 | 0 | 27 | | | 212 | | | | Approach Total | Left | Thru | Right | U-Turn | Peds | Approach Total | Left | Thru | Right | U-Turn | Peds | Approach Total | |
| 17:15:00 47 17:30:00 40 Grand Total 18 Approach% 16:6 Totals % 59 PHF 0.6 | 47 40 186 6.6% | 203 171 728 | 43 52 | 0 | | 320 | 10 | | 18 | 0 | 21 | 258 | 30 | 78 | 25 | 0 | 4 | 133 | 41 | 192 | 20 | 0 | 79 | 253 | 889 |
| 17:30:00 40 Grand Total 18 Approach% 16.1 Totals % 59 PHF 0.6 | 40 186 6.6% | 171 728 | 52 | - | 50 | | ∥ 40 | 187 | 19 | 0 | 18 | 254 | 26 | 75 | 30 | 0 | 0 | 131 | 41 | 170 | 16 | 0 | 55 | 227 | 932 |
| Grand Total 18 Approach% 16.6 Totals % 59 PHF 0.8 | 186 | 728 | | 0 | | 293 | 29 | 192 | 16 | 0 | 28 | 237 | 30 | 94 | 29 | 0 | 2 | 153 | 41 | 204 | 16 | 0 | 60 | 261 | 944 |
| Approach% 16.6 Totals % 5% PHF 0.8 | 6.6% | | 207 | | 66 | 263 | 48 | 207 | 17 | 0 | 44 | 272 | 36 | 84 | 33 | 0 | 6 | 153 | 37 | 169 | 27 | 0 | 63 | 233 | 921 |
| Totals % 59 | | | 207 | 0 | 191 | 1121 | 153 | 798 | 70 | 0 | 111 | 1021 | 122 | 331 | 117 | 0 | 12 | 570 | 160 | 735 | 79 | 0 | 257 | 974 | 3686 |
| PHF 0.8 | | 64.9% | 18.5% | 0% | | - | 15% | 78.2% | 6.9% | 0% | | - | 21.4% | 58.1% | 20.5% | 0% | | - | 16.4% | 75.5% | 8.1% | 0% | | - | - |
| | 5% | 19.8% | 5.6% | 0% | | 30.4% | 4.2% | 21.6% | 1.9% | 0% | | 27.7% | 3.3% | 9% | 3.2% | 0% | | 15.5% | 4.3% | 19.9% | 2.1% | 0% | | 26.4% | - |
| | 0.89 | 0.87 | 0.89 | 0 | | 0.88 | 0.8 | 0.94 | 0.92 | 0 | | 0.94 | 0.85 | 0.88 | 0.89 | 0 | | 0.93 | 0.98 | 0.9 | 0.73 | 0 | | 0.93 | - |
| Heavy 10 | 10 | 26 | 18 | 0 | | 54 | 0 | 13 | 11 | 0 | | 24 | 2 | 28 | 1 | 0 | | 31 | 1 | 31 | 1 | 0 | | 33 | |
| Heavy % 5.4 | 5.4% | 3.6% | 8.7% | 0% | | 4.8% | 0% | 1.6% | 15.7% | 0% | | 2.4% | 1.6% | 8.5% | 0.9% | 0% | | 5.4% | 0.6% | 4.2% | 1.3% | 0% | | 3.4% | - |
| Lights 17 | 172 | 687 | 183 | 0 | | 1042 | 149 | 764 | 57 | 0 | | 970 | 118 | 289 | 114 | 0 | | 521 | 152 | 681 | 76 | 0 | | 909 | |
| Lights % 92.5 | 2.5% | 94.4% | 88.4% | 0% | | 93% | 97.4% | 95.7% | 81.4% | 0% | | 95% | 96.7% | 87.3% | 97.4% | 0% | | 91.4% | 95% | 92.7% | 96.2% | 0% | | 93.3% | - |
| Light Goods Vehicles 4 | 4 | 15 | 6 | 0 | | 25 | 4 | 21 | 2 | 0 | | 27 | 2 | 14 | 2 | 0 | | 18 | 7 | 23 | 2 | 0 | | 32 | - |
| ight Goods Vehicles % 2.2 | 2.2% | 2.1% | 2.9% | 0% | | 2.2% | 2.6% | 2.6% | 2.9% | 0% | | 2.6% | 1.6% | 4.2% | 1.7% | 0% | | 3.2% | 4.4% | 3.1% | 2.5% | 0% | | 3.3% | - |
| Single-Unit Trucks 8 | 8 | 9 | 4 | 0 | | 21 | 0 | 9 | 5 | 0 | | 14 | 1 | 11 | 1 | 0 | | 13 | 0 | 19 | 0 | 0 | | 19 | - |
| Single-Unit Trucks % 4.3 | 1.3% | 1.2% | 1.9% | 0% | | 1.9% | 0% | 1.1% | 7.1% | 0% | | 1.4% | 0.8% | 3.3% | 0.9% | 0% | | 2.3% | 0% | 2.6% | 0% | 0% | | 2% | - |
| Buses 0 | 0 | 11 | 14 | 0 | | 25 | 0 | 2 | 5 | 0 | | 7 | 1 | 13 | 0 | 0 | | 14 | 0 | 10 | 0 | 0 | | 10 | - |
| Buses % 09 | 0% | 1.5% | 6.8% | 0% | | 2.2% | 0% | 0.3% | 7.1% | 0% | | 0.7% | 0.8% | 3.9% | 0% | 0% | | 2.5% | 0% | 1.4% | 0% | 0% | | 1% | - |
| Articulated Trucks 2 | 2 | 6 | 0 | 0 | | 8 | 0 | 2 | 1 | 0 | | 3 | 0 | 4 | 0 | 0 | | 4 | 1 | 2 | 1 | 0 | | 4 | - |
| | .1% | 0.8% | 0% | 0% | | 0.7% | 0% | 0.3% | 1.4% | 0% | | 0.3% | 0% | 1.2% | 0% | 0% | | 0.7% | 0.6% | 0.3% | 1.3% | 0% | | 0.4% | - |
| , | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | - |
| • | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | - |
| Pedestrians - | - | - | - | - | 190 | - | - | - | - | - | 111 | - | - | - | - | - | 12 | - | - | - | - | - | 255 | - | - |
| Pedestrians% - Bicycles on Crosswalk - | - | - | - | - | 33.3% | | - | - | - | - | 19.4% | | - | - | - | - | 2.1% | | - | - | - | - | 44.7% | | - |

Peak Hour: 07:15 AM - 08:15 AM Weather: Broken Clouds (1.49 °C)



Peak Hour: 04:45 PM - 05:45 PM Weather: Broken Clouds (9.5 °C)





Turning Movement Count Location Name: WESTON RD & TORYORK DR Date: Thu, Mar 28, 2019 Deployment Lead: Peter Ilias

| | | | | | | | | | | Turni | ng Mo | vement Count (| 22 . WE | STON | RD & 1 | FORYOR | RK DR) | | | | | | | | | |
|-------------|--------------|--|-------------|---------------|------------|----------------|--------------|-------------|-------------|---------------|------------|----------------|--------------|-------------|-------------|---------------|-------------|----------------|--------------|-------------|-------------|---------------|------------|----------------|------------------------|----------------------|
| | | | | N Approac | ch RD | | | | COM | E Approac | h CCESS | | | | | S Approa | ach I RD | | | | | W Approac | ch DR | | Int. Total (15 min) | Int. Total (1 hr) |
| Start Time | Right N:W | Thru N:S | Left N:E | U-Turn N:N | Peds N: | Approach Total | Right E:N | Thru E:W | Left E:S | U-Turn E:E | Peds E: | Approach Total | Right S:E | Thru S:N | Left S:W | U-Turn S:S | Peds S: | Approach Total | Right W:S | Thru W:E | Left W:N | U-Turn W:W | Peds W: | Approach Total | ` | , , |
| 06:00:00 | 2 | 49 | 0 | 0 | 0 | 51 | 1 | 0 | 1 | 0 | 0 | 2 | 2 | 117 | 42 | 0 | 0 | 161 | 25 | 0 | 0 | 0 | 2 | 25 | 239 | |
| 06:15:00 | 8 | 69 | 1 | 0 | 0 | 78 | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 165 | 45 | 0 | 0 | 210 | 27 | 0 | 4 | 0 | 0 | 31 | 320 | |
| 06:30:00 | 3 | 85 | 0 | 0 | 2 | 88 | 1 | 0 | 0 | 0 | 5 | 1 | 0 | 170 | 80 | 0 | 0 | 250 | 23 | 1 | 3 | 0 | 7 | 27 | 366 | |
| 06:45:00 | 5 | 68 | 0 | 0 | 2 | 73 | 2 | 1 | 1 | 0 | 5 | 4 | 2 | 172 | 57 | 0 | 2 | 231 | 28 | 1 | 5 | 0 | 3 | 34 | 342 | 1267 |
| 07:00:00 | 3 | 121 | 1 | 0 | 2 | 125 | 1 | 1 | 1 | 0 | 3 | 3 | 1 | 168 | 54 | 0 | 0 | 223 | 24 | 1 | 4 | 0 | 1 | 29 | 380 | 1408 |
| 07:15:00 | 5 | 159 | 3 | 0 | 0 | 167 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 158 | 35 | 0 | 1 | 193 | 31 | 1 | 6 | 0 | 1 | 38 | 399 | 1487 |
| 07:30:00 | 6 | 144 | 4 | 0 | 3 | 154 | 4 | 1 | 3 | 0 | 3 | 8 | 2 | 147 | 40 | 0 | 0 | 189 | 39 | 0 | 2 | 0 | 0 | 41 | 392 | 1513 |
| 07:45:00 | 9 | 133 | 2 | 0 | 1 | 144 | 0 | 0 | 4 | 0 | 4 | 4 | 3 | 150 | 55 | 0 | 1 | 208 | 61 | 5 | 9 | 0 | 6 | 75 | 431 | 1602 |
| 08:00:00 | 4 | 136 | 0 | 0 | 0 | 140 | 5 | 0 | 4 | 0 | 1 | 9 | 1 | 132 | 39 | 0 | 17 | 172 | 37 | 3 | 1 | 0 | 0 | 41 | 362 | 1584 |
| 08:15:00 | 9 | 119 | 0 | 0 | 1 | 128 | 0 | 1 | 2 | 0 | 10 | 3 | 3 | 155 | 46 | 0 | 2 | 204 | 45 | 2 | 3 | 0 | 3 | 50 | 385 | 1570 |
| 08:30:00 | 11 | 118 | 3 | 0 | 1 | 132 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 112 | 35 | 0 | 5 | 147 | 47 | 0 | 9 | 0 | 1 | 56 | 335 | 1513 |
| 08:45:00 | 8 | 107 | 2 | 0 | 4 | 117 | 2 | 2 | 0 | 0 | 2 | 4 | 2 | 132 | 37 | 0 | 4 | 171 | 45 | 3 | 5 | 0 | 7 | 53 | 345 | 1427 |
| 09:00:00 | 6 | 117 | 3 | 0 | 2 | 126 | 5 | 6 | 6 | 0 | 1 | 17 | 4 | 105 | 32 | 0 | 1 | 141 | 41 | 3 | 4 | 0 | 3 | 48 | 332 | 1397 |
| 09:15:00 | 9 | 124 | 5 | 0 | 1 | 138 | 1 | 3 | 2 | 0 | 1 | 6 | 6 | 111 | 22 | 0 | 0 | 139 | 33 | 3 | 9 | 0 | 1 | 45 | 328 | 1340 |
| 09:30:00 | 20 | 138 | 8 | 0 | 0 | 166 | 4 | 6 | 3 | 0 | 1 | 13 | 6 | 112 | 45 | 0 | 3 | 163 | 51 | 0 | 8 | 0 | 0 | 59 | 401 | 1406 |
| 09:45:00 | 21 | 128 | 5 | 0 | 0 | 154 | 6 | 3 | 7 | 0 | 2 | 16 | 6 | 113 | 27 | 0 | 3 | 146 | 46 | 3 | 8 | 0 | 4 | 57 | 373 | 1434 |
| ***BREAK | *** | ************************************** | | | | | | | | | | | | | | | | | | | | | | | | |
| 15:00:00 | 20 | 166 | 3 | 0 | 3 | 189 | 6 | 8 | 16 | 0 | 13 | 30 | 12 | 76 | 25 | 0 | 1 | 113 | 61 | 7 | 10 | 0 | 16 | 78 | 410 | |
| 15:15:00 | 19 | 168 | 12 | 0 | 2 | 199 | 10 | 6 | 8 | 0 | 4 | 24 | 5 | 53 | 28 | 0 | 1 | 86 | 57 | 5 | 9 | 0 | 13 | 71 | 380 | |
| 15:30:00 | 18 | 170 | 15 | 0 | 2 | 203 | 7 | 10 | 20 | 0 | 19 | 37 | 10 | 83 | 35 | 0 | 12 | 128 | 69 | 6 | 8 | 0 | 5 | 83 | 451 | |
| 15:45:00 | 19 | 170 | 12 | 0 | 0 | 201 | 13 | 13 | 18 | 0 | 7 | 44 | 8 | 72 | 20 | 0 | 10 | 100 | 92 | 7 | 31 | 1 | 16 | 131 | 476 | 1717 |
| 16:00:00 | 18 | 241 | 3 | 0 | 8 | 262 | 7 | 8 | 12 | 0 | 8 | 27 | 12 | 91 | 21 | 0 | 4 | 124 | 43 | 4 | 7 | 0 | 27 | 54 | 467 | 1774 |
| 16:15:00 | 25 | 194 | 10 | 0 | 0 | 229 | 12 | 6 | 13 | 0 | 5 | 31 | 9 | 116 | 38 | 0 | 2 | 163 | 64 | 4 | 8 | 0 | 12 | 76 | 499 | 1893 |
| 16:30:00 | 17 | 193 | 11 | 0 | 1 | 221 | 9 | 2 | 12 | 0 | 11 | 23 | 13 | 113 | 34 | 0 | 2 | 160 | 61 | 3 | 8 | 0 | 3 | 72 | 476 | 1918 |
| 16:45:00 | 15 | 191 | 6 | 0 | 1 | 212 | 5 | 9 | 16 | 0 | 2 | 30 | 12 | 106 | 35 | 0 | 1 | 153 | 51 | 3 | 5 | 0 | 7 | 59 | 454 | 1896 |
| 17:00:00 | 11 | 246 | 6 | 0 | 2 | 263 | 9 | 5 | 15 | 0 | 12 | 29 | 11 | 93 | 41 | 0 | 3 | 145 | 66 | 5 | 5 | 0 | 9 | 76 | 513 | 1942 |
| 17:15:00 | 17 | 216 | 10 | 0 | 4 | 243 | 10 | 9 | 17 | 0 | 6 | 36 | 11 | 122 | 40 | 1 | 4 | 174 | 53 | 4 | 10 | 0 | 13 | 67 | 520 | 1963 |
| 17:30:00 | 11 | 205 | 3 | 0 | 5 | 219 | 5 | 3 | 19 | 0 | 5 | 27 | 7 | 123 | 31 | 0 | 5 | 161 | 50 | 4 | 5 | 0 | 8 | 59 | 466 | 1953 |
| 17:45:00 | 12 | 200 | 3 | 0 | 0 | 215 | 9 | 3 | 14 | 0 | 8 | 26 | 9 | 97 | 30 | 0 | 0 | 136 | 55 | 3 | 7 | 1 | 7 | 66 | 443 | 1942 |
| 18:00:00 | 11 | 216 | 8 | 0 | 4 | 235 | 11 | 5 | 11 | 0 | 8 | 27 | 9 | 107 | 40 | 0 | 3 | 156 | 72 | 3 | 9 | 0 | 9 | 84 | 502 | 1931 |
| 18:15:00 | 13 | 174 | 7 | 0 | 1 | 194 | 8 | 7 | 21 | 0 | 6 | 36 | 8 | 117 | 31 | 0 | 1 | 156 | 49 | 3 | 5 | 0 | 5 | 57 | 443 | 1854 |
| 18:30:00 | 4 | 150 | 0 | 0 | 0 | 154 | 8 | 1 | 19 | 0 | 2 | 28 | 11 | 129 | 26 | 0 | 2 | 166 | 55 | 0 | 2 | 0 | 2 | 57 | 405 | 1793 |
| 18:45:00 | 5 | 136 | 3 | 0 | 2 | 144 | 7 | 1 | 16 | 0 | 5 | 24 | 8 | 101 | 31 | 0 | 0 | 140 | 35 | 1 | 4 | 0 | 3 | 40 | 348 | 1698 |
| Grand Total | 364 | 4851 | 149 | 0 | 54 | 5364 | 168 | 121 | 282 | 0 | 168 | 571 | 193 | 3818 | 1197 | 1 | 90 | 5209 | 1536 | 88 | 213 | 2 | 194 | 1839 | 12983 | - |
| Approach% | 6.8% | 90.4% | 2.8% | 0% | | - | 29.4% | 21.2% | 49.4% | 0% | | - | 3.7% | 73.3% | 23% | 0% | | - | 83.5% | 4.8% | 11.6% | 0.1% | | - | - | - |
| Totals % | 2.8% | 37.4% | 1.1% | 0% | | 41.3% | 1.3% | 0.9% | 2.2% | 0% | | 4.4% | 1.5% | 29.4% | 9.2% | 0% | | 40.1% | 11.8% | 0.7% | 1.6% | 0% | | 14.2% | - | - |
| Heavy | 45 | 404 | 4 | 0 | | - | 5 | 2 | 4 | 0 | | - | 1 | 288 | 100 | 0 | | - | 136 | 1 | 11 | 0 | | - | - | - |
| Heavy % | 12.4% | 8.3% | 2.7% | 0% | | - | 3% | 1.7% | 1.4% | 0% | | - | 0.5% | 7.5% | 8.4% | 0% | | - | 8.9% | 1.1% | 5.2% | 0% | | - | - | - |
| Bicycles | - | - | - | - | | - | - | - | - | - | | - | - | - | - | - | | - | - | - | - | - | | - | - | - |
| Bicycle % | - | - | - | - | | - | - | - | - | - | | - | - | - | - | - | | - | - | - | - | - | | - | - | - |



Turning Movement Count Location Name: WESTON RD & TORYORK DR Date: Thu, Mar 28, 2019 Deployment Lead: Peter Ilias

| | | | | | | | | Pea | ak Hour | : 07:00 | AM - 08 | :00 AM Wea | ther: B | roken C | louds (| 1.49 °C |) | | | | | | | | |
|------------------------|-------|-------|------|----------|-----------|----------------|-------|-------|---------|-----------|--------------|----------------|---------|---------|---------|-----------|----------|----------------|-------|-------|-------|-----------|---------|----------------|------------------------|
| Start Time | | | | N Approa | rch RD | | | | COM | E Approad | ch ACCESS | | | | | S Approac | :h RD | | | | | W Approac | h DR | | Int. Total (15 min) |
| | Right | Thru | Left | U-Turn | Peds | Approach Total | Right | Thru | Left | U-Turn | Peds | Approach Total | Right | Thru | Left | U-Turn | Peds | Approach Total | Right | Thru | Left | U-Turn | Peds | Approach Total | |
| 07:00:00 | 3 | 121 | 1 | 0 | 2 | 125 | 1 | 1 | 1 | 0 | 3 | 3 | 1 | 168 | 54 | 0 | 0 | 223 | 24 | 1 | 4 | 0 | 1 | 29 | 380 |
| 07:15:00 | 5 | 159 | 3 | 0 | 0 | 167 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 158 | 35 | 0 | 1 | 193 | 31 | 1 | 6 | 0 | 1 | 38 | 399 |
| 07:30:00 | 6 | 144 | 4 | 0 | 3 | 154 | 4 | 1 | 3 | 0 | 3 | 8 | 2 | 147 | 40 | 0 | 0 | 189 | 39 | 0 | 2 | 0 | 0 | 41 | 392 |
| 07:45:00 | 9 | 133 | 2 | 0 | 1 | 144 | 0 | 0 | 4 | 0 | 4 | 4 | 3 | 150 | 55 | 0 | 1 | 208 | 61 | 5 | 9 | 0 | 6 | 75 | 431 |
| Grand Total | 23 | 557 | 10 | 0 | 6 | 590 | 5 | 2 | 9 | 0 | 11 | 16 | 6 | 623 | 184 | 0 | 2 | 813 | 155 | 7 | 21 | 0 | 8 | 183 | 1602 |
| Approach% | 3.9% | 94.4% | 1.7% | 0% | | - | 31.3% | 12.5% | 56.3% | 0% | | - | 0.7% | 76.6% | 22.6% | 0% | | - | 84.7% | 3.8% | 11.5% | 0% | | - | - |
| Totals % | 1.4% | 34.8% | 0.6% | 0% | | 36.8% | 0.3% | 0.1% | 0.6% | 0% | | 1% | 0.4% | 38.9% | 11.5% | 0% | | 50.7% | 9.7% | 0.4% | 1.3% | 0% | | 11.4% | - |
| PHF | 0.64 | 0.88 | 0.63 | 0 | | 0.88 | 0.31 | 0.5 | 0.56 | 0 | | 0.5 | 0.5 | 0.93 | 0.84 | 0 | | 0.91 | 0.64 | 0.35 | 0.58 | 0 | | 0.61 | - |
| Heavy | 7 | 72 | 1 | 0 | | 80 | 1 | 0 | 0 | 0 | | 1 | 0 | 49 | 16 | 0 | | 65 | 24 | 0 | 1 | 0 | | 25 | |
| Heavy % | 30.4% | 12.9% | 10% | 0% | | 13.6% | 20% | 0% | 0% | 0% | | 6.3% | 0% | 7.9% | 8.7% | 0% | | 8% | 15.5% | 0% | 4.8% | 0% | | 13.7% | - |
| Lights | 14 | 441 | 8 | 0 | | 463 | 4 | 2 | 8 | 0 | | 14 | 6 | 547 | 150 | 0 | | 703 | 114 | 6 | 18 | 0 | | 138 | |
| Lights % | 60.9% | 79.2% | 80% | 0% | | 78.5% | 80% | 100% | 88.9% | 0% | | 87.5% | 100% | 87.8% | 81.5% | 0% | | 86.5% | 73.5% | 85.7% | 85.7% | 0% | | 75.4% | - |
| Light Goods Vehicles | 2 | 44 | 1 | 0 | | 47 | 0 | 0 | 1 | 0 | | 1 | 0 | 27 | 18 | 0 | | 45 | 17 | 1 | 2 | 0 | | 20 | - |
| Light Goods Vehicles % | 8.7% | 7.9% | 10% | 0% | | 8% | 0% | 0% | 11.1% | 0% | | 6.3% | 0% | 4.3% | 9.8% | 0% | | 5.5% | 11% | 14.3% | 9.5% | 0% | | 10.9% | - |
| Single-Unit Trucks | 7 | 38 | 1 | 0 | | 46 | 1 | 0 | 0 | 0 | | 1 | 0 | 17 | 12 | 0 | | 29 | 21 | 0 | 1 | 0 | | 22 | - |
| Single-Unit Trucks % | 30.4% | 6.8% | 10% | 0% | | 7.8% | 20% | 0% | 0% | 0% | | 6.3% | 0% | 2.7% | 6.5% | 0% | | 3.6% | 13.5% | 0% | 4.8% | 0% | | 12% | - |
| Buses | 0 | 20 | 0 | 0 | | 20 | 0 | 0 | 0 | 0 | | 0 | 0 | 24 | 3 | 0 | | 27 | 1 | 0 | 0 | 0 | | 1 | - |
| Buses % | 0% | 3.6% | 0% | 0% | | 3.4% | 0% | 0% | 0% | 0% | | 0% | 0% | 3.9% | 1.6% | 0% | | 3.3% | 0.6% | 0% | 0% | 0% | | 0.5% | - |
| Articulated Trucks | 0 | 14 | 0 | 0 | | 14 | 0 | 0 | 0 | 0 | | 0 | 0 | 8 | 1 | 0 | | 9 | 2 | 0 | 0 | 0 | | 2 | - |
| Articulated Trucks % | 0% | 2.5% | 0% | 0% | | 2.4% | 0% | 0% | 0% | 0% | | 0% | 0% | 1.3% | 0.5% | 0% | | 1.1% | 1.3% | 0% | 0% | 0% | | 1.1% | - |
| Bicycles on Road | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | - |
| Bicycles on Road % | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | - |
| Pedestrians | - | - | - | - | 6 | - | - | - | - | - | 11 | - | - | - | - | - | 2 | - | - | - | - | - | 5 | - | - |
| Pedestrians% | - | - | - | - | 22.2% | | - | - | - | - | 40.7% | | - | - | - | - | 7.4% | | - | - | - | - | 18.5% | | - |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 3 | - | |

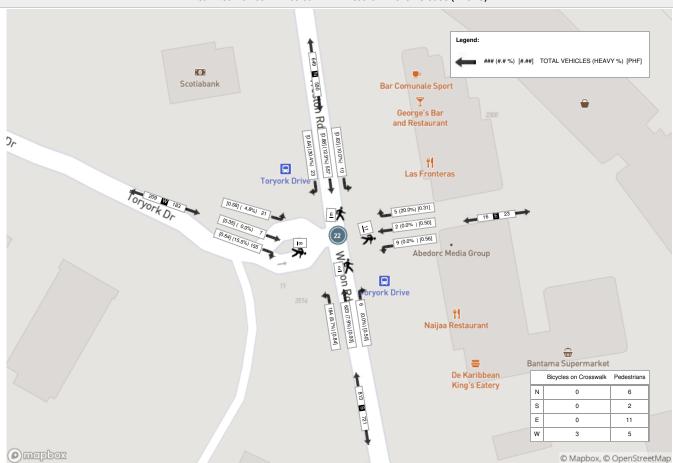


Turning Movement Count Location Name: WESTON RD & TORYORK DR Date: Thu, Mar 28, 2019 Deployment Lead: Peter Ilias

| Start Time | | | | N Approac | ch RD | | | | COM | E Approac | ch ACCESS | | | | | S Approact WESTON R | h BD | | | | | W Approac | h DR | | Int. To (15 m |
|---------------------|-------|-------|------|-----------|----------|----------------|-------|-------|-------|-----------|--------------|----------------|-------|-------|-------|------------------------|----------------|----------------|-------|-------|-------|-----------|----------------|----------------|------------------|
| | Right | Thru | Left | U-Turn | Peds | Approach Total | Right | Thru | Left | U-Turn | Peds | Approach Total | Right | Thru | Left | U-Turn | Peds | Approach Total | Right | Thru | Left | U-Turn | Peds | Approach Total | |
| 16:30:00 | 17 | 193 | 11 | 0 | 1 | 221 | 9 | 2 | 12 | 0 | 11 | 23 | 13 | 113 | 34 | 0 | 2 | 160 | 61 | 3 | 8 | 0 | 3 | 72 | 47 |
| 16:45:00 | 15 | 191 | 6 | 0 | 1 | 212 | 5 | 9 | 16 | 0 | 2 | 30 | 12 | 106 | 35 | 0 | 1 | 153 | 51 | 3 | 5 | 0 | 7 | 59 | 45 |
| 17:00:00 | 11 | 246 | 6 | 0 | 2 | 263 | 9 | 5 | 15 | 0 | 12 | 29 | 11 | 93 | 41 | 0 | 3 | 145 | 66 | 5 | 5 | 0 | 9 | 76 | 5 |
| 17:15:00 | 17 | 216 | 10 | 0 | 4 | 243 | 10 | 9 | 17 | 0 | 6 | 36 | 11 | 122 | 40 | 1 | 4 | 174 | 53 | 4 | 10 | 0 | 13 | 67 | 52 |
| Grand Total | 60 | 846 | 33 | 0 | 8 | 939 | 33 | 25 | 60 | 0 | 31 | 118 | 47 | 434 | 150 | 1 | 10 | 632 | 231 | 15 | 28 | 0 | 32 | 274 | 19 |
| Approach% | 6.4% | 90.1% | 3.5% | 0% | | - | 28% | 21.2% | 50.8% | 0% | | - | 7.4% | 68.7% | 23.7% | 0.2% | | - | 84.3% | 5.5% | 10.2% | 0% | | - | |
| Totals % | 3.1% | 43.1% | 1.7% | 0% | | 47.8% | 1.7% | 1.3% | 3.1% | 0% | | 6% | 2.4% | 22.1% | 7.6% | 0.1% | | 32.2% | 11.8% | 0.8% | 1.4% | 0% | | 14% | |
| PHF | 0.88 | 0.86 | 0.75 | 0 | | 0.89 | 0.83 | 0.69 | 0.88 | 0 | | 0.82 | 0.9 | 0.89 | 0.91 | 0.25 | | 0.91 | 0.88 | 0.75 | 0.7 | 0 | | 0.9 | |
| Heavy | 8 | 46 | 0 | 0 | | 54 | 1 | 0 | 2 | 0 | | 3 | 0 | 30 | 14 | 0 | | 44 | 7 | 0 | 4 | 0 | | 11 | |
| Heavy % | 13.3% | 5.4% | 0% | 0% | | 5.8% | 3% | 0% | 3.3% | 0% | | 2.5% | 0% | 6.9% | 9.3% | 0% | | 7% | 3% | 0% | 14.3% | 0% | | 4% | |
| Lights | 50 | 775 | 32 | 0 | | 857 | 30 | 25 | 55 | 0 | | 110 | 44 | 382 | 125 | 1 | | 552 | 212 | 13 | 22 | 0 | | 247 | |
| Lights % | 83.3% | 91.6% | 97% | 0% | | 91.3% | 90.9% | 100% | 91.7% | 0% | | 93.2% | 93.6% | 88% | 83.3% | 100% | | 87.3% | 91.8% | 86.7% | 78.6% | 0% | | 90.1% | |
| ght Goods Vehicles | 2 | 25 | 1 | 0 | | 28 | 2 | 0 | 3 | 0 | | 5 | 3 | 22 | 11 | 0 | | 36 | 12 | 2 | 2 | 0 | | 16 | |
| ht Goods Vehicles % | 3.3% | 3% | 3% | 0% | | 3% | 6.1% | 0% | 5% | 0% | | 4.2% | 6.4% | 5.1% | 7.3% | 0% | | 5.7% | 5.2% | 13.3% | 7.1% | 0% | | 5.8% | |
| Single-Unit Trucks | 5 | 16 | 0 | 0 | | 21 | 1 | 0 | 2 | 0 | | 3 | 0 | 11 | 11 | 0 | | 22 | 6 | 0 | 3 | 0 | | 9 | |
| ingle-Unit Trucks % | 8.3% | 1.9% | 0% | 0% | | 2.2% | 3% | 0% | 3.3% | 0% | | 2.5% | 0% | 2.5% | 7.3% | 0% | | 3.5% | 2.6% | 0% | 10.7% | 0% | | 3.3% | |
| Buses | 0 | 27 | 0 | 0 | | 27 | 0 | 0 | 0 | 0 | | 0 | 0 | 13 | 2 | 0 | | 15 | 0 | 0 | 0 | 0 | | 0 | |
| Buses % | 0% | 3.2% | 0% | 0% | | 2.9% | 0% | 0% | 0% | 0% | | 0% | 0% | 3% | 1.3% | 0% | | 2.4% | 0% | 0% | 0% | 0% | | 0% | |
| Articulated Trucks | 3 | 3 | 0 | 0 | | 6 | 0 | 0 | 0 | 0 | | 0 | 0 | 6 | 1 | 0 | | 7 | 1 | 0 | 1 | 0 | | 2 | |
| rticulated Trucks % | 5% | 0.4% | 0% | 0% | | 0.6% | 0% | 0% | 0% | 0% | | 0% | 0% | 1.4% | 0.7% | 0% | | 1.1% | 0.4% | 0% | 3.6% | 0% | | 0.7% | |
| Bicycles on Road | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | |
| icycles on Road % | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | 20 | 0% | 0% | 0% | 0% | 0% | 10 | 0% | 0% | 0% | 0% | 0% | 20 | 0% | |
| Pedestrians | - | - | - | - | 8 | - | - | - | - | - | 28 | - | - | | - | - | 10 | - | - | - | - | - | 32 | - | |
| Pedestrians% | - | - | - | - | 9.9% | | - | - | - | - | 34.6% | | - | - | - | - | 12.3% | | - | - | - | - | 39.5% | | |

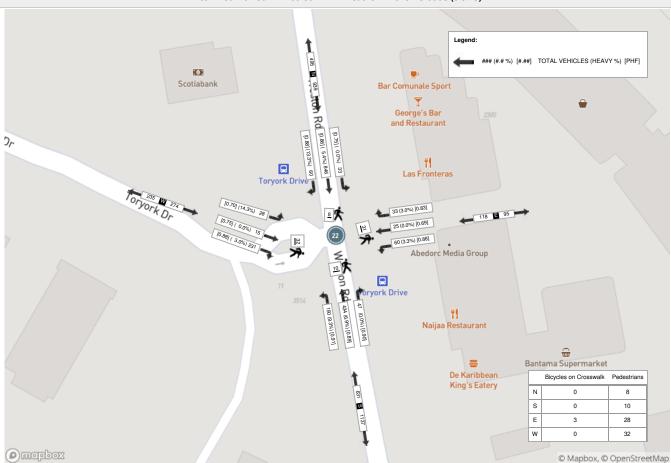


Peak Hour: 07:00 AM - 08:00 AM Weather: Broken Clouds (1.49 °C)





Peak Hour: 04:30 PM - 05:30 PM Weather: Broken Clouds (9.5 °C)





Turning Movement Count Location Name: FINCH AVE & JAYZEL DR

Date: Thu, Mar 28, 2019 Deployment Lead: Peter Ilias

| | | Turning Movement Count (119 . FII N Approach JAYZEL DR E Approach FINCH AVE W | | | | | | | | | | | | | | JAYZEL | DR) | | | | | | | | | |
|-------------|--------------|---|-------------|---------------|------------|----------------|--------------|-------------|-------------|---------------|------------|----------------|--------------|-------------|-------------|-----------------------|------------|----------------|--------------|-------------|-------------|---------------|------------|----------------|------------------------|----------------------|
| | | | | N Approact | 1 | | | | | E Approa | ich E W | | | | | S Approac JAYZEL D | h R | | | | | W Approa | ch E W | | Int. Total (15 min) | Int. Total (1 hr) |
| Start Time | Right N:W | Thru N:S | Left N:E | U-Turn N:N | Peds N: | Approach Total | Right E:N | Thru E:W | Left E:S | U-Turn E:E | Peds E: | Approach Total | Right S:E | Thru S:N | Left S:W | U-Turn S:S | Peds S: | Approach Total | Right W:S | Thru W:E | Left W:N | U-Turn W:W | Peds W: | Approach Total | | |
| 06:00:00 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 121 | 6 | 0 | 0 | 127 | 10 | 0 | 4 | 0 | 1 | 14 | 5 | 141 | 0 | 0 | 1 | 146 | 288 | |
| 06:15:00 | 1 | 0 | 0 | 0 | 6 | 1 | 0 | 165 | 5 | 0 | 0 | 170 | 10 | 1 | 6 | 0 | 2 | 17 | 2 | 201 | 0 | 0 | 7 | 203 | 391 | |
| 06:30:00 | 1 | 0 | 1 | 0 | 3 | 2 | 0 | 180 | 4 | 0 | 0 | 184 | 22 | 1 | 5 | 0 | 4 | 28 | 4 | 233 | 0 | 0 | 7 | 237 | 451 | |
| 06:45:00 | 1 | 0 | 0 | 0 | 3 | 1 | 0 | 181 | 5 | 0 | 0 | 186 | 22 | 1 | 6 | 0 | 3 | 29 | 4 | 244 | 3 | 0 | 7 | 251 | 467 | 1597 |
| 07:00:00 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 190 | 9 | 0 | 0 | 199 | 14 | 0 | 9 | 0 | 1 | 23 | 7 | 217 | 0 | 0 | 2 | 224 | 448 | 1757 |
| 07:15:00 | 0 | 0 | 3 | 0 | 3 | 3 | 0 | 222 | 9 | 0 | 1 | 231 | 26 | 0 | 18 | 0 | 1 | 44 | 5 | 271 | 2 | 0 | 3 | 278 | 556 | 1922 |
| 07:30:00 | 3 | 0 | 0 | 0 | 3 | 3 | 1 | 237 | 14 | 0 | 0 | 252 | 18 | 0 | 12 | 0 | 2 | 30 | 23 | 251 | 2 | 0 | 3 | 276 | 561 | 2032 |
| 07:45:00 | 2 | 0 | 1 | 0 | 4 | 3 | 0 | 188 | 10 | 0 | 0 | 198 | 19 | 1 | 25 | 0 | 0 | 45 | 30 | 253 | 0 | 1 | 1 | 284 | 530 | 2095 |
| 08:00:00 | 1 | 1 | 1 | 0 | 4 | 3 | 0 | 210 | 14 | 0 | 0 | 224 | 19 | 2 | 16 | 0 | 5 | 37 | 30 | 252 | 4 | 0 | 1 | 286 | 550 | 2197 |
| 08:15:00 | 1 | 1 | 0 | 0 | 21 | 2 | 0 | 146 | 24 | 0 | 1 | 170 | 19 | 0 | 14 | 0 | 6 | 33 | 24 | 230 | 2 | 0 | 13 | 256 | 461 | 2102 |
| 08:30:00 | 1 | 1 | 1 | 0 | 12 | 3 | 0 | 219 | 15 | 0 | 0 | 234 | 17 | 0 | 30 | 0 | 4 | 47 | 23 | 230 | 3 | 0 | 10 | 256 | 540 | 2081 |
| 08:45:00 | 0 | 1 | 0 | 0 | 2 | 1 | 2 | 187 | 17 | 0 | 0 | 206 | 33 | 0 | 28 | 0 | 7 | 61 | 18 | 260 | 4 | 0 | 2 | 282 | 550 | 2101 |
| 09:00:00 | 1 | 0 | 3 | 0 | 4 | 4 | 0 | 147 | 15 | 0 | 2 | 162 | 17 | 0 | 18 | 0 | 3 | 35 | 20 | 226 | 8 | 0 | 6 | 254 | 455 | 2006 |
| 09:15:00 | 4 | 2 | 6 | 0 | 5 | 12 | 2 | 145 | 13 | 0 | 4 | 160 | 12 | 5 | 11 | 0 | 6 | 28 | 13 | 233 | 6 | 0 | 14 | 252 | 452 | 1997 |
| 09:30:00 | 7 | 2 | 4 | 0 | 7 | 13 | 2 | 128 | 5 | 1 | 0 | 136 | 13 | 1 | 14 | 0 | 1 | 28 | 6 | 180 | 5 | 0 | 10 | 191 | 368 | 1825 |
| 09:45:00 | 5 | 0 | 3 | 0 | 1 | 8 | 1 | 143 | 9 | 0 | 0 | 153 | 15 | 1 | 16 | 0 | 1 | 32 | 11 | 172 | 4 | 0 | 6 | 187 | 380 | 1655 |
| ***BREAK | *** | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15:00:00 | 7 | 3 | 3 | 0 | 16 | 13 | 3 | 161 | 16 | 0 | 0 | 180 | 19 | 2 | 26 | 0 | 4 | 47 | 18 | 248 | 20 | 0 | 20 | 286 | 526 | |
| 15:15:00 | 9 | 1 | 10 | 0 | 18 | 20 | 2 | 148 | 13 | 0 | 0 | 163 | 28 | 6 | 47 | 0 | 0 | 81 | 24 | 217 | 5 | 0 | 9 | 246 | 510 | |
| 15:30:00 | 13 | 6 | 10 | 0 | 28 | 29 | 1 | 154 | 17 | 0 | 0 | 172 | 25 | 5 | 40 | 0 | 1 | 70 | 37 | 222 | 14 | 2 | 15 | 275 | 546 | |
| 15:45:00 | 13 | 10 | 5 | 0 | 13 | 28 | 3 | 180 | 18 | 0 | 0 | 201 | 25 | 5 | 37 | 0 | 2 | 67 | 36 | 188 | 3 | 0 | 15 | 227 | 523 | 2105 |
| 16:00:00 | 12 | 0 | 4 | 0 | 20 | 16 | 3 | 156 | 22 | 0 | 1 | 181 | 30 | 5 | 30 | 0 | 4 | 65 | 22 | 245 | 8 | 0 | 22 | 275 | 537 | 2116 |
| 16:15:00 | 10 | 9 | 5 | 0 | 11 | 24 | 1 | 202 | 18 | 0 | 1 | 221 | 21 | 3 | 30 | 0 | 5 | 54 | 21 | 245 | 11 | 2 | 10 | 279 | 578 | 2184 |
| 16:30:00 | 9 | 5 | 4 | 0 | 14 | 18 | 1 | 227 | 22 | 0 | 1 | 250 | 21 | 4 | 40 | 0 | 4 | 65 | 11 | 252 | 7 | 0 | 12 | 270 | 603 | 2241 |
| 16:45:00 | 8 | 3 | 2 | 0 | 25 | 13 | 0 | 268 | 19 | 1 | 3 | 288 | 15 | 1 | 20 | 0 | 8 | 36 | 15 | 227 | 7 | 0 | 31 | 249 | 586 | 2304 |
| 17:00:00 | 8 | 1 | 3 | 0 | 10 | 12 | 1 | 267 | 22 | 0 | 4 | 290 | 14 | 5 | 37 | 0 | 10 | 56 | 24 | 254 | 5 | 1 | 22 | 284 | 642 | 2409 |
| 17:15:00 | 8 | 1 | 6 | 0 | 10 | 15 | 2 | 249 | 15 | 0 | 1 | 266 | 20 | 0 | 31 | 0 | 9 | 51 | 19 | 252 | 7 | 0 | 4 | 278 | 610 | 2441 |
| 17:30:00 | 12 | 4 | 7 | 0 | 14 | 23 | 1 | 252 | 27 | 0 | 1 | 280 | 11 | 2 | 24 | 0 | 7 | 37 | 20 | 193 | 13 | 0 | 13 | 226 | 566 | 2404 |
| 17:45:00 | 15 | 5 | 8 | 0 | 25 | 28 | 4 | 248 | 14 | 0 | 4 | 266 | 14 | 6 | 27 | 0 | 11 | 47 | 10 | 219 | 9 | 0 | 35 | 238 | 579 | 2397 |
| 18:00:00 | 11 | 2 | 7 | 0 | 14 | 20 | 2 | 248 | 22 | 0 | 4 | 272 | 24 | 4 | 23 | 0 | 8 | 51 | 20 | 235 | 11 | 0 | 20 | 266 | 609 | 2364 |
| 18:15:00 | 11 | 2 | 10 | 0 | 7 | 23 | 2 | 255 | 19 | 0 | 2 | 276 | 15 | 3 | 19 | 0 | 5 | 37 | 19 | 215 | 12 | 0 | 17 | 246 | 582 | 2336 |
| 18:30:00 | 10 | 0 | 12 | 0 | 10 | 22 | 1 | 220 | 16 | 1 | 9 | 238 | 18 | 0 | 12 | 0 | 10 | 30 | 9 | 224 | 13 | 0 | 9 | 246 | 536 | 2306 |
| 18:45:00 | 10 | 0 | 10 | 0 | 10 | 20 | 0 | 241 | 24 | 0 | 3 | 265 | 12 | 3 | 11 | 0 | 4 | 26 | 11 | 210 | 15 | 1 | 25 | 237 | 548 | 2275 |
| Grand Total | 195 | 60 | 131 | 0 | 324 | 386 | 35 | 6285 | 478 | 3 | 42 | 6801 | 598 | 67 | 686 | 0 | 139 | 1351 | 541 | 7240 | 203 | 7 | 372 | 7991 | 16529 | - |
| Approach% | 50.5% | 15.5% | 33.9% | 0% | | - | 0.5% | 92.4% | 7% | 0% | | - | 44.3% | 5% | 50.8% | 0% | | - | 6.8% | 90.6% | 2.5% | 0.1% | | - | - | - |
| Totals % | 1.2% | 0.4% | 0.8% | 0% | | 2.3% | 0.2% | 38% | 2.9% | 0% | | 41.1% | 3.6% | 0.4% | 4.2% | 0% | | 8.2% | 3.3% | 43.8% | 1.2% | 0% | | 48.3% | - | - |
| Heavy | 1 | 0 | 5 | 0 | | - | 0 | 342 | 13 | 0 | | - | 21 | 2 | 26 | 0 | | - | 16 | 382 | 4 | 0 | | - | - | - |
| Heavy % | 0.5% | 0% | 3.8% | 0% | | - | 0% | 5.4% | 2.7% | 0% | | - | 3.5% | 3% | 3.8% | 0% | | - | 3% | 5.3% | 2% | 0% | | - | - | - |
| Bicycles | - | - | - | - | | - | - | - | - | - | | - | - | - | - | - | | - | - | - | - | - | | - | - | - |
| Bicycle % | - | - | - | - | | - | - | - | - | - | | - | - | - | - | - | | - | - | - | - | - | | - | - | - |



Pedestrians%

Bicycles on Crosswalk Bicycles on Crosswalk%

3 2%

Turning Movement Count Location Name: FINCH AVE & JAYZEL DR Date: Thu, Mar 28, 2019 Deployment Lead: Peter Ilias

Peak Hour: 07:15 AM - 08:15 AM Weather: Broken Clouds (1.49 °C) N Approach JAYZEL DR W Approach FINCH AVE W E Approach FINCH AVE W S Approach JAYZEL DR Int. Total (15 min) Start Time U-Turn Right Thru Left U-Turn Approach Total Right Thru Left Peds Approach Total Right Thru Left U-Turn Peds Approach Total Right Thru Left U-Turn Peds Approach Total 07:15:00 44 5 2 0 0 3 0 3 3 0 222 9 0 1 231 26 0 18 0 1 271 0 3 278 556 07:30:00 237 252 18 30 23 3 276 561 3 0 0 0 3 3 1 14 0 0 0 12 0 2 251 2 0 07:45:00 2 1 0 0 0 30 1 0 0 4 3 188 10 198 19 25 0 0 45 253 0 284 530 08:00:00 1 1 1 0 4 3 0 210 14 0 0 224 19 2 16 0 5 37 30 252 4 0 1 286 550 **Grand Total** 6 1 5 0 14 12 1 857 47 0 1 905 82 3 71 0 8 156 88 1027 8 1 8 1124 2197 Approach% 50% 8.3% 41.7% 0% 0.1% 94.7% 5.2% 0% 52.6% 1.9% 45.5% 0% 7.8% 91.4% 0.7% 0.1% 0% 7 1% 51 2% Totals % 0.3% 0% 0.2% 0% 0.5% 0% 39% 2 1% 0% 41 2% 3.7% 0.1% 3 2% 4% 46 7% 0% 0.4% PHF 0.5 0.25 0.42 0 0.25 0.9 0.84 0.9 0.79 0.71 0.87 0.73 0.95 0.5 0.25 0.98 0.38 72 0 Λ Ω 67 5 Λ 8 Ω 17 73 Ω Λ 78 Heavy Λ Ω 5 0% 0% 20% 0% 8.3% 0% 7.8% 10.6% 0% 8% 9.8% 0% 12.7% 0% 10.9% 5.7% 7.1% 0% 0% 6.9% Heavy % 10 137 1006 Liahts 0 790 42 833 73 61 83 914 Lights % 83.3% 100% 80% 83.3% 100% 89.4% 92% 89% 100% 85.9% 0% 87.8% 94.3% 100% 100% 89.5% **Light Goods Vehicles** 0 0 0 0 0 0 2 0 40 40 Light Goods Vehicles % 0% 16.7% 0% 0% 0% 8.3% 0% 0% 0% 0% 0% 1.2% 0% 1.4% 1.3% 0% 3.9% 0% 0% 3.6% Single-Unit Trucks 0 0 ٥ ٥ 0 29 ٥ 30 0 ٥ 30 0 ٥ 30 0 0 0 0% Single-Unit Trucks % 0% 0% 0% 3.4% 2.1% 0% 3.3% 0% 0% 1.4% 0% 0.6% 0% 2.9% 0% 0% 2.7% 0% 0 27 Buses % 0% 0% 20% 0% 8.3% 0% 3.2% 8.5% 0% 3.4% 9.8% 0% 11.3% 0% 10.3% 5.7% 3.9% 0% 0% 0 0 0 ٥ ٥ 0 11 Ω ٥ 11 0 0 0 0 3 0 ٥ Articulated Trucks 0 3 Articulated Trucks % 0% 1.2% 0% 0% 0% 0% 0% 1.3% 0% 0% 0% 0% 0% 0% 0% 0% 0.3% 0% 0% 0.3% Pedestrians 13

0

0%

22.6%

3 2%

25.8%

0

0%



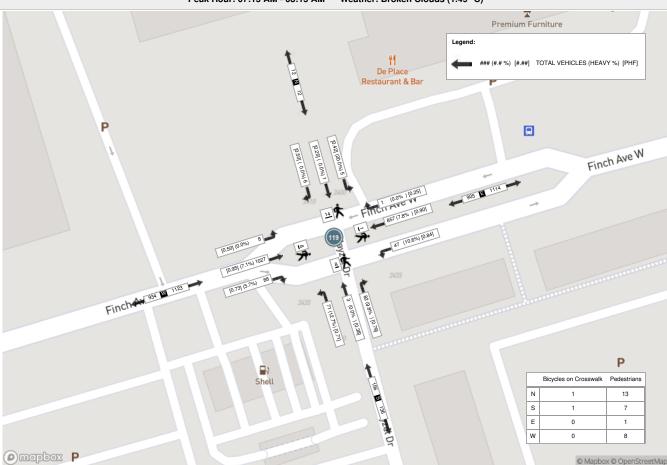
Turning Movement Count Location Name: FINCH AVE & JAYZEL DR

Date: Thu, Mar 28, 2019 Deployment Lead: Peter Ilias

| | Peak Hour: 04:30 PM - 05:30 PM Weather: Broken Clouds (9.5 °C) N Approach E Approach S Approach W Approach Int | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|-------|-------|-----------|------------------|----------------|-------|---------------------------|-------|--------|------|----------------|-------|------|-------|-----------|----------|----------------|-------|------------------------|-------|--------|-------|----------------|------|
| Start Time | | | | N Approad | c h DR | | | E Approach FINCH AVE W | | | | | | | | S Approad | ch OR | | | Int. Total (15 min) | | | | | |
| | Right | Thru | Left | U-Turn | Peds | Approach Total | Right | Thru | Left | U-Turn | Peds | Approach Total | Right | Thru | Left | U-Turn | Peds | Approach Total | Right | Thru | Left | U-Turn | Peds | Approach Total | |
| 16:30:00 | 9 | 5 | 4 | 0 | 14 | 18 | 1 | 227 | 22 | 0 | 1 | 250 | 21 | 4 | 40 | 0 | 4 | 65 | 11 | 252 | 7 | 0 | 12 | 270 | 603 |
| 16:45:00 | 8 | 3 | 2 | 0 | 25 | 13 | 0 | 268 | 19 | 1 | 3 | 288 | 15 | 1 | 20 | 0 | 8 | 36 | 15 | 227 | 7 | 0 | 31 | 249 | 586 |
| 17:00:00 | 8 | 1 | 3 | 0 | 10 | 12 | 1 | 267 | 22 | 0 | 4 | 290 | 14 | 5 | 37 | 0 | 10 | 56 | 24 | 254 | 5 | 1 | 22 | 284 | 642 |
| 17:15:00 | 8 | 1 | 6 | 0 | 10 | 15 | 2 | 249 | 15 | 0 | 1 | 266 | 20 | 0 | 31 | 0 | 9 | 51 | 19 | 252 | 7 | 0 | 4 | 278 | 610 |
| Grand Total | 33 | 10 | 15 | 0 | 59 | 58 | 4 | 1011 | 78 | 1 | 9 | 1094 | 70 | 10 | 128 | 0 | 31 | 208 | 69 | 985 | 26 | 1 | 69 | 1081 | 2441 |
| Approach% | 56.9% | 17.2% | 25.9% | 0% | | - | 0.4% | 92.4% | 7.1% | 0.1% | | - | 33.7% | 4.8% | 61.5% | 0% | | - | 6.4% | 91.1% | 2.4% | 0.1% | | - | - |
| Totals % | 1.4% | 0.4% | 0.6% | 0% | | 2.4% | 0.2% | 41.4% | 3.2% | 0% | | 44.8% | 2.9% | 0.4% | 5.2% | 0% | | 8.5% | 2.8% | 40.4% | 1.1% | 0% | | 44.3% | - |
| PHF | 0.92 | 0.5 | 0.63 | 0 | | 0.81 | 0.5 | 0.94 | 0.89 | 0.25 | | 0.94 | 0.83 | 0.5 | 8.0 | 0 | | 0.8 | 0.72 | 0.97 | 0.93 | 0.25 | | 0.95 | - |
| Heavy | | 0 | 0 | 0 | | 0 | | 36 | 2 | 0 | | 38 | 1 | 0 | 1 | 0 | | 2 | 0 | 30 | 2 | 0 | | 32 | |
| Heavy % | 0% | 0% | 0% | 0% | | 0% | 0% | 3.6% | 2.6% | 0% | | 3.5% | 1.4% | 0% | 0.8% | 0% | | 1% | 0% | 3% | 7.7% | 0% | | 3% | - |
| Lights | 31 | 10 | 14 | 0 | | 55 | 4 | 975 | 76 | 1 | | 1056 | 69 | 8 | 120 | 0 | | 197 | 67 | 925 | 24 | 1 | | 1017 | |
| Lights % | 93.9% | 100% | 93.3% | 0% | | 94.8% | 100% | 96.4% | 97.4% | 100% | | 96.5% | 98.6% | 80% | 93.8% | 0% | | 94.7% | 97.1% | 93.9% | 92.3% | 100% | | 94.1% | - |
| Light Goods Vehicles | 2 | 0 | 1 | 0 | | 3 | 0 | 0 | 0 | 0 | | 0 | 0 | 2 | 7 | 0 | | 9 | 2 | 30 | 0 | 0 | | 32 | - |
| Light Goods Vehicles % | 6.1% | 0% | 6.7% | 0% | | 5.2% | 0% | 0% | 0% | 0% | | 0% | 0% | 20% | 5.5% | 0% | | 4.3% | 2.9% | 3% | 0% | 0% | | 3% | - |
| Single-Unit Trucks | 0 | 0 | 0 | 0 | | 0 | 0 | 17 | 1 | 0 | | 18 | 0 | 0 | 1 | 0 | | 1 | 0 | 15 | 2 | 0 | | 17 | - |
| Single-Unit Trucks % | 0% | 0% | 0% | 0% | | 0% | 0% | 1.7% | 1.3% | 0% | | 1.6% | 0% | 0% | 0.8% | 0% | | 0.5% | 0% | 1.5% | 7.7% | 0% | | 1.6% | - |
| Buses | 0 | 0 | 0 | 0 | | 0 | 0 | 16 | 1 | 0 | | 17 | 1 | 0 | 0 | 0 | | 1 | 0 | 12 | 0 | 0 | | 12 | - |
| Buses % | 0% | 0% | 0% | 0% | | 0% | 0% | 1.6% | 1.3% | 0% | | 1.6% | 1.4% | 0% | 0% | 0% | | 0.5% | 0% | 1.2% | 0% | 0% | | 1.1% | - |
| Articulated Trucks | 0 | 0 | 0 | 0 | | 0 | 0 | 3 | 0 | 0 | | 3 | 0 | 0 | 0 | 0 | | 0 | 0 | 3 | 0 | 0 | | 3 | - |
| Articulated Trucks % | 0% | 0% | 0% | 0% | | 0% | 0% | 0.3% | 0% | 0% | | 0.3% | 0% | 0% | 0% | 0% | | 0% | 0% | 0.3% | 0% | 0% | | 0.3% | - |
| Pedestrians | - | - | - | - | 59 | = | - | - | - | - | 9 | - | - | - | - | - | 31 | - | - | - | - | - | 69 | - | - |
| Pedestrians% | - | - | - | - | 35.1% | | - | - | - | - | 5.4% | | - | - | - | - | 18.5% | | - | - | - | - | 41.1% | | - |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| Bicycles on Crosswalk% | - | - | - | - | 0% | | - | - | - | - | 0% | | - | - | - | - | 0% | | - | - | - | - | 0% | | - |

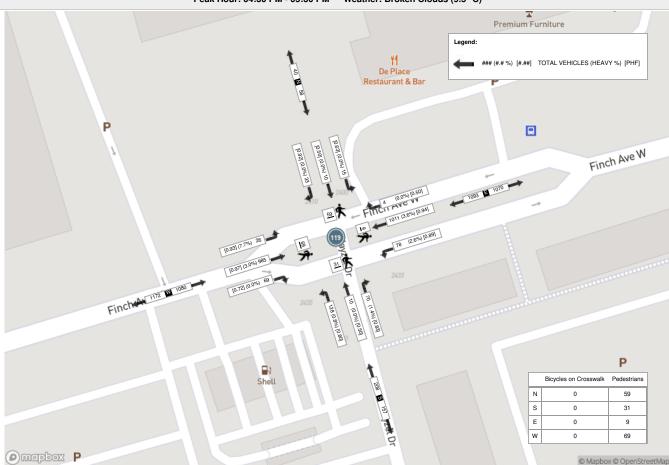
Turning Movement Count Location Name: FINCH AVE & JAYZEL DR Date: Thu, Mar 28, 2019 Deployment Lead: Peter Ilias

Peak Hour: 07:15 AM - 08:15 AM Weather: Broken Clouds (1.49 °C)



Turning Movement Count Location Name: FINCH AVE & JAYZEL DR Date: Thu, Mar 28, 2019 Deployment Lead: Peter Ilias

Peak Hour: 04:30 PM - 05:30 PM Weather: Broken Clouds (9.5 °C)





Turning Movement Count Location Name: FINCH AVE & MILVAN DR / RUMIKE RD Date: Thu, Mar 28, 2019 Deployment Lead: Peter Ilias

| | | | | | | | | | Tu | urning N | /lovem | ent Count (118 | . FINCH | AVE & | MILVAI | N DR / R | UMIKE | RD) | | | | | | | | |
|-------------|--------------|-------------|-------------|---------------|------------|----------------|--------------|-------------|-------------|---------------|------------|----------------|--------------|-------------|-------------|---------------|---------------|----------------|--------------|-------------|------------------------|----------------------|------------|----------------|-------|------|
| Oterat Time | | | | N Approac | ch DR | | | | | E Approac | ch W | | | | | S Approach | h D | | | | Int. Total (15 min) | Int. Total (1 hr) | | | | |
| Start Time | Right N:W | Thru N:S | Left N:E | U-Turn N:N | Peds N: | Approach Total | Right E:N | Thru E:W | Left E:S | U-Turn E:E | Peds E: | Approach Total | Right S:E | Thru S:N | Left S:W | U-Turn S:S | Peds S: | Approach Total | Right W:S | Thru W:E | Left W:N | U-Turn W:W | Peds W: | Approach Total | | |
| 06:00:00 | 4 | 2 | 17 | 0 | 1 | 23 | 38 | 87 | 2 | 0 | 0 | 127 | 4 | 7 | 5 | 0 | 9 | 16 | 2 | 125 | 9 | 0 | 1 | 136 | 302 | |
| 06:15:00 | 3 | 4 | 24 | 0 | 3 | 31 | 57 | 113 | 2 | 0 | 7 | 172 | 3 | 9 | 6 | 0 | 3 | 18 | 2 | 170 | 17 | 0 | 3 | 189 | 410 | |
| 06:30:00 | 4 | 2 | 16 | 0 | 3 | 22 | 51 | 137 | 3 | 0 | 4 | 191 | 10 | 7 | 13 | 0 | 7 | 30 | 6 | 215 | 18 | 0 | 3 | 239 | 482 | |
| 06:45:00 | 7 | 4 | 23 | 0 | 4 | 34 | 67 | 122 | 1 | 0 | 3 | 190 | 5 | 18 | 15 | 0 | 7 | 38 | 10 | 240 | 20 | 0 | 4 | 270 | 532 | 1726 |
| 07:00:00 | 11 | 4 | 32 | 0 | 6 | 47 | 52 | 151 | 1 | 0 | 6 | 204 | 3 | 12 | 16 | 0 | 4 | 31 | 12 | 204 | 13 | 0 | 5 | 229 | 511 | 1935 |
| 07:15:00 | 14 | 7 | 34 | 0 | 3 | 55 | 56 | 180 | 3 | 0 | 3 | 239 | 2 | 13 | 20 | 0 | 4 | 35 | 13 | 241 | 9 | 0 | 6 | 263 | 592 | 2117 |
| 07:30:00 | 8 | 13 | 26 | 0 | 4 | 47 | 52 | 193 | 1 | 0 | 10 | 246 | 9 | 15 | 20 | 0 | 7 | 44 | 13 | 254 | 9 | 0 | 8 | 276 | 613 | 2248 |
| 07:45:00 | 11 | 14 | 26 | 0 | 4 | 51 | 67 | 144 | 2 | 0 | 5 | 213 | 7 | 16 | 12 | 0 | 7 | 35 | 28 | 267 | 24 | 0 | 3 | 319 | 618 | 2334 |
| 08:00:00 | 8 | 16 | 26 | 0 | 3 | 50 | 51 | 168 | 5 | 0 | 4 | 224 | 5 | 8 | 19 | 0 | 12 | 32 | 25 | 258 | 12 | 1 | 7 | 296 | 602 | 2425 |
| 08:15:00 | 8 | 13 | 22 | 0 | 4 | 43 | 40 | 117 | 3 | 0 | 14 | 160 | 4 | 18 | 29 | 0 | 13 | 51 | 41 | 243 | 15 | 0 | 4 | 299 | 553 | 2386 |
| 08:30:00 | 16 | 13 | 30 | 0 | 4 | 59 | 51 | 187 | 8 | 0 | 17 | 246 | 5 | 13 | 30 | 0 | 7 | 48 | 33 | 240 | 21 | 0 | 7 | 294 | 647 | 2420 |
| 08:45:00 | 14 | 5 | 24 | 0 | 9 | 43 | 39 | 170 | 1 | 0 | 6 | 210 | 3 | 15 | 60 | 0 | 5 | 78 | 55 | 270 | 18 | 0 | 3 | 343 | 674 | 2476 |
| 09:00:00 | 12 | 9 | 45 | 0 | 5 | 66 | 40 | 136 | 3 | 0 | 6 | 179 | 3 | 19 | 36 | 0 | 6 | 58 | 19 | 228 | 27 | 0 | 1 | 274 | 577 | 2451 |
| 09:15:00 | 15 | 11 | 39 | 0 | 9 | 65 | 48 | 113 | 3 | 0 | 7 | 164 | 7 | 8 | 23 | 0 | 3 | 38 | 22 | 214 | 13 | 0 | 3 | 249 | 516 | 2414 |
| 09:30:00 | 11 | 4 | 37 | 0 | 7 | 52 | 27 | 115 | 4 | 0 | 8 | 146 | 3 | 10 | 18 | 0 | 5 | 31 | 14 | 165 | 19 | 0 | 6 | 198 | 427 | 2194 |
| 09:45:00 | 25 | 7 | 22 | 0 | 5 | 54 | 41 | 121 | 5 | 0 | 5 | 167 | 8 | 19 | 20 | 0 | 4 | 47 | 16 | 174 | 16 | 0 | 7 | 206 | 474 | 1994 |
| ***BREAK | *** | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15:00:00 | 54 | 31 | 76 | 0 | 25 | 161 | 27 | 162 | 9 | 1 | 15 | 199 | 11 | 23 | 34 | 0 | 13 | 68 | 35 | 189 | 22 | 0 | 28 | 246 | 674 | |
| 15:15:00 | 31 | 22 | 52 | 0 | 17 | 105 | 39 | 166 | 5 | 0 | 9 | 210 | 6 | 35 | 40 | 0 | 11 | 81 | 37 | 237 | 28 | 0 | 10 | 302 | 698 | |
| 15:30:00 | 25 | 33 | 41 | 0 | 36 | 99 | 55 | 157 | 6 | 0 | 11 | 218 | 9 | 23 | 36 | 0 | 18 | 68 | 35 | 248 | 31 | 0 | 13 | 314 | 699 | |
| 15:45:00 | 33 | 19 | 31 | 0 | 18 | 83 | 47 | 174 | 6 | 0 | 20 | 227 | 6 | 27 | 36 | 0 | 12 | 69 | 25 | 222 | 29 | 0 | 15 | 276 | 655 | 2726 |
| 16:00:00 | 43 | 44 | 68 | 0 | 22 | 155 | 33 | 175 | 5 | 0 | 16 | 213 | 6 | 41 | 34 | 1 | 10 | 82 | 39 | 215 | 21 | 0 | 21 | 275 | 725 | 2777 |
| 16:15:00 | 37 | 32 | 49 | 0 | 13 | 118 | 49 | 218 | 4 | 0 | 13 | 271 | 6 | 18 | 37 | 0 | 21 | 61 | 29 | 234 | 25 | 0 | 10 | 288 | 738 | 2817 |
| 16:30:00 | 37 | 42 | 69 | 0 | 13 | 148 | 33 | 245 | 5 | 0 | 10 | 283 | 4 | 23 | 45 | 0 | 19 | 72 | 44 | 197 | 24 | 0 | 13 | 265 | 768 | 2886 |
| 16:45:00 | 41 | 30 | 53 | 0 | 19 | 124 | 31 | 264 | 6 | 0 | 16 | 301 | 6 | 23 | 36 | 0 | 20 | 65 | 35 | 211 | 16 | 0 | 26 | 262 | 752 | 2983 |
| 17:00:00 | 46 | 34 | 58 | 0 | 16 | 138 | 43 | 294 | 6 | 0 | 10 | 343 | 7 | 16 | 45 | 0 | 10 | 68 | 30 | 230 | 24 | 0 | 21 | 284 | 833 | 3091 |
| 17:15:00 | 33 | 27 | 49 | 0 | 16 | 109 | 36 | 236 | 6 | 0 | 11 | 278 | 5 | 17 | 42 | 0 | 17 | 64 | 38 | 223 | 21 | 0 | 21 | 282 | 733 | 3086 |
| 17:30:00 | 34 | 27 | 44 | 0 | 7 | 105 | 41 | 257 | 8 | 0 | 9 | 306 | 5 | 21 | 29 | 0 | 22 | 55 | 33 | 194 | 16 | 0 | 13 | 243 | 709 | 3027 |
| 17:45:00 | 29 | 12 | 31 | 0 | 21 | 72 | 35 | 246 | 8 | 0 | 11 | 289 | 4 | 13 | 37 | 0 | 16 | 54 | 27 | 215 | 23 | 0 | 11 | 265 | 680 | 2955 |
| 18:00:00 | 34 | 21 | 49 | 0 | 12 | 104 | 31 | 251 | 6 | 0 | 27 | 288 | 9 | 22 | 34 | 0 | 18 | 65 | 43 | 210 | 18 | 0 | 12 | 271 | 728 | 2850 |
| 18:15:00 | 35 | 18 | 49 | 0 | 8 | 102 | 35 | 237 | 12 | 1 | 6 | 285 | 6 | 13 | 30 | 0 | 14 | 49 | 25 | 200 | 16 | 0 | 9 | 241 | 677 | 2794 |
| 18:30:00 | 23 | 15 | 39 | 0 | 15 | 77 | 27 | 213 | 9 | 0 | 8 | 249 | 9 | 13 | 25 | 0 | 15 | 47 | 27 | 210 | 14 | 0 | 10 | 251 | 624 | 2709 |
| 18:45:00 | 19 | 10 | 32 | 0 | 11 | 61 | 45 | 224 | 11 | 0 | 13 | 280 | 5 | 9 | 30 | 0 | 11 | 44 | 16 | 205 | 16 | 0 | 12 | 237 | 622 | 2651 |
| Grand Total | 725 | 545 | 1233 | 0 | 343 | 2503 | 1384 | 5773 | 159 | 2 | 310 | 7318 | 185 | 544 | 912 | 1 | 350 | 1642 | 829 | 6948 | 604 | 1 | 316 | 8382 | 19845 | - |
| Approach% | 29% | 21.8% | 49.3% | 0% | | - | 18.9% | 78.9% | 2.2% | 0% | | - | 11.3% | 33.1% | 55.5% | 0.1% | | - | 9.9% | 82.9% | 7.2% | 0% | | - | - | - |
| Totals % | 3.7% | 2.7% | 6.2% | 0% | | 12.6% | 7% | 29.1% | 0.8% | 0% | | 36.9% | 0.9% | 2.7% | 4.6% | 0% | | 8.3% | 4.2% | 35% | 3% | 0% | | 42.2% | - | - |
| Heavy | 66 | 4 | 142 | 0 | | - | 86 | 276 | 1 | 0 | | - | 6 | 11 | 28 | 0 | | - | 28 | 271 | 78 | 0 | | - | - | - |
| Heavy % | 9.1% | 0.7% | 11.5% | 0% | | - | 6.2% | 4.8% | 0.6% | 0% | | - | 3.2% | 2% | 3.1% | 0% | | - | 3.4% | 3.9% | 12.9% | 0% | | - | - | - |
| Bicycles | - | - | - | - | | - | - | - | - | - | | - | - | - | - | - | | - | - | - | - | - | | - | - | - |
| Bicycle % | - | - | - | - | | - | - | - | - | - | | - | - | - | - | - | | - | - | - | - | - | | - | • | - |



Turning Movement Count Location Name: FINCH AVE & MILVAN DR / RUMIKE RD Date: Thu, Mar 28, 2019 Deployment Lead: Peter Ilias

| Peak Hour: 08:00 AM - 09:00 AM Weather: Broken Clouds (1.49 °C) NApproach E Approach S Approach W Approach W Unit. T | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------------|-------|-------|--------|-------|----------------|-------|----------------------------------|-------|--------|-------|----------------|-------|-------|------|----------|----------|----------------|----------------------------------|-------|-------|--------|-------|----------------|---|
| Start Time | N Approach MILVAN DR | | | | | | | E Approach FINCH AVE W | | | | | | | | S Approa | ch RD | | W Approach FINCH AVE W | | | | | | |
| | Right | Thru | Left | U-Turn | Peds | Approach Total | Right | Thru | Left | U-Turn | Peds | Approach Total | Right | Thru | Left | U-Turn | Peds | Approach Total | Right | Thru | Left | U-Turn | Peds | Approach Total | |
| 08:00:00 | 8 | 16 | 26 | 0 | 3 | 50 | 51 | 168 | 5 | 0 | 4 | 224 | 5 | 8 | 19 | 0 | 12 | 32 | 25 | 258 | 12 | 1 | 7 | 296 | 6 |
| 08:15:00 | 8 | 13 | 22 | 0 | 4 | 43 | 40 | 117 | 3 | 0 | 14 | 160 | 4 | 18 | 29 | 0 | 13 | 51 | 41 | 243 | 15 | 0 | 4 | 299 | |
| 08:30:00 | 16 | 13 | 30 | 0 | 4 | 59 | 51 | 187 | 8 | 0 | 17 | 246 | 5 | 13 | 30 | 0 | 7 | 48 | 33 | 240 | 21 | 0 | 7 | 294 | 6 |
| 08:45:00 | 14 | 5 | 24 | 0 | 9 | 43 | 39 | 170 | 1 | 0 | 6 | 210 | 3 | 15 | 60 | 0 | 5 | 78 | 55 | 270 | 18 | 0 | 3 | 343 | |
| Grand Total | 46 | 47 | 102 | 0 | 20 | 195 | 181 | 642 | 17 | 0 | 41 | 840 | 17 | 54 | 138 | 0 | 37 | 209 | 154 | 1011 | 66 | 1 | 21 | 1232 | 2 |
| Approach% | 23.6% | 24.1% | 52.3% | 0% | | - | 21.5% | 76.4% | 2% | 0% | | - | 8.1% | 25.8% | 66% | 0% | | - | 12.5% | 82.1% | 5.4% | 0.1% | | - | |
| Totals % | 1.9% | 1.9% | 4.1% | 0% | | 7.9% | 7.3% | 25.9% | 0.7% | 0% | | 33.9% | 0.7% | 2.2% | 5.6% | 0% | | 8.4% | 6.2% | 40.8% | 2.7% | 0% | | 49.8% | |
| PHF | 0.72 | 0.73 | 0.85 | 0 | | 0.83 | 0.89 | 0.86 | 0.53 | 0 | | 0.85 | 0.85 | 0.75 | 0.58 | 0 | | 0.67 | 0.7 | 0.94 | 0.79 | 0.25 | | 0.9 | |
| Heavy | 9 | 0 | 20 | 0 | | 29 | 14 | 45 | 0 | 0 | | 59 | 2 | 0 | 9 | 0 | | 11 | 3 | 43 | 13 | 0 | | 59 | |
| Heavy % | 19.6% | 0% | 19.6% | 0% | | 14.9% | 7.7% | 7% | 0% | 0% | | 7% | 11.8% | 0% | 6.5% | 0% | | 5.3% | 1.9% | 4.3% | 19.7% | 0% | | 4.8% | |
| Lights | 35 | 46 | 79 | 0 | | 160 | 167 | 578 | 15 | 0 | | 760 | 15 | 53 | 127 | 0 | | 195 | 149 | 944 | 53 | 1 | | 1147 | |
| Lights % | 76.1% | 97.9% | 77.5% | 0% | | 82.1% | 92.3% | 90% | 88.2% | 0% | | 90.5% | 88.2% | 98.1% | 92% | 0% | | 93.3% | 96.8% | 93.4% | 80.3% | 100% | | 93.1% | |
| ght Goods Vehicles | 2 | 1 | 3 | 0 | | 6 | 0 | 19 | 2 | 0 | | 21 | 0 | 1 | 2 | 0 | | 3 | 2 | 24 | 0 | 0 | | 26 | |
| ht Goods Vehicles % | 4.3% | 2.1% | 2.9% | 0% | | 3.1% | 0% | 3% | 11.8% | 0% | | 2.5% | 0% | 1.9% | 1.4% | 0% | | 1.4% | 1.3% | 2.4% | 0% | 0% | | 2.1% | |
| Single-Unit Trucks | 6 | 0 | 8 | 0 | | 14 | 12 | 16 | 0 | 0 | | 28 | 1 | 0 | 1 | 0 | | 2 | 0 | 15 | 11 | 0 | | 26 | |
| ngle-Unit Trucks % | 13% | 0% | 7.8% | 0% | | 7.2% | 6.6% | 2.5% | 0% | 0% | | 3.3% | 5.9% | 0% | 0.7% | 0% | | 1% | 0% | 1.5% | 16.7% | 0% | | 2.1% | |
| Buses | 0 | 0 | 8 | 0 | | 8 | 0 | 26 | 0 | 0 | | 26 | 1 | 0 | 8 | 0 | | 9 | 3 | 26 | 0 | 0 | | 29 | |
| Buses % | 0% | 0% | 7.8% | 0% | | 4.1% | 0% | 4% | 0% | 0% | | 3.1% | 5.9% | 0% | 5.8% | 0% | | 4.3% | 1.9% | 2.6% | 0% | 0% | | 2.4% | |
| Articulated Trucks | 3 | 0 | 4 | 0 | | 7 | 2 | 3 | 0 | 0 | | 5 | 0 | 0 | 0 | 0 | | 0 | 0 | 2 | 2 | 0 | | 4 | |
| rticulated Trucks % | 6.5% | 0% | 3.9% | 0% | | 3.6% | 1.1% | 0.5% | 0% | 0% | | 0.6% | 0% | 0% | 0% | 0% | | 0% | 0% | 0.2% | 3% | 0% | | 0.3% | |
| Bicycles on Road | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | |
| icycles on Road % | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | |
| Pedestrians | - | - | - | - | 20 | - | - | - | - | - | 41 | - | - | - | - | - | 36 | - | - | - | - | - | 21 | - | |
| Pedestrians% | - | - | - | - | 16.8% | | - | - | - | - | 34.5% | | - | - | - | - | 30.3% | | - | - | - | - | 17.6% | | |
| cycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | |

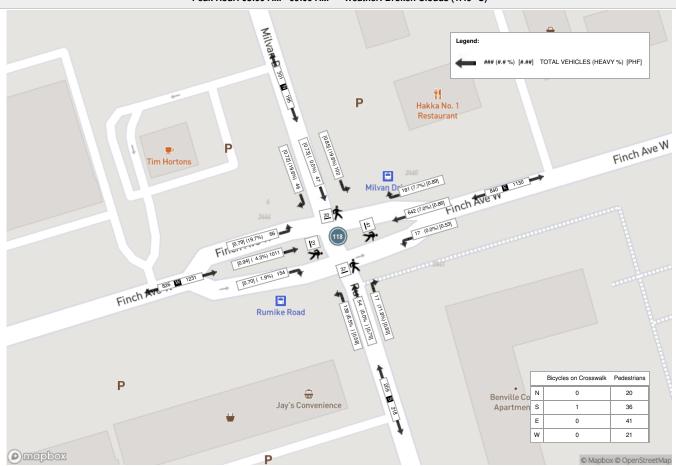


Turning Movement Count Location Name: FINCH AVE & MILVAN DR / RUMIKE RD Date: Thu, Mar 28, 2019 Deployment Lead: Peter Ilias

| | Peak Hour: 04:15 PM - 05:15 PM Weather: Broken Clouds (9.5 °C) N Approach E Approach S Approach W Approach | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|-------|-------|----------|----------|----------------|-------|---------------------------|------|--------|-------|----------------|-------|-------|-------------------------|--------|------|----------------|-------|-------|-------|-----------------------------------|-------|----------------|------|--|--|
| Start Time | | | | N Approa | ch DR | | | E Approach FINCH AVE W | | | | | | | S Approach RUMIKE RD | | | | | | | W A pproach FINCH AVE W | | | | | |
| | Right | Thru | Left | U-Turn | Peds | Approach Total | Right | Thru | Left | U-Turn | Peds | Approach Total | Right | Thru | Left | U-Turn | Peds | Approach Total | Right | Thru | Left | U-Turn | Peds | Approach Total | | | |
| 16:15:00 | 37 | 32 | 49 | 0 | 13 | 118 | 49 | 218 | 4 | 0 | 13 | 271 | 6 | 18 | 37 | 0 | 21 | 61 | 29 | 234 | 25 | 0 | 10 | 288 | 738 | | |
| 16:30:00 | 37 | 42 | 69 | 0 | 13 | 148 | 33 | 245 | 5 | 0 | 10 | 283 | 4 | 23 | 45 | 0 | 19 | 72 | 44 | 197 | 24 | 0 | 13 | 265 | 768 | | |
| 16:45:00 | 41 | 30 | 53 | 0 | 19 | 124 | 31 | 264 | 6 | 0 | 16 | 301 | 6 | 23 | 36 | 0 | 20 | 65 | 35 | 211 | 16 | 0 | 26 | 262 | 752 | | |
| 17:00:00 | 46 | 34 | 58 | 0 | 16 | 138 | 43 | 294 | 6 | 0 | 10 | 343 | 7 | 16 | 45 | 0 | 10 | 68 | 30 | 230 | 24 | 0 | 21 | 284 | 833 | | |
| Grand Total | 161 | 138 | 229 | 0 | 61 | 528 | 156 | 1021 | 21 | 0 | 49 | 1198 | 23 | 80 | 163 | 0 | 70 | 266 | 138 | 872 | 89 | 0 | 70 | 1099 | 3091 | | |
| Approach% | 30.5% | 26.1% | 43.4% | 0% | | - | 13% | 85.2% | 1.8% | 0% | | - | 8.6% | 30.1% | 61.3% | 0% | | - | 12.6% | 79.3% | 8.1% | 0% | | - | | | |
| Totals % | 5.2% | 4.5% | 7.4% | 0% | | 17.1% | 5% | 33% | 0.7% | 0% | | 38.8% | 0.7% | 2.6% | 5.3% | 0% | | 8.6% | 4.5% | 28.2% | 2.9% | 0% | | 35.6% | - | | |
| PHF | 0.88 | 0.82 | 0.83 | 0 | | 0.89 | 8.0 | 0.87 | 0.88 | 0 | | 0.87 | 0.82 | 0.87 | 0.91 | 0 | | 0.92 | 0.78 | 0.93 | 0.89 | 0 | | 0.95 | - | | |
| Heavy | 11 | 0 | 11 | 0 | | 22 | 10 | 30 | 0 | 0 | | 40 | 0 | 0 | 5 | 0 | | 5 | 4 | 26 | 12 | 0 | | 42 | | | |
| Heavy % | 6.8% | 0% | 4.8% | 0% | | 4.2% | 6.4% | 2.9% | 0% | 0% | | 3.3% | 0% | 0% | 3.1% | 0% | | 1.9% | 2.9% | 3% | 13.5% | 0% | | 3.8% | - | | |
| Lights | 149 | 134 | 208 | 0 | | 491 | 146 | 979 | 17 | 0 | | 1142 | 21 | 75 | 154 | 0 | | 250 | 131 | 837 | 76 | 0 | | 1044 | | | |
| Lights % | 92.5% | 97.1% | 90.8% | 0% | | 93% | 93.6% | 95.9% | 81% | 0% | | 95.3% | 91.3% | 93.8% | 94.5% | 0% | | 94% | 94.9% | 96% | 85.4% | 0% | | 95% | - | | |
| Light Goods Vehicles | 1 | 4 | 10 | 0 | | 15 | 0 | 11 | 4 | 0 | | 15 | 2 | 5 | 4 | 0 | | 11 | 3 | 9 | 1 | 0 | | 13 | - | | |
| Light Goods Vehicles % | 0.6% | 2.9% | 4.4% | 0% | | 2.8% | 0% | 1.1% | 19% | 0% | | 1.3% | 8.7% | 6.3% | 2.5% | 0% | | 4.1% | 2.2% | 1% | 1.1% | 0% | | 1.2% | - | | |
| Single-Unit Trucks | 9 | 0 | 3 | 0 | | 12 | 8 | 8 | 0 | 0 | | 16 | 0 | 0 | 2 | 0 | | 2 | 1 | 16 | 12 | 0 | | 29 | - | | |
| Single-Unit Trucks % | 5.6% | 0% | 1.3% | 0% | | 2.3% | 5.1% | 0.8% | 0% | 0% | | 1.3% | 0% | 0% | 1.2% | 0% | | 0.8% | 0.7% | 1.8% | 13.5% | 0% | | 2.6% | - | | |
| Buses | 1 | 0 | 4 | 0 | | 5 | 0 | 22 | 0 | 0 | | 22 | 0 | 0 | 3 | 0 | | 3 | 3 | 8 | 0 | 0 | | 11 | - | | |
| Buses % | 0.6% | 0% | 1.7% | 0% | | 0.9% | 0% | 2.2% | 0% | 0% | | 1.8% | 0% | 0% | 1.8% | 0% | | 1.1% | 2.2% | 0.9% | 0% | 0% | | 1% | - | | |
| Articulated Trucks | 1 | 0 | 4 | 0 | | 5 | 2 | 0 | 0 | 0 | | 2 | 0 | 0 | 0 | 0 | | 0 | 0 | 2 | 0 | 0 | | 2 | - | | |
| Articulated Trucks % | 0.6% | 0% | 1.7% | 0% | | 0.9% | 1.3% | 0% | 0% | 0% | | 0.2% | 0% | 0% | 0% | 0% | | 0% | 0% | 0.2% | 0% | 0% | | 0.2% | • | | |
| Bicycles on Road | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | 0 | | 1 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | - | | |
| Bicycles on Road % | 0% | 0% | 0% | 0% | | 0% | 0% | 0.1% | 0% | 0% | | 0.1% | 0% | 0% | 0% | 0% | | 0% | 0% | 0% | 0% | 0% | | 0% | - | | |
| Pedestrians | - | - | - | - | 58 | - | - | - | - | - | 49 | - | - | - | - | - | 70 | - | - | - | - | - | 69 | - | - | | |
| Pedestrians% | - | - | - | - | 23.2% | | - | - | - | - | 19.6% | | - | - | - | - | 28% | | - | - | - | - | 27.6% | | - | | |
| Bicycles on Crosswalk | - | - | - | - | 3 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | | |

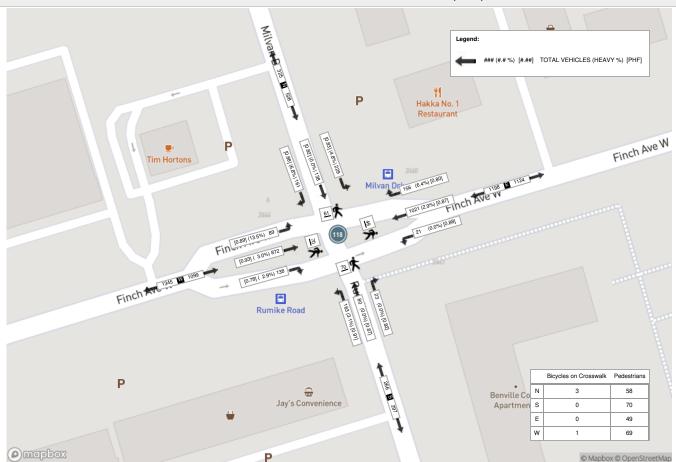


Peak Hour: 08:00 AM - 09:00 AM Weather: Broken Clouds (1.49 °C)





Peak Hour: 04:15 PM - 05:15 PM Weather: Broken Clouds (9.5 °C)





Turning Movement Count (21 . WESTON RD & FENMAR DR) E Approach FENMAR DF N Approach WESTON RD W Approach FENMAR DR Int. Total Int. Total (15 min) (1 hr) Start Time Right E:N Thru E:W U-Turn E:E Peds E: Right S:E Thru S:N Right U-Turn Left E:S Left S:W Right Left U-Turn Peds Approach Total Approach Total Approach Total Approach Total N:S N:N S:S W:S W:E W:N W:W N:W N:E N: S: W: 06:00:00 06:30:00 06:45:00 07:00:00 07:15:00 Ω Ω 07:30:00 07:45:00 08:15:00 08:30:00 08:45:00 Ω Ω Ω 09:00:00 Ω 09:15:00 09:30:00 09:45:00 ***BREAK** 15:00:00 Ω Ω 15:15:00 15:30:00 Ω 15:45:00 16:00:00 16:30:00 16:45:00 17:00:00 17:15:00 17:30:00 17:45:00 18:00:00 18:15:00 18:30:00 18:45:00 Ω **Grand Total** Approach% 4.7% 87 7% 7.6% 0% 12 7% 73.8% 13.5% 0% 9.4% 71 4% 19.2% 0% 36.9% 59.4% 3.7% 0% 1.4% 26.1% 2.3% 0% 29.8% 2% 11.3% 2.1% 0% 15.4% 3.1% 23.8% 6.4% 0% 33.4% 7.9% 12.7% 0.8% 0% 21.4% Totals % Heavy 16.3% 7.8% 12.2% 11.4% 13.5% 9.3% 0% 3.5% 6.8% 11% 9.3% 12.9% 20.4% Bicycle %

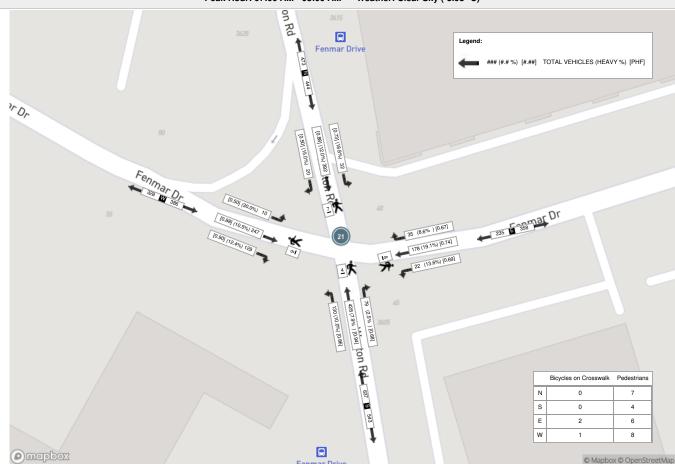


Peak Hour: 07:00 AM - 08:00 AM Weather: Clear Sky (-3.93 °C) W Approach FENMAR DR N Approach WESTON RD E Approach FENMAR DR S Approach WESTON RD Int. Total (15 min) Start Time U-Turn Right Thru U-Turn Peds Approach Total Right Thru Left Peds Approach Total Right Thru Left U-Turn Peds Approach Total Right Thru Left U-Turn Approach Total 4 07:00:00 88 0 101 3 60 3 0 3 66 14 114 38 0 166 36 59 5 0 3 100 433 07:15:00 2 94 12 54 30 163 3 103 414 87 5 0 36 19 114 33 67 0 0 6 0 0 0 07:30:00 4 13 17 417 112 11 0 1 127 40 5 Ω 58 101 31 0 Ω 149 32 51 0 0 6 83 07:45:00 10 105 7 0 2 122 7 42 8 0 3 57 29 99 31 0 3 159 28 70 2 0 0 100 438 **Grand Total** 20 392 32 0 444 35 178 22 0 8 235 79 428 130 0 637 129 247 10 0 9 386 1702 Approach% 4.5% 88.3% 7.2% 0% 14.9% 75.7% 9.4% 0% 12.4% 67.2% 20.4% 0% 33.4% 64% 2.6% 0% Totals % 1 2% 23% 1 9% 0% 26.1% 2 1% 10.5% 1.3% 0% 13.8% 4.6% 25 1% 7.6% 0% 37 4% 7.6% 14 5% 0.6% 0% 22 7% PHF 0.5 0.88 0.73 0.87 0.67 0.74 0.69 0.89 0.68 0.96 0.9 0.94 0.94 0.86 0.88 0.5 56 3 47 3 34 40 2 34 13 49 16 26 3 45 Heavy Ω 15% 12% 18.8% 0% 12.6% 8.6% 19.1% 13.6% 0% 17% 2.5% 7.9% 10% 0% 7.7% 12.4% 10.5% 30% 0% 11.7% Heavy % 361 331 Liahts 15 320 26 29 140 18 187 75 381 114 570 108 217 Lights % 75% 81.6% 81.3% 82.9% 79.6% 94.9% 89.5% 83.7% 87.9% 60% 85.8% Light Goods Vehicles 2 25 27 3 2 13 18 5 10 2.8% Light Goods Vehicles % 10% 6.4% 0% 0% 6.1% 8.6% 2 2% 4 5% 0% 3.4% 2.5% 3% 2.3% 0% 3.9% 1.6% 10% 2.6% 3 24 6 33 2 19 23 15 23 10 21 3 34 Single-Unit Trucks Single-Unit Trucks % 15% 6.1% 18.8% 7.4% 5.7% 10.7% 9.1% 0% 9.8% 1.3% 3.5% 5.4% 3.6% 7.8% 8.5% 30% 8.8% 0% 21 3 2 Buses % 0% 5.4% 0% 4.7% 0% 0% 4.5% 0% 0.4% 0% 3.7% 3.1% 3.1% 2.3% 0.8% 0% 0% 1.3% 2 2 1 15 16 3 3 3 0 Articulated Trucks 0 0 Ω 2 6 0.5% 6.8% 1.5% Articulated Trucks % 0% 0.5% 0% 0% 2.9% 8.4% 0% 0% 1.3% 0.7% 0% 0.9% 2.3% 1.2% 0% 0% 1.6% Bicycles on Road 0 0 0 0 0 0 0 0 0 0 0% 0% 0% 0% Pedestrians Pedestrians% 25% 21 4% 14.3% 28.6% Bicycles on Crosswalk Bicycles on Crosswalk%

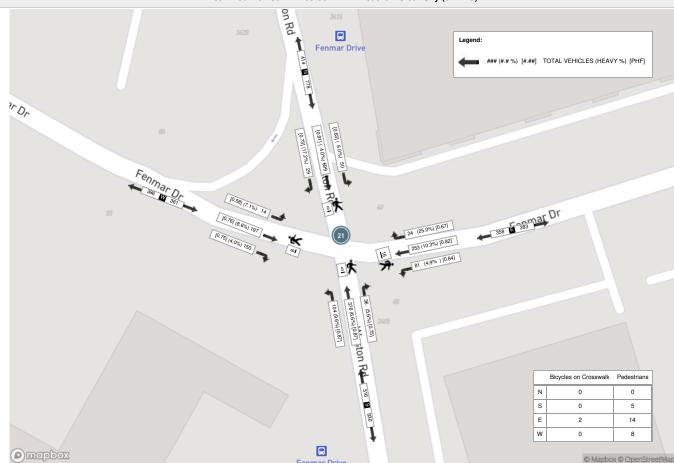


Peak Hour: 04:30 PM - 05:30 PM Weather: Clear Sky (3.21 °C) W Approach FENMAR DR N Approach WESTON RD E Approach FENMAR DR S Approach WESTON RD Int. Total (15 min) Start Time U-Turn Right Thru U-Turn Peds Approach Total Right Thru Left Peds Approach Total Right Thru Left U-Turn Peds Approach Total Right Thru Left U-Turn Peds Approach Total 4 16:30:00 179 20 0 205 70 22 0 96 8 95 26 0 4 129 50 40 6 0 96 526 16:45:00 178 3 59 30 121 23 449 6 162 10 19 0 81 12 79 0 0 45 0 69 0 0 0 1 17:00:00 7 9 47 9 43 548 192 16 0 0 215 24 0 4 80 108 25 0 0 142 65 3 0 3 111 17:15:00 10 166 4 0 0 180 8 77 16 0 9 101 7 94 23 0 1 124 34 47 4 0 0 85 490 **Grand Total** 29 699 50 0 778 24 253 81 0 16 358 36 376 104 0 5 516 150 197 14 0 8 361 2013 Approach% 3.7% 89.8% 6.4% 0% 6.7% 70.7% 22.6% 0% 7% 72.9% 20.2% 0% 41.6% 54.6% 3.9% 0% 17.8% 17 9% Totals % 1 4% 34 7% 2.5% 0% 38.6% 1 2% 12.6% 4% 0% 1.8% 18 7% 5.2% 0% 25.6% 7.5% 9.8% 0.7% 0% PHF 0.73 0.91 0.63 0.9 0.67 0.82 0.89 0.75 0.87 0.87 0.91 0.75 0.58 0.81 0.84 0.76 5 28 36 6 26 Λ 36 2 25 10 37 6 17 24 Heavy 3 Ω 17.2% 0% 4.6% 25% 10.3% 4.9% 0% 10.1% 5.6% 6.6% 9.6% 0% 7.2% 8.6% 7.1% 0% 6.6% Heavy % Liahts 21 654 46 721 17 220 75 312 31 340 91 462 140 173 12 325 Lights % 72.4% 93.6% 70.8% 92.6% 86.1% 90.4% 87.5% 89.5% 93.3% 90% Light Goods Vehicles 17 21 10 3 17 4 12 2 7% 2.8% Light Goods Vehicles % 10.3% 2 4% 2% 0% 4.2% 2.8% 2.5% 0% 8.3% 2.9% 2.9% 0% 3.3% 2 7% 3.6% 7.1% 3.3% 5 18 5 19 0 q 16 12 Single-Unit Trucks 11 2 11 3 Λ Ω Single-Unit Trucks % 17.2% 1.6% 4% 0% 2.3% 20.8% 4.3% 3.7% 5.3% 0% 2.4% 6.7% 0% 3.1% 2.7% 3.6% 7.1% 3.3% 13 12 Buses % 0% 1.9% 0% 0% 1.7% 4.2% 0% 0% 0% 0.3% 0% 3.2% 1.9% 0% 2.7% 0% 0% 0% 0% 0 0 15 16 2 2 0 12 Articulated Trucks Λ 10 Articulated Trucks % 0% 0.6% 2% 0% 0.6% 0% 5.9% 1.2% 0% 4.5% 5.6% 1.1% 1% 0% 1.4% 1.3% 5.1% 0% 0% 3.3% Bicycles on Road 0 0 0 0 0 0 0 0 0 0% 0% 0% 0% Pedestrians 14 Pedestrians% 48.3% 17 2% 27.6% Bicycles on Crosswalk Bicycles on Crosswalk%

Peak Hour: 07:00 AM - 08:00 AM Weather: Clear Sky (-3.93 °C)



Peak Hour: 04:30 PM - 05:30 PM Weather: Clear Sky (3.21 °C)



Appendix B

Existing Traffic Level of Service Calculations

| | ۶ | → | \rightarrow | • | ← | • | 4 | † | / | > | ţ | 4 |
|----------------------------|-------|----------|---------------|-------|----------|-------|-------|----------|----------|-------------|------------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | ተተኈ | | ሻ | ተተኈ | | ሻ | ^ | 7 | ሻ | ∱ } | |
| Traffic Volume (vph) | 155 | 802 | 50 | 193 | 752 | 186 | 80 | 390 | 112 | 162 | 533 | 79 |
| Future Volume (vph) | 155 | 802 | 50 | 193 | 752 | 186 | 80 | 390 | 112 | 162 | 533 | 79 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 75.0 | | 0.0 | 100.0 | | 0.0 | 30.0 | | 100.0 | 50.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1684 | 4660 | 0 | 1700 | 4568 | 0 | 1700 | 3336 | 1521 | 1526 | 3069 | 0 |
| Flt Permitted | 0.232 | | | 0.242 | | | 0.333 | | | 0.335 | | |
| Satd. Flow (perm) | 408 | 4660 | 0 | 422 | 4568 | 0 | 567 | 3336 | 1265 | 494 | 3069 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 8 | | | 52 | | | | 150 | | 17 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 566.1 | | | 579.4 | | | 431.5 | | | 147.7 | |
| Travel Time (s) | | 40.8 | | | 41.7 | | | 31.1 | | | 10.6 | |
| Confl. Peds. (#/hr) | 36 | | 93 | 93 | | 36 | 102 | | 142 | 142 | | 102 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 6% | 8% | 14% | 5% | 7% | 11% | 5% | 7% | 5% | 17% | 12% | 14% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 158 | 869 | 0 | 197 | 957 | 0 | 82 | 398 | 114 | 165 | 625 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | Perm | pm+pt | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | 4 | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 7 | 4 | 4 | 3 | 8 | |
| Switch Phase | | 100 | | | 100 | | | 40.0 | 10.0 | | 100 | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | |
| Minimum Split (s) | 9.0 | 38.0 | | 9.0 | 38.0 | | 9.0 | 38.0 | 38.0 | 9.0 | 38.0 | |
| Total Split (s) | 11.0 | 41.0 | | 11.0 | 41.0 | | 11.0 | 44.0 | 44.0 | 20.0 | 53.0 | |
| Total Split (%) | 9.5% | 35.3% | | 9.5% | 35.3% | | 9.5% | 37.9% | 37.9% | 17.2% | 45.7% | |
| Maximum Green (s) | 7.0 | 34.0 | | 7.0 | 34.0 | | 7.0 | 37.0 | 37.0 | 16.0 | 46.0 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 3.0 | | 1.0 | 3.0 | | 1.0 | 3.0 | 3.0 | 1.0 | 3.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 3.0 | 6.0 | | 3.0 | 6.0 | | 3.0 | 6.0 | 6.0 | 3.0 | 6.0 | |

| | ۶ | - | • | • | ← | • | 1 | † | / | - | ţ | 4 |
|-------------------------|------|-------|-----|-------|----------|-----|----------|----------|----------|------|-------|-----|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Recall Mode | None | C-Max | | None | Max | | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 24.0 | | | 24.0 | | | 24.0 | 24.0 | | 24.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | | 0 | 0 | | 0 | |
| Act Effct Green (s) | 61.8 | 46.4 | | 65.5 | 48.3 | | 33.3 | 22.5 | 22.5 | 43.3 | 31.5 | |
| Actuated g/C Ratio | 0.53 | 0.40 | | 0.56 | 0.42 | | 0.29 | 0.19 | 0.19 | 0.37 | 0.27 | |
| v/c Ratio | 0.45 | 0.46 | | 0.50 | 0.50 | | 0.34 | 0.62 | 0.31 | 0.52 | 0.74 | |
| Control Delay | 17.5 | 28.1 | | 18.0 | 26.2 | | 26.6 | 46.6 | 4.6 | 41.5 | 54.3 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 17.5 | 28.1 | | 18.0 | 26.2 | | 26.6 | 46.6 | 4.6 | 41.5 | 54.3 | |
| LOS | В | С | | В | С | | С | D | А | D | D | |
| Approach Delay | | 26.5 | | | 24.8 | | | 35.8 | | | 51.6 | |
| Approach LOS | | С | | | С | | | D | | | D | |
| Queue Length 50th (m) | 17.1 | 55.6 | | 21.8 | 57.7 | | 12.6 | 46.3 | 0.0 | 35.2 | 81.2 | |
| Queue Length 95th (m) | 33.1 | 79.5 | | 40.6 | 84.5 | | 21.2 | 59.0 | 7.7 | 53.4 | 100.4 | |
| Internal Link Dist (m) | | 542.1 | | | 555.4 | | | 407.5 | | | 123.7 | |
| Turn Bay Length (m) | 75.0 | | | 100.0 | | | 30.0 | | 100.0 | 50.0 | | |
| Base Capacity (vph) | 354 | 1870 | | 394 | 1930 | | 241 | 1092 | 515 | 335 | 1253 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.45 | 0.46 | | 0.50 | 0.50 | | 0.34 | 0.36 | 0.22 | 0.49 | 0.50 | |

Area Type: Other

Cycle Length: 116
Actuated Cycle Length: 116

Offset: 34 (29%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 95

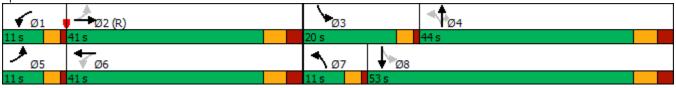
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74 Intersection Signal Delay: 33.1 Intersection Capacity Utilization 87.9%

Intersection LOS: C
ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 3: Weston Road & Finch Avenue W



| | ۶ | - | \rightarrow | • | ← | • | 4 | † | / | \ | ļ | 4 |
|----------------------------|-------|-------|---------------|-------|----------|-------|-------|----------|-------|----------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | f) | | ሻ | f) | | ሻ | ^ | 7 | ሻ | ^ | 7 |
| Traffic Volume (vph) | 10 | 247 | 129 | 22 | 178 | 35 | 130 | 428 | 79 | 32 | 392 | 20 |
| Future Volume (vph) | 10 | 247 | 129 | 22 | 178 | 35 | 130 | 428 | 79 | 32 | 392 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 30.0 | | 0.0 | 35.0 | | 40.0 | 85.0 | | 35.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1373 | 1592 | 0 | 1566 | 1557 | 0 | 1623 | 3305 | 1551 | 1500 | 3187 | 1389 |
| Flt Permitted | 0.486 | | | 0.215 | | | 0.507 | | | 0.485 | | |
| Satd. Flow (perm) | 699 | 1592 | 0 | 354 | 1557 | 0 | 857 | 3305 | 1495 | 759 | 3187 | 1336 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 22 | | | 8 | | | | 82 | | | 31 |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 158.2 | | | 160.6 | | | 478.0 | | | 179.7 | |
| Travel Time (s) | | 11.4 | | | 11.6 | | | 34.4 | | | 12.9 | |
| Confl. Peds. (#/hr) | 7 | | 4 | 4 | | 7 | 9 | | 8 | 8 | | 9 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 30% | 11% | 12% | 14% | 19% | 9% | 10% | 8% | 3% | 19% | 12% | 15% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 10 | 391 | 0 | 23 | 221 | 0 | 135 | 446 | 82 | 33 | 408 | 21 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | ŭ | | 3.5 | Ŭ | | 3.5 | , i | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 37.4 | 37.4 | | 37.4 | 37.4 | | 36.9 | 36.9 | 36.9 | 36.9 | 36.9 | 36.9 |
| Total Split (s) | 40.0 | 40.0 | | 40.0 | 40.0 | | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 |
| Total Split (%) | 33.3% | 33.3% | | 33.3% | 33.3% | | 66.7% | 66.7% | 66.7% | 66.7% | 66.7% | 66.7% |
| Maximum Green (s) | 33.6 | 33.6 | | 33.6 | 33.6 | | 74.1 | 74.1 | 74.1 | 74.1 | 74.1 | 74.1 |
| Yellow Time (s) | 3.4 | 3.4 | | 3.4 | 3.4 | | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 |
| Lost Time Adjust (s) | | | | | | | | | | | | |
| | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 |

| | • | - | • | • | • | * | | † | _ | - | ţ | 4 |
|-------------------------|------|--------|-----|------|-------|-----|-------|----------|-------|-------|-------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max |
| Walk Time (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| Flash Dont Walk (s) | 19.0 | 19.0 | | 19.0 | 19.0 | | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Act Effct Green (s) | 32.0 | 32.0 | | 32.0 | 32.0 | | 77.7 | 77.7 | 77.7 | 77.7 | 77.7 | 77.7 |
| Actuated g/C Ratio | 0.27 | 0.27 | | 0.27 | 0.27 | | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 |
| v/c Ratio | 0.05 | 0.89 | | 0.24 | 0.53 | | 0.24 | 0.21 | 0.08 | 0.07 | 0.20 | 0.02 |
| Control Delay | 32.0 | 62.6 | | 40.8 | 40.5 | | 10.9 | 9.3 | 2.1 | 9.2 | 9.2 | 1.9 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 32.0 | 62.6 | | 40.8 | 40.5 | | 10.9 | 9.3 | 2.1 | 9.2 | 9.2 | 1.9 |
| LOS | С | E | | D | D | | В | Α | Α | Α | Α | Α |
| Approach Delay | | 61.8 | | | 40.5 | | | 8.7 | | | 8.9 | |
| Approach LOS | | Е | | | D | | | Α | | | Α | |
| Queue Length 50th (m) | 1.8 | 86.0 | | 4.4 | 43.7 | | 13.8 | 23.5 | 0.0 | 3.0 | 21.2 | 0.0 |
| Queue Length 95th (m) | 6.3 | #137.8 | | 12.5 | 69.2 | | 25.0 | 31.4 | 6.0 | 7.4 | 29.0 | 2.2 |
| Internal Link Dist (m) | | 134.2 | | | 136.6 | | | 454.0 | | | 155.7 | |
| Turn Bay Length (m) | 30.0 | | | 30.0 | | | 35.0 | | 40.0 | 85.0 | | 35.0 |
| Base Capacity (vph) | 201 | 474 | | 102 | 454 | | 555 | 2141 | 997 | 491 | 2064 | 876 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.82 | | 0.23 | 0.49 | | 0.24 | 0.21 | 0.08 | 0.07 | 0.20 | 0.02 |

Area Type: Other

Cycle Length: 120 Actuated Cycle Length: 120

Offset: 102 (85%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 25.2 Intersection Capacity Utilization 67.6% ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.





| | ۶ | - | \rightarrow | • | ← | • | 4 | † | ~ | > | ļ | 4 |
|----------------------------|-------|-------|---------------|-------|----------------|-------|-------|------------|-------|-------------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | f) | | ሻ | (Î | | ሻ | ∱ } | | 7 | ^ | 7 |
| Traffic Volume (vph) | 21 | 7 | 155 | 9 | 2 | 5 | 184 | 623 | 6 | 10 | 557 | 23 |
| Future Volume (vph) | 21 | 7 | 155 | 9 | 2 | 5 | 184 | 623 | 6 | 10 | 557 | 23 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 10.0 | | 0.0 | 25.0 | | 0.0 | 25.0 | | 30.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1700 | 1377 | 0 | 1785 | 1448 | 0 | 1638 | 3300 | 0 | 1623 | 3159 | 1229 |
| Flt Permitted | 0.753 | | | 0.354 | | | 0.395 | | | 0.389 | | |
| Satd. Flow (perm) | 1337 | 1377 | 0 | 664 | 1448 | 0 | 677 | 3300 | 0 | 659 | 3159 | 1184 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 170 | | | 5 | | | 2 | | | | 75 |
| Link Speed (k/h) | | 50 | | | 20 | | | 50 | | | 50 | |
| Link Distance (m) | | 44.9 | | | 58.2 | | | 147.7 | | | 478.0 | |
| Travel Time (s) | | 3.2 | | | 10.5 | | | 10.6 | | | 34.4 | |
| Confl. Peds. (#/hr) | 6 | | 2 | 2 | | 6 | 8 | | 11 | 11 | | 8 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 5% | 0% | 16% | 0% | 0% | 20% | 9% | 8% | 0% | 10% | 13% | 30% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 23 | 178 | 0 | 10 | 7 | 0 | 202 | 692 | 0 | 11 | 612 | 25 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Perm | NA | | Perm | NA | | pm+pt | NA | | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | 6 |
| Detector Phase | 4 | 4 | | 8 | 8 | | 5 | 2 | | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 34.0 | 34.0 | | 34.0 | 34.0 | | 9.0 | 35.0 | | 35.0 | 35.0 | 35.0 |
| Total Split (s) | 37.0 | 37.0 | | 37.0 | 37.0 | | 23.0 | 79.0 | | 56.0 | 56.0 | 56.0 |
| Total Split (%) | 31.9% | 31.9% | | 31.9% | 31.9% | | 19.8% | 68.1% | | 48.3% | 48.3% | 48.3% |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 19.0 | 72.0 | | 49.0 | 49.0 | 49.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 3.0 | 4.0 | | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 1.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 3.0 | 6.0 | | 6.0 | 6.0 | 6.0 |

| | ۶ | → | • | • | ← | • | $ \blacksquare $ | † | ~ | - | ţ | 4 |
|-------------------------|------|----------|-----|------|----------|-----|------------------|----------|-----|-------|-------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | | | | | | | Lead | | | Lag | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | | | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | None | | None | None | | None | C-Max | | C-Max | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | | 21.0 | | 21.0 | 21.0 | 21.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 95.0 | 92.0 | | 79.4 | 79.4 | 79.4 |
| Actuated g/C Ratio | 0.10 | 0.10 | | 0.10 | 0.10 | | 0.82 | 0.79 | | 0.68 | 0.68 | 0.68 |
| v/c Ratio | 0.17 | 0.60 | | 0.15 | 0.05 | | 0.32 | 0.26 | | 0.02 | 0.28 | 0.03 |
| Control Delay | 49.5 | 17.3 | | 51.3 | 31.5 | | 1.9 | 1.5 | | 7.2 | 7.9 | 0.1 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.2 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 49.5 | 17.3 | | 51.3 | 31.5 | | 1.9 | 1.8 | | 7.2 | 7.9 | 0.1 |
| LOS | D | В | | D | С | | Α | Α | | А | Α | Α |
| Approach Delay | | 21.0 | | | 43.2 | | | 1.8 | | | 7.6 | |
| Approach LOS | | С | | | D | | | Α | | | Α | |
| Queue Length 50th (m) | 5.2 | 1.8 | | 2.2 | 0.4 | | 1.1 | 2.7 | | 0.7 | 26.0 | 0.0 |
| Queue Length 95th (m) | 13.1 | 23.1 | | 7.7 | 4.9 | | 2.3 | 4.2 | | 3.3 | 43.4 | 0.0 |
| Internal Link Dist (m) | | 20.9 | | | 34.2 | | | 123.7 | | | 454.0 | |
| Turn Bay Length (m) | 30.0 | | | 10.0 | | | 25.0 | | | 25.0 | | 30.0 |
| Base Capacity (vph) | 357 | 492 | | 177 | 390 | | 719 | 2616 | | 450 | 2161 | 833 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 1140 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.36 | | 0.06 | 0.02 | | 0.28 | 0.47 | | 0.02 | 0.28 | 0.03 |

Area Type: Other

Cycle Length: 116
Actuated Cycle Length: 116

Offset: 31 (27%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

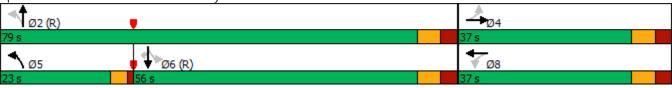
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 6.5 Intersection LOS: A Intersection Capacity Utilization 57.8% ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: Weston Road & Toryork Drive/Retail Access



Lanes, Volumes, Timings 14: Rumike Road/Milvan Drive & Finch Avenue W

| | ۶ | - | • | • | ← | • | • | † | / | / | ţ | 4 |
|----------------------------|-------|------------|-------|-------|------------|-------|-------|----------|-------|----------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | ↑ Ъ | | ሻ | † } | | ሻ | ^ | | ሻ | † | 7 |
| Traffic Volume (vph) | 66 | 1011 | 154 | 17 | 642 | 181 | 138 | 54 | 17 | 102 | 47 | 46 |
| Future Volume (vph) | 66 | 1011 | 154 | 17 | 642 | 181 | 138 | 54 | 17 | 102 | 47 | 46 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 30.0 | | 0.0 | 15.0 | | 0.0 | 70.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1487 | 3339 | 0 | 1785 | 3184 | 0 | 1668 | 1742 | 0 | 1487 | 1879 | 1331 |
| Flt Permitted | 0.286 | | | 0.172 | | | 0.723 | | | 0.706 | | |
| Satd. Flow (perm) | 445 | 3339 | 0 | 321 | 3184 | 0 | 1250 | 1742 | 0 | 1073 | 1879 | 1293 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 26 | | | 56 | | | 19 | | | | 51 |
| Link Speed (k/h) | | 50 | | | 50 | | | 40 | | | 50 | |
| Link Distance (m) | | 255.0 | | | 273.8 | | | 198.1 | | | 176.1 | |
| Travel Time (s) | | 18.4 | | | 19.7 | | | 17.8 | | | 12.7 | |
| Confl. Peds. (#/hr) | 20 | | 37 | 37 | | 20 | 21 | | 41 | 41 | | 21 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 20% | 4% | 2% | 0% | 7% | 8% | 7% | 0% | 12% | 20% | 0% | 20% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 73 | 1294 | 0 | 19 | 914 | 0 | 153 | 79 | 0 | 113 | 52 | 51 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | | 2 | | | 6 | | | 4 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | 8 |
| Detector Phase | 2 | 2 | | 6 | 6 | | 4 | 4 | | 8 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 40.0 | 40.0 | | 35.0 | 35.0 | | 40.4 | 40.4 | | 40.4 | 40.4 | 40.4 |
| Total Split (s) | 49.0 | 49.0 | | 49.0 | 49.0 | | 41.0 | 41.0 | | 41.0 | 41.0 | 41.0 |
| Total Split (%) | 54.4% | 54.4% | | 54.4% | 54.4% | | 45.6% | 45.6% | | 45.6% | 45.6% | 45.6% |
| Maximum Green (s) | 43.0 | 43.0 | | 43.0 | 43.0 | | 34.6 | 34.6 | | 34.6 | 34.6 | 34.6 |
| Yellow Time (s) | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.7 | 2.7 | | 2.7 | 2.7 | | 3.1 | 3.1 | | 3.1 | 3.1 | 3.1 |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.4 | 5.4 | | 5.4 | 5.4 | 5.4 |

14: Rumike Road/Milvan Drive & Finch Avenue W

| | • | - | \rightarrow | • | • | • | 1 | † | / | - | ↓ | 4 |
|-------------------------|-------|-------|---------------|------|-------|-----|------|----------|-----|------|----------|------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Recall Mode | C-Max | C-Max | | Max | Max | | None | None | | None | None | None |
| Walk Time (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 |
| Flash Dont Walk (s) | 17.0 | 17.0 | | 17.0 | 17.0 | | 22.0 | 22.0 | | 22.0 | 22.0 | 22.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | 61.9 | 61.9 | | 61.9 | 61.9 | | 17.7 | 17.7 | | 17.7 | 17.7 | 17.7 |
| Actuated g/C Ratio | 0.69 | 0.69 | | 0.69 | 0.69 | | 0.20 | 0.20 | | 0.20 | 0.20 | 0.20 |
| v/c Ratio | 0.24 | 0.56 | | 0.09 | 0.41 | | 0.62 | 0.22 | | 0.54 | 0.14 | 0.17 |
| Control Delay | 9.2 | 8.9 | | 7.5 | 7.0 | | 43.6 | 23.5 | | 40.8 | 28.4 | 9.3 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.2 | 8.9 | | 7.5 | 7.0 | | 43.6 | 23.5 | | 40.8 | 28.4 | 9.3 |
| LOS | А | Α | | А | Α | | D | С | | D | С | Α |
| Approach Delay | | 8.9 | | | 7.0 | | | 36.7 | | | 30.4 | |
| Approach LOS | | Α | | | Α | | | D | | | С | |
| Queue Length 50th (m) | 4.2 | 52.6 | | 1.0 | 30.3 | | 25.8 | 9.2 | | 18.7 | 7.9 | 0.0 |
| Queue Length 95th (m) | 14.1 | 91.3 | | 4.6 | 54.4 | | 42.0 | 19.3 | | 32.8 | 16.0 | 8.6 |
| Internal Link Dist (m) | | 231.0 | | | 249.8 | | | 174.1 | | | 152.1 | |
| Turn Bay Length (m) | 30.0 | | | 30.0 | | | 15.0 | | | 70.0 | | |
| Base Capacity (vph) | 306 | 2306 | | 220 | 2208 | | 494 | 700 | | 424 | 743 | 542 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.24 | 0.56 | | 0.09 | 0.41 | | 0.31 | 0.11 | | 0.27 | 0.07 | 0.09 |
| Intercaction Cummany | | | | | | | | | | | | |

Intersection Summary

Area Type: Other

Cycle Length: 90 Actuated Cycle Length: 90

Offset: 62 (69%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 12.3 Intersection LOS: B
Intersection Capacity Utilization 79.2% ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 14: Rumike Road/Milvan Drive & Finch Avenue W



| | ၨ | → | \rightarrow | • | ← | • | • | † | ~ | > | ţ | 4 |
|----------------------------|-------|------------|---------------|-------|-------------|-------|-------|----------|-------|-------------|-------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 7 | ∱ } | | 7 | ∱ 1≽ | | Ĭ | £ | | | 4 | |
| Traffic Volume (vph) | 8 | 1027 | 88 | 47 | 857 | 1 | 71 | 3 | 82 | 5 | 1 | 6 |
| Future Volume (vph) | 8 | 1027 | 88 | 47 | 857 | 1 | 71 | 3 | 82 | 5 | 1 | 6 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 15.0 | | 0.0 | 30.0 | | 0.0 | 15.0 | | 0.0 | 0.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 0 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1785 | 3288 | 0 | 1608 | 3306 | 0 | 1580 | 1447 | 0 | 0 | 1554 | 0 |
| Flt Permitted | 0.292 | | | 0.205 | | | 0.423 | | | | | |
| Satd. Flow (perm) | 545 | 3288 | 0 | 347 | 3306 | 0 | 703 | 1447 | 0 | 0 | 1585 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 11 | | | | | | 84 | | | 6 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 40 | | | 20 | |
| Link Distance (m) | | 273.8 | | | 566.1 | | | 203.2 | | | 58.7 | |
| Travel Time (s) | | 19.7 | | | 40.8 | | | 18.3 | | | 10.6 | |
| Confl. Peds. (#/hr) | 14 | | 8 | 8 | | 14 | 8 | | 1 | 1 | | 8 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 7% | 6% | 11% | 8% | 0% | 13% | 0% | 10% | 20% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 8 | 1138 | 0 | 48 | 875 | 0 | 72 | 87 | 0 | 0 | 12 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | _ | 2 | | | 6 | | | 7 | | _ | 8 | |
| Permitted Phases | 2 | _ | | 6 | | | 7 | _ | | 8 | _ | |
| Detector Phase | 2 | 2 | | 6 | 6 | | 7 | 7 | | 8 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | | 7.0 | 7.0 | |
| Minimum Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 36.0 | 36.0 | | 14.0 | 14.0 | |
| Total Split (s) | 49.0 | 49.0 | | 49.0 | 49.0 | | 37.0 | 37.0 | | 14.0 | 14.0 | |
| Total Split (%) | 49.0% | 49.0% | | 49.0% | 49.0% | | 37.0% | 37.0% | | 14.0% | 14.0% | |
| Maximum Green (s) | 43.0 | 43.0 | | 43.0 | 43.0 | | 30.0 | 30.0 | | 8.0 | 8.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | | -1.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 6.0 | 6.0 | | | 5.0 | |

| 10. Jayzei Diive/i | nve/Retail Access & Finch Avenue vv | | | | | | | | | 02.2 | 2-2023 | |
|---------------------------|-------------------------------------|----------|-----|------|-------|-----|------|----------|-----|------|----------|-----|
| | • | → | • | • | ← | • | 4 | † | ~ | - | ↓ | 4 |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | | | | | | | Lead | Lead | | Lag | Lag | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | C-Max | C-Max | | Max | Max | | None | None | | None | None | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 0.0 | 0.0 | |
| Flash Dont Walk (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 22.0 | 22.0 | | 0.0 | 0.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 73.2 | 73.2 | | 73.2 | 73.2 | | 17.4 | 17.4 | | | 8.2 | |
| Actuated g/C Ratio | 0.73 | 0.73 | | 0.73 | 0.73 | | 0.17 | 0.17 | | | 0.08 | |
| v/c Ratio | 0.02 | 0.47 | | 0.19 | 0.36 | | 0.59 | 0.27 | | | 0.09 | |
| Control Delay | 9.8 | 9.7 | | 12.1 | 8.6 | | 55.9 | 9.7 | | | 33.1 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Total Delay | 9.8 | 9.7 | | 12.1 | 8.6 | | 55.9 | 9.7 | | | 33.1 | |
| LOS | А | Α | | В | Α | | Е | Α | | | С | |
| Approach Delay | | 9.7 | | | 8.7 | | | 30.6 | | | 33.1 | |
| Approach LOS | | Α | | | Α | | | С | | | С | |
| Queue Length 50th (m) | 0.4 | 43.6 | | 2.7 | 30.2 | | 13.8 | 0.5 | | | 1.2 | |
| Queue Length 95th (m) | 3.4 | 115.1 | | 14.8 | 80.7 | | 26.4 | 12.3 | | | 6.8 | |
| Internal Link Dist (m) | | 249.8 | | | 542.1 | | | 179.2 | | | 34.7 | |
| Turn Bay Length (m) | 15.0 | | | 30.0 | | | 15.0 | | | | | |
| Base Capacity (vph) | 399 | 2410 | | 254 | 2420 | | 217 | 506 | | | 148 | |
| 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 | 0.02 | 0.47 | | 0.19 | 0.36 | | 0.33 | 0.17 | | | 0.08 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: 100 | | | | | | | | | | | | |
| Actuated Cycle Length: 10 | 0 | | | | | | | | | | | |

Offset: 1 (1%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 80 Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay: 10.9 Intersection LOS: B Intersection Capacity Utilization 57.1% ICU Level of Service B

Analysis Period (min) 15



| | ۶ | → | \rightarrow | • | ← | • | 4 | † | <i>></i> | > | ţ | 4 |
|----------------------------|-------|-----------------|---------------|-------|-----------------|-------|-------|----------|-------------|-------------|------------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | ተተ _ጉ | | ሻ | ተተ _ጉ | | ሻ | ^ | 7 | ሻ | ∱ } | |
| Traffic Volume (vph) | 160 | 735 | 79 | 153 | 798 | 70 | 122 | 331 | 117 | 186 | 728 | 207 |
| Future Volume (vph) | 160 | 735 | 79 | 153 | 798 | 70 | 122 | 331 | 117 | 186 | 728 | 207 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 75.0 | | 0.0 | 100.0 | | 0.0 | 30.0 | | 100.0 | 50.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1767 | 4860 | 0 | 1785 | 4827 | 0 | 1750 | 3275 | 1581 | 1700 | 3070 | 0 |
| Flt Permitted | 0.199 | | | 0.227 | | | 0.149 | | | 0.458 | | |
| Satd. Flow (perm) | 353 | 4860 | 0 | 425 | 4827 | 0 | 259 | 3275 | 1369 | 763 | 3070 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 16 | | | 12 | | | | 150 | | 38 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 566.1 | | | 579.4 | | | 431.5 | | | 147.7 | |
| Travel Time (s) | | 40.8 | | | 41.7 | | | 31.1 | | | 10.6 | |
| Confl. Peds. (#/hr) | 191 | | 12 | 12 | | 191 | 257 | | 111 | 111 | | 257 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 4% | 1% | 0% | 2% | 16% | 2% | 9% | 1% | 5% | 4% | 9% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 170 | 866 | 0 | 163 | 923 | 0 | 130 | 352 | 124 | 198 | 994 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | Perm | pm+pt | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | 4 | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 7 | 4 | 4 | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | |
| Minimum Split (s) | 9.0 | 38.0 | | 9.0 | 38.0 | | 9.0 | 38.0 | 38.0 | 9.0 | 38.0 | |
| Total Split (s) | 11.0 | 41.0 | | 11.0 | 41.0 | | 11.0 | 44.0 | 44.0 | 20.0 | 53.0 | |
| Total Split (%) | 9.5% | 35.3% | | 9.5% | 35.3% | | 9.5% | 37.9% | 37.9% | 17.2% | 45.7% | |
| Maximum Green (s) | 7.0 | 34.0 | | 7.0 | 34.0 | | 7.0 | 37.0 | 37.0 | 16.0 | 46.0 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 3.0 | | 1.0 | 3.0 | | 1.0 | 3.0 | 3.0 | 1.0 | 3.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 3.0 | 6.0 | | 3.0 | 6.0 | | 3.0 | 6.0 | 6.0 | 3.0 | 6.0 | |

| | • | - | • | • | ← | • | 1 | † | _ | - | ţ | 4 |
|-------------------------|-------|-------|-----|-------|-------|-----|----------|----------|-------|------|-------|-----|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Recall Mode | None | C-Max | | None | Max | | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 24.0 | | | 24.0 | | | 24.0 | 24.0 | | 24.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | | 0 | 0 | | 0 | |
| Act Effct Green (s) | 50.4 | 37.8 | | 49.8 | 37.5 | | 47.7 | 36.7 | 36.7 | 56.8 | 42.9 | |
| Actuated g/C Ratio | 0.43 | 0.33 | | 0.43 | 0.32 | | 0.41 | 0.32 | 0.32 | 0.49 | 0.37 | |
| v/c Ratio | 0.63 | 0.54 | | 0.56 | 0.59 | | 0.62 | 0.34 | 0.23 | 0.41 | 0.86 | |
| Control Delay | 32.9 | 33.6 | | 28.8 | 34.8 | | 30.8 | 31.1 | 3.7 | 23.7 | 46.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 3.1 | |
| Total Delay | 32.9 | 33.6 | | 28.8 | 34.8 | | 30.8 | 31.1 | 3.7 | 23.7 | 49.9 | |
| LOS | С | С | | С | С | | С | С | Α | С | D | |
| Approach Delay | | 33.5 | | | 33.9 | | | 25.4 | | | 45.6 | |
| Approach LOS | | С | | | С | | | С | | | D | |
| Queue Length 50th (m) | 24.4 | 63.0 | | 23.2 | 68.7 | | 16.2 | 33.3 | 0.0 | 34.8 | 123.0 | |
| Queue Length 95th (m) | #47.6 | 77.6 | | 39.8 | 84.1 | | 27.4 | 46.4 | 8.8 | 51.9 | 146.3 | |
| Internal Link Dist (m) | | 542.1 | | | 555.4 | | | 407.5 | | | 123.7 | |
| Turn Bay Length (m) | 75.0 | | | 100.0 | | | 30.0 | | 100.0 | 50.0 | | |
| Base Capacity (vph) | 271 | 1592 | | 292 | 1566 | | 209 | 1080 | 552 | 511 | 1266 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 176 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.63 | 0.54 | | 0.56 | 0.59 | | 0.62 | 0.33 | 0.22 | 0.39 | 0.91 | |

Area Type: Other

Cycle Length: 116 Actuated Cycle Length: 116

Offset: 102 (88%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

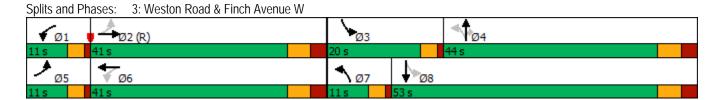
Maximum v/c Ratio: 0.86

Intersection Signal Delay: 36.0 Intersection LOS: D
Intersection Capacity Utilization 87.1% ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



| | ۶ | - | \rightarrow | • | ← | • | • | † | / | \ | ļ | 4 |
|----------------------------|-------|-------|---------------|-------|----------|-------|-------|----------|-------|----------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | ĥ | | ሻ | f) | | ሻ | ^ | 7 | ሻ | ^ | 7 |
| Traffic Volume (vph) | 14 | 197 | 150 | 81 | 253 | 24 | 104 | 376 | 36 | 50 | 699 | 29 |
| Future Volume (vph) | 14 | 197 | 150 | 81 | 253 | 24 | 104 | 376 | 36 | 50 | 699 | 29 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 30.0 | | 0.0 | 35.0 | | 40.0 | 85.0 | | 35.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1668 | 1632 | 0 | 1700 | 1666 | 0 | 1623 | 3336 | 1507 | 1684 | 3433 | 1365 |
| Flt Permitted | 0.354 | | | 0.235 | | | 0.326 | | | 0.504 | | |
| Satd. Flow (perm) | 622 | 1632 | 0 | 419 | 1666 | 0 | 554 | 3336 | 1429 | 878 | 3433 | 1316 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 35 | | | 4 | | | | 40 | | | 31 |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 158.2 | | | 160.6 | | | 478.0 | | | 179.7 | |
| Travel Time (s) | | 11.4 | | | 11.6 | | | 34.4 | | | 12.9 | |
| Confl. Peds. (#/hr) | | | 5 | 5 | | | 8 | | 16 | 16 | | 8 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 7% | 9% | 4% | 5% | 10% | 25% | 10% | 7% | 6% | 6% | 4% | 17% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 15 | 381 | 0 | 89 | 304 | 0 | 114 | 413 | 40 | 55 | 768 | 32 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 37.4 | 37.4 | | 37.4 | 37.4 | | 36.9 | 36.9 | 36.9 | 36.9 | 36.9 | 36.9 |
| Total Split (s) | 47.0 | 47.0 | | 47.0 | 47.0 | | 73.0 | 73.0 | 73.0 | 73.0 | 73.0 | 73.0 |
| Total Split (%) | 39.2% | 39.2% | | 39.2% | 39.2% | | 60.8% | 60.8% | 60.8% | 60.8% | 60.8% | 60.8% |
| Maximum Green (s) | 40.6 | 40.6 | | 40.6 | 40.6 | | 67.1 | 67.1 | 67.1 | 67.1 | 67.1 | 67.1 |
| Yellow Time (s) | 3.4 | 3.4 | | 3.4 | 3.4 | | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 5.4 | 5.4 | | 5.4 | 5.4 | | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 |

| | • | - | • | • | • | * | 1 | † | ~ | - | ↓ | 4 |
|-------------------------|------|-------|-----|-------|-------|-----|-------|----------|-------|-------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max |
| Walk Time (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| Flash Dont Walk (s) | 19.0 | 19.0 | | 19.0 | 19.0 | | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Act Effct Green (s) | 32.3 | 32.3 | | 32.3 | 32.3 | | 77.4 | 77.4 | 77.4 | 77.4 | 77.4 | 77.4 |
| Actuated g/C Ratio | 0.27 | 0.27 | | 0.27 | 0.27 | | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 |
| v/c Ratio | 0.09 | 0.82 | | 0.79 | 0.67 | | 0.32 | 0.19 | 0.04 | 0.10 | 0.35 | 0.04 |
| Control Delay | 30.6 | 51.4 | | 82.8 | 45.5 | | 14.5 | 9.8 | 3.4 | 10.6 | 11.2 | 3.9 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 30.6 | 51.4 | | 82.8 | 45.5 | | 14.5 | 9.8 | 3.4 | 10.6 | 11.2 | 3.9 |
| LOS | С | D | | F | D | | В | A | А | В | В | Α |
| Approach Delay | | 50.6 | | | 53.9 | | | 10.3 | | | 10.9 | |
| Approach LOS | | D | | 00.4 | D | | 44.0 | В | | | В | 0.1 |
| Queue Length 50th (m) | 2.8 | 81.0 | | 20.4 | 66.3 | | 11.8 | 20.3 | 0.0 | 4.8 | 42.7 | 0.1 |
| Queue Length 95th (m) | 7.8 | 107.6 | | #43.5 | 88.0 | | 29.3 | 34.3 | 5.0 | 12.8 | 67.1 | 4.7 |
| Internal Link Dist (m) | 00.0 | 134.2 | | 00.0 | 136.6 | | 05.0 | 454.0 | 40.0 | 05.0 | 155.7 | 05.0 |
| Turn Bay Length (m) | 30.0 | F00 | | 30.0 | F00 | | 35.0 | 0450 | 40.0 | 85.0 | 004.4 | 35.0 |
| Base Capacity (vph) | 215 | 588 | | 145 | 580 | | 357 | 2152 | 936 | 566 | 2214 | 859 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.65 | | 0.61 | 0.52 | | 0.32 | 0.19 | 0.04 | 0.10 | 0.35 | 0.04 |

Area Type: Other

Cycle Length: 120 Actuated Cycle Length: 120

Offset: 102 (85%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 25.5 Intersection Capacity Utilization 79.5% ICU Level of Service D

Analysis Period (min) 15

Queue shown is maximum after two cycles.





^{# 95}th percentile volume exceeds capacity, queue may be longer.

| | ၨ | - | \rightarrow | • | ← | • | 4 | † | / | > | ļ | 4 |
|--------------------------------------|--------------|---------------|---------------|-------|--------------|-------|---------------|--------------|----------|---------------|-------------|--------------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | f) | | ሻ | f) | | * | ተ ኈ | | ሻ | ^ | 7 |
| Traffic Volume (vph) | 28 | 15 | 231 | 60 | 25 | 33 | 150 | 434 | 47 | 33 | 846 | 60 |
| Future Volume (vph) | 28 | 15 | 231 | 60 | 25 | 33 | 150 | 434 | 47 | 33 | 846 | 60 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 10.0 | | 0.0 | 25.0 | | 0.0 | 25.0 | | 30.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1566 | 1533 | 0 | 1733 | 1667 | 0 | 1638 | 3281 | 0 | 1785 | 3400 | 1413 |
| Flt Permitted | 0.716 | | | 0.235 | | | 0.257 | | | 0.456 | | |
| Satd. Flow (perm) | 1169 | 1533 | 0 | 426 | 1667 | 0 | 438 | 3281 | 0 | 830 | 3400 | 1293 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 254 | | | 36 | | | 19 | | | | 75 |
| Link Speed (k/h) | | 50 | | | 20 | | | 50 | | | 50 | |
| Link Distance (m) | | 44.9 | | | 58.2 | | | 147.7 | | | 478.0 | |
| Travel Time (s) | | 3.2 | | | 10.5 | | | 10.6 | | | 34.4 | |
| Confl. Peds. (#/hr) | 8 | | 10 | 10 | | 8 | 32 | | 31 | 31 | | 32 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 14% | 0% | 3% | 3% | 0% | 3% | 9% | 7% | 0% | 0% | 5% | 13% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 31 | 270 | 0 | 66 | 63 | 0 | 165 | 529 | 0 | 36 | 930 | 66 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | 1.01 | 1.01 | 4.04 | 1.01 | 1.01 | 4.04 | 1.01 | 4.04 | 4.04 | 1.01 | 1.01 | 1.01 |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | NIA | 15 | 25 | N I A | 15 | 25 | NIA | 15 | 25 | NIA | 15 |
| Turn Type | Perm | NA | | Perm | NA | | pm+pt | NA | | Perm | NA | Perm |
| Protected Phases | 1 | 4 | | 0 | 8 | | 5 | 2 | | / | 6 | 1 |
| Permitted Phases | 4 | 4 | | 8 | 0 | | 2 | 2 | | 6 | , | 6 |
| Detector Phase | 4 | 4 | | 8 | 8 | | 5 | 2 | | 6 | 6 | 6 |
| Switch Phase Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | ΕΛ | 10.0 | | 10.0 | 10.0 | 10.0 |
| . , | 10.0 34.0 | 10.0 34.0 | | 10.0 | 10.0 34.0 | | 5.0 | 10.0 35.0 | | 10.0 | 10.0 | 10.0 35.0 |
| Minimum Split (s) | | | | 34.0 | | | 9.0 | 79.0 | | 35.0 | 35.0 | |
| Total Split (s) | 37.0 | 37.0 | | 37.0 | 37.0 | | 23.0 | 68.1% | | 56.0 | 56.0 | 56.0 |
| Total Split (%) Maximum Green (s) | 31.9% | 31.9% 30.0 | | 31.9% | 31.9% | | 19.8% 19.0 | | | 48.3% 49.0 | 48.3% | 48.3% |
| Yellow Time (s) | 30.0 4.0 | 4.0 | | 4.0 | 30.0 4.0 | | 3.0 | 72.0 4.0 | | 49.0 | 49.0 4.0 | 49.0 4.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 1.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 3.0 | 6.0 | | 6.0 | 6.0 | 6.0 |
| rotal Lost Tille (3) | 0.0 | 0.0 | | 0.0 | 0.0 | | 5.0 | 0.0 | | 0.0 | 0.0 | 0.0 |

6: Weston Road & Toryork Drive/Retail Access

| | • | - | • | • | • | • | 1 | † | 1 | - | Ţ | 4 |
|-------------------------|------|------|-----|-------|-------|-----|------|----------|-----|-------|-------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | | | | | | | Lead | | | Lag | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | | | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | None | | None | None | | None | C-Max | | C-Max | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | | 21.0 | | 21.0 | 21.0 | 21.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | 17.0 | 17.0 | | 17.0 | 17.0 | | 90.0 | 87.0 | | 74.3 | 74.3 | 74.3 |
| Actuated g/C Ratio | 0.15 | 0.15 | | 0.15 | 0.15 | | 0.78 | 0.75 | | 0.64 | 0.64 | 0.64 |
| v/c Ratio | 0.18 | 0.61 | | 1.06 | 0.23 | | 0.38 | 0.21 | | 0.07 | 0.43 | 0.08 |
| Control Delay | 43.1 | 12.6 | | 179.2 | 22.8 | | 10.6 | 9.0 | | 10.6 | 12.1 | 2.5 |
| Queue Delay | 0.0 | 0.4 | | 5.4 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 43.1 | 13.0 | | 184.6 | 22.8 | | 10.6 | 9.0 | | 10.6 | 12.2 | 2.5 |
| LOS | D | В | | F | С | | В | Α | | В | В | Α |
| Approach Delay | | 16.1 | | | 105.6 | | | 9.4 | | | 11.5 | |
| Approach LOS | | В | | | F | | | А | | | В | |
| Queue Length 50th (m) | 6.6 | 3.4 | | ~17.9 | 5.7 | | 19.1 | 33.3 | | 2.9 | 52.0 | 0.0 |
| Queue Length 95th (m) | 14.9 | 26.8 | | #39.8 | 17.1 | | 33.3 | 47.0 | | 9.5 | 87.7 | 5.5 |
| Internal Link Dist (m) | | 20.9 | | | 34.2 | | | 123.7 | | | 454.0 | |
| Turn Bay Length (m) | 30.0 | | | 10.0 | | | 25.0 | | | 25.0 | | 30.0 |
| Base Capacity (vph) | 312 | 595 | | 113 | 471 | | 546 | 2464 | | 531 | 2177 | 855 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 78 | | 18 | 0 | | 0 | 0 | | 0 | 85 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.10 | 0.52 | | 0.69 | 0.13 | | 0.30 | 0.21 | | 0.07 | 0.44 | 0.08 |

Intersection Summary

Area Type: Other

Cycle Length: 116
Actuated Cycle Length: 116

Offset: 111 (96%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.06

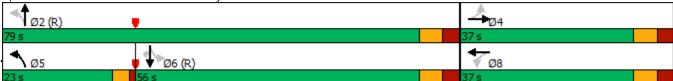
Intersection Signal Delay: 17.1 Intersection LOS: B
Intersection Capacity Utilization 77.9% ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 6: Weston Road & Toryork Drive/Retail Access



Lanes, Volumes, Timings 14: Rumike Road/Milvan Drive & Finch Avenue W

| | ۶ | - | • | • | ← | • | • | † | / | / | ţ | 4 |
|----------------------------|---------|------------|-------|---------|------------|-------|----------|----------|----------|----------|----------|-----------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | ∱ } | | ሻ | ↑ ↑ | | ሻ | f) | | * | † | 7 |
| Traffic Volume (vph) | 89 | 872 | 138 | 21 | 1021 | 156 | 163 | 80 | 23 | 229 | 138 | 161 |
| Future Volume (vph) | 89 | 872 | 138 | 21 | 1021 | 156 | 163 | 80 | 23 | 229 | 138 | 161 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 30.0 | | 0.0 | 15.0 | | 0.0 | 70.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1566 | 3338 | 0 | 1785 | 3313 | 0 | 1733 | 1797 | 0 | 1700 | 1879 | 1493 |
| Flt Permitted | 0.164 | | | 0.215 | | | 0.657 | | | 0.687 | | |
| Satd. Flow (perm) | 267 | 3338 | 0 | 397 | 3313 | 0 | 1144 | 1797 | 0 | 1188 | 1879 | 1393 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 27 | | | 26 | | | 19 | | | | 36 |
| Link Speed (k/h) | | 50 | | | 50 | | | 40 | | | 50 | |
| Link Distance (m) | | 255.0 | | | 273.8 | | | 198.1 | | | 176.1 | |
| Travel Time (s) | | 18.4 | | | 19.7 | | | 17.8 | | | 12.7 | |
| Confl. Peds. (#/hr) | 61 | | 70 | 70 | ., | 91 | 70 | | 49 | 49 | , | 70 |
| Confl. Bikes (#/hr) | 0. | | , 0 | | | | , 0 | | ., | • • | | , 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 14% | 3% | 3% | 0% | 3% | 6% | 3% | 0% | 0% | 5% | 0% | 7% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | 070 | | | 070 | | | 070 | | | 0,70 | |
| Lane Group Flow (vph) | 94 | 1063 | 0 | 22 | 1239 | 0 | 172 | 108 | 0 | 241 | 145 | 169 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | 20.1 | 3.5 | | | 3.5 | | 20.0 | 3.5 | | 20.0 | 3.5 | . tigi.it |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | 1.0 | | | 1.0 | | | 1.0 | | | 1.0 | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | 1101 | 15 | 25 | | 15 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 1 01111 | 2 | | 1 01111 | 6 | | 1 01111 | 4 | | 1 01111 | 8 | 1 01111 |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | 8 |
| Detector Phase | 2 | 2 | | 6 | 6 | | 4 | 4 | | 8 | 8 | 8 |
| Switch Phase | | | | Ü | Ü | | <u>'</u> | ' | | U | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 40.0 | 40.0 | | 35.0 | 35.0 | | 40.4 | 40.4 | | 40.4 | 40.4 | 40.4 |
| Total Split (s) | 49.0 | 49.0 | | 49.0 | 49.0 | | 41.0 | 41.0 | | 41.0 | 41.0 | 41.0 |
| Total Split (%) | 54.4% | 54.4% | | 54.4% | 54.4% | | 45.6% | 45.6% | | 45.6% | 45.6% | 45.6% |
| Maximum Green (s) | 43.0 | 43.0 | | 43.0 | 43.0 | | 34.6 | 34.6 | | 34.6 | 34.6 | 34.6 |
| Yellow Time (s) | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.7 | 2.7 | | 2.7 | 2.7 | | 3.1 | 3.1 | | 3.1 | 3.1 | 3.1 |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.4 | 5.4 | | 5.4 | 5.4 | 5.4 |
| TOTAL LUST TITLE (S) | 0.0 | 0.0 | | 0.0 | 0.0 | | 5.4 | 3.4 | | 5.4 | 3.4 | 0.4 |

14: Rumike Road/Milvan Drive & Finch Avenue W

| | • | - | • | • | • | • | 1 | † | ~ | - | ţ | 4 |
|-------------------------|-------|-------|-----|------|-------|-----|------|----------|-----|------|-------|------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Recall Mode | C-Max | C-Max | | Max | Max | | None | None | | None | None | None |
| Walk Time (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 |
| Flash Dont Walk (s) | 17.0 | 17.0 | | 17.0 | 17.0 | | 22.0 | 22.0 | | 22.0 | 22.0 | 22.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | 54.7 | 54.7 | | 54.7 | 54.7 | | 24.9 | 24.9 | | 24.9 | 24.9 | 24.9 |
| Actuated g/C Ratio | 0.61 | 0.61 | | 0.61 | 0.61 | | 0.28 | 0.28 | | 0.28 | 0.28 | 0.28 |
| v/c Ratio | 0.58 | 0.52 | | 0.09 | 0.61 | | 0.54 | 0.21 | | 0.73 | 0.28 | 0.41 |
| Control Delay | 33.3 | 12.3 | | 11.5 | 13.8 | | 32.8 | 19.2 | | 41.9 | 25.0 | 22.0 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 33.3 | 12.3 | | 11.5 | 13.8 | | 32.8 | 19.2 | | 41.9 | 25.0 | 22.0 |
| LOS | С | В | | В | В | | С | В | | D | С | С |
| Approach Delay | | 14.0 | | | 13.8 | | | 27.5 | | | 31.4 | |
| Approach LOS | | В | | | В | | | С | | | С | |
| Queue Length 50th (m) | 9.5 | 51.6 | | 1.5 | 65.7 | | 26.7 | 12.3 | | 39.8 | 20.7 | 19.4 |
| Queue Length 95th (m) | #41.7 | 89.8 | | 6.6 | 114.0 | | 40.3 | 21.4 | | 57.6 | 30.8 | 32.1 |
| Internal Link Dist (m) | | 231.0 | | | 249.8 | | | 174.1 | | | 152.1 | |
| Turn Bay Length (m) | 30.0 | | | 30.0 | | | 15.0 | | | 70.0 | | |
| Base Capacity (vph) | 162 | 2039 | | 241 | 2023 | | 452 | 722 | | 469 | 743 | 572 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.58 | 0.52 | | 0.09 | 0.61 | | 0.38 | 0.15 | | 0.51 | 0.20 | 0.30 |

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 36 (40%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

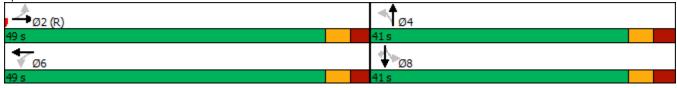
Maximum v/c Ratio: 0.73

Intersection Signal Delay: 18.1 Intersection LOS: B
Intersection Capacity Utilization 96.7% ICU Level of Service F

Analysis Period (min) 15

Queue shown is maximum after two cycles.

Splits and Phases: 14: Rumike Road/Milvan Drive & Finch Avenue W



^{# 95}th percentile volume exceeds capacity, queue may be longer.

| | ۶ | - | \rightarrow | • | • | • | • | † | / | > | ļ | 4 |
|----------------------------|-------|------------|---------------|-------|------------|-------|-------|----------|-------|-------------|-------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | ∱ ∱ | | ሻ | ∱ } | | ሻ | ĥ | | | 4 | |
| Traffic Volume (vph) | 26 | 985 | 69 | 78 | 1011 | 4 | 128 | 10 | 70 | 15 | 10 | 33 |
| Future Volume (vph) | 26 | 985 | 69 | 78 | 1011 | 4 | 128 | 10 | 70 | 15 | 10 | 33 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 15.0 | | 0.0 | 30.0 | | 0.0 | 15.0 | | 0.0 | 0.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 0 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1653 | 3415 | 0 | 1733 | 3427 | 0 | 1767 | 1589 | 0 | 0 | 1484 | 0 |
| Flt Permitted | 0.161 | | | 0.146 | | | 0.261 | | | | 0.885 | |
| Satd. Flow (perm) | 280 | 3415 | 0 | 266 | 3427 | 0 | 486 | 1589 | 0 | 0 | 1328 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 9 | | | | | | 74 | | | 35 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 40 | | | 20 | |
| Link Distance (m) | | 273.8 | | | 566.1 | | | 203.2 | | | 58.7 | |
| Travel Time (s) | | 19.7 | | | 40.8 | | | 18.3 | | | 10.6 | |
| Confl. Peds. (#/hr) | 59 | | 31 | 31 | | 59 | 69 | | 9 | 9 | | 69 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 8% | 3% | 0% | 3% | 4% | 0% | 1% | 0% | 1% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 27 | 1110 | 0 | 82 | 1068 | 0 | 135 | 85 | 0 | 0 | 62 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 7 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | | 7 | | | 8 | | |
| Detector Phase | 2 | 2 | | 6 | 6 | | 7 | 7 | | 8 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | | 7.0 | 7.0 | |
| Minimum Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 36.0 | 36.0 | | 14.0 | 14.0 | |
| Total Split (s) | 49.0 | 49.0 | | 49.0 | 49.0 | | 37.0 | 37.0 | | 14.0 | 14.0 | |
| Total Split (%) | 49.0% | 49.0% | | 49.0% | 49.0% | | 37.0% | 37.0% | | 14.0% | 14.0% | |
| Maximum Green (s) | 43.0 | 43.0 | | 43.0 | 43.0 | | 30.0 | 30.0 | | 8.0 | 8.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | | -1.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 6.0 | 6.0 | | | 5.0 | |

| | • | - | \rightarrow | • | ← | • | • | † | / | > | ļ | 4 |
|-------------------------|-------|-------|---------------|-------|----------|-----|-------|----------|----------|-------------|------|-----|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | | | | | | | Lead | Lead | | Lag | Lag | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | C-Max | C-Max | | Max | Max | | None | None | | None | None | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 0.0 | 0.0 | |
| Flash Dont Walk (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 22.0 | 22.0 | | 0.0 | 0.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 48.5 | 48.5 | | 48.5 | 48.5 | | 29.6 | 29.6 | | | 8.5 | |
| Actuated g/C Ratio | 0.48 | 0.48 | | 0.48 | 0.48 | | 0.30 | 0.30 | | | 0.08 | |
| v/c Ratio | 0.20 | 0.67 | | 0.64 | 0.64 | | 0.94 | 0.16 | | | 0.43 | |
| Control Delay | 22.3 | 23.4 | | 49.2 | 22.9 | | 98.2 | 8.4 | | | 32.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Total Delay | 22.3 | 23.4 | | 49.2 | 22.9 | | 98.2 | 8.4 | | | 32.9 | |
| LOS | С | С | | D | С | | F | Α | | | С | |
| Approach Delay | | 23.4 | | | 24.8 | | | 63.5 | | | 32.9 | |
| Approach LOS | | С | | | С | | | Е | | | С | |
| Queue Length 50th (m) | 3.3 | 94.3 | | 13.1 | 89.8 | | 26.2 | 1.6 | | | 5.2 | |
| Queue Length 95th (m) | 10.4 | 121.1 | | #40.8 | 115.4 | | #63.9 | 12.4 | | | 18.5 | |
| Internal Link Dist (m) | | 249.8 | | | 542.1 | | | 179.2 | | | 34.7 | |
| Turn Bay Length (m) | 15.0 | | | 30.0 | | | 15.0 | | | | | |
| Base Capacity (vph) | 136 | 1660 | | 129 | 1662 | | 150 | 543 | | | 151 | |
| 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 | |
| | | ~ | | | | | | | | | | |

0.64

0.64

0.90

0.16

Intersection Summary

Reduced v/c Ratio

Area Type: Other

Cycle Length: 100 Actuated Cycle Length: 100

Offset: 1 (1%), Referenced to phase 2:EBTL, Start of Green

0.20

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 27.7 Intersection Capacity Utilization 67.7% ICU Level of Service C

0.67

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



0.41

| | ၨ | - | \rightarrow | • | ← | • | • | † | / | > | ļ | 4 |
|----------------------------|-------|-------|---------------|-------|----------|-------|-------|------------|----------|-------------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | f) | | ኻ | f) | | ሻ | ∱ } | | ሻ | ^ | 7 |
| Traffic Volume (vph) | 28 | 15 | 231 | 60 | 25 | 33 | 150 | 434 | 47 | 33 | 846 | 60 |
| Future Volume (vph) | 28 | 15 | 231 | 60 | 25 | 33 | 150 | 434 | 47 | 33 | 846 | 60 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 10.0 | | 0.0 | 25.0 | | 0.0 | 25.0 | | 30.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1566 | 1533 | 0 | 1733 | 1667 | 0 | 1638 | 3281 | 0 | 1785 | 3400 | 1413 |
| Flt Permitted | 0.716 | | | 0.255 | | | 0.248 | | | 0.456 | | |
| Satd. Flow (perm) | 1169 | 1533 | 0 | 462 | 1667 | 0 | 423 | 3281 | 0 | 830 | 3400 | 1293 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 254 | | | 36 | | | 16 | | | | 113 |
| Link Speed (k/h) | | 50 | | | 20 | | | 50 | | | 50 | |
| Link Distance (m) | | 44.9 | | | 58.2 | | | 147.7 | | | 478.0 | |
| Travel Time (s) | | 3.2 | | | 10.5 | | | 10.6 | | | 34.4 | |
| Confl. Peds. (#/hr) | 8 | | 10 | 10 | | 8 | 32 | | 31 | 31 | | 32 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 14% | 0% | 3% | 3% | 0% | 3% | 9% | 7% | 0% | 0% | 5% | 13% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 31 | 270 | 0 | 66 | 63 | 0 | 165 | 529 | 0 | 36 | 930 | 66 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Perm | NA | | pm+pt | NA | | pm+pt | NA | | Perm | NA | Perm |
| Protected Phases | | 4 | | 3 | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | 6 |
| Detector Phase | 4 | 4 | | 3 | 8 | | 5 | 2 | | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 34.0 | 34.0 | | 9.0 | 34.0 | | 9.0 | 35.0 | | 35.0 | 35.0 | 35.0 |
| Total Split (s) | 36.0 | 36.0 | | 9.0 | 45.0 | | 16.0 | 71.0 | | 55.0 | 55.0 | 55.0 |
| Total Split (%) | 31.0% | 31.0% | | 7.8% | 38.8% | | 13.8% | 61.2% | | 47.4% | 47.4% | 47.4% |
| Maximum Green (s) | 29.0 | 29.0 | | 5.0 | 38.0 | | 12.0 | 64.0 | | 48.0 | 48.0 | 48.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 1.0 | 3.0 | | 1.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 6.0 | 6.0 | | 3.0 | 6.0 | | 3.0 | 6.0 | | 6.0 | 6.0 | 6.0 |

| | ۶ | → | \rightarrow | • | ← | • | 4 | † | / | - | ţ | 4 |
|-------------------------|------|----------|---------------|------|----------|-----|------|----------|-----|-------|-------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lag | Lag | | Lead | | | Lead | | | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | | | Yes | | | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | None | | None | None | | None | C-Max | | C-Max | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 | | | 7.0 | | | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 20.0 | 20.0 | | | 20.0 | | | 21.0 | | 21.0 | 21.0 | 21.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | | 0 | | | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | 12.7 | 12.7 | | 22.9 | 19.9 | | 87.1 | 84.1 | | 71.1 | 71.1 | 71.1 |
| Actuated g/C Ratio | 0.11 | 0.11 | | 0.20 | 0.17 | | 0.75 | 0.72 | | 0.61 | 0.61 | 0.61 |
| v/c Ratio | 0.24 | 0.69 | | 0.42 | 0.20 | | 0.39 | 0.22 | | 0.07 | 0.45 | 0.08 |
| Control Delay | 50.9 | 16.8 | | 45.1 | 21.2 | | 14.2 | 12.5 | | 12.0 | 13.9 | 0.6 |
| Queue Delay | 0.0 | 0.1 | | 9.4 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.9 | 16.8 | | 54.5 | 21.2 | | 14.2 | 12.5 | | 12.0 | 14.0 | 0.6 |
| LOS | D | В | | D | С | | В | В | | В | В | Α |
| Approach Delay | | 20.4 | | | 38.3 | | | 12.9 | | | 13.0 | |
| Approach LOS | | С | | | D | | | В | | | В | |
| Queue Length 50th (m) | 7.0 | 3.6 | | 13.3 | 5.5 | | 20.9 | 36.3 | | 3.2 | 58.0 | 0.0 |
| Queue Length 95th (m) | 16.1 | 29.4 | | 24.0 | 16.7 | | 35.5 | 50.3 | | 10.0 | 92.8 | 1.5 |
| Internal Link Dist (m) | | 20.9 | | | 34.2 | | | 123.7 | | | 454.0 | |
| Turn Bay Length (m) | 30.0 | | | 10.0 | | | 25.0 | | | 25.0 | | 30.0 |
| Base Capacity (vph) | 302 | 584 | | 157 | 584 | | 454 | 2382 | | 508 | 2084 | 836 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 23 | | 62 | 0 | | 0 | 0 | | 0 | 104 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.10 | 0.48 | | 0.69 | 0.11 | | 0.36 | 0.22 | | 0.07 | 0.47 | 0.08 |

Area Type: Other

Cycle Length: 116
Actuated Cycle Length: 116

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 15.5 Intersection LOS: B
Intersection Capacity Utilization 72.0% ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: Weston Road & Toryork Drive/Retail Access



Appendix CBackground Development Traffic Volumes

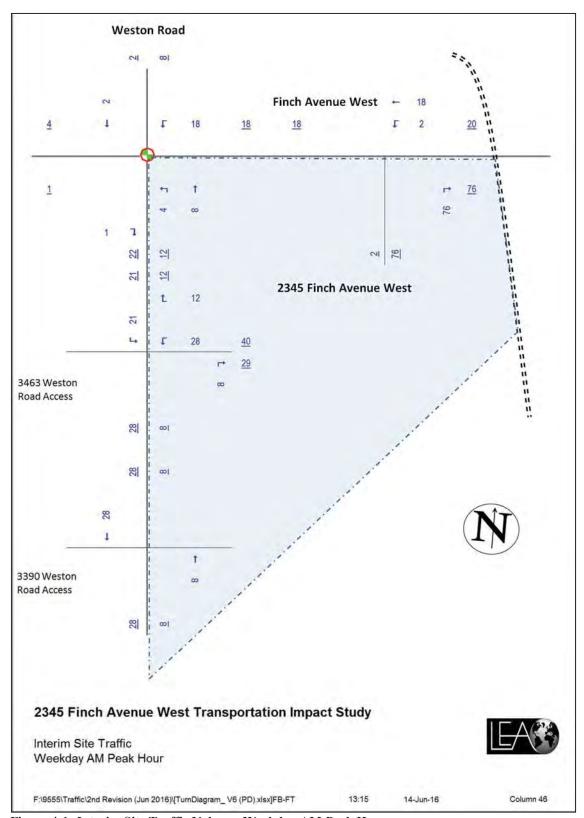


Figure 4-1: Interim Site Traffic Volume, Weekday AM Peak Hour

16/03/17 9555.200

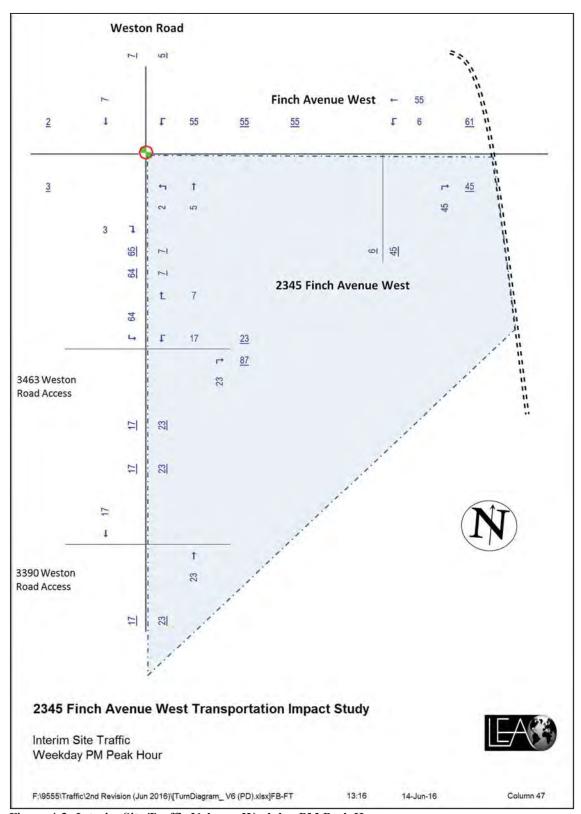


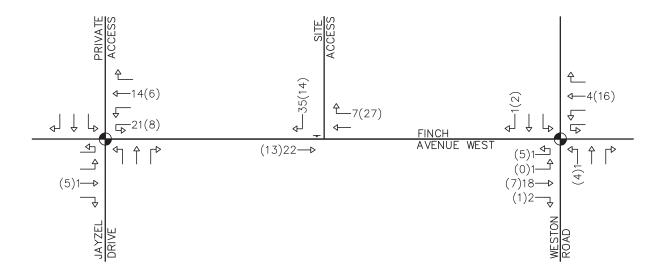
Figure 4-2: Interim Site Traffic Volume, Weekday PM Peak Hour

16/03/17 9555.200

NOTE:

THIS FIGURE IS SCHEMATIC ONLY AND IS NOT TO BE SCALED.









STOP CONTROL



ROUND ABOUT

AM(PM) WEEKDAY AM(PM)
TRIP DISTRIBUTION

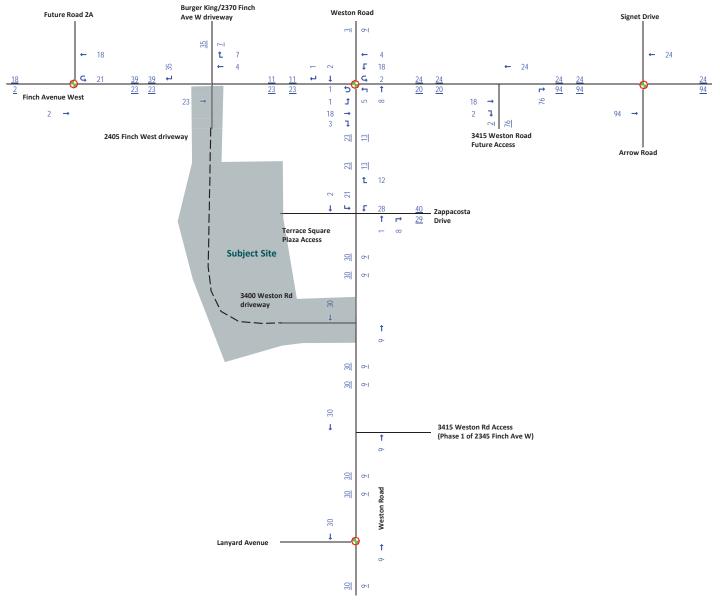
2370 FINCH AVENUE WEST



2800 High Point Drive Suite 100 Milton, ON L9T 6P4 905 875-0026 T 905 875-4915 F www.cfcrozier.ca

PRIMARY TRIP ASSIGNMENT

| Drawn | M.J. | Design | M.J. | Project No | 1452 | -473 | 57 |
|-------|--------|--------|------|-------------|------|-------------|----|
| Check | S.T.T. | Check | M.C. | Scale N.T.S | Dwg. | FIG. | 11 |

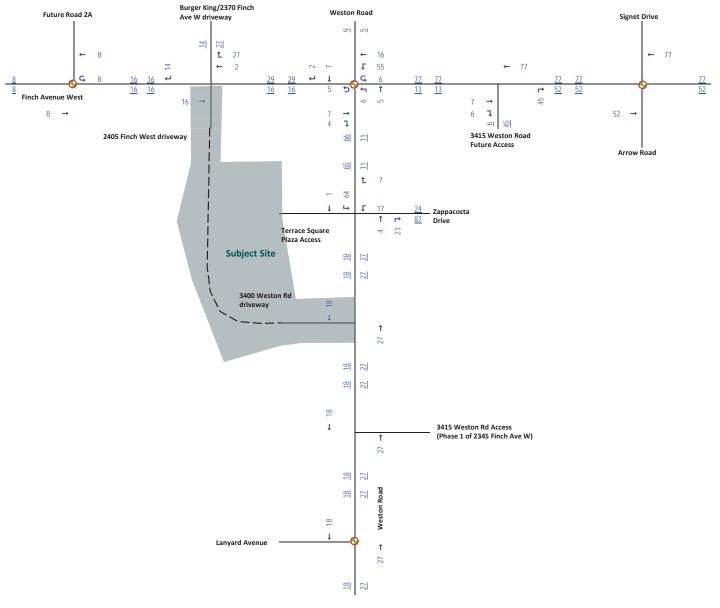


3400 Weston Road Transportation Impact Study

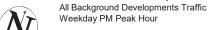


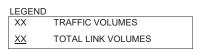






3400 Weston Road Transportation Impact Study

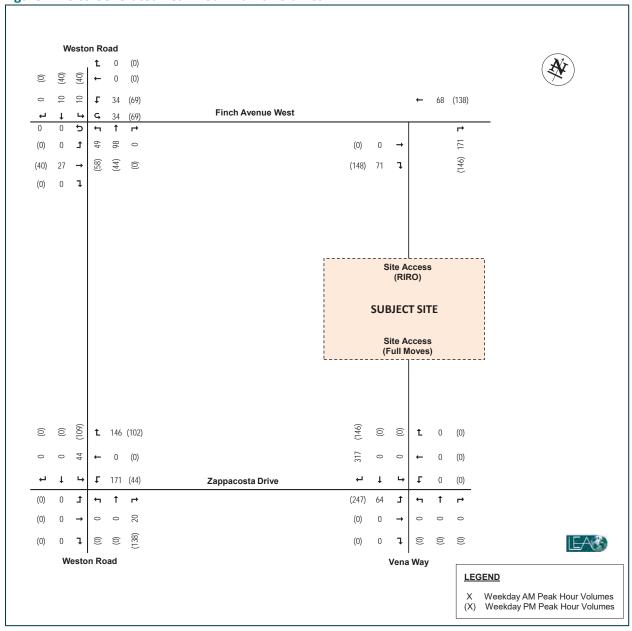






Based on the proposed driveway access locations and our understanding of the future road network, LEA conducted a detailed traffic assignment based on the general traffic distribution. **Figure 4-1** illustrates the total site traffic generated by the proposed development during the weekday AM and PM peak hours, respectively without a reduction from the LRT line.

Figure 4-1 Site Generated Peak Hour Traffic Volumes



Appendix D

Future Background Level of Service Calculations

| | ၨ | - | \rightarrow | • | ← | • | 4 | † | <i>></i> | > | ţ | 4 |
|----------------------------|-------|------------|---------------|-------|----------|-------|-------|----------|-------------|-------------|------------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | ∱ } | | ሻ | ^ | 7 | ሻ | ^ | 7 | ሻ | ∱ } | |
| Traffic Volume (vph) | 184 | 938 | 56 | 301 | 814 | 186 | 139 | 532 | 112 | 172 | 573 | 81 |
| Future Volume (vph) | 184 | 938 | 56 | 301 | 814 | 186 | 139 | 532 | 112 | 172 | 573 | 81 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 75.0 | | 0.0 | 100.0 | | 0.0 | 30.0 | | 100.0 | 50.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 1 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1684 | 3244 | 0 | 1700 | 3336 | 1439 | 1700 | 3336 | 1521 | 1526 | 3063 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.179 | | | 0.213 | | |
| Satd. Flow (perm) | 1658 | 3244 | 0 | 1648 | 3336 | 1353 | 307 | 3336 | 1216 | 320 | 3063 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 5 | | | | 190 | | | 125 | | 11 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 262.8 | | | 579.4 | | | 431.5 | | | 147.7 | |
| Travel Time (s) | | 18.9 | | | 41.7 | | | 31.1 | | | 10.6 | |
| Confl. Peds. (#/hr) | 36 | | 93 | 93 | | 36 | 102 | | 142 | 142 | | 102 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 6% | 8% | 14% | 5% | 7% | 11% | 5% | 7% | 5% | 17% | 12% | 14% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 188 | 1014 | 0 | 307 | 831 | 190 | 142 | 543 | 114 | 176 | 668 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Prot | NA | | Prot | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | _ | _ | | | | 6 | 4 | | 4 | 8 | _ | |
| Detector Phase | 5 | 2 | | 1 | 6 | 6 | 7 | 4 | 4 | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | |
| Minimum Split (s) | 9.0 | 38.0 | | 9.0 | 38.0 | 38.0 | 9.0 | 38.0 | 38.0 | 9.0 | 38.0 | |
| Total Split (s) | 28.0 | 53.0 | | 33.0 | 58.0 | 58.0 | 13.0 | 38.0 | 38.0 | 16.0 | 41.0 | |
| Total Split (%) | 20.0% | 37.9% | | 23.6% | 41.4% | 41.4% | 9.3% | 27.1% | 27.1% | 11.4% | 29.3% | |
| Maximum Green (s) | 24.0 | 46.0 | | 29.0 | 51.0 | 51.0 | 9.0 | 31.0 | 31.0 | 12.0 | 34.0 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 3.0 | | 1.0 | 3.0 | 3.0 | 1.0 | 3.0 | 3.0 | 1.0 | 3.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 3.0 | 6.0 | | 3.0 | 6.0 | 6.0 | 3.0 | 6.0 | 6.0 | 3.0 | 6.0 | |

| | • | - | • | • | • | • | 1 | † | / | - | ţ | 4 |
|-------------------------|------|--------|-----|--------|-------|------|----------|----------|----------|-------|--------|-----|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Recall Mode | None | C-Max | | None | Max | Max | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 24.0 | | | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | 0 | | 0 | 0 | | 0 | |
| Act Effct Green (s) | 21.0 | 50.0 | | 28.4 | 57.4 | 57.4 | 43.6 | 30.6 | 30.6 | 49.6 | 33.6 | |
| Actuated g/C Ratio | 0.15 | 0.36 | | 0.20 | 0.41 | 0.41 | 0.31 | 0.22 | 0.22 | 0.35 | 0.24 | |
| v/c Ratio | 0.75 | 0.87 | | 0.89 | 0.61 | 0.29 | 0.73 | 0.74 | 0.31 | 0.78 | 0.90 | |
| Control Delay | 80.9 | 41.8 | | 81.4 | 35.8 | 5.0 | 54.7 | 57.9 | 8.0 | 57.7 | 66.6 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 80.9 | 41.8 | | 81.4 | 35.8 | 5.0 | 54.7 | 57.9 | 8.0 | 57.7 | 66.6 | |
| LOS | F | D | | F | D | А | D | Е | Α | Е | Е | |
| Approach Delay | | 47.9 | | | 42.0 | | | 50.2 | | | 64.7 | |
| Approach LOS | | D | | | D | | | D | | | Е | |
| Queue Length 50th (m) | 58.4 | 69.6 | | 86.6 | 102.0 | 0.0 | 28.6 | 77.3 | 0.0 | 36.7 | 97.3 | |
| Queue Length 95th (m) | 84.6 | #185.2 | | #136.6 | 130.0 | 16.5 | #47.5 | 98.6 | 13.8 | #60.0 | #128.8 | |
| Internal Link Dist (m) | | 238.8 | | | 555.4 | | | 407.5 | | | 123.7 | |
| Turn Bay Length (m) | 75.0 | | | 100.0 | | | 30.0 | | 100.0 | 50.0 | | |
| Base Capacity (vph) | 300 | 1161 | | 364 | 1368 | 666 | 195 | 762 | 374 | 225 | 774 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.63 | 0.87 | | 0.84 | 0.61 | 0.29 | 0.73 | 0.71 | 0.30 | 0.78 | 0.86 | |

Area Type: Other

Cycle Length: 140 Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

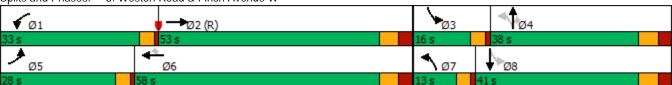
Maximum v/c Ratio: 0.90 Intersection Signal Delay: 49.9 Intersection Capacity Utilization 96.6%

Intersection LOS: D
ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.





| | ၨ | → | \rightarrow | • | ← | • | 4 | † | / | > | ţ | 4 |
|----------------------------|-------|----------|---------------|-------|----------|-------|-------|----------|----------|-------------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | f) | | ሻ | f) | | * | ^ | 7 | ሻ | ^ | 7 |
| Traffic Volume (vph) | 10 | 247 | 129 | 22 | 178 | 35 | 130 | 572 | 79 | 32 | 444 | 20 |
| Future Volume (vph) | 10 | 247 | 129 | 22 | 178 | 35 | 130 | 572 | 79 | 32 | 444 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 30.0 | | 0.0 | 35.0 | | 40.0 | 85.0 | | 35.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1373 | 1592 | 0 | 1566 | 1557 | 0 | 1623 | 3305 | 1551 | 1500 | 3187 | 1389 |
| Flt Permitted | 0.486 | | | 0.215 | | | 0.475 | | | 0.405 | | |
| Satd. Flow (perm) | 699 | 1592 | 0 | 354 | 1557 | 0 | 804 | 3305 | 1495 | 635 | 3187 | 1336 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 22 | | | 8 | | | | 82 | | | 31 |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 158.2 | | | 160.6 | | | 478.0 | | | 179.7 | |
| Travel Time (s) | | 11.4 | | | 11.6 | | | 34.4 | | | 12.9 | |
| Confl. Peds. (#/hr) | 7 | | 4 | 4 | | 7 | 9 | | 8 | 8 | | 9 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 30% | 11% | 12% | 14% | 19% | 9% | 10% | 8% | 3% | 19% | 12% | 15% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 10 | 391 | 0 | 23 | 221 | 0 | 135 | 596 | 82 | 33 | 463 | 21 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 37.4 | 37.4 | | 37.4 | 37.4 | | 36.9 | 36.9 | 36.9 | 36.9 | 36.9 | 36.9 |
| Total Split (s) | 40.0 | 40.0 | | 40.0 | 40.0 | | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 |
| Total Split (%) | 33.3% | 33.3% | | 33.3% | 33.3% | | 66.7% | 66.7% | 66.7% | 66.7% | 66.7% | 66.7% |
| Maximum Green (s) | 33.6 | 33.6 | | 33.6 | 33.6 | | 74.1 | 74.1 | 74.1 | 74.1 | 74.1 | 74.1 |
| Yellow Time (s) | 3.4 | 3.4 | | 3.4 | 3.4 | | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 5.4 | 5.4 | | 5.4 | 5.4 | | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 |

| | ۶ | - | • | • | ← | • | 1 | † | / | - | ↓ | 4 |
|-------------------------|------|--------|-----|------|-------|-----|-------|----------|-------|-------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max |
| Walk Time (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| Flash Dont Walk (s) | 19.0 | 19.0 | | 19.0 | 19.0 | | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Act Effct Green (s) | 32.0 | 32.0 | | 32.0 | 32.0 | | 77.7 | 77.7 | 77.7 | 77.7 | 77.7 | 77.7 |
| Actuated g/C Ratio | 0.27 | 0.27 | | 0.27 | 0.27 | | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 |
| v/c Ratio | 0.05 | 0.89 | | 0.24 | 0.53 | | 0.26 | 0.28 | 0.08 | 0.08 | 0.22 | 0.02 |
| Control Delay | 32.0 | 62.6 | | 40.8 | 40.5 | | 11.2 | 9.9 | 2.1 | 9.4 | 9.4 | 1.9 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 32.0 | 62.6 | | 40.8 | 40.5 | | 11.2 | 9.9 | 2.1 | 9.4 | 9.4 | 1.9 |
| LOS | С | E | | D | D | | В | Α | Α | А | А | Α |
| Approach Delay | | 61.8 | | | 40.5 | | | 9.3 | | | 9.1 | |
| Approach LOS | | Е | | | D | | | Α | | | Α | |
| Queue Length 50th (m) | 1.8 | 86.0 | | 4.4 | 43.7 | | 14.0 | 33.0 | 0.0 | 3.0 | 24.6 | 0.0 |
| Queue Length 95th (m) | 6.3 | #137.8 | | 12.5 | 69.2 | | 25.5 | 42.9 | 6.0 | 7.6 | 33.1 | 2.2 |
| Internal Link Dist (m) | | 134.2 | | | 136.6 | | | 454.0 | | | 155.7 | |
| Turn Bay Length (m) | 30.0 | | | 30.0 | | | 35.0 | | 40.0 | 85.0 | | 35.0 |
| Base Capacity (vph) | 201 | 474 | | 102 | 454 | | 521 | 2141 | 997 | 411 | 2064 | 876 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.82 | | 0.23 | 0.49 | | 0.26 | 0.28 | 0.08 | 0.08 | 0.22 | 0.02 |

Area Type: Other

Cycle Length: 120 Actuated Cycle Length: 120

Offset: 102 (85%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 23.8 Intersection LOS: C
Intersection Capacity Utilization 67.6% ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.





| | ၨ | - | \rightarrow | • | ← | • | 4 | † | / | > | ļ | 4 |
|--------------------------------------|--------------|---------------|---------------|-------|----------------|-------|---------------|--------------|----------|---------------|-------------|--------------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ኻ | f) | | ሻ | (Î | | * | † } | | ሻ | ^ | 7 |
| Traffic Volume (vph) | 21 | 7 | 155 | 9 | 2 | 5 | 184 | 767 | 6 | 10 | 609 | 23 |
| Future Volume (vph) | 21 | 7 | 155 | 9 | 2 | 5 | 184 | 767 | 6 | 10 | 609 | 23 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 10.0 | | 0.0 | 25.0 | | 0.0 | 25.0 | | 30.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1700 | 1377 | 0 | 1785 | 1448 | 0 | 1638 | 3303 | 0 | 1623 | 3159 | 1229 |
| Flt Permitted | 0.753 | | | 0.354 | | | 0.369 | | | 0.333 | | |
| Satd. Flow (perm) | 1337 | 1377 | 0 | 664 | 1448 | 0 | 633 | 3303 | 0 | 565 | 3159 | 1184 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 170 | | | 5 | | | 1 | | | | 75 |
| Link Speed (k/h) | | 50 | | | 20 | | | 50 | | | 50 | |
| Link Distance (m) | | 44.9 | | | 58.2 | | | 147.7 | | | 478.0 | |
| Travel Time (s) | | 3.2 | | | 10.5 | | | 10.6 | | | 34.4 | |
| Confl. Peds. (#/hr) | 6 | | 2 | 2 | | 6 | 8 | | 11 | 11 | | 8 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 5% | 0% | 16% | 0% | 0% | 20% | 9% | 8% | 0% | 10% | 13% | 30% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 23 | 178 | 0 | 10 | 7 | 0 | 202 | 850 | 0 | 11 | 669 | 25 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | 4.04 | 1.01 | 4.04 | 1.01 | 1.01 | 4.04 | 1.01 | 4.04 | 4.04 | 1.01 | 1.01 | 1.01 |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | NIA | 15 | 25 | NIA | 15 | 25 | NIA | 15 | 25 | NIA | 15 |
| Turn Type | Perm | NA | | Perm | NA | | pm+pt | NA | | Perm | NA | Perm |
| Protected Phases | 1 | 4 | | 0 | 8 | | 5 | 2 | | , | 6 | 1 |
| Permitted Phases | 4 | 4 | | 8 | 0 | | 2 | 2 | | 6 | , | 6 |
| Detector Phase | 4 | 4 | | 8 | 8 | | 5 | 2 | | 6 | 6 | 6 |
| Switch Phase Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | ΕΛ | 10.0 | | 10.0 | 10.0 | 10.0 |
| . , | 10.0 34.0 | 10.0 34.0 | | 10.0 | 10.0 34.0 | | 5.0 | 10.0 35.0 | | 10.0 | 10.0 | 10.0 35.0 |
| Minimum Split (s) | | | | 34.0 | | | 9.0 | 79.0 | | 35.0 | 35.0 | |
| Total Split (s) | 37.0 | 37.0 | | 37.0 | 37.0 | | 23.0 | 68.1% | | 56.0 | 56.0 | 56.0 |
| Total Split (%) Maximum Green (s) | 31.9% | 31.9% 30.0 | | 31.9% | 31.9% | | 19.8% 19.0 | | | 48.3% 49.0 | 48.3% | 48.3% |
| Yellow Time (s) | 30.0 | 4.0 | | 4.0 | 30.0 4.0 | | 3.0 | 72.0 4.0 | | 49.0 | 49.0 4.0 | 49.0 4.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 1.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 3.0 | 6.0 | | 6.0 | 6.0 | 6.0 |
| TOTAL FOST THING (S) | 0.0 | 0.0 | | 0.0 | 0.0 | | 3.0 | 0.0 | | 0.0 | U.U | 0.0 |

| | • | → | • | • | ← | • | 1 | † | ~ | - | ţ | 4 |
|-------------------------|------|----------|-----|------|----------|-----|------|----------|-----|-------|-------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | | | | | | | Lead | | | Lag | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | | | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | None | | None | None | | None | C-Max | | C-Max | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | | 21.0 | | 21.0 | 21.0 | 21.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 95.0 | 92.0 | | 79.4 | 79.4 | 79.4 |
| Actuated g/C Ratio | 0.10 | 0.10 | | 0.10 | 0.10 | | 0.82 | 0.79 | | 0.68 | 0.68 | 0.68 |
| v/c Ratio | 0.17 | 0.60 | | 0.15 | 0.05 | | 0.34 | 0.32 | | 0.03 | 0.31 | 0.03 |
| Control Delay | 49.5 | 17.3 | | 51.3 | 31.5 | | 3.9 | 3.9 | | 7.3 | 8.2 | 0.1 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.5 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 49.5 | 17.3 | | 51.3 | 31.5 | | 3.9 | 4.3 | | 7.3 | 8.2 | 0.1 |
| LOS | D | В | | D | С | | Α | Α | | Α | Α | Α |
| Approach Delay | | 21.0 | | | 43.2 | | | 4.2 | | | 7.9 | |
| Approach LOS | | С | | | D | | | А | | | Α | |
| Queue Length 50th (m) | 5.2 | 1.8 | | 2.2 | 0.4 | | 7.2 | 22.7 | | 0.7 | 29.0 | 0.0 |
| Queue Length 95th (m) | 13.1 | 23.1 | | 7.7 | 4.9 | | 15.7 | 37.5 | | 3.3 | 48.1 | 0.0 |
| Internal Link Dist (m) | | 20.9 | | | 34.2 | | | 123.7 | | | 454.0 | |
| Turn Bay Length (m) | 30.0 | | | 10.0 | | | 25.0 | | | 25.0 | | 30.0 |
| Base Capacity (vph) | 357 | 492 | | 177 | 390 | | 691 | 2618 | | 386 | 2161 | 833 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 1205 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.36 | | 0.06 | 0.02 | | 0.29 | 0.60 | | 0.03 | 0.31 | 0.03 |

Area Type: Other

Cycle Length: 116
Actuated Cycle Length: 116

Offset: 31 (27%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

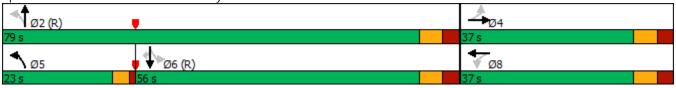
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 7.6 Intersection LOS: A
Intersection Capacity Utilization 57.8% ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: Weston Road & Toryork Drive/Retail Access



Lanes, Volumes, Timings 14: Rumike Road/Milvan Drive & Finch Avenue W

| | ၨ | - | • | • | ← | • | • | † | / | / | ţ | 4 |
|----------------------------|-------|------------|-------|-------|------------|-------|-------|----------|----------|----------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | † Ъ | | ሻ | ∱ } | | ሻ | ĥ | | ሻ | † | 7 |
| Traffic Volume (vph) | 66 | 1115 | 154 | 17 | 725 | 181 | 138 | 54 | 17 | 102 | 47 | 46 |
| Future Volume (vph) | 66 | 1115 | 154 | 17 | 725 | 181 | 138 | 54 | 17 | 102 | 47 | 46 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 30.0 | | 0.0 | 15.0 | | 0.0 | 70.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1487 | 3347 | 0 | 1785 | 3198 | 0 | 1668 | 1742 | 0 | 1487 | 1879 | 1331 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.723 | | | 0.706 | | |
| Satd. Flow (perm) | 1476 | 3347 | 0 | 1770 | 3198 | 0 | 1250 | 1742 | 0 | 1073 | 1879 | 1293 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 20 | | | 40 | | | 19 | | | | 85 |
| Link Speed (k/h) | | 50 | | | 50 | | | 40 | | | 50 | |
| Link Distance (m) | | 255.0 | | | 273.8 | | | 198.1 | | | 176.1 | |
| Travel Time (s) | | 18.4 | | | 19.7 | | | 17.8 | | | 12.7 | |
| Confl. Peds. (#/hr) | 20 | | 37 | 37 | | 20 | 21 | | 41 | 41 | | 21 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 20% | 4% | 2% | 0% | 7% | 8% | 7% | 0% | 12% | 20% | 0% | 20% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 73 | 1410 | 0 | 19 | 1007 | 0 | 153 | 79 | 0 | 113 | 52 | 51 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 4 | | | 8 | |
| Permitted Phases | | | | | | | 4 | | | 8 | | 8 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 4 | 4 | | 8 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.0 | 40.0 | | 9.0 | 35.0 | | 40.4 | 40.4 | | 40.4 | 40.4 | 40.4 |
| Total Split (s) | 10.0 | 40.6 | | 9.0 | 39.6 | | 40.4 | 40.4 | | 40.4 | 40.4 | 40.4 |
| Total Split (%) | 11.1% | 45.1% | | 10.0% | 44.0% | | 44.9% | 44.9% | | 44.9% | 44.9% | 44.9% |
| Maximum Green (s) | 6.0 | 34.6 | | 5.0 | 33.6 | | 34.0 | 34.0 | | 34.0 | 34.0 | 34.0 |
| Yellow Time (s) | 3.0 | 3.3 | | 3.0 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 1.0 | 2.7 | | 1.0 | 2.7 | | 3.1 | 3.1 | | 3.1 | 3.1 | 3.1 |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 3.0 | 5.0 | | 3.0 | 5.0 | | 5.4 | 5.4 | | 5.4 | 5.4 | 5.4 |

14: Rumike Road/Milvan Drive & Finch Avenue W

| | • | - | • | • | • | • | | † | | - | ↓ | 4 |
|-------------------------|------|--------|-----|------|-------|-----|------|----------|-----|------|----------|------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | C-Max | | None | Max | | None | None | | None | None | None |
| Walk Time (s) | | 12.0 | | | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 |
| Flash Dont Walk (s) | | 17.0 | | | 17.0 | | 22.0 | 22.0 | | 22.0 | 22.0 | 22.0 |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | 11.0 | 57.3 | | 7.6 | 49.9 | | 17.7 | 17.7 | | 17.7 | 17.7 | 17.7 |
| Actuated g/C Ratio | 0.12 | 0.64 | | 0.08 | 0.55 | | 0.20 | 0.20 | | 0.20 | 0.20 | 0.20 |
| v/c Ratio | 0.40 | 0.66 | | 0.13 | 0.56 | | 0.62 | 0.22 | | 0.54 | 0.14 | 0.16 |
| Control Delay | 42.2 | 14.8 | | 39.5 | 16.3 | | 43.6 | 23.5 | | 40.8 | 28.4 | 3.3 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 42.2 | 14.8 | | 39.5 | 16.3 | | 43.6 | 23.5 | | 40.8 | 28.4 | 3.3 |
| LOS | D | В | | D | В | | D | C | | D | С | Α |
| Approach Delay | | 16.1 | | | 16.8 | | | 36.7 | | | 29.0 | |
| Approach LOS | 40.4 | В | | 0.0 | В | | 05.0 | D | | 40.7 | C | 0.0 |
| Queue Length 50th (m) | 12.4 | 61.4 | | 3.3 | 59.1 | | 25.8 | 9.2 | | 18.7 | 7.9 | 0.0 |
| Queue Length 95th (m) | 24.9 | #154.5 | | 10.0 | 101.8 | | 42.0 | 19.3 | | 32.8 | 16.0 | 3.8 |
| Internal Link Dist (m) | 20.0 | 231.0 | | 20.0 | 249.8 | | 15.0 | 174.1 | | 70.0 | 152.1 | |
| Turn Bay Length (m) | 30.0 | 0100 | | 30.0 | 1700 | | 15.0 | (00 | | 70.0 | 700 | FF.4 |
| Base Capacity (vph) | 181 | 2138 | | 149 | 1792 | | 486 | 689 | | 417 | 730 | 554 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 10 | 0 | | 0 | 0 | | 0 | 0 | | 0 27 | 0 07 | 0 |
| Reduced v/c Ratio | 0.40 | 0.66 | | 0.13 | 0.56 | | 0.31 | 0.11 | | 0.27 | 0.07 | 0.09 |

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 90

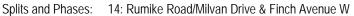
Control Type: Actuated-Coordinated

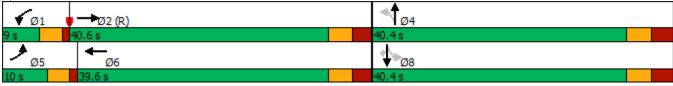
Maximum v/c Ratio: 0.66

Intersection Signal Delay: 18.9 Intersection LOS: B
Intersection Capacity Utilization 77.0% ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.





| | ۶ | → | • | • | ← | • | • | † | ~ | > | ţ | 4 |
|----------------------------|-------|-------------|-------|-------|------------|-------|-------|----------|-------|-------------|-------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | ∱ 1≽ | | ሻ | ∱ } | | ሻ | f) | | | 4 | |
| Traffic Volume (vph) | 8 | 1144 | 88 | 89 | 987 | 1 | 71 | 3 | 82 | 5 | 1 | 6 |
| Future Volume (vph) | 8 | 1144 | 88 | 89 | 987 | 1 | 71 | 3 | 82 | 5 | 1 | 6 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 15.0 | | 0.0 | 30.0 | | 0.0 | 15.0 | | 0.0 | 0.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 0 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1785 | 3292 | 0 | 1608 | 3306 | 0 | 1580 | 1447 | 0 | 0 | 1554 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.423 | | | | | |
| Satd. Flow (perm) | 1769 | 3292 | 0 | 1602 | 3306 | 0 | 703 | 1447 | 0 | 0 | 1585 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 9 | | | | | | 84 | | | 6 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 40 | | | 20 | |
| Link Distance (m) | | 273.8 | | | 303.3 | | | 203.2 | | | 58.7 | |
| Travel Time (s) | | 19.7 | | | 21.8 | | | 18.3 | | | 10.6 | |
| Confl. Peds. (#/hr) | 14 | | 8 | 8 | | 14 | 8 | | 1 | 1 | | 8 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 7% | 6% | 11% | 8% | 0% | 13% | 0% | 10% | 20% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 8 | 1257 | 0 | 91 | 1008 | 0 | 72 | 87 | 0 | 0 | 12 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 7 | | | 8 | |
| Permitted Phases | | | | | | | 7 | | | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 7 | 7 | | 8 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | | 7.0 | 7.0 | |
| Minimum Split (s) | 9.0 | 25.0 | | 9.0 | 25.0 | | 36.0 | 36.0 | | 14.0 | 14.0 | |
| Total Split (s) | 9.0 | 41.0 | | 9.0 | 41.0 | | 36.0 | 36.0 | | 14.0 | 14.0 | |
| Total Split (%) | 9.0% | 41.0% | | 9.0% | 41.0% | | 36.0% | 36.0% | | 14.0% | 14.0% | |
| Maximum Green (s) | 5.0 | 35.0 | | 5.0 | 35.0 | | 29.0 | 29.0 | | 8.0 | 8.0 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | | 4.0 | 4.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.0 | 2.0 | | 1.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | | -1.0 | |
| Total Lost Time (s) | 3.0 | 5.0 | | 3.0 | 5.0 | | 6.0 | 6.0 | | | 5.0 | |

18: Jayzel Drive/Retail Access & Finch Avenue W

| | • | - | • | • | ← | • | 1 | † | | - | ţ | 4 |
|-------------------------|------|--------|-----|-------|-------|-----|----------|----------|-----|------|------|-----|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lead | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | C-Max | | None | Max | | None | None | | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | | 7.0 | 7.0 | | 0.0 | 0.0 | |
| Flash Dont Walk (s) | | 12.0 | | | 12.0 | | 22.0 | 22.0 | | 0.0 | 0.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 7.1 | 56.7 | | 12.5 | 71.0 | | 17.4 | 17.4 | | | 8.2 | |
| Actuated g/C Ratio | 0.07 | 0.57 | | 0.12 | 0.71 | | 0.17 | 0.17 | | | 0.08 | |
| v/c Ratio | 0.06 | 0.67 | | 0.45 | 0.43 | | 0.59 | 0.27 | | | 0.09 | |
| Control Delay | 44.1 | 21.4 | | 48.6 | 11.7 | | 56.0 | 9.7 | | | 33.1 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Total Delay | 44.1 | 21.4 | | 48.6 | 11.7 | | 56.0 | 9.7 | | | 33.1 | |
| LOS | D | С | | D | В | | Е | Α | | | С | |
| Approach Delay | | 21.6 | | | 14.7 | | | 30.7 | | | 33.1 | |
| Approach LOS | | С | | | В | | | С | | | С | |
| Queue Length 50th (m) | 1.6 | 90.7 | | 17.2 | 36.8 | | 13.8 | 0.5 | | | 1.2 | |
| Queue Length 95th (m) | 6.2 | #191.6 | | #35.0 | 121.3 | | 26.5 | 12.3 | | | 6.8 | |
| Internal Link Dist (m) | | 249.8 | | | 279.3 | | | 179.2 | | | 34.7 | |
| Turn Bay Length (m) | 15.0 | | | 30.0 | | | 15.0 | | | | | |
| Base Capacity (vph) | 126 | 1871 | | 201 | 2348 | | 210 | 492 | | | 148 | |
| 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 | 0.67 | | 0.45 | 0.43 | | 0.34 | 0.18 | | | 0.08 | |

Intersection Summary

Area Type: Other

Cycle Length: 100
Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 95

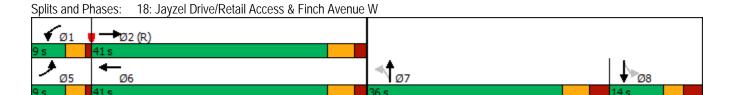
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 19.2 Intersection LOS: B
Intersection Capacity Utilization 60.8% ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.



| | ၨ | → | ← | • | - | 1 |
|----------------------------|-------|------------|----------|-------|-------|-------|
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | LDL | † † | <u>₩</u> | VVDIC | JDL | 7 700 |
| Traffic Volume (vph) | 42 | 1096 | 1036 | 37 | 24 | 26 |
| Future Volume (vph) | 42 | 1096 | 1036 | 37 | 24 | 26 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | 5.5 | 0% | 0% | 3.3 | 0% | 3.3 |
| Storage Length (m) | 30.0 | 070 | 070 | 0.0 | 30.0 | 0.0 |
| Storage Lanes | 30.0 | | | 0.0 | 30.0 | 1 |
| Taper Length (m) | 7.5 | | | U | 7.5 | |
| Satd. Flow (prot) | 1750 | 3500 | 3454 | 0 | 1750 | 1566 |
| Flt Permitted | 0.950 | 3300 | 3434 | U | 0.950 | 1300 |
| Satd. Flow (perm) | 1672 | 3500 | 3454 | 0 | 1513 | 1339 |
| Right Turn on Red | 1072 | 3300 | 3434 | Yes | 1313 | Yes |
| Satd. Flow (RTOR) | | | 3 | 162 | | 28 |
| , | | EO | | | 40 | 28 |
| Link Speed (k/h) | | 50 | 50 | | 40 | |
| Link Distance (m) | | 303.3 | 262.8 | | 92.7 | |
| Travel Time (s) | 100 | 21.8 | 18.9 | 100 | 8.3 | 100 |
| Confl. Peds. (#/hr) | 100 | | | 100 | 100 | 100 |
| Confl. Bikes (#/hr) | 0.02 | 0.00 | 0.00 | 0.02 | 0.02 | 0.02 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | 007 | 001 | | 004 | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | 440. | 4 | | | |
| Lane Group Flow (vph) | 46 | 1191 | 1166 | 0 | 26 | 28 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(m) | | 3.5 | 3.5 | | 3.5 | |
| Link Offset(m) | | 0.0 | 0.0 | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | 4.8 | | 4.8 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | | 15 | 25 | 15 |
| Turn Type | Prot | NA | NA | | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | | 4 | |
| Permitted Phases | | | | | | 4 |
| Detector Phase | 5 | 2 | 6 | | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | | 10.0 | 10.0 |
| Minimum Split (s) | 9.5 | 38.0 | 38.0 | | 38.0 | 38.0 |
| Total Split (s) | 27.5 | 84.0 | 56.5 | | 56.0 | 56.0 |
| Total Split (%) | 19.6% | 60.0% | 40.4% | | 40.0% | 40.0% |
| Maximum Green (s) | 23.5 | 77.0 | 49.5 | | 49.0 | 49.0 |
| Yellow Time (s) | 3.0 | 4.0 | 4.0 | | 4.0 | 4.0 |
| All-Red Time (s) | 1.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Lost Time Adjust (s) | -1.0 | -1.0 | -1.0 | | -1.0 | -1.0 |
| Total Lost Time (s) | 3.0 | 6.0 | 6.0 | | 6.0 | 6.0 |
| Total Lost Time (3) | 3.0 | 0.0 | 0.0 | | 0.0 | 0.0 |

| | ٠ | → | ← | • | / | 4 | |
|------------------------------|---------------|-----------|------------|-----|------------|--------------|-------------|
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR | |
| Lead/Lag | Lead | | Lag | | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | C-Max | Max | | Max | Max | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Pedestrian Calls (#/hr) | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 10.1 | 78.0 | 66.9 | | 50.0 | 50.0 | |
| Actuated g/C Ratio | 0.07 | 0.56 | 0.48 | | 0.36 | 0.36 | |
| v/c Ratio | 0.37 | 0.61 | 0.71 | | 0.04 | 0.06 | |
| Control Delay | 69.3 | 22.5 | 18.8 | | 29.8 | 9.9 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 69.3 | 22.5 | 18.8 | | 29.8 | 9.9 | |
| LOS | Е | С | В | | С | А | |
| Approach Delay | | 24.2 | 18.8 | | 19.5 | | |
| Approach LOS | | С | В | | В | | |
| Queue Length 50th (m) | 13.0 | 118.2 | 154.3 | | 4.9 | 0.0 | |
| Queue Length 95th (m) | 26.3 | 140.6 | 192.5 | | 12.0 | 7.1 | |
| Internal Link Dist (m) | | 279.3 | 238.8 | | 68.7 | | |
| Turn Bay Length (m) | 30.0 | | | | 30.0 | | |
| Base Capacity (vph) | 306 | 1950 | 1650 | | 625 | 496 | |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.15 | 0.61 | 0.71 | | 0.04 | 0.06 | |
| Intersection Summary | | | | | | | |
| Area Type: | Other | | | | | | |
| Cycle Length: 140 | ^ | | | | | | |
| Actuated Cycle Length: 14 | | EDT O | | | | | |
| Offset: 0 (0%), Referenced | to phase 2 | :EBT, Sta | rt of Gree | n | | | |
| Natural Cycle: 90 | and the stand | | | | | | |
| Control Type: Actuated-Co | ordinated | | | | | | |
| Maximum v/c Ratio: 0.71 | 21 / | | | lad | | 100.0 | |
| Intersection Signal Delay: | | | | | tersection | | ` |
| Intersection Capacity Utiliz | tation 70.7% |) | | IC | U Level o | of Service C | , |
| Analysis Period (min) 15 | | | | | | | |
| Splits and Phases: 21: F | inch Avenu | e W & Str | eet 2A | | | | |
| →ø2 (R) | | | | | | 4 | V Ø4 |
| 84s | | | | | | 56 s | |
| ∮ | - | | | | | | |
| Ø5 | Ø6 | | | | | - 1 | |

| | - | • | • | • | • | / | |
|-------------------------------|------------|------|-------|------|-----------|-----------|--|
| Movement | EBT | EBR | WBL | WBT | NBL | NBR | |
| Lane Configurations | 1 > | | | 4 | W | | |
| Traffic Volume (veh/h) | 156 | 40 | 10 | 214 | 67 | 8 | |
| Future Volume (Veh/h) | 156 | 40 | 10 | 214 | 67 | 8 | |
| 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) | 170 | 43 | 11 | 233 | 73 | 9 | |
| Pedestrians | | | | | | | |
| Lane Width (m) | | | | | | | |
| Walking Speed (m/s) | | | | | | | |
| Percent Blockage | | | | | | | |
| Right turn flare (veh) | | | | | | | |
| Median type | None | | | None | | | |
| Median storage veh) | | | | | | | |
| Upstream signal (m) | | | | 169 | | | |
| pX, platoon unblocked | | | | | | | |
| vC, conflicting volume | | | 213 | | 446 | 192 | |
| vC1, stage 1 conf vol | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | |
| vCu, unblocked vol | | | 213 | | 446 | 192 | |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 | |
| tC, 2 stage (s) | | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 | |
| p0 queue free % | | | 99 | | 87 | 99 | |
| cM capacity (veh/h) | | | 1369 | | 569 | 855 | |
| Direction, Lane # | EB 1 | WB 1 | NB 1 | | | | |
| Volume Total | 213 | 244 | 82 | | | | |
| Volume Left | 0 | 11 | 73 | | | | |
| Volume Right | 43 | 0 | 9 | | | | |
| cSH | 1700 | 1369 | 590 | | | | |
| Volume to Capacity | 0.13 | 0.01 | 0.14 | | | | |
| Queue Length 95th (m) | 0.0 | 0.2 | 3.8 | | | | |
| Control Delay (s) | 0.0 | 0.4 | 12.1 | | | | |
| Lane LOS | | А | В | | | | |
| Approach Delay (s) | 0.0 | 0.4 | 12.1 | | | | |
| Approach LOS | | | В | | | | |
| Intersection Summary | | | | | | | |
| Average Delay | | | 2.0 | | | | |
| Intersection Capacity Utiliza | ition | | 30.3% | IC | U Level o | f Service | |
| Analysis Period (min) | | | 15 | | | | |

| | ၨ | → | \rightarrow | • | ← | • | 4 | † | <i>></i> | > | ļ | 4 |
|----------------------------|------------|------------|---------------|------------|----------|------------|-------|----------|-------------|-------------|------------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ኻ | ∱ } | | ች | ^ | 7 | ሻ | ^ | 7 | * | † } | |
| Traffic Volume (vph) | 215 | 852 | 87 | 413 | 888 | 70 | 192 | 409 | 117 | 226 | 832 | 213 |
| Future Volume (vph) | 215 | 852 | 87 | 413 | 888 | 70 | 192 | 409 | 117 | 226 | 832 | 213 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 75.0 | | 0.0 | 100.0 | | 0.0 | 30.0 | | 100.0 | 50.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 1 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1767 | 3385 | 0 | 1785 | 3500 | 1377 | 1750 | 3275 | 1581 | 1700 | 3082 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.100 | | | 0.366 | | |
| Satd. Flow (perm) | 1644 | 3385 | 0 | 1778 | 3500 | 1011 | 184 | 3275 | 1329 | 611 | 3082 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 7 | | | | 125 | | | 156 | | 24 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 276.7 | | | 579.4 | | | 431.5 | | | 147.7 | |
| Travel Time (s) | | 19.9 | | | 41.7 | | | 31.1 | | | 10.6 | |
| Confl. Peds. (#/hr) | 191 | | 12 | 12 | | 191 | 257 | | 111 | 111 | | 257 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 4% | 1% | 0% | 2% | 16% | 2% | 9% | 1% | 5% | 4% | 9% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 229 | 999 | 0 | 439 | 945 | 74 | 204 | 435 | 124 | 240 | 1112 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | 1 01 | 1 01 | 1 01 | 1 01 | 1 01 | 1 01 | 1 01 | 1 01 | 1 01 | 1 01 | 1 01 | 1.01 |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 Drot | NΙΛ | 15 | 25 Drot | NIA | 15 Dorm | 25 | NΙΛ | 15 Dorm | 25 | NΙΛ | 15 |
| Turn Type Protected Phases | Prot | NA | | Prot | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | |
| Permitted Phases | 5 | 2 | | 1 | 6 | 6 | 7 | 4 | 4 | 3 | 8 | |
| Detector Phase | 5 | 2 | | 1 | 4 | | 7 | 4 | 4 | 3 | 8 | |
| Switch Phase | <u></u> | | | I | 6 | 6 | / | 4 | 4 | 3 | 0 | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | |
| Minimum Split (s) | 9.0 | 38.0 | | 9.0 | 38.0 | 38.0 | 9.0 | 38.0 | 38.0 | 9.0 | 38.0 | |
| Total Split (s) | 28.0 | 38.0 | | 36.0 | 46.0 | 46.0 | 14.0 | 45.0 | 45.0 | 21.0 | 52.0 | |
| Total Split (%) | 20.0% | 27.1% | | 25.7% | 32.9% | 32.9% | 10.0% | 32.1% | 32.1% | 15.0% | 37.1% | |
| Maximum Green (s) | 24.0 | 31.0 | | 32.0 | 39.0 | 39.0 | 10.0% | 38.0 | 38.0 | 17.0% | 45.0 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 43.0 | |
| All-Red Time (s) | 1.0 | 3.0 | | 1.0 | 3.0 | 3.0 | 1.0 | 3.0 | 3.0 | 1.0 | 3.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 3.0 | 6.0 | | 3.0 | 6.0 | 6.0 | 3.0 | 6.0 | 6.0 | 3.0 | 6.0 | |
| 1 3 tai 2031 1 ii ii (3) | 5.0 | 0.0 | | 5.0 | 0.0 | 0.0 | 5.0 | 0.0 | 0.0 | 5.0 | 0.0 | |

| | • | → | \rightarrow | • | ← | • | 1 | † | / | > | ţ | 4 |
|-------------------------|-------|----------|---------------|--------|--------|------|----------|----------|----------|-------------|--------|-----|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Recall Mode | None | C-Max | | None | Max | Max | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 24.0 | | | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | 0 | | 0 | 0 | | 0 | |
| Act Effct Green (s) | 22.6 | 32.0 | | 33.0 | 42.4 | 42.4 | 54.2 | 40.2 | 40.2 | 62.9 | 46.0 | |
| Actuated g/C Ratio | 0.16 | 0.23 | | 0.24 | 0.30 | 0.30 | 0.39 | 0.29 | 0.29 | 0.45 | 0.33 | |
| v/c Ratio | 0.81 | 1.28 | | 1.05 | 0.89 | 0.19 | 1.05 | 0.46 | 0.25 | 0.59 | 1.08 | |
| Control Delay | 88.2 | 177.6 | | 107.3 | 58.4 | 1.5 | 114.2 | 43.3 | 3.7 | 31.4 | 96.1 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.2 | |
| Total Delay | 88.2 | 177.6 | | 107.3 | 58.4 | 1.5 | 114.2 | 43.3 | 3.7 | 31.4 | 104.4 | |
| LOS | F | F | | F | Е | Α | F | D | Α | С | F | |
| Approach Delay | | 161.0 | | | 70.2 | | | 55.8 | | | 91.4 | |
| Approach LOS | | F | | | Е | | | Е | | | F | |
| Queue Length 50th (m) | 65.9 | ~194.4 | | ~138.3 | 141.6 | 0.0 | ~48.0 | 55.7 | 0.0 | 44.1 | ~187.9 | |
| Queue Length 95th (m) | #97.0 | #238.8 | | #207.2 | #184.8 | 1.3 | #101.4 | 73.1 | 8.5 | 65.2 | #232.7 | |
| Internal Link Dist (m) | | 252.7 | | | 555.4 | | | 407.5 | | | 123.7 | |
| Turn Bay Length (m) | 75.0 | | | 100.0 | | | 30.0 | | 100.0 | 50.0 | | |
| Base Capacity (vph) | 315 | 779 | | 420 | 1061 | 393 | 194 | 940 | 492 | 414 | 1028 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 149 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.73 | 1.28 | | 1.05 | 0.89 | 0.19 | 1.05 | 0.46 | 0.25 | 0.58 | 1.27 | |

Area Type: Other

Cycle Length: 140 Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.28 Intersection Signal Delay: 97.1 Intersection Capacity Utilization 108.1%

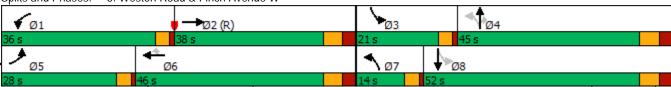
Intersection LOS: F
ICU Level of Service G

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.





Page 2

| | ۶ | - | • | • | ← | • | • | † | ~ | / | ļ | 1 |
|----------------------------|-------|-------|-------|-------|----------|-------|-------|----------|-------|----------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | ĥ | | ሻ | f) | | 7 | ^ | 7 | * | ^ | 7 |
| Traffic Volume (vph) | 14 | 197 | 150 | 81 | 253 | 24 | 104 | 454 | 36 | 50 | 849 | 29 |
| Future Volume (vph) | 14 | 197 | 150 | 81 | 253 | 24 | 104 | 454 | 36 | 50 | 849 | 29 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 30.0 | | 0.0 | 35.0 | | 40.0 | 85.0 | | 35.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1668 | 1632 | 0 | 1700 | 1666 | 0 | 1623 | 3336 | 1507 | 1684 | 3433 | 1365 |
| Flt Permitted | 0.354 | | | 0.235 | | | 0.262 | | | 0.455 | | |
| Satd. Flow (perm) | 622 | 1632 | 0 | 419 | 1666 | 0 | 446 | 3336 | 1429 | 794 | 3433 | 1316 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 35 | | | 4 | | | | 40 | | | 31 |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 158.2 | | | 160.6 | | | 478.0 | | | 179.7 | |
| Travel Time (s) | | 11.4 | | | 11.6 | | | 34.4 | | | 12.9 | |
| Confl. Peds. (#/hr) | | | 5 | 5 | | | 8 | | 16 | 16 | | 8 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 7% | 9% | 4% | 5% | 10% | 25% | 10% | 7% | 6% | 6% | 4% | 17% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 15 | 381 | 0 | 89 | 304 | 0 | 114 | 499 | 40 | 55 | 933 | 32 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 37.4 | 37.4 | | 37.4 | 37.4 | | 36.9 | 36.9 | 36.9 | 36.9 | 36.9 | 36.9 |
| Total Split (s) | 47.0 | 47.0 | | 47.0 | 47.0 | | 73.0 | 73.0 | 73.0 | 73.0 | 73.0 | 73.0 |
| Total Split (%) | 39.2% | 39.2% | | 39.2% | 39.2% | | 60.8% | 60.8% | 60.8% | 60.8% | 60.8% | 60.8% |
| Maximum Green (s) | 40.6 | 40.6 | | 40.6 | 40.6 | | 67.1 | 67.1 | 67.1 | 67.1 | 67.1 | 67.1 |
| Yellow Time (s) | 3.4 | 3.4 | | 3.4 | 3.4 | | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 5.4 | 5.4 | | 5.4 | 5.4 | | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 |

| | ۶ | → | \rightarrow | • | ← | • | 1 | † | / | - | ↓ | 4 |
|-------------------------|------|----------|---------------|-------|-------|-----|-------|----------|-------|-------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max |
| Walk Time (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| Flash Dont Walk (s) | 19.0 | 19.0 | | 19.0 | 19.0 | | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Act Effct Green (s) | 32.3 | 32.3 | | 32.3 | 32.3 | | 77.4 | 77.4 | 77.4 | 77.4 | 77.4 | 77.4 |
| Actuated g/C Ratio | 0.27 | 0.27 | | 0.27 | 0.27 | | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 |
| v/c Ratio | 0.09 | 0.82 | | 0.79 | 0.67 | | 0.40 | 0.23 | 0.04 | 0.11 | 0.42 | 0.04 |
| Control Delay | 30.6 | 51.4 | | 82.8 | 45.5 | | 17.5 | 10.1 | 3.4 | 10.8 | 12.0 | 3.9 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 30.6 | 51.4 | | 82.8 | 45.5 | | 17.5 | 10.1 | 3.4 | 10.8 | 12.0 | 3.9 |
| LOS | С | D | | F | D | | В | В | Α | В | В | Α |
| Approach Delay | | 50.6 | | | 53.9 | | | 11.0 | | | 11.7 | |
| Approach LOS | | D | | | D | | | В | | | В | |
| Queue Length 50th (m) | 2.8 | 81.0 | | 20.4 | 66.3 | | 12.6 | 25.3 | 0.0 | 4.9 | 55.3 | 0.1 |
| Queue Length 95th (m) | 7.8 | 107.6 | | #43.5 | 88.0 | | 33.5 | 41.6 | 5.0 | 13.0 | 85.5 | 4.7 |
| Internal Link Dist (m) | | 134.2 | | | 136.6 | | | 454.0 | | | 155.7 | |
| Turn Bay Length (m) | 30.0 | | | 30.0 | | | 35.0 | | 40.0 | 85.0 | | 35.0 |
| Base Capacity (vph) | 215 | 588 | | 145 | 580 | | 287 | 2152 | 936 | 512 | 2214 | 859 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.65 | | 0.61 | 0.52 | | 0.40 | 0.23 | 0.04 | 0.11 | 0.42 | 0.04 |

Area Type: Other

Cycle Length: 120 Actuated Cycle Length: 120

Offset: 102 (85%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 24.5 Intersection LOS: C
Intersection Capacity Utilization 79.5% ICU Level of Service D

Analysis Period (min) 15





^{# 95}th percentile volume exceeds capacity, queue may be longer.

| | ᄼ | - | \rightarrow | • | ← | • | 4 | † | / | > | ļ | 4 |
|----------------------------|-------|-------|---------------|-------|----------|-------|-------|------------|-------|-------------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | f) | | ሻ | f) | | ሻ | ∱ } | | ሻ | ^ | 7 |
| Traffic Volume (vph) | 28 | 15 | 231 | 60 | 25 | 33 | 150 | 512 | 47 | 33 | 996 | 60 |
| Future Volume (vph) | 28 | 15 | 231 | 60 | 25 | 33 | 150 | 512 | 47 | 33 | 996 | 60 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 10.0 | | 0.0 | 25.0 | | 0.0 | 25.0 | | 30.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1566 | 1533 | 0 | 1733 | 1667 | 0 | 1638 | 3288 | 0 | 1785 | 3400 | 1413 |
| Flt Permitted | 0.716 | | | 0.255 | | | 0.194 | | | 0.419 | | |
| Satd. Flow (perm) | 1169 | 1533 | 0 | 462 | 1667 | 0 | 332 | 3288 | 0 | 766 | 3400 | 1293 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 254 | | | 36 | | | 14 | | | | 113 |
| Link Speed (k/h) | | 50 | | | 20 | | | 50 | | | 50 | |
| Link Distance (m) | | 44.9 | | | 58.2 | | | 147.7 | | | 478.0 | |
| Travel Time (s) | | 3.2 | | | 10.5 | | | 10.6 | | | 34.4 | |
| Confl. Peds. (#/hr) | 8 | | 10 | 10 | | 8 | 32 | | 31 | 31 | | 32 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 14% | 0% | 3% | 3% | 0% | 3% | 9% | 7% | 0% | 0% | 5% | 13% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 31 | 270 | 0 | 66 | 63 | 0 | 165 | 615 | 0 | 36 | 1095 | 66 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Perm | NA | | pm+pt | NA | | pm+pt | NA | | Perm | NA | Perm |
| Protected Phases | | 4 | | 3 | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | 6 |
| Detector Phase | 4 | 4 | | 3 | 8 | | 5 | 2 | | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 34.0 | 34.0 | | 9.0 | 34.0 | | 9.0 | 35.0 | | 35.0 | 35.0 | 35.0 |
| Total Split (s) | 34.0 | 34.0 | | 9.0 | 43.0 | | 16.0 | 73.0 | | 57.0 | 57.0 | 57.0 |
| Total Split (%) | 29.3% | 29.3% | | 7.8% | 37.1% | | 13.8% | 62.9% | | 49.1% | 49.1% | 49.1% |
| Maximum Green (s) | 27.0 | 27.0 | | 5.0 | 36.0 | | 12.0 | 66.0 | | 50.0 | 50.0 | 50.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 1.0 | 3.0 | | 1.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 6.0 | 6.0 | | 3.0 | 6.0 | | 3.0 | 6.0 | | 6.0 | 6.0 | 6.0 |

| | ۶ | → | • | • | ← | • | • | † | / | > | ţ | 4 |
|-------------------------|------|----------|-----|------|----------|-----|------|----------|-----|-------------|-------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lag | Lag | | Lead | | | Lead | | | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | | | Yes | | | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | None | | None | None | | None | C-Max | | C-Max | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 | | | 7.0 | | | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 20.0 | 20.0 | | | 20.0 | | | 21.0 | | 21.0 | 21.0 | 21.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | | 0 | | | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | 12.7 | 12.7 | | 22.9 | 19.9 | | 87.1 | 84.1 | | 70.7 | 70.7 | 70.7 |
| Actuated g/C Ratio | 0.11 | 0.11 | | 0.20 | 0.17 | | 0.75 | 0.72 | | 0.61 | 0.61 | 0.61 |
| v/c Ratio | 0.24 | 0.69 | | 0.42 | 0.20 | | 0.45 | 0.26 | | 0.08 | 0.53 | 0.08 |
| Control Delay | 51.0 | 16.8 | | 45.1 | 21.3 | | 8.7 | 6.1 | | 12.5 | 15.5 | 0.7 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.0 | 16.8 | | 45.1 | 21.3 | | 8.7 | 6.1 | | 12.5 | 15.5 | 0.7 |
| LOS | D | В | | D | С | | Α | А | | В | В | А |
| Approach Delay | | 20.3 | | | 33.5 | | | 6.6 | | | 14.6 | |
| Approach LOS | | С | | | С | | | А | | | В | |
| Queue Length 50th (m) | 7.0 | 3.6 | | 13.3 | 5.5 | | 9.4 | 22.3 | | 3.3 | 73.2 | 0.0 |
| Queue Length 95th (m) | 16.1 | 29.4 | | 24.1 | 16.7 | | 20.3 | 37.5 | | 10.5 | 120.3 | 1.5 |
| Internal Link Dist (m) | | 20.9 | | | 34.2 | | | 123.7 | | | 454.0 | |
| Turn Bay Length (m) | 30.0 | | | 10.0 | | | 25.0 | | | 25.0 | | 30.0 |
| Base Capacity (vph) | 282 | 562 | | 156 | 556 | | 400 | 2387 | | 467 | 2073 | 832 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.11 | 0.48 | | 0.42 | 0.11 | | 0.41 | 0.26 | | 0.08 | 0.53 | 0.08 |

Area Type: Other

Cycle Length: 116
Actuated Cycle Length: 116

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

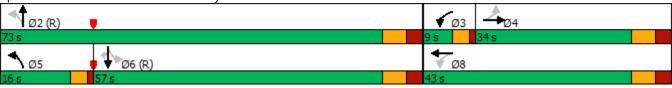
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 13.8 Intersection LOS: B
Intersection Capacity Utilization 74.5% ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 6: Weston Road & Toryork Drive/Retail Access



Lanes, Volumes, Timings 14: Rumike Road/Milvan Drive & Finch Avenue W

| | ۶ | → | • | • | + | 4 | • | † | ~ | / | + | 4 |
|----------------------------|-------|------------|-------|-------|-------------|-------|-------|-------|-------|----------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | ∱ } | | ሻ | ∱ 1≽ | | * | f. | | * | * | 7 |
| Traffic Volume (vph) | 89 | 991 | 138 | 21 | 1116 | 156 | 163 | 80 | 23 | 229 | 138 | 161 |
| Future Volume (vph) | 89 | 991 | 138 | 21 | 1116 | 156 | 163 | 80 | 23 | 229 | 138 | 161 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 30.0 | | 0.0 | 15.0 | | 0.0 | 70.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1566 | 3351 | 0 | 1785 | 3326 | 0 | 1733 | 1797 | 0 | 1700 | 1879 | 1493 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.657 | | | 0.687 | | |
| Satd. Flow (perm) | 1543 | 3351 | 0 | 1748 | 3326 | 0 | 1144 | 1797 | 0 | 1188 | 1879 | 1393 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 20 | | | 20 | | | 19 | | | | 146 |
| Link Speed (k/h) | | 50 | | | 50 | | | 40 | | | 50 | |
| Link Distance (m) | | 255.0 | | | 273.8 | | | 198.1 | | | 176.1 | |
| Travel Time (s) | | 18.4 | | | 19.7 | | | 17.8 | | | 12.7 | |
| Confl. Peds. (#/hr) | 61 | | 70 | 70 | | 91 | 70 | | 49 | 49 | | 70 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 14% | 3% | 3% | 0% | 3% | 6% | 3% | 0% | 0% | 5% | 0% | 7% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 94 | 1188 | 0 | 22 | 1339 | 0 | 172 | 108 | 0 | 241 | 145 | 169 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 4 | | | 8 | |
| Permitted Phases | | | | | | | 4 | | | 8 | | 8 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 4 | 4 | | 8 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.0 | 40.0 | | 9.0 | 35.0 | | 40.4 | 40.4 | | 40.4 | 40.4 | 40.4 |
| Total Split (s) | 9.0 | 40.6 | | 9.0 | 40.6 | | 40.4 | 40.4 | | 40.4 | 40.4 | 40.4 |
| Total Split (%) | 10.0% | 45.1% | | 10.0% | 45.1% | | 44.9% | 44.9% | | 44.9% | 44.9% | 44.9% |
| Maximum Green (s) | 5.0 | 34.6 | | 5.0 | 34.6 | | 34.0 | 34.0 | | 34.0 | 34.0 | 34.0 |
| Yellow Time (s) | 3.0 | 3.3 | | 3.0 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 1.0 | 2.7 | | 1.0 | 2.7 | | 3.1 | 3.1 | | 3.1 | 3.1 | 3.1 |
| Lost Time Adjust (s) | | | | | | | | | | | | |
| Lost Timo Tajast (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 |

14: Rumike Road/Milvan Drive & Finch Avenue W

| | ۶ | - | \rightarrow | • | ← | • | 1 | † | / | - | ↓ | 4 |
|-------------------------|-------|--------|---------------|------|--------|-----|------|----------|-----|------|----------|------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | C-Max | | None | Max | | None | None | | None | None | None |
| Walk Time (s) | | 12.0 | | | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 |
| Flash Dont Walk (s) | | 17.0 | | | 17.0 | | 22.0 | 22.0 | | 22.0 | 22.0 | 22.0 |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | 10.7 | 50.5 | | 7.2 | 41.0 | | 24.9 | 24.9 | | 24.9 | 24.9 | 24.9 |
| Actuated g/C Ratio | 0.12 | 0.56 | | 0.08 | 0.46 | | 0.28 | 0.28 | | 0.28 | 0.28 | 0.28 |
| v/c Ratio | 0.51 | 0.63 | | 0.16 | 0.88 | | 0.55 | 0.21 | | 0.73 | 0.28 | 0.34 |
| Control Delay | 49.6 | 18.2 | | 41.2 | 32.0 | | 32.9 | 19.2 | | 42.0 | 25.0 | 7.2 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 49.6 | 18.2 | | 41.2 | 32.0 | | 32.9 | 19.2 | | 42.0 | 25.0 | 7.2 |
| LOS | D | В | | D | С | | С | В | | D | С | Α |
| Approach Delay | | 20.5 | | | 32.1 | | | 27.6 | | | 27.0 | |
| Approach LOS | | С | | | С | | | С | | | С | |
| Queue Length 50th (m) | 15.7 | 61.6 | | 3.8 | 117.5 | | 26.7 | 12.3 | | 39.8 | 20.7 | 3.1 |
| Queue Length 95th (m) | #44.7 | #144.5 | | 11.4 | #177.7 | | 40.5 | 21.5 | | 57.9 | 30.9 | 15.6 |
| Internal Link Dist (m) | | 231.0 | | | 249.8 | | | 174.1 | | | 152.1 | |
| Turn Bay Length (m) | 30.0 | | | 30.0 | | | 15.0 | | | 70.0 | | |
| Base Capacity (vph) | 186 | 1889 | | 141 | 1526 | | 444 | 710 | | 462 | 730 | 630 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.51 | 0.63 | | 0.16 | 0.88 | | 0.39 | 0.15 | | 0.52 | 0.20 | 0.27 |

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 90

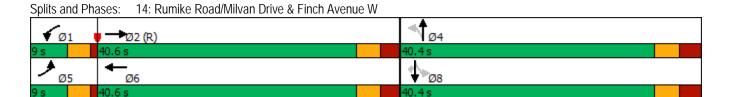
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 26.7 Intersection LOS: C
Intersection Capacity Utilization 95.1% ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.



| | ۶ | → | \rightarrow | • | • | • | • | † | / | > | ļ | 4 |
|----------------------------|-------|------------|---------------|-------|------------|-------|-------|-----------|-------|-------------|-------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | † Ъ | | ኻ | † } | | ሻ | ^} | | | 4 | |
| Traffic Volume (vph) | 26 | 1145 | 69 | 94 | 1184 | 4 | 128 | 10 | 70 | 15 | 10 | 33 |
| Future Volume (vph) | 26 | 1145 | 69 | 94 | 1184 | 4 | 128 | 10 | 70 | 15 | 10 | 33 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 15.0 | | 0.0 | 30.0 | | 0.0 | 15.0 | | 0.0 | 0.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 0 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1653 | 3421 | 0 | 1733 | 3431 | 0 | 1767 | 1589 | 0 | 0 | 1484 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.261 | | | | 0.885 | |
| Satd. Flow (perm) | 1608 | 3421 | 0 | 1709 | 3431 | 0 | 486 | 1589 | 0 | 0 | 1328 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 7 | | | | | | 74 | | | 35 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 40 | | | 20 | |
| Link Distance (m) | | 273.8 | | | 289.5 | | | 203.2 | | | 58.7 | |
| Travel Time (s) | | 19.7 | | | 20.8 | | | 18.3 | | | 10.6 | |
| Confl. Peds. (#/hr) | 59 | | 31 | 31 | | 59 | 69 | | 9 | 9 | | 69 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 8% | 3% | 0% | 3% | 4% | 0% | 1% | 0% | 1% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 27 | 1278 | 0 | 99 | 1250 | 0 | 135 | 85 | 0 | 0 | 62 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 7 | | | 8 | |
| Permitted Phases | | | | | | | 7 | | | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 7 | 7 | | 8 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | | 7.0 | 7.0 | |
| Minimum Split (s) | 9.0 | 25.0 | | 9.0 | 25.0 | | 36.0 | 36.0 | | 14.0 | 14.0 | |
| Total Split (s) | 9.0 | 41.0 | | 9.0 | 41.0 | | 36.0 | 36.0 | | 14.0 | 14.0 | |
| Total Split (%) | 9.0% | 41.0% | | 9.0% | 41.0% | | 36.0% | 36.0% | | 14.0% | 14.0% | |
| Maximum Green (s) | 5.0 | 35.0 | | 5.0 | 35.0 | | 29.0 | 29.0 | | 8.0 | 8.0 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | | 4.0 | 4.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.0 | 2.0 | | 1.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | | -1.0 | |
| Total Lost Time (s) | 3.0 | 5.0 | | 3.0 | 5.0 | | 6.0 | 6.0 | | | 5.0 | |

18: Jayzel Drive/Retail Access & Finch Avenue W

| | • | - | • | • | ← | • | 1 | † | / | - | ţ | 4 |
|-------------------------|------|--------|-----|-------|--------|-----|----------|----------|-----|------|------|-----|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lead | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | C-Max | | None | Max | | None | None | | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | | 7.0 | 7.0 | | 0.0 | 0.0 | |
| Flash Dont Walk (s) | | 12.0 | | | 12.0 | | 22.0 | 22.0 | | 0.0 | 0.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 6.4 | 38.6 | | 7.3 | 43.4 | | 29.2 | 29.2 | | | 8.5 | |
| Actuated g/C Ratio | 0.06 | 0.39 | | 0.07 | 0.43 | | 0.29 | 0.29 | | | 0.08 | |
| v/c Ratio | 0.26 | 0.96 | | 0.78 | 0.84 | | 0.96 | 0.17 | | | 0.43 | |
| Control Delay | 51.1 | 49.4 | | 85.9 | 34.3 | | 102.9 | 8.7 | | | 32.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Total Delay | 51.1 | 49.4 | | 85.9 | 34.3 | | 102.9 | 8.7 | | | 32.9 | |
| LOS | D | D | | F | С | | F | А | | | С | |
| Approach Delay | | 49.4 | | | 38.1 | | | 66.5 | | | 32.9 | |
| Approach LOS | | D | | | D | | | Е | | | С | |
| Queue Length 50th (m) | 5.3 | ~147.9 | | 20.4 | ~136.0 | | 26.6 | 1.6 | | | 5.2 | |
| Queue Length 95th (m) | 14.3 | #191.5 | | #53.4 | #184.5 | | #64.9 | 12.6 | | | 18.5 | |
| Internal Link Dist (m) | | 249.8 | | | 265.5 | | | 179.2 | | | 34.7 | |
| Turn Bay Length (m) | 15.0 | | | 30.0 | | | 15.0 | | | | | |
| Base Capacity (vph) | 105 | 1325 | | 127 | 1490 | | 145 | 528 | | | 151 | |
| 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 | 0.26 | 0.96 | | 0.78 | 0.84 | | 0.93 | 0.16 | | | 0.41 | |

Intersection Summary

Area Type: Other

Cycle Length: 100
Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 45.2
Intersection Capacity Utilization 68.2%

Intersection LOS: D
ICU Level of Service C

Analysis Period (min) 15

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





| | • | → | ← | • | - | 1 |
|--------------------------------------|------------|-------------|-------------------|-------------|------------|-------------|
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | LDL | † † | ↑ | VVDIC | JDL | JUK 7 |
| Traffic Volume (vph) | 59 | 1083 | 1238 | 14 | 36 | 39 |
| Future Volume (vph) | 59 | 1083 | 1238 | 14 | 36 | 39 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | ٥.٥ | 0% | 0% | 3.3 | 0% | J.J |
| Storage Length (m) | 30.0 | 070 | 070 | 0.0 | 30.0 | 0.0 |
| Storage Lanes | 1 | | | 0.0 | 30.0 | 1 |
| Taper Length (m) | 7.5 | | | - 0 | 7.5 | - |
| Satd. Flow (prot) | 1750 | 3500 | 3477 | 0 | 1750 | 1566 |
| Flt Permitted | 0.950 | 3300 | J-1/1 | - 0 | 0.950 | 1300 |
| Satd. Flow (perm) | 1647 | 3500 | 3477 | 0 | 1342 | 1189 |
| Right Turn on Red | 1047 | 3300 | J 1 11 | Yes | 1342 | Yes |
| Satd. Flow (RTOR) | | | 1 | 163 | | 42 |
| Link Speed (k/h) | | 50 | 50 | | 40 | 42 |
| Link Distance (m) | | 289.5 | 276.7 | | 80.5 | |
| Travel Time (s) | | 209.3 | 19.9 | | 7.2 | |
| Confl. Peds. (#/hr) | 100 | 20.0 | 17.7 | 100 | 100 | 100 |
| Confl. Bikes (#/hr) | 100 | | | 100 | 100 | 100 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| | 2% | 2% | 2% | 2% | 2% | 2% |
| Heavy Vehicles (%) | | | | | | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) Mid Plock Traffic (%) | | 0% | 0% | | 0% | |
| Mid-Block Traffic (%) | | U% | U% | | U% | |
| Shared Lane Traffic (%) | L 1 | 1177 | 1041 | 0 | 20 | 42 |
| Lane Group Flow (vph) | 64 No. | 1177 No. | 1361 | | 39 No. | |
| Enter Blocked Intersection | No Loft | No | No | No Diabt | No Loft | No Dight |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(m) | | 3.5 | 3.5 | | 3.5 | |
| Link Offset(m) | | 0.0 | 0.0 | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | 4.8 | | 4.8 | |
| Two way Left Turn Lane | 4.04 | 4.04 | 1.01 | 4.04 | 4.04 | 4.04 |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | | 15 | 25 | 15 |
| Turn Type | Prot | NA | NA | | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | | 4 | |
| Permitted Phases | | | | | | 4 |
| Detector Phase | 5 | 2 | 6 | | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | | 10.0 | 10.0 |
| Minimum Split (s) | 9.0 | 25.0 | 25.0 | | 25.0 | 25.0 |
| Total Split (s) | 36.0 | 88.0 | 52.0 | | 52.0 | 52.0 |
| Total Split (%) | 25.7% | 62.9% | 37.1% | | 37.1% | 37.1% |
| Maximum Green (s) | 32.0 | 81.0 | 45.0 | | 45.0 | 45.0 |
| Yellow Time (s) | 3.0 | 4.0 | 4.0 | | 4.0 | 4.0 |
| All-Red Time (s) | 1.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Lost Time Adjust (s) | -1.0 | -1.0 | -1.0 | | -1.0 | -1.0 |
| Total Lost Time (s) | 3.0 | 6.0 | 6.0 | | 6.0 | 6.0 |

| | • | → | ← | • | - | 1 |
|----------------------------|--------------|-----------|------------|-----|------|------|
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Recall Mode | None | C-Max | Max | | None | None |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 11.5 | 121.2 | 108.8 | | 11.4 | 11.4 |
| Actuated g/C Ratio | 0.08 | 0.87 | 0.78 | | 0.08 | 0.08 |
| v/c Ratio | 0.45 | 0.39 | 0.50 | | 0.27 | 0.31 |
| Control Delay | 70.2 | 3.0 | 4.3 | | 65.5 | 22.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 70.2 | 3.0 | 4.3 | | 65.5 | 22.8 |
| LOS | Е | Α | Α | | Е | С |
| Approach Delay | | 6.4 | 4.3 | | 43.4 | |
| Approach LOS | | А | А | | D | |
| Queue Length 50th (m) | 18.1 | 35.3 | 37.0 | | 10.9 | 0.0 |
| Queue Length 95th (m) | 33.3 | 46.5 | m39.0 | | 23.2 | 12.3 |
| Internal Link Dist (m) | | 265.5 | 252.7 | | 56.5 | |
| Turn Bay Length (m) | 30.0 | | | | 30.0 | |
| Base Capacity (vph) | 412 | 3031 | 2702 | | 575 | 418 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.16 | 0.39 | 0.50 | | 0.07 | 0.10 |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Cycle Length: 140 | | | | | | |
| Actuated Cycle Length: 14 | | | | | | |
| Offset: 0 (0%), Referenced | d to phase 2 | :EBT, Sta | rt of Gree | n | | |
| Natural Cycle: 65 | | | | | | |
| Matural Cycle, 03 | | | | | | |

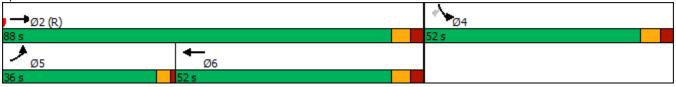
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Finch Avenue W & Street 2A

Maximum v/c Ratio: 0.50 Intersection Signal Delay: 6.5

Analysis Period (min) 15

Intersection Capacity Utilization 67.0%



Intersection LOS: A

ICU Level of Service C

| | - | \rightarrow | • | ← | • | / | |
|-------------------------------|------------|---------------|-------|------|-----------|-----------|--|
| Movement | EBT | EBR | WBL | WBT | NBL | NBR | |
| Lane Configurations | f > | | | 4 | W | | |
| Traffic Volume (veh/h) | 233 | 60 | 15 | 235 | 46 | 8 | |
| Future Volume (Veh/h) | 233 | 60 | 15 | 235 | 46 | 8 | |
| 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) | 253 | 65 | 16 | 255 | 50 | 9 | |
| Pedestrians | | | | | | | |
| Lane Width (m) | | | | | | | |
| Walking Speed (m/s) | | | | | | | |
| Percent Blockage | | | | | | | |
| Right turn flare (veh) | | | | | | | |
| Median type | None | | | None | | | |
| Median storage veh) | | | | | | | |
| Upstream signal (m) | | | | 164 | | | |
| pX, platoon unblocked | | | | | 1.00 | | |
| vC, conflicting volume | | | 318 | | 572 | 286 | |
| vC1, stage 1 conf vol | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | |
| vCu, unblocked vol | | | 318 | | 572 | 286 | |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 | |
| tC, 2 stage (s) | | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 | |
| p0 queue free % | | | 99 | | 90 | 99 | |
| cM capacity (veh/h) | | | 1253 | | 479 | 758 | |
| | ED 1 | WD 1 | | | | | |
| Direction, Lane # | EB 1 | WB 1 | NB 1 | | | | |
| Volume Total | 318 | 271 | 59 | | | | |
| Volume Left | 0 | 16 | 50 | | | | |
| Volume Right | 65 | 0 | 9 | | | | |
| cSH | 1700 | 1253 | 507 | | | | |
| Volume to Capacity | 0.19 | 0.01 | 0.12 | | | | |
| Queue Length 95th (m) | 0.0 | 0.3 | 3.1 | | | | |
| Control Delay (s) | 0.0 | 0.6 | 13.0 | | | | |
| Lane LOS | | Α | В | | | | |
| Approach Delay (s) | 0.0 | 0.6 | 13.0 | | | | |
| Approach LOS | | | В | | | | |
| Intersection Summary | | | | | | | |
| Average Delay | | | 1.4 | | | | |
| Intersection Capacity Utiliza | ition | | 34.7% | IC | U Level o | f Service | |
| Analysis Period (min) | | | 15 | | | | |

| | ၨ | - | \rightarrow | • | ← | • | 4 | † | <i>></i> | > | ļ | 4 |
|----------------------------|-------|------------|---------------|-------|----------|-------|-------|----------|-------------|-------------|------------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | ∱ } | | ሻ | ^ | 7 | ሻ | ^ | 7 | ሻ | ∱ } | |
| Traffic Volume (vph) | 215 | 680 | 87 | 413 | 710 | 70 | 192 | 330 | 117 | 226 | 665 | 213 |
| Future Volume (vph) | 215 | 680 | 87 | 413 | 710 | 70 | 192 | 330 | 117 | 226 | 665 | 213 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 75.0 | | 0.0 | 100.0 | | 0.0 | 30.0 | | 100.0 | 50.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 1 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1767 | 3374 | 0 | 1785 | 3500 | 1377 | 1750 | 3275 | 1581 | 1700 | 3012 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.087 | | | 0.419 | | |
| Satd. Flow (perm) | 1584 | 3374 | 0 | 1774 | 3500 | 961 | 160 | 3275 | 1296 | 685 | 3012 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 8 | | | | 75 | | | 124 | | 28 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 276.7 | | | 579.4 | | | 431.5 | | | 147.7 | |
| Travel Time (s) | | 19.9 | | | 41.7 | | | 31.1 | | | 10.6 | |
| Confl. Peds. (#/hr) | 191 | | 12 | 12 | | 191 | 257 | | 111 | 111 | | 257 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 4% | 1% | 0% | 2% | 16% | 2% | 9% | 1% | 5% | 4% | 9% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 229 | 816 | 0 | 439 | 755 | 74 | 204 | 351 | 124 | 240 | 934 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Prot | NA | | Prot | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | | | | | | 6 | 4 | | 4 | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 6 | 7 | 4 | 4 | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | |
| Minimum Split (s) | 9.0 | 38.0 | | 9.0 | 38.0 | 38.0 | 9.0 | 38.0 | 38.0 | 9.0 | 38.0 | |
| Total Split (s) | 34.0 | 45.0 | | 43.0 | 54.0 | 54.0 | 18.0 | 50.0 | 50.0 | 22.0 | 54.0 | |
| Total Split (%) | 21.3% | 28.1% | | 26.9% | 33.8% | 33.8% | 11.3% | 31.3% | 31.3% | 13.8% | 33.8% | |
| Maximum Green (s) | 30.0 | 39.0 | | 39.0 | 48.0 | 48.0 | 14.0 | 44.0 | 44.0 | 18.0 | 48.0 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 2.0 | | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 3.0 | 5.0 | | 3.0 | 5.0 | 5.0 | 3.0 | 5.0 | 5.0 | 3.0 | 5.0 | |

| | • | - | • | • | • | • | • | † | / | - | ţ | 4 |
|-------------------------|-------|--------|-----|--------|-------|------|--------|----------|----------|------|--------|-----|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Recall Mode | None | C-Max | | None | Max | Max | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 24.0 | | | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | 0 | | 0 | 0 | | 0 | |
| Act Effct Green (s) | 26.1 | 40.0 | | 40.0 | 53.9 | 53.9 | 62.9 | 45.9 | 45.9 | 68.4 | 49.0 | |
| Actuated g/C Ratio | 0.16 | 0.25 | | 0.25 | 0.34 | 0.34 | 0.39 | 0.29 | 0.29 | 0.43 | 0.31 | |
| v/c Ratio | 0.80 | 0.96 | | 0.98 | 0.64 | 0.20 | 0.96 | 0.37 | 0.27 | 0.59 | 0.99 | |
| Control Delay | 84.1 | 80.9 | | 97.6 | 48.6 | 8.9 | 96.2 | 47.3 | 8.2 | 36.8 | 80.5 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.2 | 37.2 | |
| Total Delay | 84.1 | 80.9 | | 97.6 | 48.6 | 8.9 | 96.2 | 47.3 | 8.2 | 39.9 | 117.7 | |
| LOS | F | F | | F | D | Α | F | D | Α | D | F | |
| Approach Delay | | 81.6 | | | 63.3 | | | 54.8 | | | 101.8 | |
| Approach LOS | | F | | | Е | | | D | | | F | |
| Queue Length 50th (m) | 74.3 | 142.1 | | 147.6 | 113.6 | 0.0 | 52.4 | 50.1 | 0.0 | 52.8 | 160.9 | |
| Queue Length 95th (m) | 103.6 | #185.5 | | #221.2 | 142.6 | 12.9 | #107.7 | 66.0 | 16.8 | 76.0 | #210.1 | |
| Internal Link Dist (m) | | 252.7 | | | 555.4 | | | 407.5 | | | 123.7 | |
| Turn Bay Length (m) | 75.0 | | | 100.0 | | | 30.0 | | 100.0 | 50.0 | | |
| Base Capacity (vph) | 342 | 849 | | 446 | 1179 | 373 | 212 | 938 | 459 | 415 | 941 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 96 | 165 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.67 | 0.96 | | 0.98 | 0.64 | 0.20 | 0.96 | 0.37 | 0.27 | 0.75 | 1.20 | |

Area Type: Other

Cycle Length: 160 Actuated Cycle Length: 160

Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

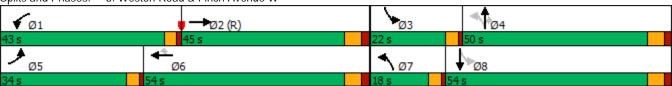
Maximum v/c Ratio: 0.99 Intersection Signal Delay: 77.4 Intersection Capacity Utilization 101.7%

Intersection LOS: E
ICU Level of Service G

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.





Appendix E2016 Transportation Tomorrow Survey (TTS) Data Analysis

Mode of Transportation - AM Peak Period

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: Primary travel mode of trip - mode_prime Column: 2006 GTA zone of household - gta06_hhld

Filters:

2006 GTA zone of household - gta06_hhld In 385 402 403

and

Primary travel mode of trip - mode_prime ln B $\,$ C $\,$ D $\,$ G $\,$ J $\,$ M $\,$ P $\,$ T $\,$ U $\,$ W

and

Start time of trip - start_time In 600-900

and

Type of dwelling unit - dwell_type In 2 3

Trip 2016 Table:

| Mode of Transportation/Traffic Zones | 385 | 402 | 403 | Total | Percentage |
|--------------------------------------|------|-----|------|-------|------------|
| Transit excluding GO rail | 445 | 168 | 1479 | 2092 | 41% |
| Auto driver | 652 | 214 | 924 | 1790 | 35% |
| Auto passenger | 128 | 0 | 203 | 331 | 7% |
| Taxi passenger | 25 | 0 | 0 | 25 | 0% |
| Walk | 125 | 88 | 640 | 853 | 17% |
| Total | 1375 | 470 | 3246 | 5091 | 100% |

Mode of Transportation - AM Peak Period

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: Primary travel mode of trip - mode_prime Column: 2006 GTA zone of household - gta06_hhld

Filters:

2006 GTA zone of household - gta06_hhld In 385 402 403

and

Primary travel mode of trip - mode_prime ln B $\,$ C $\,$ D $\,$ G $\,$ J $\,$ M $\,$ P $\,$ T $\,$ U $\,$ W

and

Start time of trip - start_time In 1600-1900

and

Type of dwelling unit - dwell_type In 2 3

Trip 2016 Table:

| Mode of Transportation/Traffic Zones | 385 | 402 | 403 | Total | Percentage |
|--------------------------------------|------|-----|------|-------|------------|
| Transit excluding GO rail | 345 | 88 | 899 | 1332 | 32% |
| Auto driver | 712 | 336 | 929 | 1977 | 48% |
| Auto passenger | 459 | 45 | 214 | 718 | 17% |
| Taxi passenger | 0 | 0 | 55 | 55 | 1% |
| Paid rideshare | 26 | 0 | 0 | 26 | 1% |
| Walk | 0 | 0 | 39 | 39 | 1% |
| Total | 1542 | 469 | 2136 | 4147 | 100% |

Auto Distribution

132

74

126

332

17%

13

95

415

523

27%

PD 9 of Toronto PD 10 of Toronto PD 16 of Toronto Whitby Vaughan Brampton Mississauga Halton Hills Kitchener

296

0

385

681

36%

51

0

0

51

3%

0

0

0

0

0%

13

0

0

13

1%

1905

100%

0

0

0

24

0

0

24

1%

0

45

0

45

2%

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: 2006 GTA zone of origin - gta06_orig Column: Planning district of destination - pd dest

Filters:

2006 GTA zone of household - gta06_hhld In 385

402 403

Primary travel mode of trip - mode_prime In D

М Р

and

Start time of trip - start_time In 600-900

and

Type of dwelling unit - dwell_type In 2

3

Trip 2016 Table:

| | PD 1 of Toronto | PD 3 of Toronto | PD 7 of Toronto | PD 8 of Toronto |
|-----|-----------------|-----------------|-----------------|-----------------|
| 385 | 0 | 52 | 0 | 0 |
| 402 | 0 | 0 | 0 | 0 |
| 403 | 60 | 25 | 63 | 36 |
| | 60 | 77 | 63 | 36 |
| | 3% | 4% | 3% | 2% |
| | | | | |
| | Toronto | 60% | Toronto North | 7% |
| | York | 36% | Toronto South | 19% |
| | Durham | 1% | Toronto West | 24% |
| | Peel | 3% | Toronto East | 9% |
| | Halton | 0% | | 60% |
| | Waterloo | 1% | | |
| | | 100% | | |
| | | | | |

Т

U

Transit Distribution

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: 2006 GTA zone of origin - gta06_orig Column: Planning district of destination - pd_dest

Filters:

2006 GTA zone of household - gta06_hhld In 385

403

402

С

and

Primary travel mode of trip - mode_prime In B

G J

and

Start time of trip - start_time In 600-900

and

Type of dwelling unit - dwell_type In 2

Trip 2016 Table:

| | PD 1 of Toronto | PD 3 of Toronto | PD 5 of Toronto | PD 7 of Toronto | PD 8 of Toronto | PD 9 of Toronto | PD 10 of Toronto | PD 11 of Toronto | PD 12 of Toronto | Vaughan | Brampton | |
|-----|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|---------|----------|------|
| 385 | 81 | 20 | 0 | 0 | 82 | 164 | 205 | 24 | 12 | 0 | 0 | |
| 402 | 88 | 45 | 0 | 0 | 0 | 0 | 123 | 0 | 0 | 0 | 0 | |
| 403 | 167 | 68 | 59 | 35 | 0 | 422 | 957 | 196 | 0 | 105 | 92 | |
| | 336 | 133 | 59 | 35 | 82 | 586 | 1285 | 220 | 12 | 105 | 92 | 2945 |
| | 11% | 5% | 2% | 1% | 3% | 20% | 44% | 7% | 0% | 4% | 3% | 100% |

| Toronto | 93% | Toronto North | 11% |
|---------|------|---------------|-----|
| York | 4% | Toronto South | 31% |
| Peel | 3% | Toronto West | 31% |
| | 100% | Toronto East | 21% |

93%

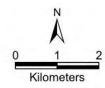
W



CITY OF TORONTO WARD 7







WARD 7

| WARD / | | | | | | | | | | | | | | | | | | |
|------------|---------------------------|------------|-----------|----------------|-----|-----|-----|-----|-----|----------|------------|-----------|----|--------------------|---------|---------|----------|-----------|
| | HOUSEHOLD CHARACTERISTICS | | | | | | | | | | | | | | | | | |
| | Dv | welling Ty | /ре | Household Size | | | | | | Number o | f Availabl | e Vehicle | S | Household Averages | | | | |
| Households | House | Townhouse | Apartment | 1 | 2 | 3 | 4 | 5+ | 0 | 1 | 2 | 3 | 4+ | Persons | Workers | Drivers | Vehicles | Trips/Day |
| 17,200 | 42% | 7% | 51% | 18% | 26% | 20% | 19% | 18% | 18% | 51% | 25% | 5% | 1% | 3.0 | 1.5 | 1.6 | 1.2 | 4.8 |

| | POPULATION CHARACTERISTICS | | | | | | | | | | | | | | | | |
|---|----------------------------|-----|----|-----|-----|-----|-----|--------|------------------------------------|---------------------------|------------|--------------|--------------|------------|---------|----------|-----------------|
| ĺ | | | | | Age | | | | | _ | | Em | ployment T | уре | | | |
| | Population | 15 | | | 5 | 4 | | Median | Daily Trips per erson (age 11+) | / Work Trips pe Worker | Population | Full Time | Part Time | At Home | Student | Licensed | Transit Pass |
| | | Ļ. | + | -9 | 6-4 | 9-9 | 2+ | Леd | D Pe | Daily | | | 1 | Иale | | | |
| | | 0 | 1 | 1 | 2 | 4 | 9 | 2 | | | 24,900 | 41% | 8% | 3% | 26% | 64% | 14% |
| | | | | | | | | | | | | | Fe | emale | | | |
| | 52,300 | 13% | 7% | 14% | 27% | 25% | 14% | 37.8 | 1.8 | 0.77 | 27,400 | 29% | 11% | 2% | 24% | 44% | 18% |

| | TRIPS MADE BY RESIDENTS OF CITY OF TORONTO - WARD 7 | | | | | | | | | | | | | | | |
|--------|---|-----------|------|--------|---------|------|--------|-------|---------|-------------|-----------------|-------|--------|--------------|------------|-------------|
| Time | | 0/ | | Trip l | Purpose | | | | Mode c | of Travel | | | N | ∕ledian Trip | Length (km |) |
| Period | Trips | % 24hr | HB-W | HB-S | HB-D | N-HB | Driver | Pass. | Transit | GO Train | Walk & Cycle | Other | Driver | Pass. | Transit | GO Train |
| 6-9 AM | 22,700 | 27.5% | 51% | 25% | 17% | 7% | 50% | 11% | 28% | 0% | 9% | 2% | 7.1 | 3.9 | 8.4 | 15.1 |
| 24 Hrs | 82,600 | | 40% | 17% | 32% | 12% | 53% | 12% | 25% | 0% | 7% | 2% | 6.8 | 4.8 | 7.5 | 15.1 |

| | TRIPS MADE TO CITY OF TORONTO - WARD 7 - BY RESIDENTS OF THE TTS AREA | | | | | | | | | | | | | | | |
|----------------|---|------------|--------------|--------|------|-------|----------------|-------|---------|-------------|-----------------|-------|-------------------------|-------|---------|-------------|
| Time Period | Trips | % 24 hr | Trip Purpose | | | | Mode of Travel | | | | | | Median Trip Length (km) | | | |
| | | | Work | School | Home | Other | Driver | Pass. | Transit | GO Train | Walk & Cycle | Other | Driver | Pass. | Transit | GO Train |
| 6-9 AM | 27,300 | 30.5% | 72% | 13% | 3% | 13% | 70% | 11% | 9% | * | 7% | 3% | 12.6 | 5.5 | 3.5 | * |
| 24 Hrs | 89,400 | | 35% | 5% | 41% | 19% | 62% | 12% | 17% | 0% | 6% | 2% | 8.6 | 5.1 | 6.0 | 15.1 |

Appendix FTrip Generation Rate Calculations

Multifamily Housing (High-Rise)

(222)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: Dense Multi-Use Urban

Number of Studies: 11

11

Avg. Num. of Dwelling Units: 264

Directional Distribution: 12% entering, 88% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate

Range of Rates

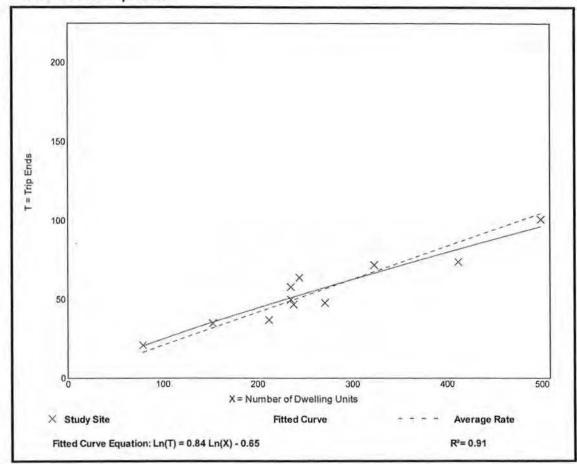
Standard Deviation

0.21

0.17 - 0.27

0.03

Data Plot and Equation





Multifamily Housing (High-Rise) (222)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: Dense Multi-Use Urban

Number of Studies:

Avg. Num. of Dwelling Units: 264

Directional Distribution: 70% entering, 30% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate

Range of Rates

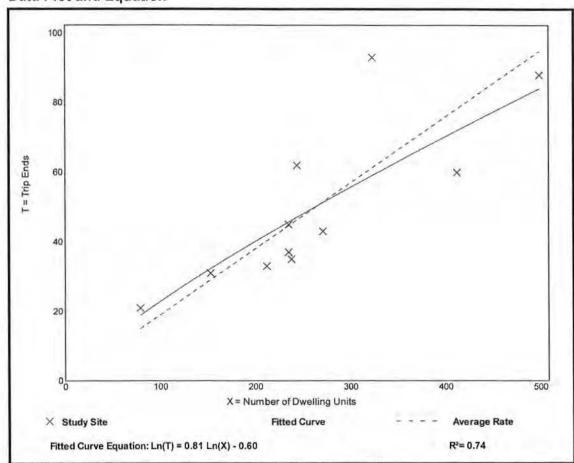
Standard Deviation

0.19

0.15 - 0.29

0.05

Data Plot and Equation





Site Trip Calculations - Using Fitted Curve Equations

| ITE Land Use | Magnitude | Parameters | Morr | ning Peak H | lour | After | noon Peak | Hour |
|--|-----------|--|------|-------------|-------|-------|-----------|-------|
| TTE Edita 030 | (units) | T di dinotors | ln | Out | Total | ln | Out | Total |
| Multifamily Housing (High-Rise) LUC 222 General Dense Multi-use Urban | 1,271 | Trip Rates AM - Ln(T) = 0.84Ln(X) - 0.65 PM - Ln(T) = 0.81(X) - 0.60 | 0.02 | 0.15 | 0.17 | 0.1 | 0.04 | 0.14 |
| | | Total Trips | 25 | 186 | 211 | 125 | 54 | 179 |

Appendix G

Future Total Level of Service Calculations

| | ۶ | - | • | • | ← | • | • | † | <i>></i> | / | ţ | 1 |
|----------------------------|-------|------------|-------|-------|----------|-------|-------|----------|-------------|----------|------------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | ∱ } | | ሻ | ^ | 7 | ሻ | ^ | 7 | * | † } | |
| Traffic Volume (vph) | 186 | 961 | 56 | 301 | 818 | 186 | 139 | 542 | 112 | 172 | 620 | 81 |
| Future Volume (vph) | 186 | 961 | 56 | 301 | 818 | 186 | 139 | 542 | 112 | 172 | 620 | 81 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 75.0 | | 0.0 | 100.0 | | 0.0 | 30.0 | | 100.0 | 50.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 1 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1684 | 3245 | 0 | 1700 | 3336 | 1439 | 1700 | 3336 | 1521 | 1526 | 3073 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.151 | | | 0.214 | | |
| Satd. Flow (perm) | 1658 | 3245 | 0 | 1649 | 3336 | 1353 | 261 | 3336 | 1216 | 322 | 3073 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 5 | | | | 190 | | | 125 | | 10 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 262.8 | | | 579.4 | | | 431.5 | | | 147.7 | |
| Travel Time (s) | | 18.9 | | | 41.7 | | | 31.1 | | | 10.6 | |
| Confl. Peds. (#/hr) | 36 | | 93 | 93 | | 36 | 102 | | 142 | 142 | | 102 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 6% | 8% | 14% | 5% | 7% | 11% | 5% | 7% | 5% | 17% | 12% | 14% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 190 | 1038 | 0 | 307 | 835 | 190 | 142 | 553 | 114 | 176 | 716 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Prot | NA | | Prot | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | | | | | | 6 | 4 | | 4 | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 6 | 7 | 4 | 4 | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | |
| Minimum Split (s) | 9.0 | 38.0 | | 9.0 | 38.0 | 38.0 | 9.0 | 38.0 | 38.0 | 9.0 | 38.0 | |
| Total Split (s) | 28.0 | 53.0 | | 33.0 | 58.0 | 58.0 | 13.0 | 38.0 | 38.0 | 16.0 | 41.0 | |
| Total Split (%) | 20.0% | 37.9% | | 23.6% | 41.4% | 41.4% | 9.3% | 27.1% | 27.1% | 11.4% | 29.3% | |
| Maximum Green (s) | 24.0 | 46.0 | | 29.0 | 51.0 | 51.0 | 9.0 | 31.0 | 31.0 | 12.0 | 34.0 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 3.0 | | 1.0 | 3.0 | 3.0 | 1.0 | 3.0 | 3.0 | 1.0 | 3.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 3.0 | 6.0 | | 3.0 | 6.0 | 6.0 | 3.0 | 6.0 | 6.0 | 3.0 | 6.0 | |

| | • | - | • | • | • | • | | † | / | - | ţ | 4 |
|-------------------------|------|--------|-----|--------|-------|------|-------|----------|----------|-------|--------|-----|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Recall Mode | None | C-Max | | None | Max | Max | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 24.0 | | | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | 0 | | 0 | 0 | | 0 | |
| Act Effct Green (s) | 21.1 | 49.1 | | 28.4 | 56.4 | 56.4 | 44.5 | 31.5 | 31.5 | 50.5 | 34.5 | |
| Actuated g/C Ratio | 0.15 | 0.35 | | 0.20 | 0.40 | 0.40 | 0.32 | 0.22 | 0.22 | 0.36 | 0.25 | |
| v/c Ratio | 0.75 | 0.91 | | 0.89 | 0.62 | 0.29 | 0.77 | 0.74 | 0.31 | 0.77 | 0.94 | |
| Control Delay | 80.9 | 45.1 | | 81.4 | 36.6 | 5.1 | 59.1 | 57.1 | 7.9 | 56.2 | 71.5 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 80.9 | 45.1 | | 81.4 | 36.6 | 5.1 | 59.1 | 57.1 | 7.9 | 56.2 | 71.5 | |
| LOS | F | D | | F | D | А | Е | Е | Α | Е | Е | |
| Approach Delay | | 50.7 | | | 42.4 | | | 50.5 | | | 68.4 | |
| Approach LOS | | D | | | D | | | D | | | Е | |
| Queue Length 50th (m) | 58.9 | 73.3 | | 86.6 | 102.8 | 0.0 | 28.6 | 79.0 | 0.0 | 36.7 | 106.5 | |
| Queue Length 95th (m) | 85.3 | #192.9 | | #136.6 | 130.8 | 16.5 | #54.4 | 100.7 | 13.8 | #59.7 | #144.5 | |
| Internal Link Dist (m) | | 238.8 | | | 555.4 | | | 407.5 | | | 123.7 | |
| Turn Bay Length (m) | 75.0 | | | 100.0 | | | 30.0 | | 100.0 | 50.0 | | |
| Base Capacity (vph) | 300 | 1141 | | 364 | 1345 | 658 | 185 | 762 | 374 | 228 | 775 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.63 | 0.91 | | 0.84 | 0.62 | 0.29 | 0.77 | 0.73 | 0.30 | 0.77 | 0.92 | |

Area Type: Other

Cycle Length: 140 Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 105

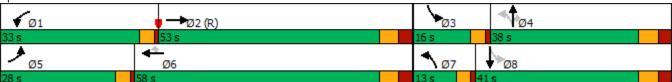
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 51.8 Intersection LOS: D
Intersection Capacity Utilization 97.3% ICU Level of Service F

Analysis Period (min) 15





^{# 95}th percentile volume exceeds capacity, queue may be longer.

| | ۶ | - | \rightarrow | • | ← | • | • | † | / | > | ļ | 4 |
|----------------------------|-------|-------|---------------|-------|----------|-------|-------|----------|-------|-------------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | f) | | ሻ | f) | | ሻ | ^ | 7 | ሻ | ^ | 7 |
| Traffic Volume (vph) | 10 | 247 | 129 | 22 | 178 | 35 | 130 | 642 | 79 | 32 | 457 | 20 |
| Future Volume (vph) | 10 | 247 | 129 | 22 | 178 | 35 | 130 | 642 | 79 | 32 | 457 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 30.0 | | 0.0 | 35.0 | | 40.0 | 85.0 | | 35.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1373 | 1592 | 0 | 1566 | 1557 | 0 | 1623 | 3305 | 1551 | 1500 | 3187 | 1389 |
| Flt Permitted | 0.486 | | | 0.215 | | | 0.468 | | | 0.370 | | |
| Satd. Flow (perm) | 699 | 1592 | 0 | 354 | 1557 | 0 | 792 | 3305 | 1495 | 581 | 3187 | 1336 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 22 | | | 8 | | | | 82 | | | 31 |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 158.2 | | | 160.6 | | | 478.0 | | | 179.7 | |
| Travel Time (s) | | 11.4 | | | 11.6 | | | 34.4 | | | 12.9 | |
| Confl. Peds. (#/hr) | 7 | | 4 | 4 | | 7 | 9 | | 8 | 8 | | 9 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 30% | 11% | 12% | 14% | 19% | 9% | 10% | 8% | 3% | 19% | 12% | 15% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 10 | 391 | 0 | 23 | 221 | 0 | 135 | 669 | 82 | 33 | 476 | 21 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 37.4 | 37.4 | | 37.4 | 37.4 | | 36.9 | 36.9 | 36.9 | 36.9 | 36.9 | 36.9 |
| Total Split (s) | 40.0 | 40.0 | | 40.0 | 40.0 | | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 |
| Total Split (%) | 33.3% | 33.3% | | 33.3% | 33.3% | | 66.7% | 66.7% | 66.7% | 66.7% | 66.7% | 66.7% |
| Maximum Green (s) | 33.6 | 33.6 | | 33.6 | 33.6 | | 74.1 | 74.1 | 74.1 | 74.1 | 74.1 | 74.1 |
| Yellow Time (s) | 3.4 | 3.4 | | 3.4 | 3.4 | | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 5.4 | 5.4 | | 5.4 | 5.4 | | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 |

| | • | - | \rightarrow | • | • | • | 1 | † | / | - | ţ | 4 |
|-------------------------|------|--------|---------------|------|-------|-----|-------|----------|-------|-------|-------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max |
| Walk Time (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| Flash Dont Walk (s) | 19.0 | 19.0 | | 19.0 | 19.0 | | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Act Effct Green (s) | 32.0 | 32.0 | | 32.0 | 32.0 | | 77.7 | 77.7 | 77.7 | 77.7 | 77.7 | 77.7 |
| Actuated g/C Ratio | 0.27 | 0.27 | | 0.27 | 0.27 | | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 |
| v/c Ratio | 0.05 | 0.89 | | 0.24 | 0.53 | | 0.26 | 0.31 | 0.08 | 0.09 | 0.23 | 0.02 |
| Control Delay | 32.0 | 62.6 | | 40.8 | 40.5 | | 11.3 | 10.2 | 2.1 | 9.6 | 9.5 | 1.9 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 32.0 | 62.6 | | 40.8 | 40.5 | | 11.3 | 10.2 | 2.1 | 9.6 | 9.5 | 1.9 |
| LOS | С | Е | | D | D | | В | В | Α | Α | Α | Α |
| Approach Delay | | 61.8 | | | 40.5 | | | 9.6 | | | 9.2 | |
| Approach LOS | | Е | | | D | | | Α | | | Α | |
| Queue Length 50th (m) | 1.8 | 86.0 | | 4.4 | 43.7 | | 14.1 | 38.1 | 0.0 | 3.0 | 25.4 | 0.0 |
| Queue Length 95th (m) | 6.3 | #137.8 | | 12.5 | 69.2 | | 25.7 | 49.0 | 6.0 | 7.7 | 34.0 | 2.2 |
| Internal Link Dist (m) | | 134.2 | | | 136.6 | | | 454.0 | | | 155.7 | |
| Turn Bay Length (m) | 30.0 | | | 30.0 | | | 35.0 | | 40.0 | 85.0 | | 35.0 |
| Base Capacity (vph) | 201 | 474 | | 102 | 454 | | 513 | 2141 | 997 | 376 | 2064 | 876 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.82 | | 0.23 | 0.49 | | 0.26 | 0.31 | 0.08 | 0.09 | 0.23 | 0.02 |

Area Type: Other

Cycle Length: 120 Actuated Cycle Length: 120

Offset: 102 (85%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 23.3 Intersection LOS: C
Intersection Capacity Utilization 67.6% ICU Level of Service C

Analysis Period (min) 15





⁹⁵th percentile volume exceeds capacity, queue may be longer.

| | ၨ | - | \rightarrow | • | ← | • | 4 | † | / | > | ļ | 4 |
|----------------------------|-------|-------|---------------|-------|----------------|-------|-------|------------|-------|-------------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | f) | | ሻ | (Î | | ሻ | † } | | * | ^ | 7 |
| Traffic Volume (vph) | 91 | 7 | 202 | 9 | 2 | 5 | 194 | 767 | 6 | 10 | 609 | 36 |
| Future Volume (vph) | 91 | 7 | 202 | 9 | 2 | 5 | 194 | 767 | 6 | 10 | 609 | 36 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 10.0 | | 0.0 | 25.0 | | 0.0 | 25.0 | | 30.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1700 | 1372 | 0 | 1785 | 1448 | 0 | 1638 | 3303 | 0 | 1623 | 3159 | 1229 |
| Flt Permitted | 0.753 | | | 0.266 | | | 0.362 | | | 0.333 | | |
| Satd. Flow (perm) | 1337 | 1372 | 0 | 499 | 1448 | 0 | 621 | 3303 | 0 | 565 | 3159 | 1184 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 222 | | | 5 | | | 1 | | | | 75 |
| Link Speed (k/h) | | 50 | | | 20 | | | 50 | | | 50 | |
| Link Distance (m) | | 44.9 | | | 58.2 | | | 147.7 | | | 478.0 | |
| Travel Time (s) | | 3.2 | | | 10.5 | | | 10.6 | | | 34.4 | |
| Confl. Peds. (#/hr) | 6 | | 2 | 2 | | 6 | 8 | | 11 | 11 | | 8 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 5% | 0% | 16% | 0% | 0% | 20% | 9% | 8% | 0% | 10% | 13% | 30% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 100 | 230 | 0 | 10 | 7 | 0 | 213 | 850 | 0 | 11 | 669 | 40 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Perm | NA | | Perm | NA | | pm+pt | NA | | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | 6 |
| Detector Phase | 4 | 4 | | 8 | 8 | | 5 | 2 | | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 34.0 | 34.0 | | 34.0 | 34.0 | | 9.0 | 35.0 | | 35.0 | 35.0 | 35.0 |
| Total Split (s) | 37.0 | 37.0 | | 37.0 | 37.0 | | 23.0 | 79.0 | | 56.0 | 56.0 | 56.0 |
| Total Split (%) | 31.9% | 31.9% | | 31.9% | 31.9% | | 19.8% | 68.1% | | 48.3% | 48.3% | 48.3% |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 19.0 | 72.0 | | 49.0 | 49.0 | 49.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 3.0 | 4.0 | | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 1.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 3.0 | 6.0 | | 6.0 | 6.0 | 6.0 |

| | • | - | • | • | ← | • | 1 | † | ~ | - | ţ | 4 |
|-------------------------|------|------|-----|------|----------|-----|------|----------|-----|-------|-------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | | | | | | | Lead | | | Lag | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | | | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | None | | None | None | | None | C-Max | | C-Max | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | | 21.0 | | 21.0 | 21.0 | 21.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | 15.4 | 15.4 | | 15.4 | 15.4 | | 91.6 | 88.6 | | 75.2 | 75.2 | 75.2 |
| Actuated g/C Ratio | 0.13 | 0.13 | | 0.13 | 0.13 | | 0.79 | 0.76 | | 0.65 | 0.65 | 0.65 |
| v/c Ratio | 0.56 | 0.61 | | 0.15 | 0.04 | | 0.37 | 0.34 | | 0.03 | 0.33 | 0.05 |
| Control Delay | 58.8 | 14.0 | | 47.6 | 28.2 | | 5.2 | 5.1 | | 9.9 | 10.4 | 0.6 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.5 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.8 | 14.0 | | 47.6 | 28.2 | | 5.2 | 5.6 | | 9.9 | 10.4 | 0.6 |
| LOS | Е | В | | D | С | | Α | Α | | Α | В | Α |
| Approach Delay | | 27.6 | | | 39.6 | | | 5.5 | | | 9.9 | |
| Approach LOS | | С | | | D | | | А | | | Α | |
| Queue Length 50th (m) | 22.8 | 1.7 | | 2.2 | 0.4 | | 9.8 | 28.0 | | 0.9 | 33.7 | 0.0 |
| Queue Length 95th (m) | 39.3 | 24.8 | | 7.4 | 4.6 | | 20.6 | 45.7 | | 3.9 | 56.2 | 1.3 |
| Internal Link Dist (m) | | 20.9 | | | 34.2 | | | 123.7 | | | 454.0 | |
| Turn Bay Length (m) | 30.0 | | | 10.0 | | | 25.0 | | | 25.0 | | 30.0 |
| Base Capacity (vph) | 357 | 529 | | 133 | 390 | | 665 | 2522 | | 366 | 2047 | 793 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 1117 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.28 | 0.43 | | 0.08 | 0.02 | | 0.32 | 0.60 | | 0.03 | 0.33 | 0.05 |

Area Type: Other

Cycle Length: 116
Actuated Cycle Length: 116

Offset: 31 (27%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

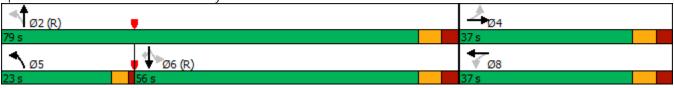
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 10.7 Intersection LOS: B
Intersection Capacity Utilization 61.1% ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: Weston Road & Toryork Drive/Retail Access



Lanes, Volumes, Timings 14: Rumike Road/Milvan Drive & Finch Avenue W

| | ۶ | - | • | • | ← | • | • | † | / | / | ţ | 4 |
|----------------------------|-------|------------|-------|-------|------------|-------|-------|----------|-------|----------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | ↑ Ъ | | ሻ | ∱ } | | ሻ | ^ | | ሻ | † | 7 |
| Traffic Volume (vph) | 66 | 1126 | 154 | 17 | 783 | 181 | 138 | 54 | 17 | 102 | 47 | 46 |
| Future Volume (vph) | 66 | 1126 | 154 | 17 | 783 | 181 | 138 | 54 | 17 | 102 | 47 | 46 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 30.0 | | 0.0 | 15.0 | | 0.0 | 70.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1487 | 3348 | 0 | 1785 | 3207 | 0 | 1668 | 1742 | 0 | 1487 | 1879 | 1331 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.723 | | | 0.706 | | |
| Satd. Flow (perm) | 1477 | 3348 | 0 | 1771 | 3207 | 0 | 1250 | 1742 | 0 | 1073 | 1879 | 1293 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 20 | | | 36 | | | 19 | | | | 85 |
| Link Speed (k/h) | | 50 | | | 50 | | | 40 | | | 50 | |
| Link Distance (m) | | 255.0 | | | 273.8 | | | 198.1 | | | 176.1 | |
| Travel Time (s) | | 18.4 | | | 19.7 | | | 17.8 | | | 12.7 | |
| Confl. Peds. (#/hr) | 20 | | 37 | 37 | | 20 | 21 | | 41 | 41 | | 21 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 20% | 4% | 2% | 0% | 7% | 8% | 7% | 0% | 12% | 20% | 0% | 20% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 73 | 1422 | 0 | 19 | 1071 | 0 | 153 | 79 | 0 | 113 | 52 | 51 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 4 | | | 8 | |
| Permitted Phases | | | | | | | 4 | | | 8 | | 8 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 4 | 4 | | 8 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.0 | 40.0 | | 9.0 | 35.0 | | 40.4 | 40.4 | | 40.4 | 40.4 | 40.4 |
| Total Split (s) | 10.0 | 40.6 | | 9.0 | 39.6 | | 40.4 | 40.4 | | 40.4 | 40.4 | 40.4 |
| Total Split (%) | 11.1% | 45.1% | | 10.0% | 44.0% | | 44.9% | 44.9% | | 44.9% | 44.9% | 44.9% |
| Maximum Green (s) | 6.0 | 34.6 | | 5.0 | 33.6 | | 34.0 | 34.0 | | 34.0 | 34.0 | 34.0 |
| Yellow Time (s) | 3.0 | 3.3 | | 3.0 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 1.0 | 2.7 | | 1.0 | 2.7 | | 3.1 | 3.1 | | 3.1 | 3.1 | 3.1 |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 3.0 | 5.0 | | 3.0 | 5.0 | | 5.4 | 5.4 | | 5.4 | 5.4 | 5.4 |

14: Rumike Road/Milvan Drive & Finch Avenue W

| | ۶ | - | • | • | ← | • | 1 | † | / | - | ↓ | 4 |
|-------------------------|------|--------|-----|------|----------|-----|------|----------|-----|------|----------|------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | C-Max | | None | Max | | None | None | | None | None | None |
| Walk Time (s) | | 12.0 | | | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 |
| Flash Dont Walk (s) | | 17.0 | | | 17.0 | | 22.0 | 22.0 | | 22.0 | 22.0 | 22.0 |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | 11.0 | 57.3 | | 7.6 | 49.9 | | 17.7 | 17.7 | | 17.7 | 17.7 | 17.7 |
| Actuated g/C Ratio | 0.12 | 0.64 | | 0.08 | 0.55 | | 0.20 | 0.20 | | 0.20 | 0.20 | 0.20 |
| v/c Ratio | 0.40 | 0.67 | | 0.13 | 0.60 | | 0.62 | 0.22 | | 0.54 | 0.14 | 0.16 |
| Control Delay | 42.2 | 14.9 | | 39.5 | 17.1 | | 43.6 | 23.5 | | 40.8 | 28.4 | 3.3 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 42.2 | 14.9 | | 39.5 | 17.1 | | 43.6 | 23.5 | | 40.8 | 28.4 | 3.3 |
| LOS | D | В | | D | В | | D | С | | D | С | Α |
| Approach Delay | | 16.3 | | | 17.5 | | | 36.7 | | | 29.0 | |
| Approach LOS | | В | | | В | | | D | | | С | |
| Queue Length 50th (m) | 12.4 | 62.3 | | 3.3 | 65.0 | | 25.8 | 9.2 | | 18.7 | 7.9 | 0.0 |
| Queue Length 95th (m) | 24.9 | #159.0 | | 10.0 | 111.7 | | 42.0 | 19.3 | | 32.8 | 16.0 | 3.8 |
| Internal Link Dist (m) | | 231.0 | | | 249.8 | | | 174.1 | | | 152.1 | |
| Turn Bay Length (m) | 30.0 | | | 30.0 | | | 15.0 | | | 70.0 | | |
| Base Capacity (vph) | 181 | 2138 | | 149 | 1795 | | 486 | 689 | | 417 | 730 | 554 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.40 | 0.67 | | 0.13 | 0.60 | | 0.31 | 0.11 | | 0.27 | 0.07 | 0.09 |

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 90

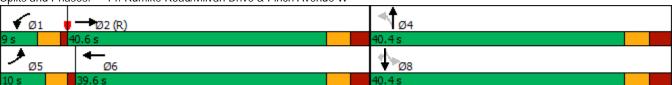
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 19.2 Intersection LOS: B
Intersection Capacity Utilization 77.3% ICU Level of Service D

Analysis Period (min) 15





^{# 95}th percentile volume exceeds capacity, queue may be longer.

| | ۶ | - | \rightarrow | • | ← | • | • | † | ~ | > | ţ | 4 |
|----------------------------|-------|-------------|---------------|-------|-------------|-------|-------|----------|-------|-------------|-------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | ∱ 1≽ | | * | ∱ 1≽ | | Ĭ | £ | | | 4 | |
| Traffic Volume (vph) | 8 | 1155 | 88 | 89 | 1045 | 1 | 71 | 3 | 82 | 5 | 1 | 6 |
| Future Volume (vph) | 8 | 1155 | 88 | 89 | 1045 | 1 | 71 | 3 | 82 | 5 | 1 | 6 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 15.0 | | 0.0 | 30.0 | | 0.0 | 15.0 | | 0.0 | 0.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 0 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1785 | 3292 | 0 | 1608 | 3306 | 0 | 1580 | 1447 | 0 | 0 | 1554 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.423 | | | | | |
| Satd. Flow (perm) | 1770 | 3292 | 0 | 1602 | 3306 | 0 | 703 | 1447 | 0 | 0 | 1585 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 9 | | | | | | 84 | | | 6 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 40 | | | 20 | |
| Link Distance (m) | | 273.8 | | | 303.3 | | | 203.2 | | | 58.7 | |
| Travel Time (s) | | 19.7 | | | 21.8 | | | 18.3 | | | 10.6 | |
| Confl. Peds. (#/hr) | 14 | | 8 | 8 | | 14 | 8 | | 1 | 1 | | 8 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 7% | 6% | 11% | 8% | 0% | 13% | 0% | 10% | 20% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 8 | 1269 | 0 | 91 | 1067 | 0 | 72 | 87 | 0 | 0 | 12 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 7 | | | 8 | |
| Permitted Phases | | | | | | | 7 | | | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 7 | 7 | | 8 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | | 7.0 | 7.0 | |
| Minimum Split (s) | 9.0 | 25.0 | | 9.0 | 25.0 | | 36.0 | 36.0 | | 14.0 | 14.0 | |
| Total Split (s) | 9.0 | 41.0 | | 9.0 | 41.0 | | 36.0 | 36.0 | | 14.0 | 14.0 | |
| Total Split (%) | 9.0% | 41.0% | | 9.0% | 41.0% | | 36.0% | 36.0% | | 14.0% | 14.0% | |
| Maximum Green (s) | 5.0 | 35.0 | | 5.0 | 35.0 | | 29.0 | 29.0 | | 8.0 | 8.0 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | | 4.0 | 4.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.0 | 2.0 | | 1.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | | -1.0 | |
| Total Lost Time (s) | 3.0 | 5.0 | | 3.0 | 5.0 | | 6.0 | 6.0 | | | 5.0 | |

18: Jayzel Drive/Retail Access & Finch Avenue W

| | • | - | • | • | ← | • | 1 | † | ~ | - | ţ | 4 |
|-------------------------|------|--------|-----|-------|-------|-----|------|----------|-----|------|------|-----|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lead | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | C-Max | | None | Max | | None | None | | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | | 7.0 | 7.0 | | 0.0 | 0.0 | |
| Flash Dont Walk (s) | | 12.0 | | | 12.0 | | 22.0 | 22.0 | | 0.0 | 0.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 7.1 | 56.7 | | 12.5 | 71.0 | | 17.4 | 17.4 | | | 8.2 | |
| Actuated g/C Ratio | 0.07 | 0.57 | | 0.12 | 0.71 | | 0.17 | 0.17 | | | 0.08 | |
| v/c Ratio | 0.06 | 0.68 | | 0.45 | 0.45 | | 0.59 | 0.27 | | | 0.09 | |
| Control Delay | 44.1 | 21.6 | | 48.6 | 12.1 | | 56.0 | 9.7 | | | 33.1 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Total Delay | 44.1 | 21.6 | | 48.6 | 12.1 | | 56.0 | 9.7 | | | 33.1 | |
| LOS | D | С | | D | В | | E | Α | | | С | |
| Approach Delay | | 21.7 | | | 15.0 | | | 30.7 | | | 33.1 | |
| Approach LOS | | С | | | В | | | С | | | С | |
| Queue Length 50th (m) | 1.6 | 92.3 | | 17.2 | 40.1 | | 13.8 | 0.5 | | | 1.2 | |
| Queue Length 95th (m) | 6.2 | #194.5 | | #35.0 | 131.2 | | 26.5 | 12.3 | | | 6.8 | |
| Internal Link Dist (m) | | 249.8 | | | 279.3 | | | 179.2 | | | 34.7 | |
| Turn Bay Length (m) | 15.0 | | | 30.0 | | | 15.0 | | | | | |
| Base Capacity (vph) | 126 | 1871 | | 201 | 2348 | | 210 | 492 | | | 148 | |
| 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 | 0.68 | | 0.45 | 0.45 | | 0.34 | 0.18 | | | 0.08 | |

Intersection Summary

Area Type: Other

Cycle Length: 100 Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 19.3 Intersection LOS: B
Intersection Capacity Utilization 61.1% ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.



| | ၨ | → | ← | • | \ | 4 |
|---|----------|--------------|--------------|----------|----------|----------|
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| | EDL Š | | | WDK | | |
| Lane Configurations Traffic Volume (uph) | | ^ | ↑ } | 11 | أ | 7 |
| Traffic Volume (vph) | 53 53 | 1096 1096 | 1036 1036 | 41 41 | 47 47 | 84 84 |
| Future Volume (vph) | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | 20.0 | 0% | 0% | 0.0 | 0% | 0.0 |
| Storage Length (m) | 30.0 | | | 0.0 | 30.0 | 0.0 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (m) | 7.5 | 0500 | 0.4.7 | | 7.5 | 45.4 |
| Satd. Flow (prot) | 1750 | 3500 | 3447 | 0 | 1750 | 1566 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 1672 | 3500 | 3447 | 0 | 1513 | 1339 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | 3 | | | 91 |
| Link Speed (k/h) | | 50 | 50 | | 40 | |
| Link Distance (m) | | 303.3 | 262.8 | | 92.7 | |
| Travel Time (s) | | 21.8 | 18.9 | | 8.3 | |
| Confl. Peds. (#/hr) | 100 | | | 100 | 100 | 100 |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | , , | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | 070 | 070 | | 0 70 | |
| Lane Group Flow (vph) | 58 | 1191 | 1171 | 0 | 51 | 91 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| | | | | | | |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(m) | | 3.5 | 3.5 | | 3.5 | |
| Link Offset(m) | | 0.0 | 0.0 | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | 4.8 | | 4.8 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | | 15 | 25 | 15 |
| Turn Type | Prot | NA | NA | | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | | 4 | |
| Permitted Phases | | | | | | 4 |
| Detector Phase | 5 | 2 | 6 | | 4 | 4 |
| Switch Phase | | _ | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | | 10.0 | 10.0 |
| Minimum Split (s) | 9.5 | 38.0 | 38.0 | | 38.0 | 38.0 |
| Total Split (s) | 27.5 | 84.0 | 56.5 | | 56.0 | 56.0 |
| Total Split (%) | 19.6% | 60.0% | 40.4% | | 40.0% | 40.0% |
| | | | | | | 40.0% |
| Maximum Green (s) | 23.5 | 77.0 | 49.5 | | 49.0 | |
| Yellow Time (s) | 3.0 | 4.0 | 4.0 | | 4.0 | 4.0 |
| All-Red Time (s) | 1.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Lost Time Adjust (s) | -1.0 | -1.0 | -1.0 | | -1.0 | -1.0 |
| Total Lost Time (s) | 3.0 | 6.0 | 6.0 | | 6.0 | 6.0 |

| | ۶ | → | ← | • | \ | 4 |
|----------------------------|-------|-----------|------------|-----|----------|------|
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Recall Mode | None | C-Max | Max | | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 24.0 | 24.0 | | 24.0 | 24.0 |
| Pedestrian Calls (#/hr) | | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 11.0 | 78.0 | 66.0 | | 50.0 | 50.0 |
| Actuated g/C Ratio | 0.08 | 0.56 | 0.47 | | 0.36 | 0.36 |
| v/c Ratio | 0.42 | 0.61 | 0.72 | | 0.08 | 0.17 |
| Control Delay | 70.0 | 22.5 | 19.3 | | 30.4 | 6.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 70.0 | 22.5 | 19.3 | | 30.4 | 6.5 |
| LOS | Е | С | В | | С | А |
| Approach Delay | | 24.7 | 19.3 | | 15.0 | |
| Approach LOS | | С | В | | В | |
| Queue Length 50th (m) | 16.4 | 118.2 | 156.7 | | 9.8 | 0.0 |
| Queue Length 95th (m) | 31.1 | 140.6 | m194.7 | | 19.8 | 12.4 |
| Internal Link Dist (m) | | 279.3 | 238.8 | | 68.7 | |
| Turn Bay Length (m) | 30.0 | | | | 30.0 | |
| Base Capacity (vph) | 306 | 1950 | 1627 | | 625 | 536 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.19 | 0.61 | 0.72 | | 0.08 | 0.17 |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Cycle Length: 140 | | | | | | |
| Actuated Cycle Length: 14 | 0 | | | | | |
| Offset: 0 (0%), Referenced | | :EBT, Sta | rt of Gree | n | | |
| Natural Cycle: 90 | | | | | | |

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 21.7 Intersection LOS: C Intersection Capacity Utilization 73.5% ICU Level of Service D

Analysis Period (min) 15

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

Splits and Phases: 21: Finch Avenue W & Street 2A



| - | \rightarrow | • | ← | • | ~ |
|------|---------------------------------------|--|---|-----------|-----------|
| EBT | EBR | WBL | WBT | NBL | NBR |
| | | | | | |
| | 42 | 14 | | | 18 |
| | | 14 | | | 18 |
| Free | | | Free | Stop | |
| 0% | | | 0% | 0% | |
| 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| 246 | 46 | 15 | 234 | 95 | 20 |
| | | | | 50 | |
| | | | | 3.5 | |
| | | | | 1.2 | |
| | | | | 4 | |
| | | | | | |
| None | | | None | | |
| | | | | | |
| | | | 169 | | |
| | | | | | |
| | | 342 | | 583 | 319 |
| | | | | | |
| | | | | | |
| | | 342 | | 583 | 319 |
| | | 4.1 | | 6.4 | 6.2 |
| | | | | | |
| | | | | | 3.3 |
| | | | | | 97 |
| | | 1168 | | 450 | 692 |
| EB 1 | WB 1 | NB 1 | | | |
| 292 | 249 | 115 | | | |
| 0 | 15 | 95 | | | |
| 46 | 0 | | | | |
| | | | | | |
| | 0.01 | | | | |
| | | | | | |
| 0.0 | 0.6 | 14.9 | | | |
| | | | | | |
| 0.0 | 0.6 | | | | |
| | | В | | | |
| | | | | | |
| | | 2.8 | | | |
| ion | | 35.4% | IC | U Level o | f Service |
| | | 15 | | | |
| | None EB 1 292 0 46 1700 0.17 0.0 0.0 | None EB 1 WB 1 292 249 0 15 46 0 1700 1168 0.17 0.01 0.0 0.3 0.0 0.6 A 0.0 0.6 | 226 42 14 226 42 14 Free 0% 0.92 0.92 0.92 246 46 15 None None 342 4.1 2.2 99 1168 EB 1 WB 1 NB 1 292 249 115 0 15 95 46 0 20 1700 1168 479 0.17 0.01 0.24 0.0 0.3 7.4 0.0 0.6 14.9 A B 0.0 0.6 14.9 B 0 0 0.6 14.9 B 2.8 on 35.4% | 226 | 226 |

| | • | • | † | / | > | ↓ | |
|------------------------------|--------|------|----------|----------|-------------|------------|---|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT | |
| Lane Configurations | ¥ | | 1> | | | 4 | Ī |
| Traffic Volume (veh/h) | 69 | 15 | 12 | 90 | 2 | 52 | |
| Future Volume (Veh/h) | 69 | 15 | 12 | 90 | 2 | 52 | |
| 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) | 75 | 16 | 13 | 98 | 2 | 57 | |
| Pedestrians | 50 | | 50 | | | 50 | |
| Lane Width (m) | 3.5 | | 3.5 | | | 3.5 | |
| Walking Speed (m/s) | 1.2 | | 1.2 | | | 1.2 | |
| Percent Blockage | 4 | | 4 | | | 4 | |
| Right turn flare (veh) | | | | | | | |
| Median type | | | None | | | None | |
| Median storage veh) | | | | | | | |
| Upstream signal (m) | | | 247 | | | | |
| pX, platoon unblocked | | | | | | | |
| vC, conflicting volume | 223 | 162 | | | 161 | | |
| vC1, stage 1 conf vol | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | |
| vCu, unblocked vol | 223 | 162 | | | 161 | | |
| tC, single (s) | 6.4 | 6.2 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | |
| tF (s) | 3.5 | 3.3 | | | 2.2 | | |
| p0 queue free % | 89 | 98 | | | 100 | | |
| cM capacity (veh/h) | 703 | 813 | | | 1361 | | |
| Direction, Lane # | WB 1 | NB 1 | SB 1 | | | | |
| Volume Total | 91 | 111 | 59 | | | | |
| Volume Left | 75 | 0 | 2 | | | | |
| Volume Right | 16 | 98 | 0 | | | | |
| cSH | 720 | 1700 | 1361 | | | | |
| Volume to Capacity | 0.13 | 0.07 | 0.00 | | | | |
| Queue Length 95th (m) | 3.5 | 0.0 | 0.0 | | | | |
| Control Delay (s) | 10.7 | 0.0 | 0.3 | | | | |
| Lane LOS | В | | А | | | | |
| Approach Delay (s) | 10.7 | 0.0 | 0.3 | | | | |
| Approach LOS | В | | | | | | |
| Intersection Summary | | | | | | | |
| Average Delay | | | 3.8 | | | | |
| Intersection Capacity Utiliz | zation | | 31.2% | IC | U Level | of Service | |
| Analysis Period (min) | | | 15 | | 3.27 | | |

| | • | • | † | / | > | ļ |
|-------------------------------|-------|------|----------|------|-------------|------------|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | ¥ | | f) | | | ર્ન |
| Traffic Volume (veh/h) | 12 | 15 | 87 | 3 | 4 | 117 |
| Future Volume (Veh/h) | 12 | 15 | 87 | 3 | 4 | 117 |
| 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) | 13 | 16 | 95 | 3 | 4 | 127 |
| Pedestrians | 50 | | 50 | | | 50 |
| Lane Width (m) | 3.5 | | 3.5 | | | 3.5 |
| Walking Speed (m/s) | 1.2 | | 1.2 | | | 1.2 |
| Percent Blockage | 4 | | 4 | | | 4 |
| Right turn flare (veh) | | | | | | |
| Median type | | | None | | | None |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | | 194 | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 332 | 196 | | | 148 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 332 | 196 | | | 148 | |
| tC, single (s) | 6.4 | 6.2 | | | 4.1 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | | | 2.2 | |
| p0 queue free % | 98 | 98 | | | 100 | |
| cM capacity (veh/h) | 609 | 778 | | | 1376 | |
| Direction, Lane # | WB 1 | NB 1 | SB 1 | | | |
| Volume Total | 29 | 98 | 131 | | | |
| Volume Left | 13 | 0 | 4 | | | |
| Volume Right | 16 | 3 | 0 | | | |
| cSH | 692 | 1700 | 1376 | | | |
| Volume to Capacity | 0.04 | 0.06 | 0.00 | | | |
| Queue Length 95th (m) | 1.0 | 0.0 | 0.1 | | | |
| Control Delay (s) | 10.4 | 0.0 | 0.3 | | | |
| Lane LOS | В | | Α | | | |
| Approach Delay (s) | 10.4 | 0.0 | 0.3 | | | |
| Approach LOS | В | | | | | |
| Intersection Summary | | | | | | |
| Average Delay | | | 1.3 | | | |
| Intersection Capacity Utiliza | ation | | 29.9% | IC | U Level | of Service |
| Analysis Period (min) | | | 15 | .0 | | 2 27 1.30 |
| raidiyələ i cilod (illili) | | | 10 | | | |

| | ۶ | - | • | • | ← | • | 4 | † | <i>></i> | > | ţ | 1 |
|----------------------------|-------|------------|-------|-------|----------|-------|-------|----------|-------------|-------------|------------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | ∱ } | | ሻ | ^ | 7 | ሻ | ^ | 7 | ሻ | ∱ } | |
| Traffic Volume (vph) | 215 | 862 | 87 | 413 | 907 | 70 | 192 | 446 | 117 | 226 | 852 | 213 |
| Future Volume (vph) | 215 | 862 | 87 | 413 | 907 | 70 | 192 | 446 | 117 | 226 | 852 | 213 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 75.0 | | 0.0 | 100.0 | | 0.0 | 30.0 | | 100.0 | 50.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 1 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1767 | 3385 | 0 | 1785 | 3500 | 1377 | 1750 | 3275 | 1581 | 1700 | 3089 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.116 | | | 0.302 | | |
| Satd. Flow (perm) | 1648 | 3385 | 0 | 1778 | 3500 | 1011 | 214 | 3275 | 1329 | 508 | 3089 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 8 | | | | 125 | | | 156 | | 23 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 276.7 | | | 579.4 | | | 431.5 | | | 147.7 | |
| Travel Time (s) | | 19.9 | | | 41.7 | | | 31.1 | | | 10.6 | |
| Confl. Peds. (#/hr) | 191 | | 12 | 12 | | 191 | 257 | | 111 | 111 | | 257 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 4% | 1% | 0% | 2% | 16% | 2% | 9% | 1% | 5% | 4% | 9% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 229 | 1010 | 0 | 439 | 965 | 74 | 204 | 474 | 124 | 240 | 1133 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Prot | NA | | Prot | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | | | | | | 6 | 4 | | 4 | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 6 | 7 | 4 | 4 | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | |
| Minimum Split (s) | 9.0 | 38.0 | | 9.0 | 38.0 | 38.0 | 9.0 | 38.0 | 38.0 | 9.0 | 38.0 | |
| Total Split (s) | 25.0 | 46.0 | | 34.0 | 55.0 | 55.0 | 11.0 | 40.0 | 40.0 | 20.0 | 49.0 | |
| Total Split (%) | 17.9% | 32.9% | | 24.3% | 39.3% | 39.3% | 7.9% | 28.6% | 28.6% | 14.3% | 35.0% | |
| Maximum Green (s) | 21.0 | 39.0 | | 30.0 | 48.0 | 48.0 | 7.0 | 33.0 | 33.0 | 16.0 | 42.0 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 3.0 | | 1.0 | 3.0 | 3.0 | 1.0 | 3.0 | 3.0 | 1.0 | 3.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 3.0 | 6.0 | | 3.0 | 6.0 | 6.0 | 3.0 | 6.0 | 6.0 | 3.0 | 6.0 | |

| | • | - | \rightarrow | • | ← | • | 4 | † | / | - | ļ | 4 |
|-------------------------|--------|--------|---------------|--------|----------|------|--------|----------|----------|------|--------|-----|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Recall Mode | None | C-Max | | None | Max | Max | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 24.0 | | | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | 0 | | 0 | 0 | | 0 | |
| Act Effct Green (s) | 21.1 | 40.0 | | 31.0 | 49.9 | 49.9 | 45.6 | 34.6 | 34.6 | 57.0 | 43.0 | |
| Actuated g/C Ratio | 0.15 | 0.29 | | 0.22 | 0.36 | 0.36 | 0.33 | 0.25 | 0.25 | 0.41 | 0.31 | |
| v/c Ratio | 0.86 | 1.04 | | 1.11 | 0.77 | 0.17 | 1.30 | 0.59 | 0.28 | 0.69 | 1.18 | |
| Control Delay | 76.3 | 111.9 | | 128.2 | 45.4 | 1.2 | 202.3 | 50.0 | 4.2 | 40.5 | 131.7 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | |
| Total Delay | 76.3 | 111.9 | | 128.2 | 45.4 | 1.2 | 202.3 | 50.0 | 4.2 | 40.5 | 132.3 | |
| LOS | E | F | | F | D | Α | F | D | Α | D | F | |
| Approach Delay | | 105.3 | | | 67.8 | | | 81.7 | | | 116.2 | |
| Approach LOS | | F | | | Е | | | F | | | F | |
| Queue Length 50th (m) | 70.1 | ~170.5 | | ~146.0 | 132.4 | 0.0 | ~58.0 | 64.8 | 0.0 | 47.8 | ~205.2 | |
| Queue Length 95th (m) | #112.7 | #215.3 | | #214.9 | 160.0 | 1.1 | #112.2 | 84.1 | 8.9 | 70.6 | #250.4 | |
| Internal Link Dist (m) | | 252.7 | | | 555.4 | | | 407.5 | | | 123.7 | |
| Turn Bay Length (m) | 75.0 | | | 100.0 | | | 30.0 | | 100.0 | 50.0 | | |
| Base Capacity (vph) | 277 | 972 | | 395 | 1246 | 440 | 157 | 810 | 445 | 351 | 964 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 107 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.83 | 1.04 | | 1.11 | 0.77 | 0.17 | 1.30 | 0.59 | 0.28 | 0.68 | 1.32 | |

Area Type: Other

Cycle Length: 140 Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.30 Intersection Signal Delay: 93.2 Intersection Capacity Utilization 108.9%

Intersection LOS: F
ICU Level of Service G

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.





Page 2

| | ۶ | - | \rightarrow | • | ← | • | • | † | / | \ | ļ | 4 |
|----------------------------|-------|-------|---------------|-------|----------|-------|-------|----------|-------|----------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | f) | | 7 | £ | | Ĭ | ^ | 7 | Ť | ^ | 7 |
| Traffic Volume (vph) | 14 | 197 | 150 | 81 | 253 | 24 | 104 | 484 | 36 | 50 | 904 | 29 |
| Future Volume (vph) | 14 | 197 | 150 | 81 | 253 | 24 | 104 | 484 | 36 | 50 | 904 | 29 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 30.0 | | 0.0 | 35.0 | | 40.0 | 85.0 | | 35.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1668 | 1632 | 0 | 1700 | 1666 | 0 | 1623 | 3336 | 1507 | 1684 | 3433 | 1365 |
| Flt Permitted | 0.354 | | | 0.235 | | | 0.242 | | | 0.437 | | |
| Satd. Flow (perm) | 622 | 1632 | 0 | 419 | 1666 | 0 | 412 | 3336 | 1429 | 764 | 3433 | 1316 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 35 | | | 4 | | | | 40 | | | 31 |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 158.2 | | | 160.6 | | | 478.0 | | | 179.7 | |
| Travel Time (s) | | 11.4 | | | 11.6 | | | 34.4 | | | 12.9 | |
| Confl. Peds. (#/hr) | | | 5 | 5 | | | 8 | | 16 | 16 | | 8 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 7% | 9% | 4% | 5% | 10% | 25% | 10% | 7% | 6% | 6% | 4% | 17% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 15 | 381 | 0 | 89 | 304 | 0 | 114 | 532 | 40 | 55 | 993 | 32 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 37.4 | 37.4 | | 37.4 | 37.4 | | 36.9 | 36.9 | 36.9 | 36.9 | 36.9 | 36.9 |
| Total Split (s) | 47.0 | 47.0 | | 47.0 | 47.0 | | 73.0 | 73.0 | 73.0 | 73.0 | 73.0 | 73.0 |
| Total Split (%) | 39.2% | 39.2% | | 39.2% | 39.2% | | 60.8% | 60.8% | 60.8% | 60.8% | 60.8% | 60.8% |
| Maximum Green (s) | 40.6 | 40.6 | | 40.6 | 40.6 | | 67.1 | 67.1 | 67.1 | 67.1 | 67.1 | 67.1 |
| Yellow Time (s) | 3.4 | 3.4 | | 3.4 | 3.4 | | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 5.4 | 5.4 | | 5.4 | 5.4 | | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 |

| | • | - | \rightarrow | \checkmark | • | • | 1 | † | / | - | ↓ | 4 |
|-------------------------|------|-------|---------------|--------------|-------|-----|-------|----------|-------|-------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | None | | None | None | | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max |
| Walk Time (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| Flash Dont Walk (s) | 19.0 | 19.0 | | 19.0 | 19.0 | | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Act Effct Green (s) | 32.3 | 32.3 | | 32.3 | 32.3 | | 77.4 | 77.4 | 77.4 | 77.4 | 77.4 | 77.4 |
| Actuated g/C Ratio | 0.27 | 0.27 | | 0.27 | 0.27 | | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 |
| v/c Ratio | 0.09 | 0.82 | | 0.79 | 0.67 | | 0.43 | 0.25 | 0.04 | 0.11 | 0.45 | 0.04 |
| Control Delay | 30.6 | 51.4 | | 82.8 | 45.5 | | 19.1 | 10.3 | 3.4 | 10.8 | 12.4 | 3.9 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 30.6 | 51.4 | | 82.8 | 45.5 | | 19.1 | 10.3 | 3.4 | 10.8 | 12.4 | 3.9 |
| LOS | С | D | | F | D | | В | В | Α | В | В | Α |
| Approach Delay | | 50.6 | | | 53.9 | | | 11.3 | | | 12.1 | |
| Approach LOS | | D | | | D | | | В | | | В | |
| Queue Length 50th (m) | 2.8 | 81.0 | | 20.4 | 66.3 | | 12.9 | 27.3 | 0.0 | 4.9 | 60.3 | 0.1 |
| Queue Length 95th (m) | 7.8 | 107.6 | | #43.5 | 88.0 | | 35.7 | 44.6 | 5.0 | 13.1 | 92.7 | 4.7 |
| Internal Link Dist (m) | | 134.2 | | | 136.6 | | | 454.0 | | | 155.7 | |
| Turn Bay Length (m) | 30.0 | | | 30.0 | | | 35.0 | | 40.0 | 85.0 | | 35.0 |
| Base Capacity (vph) | 215 | 588 | | 145 | 580 | | 265 | 2152 | 936 | 492 | 2214 | 859 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.65 | | 0.61 | 0.52 | | 0.43 | 0.25 | 0.04 | 0.11 | 0.45 | 0.04 |

Area Type: Other

Cycle Length: 120 Actuated Cycle Length: 120

Offset: 102 (85%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 24.3 Intersection LOS: C
Intersection Capacity Utilization 79.5% ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.





| | ၨ | → | • | • | ← | • | 4 | † | / | > | ļ | 4 |
|-----------------------------------|--------------|--------------|-------|------------|--------------|-------|---------------|--------------|-------|--------------|---------------|---------------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | f) | | ኻ | f) | | * | † } | | ሻ | ^ | 7 |
| Traffic Volume (vph) | 58 | 15 | 251 | 60 | 25 | 33 | 187 | 512 | 47 | 33 | 996 | 115 |
| Future Volume (vph) | 58 | 15 | 251 | 60 | 25 | 33 | 187 | 512 | 47 | 33 | 996 | 115 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 10.0 | | 0.0 | 25.0 | | 0.0 | 25.0 | | 30.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1566 | 1531 | 0 | 1733 | 1667 | 0 | 1638 | 3288 | 0 | 1785 | 3400 | 1413 |
| Flt Permitted | 0.716 | | | 0.237 | | | 0.185 | | | 0.419 | | |
| Satd. Flow (perm) | 1169 | 1531 | 0 | 430 | 1667 | 0 | 317 | 3288 | 0 | 766 | 3400 | 1293 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 259 | | | 36 | | | 14 | | | | 113 |
| Link Speed (k/h) | | 50 | | | 20 | | | 50 | | | 50 | |
| Link Distance (m) | | 44.9 | | | 58.2 | | | 147.7 | | | 478.0 | |
| Travel Time (s) | | 3.2 | | | 10.5 | | | 10.6 | | | 34.4 | |
| Confl. Peds. (#/hr) | 8 | | 10 | 10 | | 8 | 32 | | 31 | 31 | | 32 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 14% | 0% | 3% | 3% | 0% | 3% | 9% | 7% | 0% | 0% | 5% | 13% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 64 | 292 | 0 | 66 | 63 | 0 | 205 | 615 | 0 | 36 | 1095 | 126 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 4.04 | 1.01 | 4.04 | 1.01 | 1.01 | 1.01 | 1.01 |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | NIA | 15 | 25 | N I A | 15 | 25 | NIA | 15 | 25 | NIA | 15 |
| Turn Type | Perm | NA | | pm+pt | NA | | pm+pt | NA | | Perm | NA | Perm |
| Protected Phases | 1 | 4 | | 3 | 8 | | 5 | 2 | | / | 6 | 1 |
| Permitted Phases | 4 | 4 | | 8 | 0 | | 2 | 2 | | 6 | , | 6 |
| Detector Phase | 4 | 4 | | 3 | 8 | | 5 | 2 | | 6 | 6 | 6 |
| Switch Phase | 10.0 | 10.0 | | ΕO | 10.0 | | ΕΛ | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Initial (s) | 10.0 34.0 | 10.0 34.0 | | 5.0 9.0 | 10.0 34.0 | | 5.0 | 10.0 35.0 | | 10.0 35.0 | 10.0 | 10.0 35.0 |
| Minimum Split (s) | 34.0 | 34.0 | | 9.0 | 43.0 | | 9.0 | 73.0 | | 57.0 | 35.0 | |
| Total Split (s) Total Split (%) | 29.3% | 29.3% | | 7.8% | 37.1% | | 16.0 13.8% | 62.9% | | 49.1% | 57.0 49.1% | 57.0 49.1% |
| | | | | | | | | | | | | |
| Maximum Green (s) Yellow Time (s) | 27.0 4.0 | 27.0 4.0 | | 5.0 3.0 | 36.0 4.0 | | 12.0 3.0 | 66.0 4.0 | | 50.0 4.0 | 50.0 4.0 | 50.0 4.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 1.0 | 3.0 | | 1.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 6.0 | 6.0 | | 3.0 | 6.0 | | 3.0 | 6.0 | | 6.0 | 6.0 | 6.0 |
| rotal Lost Tillic (3) | 0.0 | 0.0 | | 3.0 | 0.0 | | 5.0 | 0.0 | | 0.0 | 0.0 | 0.0 |

| | • | → | \rightarrow | • | ← | • | • | † | / | > | ļ | 4 |
|-------------------------|------|----------|---------------|------|----------|-----|------|----------|-----|-------------|-------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lag | Lag | | Lead | | | Lead | | | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | | | Yes | | | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | None | | None | None | | None | C-Max | | C-Max | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 | | | 7.0 | | | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 20.0 | 20.0 | | | 20.0 | | | 21.0 | | 21.0 | 21.0 | 21.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | | 0 | | | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | 13.9 | 13.9 | | 24.1 | 21.1 | | 85.9 | 82.9 | | 67.3 | 67.3 | 67.3 |
| Actuated g/C Ratio | 0.12 | 0.12 | | 0.21 | 0.18 | | 0.74 | 0.71 | | 0.58 | 0.58 | 0.58 |
| v/c Ratio | 0.46 | 0.71 | | 0.42 | 0.19 | | 0.54 | 0.26 | | 0.08 | 0.55 | 0.16 |
| Control Delay | 57.3 | 18.5 | | 43.8 | 20.3 | | 10.9 | 6.6 | | 15.1 | 18.3 | 4.3 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 57.3 | 18.5 | | 43.8 | 20.3 | | 10.9 | 6.6 | | 15.1 | 18.3 | 4.3 |
| LOS | Е | В | | D | С | | В | А | | В | В | Α |
| Approach Delay | | 25.5 | | | 32.3 | | | 7.7 | | | 16.8 | |
| Approach LOS | | С | | | С | | | Α | | | В | |
| Queue Length 50th (m) | 14.7 | 7.3 | | 13.0 | 5.4 | | 12.9 | 23.7 | | 3.5 | 79.2 | 1.2 |
| Queue Length 95th (m) | 27.6 | 34.8 | | 23.6 | 16.4 | | 26.3 | 39.3 | | 11.7 | 133.8 | 12.8 |
| Internal Link Dist (m) | | 20.9 | | | 34.2 | | | 123.7 | | | 454.0 | |
| Turn Bay Length (m) | 30.0 | | | 10.0 | | | 25.0 | | | 25.0 | | 30.0 |
| Base Capacity (vph) | 282 | 566 | | 156 | 556 | | 400 | 2353 | | 444 | 1973 | 797 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |

0

0.42

0

0.11

0

0.26

0

0.51

0

0.08

0

0.55

0

0.16

Intersection Summary

Storage Cap Reductn

Reduced v/c Ratio

Area Type: Other

Cycle Length: 116
Actuated Cycle Length: 116

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

0

0.23

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71

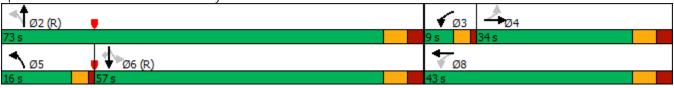
Intersection Signal Delay: 15.9 Intersection LOS: B
Intersection Capacity Utilization 77.5% ICU Level of Service D

0

0.52

Analysis Period (min) 15

Splits and Phases: 6: Weston Road & Toryork Drive/Retail Access



| | ۶ | - | • | • | ← | • | • | † | / | / | ţ | 4 |
|----------------------------|-------|------------|-------|-------|------------|------------|-------|----------|----------|----------|----------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | ↑ ₽ | | ኻ | † } | | ሻ | f) | | ሻ | † | 7 |
| Traffic Volume (vph) | 89 | 1037 | 138 | 21 | 1141 | 156 | 163 | 80 | 23 | 229 | 138 | 161 |
| Future Volume (vph) | 89 | 1037 | 138 | 21 | 1141 | 156 | 163 | 80 | 23 | 229 | 138 | 161 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 30.0 | | 0.0 | 30.0 | | 0.0 | 15.0 | | 0.0 | 70.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1566 | 3353 | 0 | 1785 | 3327 | 0 | 1733 | 1797 | 0 | 1700 | 1879 | 1493 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.657 | | | 0.687 | | |
| Satd. Flow (perm) | 1543 | 3353 | 0 | 1750 | 3327 | 0 | 1144 | 1797 | 0 | 1188 | 1879 | 1393 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 19 | | | 20 | | | 19 | | | | 145 |
| Link Speed (k/h) | | 50 | | | 50 | | | 40 | | | 50 | |
| Link Distance (m) | | 255.0 | | | 273.8 | | | 198.1 | | | 176.1 | |
| Travel Time (s) | | 18.4 | | | 19.7 | | | 17.8 | | | 12.7 | |
| Confl. Peds. (#/hr) | 61 | | 70 | 70 | | 91 | 70 | | 49 | 49 | | 70 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 14% | 3% | 3% | 0% | 3% | 6% | 3% | 0% | 0% | 5% | 0% | 7% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | J |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 94 | 1237 | 0 | 22 | 1365 | 0 | 172 | 108 | 0 | 241 | 145 | 169 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | J • | | 3.5 | | | 3.5 | J |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 4 | | | 8 | |
| Permitted Phases | | _ | | • | | | 4 | • | | 8 | | 8 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 4 | 4 | | 8 | 8 | 8 |
| Switch Phase | | _ | | • | | | | | | | | J |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.0 | 40.0 | | 9.0 | 35.0 | | 40.4 | 40.4 | | 40.4 | 40.4 | 40.4 |
| Total Split (s) | 9.0 | 40.6 | | 9.0 | 40.6 | | 40.4 | 40.4 | | 40.4 | 40.4 | 40.4 |
| Total Split (%) | 10.0% | 45.1% | | 10.0% | 45.1% | | 44.9% | 44.9% | | 44.9% | 44.9% | 44.9% |
| Maximum Green (s) | 5.0 | 34.6 | | 5.0 | 34.6 | | 34.0 | 34.0 | | 34.0 | 34.0 | 34.0 |
| Yellow Time (s) | 3.0 | 3.3 | | 3.0 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 1.0 | 2.7 | | 1.0 | 2.7 | | 3.1 | 3.1 | | 3.1 | 3.1 | 3.1 |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 3.0 | 5.0 | | 3.0 | 5.0 | | 5.4 | 5.4 | | 5.4 | 5.4 | 5.4 |
| Total Lost Time (3) | 3.0 | 5.0 | | 3.0 | 5.0 | | ٦.٦ | J.T | | ٥.٦ | 5.7 | J.T |

14: Rumike Road/Milvan Drive & Finch Avenue W

| | • | - | \rightarrow | • | • | • | 1 | † | / | - | ţ | 4 |
|-------------------------|-------|--------|---------------|------|--------|-----|------|----------|-----|------|-------|------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | C-Max | | None | Max | | None | None | | None | None | None |
| Walk Time (s) | | 12.0 | | | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 |
| Flash Dont Walk (s) | | 17.0 | | | 17.0 | | 22.0 | 22.0 | | 22.0 | 22.0 | 22.0 |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | 10.7 | 50.5 | | 7.2 | 41.0 | | 24.9 | 24.9 | | 24.9 | 24.9 | 24.9 |
| Actuated g/C Ratio | 0.12 | 0.56 | | 0.08 | 0.46 | | 0.28 | 0.28 | | 0.28 | 0.28 | 0.28 |
| v/c Ratio | 0.51 | 0.65 | | 0.16 | 0.89 | | 0.55 | 0.21 | | 0.73 | 0.28 | 0.35 |
| Control Delay | 49.6 | 18.9 | | 41.2 | 33.3 | | 32.9 | 19.2 | | 42.0 | 25.0 | 7.3 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 49.6 | 18.9 | | 41.2 | 33.3 | | 32.9 | 19.2 | | 42.0 | 25.0 | 7.3 |
| LOS | D | В | | D | С | | С | В | | D | С | Α |
| Approach Delay | | 21.1 | | | 33.5 | | | 27.6 | | | 27.0 | |
| Approach LOS | | С | | | С | | | С | | | С | |
| Queue Length 50th (m) | 15.7 | 65.6 | | 3.8 | 121.4 | | 26.7 | 12.3 | | 39.8 | 20.7 | 3.2 |
| Queue Length 95th (m) | #44.7 | #155.1 | | 11.4 | #183.0 | | 40.5 | 21.5 | | 57.9 | 30.9 | 15.8 |
| Internal Link Dist (m) | | 231.0 | | | 249.8 | | | 174.1 | | | 152.1 | |
| Turn Bay Length (m) | 30.0 | | | 30.0 | | | 15.0 | | | 70.0 | | |
| Base Capacity (vph) | 186 | 1890 | | 141 | 1527 | | 444 | 710 | | 462 | 730 | 630 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.51 | 0.65 | | 0.16 | 0.89 | | 0.39 | 0.15 | | 0.52 | 0.20 | 0.27 |

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 27.4 Intersection LOS: C
Intersection Capacity Utilization 95.7% ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.





| | ᄼ | → | \rightarrow | • | ← | • | 4 | † | / | > | ļ | 4 |
|----------------------------|-------|------------|---------------|-------|------------|-------|-------|----------|-------|-------------|-------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | ∱ ∱ | | ች | ↑ Ъ | | ሻ | ĵ» | | | 4 | |
| Traffic Volume (vph) | 26 | 1191 | 69 | 94 | 1209 | 4 | 128 | 10 | 70 | 15 | 10 | 33 |
| Future Volume (vph) | 26 | 1191 | 69 | 94 | 1209 | 4 | 128 | 10 | 70 | 15 | 10 | 33 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 15.0 | | 0.0 | 30.0 | | 0.0 | 15.0 | | 0.0 | 0.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 0 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1653 | 3419 | 0 | 1733 | 3430 | 0 | 1767 | 1584 | 0 | 0 | 1413 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.259 | | | | 0.885 | |
| Satd. Flow (perm) | 1592 | 3419 | 0 | 1702 | 3430 | 0 | 482 | 1584 | 0 | 0 | 1264 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 5 | | | | | | 74 | | | 35 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 40 | | | 20 | |
| Link Distance (m) | | 273.8 | | | 289.5 | | | 203.2 | | | 58.7 | |
| Travel Time (s) | | 19.7 | | | 20.8 | | | 18.3 | | | 10.6 | |
| Confl. Peds. (#/hr) | 59 | | 31 | 31 | | 59 | 69 | | 9 | 9 | | 69 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 8% | 3% | 0% | 3% | 4% | 0% | 1% | 0% | 1% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 27 | 1327 | 0 | 99 | 1277 | 0 | 135 | 85 | 0 | 0 | 62 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | _ | 7 | | _ | 8 | |
| Permitted Phases | _ | _ | | | _ | | 7 | _ | | 8 | _ | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 7 | 7 | | 8 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | | 7.0 | 7.0 | |
| Minimum Split (s) | 9.0 | 25.0 | | 9.0 | 25.0 | | 36.0 | 36.0 | | 14.0 | 14.0 | |
| Total Split (s) | 9.0 | 64.0 | | 12.0 | 67.0 | | 50.0 | 50.0 | | 14.0 | 14.0 | |
| Total Split (%) | 6.4% | 45.7% | | 8.6% | 47.9% | | 35.7% | 35.7% | | 10.0% | 10.0% | |
| Maximum Green (s) | 5.0 | 58.0 | | 8.0 | 61.0 | | 43.0 | 43.0 | | 8.0 | 8.0 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | | 4.0 | 4.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.0 | 2.0 | | 1.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | | -1.0 | |
| Total Lost Time (s) | 3.0 | 5.0 | | 3.0 | 5.0 | | 6.0 | 6.0 | | | 5.0 | |

18: Jayzel Drive/Retail Access & Finch Avenue W

| | • | - | • | • | • | • | 1 | † | | - | ţ | 4 |
|-------------------------|------|--------|-----|-------|-------|-----|----------|----------|-----|------|-------|-----|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lead | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | C-Max | | None | Max | | None | None | | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | | 7.0 | 7.0 | | 0.0 | 0.0 | |
| Flash Dont Walk (s) | | 12.0 | | | 12.0 | | 22.0 | 22.0 | | 0.0 | 0.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 6.3 | 63.6 | | 9.7 | 70.9 | | 41.7 | 41.7 | | | 8.6 | |
| Actuated g/C Ratio | 0.04 | 0.45 | | 0.07 | 0.51 | | 0.30 | 0.30 | | | 0.06 | |
| v/c Ratio | 0.36 | 0.85 | | 0.83 | 0.74 | | 0.94 | 0.16 | | | 0.56 | |
| Control Delay | 79.3 | 41.8 | | 117.3 | 24.9 | | 109.1 | 10.1 | | | 52.1 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Total Delay | 79.3 | 41.8 | | 117.3 | 24.9 | | 109.1 | 10.1 | | | 52.1 | |
| LOS | Е | D | | F | С | | F | В | | | D | |
| Approach Delay | | 42.6 | | | 31.5 | | | 70.9 | | | 52.1 | |
| Approach LOS | | D | | | С | | | Е | | | D | |
| Queue Length 50th (m) | 7.8 | 189.4 | | 30.7 | 109.1 | | 37.5 | 2.2 | | | 7.7 | |
| Queue Length 95th (m) | 18.7 | #237.1 | | #67.5 | 141.2 | | #80.6 | 15.1 | | | #24.3 | |
| Internal Link Dist (m) | | 249.8 | | | 265.5 | | | 179.2 | | | 34.7 | |
| Turn Bay Length (m) | 15.0 | | | 30.0 | | | 15.0 | | | | | |
| Base Capacity (vph) | 74 | 1555 | | 119 | 1736 | | 151 | 548 | | | 114 | |
| 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 | 0.36 | 0.85 | | 0.83 | 0.74 | | 0.89 | 0.16 | | | 0.54 | |

Intersection Summary

Area Type: Other

Cycle Length: 140
Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 39.8 Intersection LOS: D
Intersection Capacity Utilization 69.4% ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.



| | • | → | • | • | \ | 1 |
|----------------------------|------------|------------|------------|-------|------------|------------|
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | <u> </u> | ↑ ↑ | ↑ ↑ | WOR | <u> </u> | 7 JUK |
| Traffic Volume (vph) | 105 | 1083 | 1238 | 33 | 46 | 64 |
| Future Volume (vph) | 105 | 1083 | 1238 | 33 | 46 | 64 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | 3.3 | 0% | 0% | 3.3 | 0% | 3.3 |
| Storage Length (m) | 30.0 | 070 | 070 | 0.0 | 30.0 | 0.0 |
| Storage Lanes | 1 | | | 0.0 | 1 | 1 |
| Taper Length (m) | 7.5 | | | U | 7.5 | |
| | 1750 | 3500 | 3449 | 0 | 1750 | 1566 |
| Satd. Flow (prot) | | 3300 | 3449 | U | | 1000 |
| Flt Permitted | 0.950 | 2500 | 2440 | 0 | 0.950 | 1100 |
| Satd. Flow (perm) | 1650 | 3500 | 3449 | 0 | 1342 | 1189 |
| Right Turn on Red | | | 0 | Yes | | Yes |
| Satd. Flow (RTOR) | | =- | 2 | | 40 | 70 |
| Link Speed (k/h) | | 50 | 50 | | 40 | |
| Link Distance (m) | | 289.5 | 276.7 | | 80.5 | |
| Travel Time (s) | | 20.8 | 19.9 | | 7.2 | |
| Confl. Peds. (#/hr) | 100 | | | 100 | 100 | 100 |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 114 | 1177 | 1382 | 0 | 50 | 70 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(m) | 23.1 | 3.5 | 3.5 | | 3.5 | g |
| Link Offset(m) | | 0.0 | 0.0 | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | 4.8 | | 4.8 | |
| Two way Left Turn Lane | | 4.0 | 4.0 | | 4.0 | |
| | 1.01 | 1.01 | 1 01 | 1 01 | 1 01 | 1.01 |
| Headway Factor | | 1.01 | 1.01 | 1.01 | 1.01 | |
| Turning Speed (k/h) | 25 Drot | NΙΛ | NIA | 15 | 25 Drot | 15 Dorm |
| Turn Type | Prot | NA | NA | | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | | 4 | |
| Permitted Phases | | _ | | | | 4 |
| Detector Phase | 5 | 2 | 6 | | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | | 10.0 | 10.0 |
| Minimum Split (s) | 9.0 | 25.0 | 25.0 | | 25.0 | 25.0 |
| Total Split (s) | 36.0 | 88.0 | 52.0 | | 52.0 | 52.0 |
| Total Split (%) | 25.7% | 62.9% | 37.1% | | 37.1% | 37.1% |
| Maximum Green (s) | 32.0 | 81.0 | 45.0 | | 45.0 | 45.0 |
| Yellow Time (s) | 3.0 | 4.0 | 4.0 | | 4.0 | 4.0 |
| All-Red Time (s) | 1.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Lost Time Adjust (s) | -1.0 | -1.0 | -1.0 | | -1.0 | -1.0 |
| Total Lost Time (s) | 3.0 | 6.0 | 6.0 | | 6.0 | 6.0 |
| rotal Lost Time (s) | 3.0 | 0.0 | 0.0 | | 0.0 | 0.0 |

| | • | → | • | • | - | 4 |
|-------------------------|-------|----------|-------|-----|------|------|
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Recall Mode | None | C-Max | Max | | None | None |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 15.5 | 116.2 | 97.7 | | 11.8 | 11.8 |
| Actuated g/C Ratio | 0.11 | 0.83 | 0.70 | | 0.08 | 0.08 |
| v/c Ratio | 0.59 | 0.41 | 0.57 | | 0.34 | 0.43 |
| Control Delay | 71.2 | 0.5 | 6.1 | | 66.7 | 20.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 71.2 | 0.5 | 6.1 | | 66.7 | 20.9 |
| LOS | Е | А | Α | | Е | С |
| Approach Delay | | 6.8 | 6.1 | | 40.0 | |
| Approach LOS | | А | Α | | D | |
| Queue Length 50th (m) | 35.3 | 2.5 | 43.8 | | 14.1 | 0.0 |
| Queue Length 95th (m) | m42.5 | 5.9 | m44.4 | | 27.7 | 15.7 |
| Internal Link Dist (m) | | 265.5 | 252.7 | | 56.5 | |
| Turn Bay Length (m) | 30.0 | | | | 30.0 | |
| Base Capacity (vph) | 412 | 2905 | 2408 | | 575 | 437 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.28 | 0.41 | 0.57 | | 0.09 | 0.16 |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |

Cycle Length: 140 Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

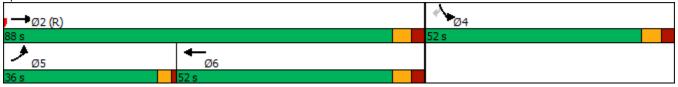
Maximum v/c Ratio: 0.59 Intersection Signal Delay: 7.8 Intersection Capacity Utilization 69.3%

Intersection LOS: A ICU Level of Service C

Analysis Period (min) 15

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

Splits and Phases: 21: Finch Avenue W & Street 2A



| | ۶ | - | • | • | ← | • | • | † | <i>></i> | / | ţ | 1 |
|----------------------------|-------|------------|-------|-------|----------|-------|-------|----------|-------------|----------|------------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | ∱ } | | ሻ | ^ | 7 | ሻ | ^ | 7 | * | ∱ } | |
| Traffic Volume (vph) | 215 | 690 | 87 | 413 | 725 | 70 | 192 | 360 | 117 | 226 | 680 | 213 |
| Future Volume (vph) | 215 | 690 | 87 | 413 | 725 | 70 | 192 | 360 | 117 | 226 | 680 | 213 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (m) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (m) | 75.0 | | 0.0 | 100.0 | | 0.0 | 30.0 | | 100.0 | 50.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 1 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Satd. Flow (prot) | 1767 | 3374 | 0 | 1785 | 3500 | 1377 | 1750 | 3275 | 1581 | 1700 | 3017 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.083 | | | 0.412 | | |
| Satd. Flow (perm) | 1587 | 3374 | 0 | 1774 | 3500 | 959 | 153 | 3275 | 1294 | 676 | 3017 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 8 | | | | 75 | | | 124 | | 27 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 276.7 | | | 579.4 | | | 431.5 | | | 147.7 | |
| Travel Time (s) | | 19.9 | | | 41.7 | | | 31.1 | | | 10.6 | |
| Confl. Peds. (#/hr) | 191 | | 12 | 12 | | 191 | 257 | | 111 | 111 | | 257 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 4% | 1% | 0% | 2% | 16% | 2% | 9% | 1% | 5% | 4% | 9% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 229 | 827 | 0 | 439 | 771 | 74 | 204 | 383 | 124 | 240 | 950 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.5 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Prot | NA | | Prot | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | | | | | | 6 | 4 | | 4 | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 6 | 7 | 4 | 4 | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | |
| Minimum Split (s) | 9.0 | 38.0 | | 9.0 | 38.0 | 38.0 | 9.0 | 38.0 | 38.0 | 9.0 | 38.0 | |
| Total Split (s) | 34.0 | 45.0 | | 43.0 | 54.0 | 54.0 | 18.0 | 53.0 | 53.0 | 20.0 | 55.0 | |
| Total Split (%) | 21.1% | 28.0% | | 26.7% | 33.5% | 33.5% | 11.2% | 32.9% | 32.9% | 12.4% | 34.2% | |
| Maximum Green (s) | 30.0 | 39.0 | | 39.0 | 48.0 | 48.0 | 14.0 | 47.0 | 47.0 | 16.0 | 49.0 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 2.0 | | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 3.0 | 5.0 | | 3.0 | 5.0 | 5.0 | 3.0 | 5.0 | 5.0 | 3.0 | 5.0 | |

| | • | - | • | • | • | • | • | † | / | - | ţ | 4 |
|-------------------------|-------|--------|-----|--------|-------|------|--------|----------|----------|------|--------|-----|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Recall Mode | None | C-Max | | None | Max | Max | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 24.0 | | | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | 0 | | 0 | 0 | | 0 | |
| Act Effct Green (s) | 26.2 | 40.0 | | 40.0 | 53.8 | 53.8 | 65.4 | 48.4 | 48.4 | 68.6 | 50.0 | |
| Actuated g/C Ratio | 0.16 | 0.25 | | 0.25 | 0.33 | 0.33 | 0.41 | 0.30 | 0.30 | 0.43 | 0.31 | |
| v/c Ratio | 0.80 | 0.98 | | 0.99 | 0.66 | 0.20 | 0.97 | 0.39 | 0.26 | 0.61 | 0.99 | |
| Control Delay | 84.7 | 85.2 | | 99.8 | 49.8 | 9.0 | 97.7 | 46.1 | 7.8 | 37.7 | 80.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 36.9 | |
| Total Delay | 84.7 | 85.2 | | 99.8 | 49.8 | 9.0 | 97.7 | 46.1 | 7.8 | 37.7 | 117.8 | |
| LOS | F | F | | F | D | Α | F | D | Α | D | F | |
| Approach Delay | | 85.1 | | | 64.5 | | | 54.3 | | | 101.6 | |
| Approach LOS | | F | | | Е | | | D | | | F | |
| Queue Length 50th (m) | 74.9 | 145.9 | | 148.8 | 118.0 | 0.0 | 52.6 | 54.2 | 0.0 | 52.8 | 165.2 | |
| Queue Length 95th (m) | 104.4 | #191.7 | | #223.5 | 147.5 | 13.0 | #108.4 | 70.7 | 16.6 | 76.0 | #214.9 | |
| Internal Link Dist (m) | | 252.7 | | | 555.4 | | | 407.5 | | | 123.7 | |
| Turn Bay Length (m) | 75.0 | | | 100.0 | | | 30.0 | | 100.0 | 50.0 | | |
| Base Capacity (vph) | 340 | 844 | | 443 | 1170 | 370 | 210 | 984 | 475 | 397 | 955 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 176 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.67 | 0.98 | | 0.99 | 0.66 | 0.20 | 0.97 | 0.39 | 0.26 | 0.60 | 1.22 | |

Area Type: Other

Cycle Length: 161 Actuated Cycle Length: 161

Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 125

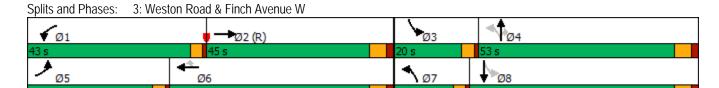
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay: 78.3 Intersection LOS: E
Intersection Capacity Utilization 101.9% ICU Level of Service G

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.



| | - | • | • | • | 1 | ~ |
|-------------------------------|-------|------|-------|------|-----------|-----------|
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | f) | | | 4 | W | |
| Traffic Volume (veh/h) | 305 | 70 | 30 | 227 | 53 | 13 |
| Future Volume (Veh/h) | 305 | 70 | 30 | 227 | 53 | 13 |
| 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) | 332 | 76 | 33 | 247 | 58 | 14 |
| Pedestrians | | | | | 50 | |
| Lane Width (m) | | | | | 3.5 | |
| Walking Speed (m/s) | | | | | 1.2 | |
| Percent Blockage | | | | | 4 | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | | | 164 | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 458 | | 733 | 420 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 458 | | 733 | 420 |
| 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 | | 84 | 98 |
| cM capacity (veh/h) | | | 1058 | | 360 | 608 |
| Direction, Lane # | EB 1 | WB 1 | NB 1 | | | |
| Volume Total | 408 | 280 | 72 | | | |
| Volume Left | 0 | 33 | 58 | | | |
| Volume Right | 76 | 0 | 14 | | | |
| cSH | 1700 | 1058 | 391 | | | |
| Volume to Capacity | 0.24 | 0.03 | 0.18 | | | |
| Queue Length 95th (m) | 0.0 | 0.8 | 5.3 | | | |
| Control Delay (s) | 0.0 | 1.3 | 16.3 | | | |
| Lane LOS | | A | С | | | |
| Approach Delay (s) | 0.0 | 1.3 | 16.3 | | | |
| Approach LOS | | | С | | | |
| Intersection Summary | | | | | | |
| Average Delay | | | 2.0 | | | |
| Intersection Capacity Utiliza | ation | | 47.6% | IC | U Level o | f Service |
| Analysis Period (min) | | | 15 | | | |

| | • | 4 | † | ~ | - | ļ |
|------------------------------|--------|------|----------|------|------------|-------------|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | W | | f. | | | ર્ન |
| Traffic Volume (veh/h) | 30 | 5 | 61 | 55 | 4 | 96 |
| Future Volume (Veh/h) | 30 | 5 | 61 | 55 | 4 | 96 |
| 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) | 33 | 5 | 66 | 60 | 4 | 104 |
| Pedestrians | 50 | | 50 | | | 50 |
| Lane Width (m) | 3.5 | | 3.5 | | | 3.5 |
| Walking Speed (m/s) | 1.2 | | 1.2 | | | 1.2 |
| Percent Blockage | 4 | | 4 | | | 4 |
| Right turn flare (veh) | | | | | | |
| Median type | | | None | | | None |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | | 240 | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 308 | 196 | | | 176 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 308 | 196 | | | 176 | |
| tC, single (s) | 6.4 | 6.2 | | | 4.1 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | | | 2.2 | |
| p0 queue free % | 95 | 99 | | | 100 | |
| cM capacity (veh/h) | 628 | 778 | | | 1344 | |
| Direction, Lane # | WB 1 | NB 1 | SB 1 | | | |
| Volume Total | 38 | 126 | 108 | | | |
| Volume Left | 33 | 0 | 4 | | | |
| Volume Right | 5 | 60 | 0 | | | |
| cSH | 644 | 1700 | 1344 | | | |
| Volume to Capacity | 0.06 | 0.07 | 0.00 | | | |
| Queue Length 95th (m) | 1.5 | 0.0 | 0.1 | | | |
| Control Delay (s) | 10.9 | 0.0 | 0.3 | | | |
| Lane LOS | В | 3.0 | A | | | |
| Approach Delay (s) | 10.9 | 0.0 | 0.3 | | | |
| Approach LOS | В | 0.0 | 0.0 | | | |
| Intersection Summary | | | | | | |
| Average Delay | | | 1.7 | | | |
| Intersection Capacity Utiliz | zation | | 30.5% | IC | III evel d | of Service |
| Analysis Period (min) | Lauon | | 15 | 10 | O LOVOI (| J. JCI VICE |
| Analysis Fellou (IIIIII) | | | 10 | | | |

| | - | \rightarrow | • | ← | • | ~ |
|--------------------------------|------|---------------|-------|----------|------------|------------------|
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ₽ | | | 4 | W | |
| Traffic Volume (veh/h) | 299 | 19 | 77 | 250 | 7 | 25 |
| Future Volume (Veh/h) | 299 | 19 | 77 | 250 | 7 | 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) | 325 | 21 | 84 | 272 | 8 | 27 |
| Pedestrians | | | | | 50 | |
| Lane Width (m) | | | | | 3.5 | |
| Walking Speed (m/s) | | | | | 1.2 | |
| Percent Blockage | | | | | 4 | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | | | 90 | | |
| pX, platoon unblocked | | | | | 0.97 | |
| vC, conflicting volume | | | 396 | | 826 | 386 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 396 | | 804 | 386 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | J | - · - |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 92 | | 97 | 96 |
| cM capacity (veh/h) | | | 1115 | | 303 | 635 |
| Direction, Lane # | EB 1 | WB 1 | NB 1 | | | |
| Volume Total | 346 | 356 | 35 | | | |
| Volume Left | 0 | 84 | 8 | | | |
| Volume Right | 21 | 0 | 27 | | | |
| cSH | 1700 | 1115 | 508 | | | |
| Volume to Capacity | 0.20 | 0.08 | 0.07 | | | |
| Queue Length 95th (m) | 0.0 | 2.0 | 1.8 | | | |
| Control Delay (s) | 0.0 | 2.6 | 12.6 | | | |
| Lane LOS | 0.0 | A | В | | | |
| Approach Delay (s) | 0.0 | 2.6 | 12.6 | | | |
| Approach LOS | 0.0 | 2.0 | В | | | |
| Intersection Summary | | | | | | |
| Average Delay | | | 1.8 | | | |
| | ion | | | 10 | III ovol o | f Condo |
| Intersection Capacity Utilizat | IUII | | 47.9% | IC | U Level o | i Service |
| Analysis Period (min) | | | 15 | | | |

| | € | • | † | / | - | ļ | |
|-------------------------------|-------|------|----------|----------|-----------|------------|--|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT | |
| Lane Configurations | ¥ | | f) | | | 4 | |
| Traffic Volume (veh/h) | 5 | 7 | 109 | 10 | 4 | 117 | |
| Future Volume (Veh/h) | 5 | 7 | 109 | 10 | 4 | 117 | |
| 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 | 8 | 118 | 11 | 4 | 127 | |
| Pedestrians | 50 | | 50 | | | 50 | |
| Lane Width (m) | 3.5 | | 3.5 | | | 3.5 | |
| Walking Speed (m/s) | 1.2 | | 1.2 | | | 1.2 | |
| Percent Blockage | 4 | | 4 | | | 4 | |
| Right turn flare (veh) | | | | | | | |
| Median type | | | None | | | None | |
| Median storage veh) | | | | | | | |
| Upstream signal (m) | | | 201 | | | | |
| pX, platoon unblocked | | | | | | | |
| vC, conflicting volume | 358 | 224 | | | 179 | | |
| vC1, stage 1 conf vol | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | |
| vCu, unblocked vol | 358 | 224 | | | 179 | | |
| 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 | | | 100 | | |
| cM capacity (veh/h) | 587 | 751 | | | 1340 | | |
| Direction, Lane # | WB 1 | NB 1 | SB 1 | | | | |
| Volume Total | 13 | 129 | 131 | | | | |
| Volume Left | 5 | 0 | 4 | | | | |
| Volume Right | 8 | 11 | 0 | | | | |
| cSH | 678 | 1700 | 1340 | | | | |
| Volume to Capacity | 0.02 | 0.08 | 0.00 | | | | |
| Queue Length 95th (m) | 0.5 | 0.0 | 0.1 | | | | |
| Control Delay (s) | 10.4 | 0.0 | 0.3 | | | | |
| Lane LOS | В | | А | | | | |
| Approach Delay (s) | 10.4 | 0.0 | 0.3 | | | | |
| Approach LOS | В | | | | | | |
| Intersection Summary | | | | | | | |
| Average Delay | | | 0.6 | | | | |
| Intersection Capacity Utiliza | ation | | 30.2% | IC | U Level o | of Service | |
| Analysis Period (min) | | | 15 | | | | |