

50 Bayswater Avenue, 1088 Somerset Street West

Transportation Impact Assessment

Step 1 Screening Report

Step 2 Scoping Report

Step 3 Strategy Report

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1 Screening

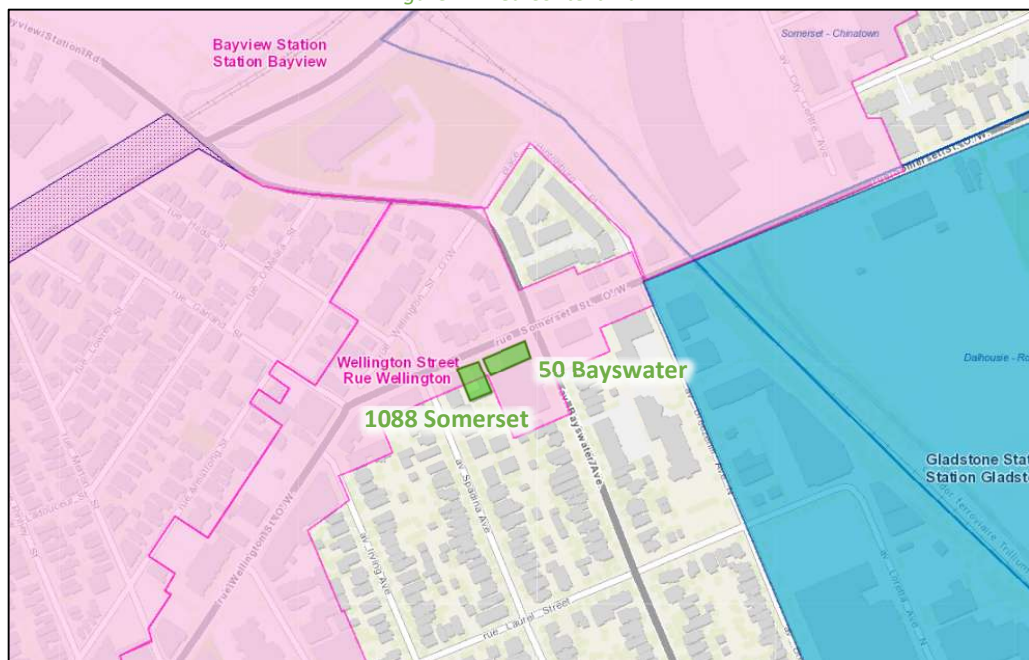
This study has been prepared according to the City of Ottawa's 2017 Transportation Impact Assessment (TIA) Guidelines, incorporating the 2023 Revision to Transportation Impact Assessment Guidelines. Accordingly, a Step 1 Screening Form has been prepared and is included as Appendix A, along with the Certification Form for the TIA Study PM. As shown in the Screening Form, a TIA is required, and this study has been prepared to support zoning bylaw amendment and future site plan applications.

2 Existing and Planned Conditions

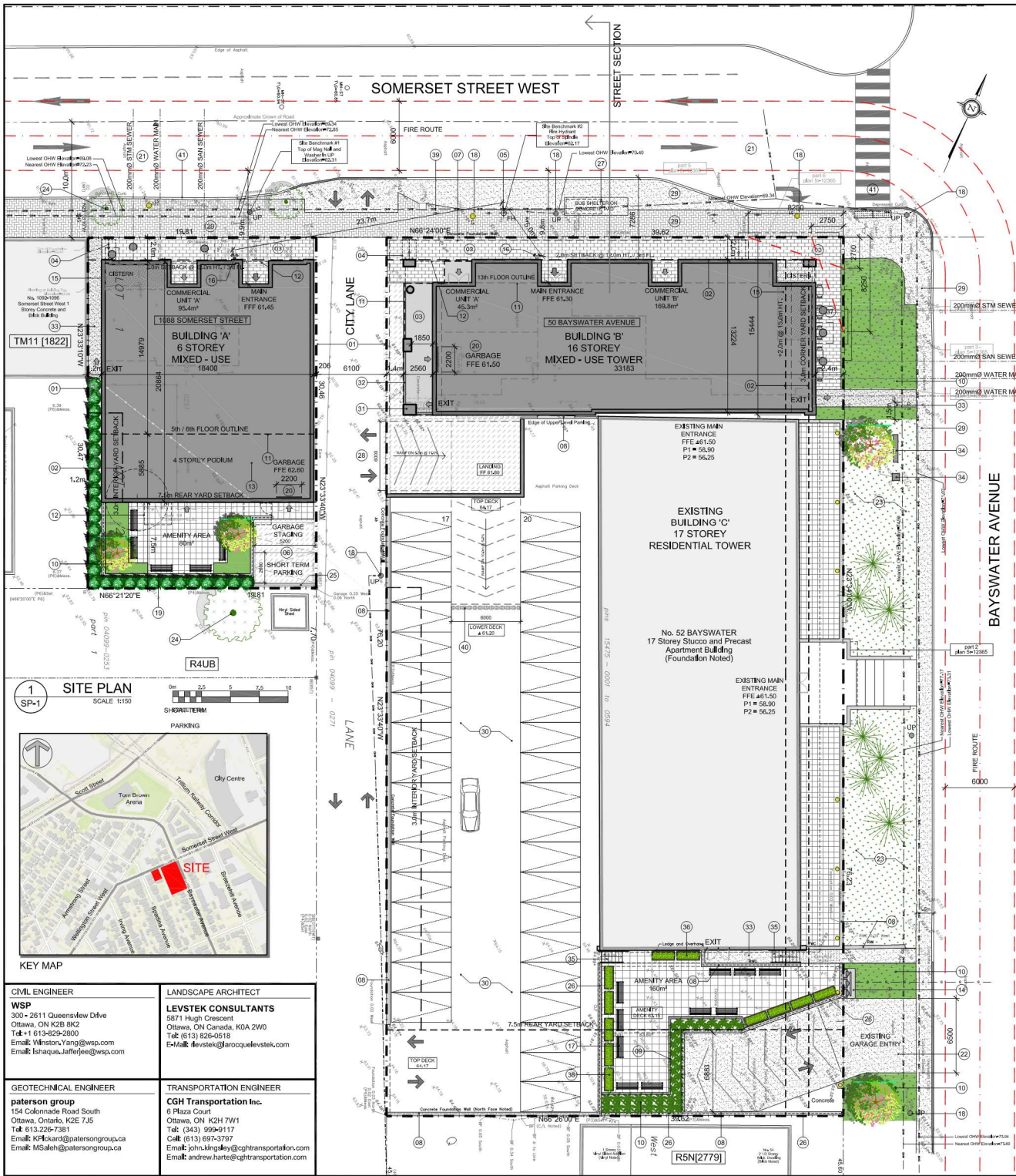
2.1 Proposed Development

The development site is located at 50 Bayswater Avenue and 1088 Somerset Street West and is zoned as traditional Mainstreet Zone (TM11) and Residential Fourth Density Zone (R4UB). One existing office building is located at 50 Bayswater Avenue, and another is located at 1088 Somerset Street West, totaling approximately 6,846 sq. ft. Both buildings will be redeveloped. The development proposed a new 15-storey mixed-used building extension on the existing 192 units residential tower to the front along Somerset Street West at 50 Bayswater Avenue with a total of 80 residential units and 2,316 sq. ft commercial space, and a new 6-storey mixed-used building with a total of 21 units and 1,027 sq. ft commercial space at 1088 Somerset Street West. The two parcels are divided by an existing City Laneway. Two access are provided along the City Laneway and the northern access will be relocated southerly and the southern access will remain unchanged. The existing access for 50 Bayswater Avenue will support the development. The entire site will provide 157 residential vehicle parking spaces, 26 visitor vehicle parking spaces, four commercial vehicle parking spaces, and 111 bicycle parking spaces. The underground parking accommodates 119 spaces and the surface parking, including the existing structure, will accommodate 68 space. The anticipated full build-out and occupancy horizon is 2027. The development site is within the Wellington Street Community Design Plan area. Figure 1 illustrates the study area context. Figure 2 illustrates the proposed concept plan.

Figure 1: Area Context Plan



Source: <http://maps.ottawa.ca/geoOttawa/> Accessed: October 27, 2023



PROJECT DEVELOPER Manor Park Management 231 Bittany Drive, Suite D Ottawa, ON Canada, K1K 0R8 E-Mail: lsa@manorparkcap.com	PROJECT MANAGER Renfro Land Management 371A Richmond Rd, Unit 2 Ottawa, ON K2L 1Y3 Tel: (613) 953-124 E-Mail: davidrenfro@outlook.com	URBAN PLANNER Fotenn Consultants Inc. 396 Cooper Street, Unit 300 Ottawa, ON Canada, K2P 2H7 Tel: (613) 730-5709 Fax: (613) 730-1138 E-Mail: boluc@fotenn.com E-Mail: yakkichu@fotenn.com	SURVEYOR Annis O'Sullivan Vollebek Ltd. Ontario Land Surveyors 14 Concourse Gate, Suite 500, Meyers, Ontario K2E 7S6 Tel: (613) 727-0850 Fax: (613) 727-1079 Email: EdH@aovld.com	LEGAL DESCRIPTION TOPOGRAPHIC PLAN OF SURVEY OF OTTAWA-CARLETON STANDARD CONDOMINIUM PLAN No. 475 AND PART OF LOTS 1 AND 2 IN BLOCK Q East Spadina Avenue REGISTERED PLAN 73 CITY OF OTTAWA Surveyed by Annis O'Sullivan, Vollebek Ltd.	SITE PLAN SYMBOLS EXISTING CITY PAVES TO REMAIN CONCRETE UNIT PAVES SURFACE CONCRETE WALK / DRIVING SURFACE ASPHALT DRIVEWAY SOFT LANDSCAPING BIKE RACK TWO-WAY VEHICLE CIRCULATION MAIN ENTRANCE COMMERCIAL DOOR / FIRE EXIT PROPERTY LINE CITY STREET LIGHTING	DRAWING NOTES (1) PROPERTY LINE (2) EXISTING BUILDING SETBACKS (3) UNIT PAVES ON PRIVATE BOULEVARD (4) BIKE PARKING SPACE WITH RACK (5) EXISTING FIRE HYDRANT (6) EXISTING FIRE VENT (7) EXISTING RETAINING WALL (8) EXISTING RETAINING WALL WITH GARAGE WALL WITH GARAGE WALL AS REQUIRED (9) LOW CONCRETE SEAT WALL / LANDSCAPE WALL (10) SOFT LANDSCAPING (11) OUTLINE OF BUILDING ABOVE (12) BALCONY ABOVE (13) EXISTING BUILDING TO BE REMOVED (14) EXISTING NATURAL GAS EQUIPMENT (15) INTERNAL CISTERN WITH ACCESS MH - SEE QML PLAN (16) MANHOLE CONNECTION (17) SITE FURNITURE - BENCH (18) EXISTING UTILITY STREET LIGHT / TRAFFIC POLE (19) LOW RETAINING WALL WITH 2.4m HT. PRIVATE FENCE (20) INTERIOR GARAGE ROOM (21) PROPOSED BUILDING SERVICES SEE QML (22) EXISTING ASPHALT DRIVEWAY TO BE NARROWED (23) EXISTING SORT LANDSCAPING TO REMAIN (24) EXISTING TREE TO REMAIN, PROTECT AS REQUIRED (25) 150mm BARRIER CURB AT PARKING AREA (26) 150mm HT. METAL SCREENING ABOVE WALL (27) CONCRETE PAD WITH BUS SHELF (28) REINFORCED CONCRETE DRIVEWAY TO CITY LANE (29) EXISTING CITY SIDEWALK / BOULEVARD TO REMAIN (30) EXISTING ASPHALT PARKING LOT (31) LOW RETAINING WALL (32) EXISTING CONCRETE EXIT PATH (33) EXISTING UTILITY BOX (34) EXISTING STAIRS WITH HAND RAILING (35) FREE STANDING PLANTERS
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PROJECT INFORMATION ZONING Zoning Bylaw 2006-250 Consultation SITE AREA: 1988 SOMERSET STREET WEST 803.2 sq. m. (24,844 sq. ft.) 50 BAYSWATER AVENUE 3,014 sq. m. (9,382 sq. ft.) 3,817 sq. m. (11,702 sq. ft.) ZONING BUILDING HEIGHT (50 BAYSWATER) 6 STOREYS / 20m 16 STOREYS / 52m GRADE (50 BAYSWATER) AVERAGE MEAN GRADE CALCULATION 61.05m ASL 61.05m ASL BUILDING HEIGHT (1988 SOMERSET) 6 STOREYS / 20m 6 STOREYS / 20m GRADE (1988 SOMERSET) AVERAGE MEAN GRADE CALCULATION 61.05m ASL 61.05m ASL FRONT YARD SETBACK (MINIMUM) 5.0m 2.0m / 2.0m FRONT YARD SETBACK (ADJ. 50 BAYSWATER OR 12m) 5.0m 2.0m CORNER YARD SETBACK (50 BAYSWATER) 5.0m 2.0m CORNER YARD SETBACK (ADJ. 15m) (50 BAYSWATER) 5.0m 2.0m INTERIOR SIDE YARD SETBACK 5.0m 1.2m / 0.2m / 1.4m INTERIOR SIDE YARD SETBACK - ADJUTING RESIDENTIAL (1988 SOMERSET) 5.0m 2.0m REAR YARD SETBACK (1988 SOMERSET) 7.5m 2.0m REAR YARD SETBACK (ADJ. 15m) (50 BAYSWATER) 4.5' @ 7.5m 4' @ 7.5m MINIMUM WIDTH OF LANDSCAPED AREA ADJUTING A RESIDENTIAL ZONE 5.0m 2.0m AMENITY AREA - TOTAL PER UNIT 90' 60' AMENITY AREA - 50% COMM. PER UNIT 50' 30' VEHICLE PARKING - RESIDENTIAL (AFTER 10 UNITS US PER UNIT) - BLDG. 'C' 90' 96' VEHICLE PARKING - RESIDENTIAL - BLDG. 'A' & 'B' 0' 81' VEHICLE PARKING - BEFORE ONLY (AFTER 12 UNITS US PER UNIT) - BLDG. 'A' & 'B' 20' 28' VEHICLE PARKING - COMMERCIAL, RETAIL, NOT REQUIRED UNDER 5000 GFA 0' 4' BIKECYCLE PARKING - RESIDENTIAL (US PER UNIT) - BLDG. 'A' & 'B' 51' 105' BIKECYCLE PARKING - COMMERCIAL (US PER 2500 GFA) 2' 6' JULIE & DRIVEWAY MINIMUM MAXIMUM WIDTH 6.0m / 6.7m 6.0m	PROJECT STATISTICS GROSS BUILDING - AREAS - BLDG. 'A' PT OF OTTAWA CONDOM. AREA 0.0 sq. m. 0.0 sq. m. BASEMENT LEVEL 0.0 sq. m. 0.0 sq. m. GROUND FLOOR 85.4 sq. m. 1,027 sq. m. 2nd to 4th FLOOR 3,278.4 sq. m. 8,023 sq. m. 5th to 16th FLOOR 2,114.2 sq. m. 5,088 sq. m. TOTAL AREA 1,278.1 sq. m. 13,122 sq. m. UNIT STATISTICS STUDIO UNIT 0 0 ONE BEDROOM 19 19 TWO BEDROOM UNIT 6 6 TOTAL 25 25 COMMERCIAL AREA 85.4 sq. m. 1,027 sq. m. GROSS BUILDING - AREAS - BLDG. 'B' PT OF OTTAWA CONDOM. AREA 0.0 sq. m. 0.0 sq. m. BASEMENT LEVEL 0.0 sq. m. 0.0 sq. m. GROUND FLOOR 215.2 sq. m. 2,319 sq. m. 2nd to 12th FLOOR 11,135.0 sq. m. 13,718 sq. m. 13th & 14th FLOOR 2,319.0 sq. m. 6,239 sq. m. 15th FLOOR 251.1 sq. m. 2,319 sq. m. 16th FL - AMENITY / MECHANICAL LEVEL 0.0 sq. m. 0.0 sq. m. TOTAL AREA 4,705.3 sq. m. 11,558 sq. m. UNIT STATISTICS STUDIO UNIT 0 0 ONE BEDROOM 53 53 TWO BEDROOM UNIT 6 6 TOTAL 59 59 COMMERCIAL AREA 215.2 sq. m. 2,319 sq. m. GROSS BUILDING - AREAS - BLDG. 'C' PT OF OTTAWA CONDOM. AREA 10,212.0 sq. m. 11,010 sq. m. BUILDING 'C' GFA - ESTIMATE 8,023 sq. m. 8,839 sq. m. BUILDING FOOTPRINT 192 192 UNIT COUNT 172 172 VEHICLE PARKING 172 172 BIKECYCLE PARKING 1,005 sq. m. 10,821 sq. m. COMMERCIAL AREA - REMOVED 10,821 sq. m. 10,821 sq. m. UNIT STATISTICS - TOTAL BUILDING 'A' - PROPOSED 6 STOREY 21 21 BUILDING 'B' - PROPOSED 16 STOREY 60 60 BUILDING 'C' - EXISTING 17 STOREY 192 192 TOTAL 273 273 CAR PARKING - BLDG. 'A', 'B' & 'C' REQUIRED BY ZONING BYLAW BUILDING 'A' & 'B' 0 0 EXISTING BUILDING 'C' 0 0 VEHICLE 0 0 BIKECYCLE 0 0 TOTAL 0 0 PROVIDED RESIDENTIAL 157 157 VEHICLE 28 28 COMMERCIAL 4 4 TOTAL 189 189 VEHICLE PARKING SPACES P2 LEVEL EXISTING - EXPANSION 91 91 P1 LEVEL EXISTING - EXPANSION 34 34 GROUND LEVEL EXISTING ALTERED 34 34 2ND FLOOR EXISTING 37 37 TOTAL 196 196	NOTATION SYMBOLS: (N) INDICATES DRAWING NOTES LISTED ON EACH SHEET. (A) INDICATES ASSEMBLY TYPE REFER TO TYPICAL ASSEMBLY SCHEDULE. (M) INDICATES MIMIC TYPE REFER TO MIMIC ELEVATIONS AND DETAILS ON ADO SERIES. (D) INDICATES DOOR TYPE REFER TO DOOR SCHEDULE AND DETAILS ON ADO SERIES. DETAIL NUMBER TITLE DETAIL REFERENCE PAGE DETAIL CROSS REFERENCE PAGE REQUIRE BLDG. 'A' RESIDENTIAL 0.5 US PER UNIT 11 COMMERCIAL 1 PER 2500 GFA 12 PROVIDED BASEMENT LEVEL 25 EXTERIOR AT GRADE 2 TOTAL 27 REQUIRE BLDG. 'B' RESIDENTIAL 0.5 US PER UNIT 41 COMMERCIAL 1 PER 2500 GFA 1 TOTAL 42 PROVIDED BASEMENT LEVEL 40 EXTERIOR AT GRADE 4 TOTAL 44 LOT COVERAGE - BLDG. 'A' PAVED SURFACE 31.6 sq. m. 8.2% FOOTPRINT BUILDING 'A' 37.3 sq. m. 9.1% LANDSCAPE OPEN SPACE 186.4 sq. m. 4.7% TOTAL 255.3 sq. m. 10.0% LOT COVERAGE - BLDG. 'B' PAVED SURFACE 1,036.3 sq. m. 4.2% FOOTPRINT BUILDING 'B' 425.1 sq. m. 14.0% FOOTPRINT BUILDING 'C' 802.3 sq. m. 26.6% LANDSCAPE OPEN SPACE 588.7 sq. m. 16.2% TOTAL 3,852.4 sq. m. 100.0% AMENITY SPACE - BLDG. 'A' COMM. EXTERIOR AT GRADE 80.2 sq. m. 18.0% 16 FLOOR AMENITY ROOM 85.5 sq. m. 19.0% PRIVATE BALCONIES / TERRACE 76.0 sq. m. 17.0% TOTAL 241.7 sq. m. 54.0% REQUIRED - GOLF PER UNIT (21) 120.5 sq. m. 27.0% REQUIRED COMM. @ 500 63.0 sq. m. 14.0% AMENITY SPACE - BLDG. 'B' COMM. EXTERIOR AT GRADE 160.0 sq. m. 36.0% COMM. INTERIOR ROOF TOP 160.0 sq. m. 36.0% PRIVATE TERRACE / BALCONIES 280.0 sq. m. 63.0% TOTAL 500.0 sq. m. 111.0% REQUIRED - GOLF PER UNIT (21) 480.0 sq. m. 108.0% REQUIRED COMM. @ 500 240.0 sq. m. 54.0% SOLID WASTE BLDG. 'A' - 21 UNITS (7Y*10U) 21 + 80 UNITS BLDG. 'B' - 41 UNITS (7Y*10U) 41 + 80 UNITS BLDG. 'C' - 192 UNITS (7Y*10U) 192 + 80 UNITS RECYCLING - GMP 0.110 YR PER UNIT 2.4 YR RECYCLING - GMP 0.110 YR PER UNIT 2.4 YR RECYCLING - FIBRE 0.030 YR PER UNIT 0.7 YR ORGANICS 1 + 240 LBN PER PER 50 UNITS 1 + 2 VEHICLE PARKING SPACES P2 LEVEL EXISTING - EXPANSION 91 91 P1 LEVEL EXISTING - EXPANSION 34 34 GROUND LEVEL EXISTING ALTERED 34 34 2ND FLOOR EXISTING 37 37 TOTAL 196 196
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2.2 Existing Conditions

2.2.1 Area Road Network

Scott Street: Scott Street is a City of Ottawa arterial road with a four-lane urban cross-section including two outside-lane transit priority lanes. A sidewalk and a curbside bike lane are present on the south side of the road and a MUP is present on the north side of the road. Within the study area, the posted speed limit is 50 km/h, and the Official Plan reserves a right-of-way of 26.0 metres. Scott Street is designated as a truck route.

Albert Street: Albert Street is a City of Ottawa arterial road with a four-lane urban cross-section including two outside-lane transit priority lanes. Within the study area, sidewalks are present on both sides of the street. The posted speed limit is 50 km/h and the Official Plan right-of-way is subject to widening/easement policy on the north side. Albert Street is designated as a truck route.

Wellington Street West: Wellington Street West is a City of Ottawa arterial road with a two-lane urban cross-section and on-street parking lanes, with the exception of the south side between Garland Street and Irving Avenue. Sidewalks are present on both sides of the road. The posted speed limit is 50 km/h. The Official Plan reserves a right-of-way of 20.0 metres within the study area. Wellington Street West is designated as a truck route.

Somerset Street West: Somerset Street West is a City of Ottawa arterial road with a two-lane urban cross-section and on-street parking lanes, with the exception of the north side between Spadina Avenue and Garland Street and on the bridge east of Breezehill Avenue North. Sidewalks are provided on both sides of the road. Curbside bike lanes are present east of Breezehill Avenue North for the length of the bridge. The posted speed limit is 50 km/h. The Official Plan reserves a right-of-way of 20.0 metres east of Breezehill Avenue North within the study area, and the existing right-of-way is 20.0 metres west of Breezehill Avenue North. Somerset Street West is designated as a truck route.

Bayview Station Road: Bayview Station Road is a City of Ottawa collector road with a two-lane urban cross-section and on-street parking lanes. Sidewalks are provided on both sides of the road. The unposted speed limit is assumed to be 50 km/h. The Official Plan reserves a right-of-way of 24.0 metres.

Bayswater Avenue: Bayswater Avenue is a City of Ottawa collector road with a two-lane urban cross-section. Sidewalks are present on both sides of the road and on-street parking is permitted on the west side of the road starting approximately 90 metres south of Somerset Street West. The posted speed limit is 30 km/h south of Somerset Street West, and the unposted speed limit is assumed to be 50 km/h north of Somerset Street West. The Official Plan reserves a right-of-way of 24.0 metres north of Somerset Street West, and the existing right-of-way is 25.0 metres south of Somerset Street West. North of Somerset Street West, Bayswater Avenue is designated as a truck route.

Fairmont Avenue: Fairmont Avenue is a City of Ottawa local road with a two-lane urban cross-section. Sidewalks are present on both sides of the road and on-street parking is permitted on the west side of the road. The posted speed limit is 40 km/h and the existing right of way is 19.0 metres.

Garland Street: Garland Street is a City of Ottawa local road with a two-lane urban cross-section north of Armstrong Street, and a one-lane urban cross-section south of Armstrong Street where it is one-way (northbound) with a southbound curbside bike lane. Throughout the study area, sidewalks are on both sides of the road and on-street parking is permitted on the east side of the road. The posted speed limit is 40 km/h and the existing right of way is 12.0 metres.

Laurel Street: Laurel Street is a City of Ottawa local road with a two-lane urban cross-section with sidewalks on both sides of the road. On-street parking is permitted on both sides of the road west of Bayswater Avenue and on

the south side of the road east of Bayswater Avenue. The posted speed limit is 40 km/h and the existing right of way is 20.0 metres.

2.2.2 Existing Intersections

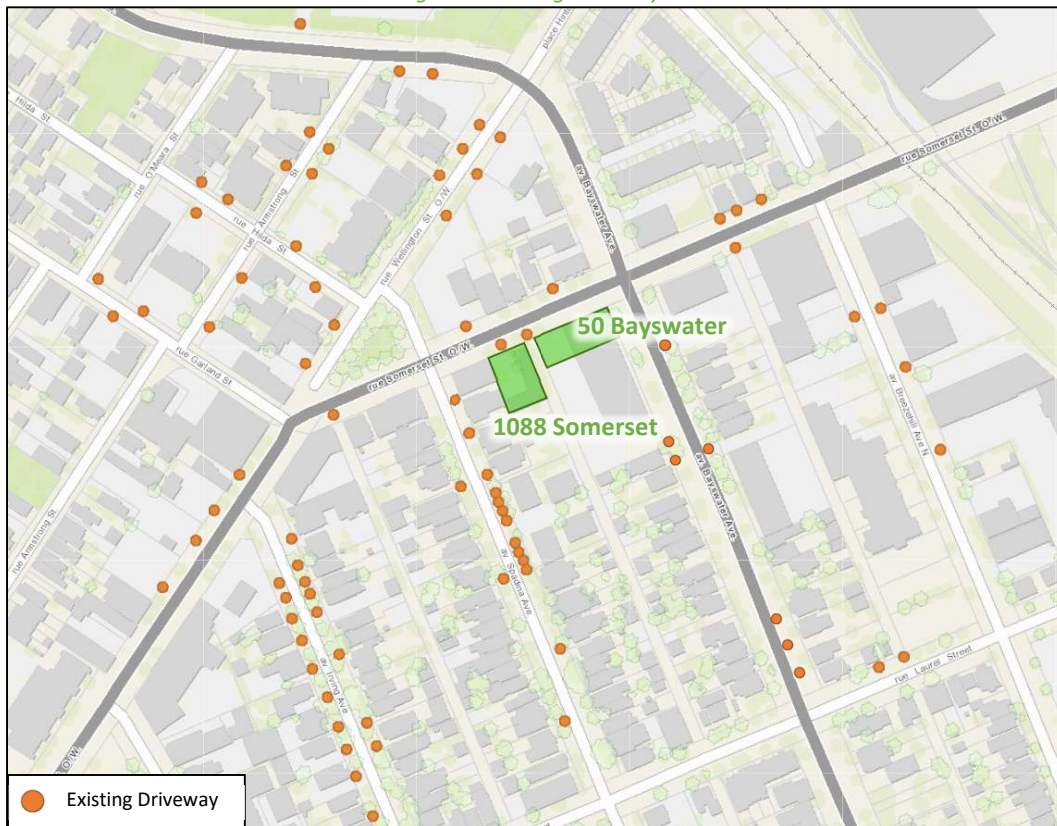
The existing signalized area key intersections within 400 metres of the site have been summarized below:

<i>Albert Street/Scott Street at Bayview Station Road</i>	The intersection of Albert Street/Scott Street and Bayview Station Road is a signalized intersection. The northbound approach consists of an auxiliary left-turn lane and a shared through/channelized right-turn lane, and the southbound approach consists of an auxiliary left-turn lane and a shared through/right-turn lane. The eastbound approach consists of a shared left-turn/through lane, a shared transit priority/right-turn lane, and a bike lane and the westbound approach consists of an auxiliary left-turn lane, a through lane, and a shared transit priority/right-turn lane. No turn restrictions were noted.
<i>Wellington Street West at Fairmont Avenue</i>	The intersection of Wellington Street West and Fairmont Avenue is a signalized intersection. The northbound approach consists of a shared left-turn/right-turn lane, the eastbound approach consists of a shared through/right-turn lane, and the westbound approach consists of a shared left-turn/through lane. No turn restrictions were noted.
<i>Wellington Street West/Somerset Street West at Garland Street</i>	The intersection of Wellington Street West/Somerset Street West at Garland Street is a signalized intersection. The eastbound approach consists of a shared left-turn/through lane, the westbound approach consists of a shared through/right-turn lane, and the north leg is inbound only with a southbound curbside bike lane. The slight-right, constituting the eastbound through movement is restricted on red.
<i>Somerset Street West at Bayswater Avenue</i>	The intersection of Somerset Street West and Bayswater Avenue is a signalized intersection. The northbound approach consists of a shared all-movements lane and the southbound approach consists of an auxiliary left-turn lane and a shared through/right-turn lane. The eastbound and westbound approaches each consist of a shared left-turn/through lane and an auxiliary right-turn lane. Trucks are restricted on the south leg.
<i>Laurel Street at Bayswater Avenue</i>	The intersection of Laurel Street at Bayswater Avenue is an all-way stop-controlled intersection. Each approach consists of a shared all-movement lane. No turn restrictions were noted.
<i>Somerset Street West at City Laneway</i>	A City Laneway intersects with Somerset Street West approximately 45 metres to the west of Bayswater Avenue. It functions similarly to a private approach and no turn restrictions are noted.

2.2.3 Existing Driveways

Within 200 metres of the site access, driveways to retail are on both sides of Somerset Street West, one driveway to an office is present on the south side of Bayview Station Road, driveways to a car dealer, offices, a restaurant, townhouses, low-density residential developments, mid-rise and high-rise residential buildings are present on both sides of Bayswater Avenue. Two existing accesses to the 50 Bayswater Avenue site, one on Bayswater Avenue and one onto the City Laneway will be maintained. Figure 3 illustrates the existing driveways.

Figure 3: Existing Driveways



Source: <http://maps.ottawa.ca/geoOttawa/> Accessed: October 27, 2023

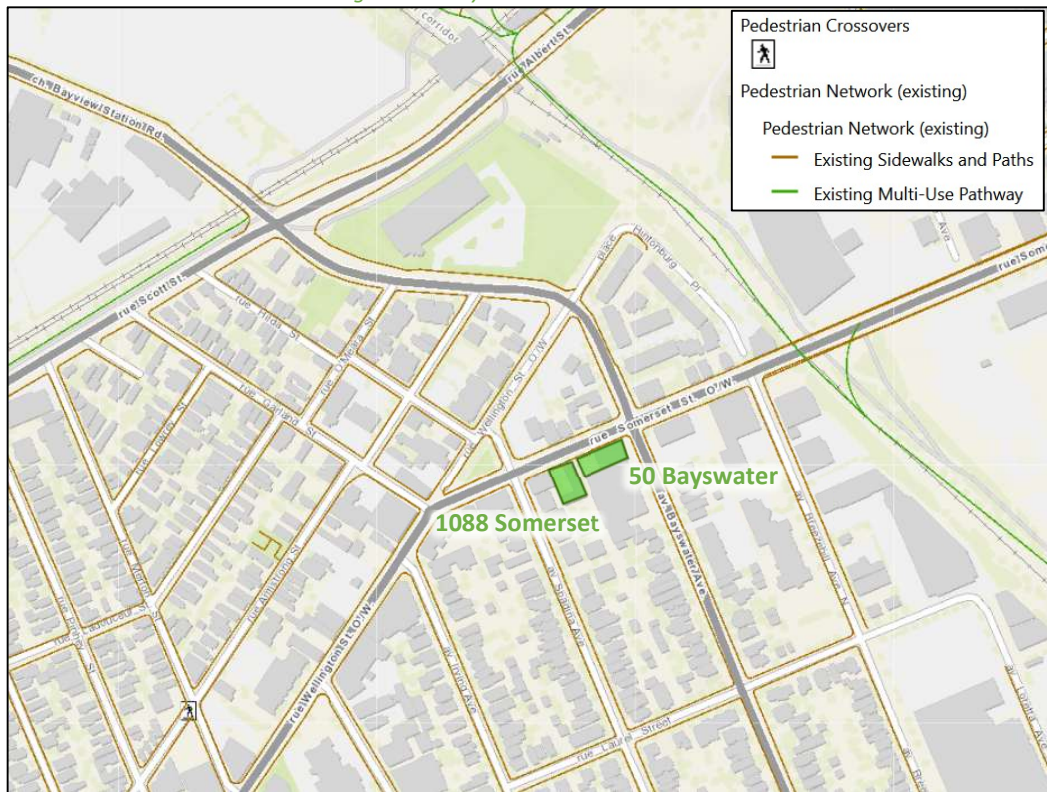
2.2.4 Cycling and Pedestrian Facilities

Figure 4 illustrates the pedestrian facilities in the study area and Figure 5 illustrates the cycling facilities.

Sidewalks are provided along both sides of all study area roads, and a pedestrian crossover is provided across Armstrong Street at Merton Street. MUPs are located along the north side of Scott Street and on the east side of the Trillium LRT corridor, with a connection to the Tom Brown Arena.

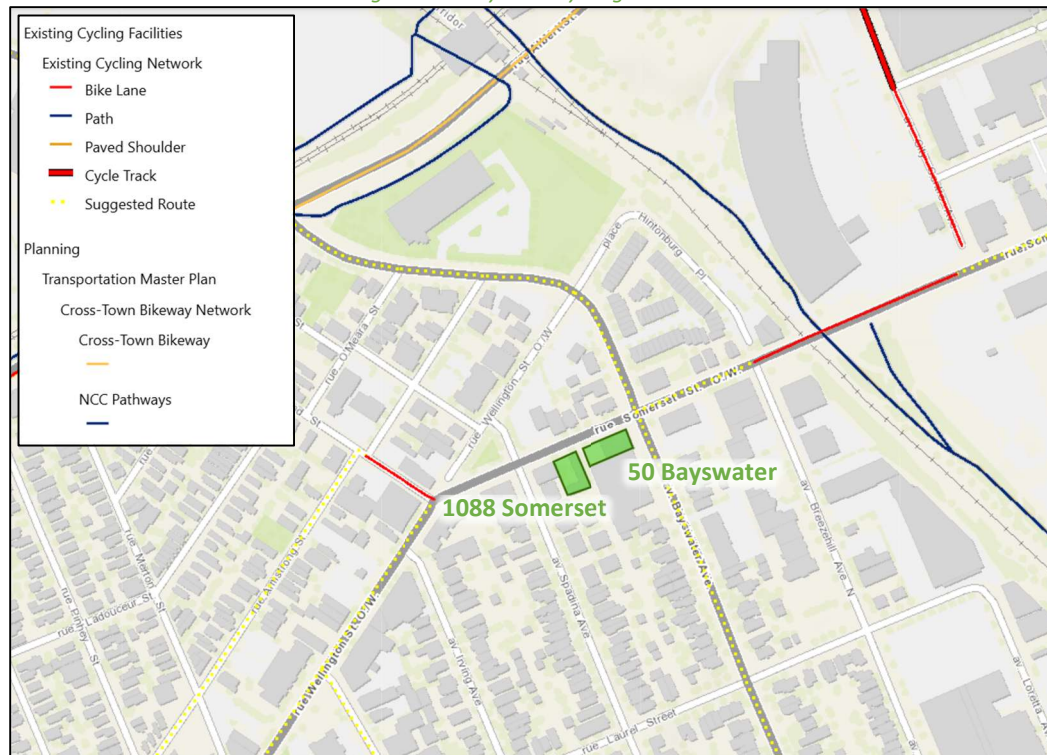
Cycling facilities include curbside bike lanes on the south side of Scott Street, on the west side of Garland Street south of Armstrong Street, and on both sides of Somerset Street West on the bridge over the Trillium LRT corridor. Within the 2023 Transportation Master Plan – Part 1, Scott Street and the Trillium rail corridor are cross-town bikeways.

Figure 4: Study Area Pedestrian Facilities



Source: <http://maps.ottawa.ca/geoOttawa/> Accessed: October 27, 2023

Figure 5: Study Area Cycling Facilities



Source: <http://maps.ottawa.ca/geoOttawa/> Accessed: February 7, 2025

Pedestrian and cyclist volumes included in study area intersection counts, presented in Section 2.2.7, have been compiled and are illustrated in Figure 6 and Figure 7, respectively. The City of Ottawa notes that the collection data may be lower than summer conditions, although this cannot be confirmed.

Figure 6: Existing Pedestrian Volumes

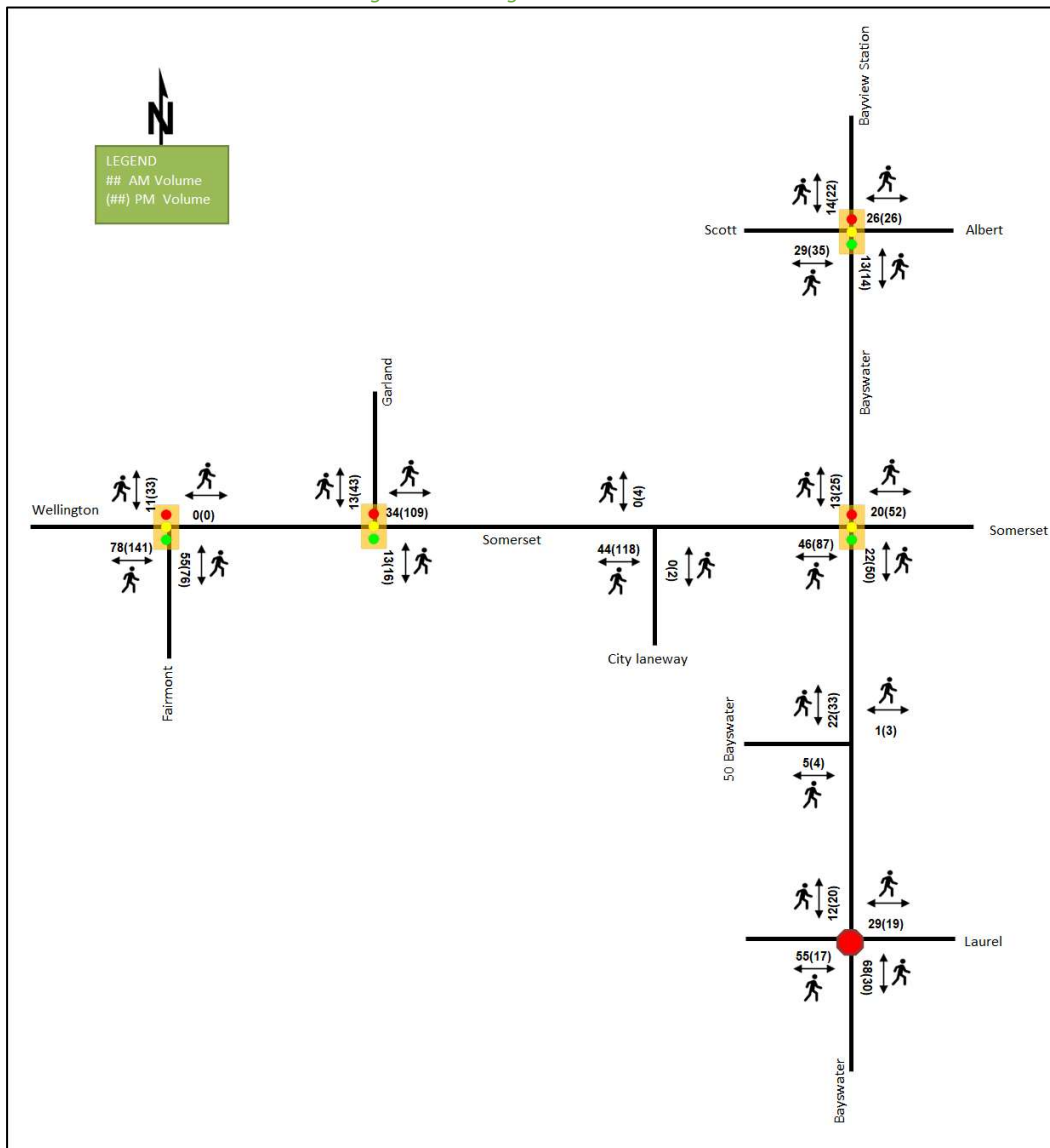
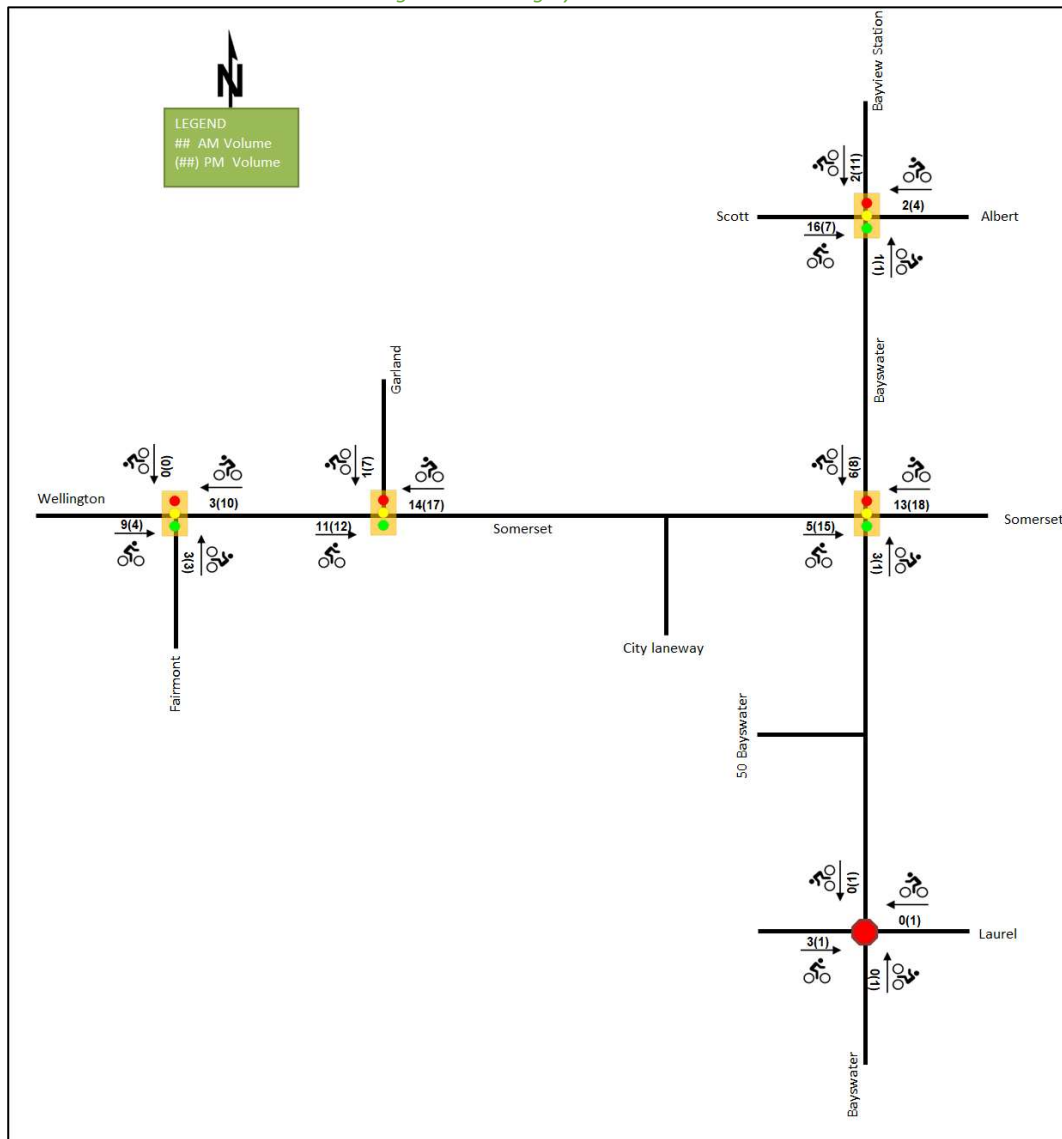


Figure 7: Existing Cyclist Volumes



2.2.5 Existing Transit

Figure 8 illustrates the transit system map in the study area and Figure 9 illustrates nearby transit stops. All transit information is from October 27, 2023, and is included for general information purposes and context to the surrounding area.

Within the study area, route #11 travels along Wellington Street West/Somerset Street West, and routes #16, 61, 63, 66, and 75 travel along Scott Street. It is noted that a bus stop is located on the frontage of Somerset Street West, approximately 26 meters west of the intersection of Somerset Street West and Bayswater Avenue, serving route #11 towards Parliament. The bus stop serving route #11 towards Bayshore/Lincoln Fields is located on Somerset Street West, approximately 10 meters east of the intersection of Somerset Street West and Bayswater Avenue. The frequency of these routes within proximity of the proposed site based on October 27, 2023, service levels are:

- Route #11 – 15-minute service all day, 20-30-minute service after 9PM

- Route #16 – 15-minute before 3PM and 30-minute service after 3PM
- Route #61 – 10-30-minute service, operating during peak period/peak direction only
- Route #63 – 15-minute service, operating during peak period/peak direction only
- Route #66 – 30-minute service, operating during peak period/peak direction only
- Route #75 – 15-minute service, operating during peak period/peak direction only

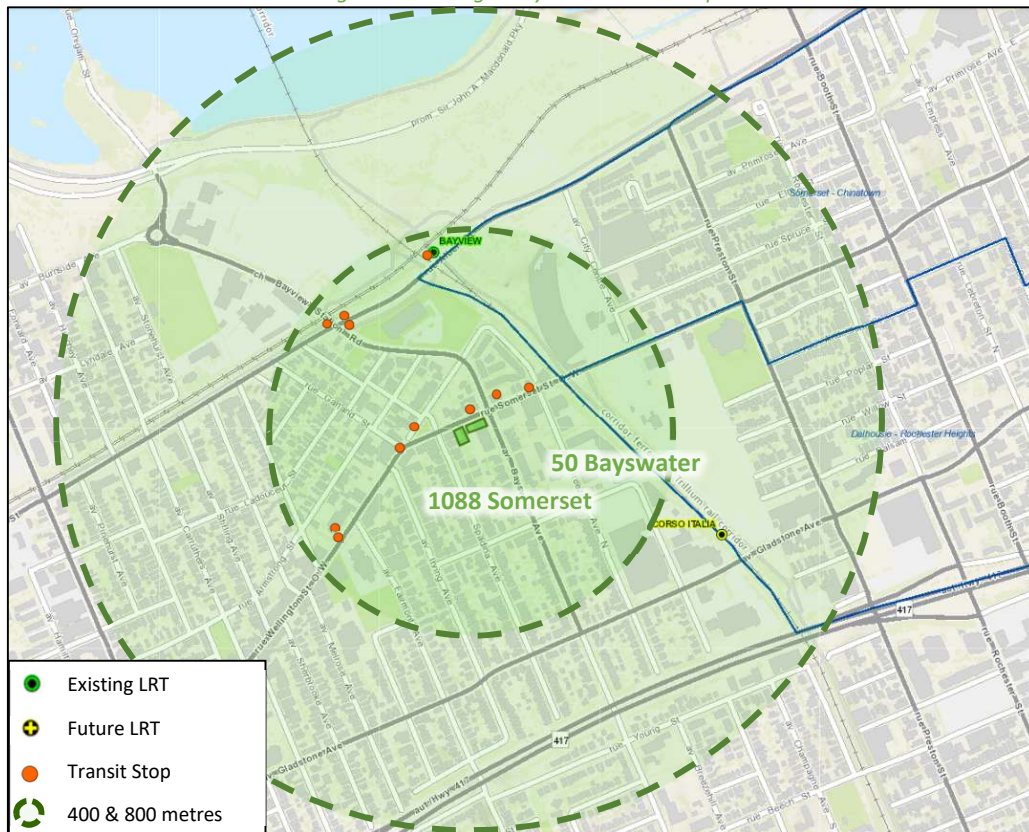
Furthermore, Bayview Station is within 400 metres radially (670 metres walking distance) from the site, which in addition to having the routes listed as operating along Scott Street stop here, both O-Train LRT lines service this station. The future Corso Italia Station is within 800 metres radially from the site. It is noted that at the time of report creation, the Line 2 O-Train was running replacement bus service due to construction.

Figure 8: Existing Study Area Transit Service



Source: <http://www.octranspo.com/> Accessed: October 27, 2023

Figure 9: Existing Study Area Transit Stops



Source: <http://maps.ottawa.ca/geoOttawa/> Accessed: October 27, 2023

2.2.6 Existing Area Traffic Management Measures

Extensive use of bulb-outs and on-street parking are found throughout the study area, with tight corner radii, vehicular directional closures, and textured crossings additionally present. Vertical centerline treatments are present on Bayswater Avenue south of Somerset Street West. Four sets of speed cushions are present on Bayswater Avenue between Somerset Street West and Gladstone Avenue.

2.2.7 Existing Peak Hour Travel Demand

Existing turning movement counts were acquired from the City of Ottawa and The Traffic Specialist for the existing study area key intersections. Table 1 summarizes the intersection count dates.

Table 1: Intersection Count Date

Intersection	Count Date	Source
Albert Street/Scott Street at Bayview Station Road	Wednesday, March 01, 2023	The Traffic Specialist
Wellington Street West at Fairmont Avenue	Thursday, February 22, 2018	City of Ottawa
Wellington Street W/Somerset Street West at Garland Street	Tuesday, August 23, 2022	City of Ottawa
Somerset Street West at City Laneway	Wednesday, March 08, 2023	The Traffic Specialist
Somerset Street West at Bayswater Avenue	Tuesday, August 23, 2022	City of Ottawa
50 Bayswater at Bayswater Avenue	Wednesday, March 08, 2023	The Traffic Specialist
Laurel Street at Bayswater Avenue	Wednesday, March 08, 2023	The Traffic Specialist

Figure 10 illustrates the existing traffic counts and Table 2 summarizes the existing intersection operations. The level of service for signalized intersections is based on volume to capacity ratio (v/c) calculations for individual lane movements and HCM 2000 v/c calculations for the overall intersection, and average delay for unsignalized

intersections. Detailed turning movement count data is included in Appendix B and the Synchro worksheets are provided in Appendix C.

Figure 10: Existing Traffic Counts

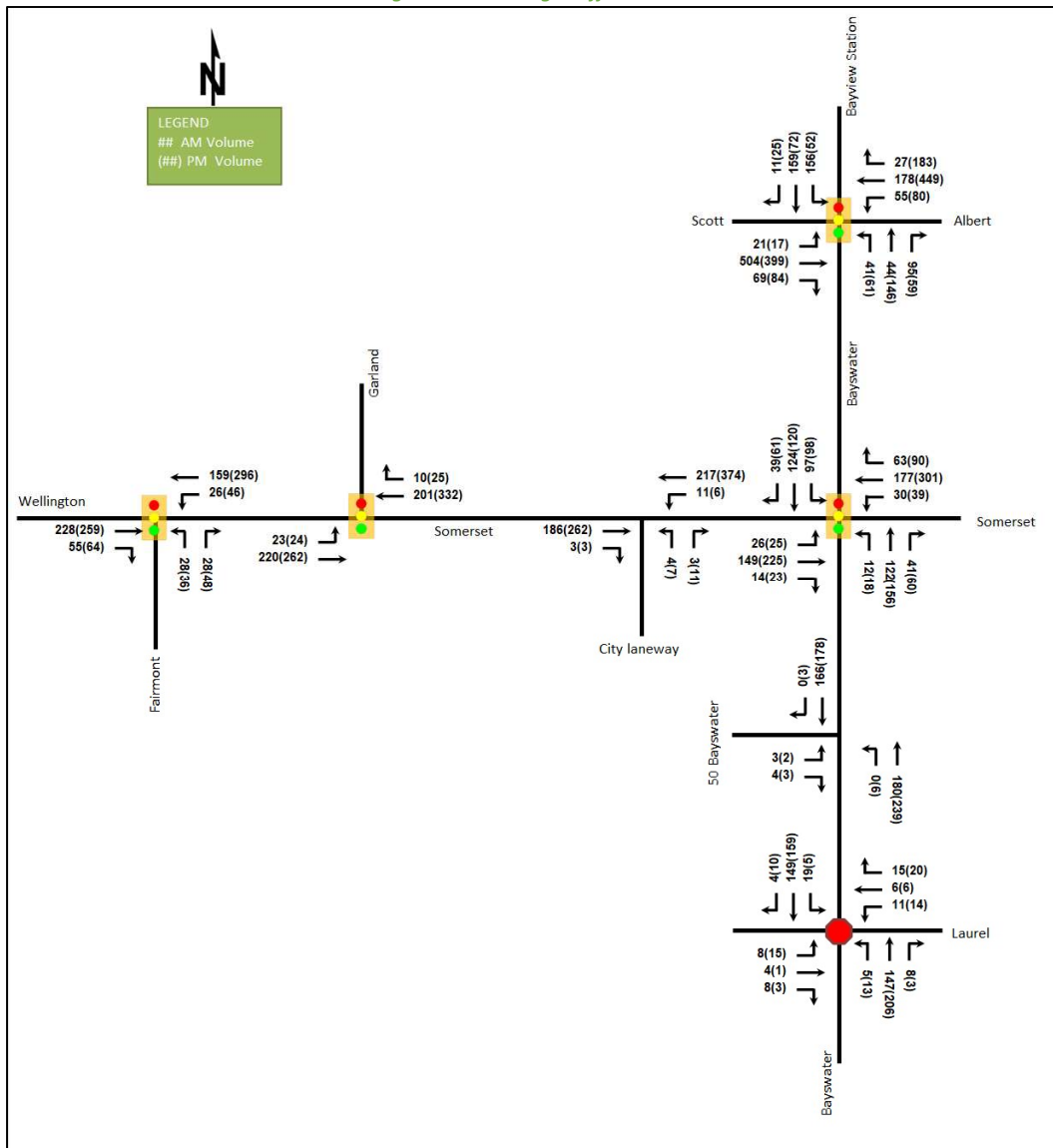


Table 2: Existing Intersection Operations

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay (s)	Q (95 th)	LOS	V/C	Delay (s)	Q (95 th)
Albert Street/Scott Street at Bayview Station Road Signalized	EBL/T	A	0.52	11.5	92.3	A	0.40	9.5	65.9
	EBR	A	0.08	2.1	5.2	A	0.10	2.0	5.6
	WBL	A	0.16	8.9	11.0	A	0.18	8.5	14.7
	WBT	A	0.18	7.5	25.7	A	0.43	9.7	71.8
	WBR	A	0.03	2.2	2.8	A	0.20	1.7	8.1
	NBL	A	0.25	35.0	16.5	A	0.31	36.0	21.8
	NBT/R	A	0.40	15.0	23.4	B	0.69	44.0	57.4
	SBL	D	0.81	64.9	52.8	A	0.40	41.1	20.4
	SBT/R	A	0.55	40.5	50.3	A	0.33	30.0	27.9
	Overall	A	0.59	21.0	-	A	0.48	15.8	-
Wellington Street W at Fairmont Avenue Signalized	EBT/R	A	0.27	6.6	30.6	A	0.33	7.3	35.5
	WBL/T	A	0.19	10.8	35.5	A	0.35	5.0	24.3
	NBL/R	A	0.21	13.7	11.2	A	0.27	13.9	15.2
	Overall	A	0.25	8.8	-	A	0.33	7.0	-
Wellington Street W/Somerset Street W at Garland Street Signalized	EBL/T	A	0.18	0.9	5.3	A	0.24	2.0	9.8
	WBT/R	A	0.15	1.1	11.3	A	0.29	7.6	49.7
	Overall	A	0.20	1.0	-	A	0.27	5.1	-
Somerset Street W at City Laneway Unsignalized	EBT/R	-	-	-	-	-	-	-	-
	WBL/T	A	0.01	7.9	0.0	A	0.01	8.5	0.0
	NBL/R	B	0.01	11.3	0.0	B	0.05	13.9	0.8
	Overall	A	-	0.4	-	A	-	0.4	-
Somerset Street W at Bayswater Avenue Signalized	EBL/T	A	0.30	9.7	8.7	A	0.37	12.0	48.1
	EBR	A	0.03	0.1	0.2	A	0.04	4.4	4.2
	WBL/T	A	0.35	15.7	35.2	A	0.51	17.4	59.0
	WBR	A	0.12	4.2	6.4	A	0.15	3.4	7.3
	NB	A	0.30	13.2	27.3	A	0.42	17.5	41.8
	SBL	A	0.25	15.4	19.2	A	0.30	18.9	22.2
	SBT/R	A	0.26	12.5	24.8	A	0.31	14.2	29.7
	Overall	A	0.32	12.3	-	A	0.46	14.7	-
50 Bayswater at Bayswater Avenue Unsignalized	EBL/R	B	0.01	10.3	0.0	B	0.01	10.8	0.0
	NBL/T	A	-	0.0	0.0	A	0.01	7.8	0.0
	SBT/R	-	-	-	-	-	-	-	-
	Overall	A	-	0.2	-	A	-	0.2	-
Laurel Street at Bayswater Avenue Unsignalized	EB	A	0.03	7.9	0.8	A	0.03	8.2	0.8
	WB	A	0.05	8.0	0.8	A	0.06	8.0	1.5
	NB	A	0.24	9.5	6.8	A	0.29	9.1	9.0
	SB	A	0.23	8.6	6.8	A	0.23	8.6	6.8
	Overall	A	-	8.9	-	A	-	8.8	-

Notes: Saturation flow rate of 1800 veh/h/lane
Queue is measured in metres
Peak Hour Factor = 0.90

Delay = average vehicle delay in seconds
m = metered queue
= volume for the 95th %ile cycle exceeds capacity

During both the AM and PM peak hours, the study area intersections operate well. No capacity issues are noted.

2.2.8 Collision Analysis

Collision data have been acquired from the City of Ottawa open data website (data.ottawa.ca) for five years prior to the commencement of this TIA for the surrounding study area road network. Table 3 summarizes the collision

types and conditions in the study area, Figure 11 illustrates the intersections and segments analyzed, and Table 4 summarizes the total collisions for each of these locations. Collision data are included in Appendix D.

Table 3: Study Area Collision Summary, 2018-2022

Total Collisions		Number	%
		24	100%
Classification	Fatality	0	0%
	Non-Fatal Injury	7	29%
	Property Damage Only	17	71%
Initial Impact Type	Angle	9	38%
	Rear end	4	17%
	Turning Movement	3	13%
	SMV Unattended	4	17%
	SMV Other	1	4%
	Other	3	13%
Road Surface Condition	Dry	16	67%
	Wet	2	8%
	Slush	4	17%
	Packed Snow	1	4%
	Ice	1	4%
Pedestrian Involved		0	0%
Cyclists Involved		1	4%

Figure 11: Study Area Collision Records

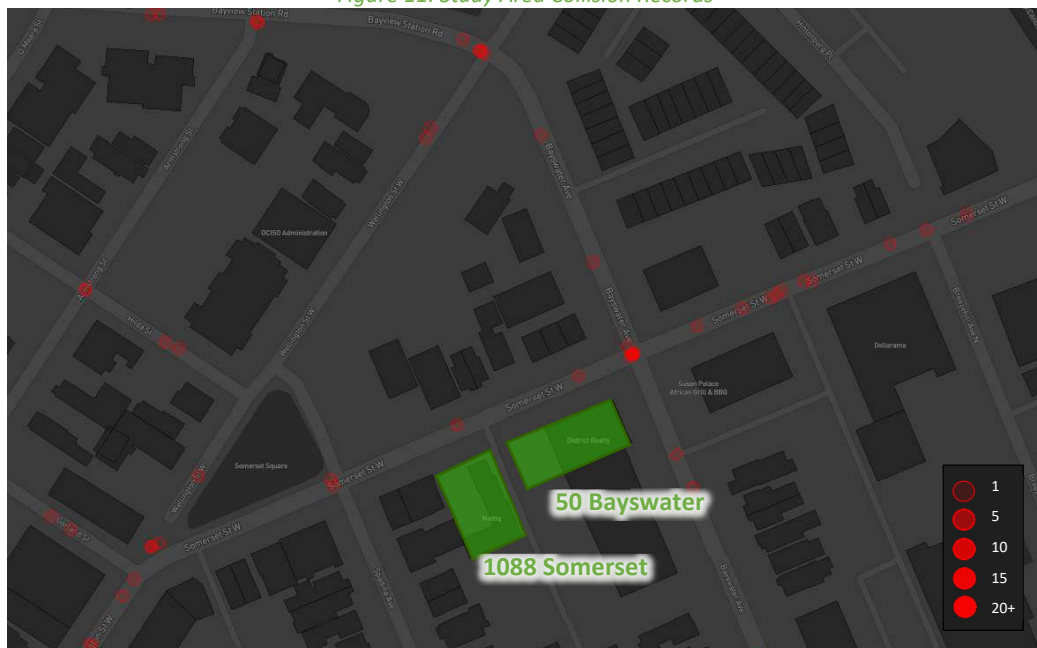


Table 4: Summary of Collision Locations, 2018-2022

Intersections / Segments	Number	%
	24	100%
Bayswater Ave @ Somerset St	9	38%
Somerset St W btwn Bayswater Ave & Breezehill Ave N	5	21%
Wellington St @ Bayswater Ave/Bayview Rd	4	17%
Somerset St W btwn Spadina Ave & Bayswater Ave	2	8%

	Number	%
Intersections / Segments	24	100%
Bayswater Ave btwn Somerset St W & Laurel St	2	8%
Bayswater Ave btwn Wellington St W & Somerset St W	1	4%
Somerset St @ Spadina Ave	1	4%

Within the study area, there are a total of 24 collisions during the 2018-2022 time period, with 17 involving property damage only and the remaining seven having non-fatal injuries. A cyclist collision is noted at Somerset Street at Spadina Avenue intersection in dark conditions. No further collision review is required as part of this study.

2.3 Planned Conditions

2.3.1 Planning and Policy

2.3.1.1 *New Official Plan (2021)*

Within the Transit and Network Ultimate diagram, transit priority corridor is identified along Wellington Street West and Somerset Street West. The Trillium line reconstruction is underway which includes the Trillium Pathway.

2.3.1.2 *Transportation Master Plan Part 1 (2023)*

Within the study area, a feasibility study for a pedestrian and cycling bridge crossing the Trillium Line corridor at Laurel Street is identified in the Active Transportation Project List.

2.3.1.3 *West Downtown Core Secondary Plan*

The West Downtown Core Secondary Plan requires that all future development along the west side of the Trillium Line corridor within the Corso Italia Station District (i.e. between Somerset Street West and Highway 417) provides a multi-use pathway on the portion of their property next to the LRT line. Once all property is redeveloped, a continuous multi-use pathway will be provided along the west side of this portion of the Trillium Line.

2.3.1.4 *Wellington Street West Secondary Plan*

The Wellington Street West Secondary Plan is a guide to the long-term planning, design and development of both the Wellington mainstreet corridor in general, and four specific areas within it, including direction on issues regarding: land use, built form, sidewalks, plazas and open spaces, and heritage. In general, the policy notes consideration for additional sidewalk or plaza space throughout the area with increased building setbacks and adequate and convenient parking.

2.3.1.5 *City's Planned Construction Projects*

From the City's Planned Construction Projects portal, transitway renewal and cycling routes along Scott Street are planned this year.

2.3.1.6 *Stage 2 Light Rail Transit project - O-Train South Extension*

Future Corso Italia LRT station is within 800 metres of the site, which is one of the Trillium Line South extension stations in the Stage 2 Light Rail Transit project, and it is scheduled for completion in 2023.

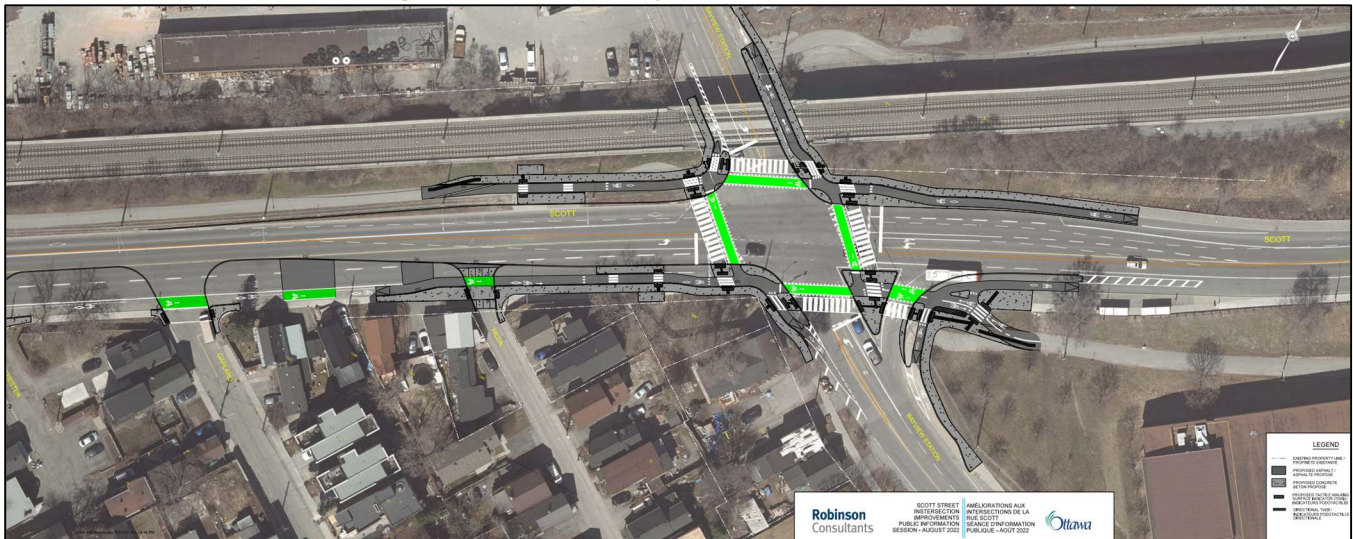
2.3.1.7 *Somerset Street West / Breezehill Avenue North Intersection*

A new traffic signal control is planned for the intersection of Somerset Street West and Breezehill Avenue North as part of the 1040 Somerset Street West development. This will involve adding a westbound left-turn lane with about 15 meters of storage, which will reduce the existing westbound bike lane by approximately 45 meters.

2.3.1.8 *Breezehill Avenue North Integrated Renewal (Between Somerset Street West And Gladstone Avenue)*

An integrated renewal of Breezehill Avenue North, between Somerset Street West and Gladstone Avenue, is planned for 2025-2026. Proposed roadway modifications include narrowing the road, widening sidewalks, adding

Figure 13: Scott Street at Bayview Station Road Intersection



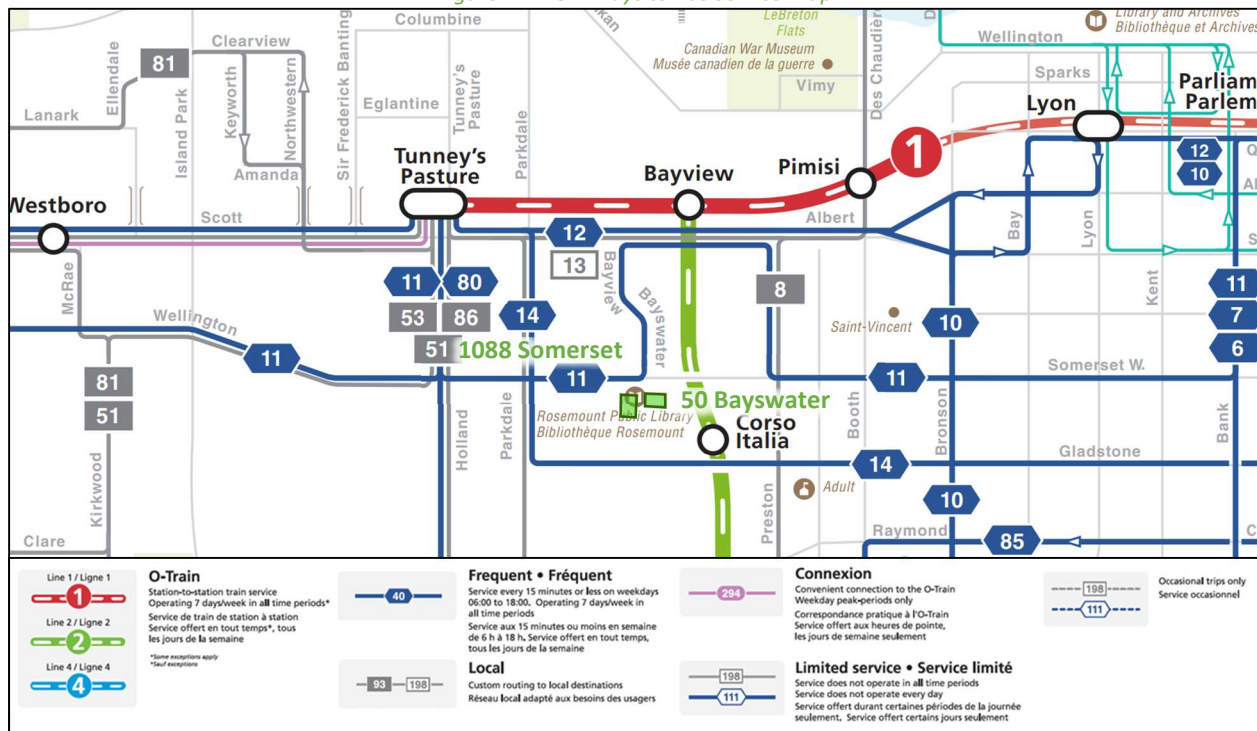
2.3.1.11 Construction Of Laurel Street East Of Breezehill Avenue North

The ongoing construction of Laurel Street east of Breezehill Avenue North includes new sidewalks on both sides of the street and a speed hump.

2.3.1.12 OC Transpo's New Ways to Bus

Responding to recent ridership trends and anticipating the upcoming completion of the Stage 2 expansion of LRT service within the City, the OC Transpo bus service is planned to be recalibrated to focus on frequency, local service in neighbourhoods, and connections to key destinations. These changes are expected in 2025, and the new service map is illustrated in Figure 14.

Figure 14: New Ways to Bus Service Map



Source: <https://www.octranspo.com/en/plan-your-trip/service-changes/new-ways-to-bus#new-network> Accessed: February 7, 2025

2.3.2 Other Study Area Developments

1040 Somerset Street West

The proposed redevelopment includes a site plan application for the construction of a 30-storey mixed-use building with 268 residential dwelling units, and 141 m² of ground-floor commercial space. The development is anticipated to be built out in 2025 and to generate 24 new two-way AM peak hour auto trips and 26 new two-way PM peak hour auto trips. (Novatech, 2021)

1050 Somerset Street West

Last updated in 2012, the proposed development application includes a site plan for the construction of a 23-storey mixed-use building with 195 residential dwelling units, 5,020 sq. ft. of ground floor commercial retail space, 26,100 sq. ft. of commercial office space, and 244 underground parking spaces. Traffic generated by the site has not been explicitly provided in the 2012 traffic analysis. (Novatech, 2012)

935 Wellington Street West

The proposed development application is to demolish the existing structure and consolidate the property with the use on the adjacent property at 927 Wellington Street West. No TIA is available at this time.

26, 36, 40 Armstrong Street & 961, 967, 969, 973, 979 Wellington Street West

The proposed development application includes a site plan for the construction of a mixed-use building with 252 residential dwelling units and 8,498 sq. ft. of ground floor commercial development. The development is predicted to generate 30 new AM and 44 new PM two-way peak-hour auto trips, and the anticipated build-out horizon is assumed to be 2024. (CGH Transportation, 2022)

951 Gladstone Avenue and 145 Loretta Avenue North

The proposed development application includes a site plan for the construction of approximately 849 residential units, 193,015 sq. ft of office space (including the existing Standard Bread building, live-work space) and 17,611 sq. ft of retail space. The development is predicted to generate 136 new AM and 149 new PM two-way peak-hour auto trips, and the anticipated build-out horizon is assumed to be 2026. (CGH Transportation, 2022)

54-60 Bayswater Avenue

The proposed development application includes a site plan for the construction of six-storey apartment building with 40 units and one level of underground parking. No TIA is available.

975 Gladstone Avenue

The proposed development application includes a site plan for the construction of a one-storey, 947 m² warehouse addition to the rear of the existing Canada Bank Note building near Laurel Street as well as a 177 m² secured loading bay. No TIA is available.

989 Somerset Street West

The proposed development application includes a site plan for the construction of a high-rise building, totalling 232 units. The development is predicted to generate 20 new AM and 20 new PM two-way peak-hour auto trips, and the anticipated build-out horizon was assumed to be 2020. (Parson, 2022)

3 Study Area and Time Periods

3.1 Study Area

The study area will include the intersections of:

- Albert Street/Scott Street at:

- Bayview Station Road
- Wellington Street West at:
 - Fairmont Avenue
 - Garland Street
- Somerset Street West at:
 - City Laneway
 - Bayswater Avenue
- Bayswater Avenue at:
 - Laurel Street
 - 50 Bayswater

The boundary road will be Somerset Street West and Bayswater Avenue, and the SL29 screenline is present within proximity to the site but will not be analyzed as part of this study.

3.2 Time Periods

As the proposed development consists mainly of residential units with small retail spaces, the AM and PM peak hours will be examined.

3.3 Horizon Years

The anticipated build-out year is 2027. As a result, the full build-out plus five years horizon year is 2032.

4 Development-Generated Travel Demand

4.1 Mode Shares

Examining the mode shares recommended in the TRANS Trip Generation Manual (2020) for the subject district, derived from the most recent National Capital Region Origin-Destination survey (OD Survey), the existing average district mode shares by land use for Ottawa West have been summarized in Table 5.

Table 5: TRANS Trip Generation Manual Recommended Mode Shares – Ottawa West

Travel Mode	Multi-Unit (High-Rise)		Commercial Generator	
	AM	PM	AM	PM
Auto Driver	29%	33%	55%	50%
Auto Passenger	11%	11%	11%	16%
Transit	41%	26%	11%	11%
Cycling	3%	7%	0%	5%
Walking	16%	23%	23%	18%
Total	100%	100%	100%	100%

Being within 400 metres radially (670 metres walking distance) of the Bayview LRT station and 800 metres radially of the future Corso Italia Station, a higher transit mode is considered achievable at this location. A nine percent shift to transit mode from the auto mode is proposed for the land use of multi-Unit (high-rise). Modified mode share targets are proposed for the development and are summarized in Table 6.

Table 6: Proposed Development Mode Shares – Within 400 m of Rapid Transit

Travel Mode	Multi-Unit (High-Rise)		Commercial Generator	
	AM	PM	AM	PM
Auto Driver	20%	24%	55%	50%
Auto Passenger	11%	11%	11%	16%
Transit	50%	35%	11%	11%

Travel Mode	Multi-Unit (High-Rise)		Commercial Generator	
	AM	PM	AM	PM
Cycling	3%	7%	0%	5%
Walking	16%	23%	23%	18%
Total	100%	100%	100%	100%

4.2 Trip Generation

This TIA has been prepared using the vehicle and person trip rates for the residential dwellings using the TRANS Trip Generation Manual (2020) and the vehicle trip rates and derived person trip rates for commercial component from the ITE Trip Generation Manual 10th Edition (2017) using the City-prescribed conversion factor of 1.28. Table 7 summarizes the person trip rates for the proposed residential land uses for each peak period and the person trip rates for the non-residential land uses by peak hour.

Table 7: Trip Generation Person Trip Rates by Peak Period/Hour

Land Use	Land Use Code	Peak Period	Vehicle Trip Rate	Person Trip Rates
Multi-Unit High-Rise	221 & 222 (TRANS)	AM	-	0.80
		PM	-	0.90
Land Use	Land Use Code	Peak Hour	Vehicle Trip Rate	Person Trip Rates
Strip Retail Plaza (<40k)	822 (ITE)	AM	2.36	3.02
		PM	6.59	8.44

Using the above person trip rates, the total person trip generation has been estimated. Table 8 summarizes the total person trip generation for the residential land uses and for the non-residential land uses.

Table 8: Person Trip Generation by Peak Period/Hour

Land Use	Units	AM Peak Period			PM Peak Period		
		In	Out	Total	In	Out	Total
Multi-Unit (High-Rise)	101	25	56	81	53	38	91
Land Use	Units / GFA	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Strip Retail Plaza (<40k)	3,343 sq ft	6	4	10	14	14	28

Internal capture rates from the ITE Trip Generation Handbook 3rd Edition have been assigned to the development's retail component for mixed-use developments. The rates summarized in Table 9 represent the percentage of trips to/from retail use based on the residential component.

Table 9: Internal Capture Rates

Land Use	AM		PM	
	In	Out	In	Out
Residential to/from Strip Retail Plaza (<40k)	17%	14%	10%	26%

Pass-by reductions applied to the retail trip generation at a rate of 40% have been included using the recommended value presented in the ITE Trip Generation Manual 11th Edition (2021) for the most similar land use with a recommended rate, "Retail (40k – 150k sq. ft.)".

Using the above mode share targets for an LRT area, the internal capture and pass-by rates, and the person trip rates, the person trips by mode have been projected. Trip generation by peak hour has been forecasted using the prescribed peak period conversion factors presented in the TRANS Trip Generation Manual (2020) for the residential component. Table 10 summarizes the residential trip generation and the non-residential trip generation by mode and peak hour.

Table 10: Trip Generation by Mode

Travel Mode		AM Peak Hour				PM Peak Hour			
		Mode Share	In	Out	Total	Mode Share	In	Out	Total
Multi-Unit (High-Rise)	Auto Driver	20%	2	6	8	24%	6	4	10
	Auto Passenger	11%	1	3	4	11%	2	2	4
	Transit	50%	7	16	23	35%	8	7	15
	Cycling	3%	0	1	1	7%	2	1	3
	Walking	16%	2	6	8	23%	6	5	11
	Total	100%	12	32	44	100%	24	19	43
Strip Retail Plaza (<40k)	Auto Driver	55%	2	1	3	50%	4	3	7
	Auto Passenger	11%	1	0	1	16%	2	2	4
	Transit	11%	1	0	1	11%	1	1	2
	Cycling	0%	0	0	0	5%	1	1	2
	Walking	23%	1	1	2	18%	2	2	4
	Total	100%	5	2	7	100%	10	9	19
	Pass-by	40%	-1	-1	-2	40%	-3	-2	-5
	Internal Capture	varies	-1	-1	-2	varies	-1	-4	-5
Total	Auto Driver	-	4	7	11	-	10	7	17
	Auto Passenger	-	2	3	5	-	4	4	8
	Transit	-	8	16	24	-	9	8	17
	Cycling	-	0	1	1	-	3	2	5
	Walking	-	3	7	10	-	8	7	15
	Total	-	17	34	51	-	34	28	62
	Pass-by	40%	-1	-1	-2	40%	-3	-2	-5
	Internal Capture	varies	-1	-1	-2	varies	-1	-4	-5

As shown above, a total of 11 AM and 17 PM new peak hour two-way vehicle trips are projected as a result of the proposed development.

4.3 Trip Distribution

To understand the travel patterns of the subject development, the OD Survey has been reviewed to determine the travel for the residential component, and these patterns were applied based on the build-out of Ottawa West. Table 11 below summarizes the distributions.

Table 11: OD Survey Distribution – Ottawa West

To/From	Residential % of Trips
North	5%
South	30%
East	30%
West	35%
Total	100%

4.4 Trip Assignment

Using the distribution outlined above, turning movement splits, and access to major transportation infrastructure, the trips generated by the site have been assigned to the study area road network. Table 12 summarizes the proportional assignment to the study area roadways, Figure 15 illustrates the new site-generated volumes, and Figure 16 illustrates the pass-by volumes.

Table 12: Trip Assignment

To/From	Via
North	5% Albert Street (N)
South	30% Bayswater Avenue (S)
East	5% Somerset Street West (E) 15% Albert Street
West	10% Wellington Street West / Highway 417 (E) 25% Wellington Street West /Highway 417 (W) 10% Scott Street (W)
Total	100%

Figure 15: New Site Generation Auto Volumes

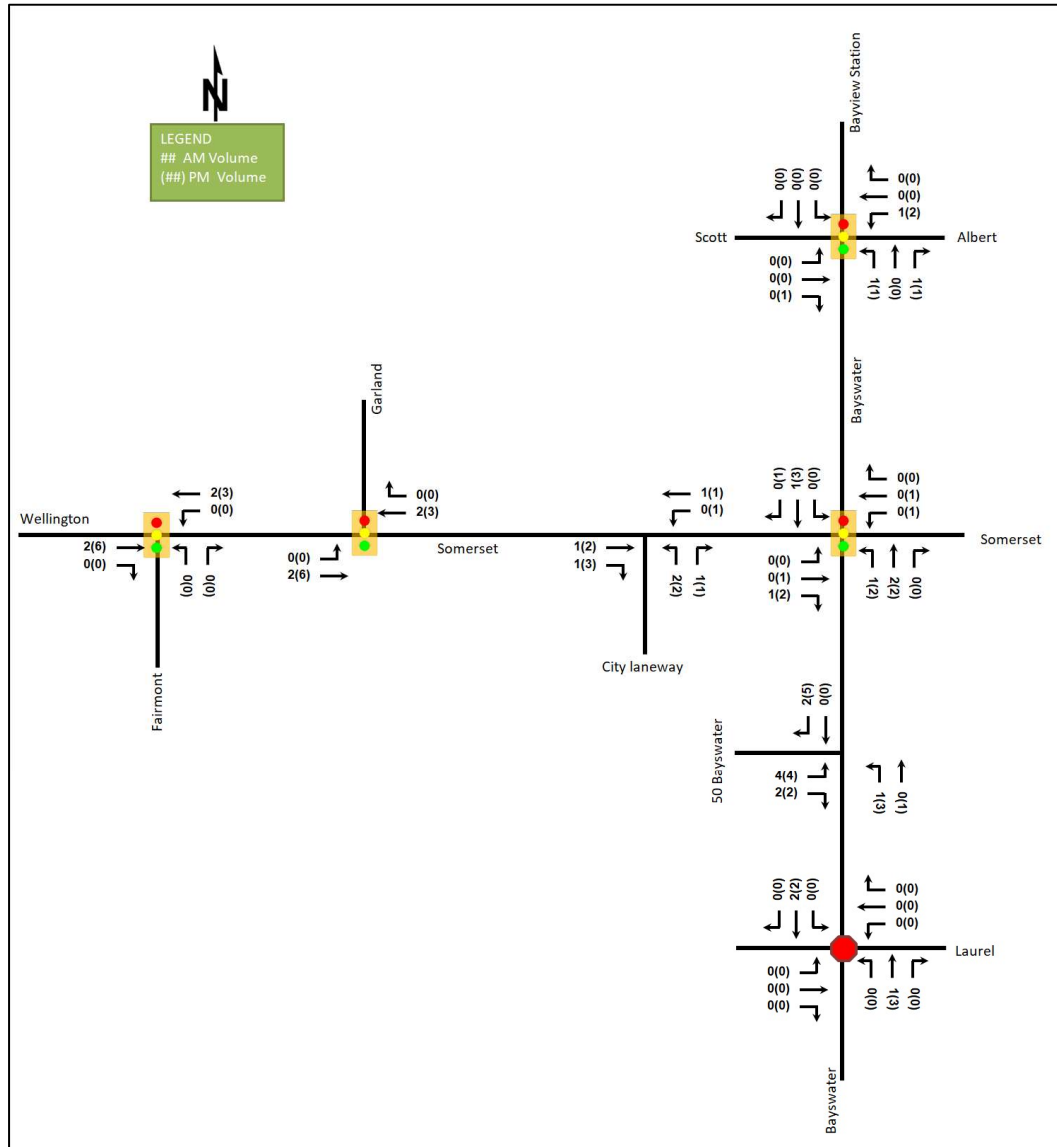
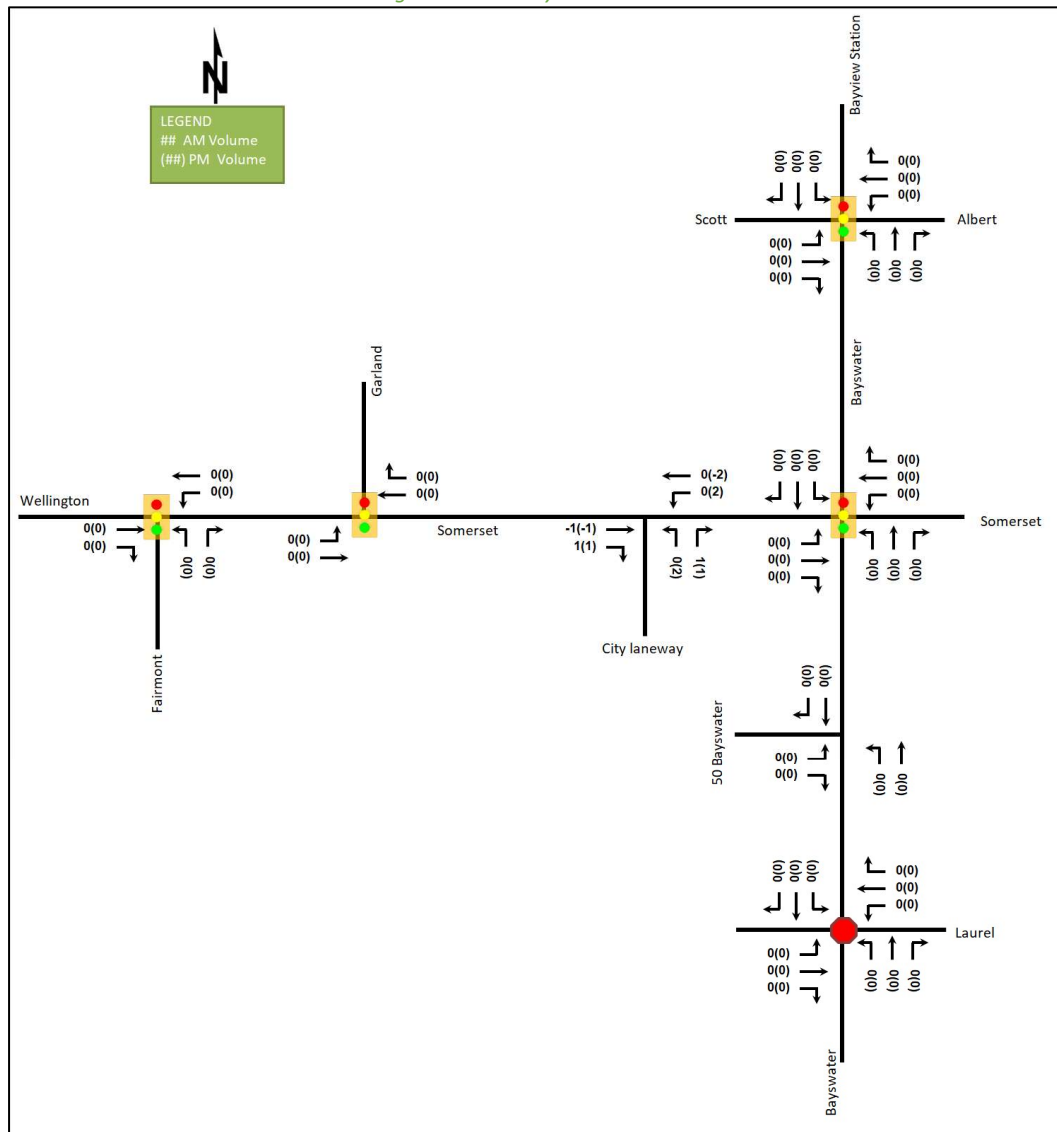


Figure 16: Pass-By Auto Volumes



4.5 Trip Reductions

Based on the existing office building of approximately 6,846 sq. ft. Using the ITE trip generation rates for the land use of small office building (ITE 712), and the employment generator mode shares for Ottawa West, the estimated trip generation of the existing site is 8 AM and 10 PM peak hour two-way vehicle trips. The trip assignment of the estimated reduced volumes is illustrated in Figure 17. Table 13 compares the estimated existing primary auto trips and forecasted site-generated primary auto trips.

Figure 17: Estimated Trip Reductions

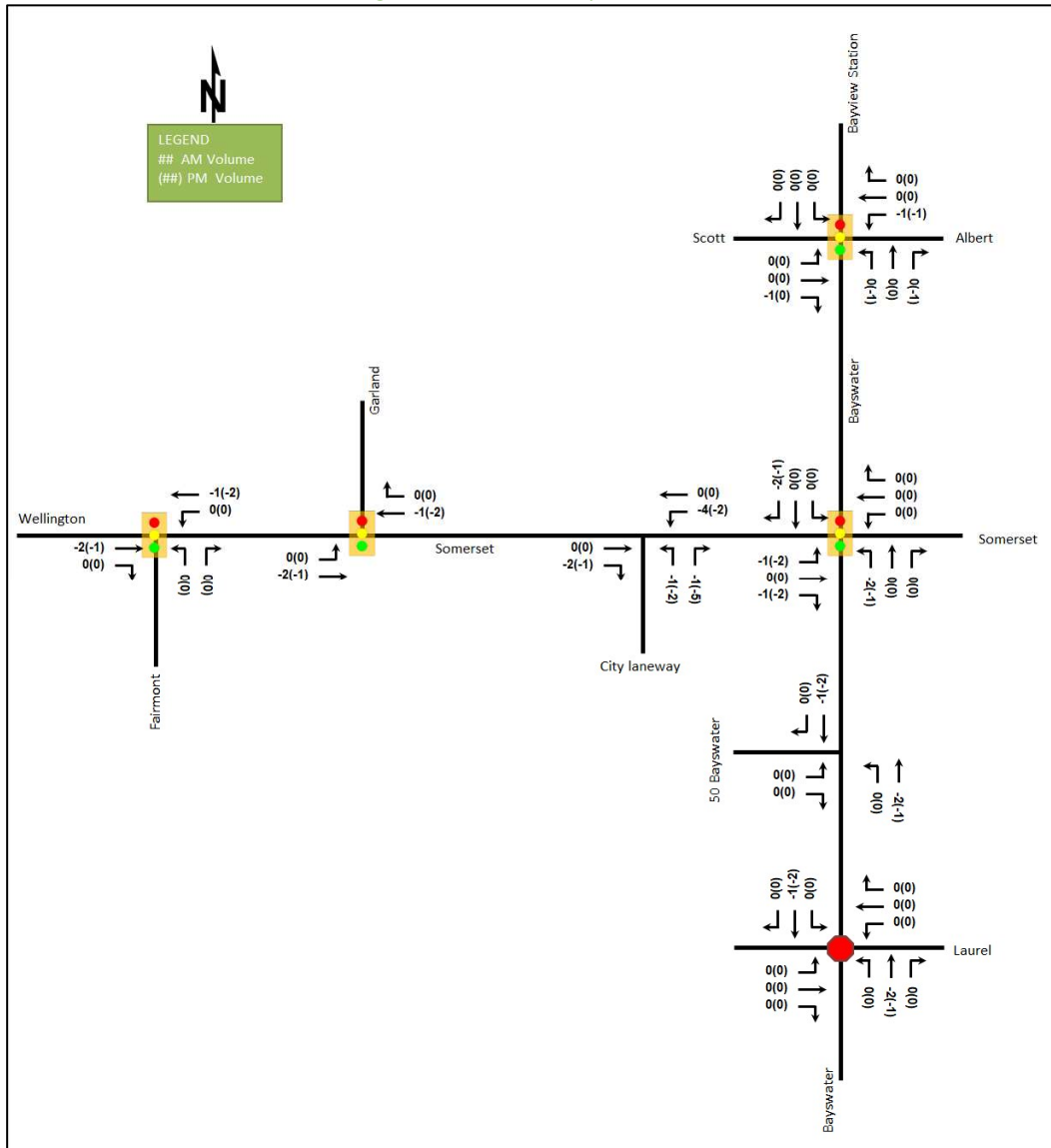
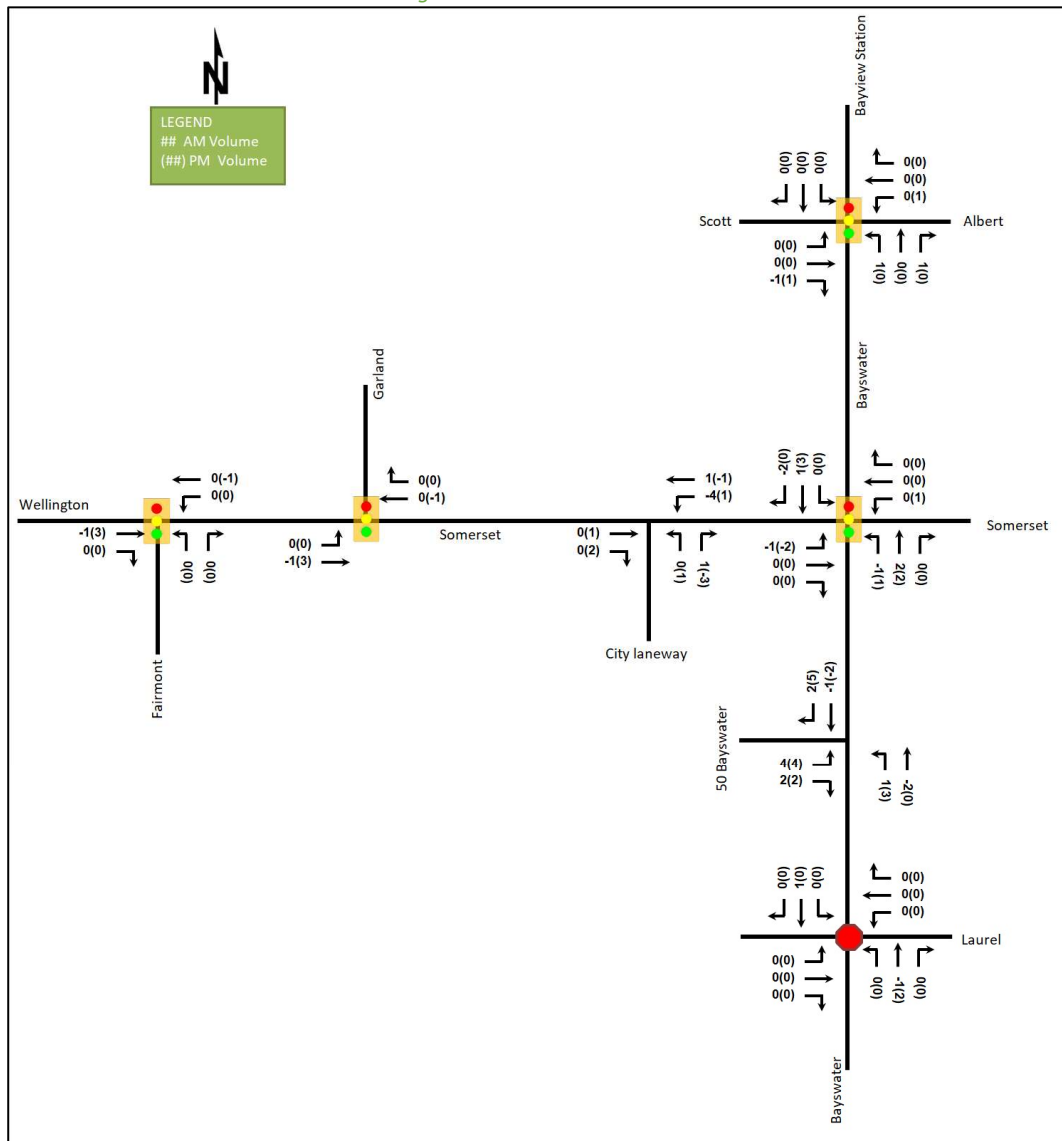


Table 13: Estimated Existing Auto Trip Volumes vs Forecasted Auto Trip Volumes

Scenario	AM Peak Hour				PM Peak Hour			
	Mode Share	In	Out	Total	Mode Share	In	Out	Total
Existing	54%	6	2	8	54%	3	7	10
Proposed	Varies	4	7	11	Varies	10	7	17
Difference	-	-2	+5	+3	-	+7	+0	+7

Figure 18: Net Auto Volumes



5 Exemption Review

Table 14 summarizes the exemptions for this TIA.

Table 14: Exemption Review

Module	Element	Explanation	Exempt/Required
Site Design and TDM			
4.1 Development Design	4.1.2 Circulation and Access	Only required for site plan and zoning by-law applications	Required
	4.1.3 New Street Networks	Only required for plans of subdivision	Exempt
4.2 Parking	4.2.1 Parking Supply	Only required for site plan and zoning by-law applications	Required
4.3 Boundary Street Design		All applications	Required

Module	Element	Explanation	Exempt/Required
4.5 Transportation Demand Management	All Elements	Only required when the development generates more than 60 person-trips	Required
Network Impact			
3.2 Background Network Travel Demand	All Elements	Only required when one or more other Network Impact Modules are triggered when the development generates more than 75 auto or transit trips	Exempt
3.3 Demand Rationalization		Only required when one or more other Network Impact Modules when the development generates more than 75 auto trips	Exempt
4.6 Neighbourhood Traffic Calming	4.6.1 Adjacent Neighbourhoods	<p>If the development meets all of the following criteria along the route(s) site generated traffic is expected to utilize between an arterial road and the site's access:</p> <ol style="list-style-type: none"> 1. Access to Collector or Local; 2. "Significant sensitive land use presence" exists, where there is at least two of the following adjacent to the subject street segment: <ul style="list-style-type: none"> • School (within 250m walking distance); • Park; • Retirement / Older Adult Facility (i.e. long-term care and retirement homes); • Licenced Child Care Centre; • Community Centre; or • 50%, or greater, of adjacent property along the route(s) is occupied by residential lands and a minimum of 10 occupied residential units are present on the route. 3. Application is for Zoning By-Law Amendment or Draft Plan of Subdivision; 4. At least 75 site-generated auto trips; 5. Site Trip Infiltration is expected. Site traffic will increase peak hour vehicle volumes along the route by 50% or more. 	Exempt
4.7 Transit	4.7.1 Transit Route Capacity	Only required when the development generates more than 75 transit trips	Exempt
	4.7.2 Transit Priority Requirements	Only required when the development generates more than 75 auto trips	Exempt

Module	Element	Explanation	Exempt/Required
4.8 Network Concept		Only required when proposed development generates more than 200 person-trips during the peak hour in excess of equivalent volume permitted by established zoning	Exempt
4.9 Intersection Design	4.9.1 Intersection Control	Only required when the development generates more than 75 auto trips	Exempt
	4.9.2 Intersection Design	Only required when the development generates more than 75 auto trips	Exempt

6 Development Design

6.1 Design for Sustainable Modes

The northern access on the City Laneway to the lower level of the surface parking structure at 50 Bayswater Avenue will be relocated approximately 6 metres southerly, while the southern access to the upper level or the parking structure will remain. No changes are proposed for the access on Bayswater Avenue to the existing underground parking. A total of 84 bicycle parking spaces are proposed at 50 Bayswater Avenue, and 27 bicycle parking spaces are proposed at 1088 Somerset Street. Existing pedestrian facilities are provided along the boundary streets of Bayswater Avenue and Somerset Street West. Local bus stops are located on the frontage on Somerset Street West closer to the intersection of Somerset Street West at Bayswater Avenue.

The infrastructure TDM checklist is provided in Appendix E.

6.2 Circulation and Access

Residential trips are assumed to use both the access on the City Laneway and the 50 Bayswater Avenue access. Retail trips will only use the City Laneway. The northern access on the City Laneway to the lower level of the existing parking structure will be relocated approximately 6 metres to the south. The access is 6.0 metres wide.

The garbage collection will remain from the City Laneway.

7 Parking

7.1 Parking Supply

A total of 157 residential vehicle parking spaces, 26 visitor parking spaces, and four commercial parking spaces are proposed.

According to the zoning by-law, within Area Y on Schedule 1A, no minimum residential vehicle parking is required. A minimum of eight visitor parking spaces are required for the proposed site. According to the zoning by-law, within Area X on Schedule 1A, 90 residential parking and 18 visitor parking spaces for the existing adjacent residential tower. The minimum vehicle parking provisions for three buildings are 90 residential parking spaces and 26 visitor parking spaces. The proposed vehicle parking meets the minimum zoning-by-law requirements.

According to the zoning by-law, no off-street motor vehicle parking is required to be provided for the commercial spaces at 50 Bayswater Avenue and 1088 Somerset Street West as the gross floor area is less than 500 square metres. The minimum parking requirements are satisfied

As the site is considered within the TOD zone, the maximum vehicle parking according to the zoning by-law for the proposed buildings are 177 residential parking spaces and twelve commercial parking spaces, and for the existing building is 336 residential parking spaces. The maximum parking requirements are satisfied.

A total of 25 underground bicycle parking spaces and two exterior at-grade bicycle parking spaces are proposed at 1088 Somerset Street, while 80 underground bicycle parking spaces and four exterior at-grade bicycle parking spaces are proposed at 50 Bayswater Avenue.

According to the zoning by-law, the minimum bicycle parking requirements are eleven residential spaces and one commercial space for 1088 Somerset Street West and 40 residential spaces and one commercial space for 50 Bayswater Avenue. The minimum bicycle parking requirements are satisfied for both 50 Bayswater Avenue and 1088 Somerset Street West.

8 Boundary Street Design

Table 15 summarizes the MMLOS analysis for the boundary streets of Somerset Street West and Bayswater Avenue. As noted in Section 2.3.1.9, improvements are anticipated at the intersection of Somerset Street West at Bayswater Avenue and are considered as future conditions. The boundary street analysis is based on the policy area of “within 600m of a rapid transit station” and “within 300 metres of a school”. The MMLOS worksheets have been provided in Appendix F.

Table 15: Boundary Street MMLOS Analysis

Segment	Pedestrian LOS		Bicycle LOS		Transit LOS		Truck LOS	
	PLOS	Target	BLOS	Target	TLOS	Target	TrLOS	Target
Somerset Street West (Existing)	C	A	E	C	D	D	B	E
Somerset Street West (Future)	A	A	A	C	D	D	C	E
Bayswater Avenue (Existing)	C	A	E	B	N/A	N/A	N/A	N/A
Bayswater Avenue (Future)	A	A	B	B	N/A	N/A	N/A	N/A

The pedestrian LOS targets are not met along the segments of Somerset Street West and Bayswater Avenue in the existing condition. It is anticipated that both segments will meet the pedestrian LOS targets in the future once Somerset Street West at Bayswater Avenue improvements are completed.

The bicycle LOS targets are not met along the segments of Somerset Street West and Bayswater Avenue. It is anticipated that both segments will meet the bicycle LOS targets in the future once Somerset Street West at Bayswater Avenue improvements are completed.

9 Access Intersections Design

9.1 Location and Design of Access

A total of two accesses are proposed along the City Laneway. The northern access to the lower level of the surface parking structure at 50 Bayswater Avenue will be relocated approximately 6 metres south, while the southern access to the upper of the parking structure will remain. The relocated access on the City Laneway is proposed to be 6.0 metres wide, which meets the width requirements of the Private Approach By-law.

No minimum throat length requirements are provided by the TAC Geometric Design Guidelines for access on City Laneway.

10 Transportation Demand Management

10.1 Context for TDM

The subject site has been assumed to rely predominantly on auto driver and transit mode shares due to being within 400 metres radially (670 metres walking distance) of the Bayview LRT station and 800 metres radially of

the future Corso Italia Station. The convenience of the transit station should provide the opportunity to reach the forecast transit mode share.

Total bedrooms within the development is subject to the final unit count and layout selections by purchasers. No age restrictions are noted.

10.2 Need and Opportunity

The subject site has been assumed to rely predominantly on auto and transit travel, and those assumptions have been carried through the analysis.

10.3 TDM Program

The “suite of post occupancy TDM measures” has been summarized in the TDM checklists for the residential land uses. The checklist is provided in Appendix E. The key TDM measures recommended include:

- Display local area maps with walking/cycling access routes and key destinations at major entrances
- Display relevant transit schedules and route maps at entrances
- Provide a multimodal travel option information package to new/relocating employees and new residents
- Inclusion of a 1-month Presto card for first time new townhome purchase and apartment rental, with a set time frame for this offer (e.g. 6-months) from the initial opening of the site
- Unbundle parking cost from purchase or rental costs

11 Summary of Improvements Indicated and Modifications Options

The following summarizes the analysis and results presented in this TIA report:

Proposed Site and Screening

- The proposed site includes a total 80 residential units and 2,316 sq. ft commercial space, and a new 6-storey mixed-used building with a total of 21 units and 1,027 sq. ft commercial space at 1088 Somerset Street West
- The existing access on Bayswater Avenue to the existing parking will remain and serve the proposed redevelopment
- Two accesses are located on the City Laneway and access the existing two-level parking structure and the 50 Bayswater Avenue access to the underground parking levels
- The entire site will provide 157 residential vehicle parking spaces, 26 visitor vehicle parking spaces, four commercial vehicle parking spaces, and 111 bicycle parking spaces
- The anticipated full build-out and occupancy horizon is 2027
- The trip generation and location triggers were met for the TIA Screening

Existing Conditions

- Scott Street, Albert Street, Wellington Street West, and Somerset Street West are arterial roads, and Bayview Station Road and Bayswater Avenue are collector roads in the study area
- Sidewalks are provided along both sides of all study area roads, and a pedestrian crossover is provided across Armstrong Street at Merton Street
- MUPs are located along the north side of Scott Street and on the east side of the Trillium LRT corridor, with a connection to the Tom Brown Arena
- Curbside bike lanes are provided on the south side of Scott Street, on the west side of Garland Street south of Armstrong Street, and on both sides of Somerset Street West on the bridge over the Trillium LRT corridor
- Within the 2023 Transportation Master Plan – Part 1, Scott Street and the Trillium rail corridor are cross-town bikeways
- No further examination for collision is required as part of this study

Development Generated Travel Demand

- A total of 11 AM and 17 PM new peak hour two-way vehicle trips are projected as a result of the proposed development
- A total of 24 AM and 17 PM new peak hour two-way transit trips are projected as a result of the proposed development
- Of the forecasted trips, 5 % are anticipated to travel north, 35 % to the west, and 30 % to both the south and east
- The estimated trip generation of the existing site are 8 AM and 10 PM peak hour two-way vehicle trips

Development Design

- Existing pedestrian facilities are provided along the boundary streets of Bayswater Avenue and Somerset Street West
- Local bus stops are located on the frontage on Somerset Street West closer to the intersection of Somerset Street West at Bayswater Avenue
- The garbage collection will remain from the City Laneway
- No change is proposed to the existing access at 50 Bayswater Avenue
- The northern access on the City laneway will be relocated approximately 6 metres south and access the lower level of the existing parking structure
- The existing southern access on the City Laneway will remain unchanged

Parking

- A total of 157 residential vehicle parking spaces, 26 visitor parking spaces, and four commercial parking spaces will be provided for the entire site
- The minimum and maximum parking requirements are satisfied
- No off-street motor vehicle parking is required to be provided for the commercial spaces as the gross floor area is less than 500 square metres according to the zoning by-law
- A total of 25 underground bicycle parking spaces and two exterior at-grade bicycle parking spaces are proposed at 1088 Somerset Street, while 80 underground bicycle parking spaces and four exterior at-grade bicycle parking spaces are proposed at 50 Bayswater Avenue

- The minimum bicycle parking requirements are satisfied

Boundary Street Design

- Although pedestrian and bicycle LOS targets are not met along the segments of Somerset Street West and Bayswater Avenue in the existing condition, it is anticipated that both segments will meet the pedestrian and bicycle LOS targets in the future once Somerset Street West at Bayswater Avenue improvements are completed

Access Intersections Design

- A total of three accesses are proposed, including one existing access that will remain on Bayswater Avenue, one relocated access on City Laneway, and one existing access on City Laneway
- The relocated access on the City Laneway is proposed to be 6.0 metres wide, which meets the width requirements of the Private Approach By-law
- No minimum throat length requirements are provided by the TAC Geometric Design Guidelines for access on City Laneway

TDM

- Supportive TDM measures to be included within the proposed development should include:
 - Display local area maps with walking/cycling access routes and key destinations at major entrances
 - Display relevant transit schedules and route maps at entrances
 - Provide a multimodal travel option information package to new/relocating employees and new residents
 - Inclusion of a 1-month Presto card for first time new townhome purchase and apartment rental, with a set time frame for this offer (e.g. 6-months) from the initial opening of the site
 - Unbundle parking cost from purchase or rental costs

12 Conclusion

It is recommended that, from a transportation perspective, the proposed development applications proceed.

Prepared By:



Yu-Chu Chen
Transportation Engineering-Intern

Reviewed By:



Andrew Harte, P.Eng.
Senior Transportation Engineer

Appendix A

TIA Screening Form and PM Certification Form

City of Ottawa 2023 Revisions to 2017 TIA Guidelines
Step 1 - Screening Form

Date: 10-Aug-23
Project Number: 2023-020
Project Reference: 50 Bayswater 1088 Somerset

1.1 Description of Proposed Development	
Municipal Address	50 Bayswater Ave, 1088 Somerset St W
Description of Location	Southwest coner of Somerset Street West and Bayswater Avenue intersection
Land Use Classification	Traditional Mainstreet Zone (TM11) and Residential Fourth Density Zone (R4UB)
Development Size	Replacing two commercial buildings with two mixed use buildings with 105 dwelling units and a reduction in commercial GFA
Accesses	Use of existing rear lane on Somerset St W and use of existing underground parking structure accessing Bayswater Ave
Phase of Development	Single
Buildout Year	2027
TIA Requirement	Design Review Component

1.2 Trip Generation Trigger	
Land Use Type	Multi-Family (High-Rise)
Development Size	105 Units
Trip Generation Trigger	No

1.3 Location Triggers		
Does the development propose a new driveway to a boundary street that is designated as part of the Transit Priority Network, Rapid Transit network or Cross-Town Bikeways?	Yes	Somerset W isolated transit priority corridor
Is the development in a Hub, a Protected Major Transit Station Area (PMTSA), or a Design Priority Area (DPA)?	Yes	Somerset W Traditional Mainstreet DPA
Location Trigger	Yes	

1.4. Safety Triggers		
Are posted speed limits on a boundary street 80 km/hr or greater?	No	
Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway?	No	
Is the proposed driveway within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of intersection in urban/ suburban conditions)?	No	Existing Driveways
Is the proposed driveway within auxiliary lanes of an intersection?	No	
Does the proposed driveway make use of an existing median break that serves an existing site?	No	
Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development?	No	
Does the development include a drive-thru facility?	No	
Safety Trigger	No	



TIA Plan Reports

On 14 June 2017, the Council of the City of Ottawa adopted new Transportation Impact Assessment (TIA) Guidelines. In adopting the guidelines, Council established a requirement for those preparing and delivering transportation impact assessments and reports to sign a letter of certification.

Individuals submitting TIA reports will be responsible for all aspects of development-related transportation assessment and reporting, and undertaking such work, in accordance and compliance with the City of Ottawa's Official Plan, the Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines.

By submitting the attached TIA report (and any associated documents) and signing this document, the individual acknowledges that s/he meets the four criteria listed below.

CERTIFICATION

1. I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines;
2. I have a sound knowledge of industry standard practice with respect to the preparation of transportation impact assessment reports, including multi modal level of service review;
3. I have substantial experience (more than 5 years) in undertaking and delivering transportation impact studies (analysis, reporting and geometric design) with strong background knowledge in transportation planning, engineering or traffic operations; and
4. I am either a licensed¹ or registered² professional in good standing, whose field of expertise [check ☒ appropriate field(s)] is either transportation engineering ☒ or transportation planning ☐.

1,2 License of registration body that oversees the profession is required to have a code of conduct and ethics guidelines that will ensure appropriate conduct and representation for transportation planning and/or transportation engineering works.

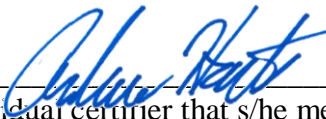
City Of Ottawa
Infrastructure Services and Community
Sustainability
Planning and Growth Management
110 Laurier Avenue West, 4th fl.
Ottawa, ON K1P 1J1
Tel. : 613-580-2424
Fax: 613-560-6006

Ville d'Ottawa
Services d'infrastructure et Viabilité des
collectivités
Urbanisme et Gestion de la croissance
110, avenue Laurier Ouest
Ottawa (Ontario) K1P 1J1
Tél. : 613-580-2424
Télécopieur: 613-560-6006

Dated at Ottawa this 20 day of September, 2018.
(City)

Name: Andrew Harte
(Please Print)

Professional Title: Professional Engineer



Signature of Individual certifier that s/he meets the above four criteria

Office Contact Information (Please Print)
Address: 6 Plaza Court
City / Postal Code: Ottawa / K2H 7W1
Telephone / Extension: (613) 697-3797
E-Mail Address: Andrew.Harte@CGHTransportation.com



Appendix B

Turning Movement Counts



Turning Movement Count Summary Report Including AM and PM Peak Hours All Vehicles Except Bicycles



Albert Street/Scott Street & Bayswater Avenue/Bayview Station Road Ottawa, ON

Survey Date: Wednesday, March 01, 2023 Start Time: 0700 AADT Factor: 1.0
Weather AM: Mostly Cloudy -5° C Survey Duration: 6 Hrs. Survey Hours: 0700-1000 & 1500-1800
Weather PM: Cloudy +1° C Surveyor(s): T. Carmody

Time Period	Scott St.				Albert St.				Bayswater Ave.				Bayview Stn. Rd.				Street Total	Grand Total
	LT	ST	RT	UT	LT	ST	RT	UT	LT	ST	RT	UT	LT	ST	RT	UT		
0700-0800	12	341	40	0	393	38	152	33	0	223	616	26	30	48	0	104	72	882
0800-0900	21	504	69	0	594	55	178	27	0	260	854	41	44	95	0	180	156	1360
0900-1000	15	308	45	0	368	39	172	45	0	256	624	33	45	57	0	135	84	954
1500-1600	10	320	84	0	414	46	337	92	0	475	889	61	113	61	0	235	50	1252
1600-1700	14	388	92	0	494	83	470	170	0	723	1217	60	141	57	0	258	44	1615
1700-1800	13	403	107	0	523	65	410	112	0	587	1110	63	107	63	0	233	54	1466
Totals	85	2264	437	0	2786	326	1719	479	0	2524	5310	284	480	381	0	1145	460	7529

Equivalent 12 & 24-hour Vehicle Volumes Including the Annual Average Daily Traffic (AADT) Factor
Applicable to the Day and Month of the Turning Movement Count

Expansion factors are applied exclusively to standard weekday 8-hour turning movement counts
conducted during the hours of 0700h - 1000h, 1130h - 1330h and 1500h - 1800h

Equivalent 12-hour vehicle volumes. These volumes are calculated by multiplying the 8-hour totals by the 8 → 12 expansion factor of 1.39																			
Equ. 12 Hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Average daily 12-hour vehicle volumes. These volumes are calculated by multiplying the equivalent 12-hour totals by the AADT factor of: 1.0																			
AADT 12-hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
24-Hour AADT. These volumes are calculated by multiplying the average daily 12-hour vehicle volumes by the 12 → 24 expansion factor of 1.31																			
AADT 24 Hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

AADT and expansion factors provided by the City of Ottawa

AM Peak Hour Factor → 0.92										Highest Hourly Vehicle Volume Between 0700h & 1000h									
AM Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	LT	ST	RT	UT
0800-0900	21	504	69	0	594	55	178	27	0	260	854	41	44	95	0	180	156	159	11

PM Peak Hour Factor → 0.95										Highest Hourly Vehicle Volume Between 1500h & 1800h									
PM Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	LT	ST	RT	UT
1615-1715	17	399	84	0	500	80	449	183	0	712	1212	61	146	59	0	266	52	72	25

Comments:
Para Transpo and OC Transpo buses, private buses and school buses comprise 51.41% of the heavy vehicle traffic.

- Notes:
- Includes all vehicle types except bicycles, electric bicycles, and electric scooters.
 - When expansion and AADT factors are applied, the results will differ slightly due to rounding.

Printed on: 3/7/2023

Prepared by: thetrafficspecialist@gmail.com

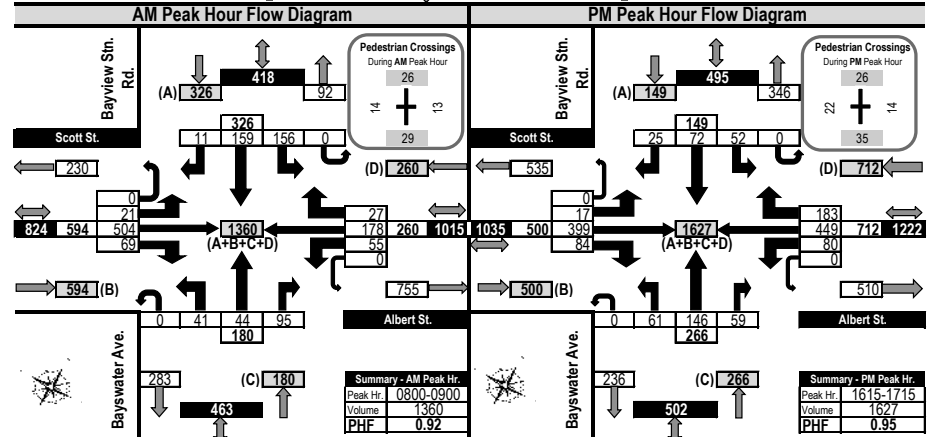
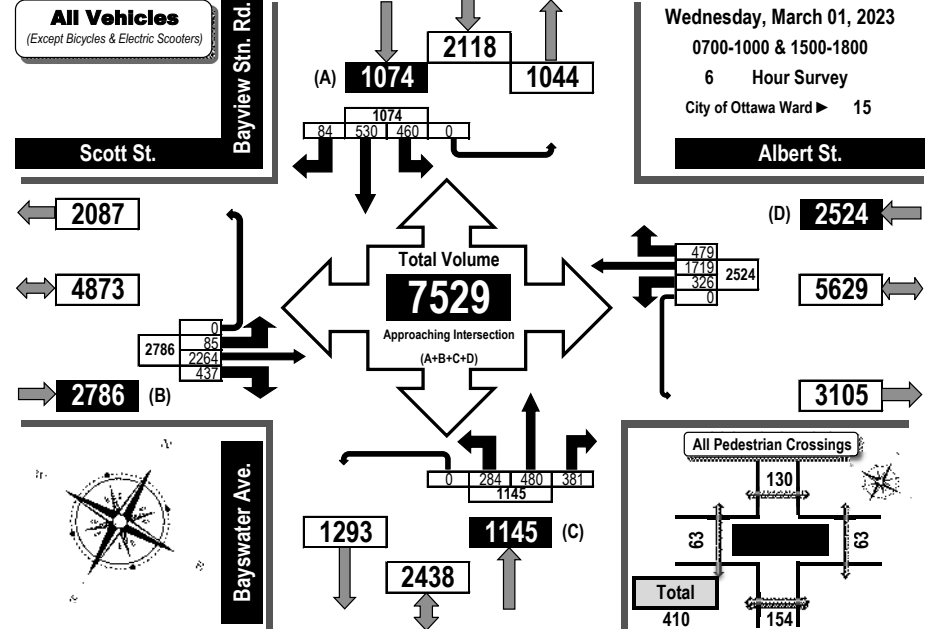
Summary: All Vehicles



Turning Movement Count Summary, AM and PM Peak Hour Flow Diagrams All Vehicles Except Bicycles



Albert Street/Scott Street & Bayswater Avenue/Bayview Station Road Ottawa, ON



Printed on: 3/7/2023

Prepared by: thetrafficspecialist@gmail.com

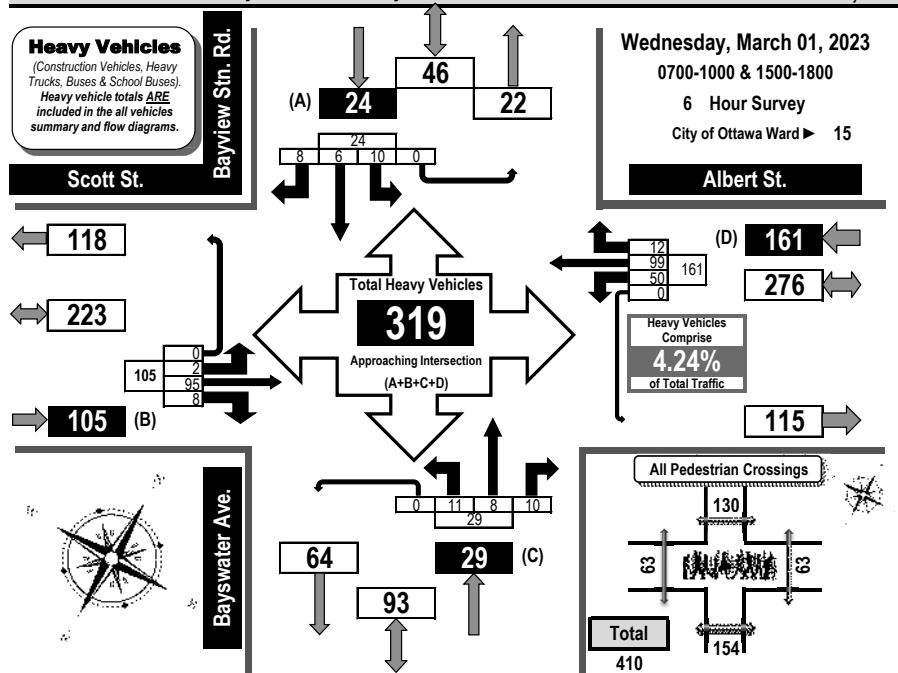
Flow Diagrams: AM PM Peak



Turning Movement Count Heavy Vehicle Summary (FHWA Class 4-13) Flow Diagram



Albert Street/Scott Street & Bayswater Avenue/Bayview Station Road Ottawa, ON



Time Period	Scott St. Eastbound					EB Tot	Albert St. Westbound					WB Tot	Bayswater Ave. Northbound					NB Tot	Bayview Stn. Rd. Southbound					SB Tot	GR Tot
	LT	ST	RT	UT	LT		ST	RT	UT	LT	ST		RT	UT	LT	ST	RT		UT						
0700-0800	0	22	1	0	23	10	20	3	0	33	3	1	5	0	9	1	1	0	0	2	67				
0800-0900	1	25	2	0	28	10	11	3	0	24	2	3	0	0	5	2	0	3	0	5	62				
0900-1000	1	18	2	0	21	9	23	5	0	37	2	3	3	0	8	5	3	3	0	11	77				
1500-1600	0	11	1	0	12	5	21	1	0	27	4	0	0	0	4	1	1	1	0	3	46				
1600-1700	0	10	2	0	12	8	13	0	0	21	0	0	1	0	1	1	0	1	0	2	36				
1700-1800	0	9	0	0	9	8	11	0	0	19	0	1	1	0	2	0	1	0	0	1	31				
Totals	2	95	8	0	105	50	99	12	0	161	11	8	10	0	29	10	6	8	0	24	319				

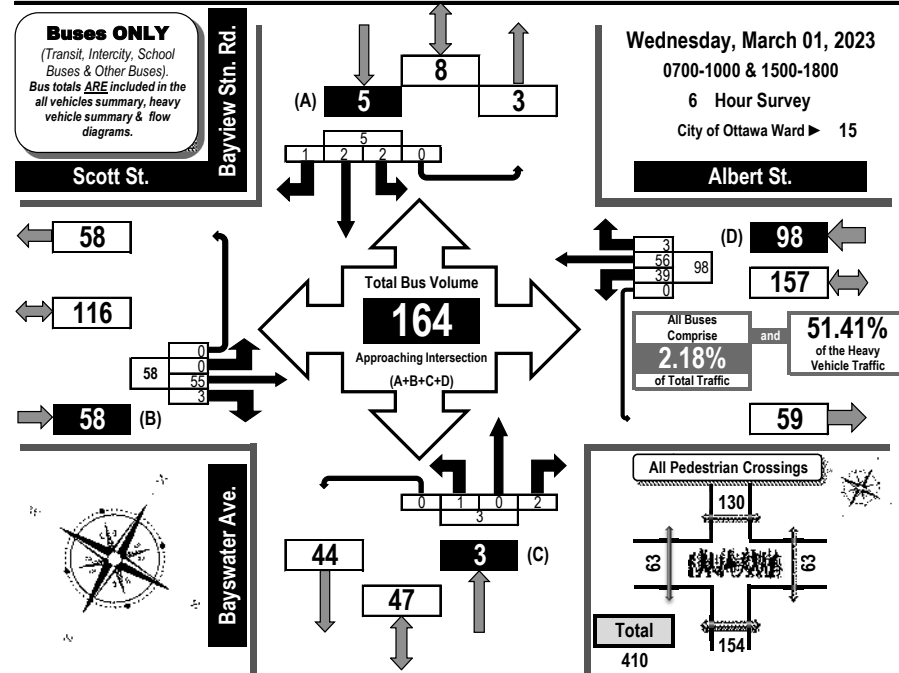
Comments:
Para Transpo and OC Transpo buses, private buses and school buses comprise 51.41% of the heavy vehicle traffic.



Turning Movement Count All Buses Summary (FHWA Class 4 ONLY) Flow Diagram



Albert Street/Scott Street & Bayswater Avenue/Bayview Station Road Ottawa, ON



Time Period	Scott St. Eastbound					Albert St. Westbound					Bayswater Ave. Northbound					Bayview Stn. Rd. Southbound					SB Tot	GR Tot
	LT	ST	RT	UT	EB Tot	LT	ST	RT	UT	WB Tot	LT	ST	RT	UT	NB Tot	LT	ST	RT	UT			
0700-0800	0	13	0	0	13	7	6	0	0	13	0	0	0	0	0	0	1	0	0	1	27	
0800-0900	0	17	2	0	19	7	8	1	0	16	0	0	0	0	0	0	0	0	0	0	35	
0900-1000	0	9	0	0	9	7	7	1	0	15	0	0	1	0	1	1	0	0	0	1	26	
1500-1600	0	3	0	0	3	4	15	1	0	20	1	0	0	0	1	1	1	1	0	3	27	
1600-1700	0	6	1	0	7	7	10	0	0	17	0	0	1	0	1	0	0	0	0	0	25	
1700-1800	0	7	0	0	7	7	10	0	0	17	0	0	0	0	0	0	0	0	0	0	24	
Totals	0	55	3	0	58	39	56	3	0	98	1	0	2	0	3	2	2	1	0	5	164	

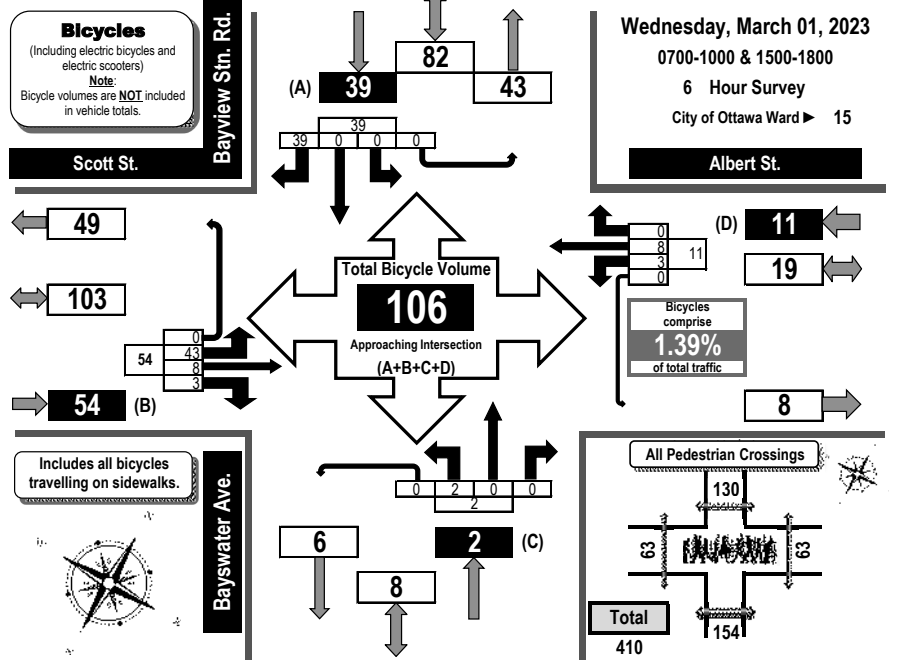
Comments:
Para Transpo and OC Transpo buses, private buses and school buses comprise 51.41% of the heavy vehicle traffic.



Turning Movement Count Bicycle Summary Flow Diagram



Albert Street/Scott Street & Bayswater Avenue/Bayview Station Road Ottawa, ON



Time Period	Scott St.				Albert St.				Bayswater Ave.				Bayview Stn. Rd.			
	LT	ST	RT	UT	LT	ST	RT	UT	LT	ST	RT	UT	LT	ST	RT	UT
0700-0800	9	1	0	0	10	0	0	0	0	0	0	0	0	0	2	12
0800-0900	11	3	2	0	16	0	2	0	0	2	1	0	0	1	0	2
0900-1000	11	1	0	0	12	0	1	0	0	1	0	0	0	0	1	14
1500-1600	2	0	0	0	2	0	0	0	0	0	0	0	0	0	6	8
1600-1700	4	2	1	0	7	1	3	0	0	4	1	0	0	1	0	11
1700-1800	6	1	0	0	7	2	2	0	0	4	0	0	0	0	17	28
Totals	43	8	3	0	54	3	8	0	0	11	2	0	0	2	39	106

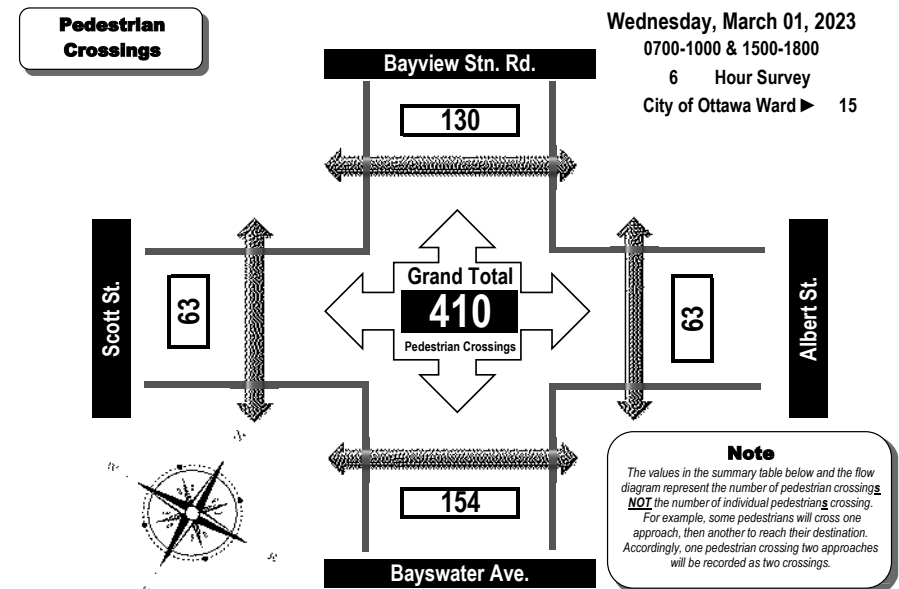
Comments:

Para Transpo and OC Transpo buses, private buses and school buses comprise 51.41% of the heavy vehicle traffic.



Turning Movement Count Pedestrian Crossings Summary and Flow Diagram

Albert Street/Scott Street & Bayswater Avenue/Bayview Station Road Ottawa, ON



Time Period	West Side Crossing Scott St.	East Side Crossing Albert St.	Street Total	South Side Crossing Bayswater Ave.	North Side Crossing Bayview Stn. Rd.	Street Total	Grand Total
0700-0800	4	11	15	25	18	43	58
0800-0900	14	13	27	29	26	55	82
0900-1000	4	10	14	15	10	25	39
1500-1600	3	7	10	18	14	32	42
1600-1700	22	13	35	39	25	64	99
1700-1800	16	9	25	28	37	65	90
Totals	63	63	126	154	130	284	410

Comments:

Para Transpo and OC Transpo buses, private buses and school buses comprise 51.41% of the heavy vehicle traffic.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FAIRMONT AVE @ WELLINGTON ST

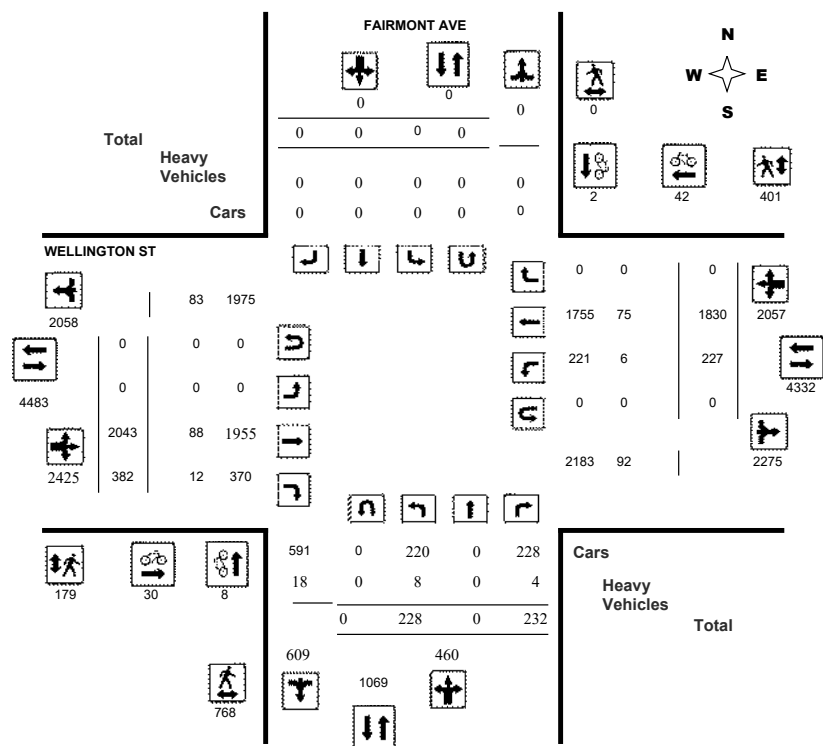
Survey Date: Thursday, February 22, 2018

WO No: 37566

Start Time: 07:00

Device: Miovision

Full Study Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FAIRMONT AVE @ WELLINGTON ST

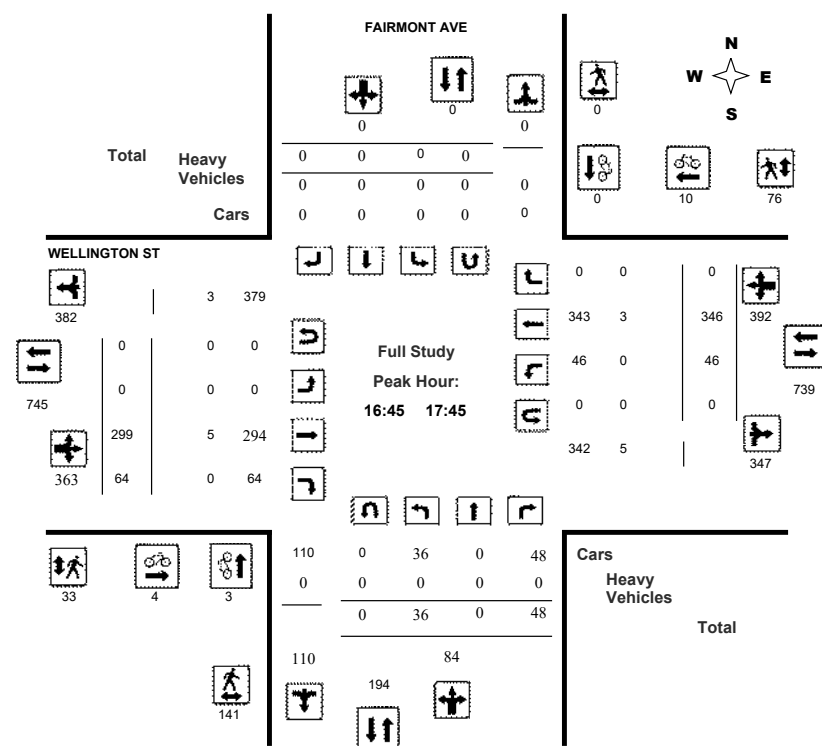
Survey Date: Thursday, February 22, 2018

WO No: 37566

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram

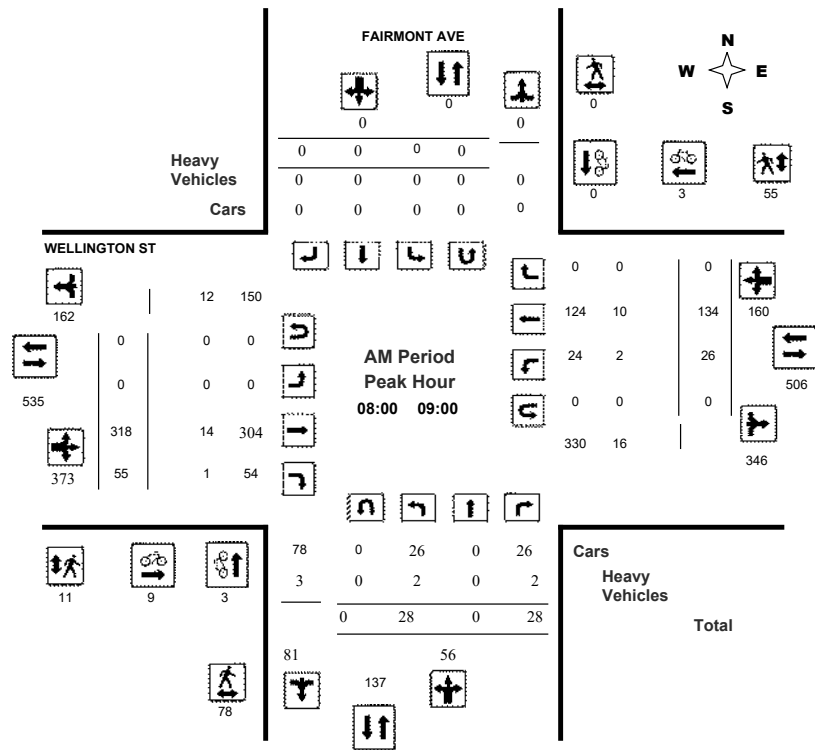




Transportation Services - Traffic Services
Turning Movement Count - Peak Hour Diagram
FAIRMONT AVE @ WELLINGTON ST

Survey Date: Thursday, February 22, 2018
Start Time: 07:00

WO No: 37566
Device: Miovision



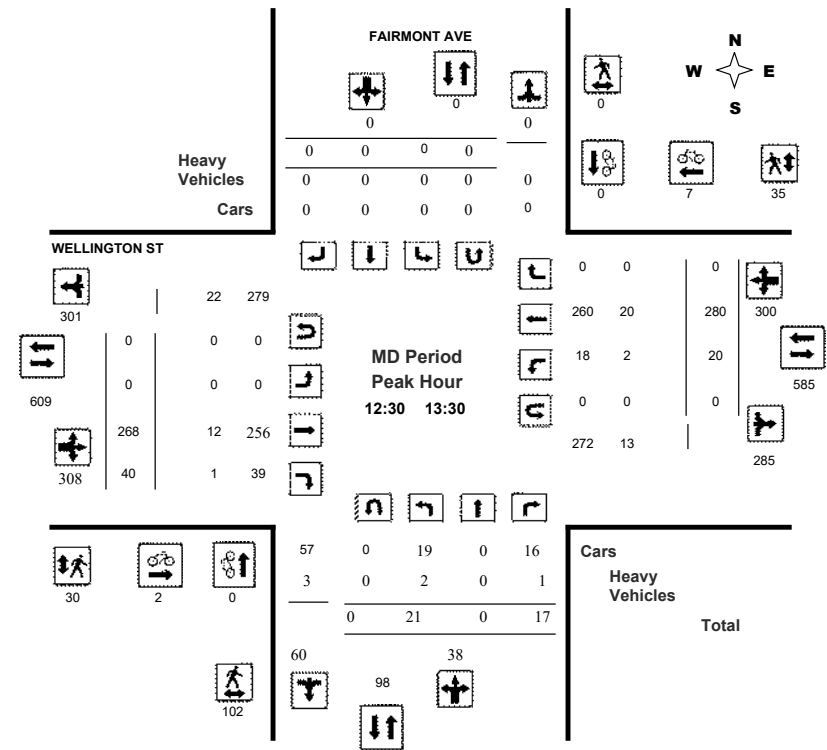
Comments



Transportation Services - Traffic Services
Turning Movement Count - Peak Hour Diagram
FAIRMONT AVE @ WELLINGTON ST

Survey Date: Thursday, February 22, 2018
Start Time: 07:00

WO No: 37566
Device: Miovision



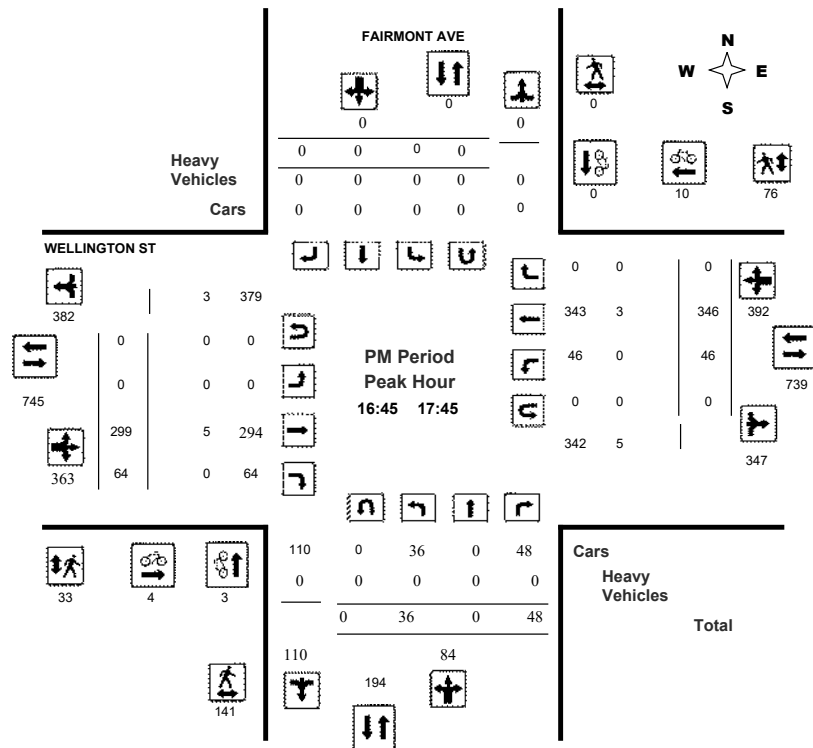
Comments



Transportation Services - Traffic Services Turning Movement Count - Peak Hour Diagram **FAIRMONT AVE @ WELLINGTON ST**

Survey Date: Thursday, February 22, 2018
Start Time: 07:00

WO No: 37566
Device: Miovision



Comments



Transportation Services - Traffic Services Turning Movement Count - Study Results **FAIRMONT AVE @ WELLINGTON ST**

Survey Date: Thursday, February 22, 2018
Start Time: 07:00

WO No: 37566
Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, February 22, 2018

Total Observed U-Turns
Northbound: 0 Southbound: 0
Eastbound: 0 Westbound: 0
AADT Factor .90

FAIRMONT AVE										WELLINGTON ST										Grand Total
Northbound					Southbound					Eastbound					Westbound					
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT		
07:00-08:00	11	0	12	23	0	0	0	0	23	0	194	26	220	28	115	0	143	363		
08:00-09:00	28	0	28	56	0	0	0	0	56	0	318	55	373	26	134	0	160	533		
09:00-10:00	15	0	34	49	0	0	0	0	49	0	201	27	228	17	169	0	186	414		
11:30-12:30	34	0	26	60	0	0	0	0	60	0	280	46	326	18	220	0	238	564		
12:30-13:30	21	0	17	38	0	0	0	0	38	0	268	40	308	20	280	0	300	608		
15:00-16:00	38	0	37	75	0	0	0	0	75	0	221	63	284	29	262	0	291	575		
16:00-17:00	49	0	28	77	0	0	0	0	77	0	280	67	347	47	315	0	362	709		
17:00-18:00	32	0	50	82	0	0	0	0	82	0	281	58	339	42	335	0	377	716		
Sub Total	228	0	232	460	0	0	0	0	460	0	2043	382	2425	227	1830	0	2057	4482		
U Turns				0				0	0				0				0	0		
Total	228	0	232	460	0	0	0	0	460	0	2043	382	2425	227	1830	0	2057	4482		
EQ 12Hr	317	0	322	639	0	0	0	0	639	0	2840	531	3371	316	2544	0	2859	6230		
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														1.39						
AVG 12Hr	269	0	274	542	0	0	0	0	575	0	2409	450	2859	268	2158	0	2425	5607		
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														0.9						
AVG 24Hr	352	0	358	710	0	0	0	0	710	0	3155	590	3745	351	2826	0	3177	6922		
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														1.31						
Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.																				

Transportation Services - Traffic Services

Turning Movement Count - Study Results

FAIRMONT AVE @ WELLINGTON ST

Survey Date: Thursday, February 22, 2018

WO No: 37566

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

FAIRMONT AVE											WELLINGTON ST										
		Northbound				Southbound				Eastbound				Westbound							
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total	
07:00	07:15	1	0	1	2	0	0	0	0	0	0	36	3	39	4	27	0	31	0	72	
07:15	07:30	1	0	1	2	0	0	0	0	0	0	44	6	50	5	27	0	32	0	84	
07:30	07:45	2	0	3	5	0	0	0	0	0	0	51	5	56	9	28	0	37	0	98	
07:45	08:00	7	0	7	14	0	0	0	0	1	0	63	12	75	10	33	0	43	1	132	
08:00	08:15	8	0	7	15	0	0	0	0	0	0	88	19	107	6	26	0	32	0	154	
08:15	08:30	4	0	6	10	0	0	0	0	2	0	79	20	99	2	43	0	45	2	154	
08:30	08:45	7	0	5	12	0	0	0	0	1	0	80	8	88	7	38	0	46	1	145	
08:45	09:00	9	0	10	19	0	0	0	0	1	0	71	8	79	11	27	0	38	1	136	
09:00	09:15	2	0	11	13	0	0	0	0	0	0	48	6	54	2	45	0	47	0	114	
09:15	09:30	4	0	7	11	0	0	0	0	0	0	50	9	59	5	43	0	48	0	118	
09:30	09:45	4	0	3	7	0	0	0	0	0	0	58	6	64	5	40	0	45	0	116	
09:45	10:00	5	0	13	18	0	0	0	0	0	0	45	6	51	5	41	0	46	0	115	
11:30	11:45	10	0	7	17	0	0	0	0	0	0	71	10	81	3	55	0	58	0	156	
11:45	12:00	6	0	10	16	0	0	0	0	0	0	68	11	79	7	55	0	62	0	157	
12:00	12:15	13	0	3	16	0	0	0	0	1	0	63	14	77	4	57	0	61	1	154	
12:15	12:30	5	0	6	11	0	0	0	0	0	0	78	11	89	4	53	0	57	0	157	
12:30	12:45	2	0	6	8	0	0	0	0	1	0	52	8	60	6	75	0	81	1	149	
12:45	13:00	6	0	5	11	0	0	0	0	0	0	76	14	90	4	71	0	75	0	176	
13:00	13:15	9	0	5	14	0	0	0	0	1	0	58	11	69	7	64	0	71	1	154	
13:15	13:30	4	0	1	5	0	0	0	0	1	0	82	7	89	3	70	0	73	1	167	
15:00	15:15	11	0	8	19	0	0	0	0	1	0	57	18	75	5	49	0	54	1	148	
15:15	15:30	9	0	12	21	0	0	0	0	0	0	53	10	63	6	64	0	70	0	154	
15:30	15:45	12	0	12	24	0	0	0	0	1	0	46	18	64	11	77	0	88	1	176	
15:45	16:00	6	0	5	11	0	0	0	0	1	0	65	17	82	7	72	0	79	1	172	
16:00	16:15	15	0	9	24	0	0	0	0	0	0	68	21	89	14	79	0	93	0	206	
16:15	16:30	12	0	4	16	0	0	0	0	0	0	65	17	82	10	65	0	75	0	173	
16:30	16:45	11	0	8	19	0	0	0	0	0	0	70	17	87	10	81	0	91	0	197	
16:45	17:00	11	0	7	18	0	0	0	0	0	0	77	12	89	13	90	0	103	0	210	
17:00	17:15	13	0	14	27	0	0	0	0	0	0	67	14	81	11	83	0	94	0	202	
17:15	17:30	3	0	15	18	0	0	0	0	0	0	80	13	93	16	84	0	100	0	211	
17:30	17:45	9	0	12	21	0	0	0	0	0	0	75	25	100	6	89	0	95	0	216	
17:45	18:00	7	0	9	16	0	0	0	0	0	0	59	6	65	9	79	0	88	0	169	
Total:		228	0	232	460	0	0	0	0	12	0	2043	382	2425	227	1830	0	2057	12	4,942	

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FAIRMONT AVE @ WELLINGTON ST

Survey Date: Thursday, February 22, 2018

WO No: 37566

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

FAIRMONT AVE				WELLINGTON ST			
Time Period	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00 07:15	0	0	0	2	0	2	2
07:15 07:30	0	0	0	1	1	2	2
07:30 07:45	0	0	0	3	0	3	3
07:45 08:00	1	0	1	2	1	3	4
08:00 08:15	1	0	1	4	1	5	6
08:15 08:30	1	0	1	3	1	4	5
08:30 08:45	0	0	0	1	1	2	2
08:45 09:00	1	0	1	1	0	1	2
09:00 09:15	0	0	0	0	0	0	0
09:15 09:30	0	0	0	0	0	0	0
09:30 09:45	0	0	0	1	0	1	1
09:45 10:00	0	0	0	1	0	1	1
11:30 11:45	0	0	0	0	1	1	1
11:45 12:00	0	0	0	0	0	0	0
12:00 12:15	0	0	0	1	0	1	1
12:15 12:30	0	0	0	0	0	0	0
12:30 12:45	0	0	0	0	1	1	1
12:45 13:00	0	0	0	1	2	3	3
13:00 13:15	0	0	0	1	2	3	3
13:15 13:30	0	0	0	0	2	2	2
15:00 15:15	0	2	2	1	2	3	5
15:15 15:30	0	0	0	1	2	3	3
15:30 15:45	0	0	0	0	3	3	3
15:45 16:00	0	0	0	0	1	1	1
16:00 16:15	0	0	0	0	6	6	6
16:15 16:30	1	0	1	1	1	2	3
16:30 16:45	0	0	0	1	0	1	1
16:45 17:00	0	0	0	0	1	1	1
17:00 17:15	1	0	1	1	2	3	4
17:15 17:30	0	0	0	1	5	6	6
17:30 17:45	2	0	2	2	2	4	6
17:45 18:00	0	0	0	0	4	4	4
Total	8	2	10	30	42	72	82



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FAIRMONT AVE @ WELLINGTON ST

Survey Date: Thursday, February 22, 2018

WO No: 37566

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

FAIRMONT AVE

WELLINGTON ST

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	9	0	9	3	8	11	20
07:15 07:30	15	0	15	4	16	20	35
07:30 07:45	25	0	25	2	11	13	38
07:45 08:00	14	0	14	4	8	12	26
08:00 08:15	25	0	25	2	14	16	41
08:15 08:30	19	0	19	3	9	12	31
08:30 08:45	16	0	16	4	16	20	36
08:45 09:00	18	0	18	2	16	18	36
09:00 09:15	11	0	11	4	11	15	26
09:15 09:30	7	0	7	2	12	14	21
09:30 09:45	14	0	14	0	15	15	29
09:45 10:00	13	0	13	5	7	12	25
11:30 11:45	22	0	22	3	7	10	32
11:45 12:00	21	0	21	4	12	16	37
12:00 12:15	24	0	24	12	19	31	55
12:15 12:30	13	0	13	6	11	17	30
12:30 12:45	24	0	24	7	12	19	43
12:45 13:00	19	0	19	10	4	14	33
13:00 13:15	37	0	37	11	10	21	58
13:15 13:30	22	0	22	2	9	11	33
15:00 15:15	29	0	29	4	8	12	41
15:15 15:30	53	0	53	4	14	18	71
15:30 15:45	31	0	31	9	7	16	47
15:45 16:00	22	0	22	7	11	18	40
16:00 16:15	35	0	35	8	11	19	54
16:15 16:30	29	0	29	6	19	25	54
16:30 16:45	29	0	29	9	20	29	58
16:45 17:00	24	0	24	10	20	30	54
17:00 17:15	35	0	35	9	23	32	67
17:15 17:30	46	0	46	8	18	26	72
17:30 17:45	36	0	36	6	15	21	57
17:45 18:00	31	0	31	9	8	17	48
Total	768	0	768	179	401	580	1348



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FAIRMONT AVE @ WELLINGTON ST

Survey Date: Thursday, February 22, 2018

WO No: 37566

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

FAIRMONT AVE

WELLINGTON ST

		Northbound				Southbound				Eastbound				Westbound						
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	0	0	0	0	0	0	0	0	0	4	0	4	0	3	0	3	7	7
07:15	07:30	0	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3	3
07:30	07:45	0	0	0	0	0	0	0	0	0	0	1	1	2	0	2	0	2	4	4
07:45	08:00	1	0	0	1	0	0	0	0	1	0	3	2	5	1	3	0	4	9	10
08:00	08:15	0	0	0	0	0	0	0	0	0	0	5	0	5	0	2	0	2	7	7
08:15	08:30	1	0	1	2	0	0	0	0	2	0	3	0	3	0	2	0	2	5	7
08:30	08:45	1	0	0	1	0	0	0	0	1	0	1	0	1	0	4	0	4	5	6
08:45	09:00	0	0	1	1	0	0	0	0	1	0	5	1	6	2	2	0	4	10	11
09:00	09:15	0	0	0	0	0	0	0	0	0	0	2	1	3	0	4	0	4	7	7
09:15	09:30	0	0	0	0	0	0	0	0	0	0	3	0	3	0	3	0	3	6	6
09:30	09:45	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	4	4
09:45	10:00	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	4	4
11:30	11:45	0	0	0	0	0	0	0	0	0	0	5	0	5	0	1	0	1	6	6
11:45	12:00	0	0	0	0	0	0	0	0	0	0	2	0	2	0	3	0	3	5	5
12:00	12:15	1	0	0	1	0	0	0	0	1	0	4	2	6	1	4	0	5	11	12
12:15	12:30	0	0	0	0	0	0	0	0	0	0	9	0	9	0	4	0	4	13	13
12:30	12:45	1	0	0	1	0	0	0	0	1	0	2	0	2	1	4	0	5	7	8
12:45	13:00	0	0	0	0	0	0	0	0	0	0	3	1	4	0	6	0	6	10	10
13:00	13:15	0	0	1	1	0	0	0	0	1	0	1	0	1	1	8	0	9	10	11
13:15	13:30	1	0	0	1	0	0	0	0	1	0	6	0	6	0	2	0	2	8	9
15:00	15:15	1	0	0	1	0	0	0	0	1	0	1	1	2	0	2	0	2	4	5
15:15	15:30	0	0	0	0	0	0	0	0	0	0	2	1	3	0	1	0	1	4	4
15:30	15:45	1	0	0	1	0	0	0	0	1	0	2	0	2	0	1	0	1	3	4
15:45	16:00	0	0	1	1	0	0	0	0	1	0	2	1	3	0	4	0	4	7	8
16:00	16:15	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2	2
16:15	16:30	0	0	0	0	0	0	0	0	0	0	2	1	3	0	1	0	1	4	4
16:30	16:45	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2	2
16:45	17:00	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3	3
17:00	17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3	3
17:30	17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	2
17:45	18:00	0	0	0	0	0	0	0	0	0	0	2	0	2	0	4	0	4	6	6
Total:	None	8	0	4	12	0	0	0	0	12	0	88	12	100	6	75	0	81	181	193



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FAIRMONT AVE @ WELLINGTON ST

Survey Date: Thursday, February 22, 2018

WO No: 37566

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

FAIRMONT AVE

WELLINGTON ST

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	0	0	0
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	0	0
16:45	17:00	0	0	0	0	0
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		0	0	0	0	0



Transportation Services - Traffic Services

Turning Movement Count - Study Results

GARLAND ST @ SOMERSET ST W/WELLINGTON ST

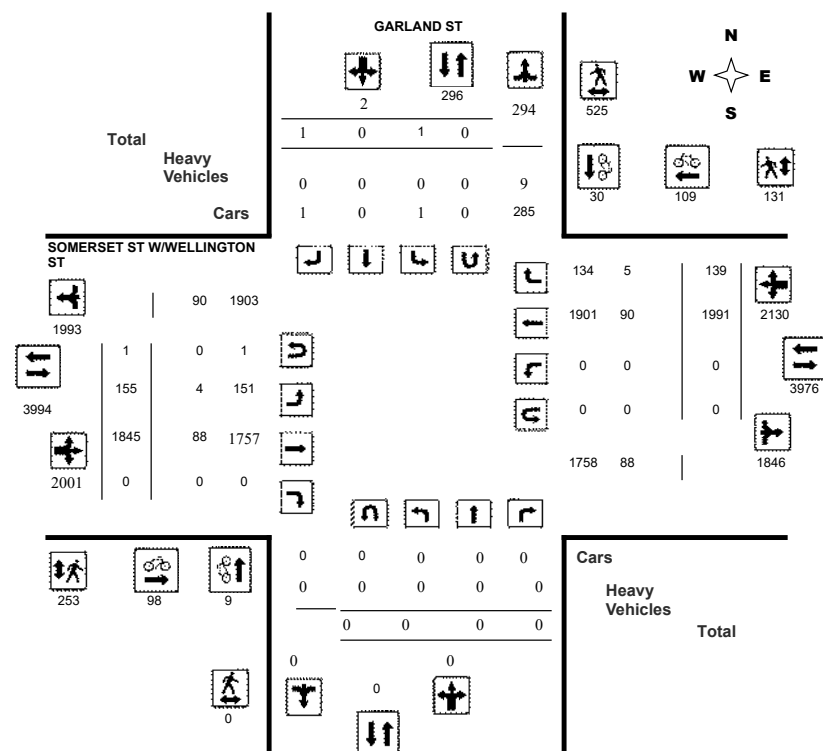
Survey Date: Tuesday, August 23, 2022

WO No: 40519

Start Time: 07:00

Device: Miovision

Full Study Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results

GARLAND ST @ SOMERSET ST W/WELLINGTON ST

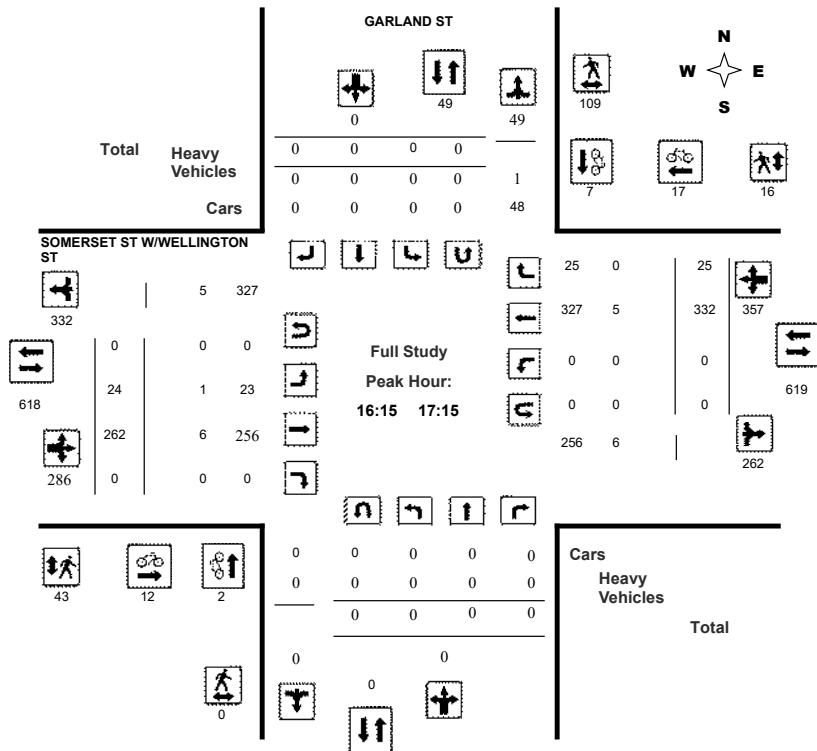
Survey Date: Tuesday, August 23, 2022

WO No: 40519

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

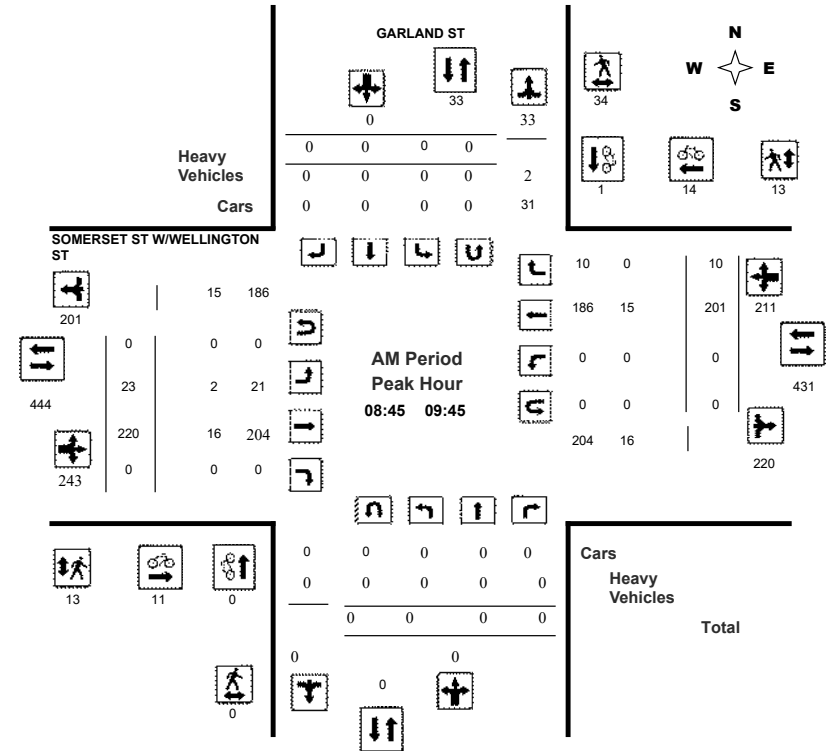
GARLAND ST @ SOMERSET ST W/WELLINGTON ST

Survey Date: Tuesday, August 23, 2022

WO No: 40519

Start Time: 07:00

Device: Miovision



Comments



Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

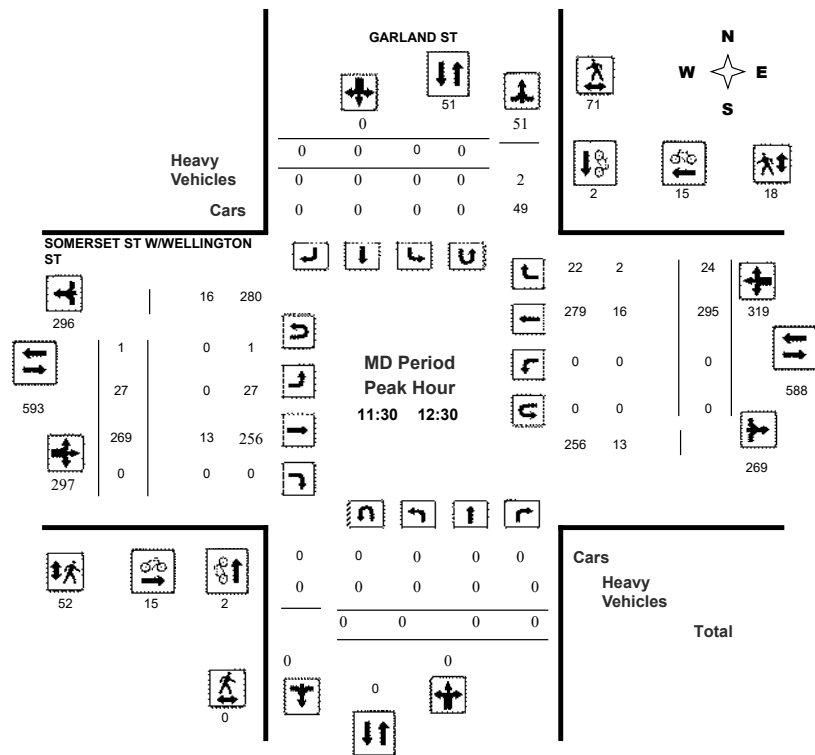
GARLAND ST @ SOMERSET ST W/WELLINGTON ST

Survey Date: Tuesday, August 23, 2022

Start Time: 07:00

WO No: 40519

Device: Miovision



Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

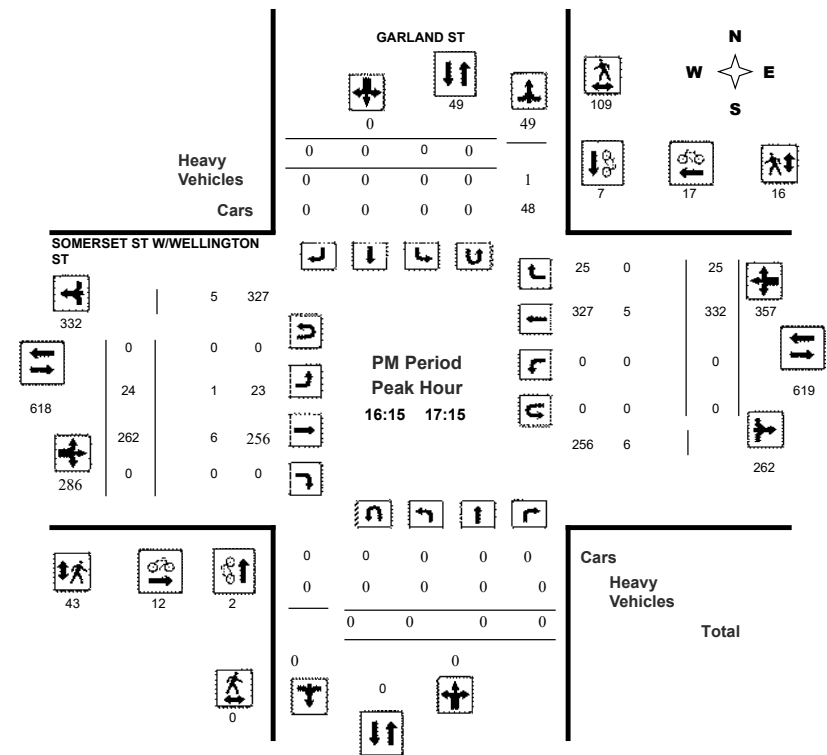
GARLAND ST @ SOMERSET ST W/WELLINGTON ST

Survey Date: Tuesday, August 23, 2022

Start Time: 07:00

WO No: 40519

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Study Results

GARLAND ST @ SOMERSET ST W/WELLINGTON ST

Survey Date: Tuesday, August 23, 2022

WO No: 40519

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, August 23, 2022

Total Observed U-Turns

AADT Factor

Northbound: 0 Southbound: 0

Eastbound: 1 Westbound: 0

GARLAND ST										SOMERSET ST W/WELLINGTON ST											WB TOT	STR TOT	Grand Total
Northbound					Southbound					Eastbound					Westbound								
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT							
07:00 08:00	0	0	0	0	0	0	1	1	1	9	119	0	128	0	122	9	131	259	260				
08:00 09:00	0	0	0	0	0	0	0	0	0	13	202	0	215	0	190	7	197	412	412				
09:00 10:00	0	0	0	0	0	0	0	0	0	22	234	0	256	0	186	11	197	453	453				
11:30 12:30	0	0	0	0	0	0	0	0	0	27	269	0	296	0	295	24	319	615	615				
12:30 13:30	0	0	0	0	1	0	0	1	1	25	243	0	268	0	269	22	291	559	560				
15:00 16:00	0	0	0	0	0	0	0	0	0	15	266	0	281	0	314	15	329	610	610				
16:00 17:00	0	0	0	0	0	0	0	0	0	21	258	0	279	0	325	24	349	628	628				
17:00 18:00	0	0	0	0	0	0	0	0	0	23	254	0	277	0	290	27	317	594	594				
Sub Total	0	0	0	0	1	0	1	2	2	155	1845	0	2000	0	1991	139	2130	4130	4132				
U Turns				0				0	0				1				0	1	1				
Total	0	0	0	0	1	0	1	2	2	155	1845	0	2001	0	1991	139	2130	4131	4133				
EQ 12Hr	0	0	0	0	1	0	1	3	3	215	2565	0	2781	0	2767	193	2961	5742	5745				
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.										1.39													
AVG 12Hr	0	0	0	0	1	0	2	3	3	194	2308	0	2503	0	2490	174	2665	5168	5170				
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.										.90													
AVG 24Hr	0	0	0	0	1	0	3	4	4	254	3023	0	3279	0	3262	228	3491	6770	6773				
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.										1.31													



Transportation Services - Traffic Services

Turning Movement Count - Study Results

GARLAND ST @ SOMERSET ST W/WELLINGTON ST

Survey Date: Tuesday, August 23, 2022

WO No: 40519

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

GARLAND ST										SOMERSET ST W/WELLINGTON ST											
Northbound					Southbound					Eastbound					Westbound						
Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total		
07:00	07:15	0	0	0	0	0	0	0	0	0	27	0	27	0	29	1	30	57	57		
07:15	07:30	0	0	0	0	0	0	0	0	1	27	0	28	0	27	4	31	59	59		
07:30	07:45	0	0	0	0	0	0	1	1	1	4	32	0	36	0	26	2	28	64	65	
07:45	08:00	0	0	0	0	0	0	0	0	4	33	0	37	0	40	2	42	79	79		
08:00	08:15	0	0	0	0	0	0	0	0	3	61	0	64	0	39	1	40	104	104		
08:15	08:30	0	0	0	0	0	0	0	0	4	41	0	45	0	49	1	50	95	95		
08:30	08:45	0	0	0	0	0	0	0	0	1	50	0	51	0	44	1	45	96	96		
08:45	09:00	0	0	0	0	0	0	0	0	5	50	0	55	0	58	4	62	117	117		
09:00	09:15	0	0	0	0	0	0	0	0	7	59	0	66	0	48	1	49	115	115		
09:15	09:30	0	0	0	0	0	0	0	0	7	60	0	67	0	45	1	46	113	113		
09:30	09:45	0	0	0	0	0	0	0	0	4	51	0	55	0	50	4	54	109	109		
09:45	10:00	0	0	0	0	0	0	0	0	4	64	0	68	0	43	5	48	116	116		
11:30	11:45	0	0	0	0	0	0	0	0	8	68	0	77	0	71	7	78	155	155		
11:45	12:00	0	0	0	0	0	0	0	0	2	64	0	66	0	75	4	79	145	145		
12:00	12:15	0	0	0	0	0	0	0	0	9	73	0	82	0	74	6	80	162	162		
12:15	12:30	0	0	0	0	0	0	0	0	8	64	0	72	0	75	7	82	154	154		
12:30	12:45	0	0	0	0	0	0	0	0	8	53	0	61	0	67	6	73	134	134		
12:45	13:00	0	0	0	0	0	0	0	0	6	68	0	74	0	63	3	66	140	140		
13:00	13:15	0	0	0	0	1	0	0	1	1	7	58	0	65	0	67	6	73	138	139	
13:15	13:30	0	0	0	0	0	0	0	0	4	64	0	68	0	72	7	79	147	147		
15:00	15:15	0	0	0	0	0	0	0	0	4	71	0	75	0	85	7	92	167	167		
15:15	15:30	0	0	0	0	0	0	0	0	2	69	0	71	0	83	2	85	156	156		
15:30	15:45	0	0	0	0	0	0	0	0	6	72	0	78	0	71	2	73	151	151		
15:45	16:00	0	0	0	0	0	0	0	0	3	54	0	57	0	75	4	79	136	136		
16:00	16:15	0	0	0	0	0	0	0	0	4	55	0	59	0	68	8	76	135	135		
16:15	16:30	0	0	0	0	0	0	0	0	6	63	0	69	0	73	6	79	148	148		
16:30	16:45	0	0	0	0	0	0	0	0	4	63	0	67	0	104	6	110	177	177		
16:45	17:00	0	0	0	0	0	0	0	0	7	77	0	84	0	80	4	84	168	168		
17:00	17:15	0	0	0	0	0	0	0	0	7	59	0	66	0	75	9	84	150	150		
17:15	17:30	0	0	0	0	0	0	0	0	7	57	0	64	0	72	8	80	144	144		
17:30	17:45	0	0	0	0	0	0	0	0	2	68	0	70	0	84	5	89	159	159		
17:45	18:00	0	0	0	0	0	0	0	0	7	70	0	77	0	59	5	64	141	141		
Total:		0	0	0	0	1	0	1	2	2	155	1845	0	2001	0	1991	139	2130	4131	4133	

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

GARLAND ST @ SOMERSET ST W/WELLINGTON ST

Survey Date: Tuesday, August 23, 2022

WO No: 40519

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

Time Period	GARLAND ST			SOMERSET ST W/WELLINGTON ST			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00 07:15	0	0	0	0	0	0	0
07:15 07:30	0	0	0	3	2	5	5
07:30 07:45	0	1	1	3	1	4	5
07:45 08:00	0	0	0	3	2	5	5
08:00 08:15	0	0	0	3	2	5	5
08:15 08:30	3	1	4	4	1	5	9
08:30 08:45	0	2	2	0	4	4	6
08:45 09:00	0	0	0	4	4	8	8
09:00 09:15	0	0	0	2	2	4	4
09:15 09:30	0	0	0	3	6	9	9
09:30 09:45	0	1	1	2	2	4	5
09:45 10:00	0	1	1	1	1	2	3
11:30 11:45	1	0	1	2	2	4	5
11:45 12:00	1	2	3	2	6	8	11
12:00 12:15	0	0	0	5	4	9	9
12:15 12:30	0	0	0	6	3	9	9
12:30 12:45	0	0	0	6	4	10	10
12:45 13:00	0	1	1	3	3	6	7
13:00 13:15	0	0	0	5	4	9	9
13:15 13:30	0	2	2	7	7	14	16
15:00 15:15	1	1	2	0	4	4	6
15:15 15:30	0	0	0	1	3	4	4
15:30 15:45	1	1	2	2	1	3	5
15:45 16:00	0	1	1	2	3	5	6
16:00 16:15	0	1	1	1	3	4	5
16:15 16:30	1	0	1	5	4	9	10
16:30 16:45	0	4	4	3	4	7	11
16:45 17:00	1	1	2	3	4	7	9
17:00 17:15	0	2	2	1	5	6	8
17:15 17:30	0	4	4	3	7	10	14
17:30 17:45	0	1	1	9	7	16	17
17:45 18:00	0	3	3	4	4	8	11
Total	9	30	39	98	109	207	246



Transportation Services - Traffic Services

Turning Movement Count - Study Results

GARLAND ST @ SOMERSET ST W/WELLINGTON ST

Survey Date: Tuesday, August 23, 2022

WO No: 40519

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

Time Period	GARLAND ST			SOMERSET ST W/WELLINGTON ST			Grand Total
	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	
07:00 07:15	0	6	6	1	2	3	9
07:15 07:30	0	5	5	1	3	4	9
07:30 07:45	0	7	7	0	2	2	9
07:45 08:00	0	10	10	4	5	9	19
08:00 08:15	0	9	9	1	4	5	14
08:15 08:30	0	11	11	2	4	6	17
08:30 08:45	0	10	10	11	0	11	21
08:45 09:00	0	13	13	1	4	5	18
09:00 09:15	0	5	5	5	2	7	12
09:15 09:30	0	6	6	5	2	7	13
09:30 09:45	0	10	10	2	5	7	17
09:45 10:00	0	9	9	1	7	8	17
11:30 11:45	0	12	12	15	4	19	31
11:45 12:00	0	11	11	10	4	14	25
12:00 12:15	0	23	23	9	6	15	38
12:15 12:30	0	25	25	18	4	22	47
12:30 12:45	0	26	26	11	5	16	42
12:45 13:00	0	14	14	13	9	22	36
13:00 13:15	0	17	17	10	5	15	32
13:15 13:30	0	15	15	15	2	17	32
15:00 15:15	0	16	16	5	3	8	24
15:15 15:30	0	11	11	4	0	4	15
15:30 15:45	0	15	15	13	5	18	33
15:45 16:00	0	15	15	5	5	10	25
16:00 16:15	0	22	22	12	2	14	36
16:15 16:30	0	18	18	8	3	11	29
16:30 16:45	0	31	31	12	1	13	44
16:45 17:00	0	27	27	7	4	11	38
17:00 17:15	0	33	33	16	8	24	57
17:15 17:30	0	39	39	12	2	14	53
17:30 17:45	0	21	21	6	12	18	39
17:45 18:00	0	33	33	18	7	25	58
Total	0	525	525	253	131	384	909

Transportation Services - Traffic Services

Turning Movement Count - Study Results

GARLAND ST @ SOMERSET ST W/WELLINGTON ST

Survey Date: Tuesday, August 23, 2022

WO No: 40519

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

GARLAND ST										SOMERSET ST W/WELLINGTON ST										
Northbound					Southbound					Eastbound					Westbound					
Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total	
07:00	07:15	0	0	0	0	0	0	0	0	0	0	6	0	7	0	1	0	7	14	7
07:15	07:30	0	0	0	0	0	0	0	1	1	0	2	0	5	0	3	1	6	11	6
07:30	07:45	0	0	0	0	0	0	0	0	0	0	2	0	5	0	3	0	5	10	5
07:45	08:00	0	0	0	0	0	0	0	0	0	0	1	0	5	0	4	0	5	10	5
08:00	08:15	0	0	0	0	0	0	0	1	1	1	3	0	5	0	1	0	4	9	5
08:15	08:30	0	0	0	0	0	0	0	0	0	0	3	0	8	0	5	0	8	16	8
08:30	08:45	0	0	0	0	0	0	0	0	0	0	4	0	6	0	2	0	6	12	6
08:45	09:00	0	0	0	0	0	0	0	0	0	0	7	0	10	0	3	0	10	20	10
09:00	09:15	0	0	0	0	0	0	0	0	0	0	4	0	7	0	3	0	7	14	7
09:15	09:30	0	0	0	0	0	0	0	2	2	2	1	0	9	0	6	0	7	16	9
09:30	09:45	0	0	0	0	0	0	0	0	0	0	4	0	7	0	3	0	7	14	7
09:45	10:00	0	0	0	0	0	0	0	0	0	0	4	0	8	0	4	0	8	16	8
11:30	11:45	0	0	0	0	0	0	0	2	2	0	1	0	5	0	4	2	7	12	7
11:45	12:00	0	0	0	0	0	0	0	0	0	0	4	0	10	0	6	0	10	20	10
12:00	12:15	0	0	0	0	0	0	0	0	0	0	5	0	8	0	3	0	8	16	8
12:15	12:30	0	0	0	0	0	0	0	0	0	0	3	0	6	0	3	0	6	12	6
12:30	12:45	0	0	0	0	0	0	0	1	1	0	6	0	12	0	6	1	13	25	13
12:45	13:00	0	0	0	0	0	0	0	0	0	0	3	0	7	0	4	0	7	14	7
13:00	13:15	0	0	0	0	0	0	0	0	0	0	3	0	6	0	3	0	6	12	6
13:15	13:30	0	0	0	0	0	0	0	1	1	0	2	0	3	0	1	1	4	7	4
15:00	15:15	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	3	6	3
15:15	15:30	0	0	0	0	0	0	0	0	0	0	3	0	7	0	4	0	7	14	7
15:30	15:45	0	0	0	0	0	0	0	0	0	0	4	0	5	0	1	0	5	10	5
15:45	16:00	0	0	0	0	0	0	0	0	0	0	1	0	4	0	3	0	4	8	4
16:00	16:15	0	0	0	0	0	0	0	0	0	0	1	0	5	0	4	0	5	10	5
16:15	16:30	0	0	0	0	0	0	0	1	1	1	3	0	5	0	1	0	4	9	5
16:30	16:45	0	0	0	0	0	0	0	0	0	0	1	0	2	0	1	0	2	4	2
16:45	17:00	0	0	0	0	0	0	0	0	0	0	2	0	5	0	3	0	5	10	5
17:00	17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0	0	0	0	1	0	3	0	2	0	3	6	3
17:30	17:45	0	0	0	0	0	0	0	0	0	0	1	0	3	0	2	0	3	6	3
17:45	18:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	2	1
Total: None		0	0	0	0	0	0	0	9	9	4	88	0	182	0	90	5	183	365	187



Transportation Services - Traffic Services

Turning Movement Count - Study Results

GARLAND ST @ SOMERSET ST W/WELLINGTON ST

Survey Date: Tuesday, August 23, 2022

WO No: 40519

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

GARLAND ST			SOMERSET ST W/WELLINGTON ST			
Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	0	0	0
11:30	11:45	0	0	1	0	1
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	0	0
16:45	17:00	0	0	0	0	0
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		0	0	1	0	1

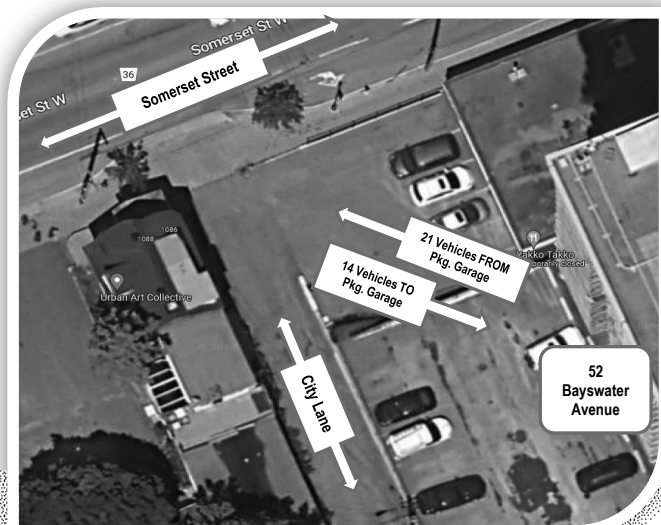


Diagrams, Maps and Photographs



Somerset Street & City Lane

Wednesday, March 08, 2023



The City lane (unnamed) is located approximately 45 m west of Bayswater Ave. and runs between Laurel St. & Somerset St. There is an access to the parking garage for #52 Bayswater Street at the northerly end of the lane. There is also a small parking lot (5 parking spaces) at the northerly end of the lane that also serves as the access to and from the parking garage. A stop sign is not present facing N/B traffic on the lane at Somerset St. & the presence of a building on the S/W quadrant affords zero visibility of either pedestrians or bicycles on the sidewalk on the south side of Somerset Street. There were 430 pedestrians, including a large daycare group of children, on the south sidewalk.

Printed on: 3/12/2023

thetrafficspecialist@gmail.com

Diagrams, Maps and Photographs



Turning Movement Count Summary, AM and PM Peak Hour Flow Diagrams All Vehicles Except Bicycles



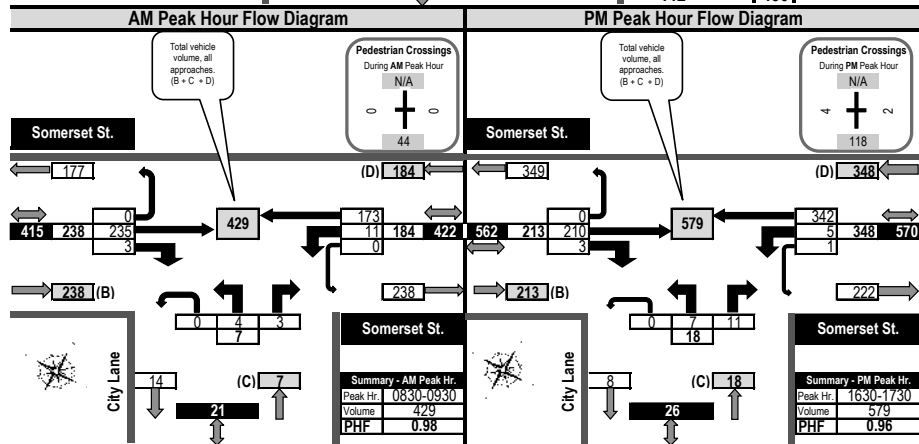
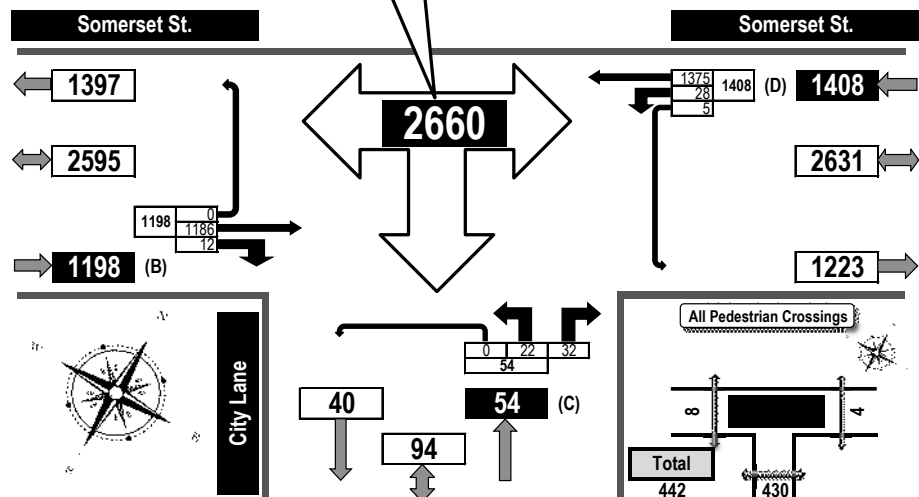
Somerset Street & City Lane

Ottawa, ON

All Vehicles
(Except Bicycles & Electric Scooters)

Total vehicle volume,
all approaches.
(B + C + D)

Wednesday, March 08, 2023
0700-1000 & 1500-1800
6 Hour Survey
City of Ottawa Ward 12



Printed on: 3/12/2023

Prepared by: thetrafficspecialist@gmail.com

Flow Diagrams: AM PM Peak



Turning Movement Count Summary Report Including Peak Hours, AADT and Expansion Factors All Vehicles Except Bicycles



Somerset Street & City Lane Ottawa, ON

Survey Date: Wednesday, March 08, 2023 Start Time: 0700 AADT Factor: 1.0
Weather AM: Mostly Sunny -7° C Survey Duration: 6 Hrs. Survey Hours: 0700-1000 & 1500-1800
Weather PM: Mostly Cloudy +1° C Surveyor(s): T. Carmody

Somerset St.												Somerset St.												City Lane												N/A											
Eastbound												Westbound												Northbound												Southbound											
Time Period	LT	ST	RT	UT	E/B Tot	LT	ST	RT	UT	W/B Tot	Street Total	LT	ST	RT	UT	N/B Tot	LT	ST	RT	UT	S/B Tot	Street Total	Grand Total																								
0700-0800		121	3	0	124	1	121		0	122	246	2		6	0	8						8	254																								
0800-0900		225	2	0	227	9	160		2	171	398	3		4	0	7						7	405																								
0900-1000		203	2	0	205	6	181		0	187	392	4		5	0	9						9	401																								
1500-1600		209	1	0	210	6	289		1	296	506	4		4	0	8						8	514																								
1600-1700		199	2	0	201	3	314		2	319	520	4		5	0	9						9	529																								
1700-1800		229	2	0	231	3	310		0	313	544	5		8	0	13						13	557																								
Totals		1186	12	0	1198	28	1375		5	1408	2606	22		32	0	54						54	2660																								

Equivalent 12 & 24-hour Vehicle Volumes including the Annual Average Daily Traffic (AADT) Factor
Applicable to the Day and Month of the Turning Movement Count
Expansion factors are applied exclusively to standard weekday 8-hour turning movement counts conducted during the hours of 0700h - 1000h, 1130h - 1330h and 1500h - 1800h

Equivalent 12-hour vehicle volumes. These volumes are calculated by multiplying the 8-hour totals by the 8 → 12 expansion factor of 1.39																																						
Equ. 12 Hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Average daily 12-hour vehicle volumes. These volumes are calculated by multiplying the equivalent 12-hour totals by the AADT factor of: 1.0																																						
AADT 12-hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

24-Hour AADT. These volumes are calculated by multiplying the average daily 12-hour vehicle volumes by the 12 → 24 expansion factor of 1.31																																						
AADT 24 Hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

AADT and expansion factors provided by the City of Ottawa

AM Peak Hour Factor ➡ 0.98												Highest Hourly Vehicle Volume Between 0700h & 1000h											
AM Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	Gr. Tot.
0830-0930	0	235	3	0	238	11	173	0	0	184	422	4	0	3	0	7	0	0	0	0	0	7	429
OFF Peak Hour Factor ➡ N/A												Highest Hourly Vehicle Volume Between 1130h & 1330h											
OFF Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	Gr. Tot.
N/A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Peak Hour Factor ➡ 0.96												Highest Hourly Vehicle Volume Between 1500h & 1800h											
PM Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	Gr. Tot.
1630-1730	0	210	3	0	213	5	342	0	1	348	561	7	0	11	0	18	0	0	0	0	18	579	

Comments:

The City lane (unnamed) is located approximately 45 m west of Bayswater Ave. and runs between Laurel St. & Somerset St. There is an access to the parking garage for #52 Bayswater Street at the northerly end of the lane. There is also a small parking lot (5 parking spaces) at the northerly end of the lane that also serves as the access to and from the parking garage. A stop sign is not present facing N/B traffic on the lane at Somerset St. & the presence of a building on the S/W quadrant affords zero visibility of either pedestrians or bicycles on the sidewalk on the south side of Somerset Street. There were 430 pedestrians, including a large daycare group of children, on the south sidewalk.

Notes:

1. Includes all vehicle types except bicycles, electric bicycles, and electric scooters.
2. When expansion and AADT factors are applied, the results will differ slightly due to rounding.

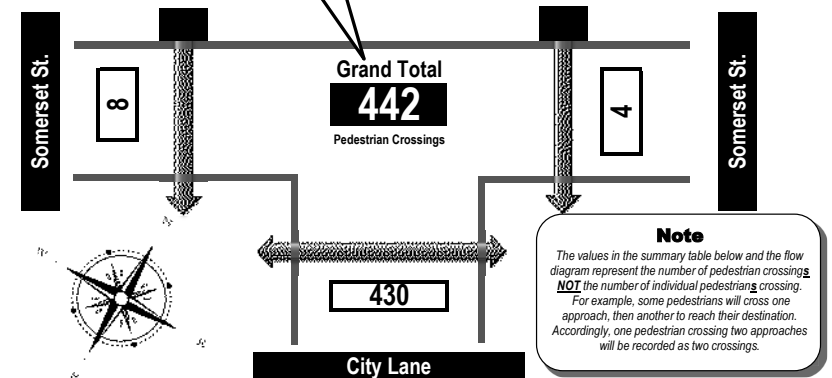


Turning Movement Count Pedestrian Crossings Summary and Flow Diagram

Somerset Street & City Lane Ottawa, ON

Pedestrian Crossings

Wednesday, March 08, 2023
0700-1000 & 1500-1800
6 Hour Survey
City of Ottawa Ward ► 12



Time Period	West Side Crossing Somerset St.	East Side Crossing Somerset St.	Street Total	South Side Crossing City Lane	North Side Crossing N/A	Street Total	Grand Total
0700-0800	0	0	0	23		23	23
0800-0900	0	0	0	50		50	50
0900-1000	1	0	1	38		38	39
1500-1600	1	0	1	90		90	91
1600-1700	4	3	7	89		89	96
1700-1800	2	1	3	140		140	143
Totals	8	4	12	430		430	442

Comments:

The City lane (unnamed) is located approximately 45 m west of Bayswater Ave. and runs between Laurel St. & Somerset St. There is an access to the parking garage for #52 Bayswater Street at the northerly end of the lane. There is also a small parking lot (5 parking spaces) at the northerly end of the lane that also serves as the access to and from the parking garage. A stop sign is not present facing N/B traffic on the lane at Somerset St. & the presence of a building on the S/W quadrant affords zero visibility of either pedestrians or bicycles on the sidewalk on the south side of Somerset Street. There were 430 pedestrians, including a large daycare group of children, on the south sidewalk.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BAYSWATER AVE @ SOMERSET ST

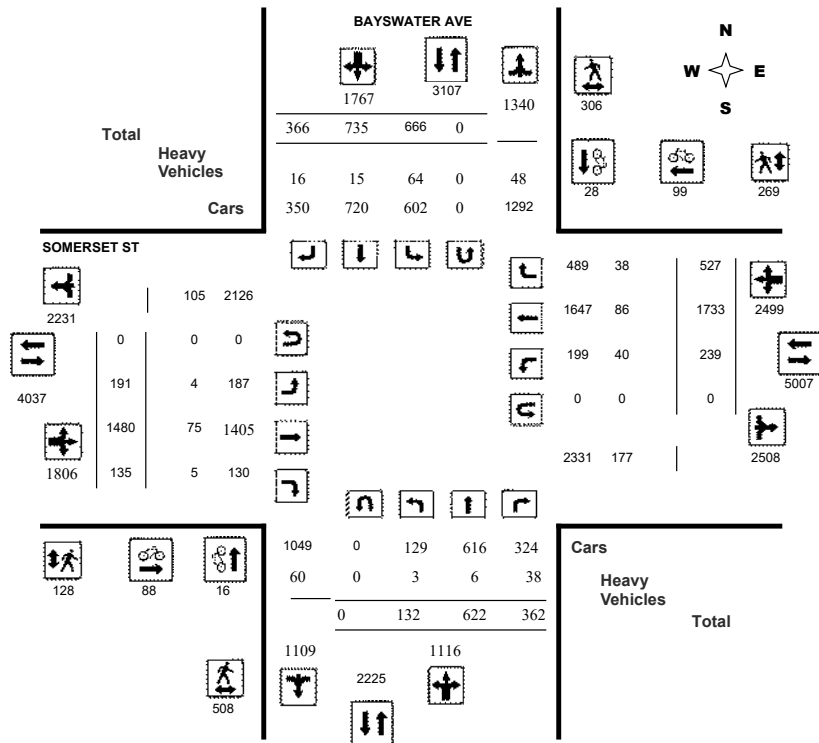
Survey Date: Tuesday, August 23, 2022

WO No: 40520

Start Time: 07:00

Device: Miovision

Full Study Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BAYSWATER AVE @ SOMERSET ST

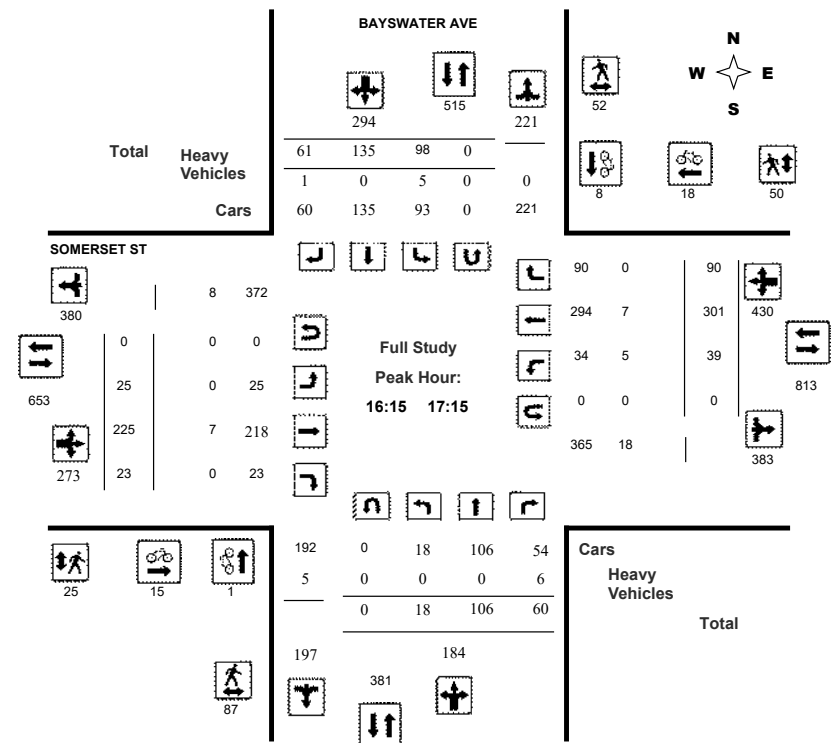
Survey Date: Tuesday, August 23, 2022

WO No: 40520

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

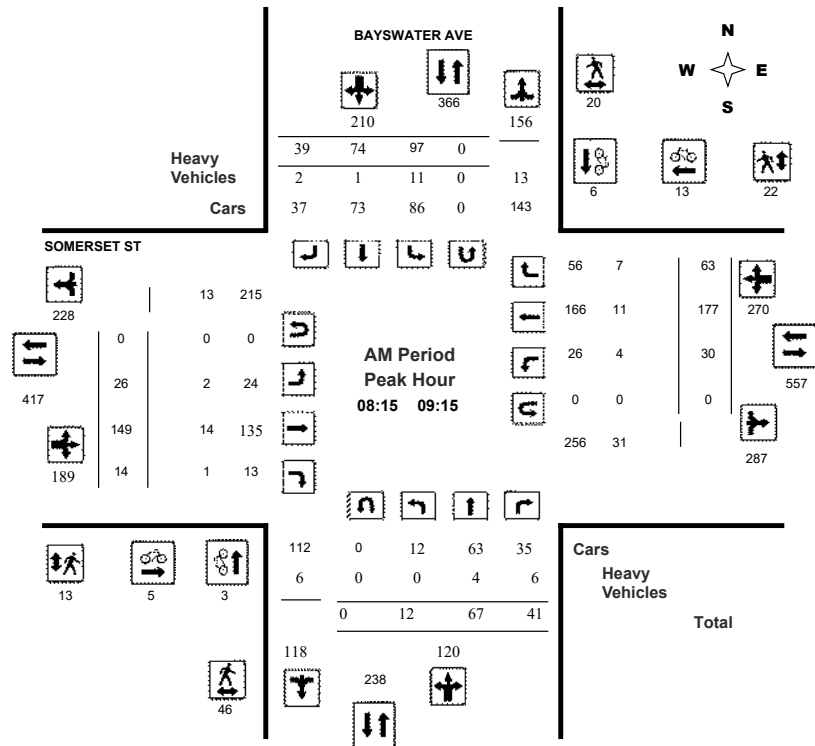
BAYSWATER AVE @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022

Start Time: 07:00

WO No: 40520

Device: Miovision



Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

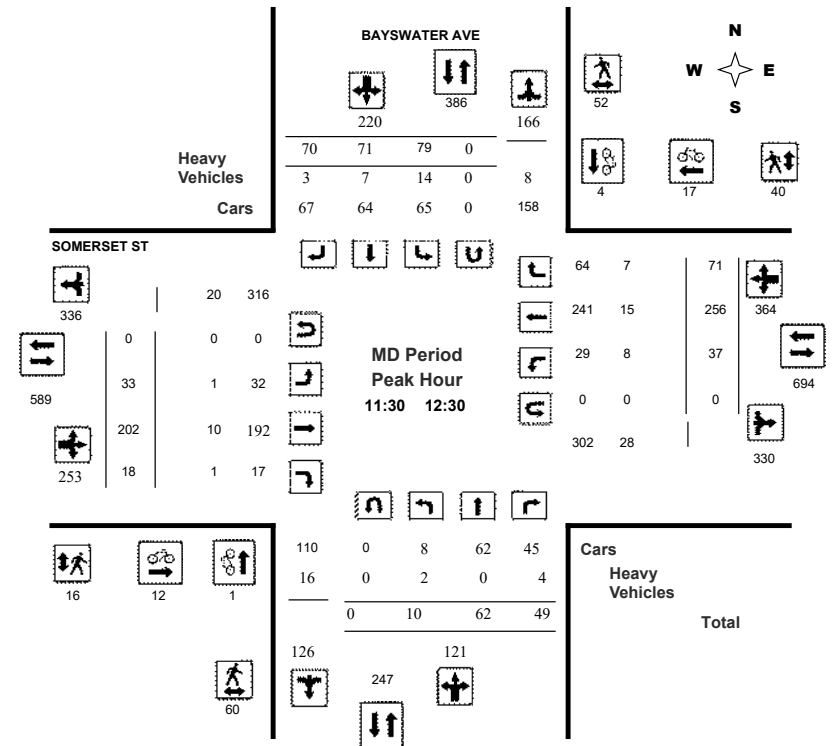
BAYSWATER AVE @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022

Start Time: 07:00

WO No: 40520

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

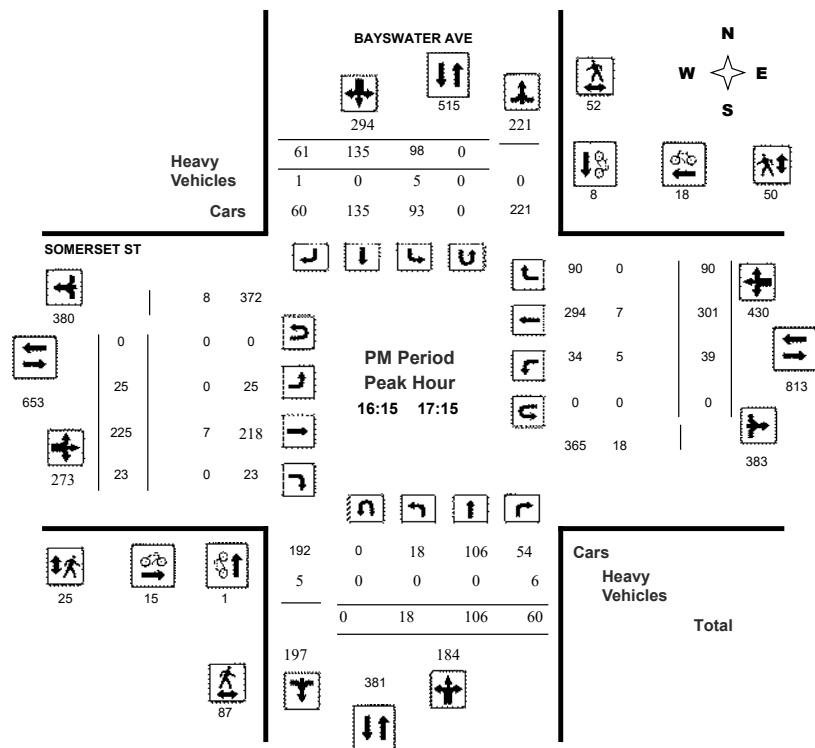
BAYSWATER AVE @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022

Start Time: 07:00

WO No: 40520

Device: Miovision



Comments



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BAYSWATER AVE @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022

Start Time: 07:00

WO No: 40520

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, August 23, 2022

Total Observed U-Turns

Northbound: 0 Southbound: 0
Eastbound: 0 Westbound: 0

AADT Factor
.90

BAYSWATER AVE										SOMERSET ST										
Period	Northbound				Southbound				Eastbound				Westbound				STR TOT	Grand Total		
	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	WB TOT						
07:00-08:00	8	35	24	67	58	71	21	150	217	17	104	6	127	15	109	40	164	291	508	
08:00-09:00	14	65	46	125	101	78	36	215	340	22	160	13	195	34	164	56	254	449	789	
09:00-10:00	14	52	44	110	67	67	28	162	272	27	168	18	213	25	179	57	261	474	746	
11:30-12:30	10	62	49	121	79	71	70	220	341	33	202	18	253	37	256	71	364	617	958	
12:30-13:30	10	72	47	129	74	94	55	223	352	21	195	17	233	27	221	76	324	557	909	
15:00-16:00	36	121	50	207	104	115	44	263	470	24	220	24	268	34	258	76	368	636	1106	
16:00-17:00	22	107	56	185	105	134	57	296	481	20	213	17	250	34	300	86	420	670	1151	
17:00-18:00	18	108	46	172	78	105	55	238	410	27	218	22	267	33	246	65	344	611	1021	
Sub Total	132	622	362	1116	666	735	366	1767	2883	191	1480	135	1806	239	1733	527	2499	4305	7188	
U Turns				0				0	0				0				0	0	0	0
Total	132	622	362	1116	666	735	366	1767	2883	191	1480	135	1806	239	1733	527	2499	4305	7188	
EQ 12Hr	183	865	503	1551	926	1022	509	2456	4007	265	2057	188	2510	332	2409	733	3474	5984	9991	
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														1.39						
AVG 12Hr	165	778	453	1396	833	1205	600	2210	3606	238	1851	169	2259	299	2168	660	3127	5386	8992	
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														.90						
AVG 24Hr	216	1019	593	1829	1091	1579	786	2895	4724	312	2425	221	2959	392	2840	865	4096	7056	11780	



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BAYSWATER AVE @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022

WO No: 40520

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

BAYSWATER AVE												SOMERSET ST											
Northbound				Southbound				Eastbound				Westbound											
Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total				
07:00 07:15	1	4	2	7	10	12	2	24	31	4	22	1	27	6	29	7	42	69	100				
07:15 07:30	2	6	7	15	17	18	5	40	55	2	24	2	28	4	27	5	36	64	119				
07:30 07:45	3	13	4	20	13	19	7	39	59	3	32	1	36	3	19	14	36	72	131				
07:45 08:00	2	12	11	25	18	22	7	47	72	8	26	2	36	2	34	14	50	86	158				
08:00 08:15	4	12	14	30	26	20	4	50	80	3	52	3	58	11	32	12	55	113	193				
08:15 08:30	6	17	13	36	23	18	5	46	82	6	31	2	39	7	41	17	65	104	186				
08:30 08:45	2	19	7	28	26	17	11	54	82	6	37	5	48	8	40	10	58	106	188				
08:45 09:00	2	17	12	31	26	23	16	65	96	7	40	3	50	8	51	17	76	126	222				
09:00 09:15	2	14	9	25	22	16	7	45	70	7	41	4	52	7	45	19	71	123	193				
09:15 09:30	6	14	10	30	14	13	5	32	62	5	46	3	54	7	45	17	69	123	185				
09:30 09:45	5	11	15	31	17	17	6	40	71	6	37	3	46	8	49	12	69	115	186				
09:45 10:00	1	13	10	24	14	21	10	45	69	9	44	8	61	3	40	9	52	113	182				
11:30 11:45	2	19	11	32	18	23	11	52	84	7	51	5	63	7	68	18	93	156	240				
11:45 12:00	2	15	17	34	27	19	21	67	101	7	50	3	60	8	63	15	86	146	247				
12:00 12:15	6	15	11	32	18	15	21	54	86	13	48	7	68	15	62	22	99	167	253				
12:15 12:30	0	13	10	23	16	14	17	47	70	6	53	3	62	7	63	16	86	148	218				
12:30 12:45	3	20	13	36	29	24	15	68	104	4	45	3	52	10	54	19	83	135	239				
12:45 13:00	1	18	10	29	16	32	15	63	92	8	48	7	63	5	48	15	68	131	223				
13:00 13:15	3	18	14	35	15	21	10	46	81	4	49	4	57	8	61	22	91	148	229				
13:15 13:30	3	16	10	29	14	17	15	46	75	5	53	3	61	4	58	20	82	143	218				
15:00 15:15	7	28	9	44	25	32	11	68	112	6	55	6	67	7	78	13	98	165	277				
15:15 15:30	13	34	14	61	25	32	9	66	127	10	55	4	69	9	57	27	93	162	289				
15:30 15:45	8	23	14	45	24	28	18	70	115	6	59	10	75	10	60	23	93	168	283				
15:45 16:00	8	36	13	57	30	23	6	59	116	2	51	4	57	8	63	13	84	141	257				
16:00 16:15	8	28	10	46	25	38	12	75	121	3	45	2	50	7	59	18	84	134	255				
16:15 16:30	5	22	15	42	26	23	19	68	110	6	54	4	64	10	68	18	96	160	270				
16:30 16:45	6	24	16	46	31	33	11	75	121	7	60	4	71	11	93	24	128	199	320				
16:45 17:00	3	33	15	51	23	40	15	78	129	4	54	7	65	6	80	26	112	177	306				
17:00 17:15	4	27	14	45	18	39	16	73	118	8	57	8	73	12	60	22	94	167	285				
17:15 17:30	4	27	7	38	28	33	16	77	115	4	54	2	60	7	67	16	90	150	265				
17:30 17:45	7	30	11	48	15	19	12	46	94	7	49	5	61	7	68	18	93	154	248				
17:45 18:00	3	24	14	41	17	14	11	42	83	8	58	7	73	7	51	9	67	140	223				
Total:	132	622	362	1116	666	735	366	1767	2883	191	1480	135	1806	239	1733	527	2499	4305	7,188				

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BAYSWATER AVE @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022

WO No: 40520

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

BAYSWATER AVE							SOMERSET ST						
Time Period	Northbound		Southbound		Street Total	Eastbound		Westbound		Street Total	Grand Total		
07:00 07:15	0		0		0	0		0		0	0		
07:15 07:30	0		0		0	2		2		4	4		
07:30 07:45	0		0		0	0		1		1	1		
07:45 08:00	0		1		1	0		1		1	2		
08:00 08:15	1		0		1	3		0		3	4		
08:15 08:30	0		2		2	2		0		2	4		
08:30 08:45	1		2		3	0		4		4	7		
08:45 09:00	2		1		3	3		5		8	11		
09:00 09:15	0		1		1	0		4		4	5		
09:15 09:30	1		0		1	3		1		4	5		
09:30 09:45	0		0		0	3		1		4	4		
09:45 10:00	0		1		1	1		1		2	3		
11:30 11:45	0		1		1	0		1		1	2		
11:45 12:00	1		2		3	2		6		8	11		
12:00 12:15	0		0		0	3		4		7	7		
12:15 12:30	0		1		1	7		6		13	14		
12:30 12:45	1		1		2	10		4		14	16		
12:45 13:00	1		0		1	2		4		6	7		
13:00 13:15	0		1		1	4		4		8	9		
13:15 13:30	0		0		0	6		6		12	12		
15:00 15:15	0		1		1	0		3		3	4		
15:15 15:30	0		0		0	3		3		6	6		
15:30 15:45	0		0		0	1		1		2	2		
15:45 16:00	1		0		1	1		1		2	3		
16:00 16:15	1		1		2	4		2		6	8		
16:15 16:30	0		1		1	3		5		8	9		
16:30 16:45	1		2		3	7		5		12	15		
16:45 17:00	0		3		3	2		2		4	7		
17:00 17:15	0		2		2	3		6		9	11		
17:15 17:30	2		2		4	4		7		11	15		
17:30 17:45	1		1		2	6		5		11	13		
17:45 18:00	2		1		3	3		4		7	10		
Total	16		28		44	88		99		187	231		



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BAYSWATER AVE @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022

WO No: 40520

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

BAYSWATER AVE				SOMERSET ST			
Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	2	5	7	1	2	3	10
07:15 07:30	2	2	4	0	2	2	6
07:30 07:45	1	3	4	4	4	8	12
07:45 08:00	4	8	12	4	8	12	24
08:00 08:15	6	6	12	4	13	17	29
08:15 08:30	8	6	14	4	5	9	23
08:30 08:45	15	5	20	3	7	10	30
08:45 09:00	10	4	14	2	7	9	23
09:00 09:15	13	5	18	4	3	7	25
09:15 09:30	8	8	16	7	9	16	32
09:30 09:45	6	9	15	0	12	12	27
09:45 10:00	15	6	21	5	2	7	28
11:30 11:45	12	8	20	4	4	8	28
11:45 12:00	15	10	25	3	14	17	42
12:00 12:15	16	19	35	4	11	15	50
12:15 12:30	17	15	32	5	11	16	48
12:30 12:45	27	28	55	8	11	19	74
12:45 13:00	25	11	36	3	10	13	49
13:00 13:15	22	12	34	0	8	8	42
13:15 13:30	20	4	24	0	3	3	27
15:00 15:15	18	5	23	1	10	11	34
15:15 15:30	19	4	23	3	7	10	33
15:30 15:45	15	9	24	1	4	5	29
15:45 16:00	23	4	27	4	3	7	34
16:00 16:15	24	7	31	6	7	13	44
16:15 16:30	19	17	36	6	15	21	57
16:30 16:45	24	11	35	4	11	15	50
16:45 17:00	20	13	33	10	14	24	57
17:00 17:15	24	11	35	5	10	15	50
17:15 17:30	35	16	51	9	19	28	79
17:30 17:45	23	8	31	6	11	17	48
17:45 18:00	20	27	47	8	12	20	67
Total	508	306	814	128	269	397	1211



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BAYSWATER AVE @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022

WO No: 40520

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

BAYSWATER AVE										SOMERSET ST										
Time Period		Northbound			Southbound			Eastbound			Westbound			Grand Total						
		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT			E TOT	LT	ST	RT	W TOT
07:00	07:15	0	0	1	3	2	0	0	4	7	0	3	0	4	2	1	2	11	15	11
07:15	07:30	0	0	3	4	3	0	1	4	8	0	2	0	6	1	3	0	12	18	13
07:30	07:45	0	0	1	2	0	0	1	2	4	0	2	0	6	1	3	1	8	14	9
07:45	08:00	0	0	0	1	2	0	1	5	6	0	1	0	4	1	2	2	8	12	9
08:00	08:15	0	0	2	4	1	0	0	3	7	0	2	1	5	1	2	2	10	15	11
08:15	08:30	0	3	3	7	4	0	0	8	15	0	2	0	6	1	4	1	15	21	18
08:30	08:45	0	1	1	3	2	0	0	7	10	1	3	1	8	0	3	3	12	20	15
08:45	09:00	0	0	1	4	3	0	1	5	9	0	7	0	10	3	2	1	17	27	18
09:00	09:15	0	0	1	2	2	1	1	7	9	1	2	0	6	0	2	2	9	15	12
09:15	09:30	0	0	1	2	2	0	1	5	7	0	1	0	8	1	6	2	13	21	14
09:30	09:45	0	0	1	3	3	0	1	4	7	0	2	0	6	2	3	0	11	17	12
09:45	10:00	0	0	1	3	3	1	0	5	8	1	4	0	9	1	4	0	13	22	15
11:30	11:45	0	0	1	4	2	2	0	7	11	0	1	0	7	1	6	3	14	21	16
11:45	12:00	1	0	2	6	6	1	2	12	18	1	3	0	10	2	3	2	18	28	23
12:00	12:15	1	0	0	7	3	1	0	6	13	0	3	1	8	4	3	2	15	23	18
12:15	12:30	0	0	1	5	3	3	1	7	12	0	3	0	7	1	3	0	11	18	15
12:30	12:45	1	1	2	7	2	2	1	7	14	0	6	0	13	1	5	1	17	30	22
12:45	13:00	0	1	3	5	2	0	2	6	11	0	2	1	8	0	3	1	11	19	15
13:00	13:15	0	0	1	4	1	0	0	3	7	0	2	1	5	2	2	2	10	15	11
13:15	13:30	0	0	0	1	1	0	1	6	7	0	2	0	3	1	0	4	8	11	9
15:00	15:15	0	0	0	6	3	4	0	9	15	0	3	0	5	2	2	2	12	17	16
15:15	15:30	0	0	2	2	3	0	0	5	7	0	3	0	6	0	3	2	13	19	13
15:30	15:45	0	0	0	2	1	0	0	3	5	0	4	0	5	2	1	2	10	15	10
15:45	16:00	0	0	1	1	0	0	0	1	2	0	1	0	4	0	3	1	6	10	6
16:00	16:15	0	0	2	3	3	0	0	3	6	0	1	0	6	1	5	0	12	18	12
16:15	16:30	0	0	1	3	2	0	0	2	5	0	4	0	6	2	2	0	11	17	11
16:30	16:45	0	0	1	2	1	0	1	2	4	0	1	0	4	1	2	0	6	10	7
16:45	17:00	0	0	2	3	1	0	0	1	4	0	2	0	4	1	2	0	8	12	8
17:00	17:15	0	0	2	3	1	0	0	1	4	0	0	0	1	1	1	0	5	6	5
17:15	17:30	0	0	0	0	1	0	1	2	2	0	2	0	5	0	2	0	5	10	6
17:30	17:45	0	0	0	2	0	0	0	0	2	0	0	0	1	2	1	0	3	4	3
17:45	18:00	0	0	1	3	1	0	0	1	4	0	1	0	3	2	2	0	7	10	7
Total:	None	3	6	38	107	64	15	16	143	250	4	75	5	189	40	86	38	341	530	390



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BAYSWATER AVE @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022

WO No: 40520

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

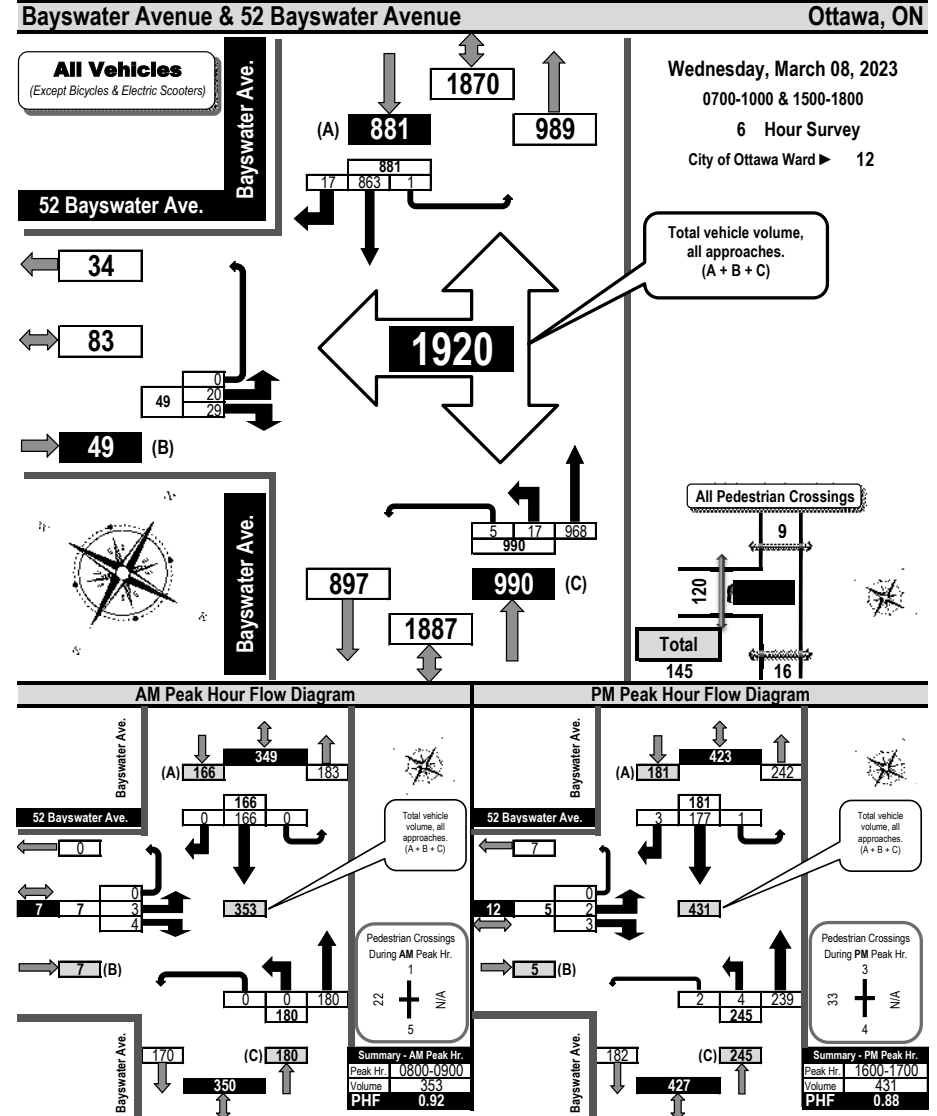
BAYSWATER AVE SOMERSET ST

Time Period	Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00 07:15	0	0	0	0	0
07:15 07:30	0	0	0	0	0
07:30 07:45	0	0	0	0	0
07:45 08:00	0	0	0	0	0
08:00 08:15	0	0	0	0	0
08:15 08:30	0	0	0	0	0
08:30 08:45	0	0	0	0	0
08:45 09:00	0	0	0	0	0
09:00 09:15	0	0	0	0	0
09:15 09:30	0	0	0	0	0
09:30 09:45	0	0	0	0	0
09:45 10:00	0	0	0	0	0
11:30 11:45	0	0	0	0	0
11:45 12:00	0	0	0	0	0
12:00 12:15	0	0	0	0	0
12:15 12:30	0	0	0	0	0
12:30 12:45	0	0	0	0	0
12:45 13:00	0	0	0	0	0
13:00 13:15	0	0	0	0	0
13:15 13:30	0	0	0	0	0
15:00 15:15	0	0	0	0	0
15:15 15:30	0	0	0	0	0
15:30 15:45	0	0	0	0	0
15:45 16:00	0	0	0	0	0
16:00 16:15	0	0	0	0	0
16:15 16:30	0	0	0	0	0
16:30 16:45	0	0	0	0	0
16:45 17:00	0	0	0	0	0
17:00 17:15	0	0	0	0	0
17:15 17:30	0	0	0	0	0
17:30 17:45	0	0	0	0	0
17:45 18:00	0	0	0	0	0
Total	0	0	0	0	0



Turning Movement Count Summary, AM and PM Peak Hour Flow Diagrams

All Vehicles Except Bicycles





Turning Movement Count Summary Report Including Peak Hours, AADT and Expansion Factors All Vehicles Except Bicycles



Bayswater Avenue & 52 Bayswater Avenue Ottawa, ON

Survey Date: Wednesday, March 08, 2023 Start Time: 0700 AADT Factor: 1.0
Weather AM: Mostly Sunny -7° C Survey Duration: 6 Hrs. Survey Hours: 0700-1000 & 1500-1800
Weather PM: Mostly Cloudy +1° C Surveyor(s): T. Carmody

52 Bayswater Ave.						N/A					Bayswater Ave.					Bayswater Ave.							
Eastbound						Westbound					Northbound					Southbound							
Time Period	LT	ST	RT	UT	E/B Tot	LT	ST	RT	UT	W/B Tot	Street Total	LT	ST	RT	UT	N/B Tot	LT	ST	RT	UT	S/B Tot	Street Total	Grand Total
0700-0800	4		5	0	9						9	3	70		0	73	108	0	0	108	181	190	
0800-0900	3		4	0	7						7	0	180		0	180	166	0	0	166	346	353	
0900-1000	3		9	0	12						12	0	108		1	109	107	1	0	108	217	229	
1500-1600	4		3	0	7						7	5	184		1	190	130	4	0	134	324	331	
1600-1700	2		3	0	5						5	4	239		2	245	177	3	1	181	426	431	
1700-1800	4		5	0	9						9	5	187		1	193	175	9	0	184	377	386	
Totals	20		29	0	49						49	17	968		5	990	863	17	1	881	1871	1920	

Equivalent 12 & 24-hour Vehicle Volumes Including the Annual Average Daily Traffic (AADT) Factor
Applicable to the Day and Month of the Turning Movement Count
Expansion factors are applied exclusively to standard weekday 8-hour turning movement counts conducted during the hours of 0700h - 1000h, 1130h - 1330h and 1500h - 1800h

Equivalent 12-hour vehicle volumes. These volumes are calculated by multiplying the 8-hour totals by the 8 ➔ 12 expansion factor of 1.39																							
Equ. 12 Hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Average daily 12-hour vehicle volumes. These volumes are calculated by multiplying the equivalent 12-hour totals by the AADT factor of: 1.0																							
AADT 12-hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

24-Hour AADT. These volumes are calculated by multiplying the average daily 12-hour vehicle volumes by the 12 ➔ 24 expansion factor of 1.31																							
AADT 24 Hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

AADT and expansion factors provided by the City of Ottawa

AM Peak Hour Factor ➡ 0.92						Highest Hourly Vehicle Volume Between 0700h & 1000h																	
AM Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	Gr. Tot.
0800-0900	3	0	4	0	7	0	0	0	0	0	7	0	180	0	0	180	0	166	0	0	166	346	353
OFF Peak Hour Factor ➡ N/A						Highest Hourly Vehicle Volume Between 1130h & 1330h																	
OFF Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	Gr. Tot.
N/A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Peak Hour Factor ➡ 0.88						Highest Hourly Vehicle Volume Between 1500h & 1800h																	
PM Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	Gr. Tot.
1600-1700	2	0	3	0	5	0	0	0	0	0	5	4	239	0	2	245	0	177	3	1	181	426	431

Comments:

Foliage growing on the property frontage immediately south of the access to 52 Bayswater Avenue obstructs sightlights for drivers exiting the driveway. Drivers cannot see pedestrians or cyclists on the sidewalk when looking south. A total of 120 pedestrians were observed walking on the sidewalk along the west side of Bayswater Avenue.

Notes:

- Includes all vehicle types except bicycles, electric bicycles, and electric scooters.
- When expansion and AADT factors are applied, the results will differ slightly due to rounding.

Printed on: 3/12/2023

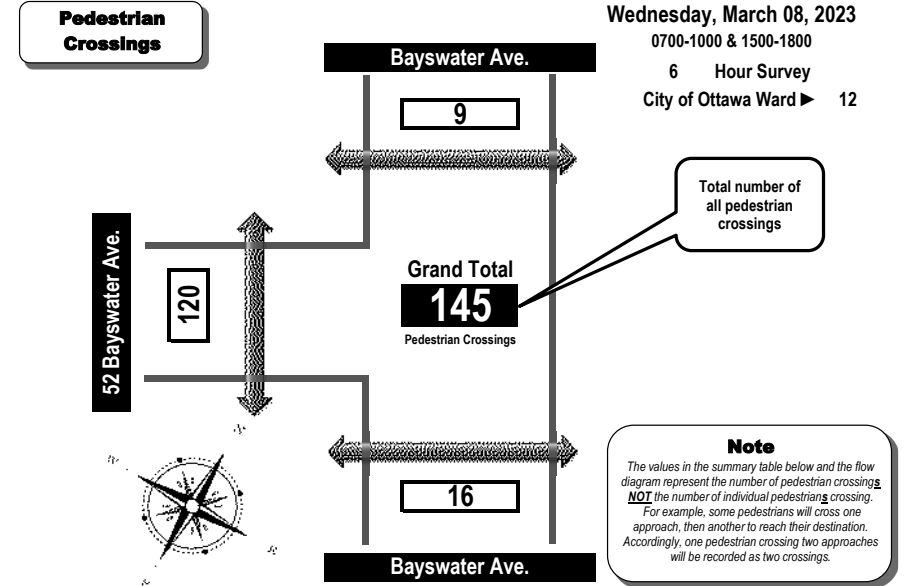
Prepared by: thetrafficsspecialist@gmail.com

Summary: All Vehicles



Turning Movement Count Pedestrian Crossings Summary and Flow Diagram

Bayswater Avenue & 52 Bayswater Avenue Ottawa, ON



Time Period	West Side Crossing 52 Bayswater Ave.	East Side Crossing N/A	Street Total	South Side Crossing Bayswater Ave.	North Side Crossing Bayswater Ave.	Street Total	Grand Total
0700-0800	15		15	2	2	4	19
0800-0900	22		22	5	1	6	28
0900-1000	7		7	2	0	2	9
1500-1600	17		17	2	0	2	19
1600-1700	33		33	4	3	7	40
1700-1800	26		26	1	3	4	30
Totals	120		120	16	9	25	145

Comments:

Foliage growing on the property frontage immediately south of the access to 52 Bayswater Avenue obstructs sightlights for drivers exiting the driveway. Drivers cannot see pedestrians or cyclists on the sidewalk when looking south. A total of 120 pedestrians were observed walking on the sidewalk along the west side of Bayswater Avenue.

Printed on: 3/12/2023

Prepared by: thetrafficsspecialist@gmail.com

Summary: Pedestrian Crossings



Turning Movement Count Summary Report Including AM and PM Peak Hours All Vehicles Except Bicycles



Bayswater Avenue & Laurel Street Ottawa, ON

Survey Date: Wednesday, March 08, 2023 Start Time: 0700 AADT Factor: 1.0
Weather AM: Mostly Sunny -7° C Survey Duration: 6 Hrs. Survey Hours: 0700-1000 & 1500-1800
Weather PM: Mostly Cloudy +1° C Surveyor(s): T. Carmody

Time Period	Laurel St.				E/B Tot	Laurel St.				W/B Tot	Bayswater Ave.				N/B Tot	Bayswater Ave.				S/B Tot	Street Tot	Grand Total	
	Eastbound					Westbound					Northbound					Southbound							
	LT	ST	RT	UT		LT	ST	RT	UT		LT	ST	RT	UT		LT	ST	RT	UT				
0700-0800	4	6	5	0	15	3	1	4	0	8	23	3	64	2	0	69	10	101	5	0	116	185	208
0800-0900	8	4	8	0	20	11	6	15	0	32	52	5	147	8	0	160	19	149	4	0	172	332	384
0900-1000	5	4	6	0	15	11	1	11	0	23	38	3	96	7	0	106	11	106	6	0	123	229	267
1500-1600	4	7	4	0	15	7	4	15	0	26	41	4	171	4	0	179	3	120	9	0	132	311	352
1600-1700	15	1	3	0	19	14	6	20	0	40	59	13	206	3	0	222	5	159	10	0	174	396	455
1700-1800	11	1	7	0	19	4	11	15	0	30	49	9	166	1	1	177	8	168	7	0	183	360	409
Totals	47	23	33	0	103	50	29	80	0	159	262	37	850	25	1	913	56	803	41	0	900	1813	2075

Equivalent 12 & 24-hour Vehicle Volumes Including the Annual Average Daily Traffic (AADT) Factor
Applicable to the Day and Month of the Turning Movement Count

Expansion factors are applied exclusively to standard weekday 8-hour turning movement counts
conducted during the hours of 0700h - 1000h, 1130h - 1330h and 1500h - 1800h

Equivalent 12-hour vehicle volumes. These volumes are calculated by multiplying the 8-hour totals by the 8 → 12 expansion factor of 1.39																			
Equi. 12 Hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Average daily 12-hour vehicle volumes. These volumes are calculated by multiplying the equivalent 12-hour totals by the AADT factor of: 1.0																			
AADT 12-hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
24-Hour AADT. These volumes are calculated by multiplying the average daily 12-hour vehicle volumes by the 12 → 24 expansion factor of 1.31																			
AADT 24 Hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

AADT and expansion factors provided by the City of Ottawa

AM Peak Hour Factor ➡ 0.93						Highest Hourly Vehicle Volume Between 0700h & 1000h																				
AM Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	
0800-0900	8	4	8	0	20	11	6	15	0	32	52	5	147	8	0	160	19	149	4	0	172	332	332	384		

PM Peak Hour Factor ➡ 0.84						Highest Hourly Vehicle Volume Between 1500h & 1800h																				
PM Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	
1600-1700	15	1	3	0	19	14	6	20	0	40	59	13	206	3	0	222	5	159	10	0	174	396	45	65	0	500

Comments:

Para Transpo buses and school buses comprise 30.00% of the heavy vehicle traffic. A school crossing guard was present assisting pedestrians in the north, east and south crossings during the morning and evening peak periods.

Notes:

- Includes all vehicle types except bicycles, electric bicycles, and electric scooters.
- When expansion and AADT factors are applied, the results will differ slightly due to rounding.

Printed on: 3/12/2023

Prepared by: thetrafficspecialist@gmail.com

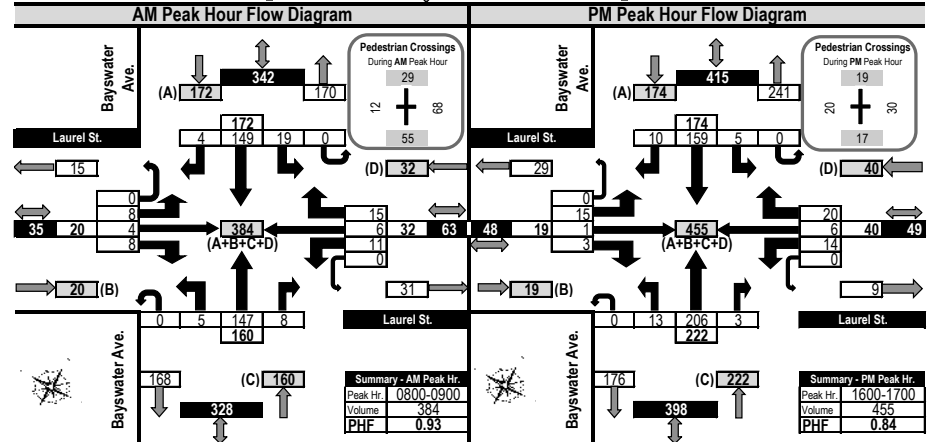
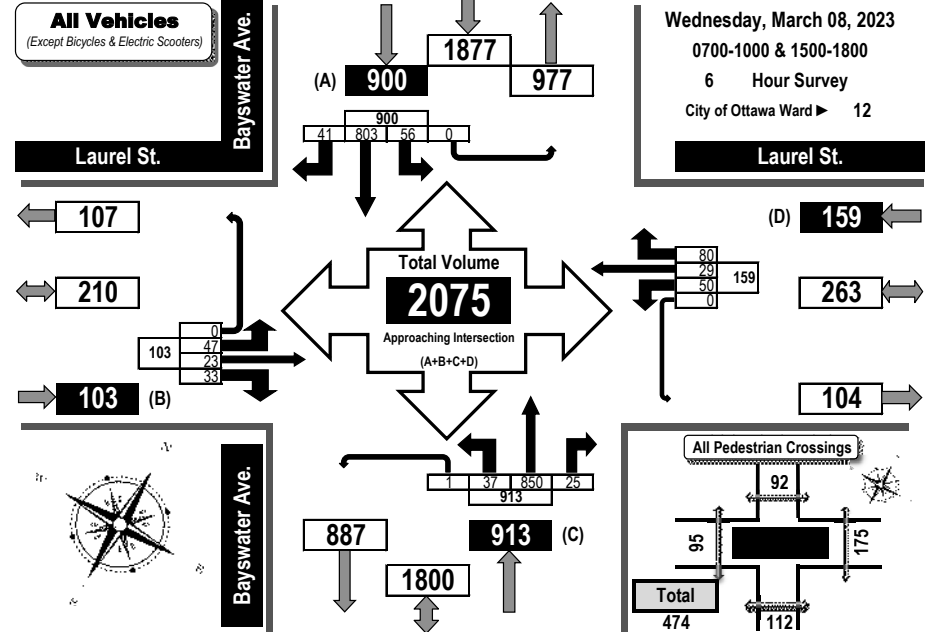
Summary: All Vehicles



Turning Movement Count Summary, AM and PM Peak Hour Flow Diagrams All Vehicles Except Bicycles



Bayswater Avenue & Laurel Street Ottawa, ON



Printed on: 3/12/2023

Prepared by: thetrafficspecialist@gmail.com

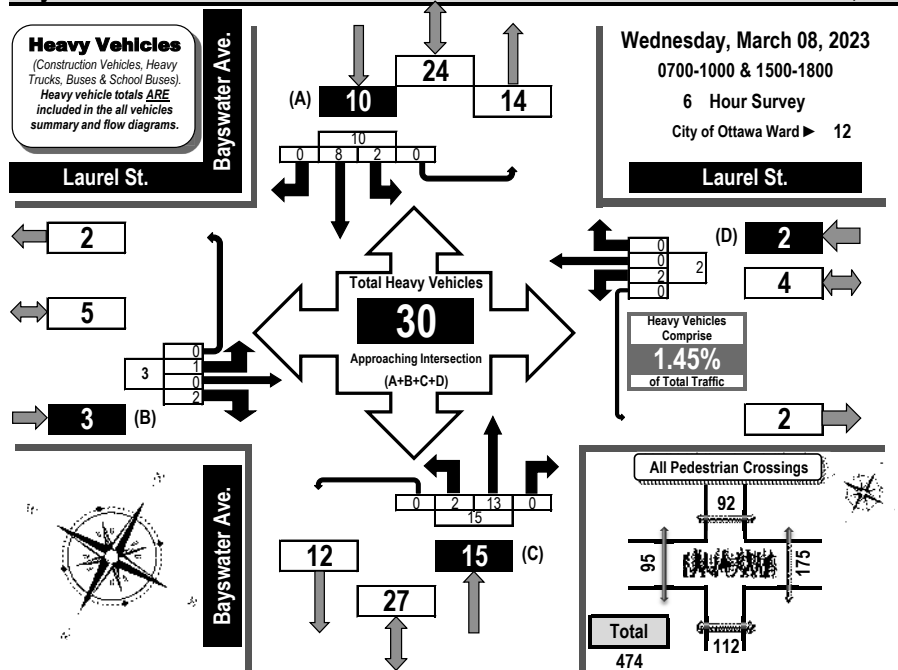
Flow Diagrams: AM PM Peak



Turning Movement Count Heavy Vehicle Summary (FHWA Class 4-13) Flow Diagram



Bayswater Avenue & Laurel Street Ottawa, ON



Time Period	Laurel St. Eastbound				Laurel St. Westbound				Bayswater Ave. Northbound				Bayswater Ave. Southbound				SB Tot	GR Tot
	LT	ST	RT	UT	LT	ST	RT	UT	LT	ST	RT	UT	LT	ST	RT	UT		
0700-0800	0	0	2	0	2	0	0	0	0	0	2	0	0	0	0	0	0	4
0800-0900	0	0	0	0	0	1	0	0	0	1	2	4	0	0	6	1	1	9
0900-1000	1	0	0	0	1	1	0	0	0	1	0	2	0	0	2	1	2	7
1500-1600	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	1	3
1600-1700	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	3	6
1700-1800	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Totals	1	0	2	0	3	2	0	0	0	2	2	13	0	0	15	2	8	30

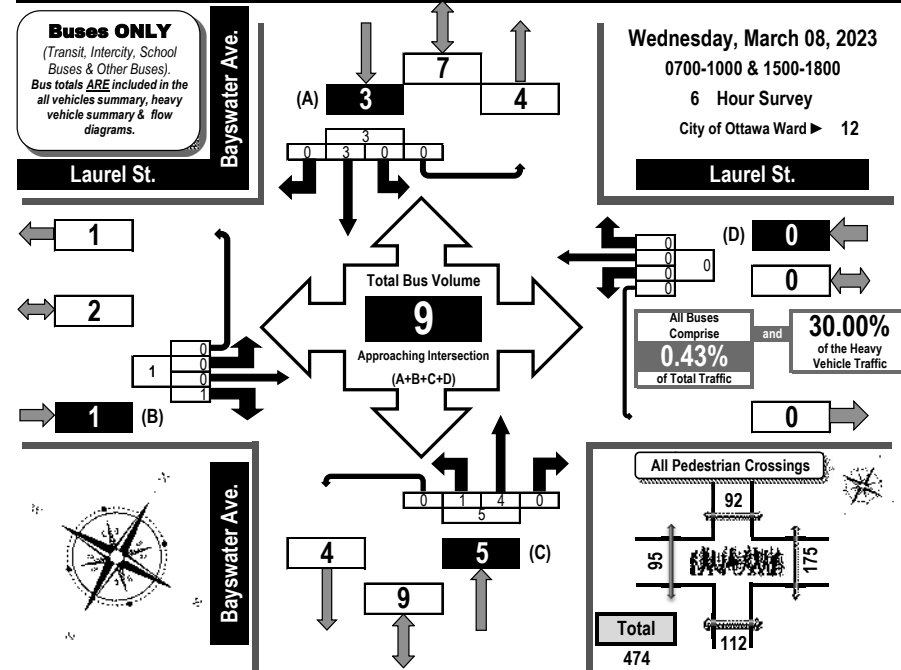
Comments:
Para Transpo buses and school buses comprise 30.00% of the heavy vehicle traffic. A school crossing guard was present assisting pedestrians in the north, east and south crossings during the morning and evening peak periods.



Turning Movement Count All Buses Summary (FHWA Class 4 ONLY) Flow Diagram



Bayswater Avenue & Laurel Street Ottawa, ON



Time Period	Laurel St. Eastbound				Laurel St. Westbound				Bayswater Ave. Northbound				Bayswater Ave. Southbound				SB Tot	GR Tot
	LT	ST	RT	UT	LT	ST	RT	UT	LT	ST	RT	UT	LT	ST	RT	UT		
0700-0800	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2
0800-0900	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	0	3
0900-1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500-1600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1600-1700	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	3
1700-1800	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Totals	0	0	1	0	1	0	0	0	0	0	1	4	0	0	5	0	3	9

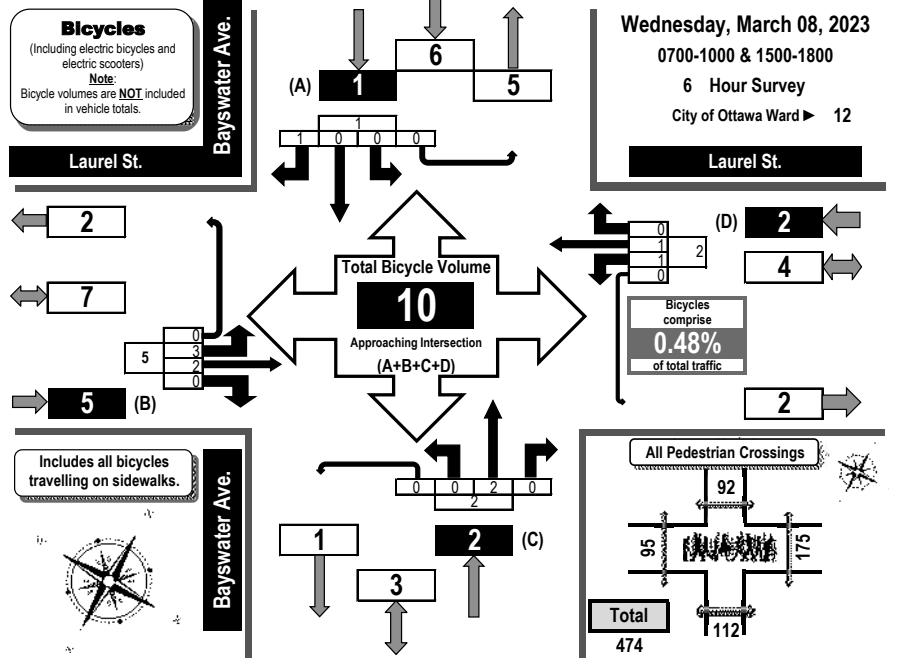
Comments:
Para Transpo buses and school buses comprise 30.00% of the heavy vehicle traffic. A school crossing guard was present assisting pedestrians in the north, east and south crossings during the morning and evening peak periods.



Turning Movement Count Bicycle Summary Flow Diagram



Bayswater Avenue & Laurel Street Ottawa, ON



Time Period	Laurel St. Eastbound				Laurel St. Westbound				Bayswater Ave. Northbound				Bayswater Ave. Southbound				GR Tot
	LT	ST	RT	UT	LT	ST	RT	UT	LT	ST	RT	UT	LT	ST	RT	UT	
	EB Tot	WB Tot	NB Tot	SB Tot	EB Tot	WB Tot	NB Tot	SB Tot	EB Tot	WB Tot	NB Tot	SB Tot	EB Tot	WB Tot	NB Tot	SB Tot	
0700-0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800-0900	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
0900-1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500-1600	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1
1600-1700	1	0	0	0	1	1	0	0	1	0	1	0	1	0	1	0	4
1700-1800	0	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	2
Totals	3	2	0	0	5	1	1	0	2	0	2	0	2	0	1	0	10

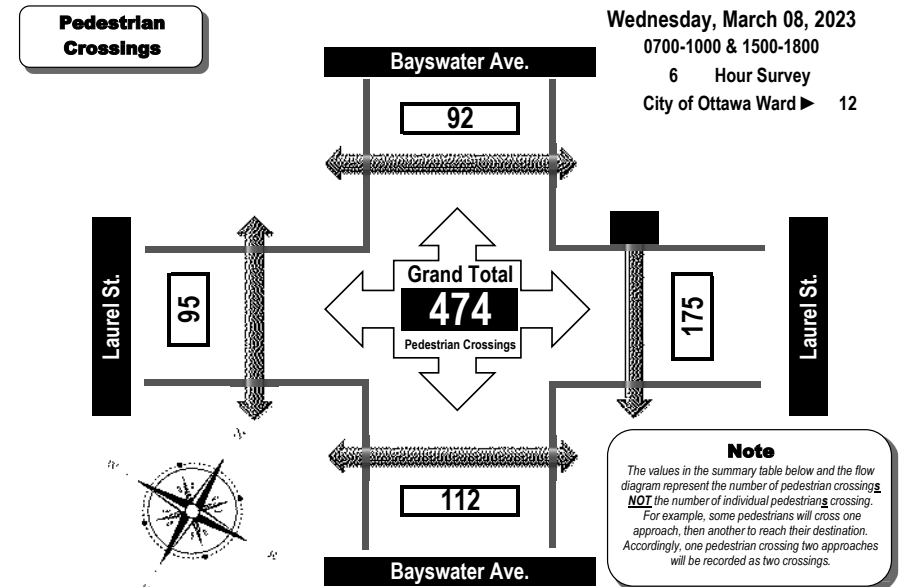
Comments:

Para Transpo buses and school buses comprise 30.00% of the heavy vehicle traffic. A school crossing guard was present assisting pedestrians in the north, east and south crossings during the morning and evening peak periods.



Turning Movement Count Pedestrian Crossings Summary and Flow Diagram

Bayswater Avenue & Laurel Street Ottawa, ON



Time Period	West Side Crossing Laurel St.	East Side Crossing Laurel St.	Street Total	South Side Crossing Bayswater Ave.	North Side Crossing Bayswater Ave.	Street Total	Grand Total
0700-0800	10	24	34	12	7	19	53
0800-0900	12	68	80	55	29	84	164
0900-1000	6	3	9	10	7	17	26
1500-1600	30	19	49	8	17	25	74
1600-1700	20	30	50	17	19	36	86
1700-1800	17	31	48	10	13	23	71
Totals	95	175	270	112	92	204	474

Comments:

Para Transpo buses and school buses comprise 30.00% of the heavy vehicle traffic. A school crossing guard was present assisting pedestrians in the north, east and south crossings during the morning and evening peak periods.

Appendix C

Synchro Intersection Worksheets – Existing Conditions

Lanes, Volumes, Timings

1: Bayview Station Rd & Scott St/Albert St

Existing AM Peak Hour

50 Bayswater Avenue, 1088 Somerset Street West

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group												
Lane Configurations												
Traffic Volume (vph)	21	504	69	55	178	27	41	44	95	156	159	11
Future Volume (vph)	21	504	69	55	178	27	41	44	95	156	159	11
Satd. Flow (prot)	0	1692	1469	1433	1679	1363	1610	1493	0	1658	1696	0
Fit Permitted		0.985		0.383			0.544			0.622		
Satd. Flow (perm)	0	1667	1346	567	1679	1267	904	1493	0	1064	1696	0
Satd. Flow (RTOR)			77			37		105			3	
Lane Group Flow (vph)	0	583	77	61	198	30	46	155	0	173	189	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	NA	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
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)	32.5	32.5	32.5	32.5	32.5	32.5	32.4	32.4		32.4	32.4	
Total Split (s)	67.6	67.6	67.6	67.6	67.6	67.6	32.4	32.4		32.4	32.4	
Total Split (%)	67.6%	67.6%	67.6%	67.6%	67.6%	67.6%	32.4%	32.4%		32.4%	32.4%	
Maximum Green (s)	61.1	61.1	61.1	61.1	61.1	61.1	26.0	26.0		26.0	26.0	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	3.2	3.2	3.2	3.2	3.2	3.2	3.1	3.1		3.1	3.1	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.5	6.5	6.5	6.5	6.5	6.4	6.4		6.4	6.4	
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	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0		19.0	19.0	
Pedestrian Calls (#/hr)	29	29	29	26	26	26	13	13		14	14	
Act Effct Green (s)		67.0	67.0	67.0	67.0	67.0	20.1	20.1		20.1	20.1	
Actuated g/C Ratio		0.67	0.67	0.67	0.67	0.67	0.20	0.20		0.20	0.20	
v/c Ratio		0.52	0.08	0.16	0.18	0.03	0.25	0.40		0.81	0.55	
Control Delay		11.5	2.1	8.9	7.5	2.2	35.0	15.0		64.9	40.5	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		11.5	2.1	8.9	7.5	2.2	35.0	15.0		64.9	40.5	
LOS		B	A	A	A	A	C	B		E	D	
Approach Delay		10.4			7.3			19.6			52.2	
Approach LOS		B			A			B			D	
Queue Length 50th (m)		52.6	0.0	4.0	13.2	0.0	7.5	8.0		31.9	32.3	
Queue Length 95th (m)		92.3	5.2	11.0	25.7	2.8	16.5	23.4		52.8	50.3	
Internal Link Dist (m)		378.4			472.1			344.7			298.3	
Turn Bay Length (m)			40.0	62.0		40.0	52.0			42.0		
Base Capacity (vph)		1117	927	380	1125	861	235	465		276	443	
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		0.52	0.08	0.16	0.18	0.03	0.20	0.33		0.63	0.43	
Intersection Summary												

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CGH Transportation
Page 1

Lanes, Volumes, Timings

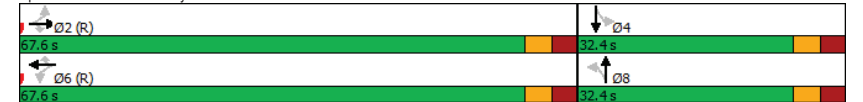
1: Bayview Station Rd & Scott St/Albert St

Existing AM Peak Hour

50 Bayswater Avenue, 1088 Somerset Street West

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 40 (40%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 21.0
Intersection LOS: C
Intersection Capacity Utilization 87.2%
ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 1: Bayview Station Rd & Scott St/Albert St



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CGH Transportation
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Lanes, Volumes, Timings

2: Fairmont Ave & Wellington St W

Existing AM Peak Hour

50 Bayswater Avenue, 1088 Somerset Street West

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↔	↔	↔	↔	↔
Traffic Volume (vph)	228	55	26	159	28	28
Future Volume (vph)	228	55	26	159	28	28
Satd. Flow (prot)	1619	0	0	1650	1420	0
Fit Permitted				0.936	0.976	
Satd. Flow (perm)	1619	0	0	1535	1406	0
Satd. Flow (RTOR)	29				31	
Lane Group Flow (vph)	314	0	0	206	62	0
Turn Type	NA		Perm	NA	Perm	
Protected Phases	2			6		
Permitted Phases			6		8	
Detector Phase	2		6	6	8	
Switch Phase						
Minimum Initial (s)	10.0		10.0	10.0	5.0	
Minimum Split (s)	24.4		15.4	15.4	24.2	
Total Split (s)	45.0		45.0	45.0	25.0	
Total Split (%)	64.3%		64.3%	64.3%	35.7%	
Maximum Green (s)	39.6		39.6	39.6	19.8	
Yellow Time (s)	3.3		3.3	3.3	3.3	
All-Red Time (s)	2.1		2.1	2.1	1.9	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	5.4			5.4	5.2	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	C-Max		C-Max	C-Max	None	
Walk Time (s)	7.0				7.0	
Flash Dont Walk (s)	12.0				12.0	
Pedestrian Calls (#/hr)	78				55	
Act Effct Green (s)	49.0			49.0	13.6	
Actuated g/C Ratio	0.70			0.70	0.19	
v/c Ratio	0.27			0.19	0.21	
Control Delay	6.6			10.8	13.7	
Queue Delay	0.0			0.0	0.0	
Total Delay	6.6			10.8	13.7	
LOS	A			B	B	
Approach Delay	6.6			10.8	13.7	
Approach LOS	A			B	B	
Queue Length 50th (m)	17.3			21.4	3.0	
Queue Length 95th (m)	30.6			35.5	11.2	
Internal Link Dist (m)	57.5			146.4	73.7	
Turn Bay Length (m)						
Base Capacity (vph)	1142			1074	419	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.27			0.19	0.15	
Intersection Summary						

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CGH Transportation
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Lanes, Volumes, Timings

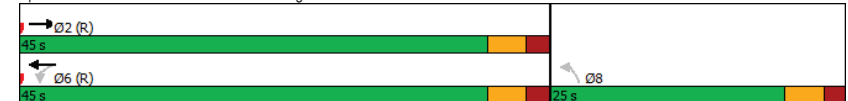
2: Fairmont Ave & Wellington St W

Existing AM Peak Hour

50 Bayswater Avenue, 1088 Somerset Street West

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 65 (93%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.27
Intersection Signal Delay: 8.8
Intersection LOS: A
Intersection Capacity Utilization 55.1%
ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Fairmont Ave & Wellington St W



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CGH Transportation
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Lanes, Volumes, Timings

3: Wellington St W/Somerset St W & Garland St

Existing AM Peak Hour

50 Bayswater Avenue, 1088 Somerset Street West

	EBL	EBT	WBT	WBR	SBL	SBR	Ø4
Lane Group							
Lane Configurations		↕	↕				
Traffic Volume (vph)	23	220	201	10	0	0	
Future Volume (vph)	23	220	201	10	0	0	
Satd. Flow (prot)	0	1652	1650	0	0	0	
Flt Permitted		0.964					
Satd. Flow (perm)	0	1594	1650	0	0	0	
Satd. Flow (RTOR)		8					
Lane Group Flow (vph)	0	270	234	0	0	0	
Turn Type	Perm	NA	NA				
Protected Phases		2	6				4
Permitted Phases	2						
Detector Phase	2	2	6				
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0				5.0
Minimum Split (s)	15.5	15.5	25.5				17.7
Total Split (s)	52.0	52.0	52.0				18.0
Total Split (%)	74.3%	74.3%	74.3%				26%
Maximum Green (s)	46.5	46.5	46.5				12.3
Yellow Time (s)	3.3	3.3	3.3				3.0
All-Red Time (s)	2.2	2.2	2.2				2.7
Lost Time Adjust (s)		0.0	0.0				
Total Lost Time (s)		5.5	5.5				
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0				3.0
Recall Mode	C-Max	C-Max	C-Max				None
Walk Time (s)			14.0				7.0
Flash Dont Walk (s)			5.0				5.0
Pedestrian Calls (#/hr)			34				13
Act Effct Green (s)		65.4	65.4				
Actuated g/C Ratio		0.93	0.93				
v/c Ratio		0.18	0.15				
Control Delay		0.9	1.1				
Queue Delay		0.0	0.0				
Total Delay		0.9	1.1				
LOS		A	A				
Approach Delay		0.9	1.1				
Approach LOS		A	A				
Queue Length 50th (m)		0.0	0.0				
Queue Length 95th (m)		5.3	11.3				
Internal Link Dist (m)		146.4	102.6		69.9		
Turn Bay Length (m)							
Base Capacity (vph)		1488	1541				
Starvation Cap Reductn		0	0				
Spillback Cap Reductn		0	0				
Storage Cap Reductn		0	0				
Reduced v/c Ratio		0.18	0.15				
Intersection Summary							

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CGH Transportation
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Lanes, Volumes, Timings

3: Wellington St W/Somerset St W & Garland St

Existing AM Peak Hour

50 Bayswater Avenue, 1088 Somerset Street West

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 7 (10%), Referenced to phase 2:EBTL and 6:WBT, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 1.0

Intersection LOS: A

Intersection Capacity Utilization 47.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Wellington St W/Somerset St W & Garland St



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CGH Transportation
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HCM 2010 TWSC

4: City laneway & Somerset St W

Existing AM Peak Hour

50 Bayswater Avenue, 1088 Somerset Street West

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↰	↰	↰
Traffic Vol, veh/h	186	3	11	217	4	3
Future Vol, veh/h	186	3	11	217	4	3
Conflicting Peds, #/hr	0	44	44	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	207	3	12	241	4	3

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	254
Stage 1	-	-	253
Stage 2	-	-	265
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1311
Stage 1	-	-	789
Stage 2	-	-	779
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1266
Mov Cap-2 Maneuver	-	-	495
Stage 1	-	-	762
Stage 2	-	-	770

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	582	-	-	1266	-
HCM Lane V/C Ratio	0.013	-	-	0.01	-
HCM Control Delay (s)	11.3	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

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CGH Transportation
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Lanes, Volumes, Timings

5: Baywater Ave & Somerset St W

Existing AM Peak Hour

50 Bayswater Avenue, 1088 Somerset Street West

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↰		↰	↰		↰	↰	↰	↰	↰
Traffic Volume (vph)	26	149	14	30	177	63	12	122	41	97	124	39
Future Volume (vph)	26	149	14	30	177	63	12	122	41	97	124	39
Satd. Flow (prot)	0	1624	1414	0	1652	1363	0	1572	0	1523	1653	0
Fit Permitted		0.936			0.940			0.978		0.664		
Satd. Flow (perm)	0	1526	1291	0	1553	1283	0	1540	0	1039	1653	0
Satd. Flow (RTOR)			45			70		27			27	
Lane Group Flow (vph)	0	195	16	0	230	70	0	195	0	108	181	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8					
Detector Phase	2	2	2	6	6	6	8	8		4	4	
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)	33.5	33.5	33.5	33.5	33.5	33.5	29.9	29.9		29.9	29.9	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0		35.0	35.0	
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	29.5	29.5	29.5	29.5	29.5	29.5	29.1	29.1		29.1	29.1	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	2.2	2.2	2.2	2.2	2.2	2.2	2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)		5.5	5.5		5.5	5.5		5.9		5.9	5.9	
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	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max		Max	Max	
Walk Time (s)	17.0	17.0	17.0	17.0	17.0	17.0	13.0	13.0		13.0	13.0	
Flash Dont Walk (s)	8.0	8.0	8.0	8.0	8.0	8.0	10.0	10.0		10.0	10.0	
Pedestrian Calls (#/hr)	46	46	46	20	20	20	22	22		13	13	
Act Effct Green (s)		29.5			29.5			29.1			29.1	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
v/c Ratio		0.30			0.35			0.30			0.25	
Control Delay		9.7			15.7			13.2			15.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.7			15.7			13.2			15.4	
LOS		A			B			B			B	
Approach Delay		8.9			13.0			13.2			13.6	
Approach LOS		A			B			B			B	
Queue Length 50th (m)		7.6			19.7			13.9			8.9	
Queue Length 95th (m)		8.7			35.2			27.3			19.2	
Internal Link Dist (m)		29.3			373.3			51.0			344.7	
Turn Bay Length (m)			33.0			40.0				58.0		
Base Capacity (vph)		643			570			655			431	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.30			0.35			0.30			0.25	

Intersection Summary												
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CGH Transportation
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Lanes, Volumes, Timings
5: Baywater Ave & Somerset St W

Existing AM Peak Hour
50 Baywater Avenue, 1088 Somerset Street West

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 19 (27%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.35

Intersection Signal Delay: 12.3

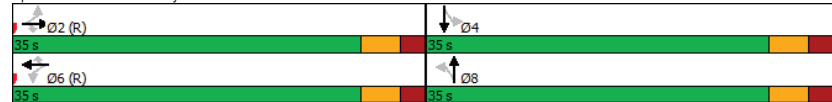
Intersection LOS: B

Intersection Capacity Utilization 88.2%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 5: Baywater Ave & Somerset St W



HCM 2010 TWSC
6: Baywater Ave & 50 Baywater

Existing AM Peak Hour
50 Baywater Avenue, 1088 Somerset Street West

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	3	4	0	180	166	0
Future Vol, veh/h	3	4	0	180	166	0
Conflicting Peds, #/hr	1	5	5	0	0	22
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	4	0	200	184	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	407	211	206
Stage 1	206	-	-
Stage 2	201	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	600	829	1365
Stage 1	829	-	-
Stage 2	833	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	580	812	1342
Mov Cap-2 Maneuver	580	-	-
Stage 1	815	-	-
Stage 2	819	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR
Capacity (veh/h)	1342	-	693	-
HCM Lane V/C Ratio	-	-	0.011	-
HCM Control Delay (s)	0	-	10.3	-
HCM Lane LOS	A	-	B	-
HCM 95th %tile Q(veh)	0	-	0	-

HCM 2010 AWSC
7: Baywater Ave & Laurel St

Existing AM Peak Hour
50 Bayswater Avenue, 1088 Somerset Street West

Intersection												
Intersection Delay, s/veh	8.9											
Intersection LOS	A											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Traffic Vol, veh/h	8	4	8	11	6	15	5	147	8	19	149	4
Future Vol, veh/h	8	4	8	11	6	15	5	147	8	19	149	4
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
Heavy Vehicles, %	2	2	2	9	2	2	40	3	2	5	2	2
Mvmt Flow	9	4	9	12	7	17	6	163	9	21	166	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	7.9			8			9.5			8.6		
HCM LOS	A			A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	40%	34%	11%
Vol Thru, %	92%	20%	19%	87%
Vol Right, %	5%	40%	47%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	160	20	32	172
LT Vol	5	8	11	19
Through Vol	147	4	6	149
RT Vol	8	8	15	4
Lane Flow Rate	178	22	36	191
Geometry Grp	1	1	1	1
Degree of Util (X)	0.242	0.029	0.047	0.23
Departure Headway (Hd)	4.906	4.689	4.738	4.337
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	736	764	757	829
Service Time	2.906	2.711	2.758	2.351
HCM Lane V/C Ratio	0.242	0.029	0.048	0.23
HCM Control Delay	9.5	7.9	8	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	0.1	0.1	0.9

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CGH Transportation
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Lanes, Volumes, Timings
1: Bayview Station Rd & Scott St/Albert St

Existing PM Peak Hour
50 Bayswater Avenue, 1088 Somerset Street West

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (vph)	17	399	84	80	449	183	61	146	59	52	72	25
Future Volume (vph)	17	399	84	80	449	183	61	146	59	52	72	25
Satd. Flow (prot)	0	1725	1483	1537	1728	1483	1658	1647	0	1658	1635	0
Fit Permitted		0.973		0.464			0.687			0.446		
Satd. Flow (perm)	0	1681	1350	728	1728	1378	1155	1647	0	764	1635	0
Satd. Flow (RTOR)			93			203		20			17	
Lane Group Flow (vph)	0	462	93	89	499	203	68	228	0	58	108	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6		8		8		4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
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)	32.5	32.5	32.5	32.5	32.5	32.5	32.4	32.4		32.4	32.4	
Total Split (s)	67.6	67.6	67.6	67.6	67.6	67.6	32.4	32.4		32.4	32.4	
Total Split (%)	67.6%	67.6%	67.6%	67.6%	67.6%	67.6%	32.4%	32.4%		32.4%	32.4%	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	3.2	3.2	3.2	3.2	3.2	3.2	3.1	3.1		3.1	3.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.5	6.5	6.5	6.5	6.5	6.4	6.4		6.4	6.4	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	
Act Effct Green (s)	67.9	67.9	67.9	67.9	67.9	67.9	19.2	19.2		19.2	19.2	
Actuated g/C Ratio	0.68	0.68	0.68	0.68	0.68	0.68	0.19	0.19		0.19	0.19	
v/c Ratio	0.40	0.10	0.18	0.43	0.20	0.31	0.69			0.40	0.33	
Control Delay	9.5	2.0	8.5	9.7	1.7	36.0	44.0			41.1	30.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	
Total Delay	9.5	2.0	8.5	9.7	1.7	36.0	44.0			41.1	30.0	
LOS	A	A	A	A	A	A	D	D		D	C	
Approach Delay	8.2				7.5		42.2			33.9		
Approach LOS	A				A		D			C		
Queue Length 50th (m)	33.5	0.0	5.3	36.9	0.0	11.6	38.4			10.1	15.5	
Queue Length 95th (m)	65.9	5.6	14.7	71.8	8.1	21.8	57.4			20.4	27.9	
Internal Link Dist (m)	378.4			472.1			347.9			298.3		
Turn Bay Length (m)			40.0	62.0		40.0	52.0			42.0		
Base Capacity (vph)	1141	946	494	1173	1000	300	443			198	437	
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	0.10	0.18	0.43	0.20	0.23	0.51			0.29	0.25	

Intersection Summary												
Cycle Length: 100												
Actuated Cycle Length: 100												
Offset: 65 (65%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green												
Natural Cycle: 65												
Control Type: Actuated-Coordinated												

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CGH Transportation
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Lanes, Volumes, Timings

1: Bayview Station Rd & Scott St/Albert St

Existing PM Peak Hour

50 Bayswater Avenue, 1088 Somerset Street West

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 15.8

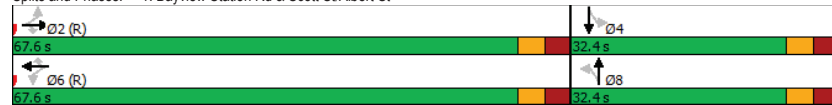
Intersection LOS: B

Intersection Capacity Utilization 93.7%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 1: Bayview Station Rd & Scott St/Albert St



Lanes, Volumes, Timings

2: Fairmont Ave & Wellington St W

Existing PM Peak Hour

50 Bayswater Avenue, 1088 Somerset Street West

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩			↩	↩	
Traffic Volume (vph)	259	64	46	296	36	48
Future Volume (vph)	259	64	46	296	36	48
Satd. Flow (prot)	1599	0	0	1733	1424	0
Fit Permitted				0.917	0.979	
Satd. Flow (perm)	1599	0	0	1566	1384	0
Satd. Flow (RTOR)	29				53	
Lane Group Flow (vph)	359	0	0	380	93	0
Turn Type	NA		Perm	NA	Perm	
Protected Phases	2			6		
Permitted Phases			6		8	
Detector Phase	2		6	6	8	
Switch Phase						
Minimum Initial (s)	10.0		10.0	10.0	5.0	
Minimum Split (s)	24.4		15.4	15.4	24.2	
Total Split (s)	50.0		50.0	50.0	25.0	
Total Split (%)	66.7%		66.7%	66.7%	33.3%	
Yellow Time (s)	3.3		3.3	3.3	3.3	
All-Red Time (s)	2.1		2.1	2.1	1.9	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	5.4			5.4	5.2	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max		C-Max	C-Max	None	
Act Effct Green (s)	51.3			51.3	16.3	
Actuated g/C Ratio	0.68			0.68	0.22	
v/c Ratio	0.33			0.35	0.27	
Control Delay	7.3			5.0	13.9	
Queue Delay	0.0			0.0	0.0	
Total Delay	7.3			5.0	13.9	
LOS	A			A	B	
Approach Delay	7.3			5.0	13.9	
Approach LOS	A			A	B	
Queue Length 50th (m)	20.7			23.5	4.4	
Queue Length 95th (m)	35.5			24.3	15.2	
Internal Link Dist (m)	57.5			146.4	73.7	
Turn Bay Length (m)						
Base Capacity (vph)	1103			1071	404	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.33			0.35	0.23	

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 24 (32%), Referenced to phase 2:EBT and 6:WBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Lanes, Volumes, Timings

2: Fairmont Ave & Wellington St W

Existing PM Peak Hour

50 Bayswater Avenue, 1088 Somerset Street West

Maximum v/c Ratio: 0.35

Intersection Signal Delay: 7.0

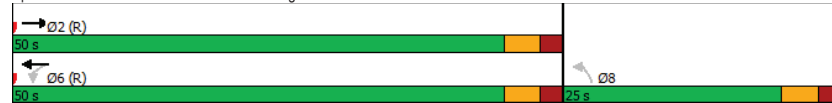
Intersection LOS: A

Intersection Capacity Utilization 67.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 2: Fairmont Ave & Wellington St W



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CGH Transportation
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Lanes, Volumes, Timings

3: Wellington St W/Somerset St W & Garland St

Existing PM Peak Hour

50 Bayswater Avenue, 1088 Somerset Street West

	EBL	EBT	WBT	WBR	SBL	SBR	Ø4
Lane Group							
Lane Configurations		↕	↕				
Traffic Volume (vph)	24	262	332	25	0	0	
Future Volume (vph)	24	262	332	25	0	0	
Satd. Flow (prot)	0	1735	1699	0	0	0	
Flt Permitted		0.954					
Satd. Flow (perm)	0	1645	1699	0	0	0	
Satd. Flow (RTOR)		12					
Lane Group Flow (vph)	0	318	397	0	0	0	
Turn Type	Perm	NA	NA				
Protected Phases		2	6				4
Permitted Phases	2						
Detector Phase	2	2	6				
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0				5.0
Minimum Split (s)	15.5	15.5	25.5				17.7
Total Split (s)	57.0	57.0	57.0				18.0
Total Split (%)	76.0%	76.0%	76.0%				24%
Yellow Time (s)	3.3	3.3	3.3				3.0
All-Red Time (s)	2.2	2.2	2.2				2.7
Lost Time Adjust (s)		0.0	0.0				
Total Lost Time (s)		5.5	5.5				
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	C-Max	C-Max	C-Max				None
Act Effct Green (s)		61.1	61.1				
Actuated g/C Ratio		0.81	0.81				
v/c Ratio		0.24	0.29				
Control Delay		2.0	7.6				
Queue Delay		0.0	0.0				
Total Delay		2.0	7.6				
LOS		A	A				
Approach Delay		2.0	7.6				
Approach LOS		A	A				
Queue Length 50th (m)		5.2	26.9				
Queue Length 95th (m)		9.8	49.7				
Internal Link Dist (m)		146.4	98.8		48.7		
Turn Bay Length (m)							
Base Capacity (vph)		1340	1386				
Starvation Cap Reductn		0	0				
Spillback Cap Reductn		0	0				
Storage Cap Reductn		0	0				
Reduced v/c Ratio		0.24	0.29				
Intersection Summary							
Cycle Length: 75							
Actuated Cycle Length: 75							
Offset: 32 (43%), Referenced to phase 2:EBTL and 6:WBT, Start of Green							
Natural Cycle: 45							
Control Type: Actuated-Coordinated							

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CGH Transportation
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Lanes, Volumes, Timings

3: Wellington St W/Somerset St W & Garland St

Existing PM Peak Hour

50 Bayswater Avenue, 1088 Somerset Street West

Maximum v/c Ratio: 0.29

Intersection Signal Delay: 5.1

Intersection LOS: A

Intersection Capacity Utilization 54.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Wellington St W/Somerset St W & Garland St



HCM 2010 TWSC

4: City laneway & Somerset St W

Existing PM Peak Hour

50 Bayswater Avenue, 1088 Somerset Street West

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩			↩	↩	↩
Traffic Vol, veh/h	262	3	6	374	7	11
Future Vol, veh/h	262	3	6	374	7	11
Conflicting Peds, #/hr	0	118	118	0	4	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	291	3	7	416	8	12

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	845
Stage 1	-	-	411
Stage 2	-	-	434
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1147	333
Stage 1	-	-	669
Stage 2	-	-	653
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1042	299
Mov Cap-2 Maneuver	-	-	299
Stage 1	-	-	607
Stage 2	-	-	645

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	13.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	425	-	-	1042	-
HCM Lane V/C Ratio	0.047	-	-	0.006	-
HCM Control Delay (s)	13.9	-	-	8.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lanes, Volumes, Timings

5: Baywater Ave & Somerset St W

Existing PM Peak Hour

50 Bayswater Avenue, 1088 Somerset Street West

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	225	23	39	301	90	18	156	60	98	120	61
Future Volume (vph)	25	225	23	39	301	90	18	156	60	98	120	61
Satd. Flow (prot)	0	1721	1483	0	1714	1483	0	1601	0	1610	1618	0
Fit Permitted		0.942			0.938			0.970		0.574		
Satd. Flow (perm)	0	1623	1248	0	1601	1320	0	1556	0	923	1618	0
Satd. Flow (RTOR)			42			100		27			40	
Lane Group Flow (vph)	0	278	26	0	377	100	0	260	0	109	201	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	NA	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
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)	30.5	30.5	30.5	30.5	30.5	30.5	28.9	28.9		28.9	28.9	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%	53.3%	53.3%	53.3%	53.3%	46.7%	46.7%		46.7%	46.7%	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	2.2	2.2	2.2	2.2	2.2	2.2	2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		0.0	0.0			0.0		0.0			0.0	
Total Lost Time (s)		5.5	5.5		5.5	5.5		5.9		5.9	5.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max		Max	Max	
Act Effct Green (s)		34.5	34.5		34.5	34.5		29.1		29.1	29.1	
Actuated g/C Ratio		0.46	0.46		0.46	0.46		0.39		0.39	0.39	
v/c Ratio		0.37	0.04		0.51	0.15		0.42		0.30	0.31	
Control Delay		12.0	4.4		17.4	3.4		17.5		18.9	14.2	
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0	0.0	
Total Delay		12.0	4.4		17.4	3.4		17.5		18.9	14.2	
LOS		B	A		B	A		B		B	B	
Approach Delay		11.4			14.5			17.5			15.9	
Approach LOS		B			B			B			B	
Queue Length 50th (m)		28.0	0.3		35.9	0.0		23.2		10.4	15.1	
Queue Length 95th (m)		48.1	4.2		59.0	7.3		41.8		22.2	29.7	
Internal Link Dist (m)		33.0			373.3			50.4			347.9	
Turn Bay Length (m)			33.0			40.0				58.0		
Base Capacity (vph)		746	596		736	661		620		358	652	
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		0.37	0.04		0.51	0.15		0.42		0.30	0.31	

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 63 (84%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

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CGH Transportation
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Lanes, Volumes, Timings

5: Baywater Ave & Somerset St W

Existing PM Peak Hour

50 Bayswater Avenue, 1088 Somerset Street West

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 14.7

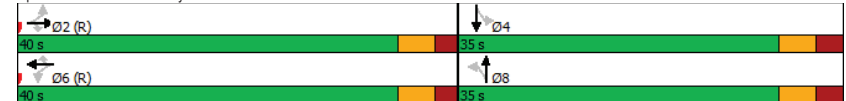
Intersection LOS: B

Intersection Capacity Utilization 95.7%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 5: Baywater Ave & Somerset St W



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CGH Transportation
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HCM 2010 TWSC
6: Baywater Ave & 50 Bayswater

Existing PM Peak Hour
50 Bayswater Avenue, 1088 Somerset Street West

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	2	3	6	239	178	3
Future Vol, veh/h	2	3	6	239	178	3
Conflicting Peds, #/hr	3	4	4	0	0	33
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	3	7	266	198	3

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	516	237	234
Stage 1	233	-	-
Stage 2	283	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	519	802	1333
Stage 1	806	-	-
Stage 2	765	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	489	779	1299
Mov Cap-2 Maneuver	489	-	-
Stage 1	780	-	-
Stage 2	745	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1299	-	630	-	-
HCM Lane V/C Ratio	0.005	-	0.009	-	-
HCM Control Delay (s)	7.8	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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CGH Transportation
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HCM 2010 AWSC
7: Baywater Ave & Laurel St

Existing PM Peak Hour
50 Bayswater Avenue, 1088 Somerset Street West

Intersection												
Intersection Delay, s/veh	8.8											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		W			W			W			W	
Traffic Vol, veh/h	15	1	3	14	6	20	13	206	3	5	159	10
Future Vol, veh/h	15	1	3	14	6	20	13	206	3	5	159	10
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	1	3	16	7	22	14	229	3	6	177	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	8	9.1	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	79%	35%	3%
Vol Thru, %	93%	5%	15%	91%
Vol Right, %	1%	16%	50%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	222	19	40	174
LT Vol	13	15	14	5
Through Vol	206	1	6	159
RT Vol	3	3	20	10
Lane Flow Rate	247	21	44	193
Geometry Grp	1	1	1	1
Degree of Util (X)	0.295	0.029	0.058	0.232
Departure Headway (Hd)	4.309	5.022	4.696	4.317
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	839	713	763	833
Service Time	2.309	3.049	2.721	2.332
HCM Lane V/C Ratio	0.294	0.029	0.058	0.232
HCM Control Delay	9.1	8.2	8	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.2	0.1	0.2	0.9

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CGH Transportation
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Appendix D

Collision Data

Accident Date	Accident Year	Accident Time	Location	Environment Condition	Light	Traffic Control	Traffic Control Condition	Classification Of Accident	Initial Impact Type	Road Surface Condition	# Vehicles	# Motorcycles	# Bicycles	# Pedestrians
5/10/2018	2018	11:14	BAYSWATER AVE @ SOMERSET ST (0006486)	01 - Clear	01 - Daylight	01 - Traffic signal	0	03 - P.D. only	07 - SMV other	01 - Dry	0	0	0	0
12/4/2018	2018	18:28	BAYSWATER AVE @ SOMERSET ST (0006486)	01 - Clear	07 - Dark	01 - Traffic signal	0	03 - P.D. only	03 - Rear end	01 - Dry	0	0	0	0
3/31/2019	2019	10:01	BAYSWATER AVE @ SOMERSET ST (0006486)	02 - Rain	01 - Daylight	01 - Traffic signal	0	02 - Non-fatal injury	03 - Rear end	02 - Wet	0	0	0	0
4/21/2019	2019	10:43	BAYSWATER AVE @ SOMERSET ST (0006486)	01 - Clear	01 - Daylight	01 - Traffic signal	0	02 - Non-fatal injury	02 - Angle	01 - Dry	0	0	0	0
5/24/2019	2019	17:59	BAYSWATER AVE @ SOMERSET ST (0006486)	01 - Clear	01 - Daylight	01 - Traffic signal	0	03 - P.D. only	03 - Rear end	01 - Dry	0	0	0	0
11/20/2019	2019	12:39	BAYSWATER AVE @ SOMERSET ST (0006486)	01 - Clear	01 - Daylight	01 - Traffic signal	0	03 - P.D. only	99 - Other	01 - Dry	0	0	0	0
1/2/2020	2020	13:40	BAYSWATER AVE @ SOMERSET ST (0006486)	01 - Clear	01 - Daylight	01 - Traffic signal	0	03 - P.D. only	05 - Turning movement	06 - Ice	0	0	0	0
3/27/2020	2020	11:20	BAYSWATER AVE @ SOMERSET ST (0006486)	01 - Clear	01 - Daylight	01 - Traffic signal	0	03 - P.D. only	02 - Angle	01 - Dry	0	0	0	0
6/15/2020	2020	17:13	BAYSWATER AVE @ SOMERSET ST (0006486)	01 - Clear	01 - Daylight	01 - Traffic signal	0	03 - P.D. only	02 - Angle	01 - Dry	0	0	0	0
1/8/2018	2018	14:15	SOMERSET ST W btwn BAYSWATER AVE & BREEZEHILL AVE N (___32A31E)	03 - Snow	01 - Daylight	10 - No control	0	02 - Non-fatal injury	02 - Angle	04 - Slush	0	0	0	0
12/19/2018	2018	0:34	SOMERSET ST W btwn BAYSWATER AVE & BREEZEHILL AVE N (___32A31E)	01 - Clear	07 - Dark	10 - No control	0	03 - P.D. only	06 - SMV unattended vehicle	01 - Dry	0	0	0	0
1/8/2019	2019	11:36	SOMERSET ST W btwn BAYSWATER AVE & BREEZEHILL AVE N (___32A31E)	01 - Clear	01 - Daylight	10 - No control	0	03 - P.D. only	02 - Angle	04 - Slush	0	0	0	0
2/21/2020	2020	14:08	SOMERSET ST W btwn BAYSWATER AVE & BREEZEHILL AVE N (___32A31E)	01 - Clear	01 - Daylight	10 - No control	0	02 - Non-fatal injury	02 - Angle	01 - Dry	0	0	0	0
2/15/2022	2022	17:20	SOMERSET ST W btwn BAYSWATER AVE & BREEZEHILL AVE N (___32A31E)	01 - Clear	01 - Daylight	10 - No control	0	03 - P.D. only	03 - Rear end	01 - Dry	0	0	0	0
1/6/2020	2020	12:08	WELLINGTON ST @ BAYSWATER AVE/BAYVIEW RD (0006489)	03 - Snow	01 - Daylight	02 - Stop sign	0	02 - Non-fatal injury	05 - Turning movement	04 - Slush	0	0	0	0
10/15/2020	2020	22:41	WELLINGTON ST @ BAYSWATER AVE/BAYVIEW RD (0006489)	01 - Clear	07 - Dark	02 - Stop sign	0	02 - Non-fatal injury	02 - Angle	02 - Wet	0	0	0	0
1/5/2022	2022	17:10	BAYSWATER AVE btwn SOMERSET ST W & WELLINGTON ST W (___32A31D)	01 - Clear	05 - Dusk	10 - No control	0	03 - P.D. only	99 - Other	01 - Dry	0	0	0	0
3/25/2021	2021	20:12	SOMERSET ST @ SPADINA AVE (0006484)	01 - Clear	07 - Dark	02 - Stop sign	0	02 - Non-fatal injury	05 - Turning movement	01 - Dry	0	0	1	0
7/31/2019	2019	9:52	SOMERSET ST W btwn BAYSWATER AVE & SPADINA AVE (___32A319)	01 - Clear	01 - Daylight	10 - No control	0	03 - P.D. only	02 - Angle	01 - Dry	0	0	0	0
1/24/2020	2020	16:15	SOMERSET ST W btwn BAYSWATER AVE & SPADINA AVE (___32A319)	03 - Snow	01 - Daylight	10 - No control	0	03 - P.D. only	06 - SMV unattended vehicle	04 - Slush	0	0	0	0
2/9/2018	2018	16:27	BAYSWATER AVE btwn LAUREL ST & SOMERSET ST W (___32AAI2)	03 - Snow	01 - Daylight	10 - No control	0	03 - P.D. only	99 - Other	05 - Packed snow	0	0	0	0
10/21/2019	2019	Unknown	BAYSWATER AVE btwn LAUREL ST & SOMERSET ST W (___32AAI2)	01 - Clear	00 - Unknown	10 - No control	0	03 - P.D. only	06 - SMV unattended vehicle	01 - Dry	0	0	0	0
5/10/2020	2020	Unknown	BAYSWATER AVE btwn LAUREL ST & SOMERSET ST W (___32AAI2)	01 - Clear	00 - Unknown	10 - No control	0	03 - P.D. only	06 - SMV unattended vehicle	01 - Dry	0	0	0	0

Appendix E

TDM Checklist

TDM-Supportive Development Design and Infrastructure Checklist:
Non-Residential Developments (office, institutional, retail or industrial)

Legend	
REQUIRED	The Official Plan or Zoning By-law provides related guidance that must be followed
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance

TDM-supportive design & infrastructure measures: Non-residential developments		Check if completed & add descriptions, explanations or plan/drawing references
1. WALKING & CYCLING: ROUTES		
1.1 Building location & access points		
BASIC	1.1.1 Locate building close to the street, and do not locate parking areas between the street and building entrances	<input checked="" type="checkbox"/>
BASIC	1.1.2 Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	<input checked="" type="checkbox"/>
BASIC	1.1.3 Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	<input checked="" type="checkbox"/>
1.2 Facilities for walking & cycling		
REQUIRED	1.2.1 Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations (see <i>Official Plan policy 4.3.3</i>)	<input checked="" type="checkbox"/>
REQUIRED	1.2.2 Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible (see <i>Official Plan policy 4.3.12</i>)	<input checked="" type="checkbox"/>

TDM-supportive design & infrastructure measures: Non-residential developments		Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3 Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks (see <i>Official Plan policy 4.3.10</i>)	<input checked="" type="checkbox"/>
REQUIRED	1.2.4 Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps (see <i>Official Plan policy 4.3.10</i>)	<input checked="" type="checkbox"/>
REQUIRED	1.2.5 Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on-road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians (see <i>Official Plan policy 4.3.11</i>)	<input checked="" type="checkbox"/>
BASIC	1.2.6 Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	<input type="checkbox"/>
BASIC	1.2.7 Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	<input type="checkbox"/>
BASIC	1.2.8 Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	<input type="checkbox"/>
1.3 Amenities for walking & cycling		
BASIC	1.3.1 Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	<input type="checkbox"/>
BASIC	1.3.2 Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	<input type="checkbox"/>

TDM-supportive design & infrastructure measures: Non-residential developments		Check if completed & add descriptions, explanations or plan/drawing references
2. WALKING & CYCLING: END-OF-TRIP FACILITIES		
2.1 Bicycle parking		
REQUIRED	2.1.1 Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible (see <i>Official Plan policy 4.3.6</i>)	<input checked="" type="checkbox"/>
REQUIRED	2.1.2 Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas (see <i>Zoning By-law Section 111</i>)	<input checked="" type="checkbox"/>
REQUIRED	2.1.3 Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored (see <i>Zoning By-law Section 111</i>)	<input checked="" type="checkbox"/>
BASIC	2.1.4 Provide bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met), plus the expected peak number of customer/visitor cyclists	<input type="checkbox"/>
BETTER	2.1.5 Provide bicycle parking spaces equivalent to the expected number of commuter and customer/visitor cyclists, plus an additional buffer (e.g. 25 percent extra) to encourage other cyclists and ensure adequate capacity in peak cycling season	<input type="checkbox"/>
2.2 Secure bicycle parking		
REQUIRED	2.2.1 Where more than 50 bicycle parking spaces are provided for a single office building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers (see <i>Zoning By-law Section 111</i>)	<input checked="" type="checkbox"/>
BETTER	2.2.2 Provide secure bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met)	<input type="checkbox"/>
2.3 Shower & change facilities		
BASIC	2.3.1 Provide shower and change facilities for the use of active commuters	<input type="checkbox"/>
BETTER	2.3.2 In addition to shower and change facilities, provide dedicated lockers, grooming stations, drying racks and laundry facilities for the use of active commuters	<input type="checkbox"/>
2.4 Bicycle repair station		
BETTER	2.4.1 Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	<input type="checkbox"/>

TDM-supportive design & infrastructure measures: Non-residential developments		Check if completed & add descriptions, explanations or plan/drawing references
3. TRANSIT		
3.1 Customer amenities		
BASIC	3.1.1 Provide shelters, lighting and benches at any on-site transit stops	<input type="checkbox"/>
BASIC	3.1.2 Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	<input type="checkbox"/>
BETTER	3.1.3 Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	<input type="checkbox"/>
4. RIDESHARING		
4.1 Pick-up & drop-off facilities		
BASIC	4.1.1 Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	<input type="checkbox"/>
4.2 Carpool parking		
BASIC	4.2.1 Provide signed parking spaces for carpools in a priority location close to a major building entrance, sufficient in number to accommodate the mode share target for carpools	<input type="checkbox"/>
BETTER	4.2.2 At large developments, provide spaces for carpools in a separate, access-controlled parking area to simplify enforcement	<input type="checkbox"/>
5. CARSHARING & BIKESHARING		
5.1 Carshare parking spaces		
BETTER	5.1.1 Provide carshare parking spaces in permitted non-residential zones, occupying either required or provided parking spaces (see <i>Zoning By-law Section 94</i>)	<input type="checkbox"/>
5.2 Bikeshare station location		
BETTER	5.2.1 Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	<input type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Non-residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
6. PARKING		
6.1 Number of parking spaces		
REQUIRED	6.1.1 Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	<input checked="" type="checkbox"/>
BASIC	6.1.2 Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	<input type="checkbox"/>
BASIC	6.1.3 Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly (see <i>Zoning By-law Section 104</i>)	<input type="checkbox"/>
BETTER	6.1.4 Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking (see <i>Zoning By-law Section 111</i>)	<input type="checkbox"/>
6.2 Separate long-term & short-term parking areas		
BETTER	6.2.1 Separate short-term and long-term parking areas using signage or physical barriers, to permit access controls and simplify enforcement (i.e. to discourage employees from parking in visitor spaces, and vice versa)	<input type="checkbox"/>
7. OTHER		
7.1 On-site amenities to minimize off-site trips		
BETTER	7.1.1 Provide on-site amenities to minimize mid-day or mid-commute errands	<input type="checkbox"/>

TDM-Supportive Development Design and Infrastructure Checklist:
Residential Developments (multi-family or condominium)

Legend	
REQUIRED	The Official Plan or Zoning By-law provides related guidance that must be followed
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
1. WALKING & CYCLING: ROUTES		
1.1 Building location & access points		
BASIC	1.1.1 Locate building close to the street, and do not locate parking areas between the street and building entrances	<input checked="" type="checkbox"/>
BASIC	1.1.2 Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	<input checked="" type="checkbox"/>
BASIC	1.1.3 Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	<input checked="" type="checkbox"/>
1.2 Facilities for walking & cycling		
REQUIRED	1.2.1 Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations (see <i>Official Plan policy 4.3.3</i>)	<input checked="" type="checkbox"/>
REQUIRED	1.2.2 Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible (see <i>Official Plan policy 4.3.12</i>)	<input checked="" type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3 Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks (see <i>Official Plan policy 4.3.10</i>)	<input checked="" type="checkbox"/>
REQUIRED	1.2.4 Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps (see <i>Official Plan policy 4.3.10</i>)	<input checked="" type="checkbox"/>
REQUIRED	1.2.5 Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on-road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians (see <i>Official Plan policy 4.3.11</i>)	<input checked="" type="checkbox"/>
BASIC	1.2.6 Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	<input type="checkbox"/>
BASIC	1.2.7 Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	<input type="checkbox"/>
BASIC	1.2.8 Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	<input type="checkbox"/>
1.3 Amenities for walking & cycling		
BASIC	1.3.1 Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	<input type="checkbox"/>
BASIC	1.3.2 Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	<input type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
2. WALKING & CYCLING: END-OF-TRIP FACILITIES		
2.1 Bicycle parking		
REQUIRED	2.1.1 Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible (see <i>Official Plan policy 4.3.6</i>)	<input checked="" type="checkbox"/>
REQUIRED	2.1.2 Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas (see <i>Zoning By-law Section 111</i>)	<input checked="" type="checkbox"/>
REQUIRED	2.1.3 Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored (see <i>Zoning By-law Section 111</i>)	<input checked="" type="checkbox"/>
BASIC	2.1.4 Provide bicycle parking spaces equivalent to the expected number of resident-owned bicycles, plus the expected peak number of visitor cyclists	<input type="checkbox"/>
2.2 Secure bicycle parking		
REQUIRED	2.2.1 Where more than 50 bicycle parking spaces are provided for a single residential building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers (see <i>Zoning By-law Section 111</i>)	<input checked="" type="checkbox"/>
BETTER	2.2.2 Provide secure bicycle parking spaces equivalent to at least the number of units at condominiums or multi-family residential developments	<input type="checkbox"/>
2.3 Bicycle repair station		
BETTER	2.3.1 Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	<input type="checkbox"/>
3. TRANSIT		
3.1 Customer amenities		
BASIC	3.1.1 Provide shelters, lighting and benches at any on-site transit stops	<input type="checkbox"/>
BASIC	3.1.2 Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	<input type="checkbox"/>
BETTER	3.1.3 Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	<input type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
4. RIDESHARING		
4.1 Pick-up & drop-off facilities		
BASIC	4.1.1 Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	<input type="checkbox"/>
5. CARSHARING & BIKESHARING		
5.1 Carshare parking spaces		
BETTER	5.1.1 Provide up to three carshare parking spaces in an R3, R4 or R5 Zone for specified residential uses (see <i>Zoning By-law Section 94</i>)	<input type="checkbox"/>
5.2 Bikeshare station location		
BETTER	5.2.1 Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	<input type="checkbox"/>
6. PARKING		
6.1 Number of parking spaces		
REQUIRED	6.1.1 Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	<input checked="" type="checkbox"/>
BASIC	6.1.2 Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	<input type="checkbox"/>
BASIC	6.1.3 Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly (see <i>Zoning By-law Section 104</i>)	<input type="checkbox"/>
BETTER	6.1.4 Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking (see <i>Zoning By-law Section 111</i>)	<input type="checkbox"/>
6.2 Separate long-term & short-term parking areas		
BETTER	6.2.1 Provide separate areas for short-term and long-term parking (using signage or physical barriers) to permit access controls and simplify enforcement (i.e. to discourage residents from parking in visitor spaces, and vice versa)	<input type="checkbox"/>

TDM Measures Checklist:

Non-Residential Developments (office, institutional, retail or industrial)

Legend	
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance
★	The measure is one of the most dependably effective tools to encourage the use of sustainable modes

TDM measures: <i>Non-residential developments</i>		Check if proposed & add descriptions
1. TDM PROGRAM MANAGEMENT		
1.1 Program coordinator		
BASIC ★	1.1.1 Designate an internal coordinator, or contract with an external coordinator	<input type="checkbox"/>
1.2 Travel surveys		
BETTER	1.2.1 Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	<input type="checkbox"/>
2. WALKING AND CYCLING		
2.1 Information on walking/cycling routes & destinations		
BASIC	2.1.1 Display local area maps with walking/cycling access routes and key destinations at major entrances	<input checked="" type="checkbox"/>
2.2 Bicycle skills training		
<i>Commuter travel</i>		
BETTER ★	2.2.1 Offer on-site cycling courses for commuters, or subsidize off-site courses	<input type="checkbox"/>
2.3 Valet bike parking		
<i>Visitor travel</i>		
BETTER	2.3.1 Offer secure valet bike parking during public events when demand exceeds fixed supply (e.g. for festivals, concerts, games)	<input type="checkbox"/>

TDM measures: <i>Non-residential developments</i>		Check if proposed & add descriptions
3. TRANSIT		
3.1 Transit information		
BASIC	3.1.1 Display relevant transit schedules and route maps at entrances	<input checked="" type="checkbox"/>
BASIC	3.1.2 Provide online links to OC Transpo and STO information	<input type="checkbox"/>
BETTER	3.1.3 Provide real-time arrival information display at entrances	<input type="checkbox"/>
3.2 Transit fare incentives		
<i>Commuter travel</i>		
BETTER	3.2.1 Offer preloaded PRESTO cards to encourage commuters to use transit	<input type="checkbox"/>
BETTER ★	3.2.2 Subsidize or reimburse monthly transit pass purchases by employees	<input type="checkbox"/>
<i>Visitor travel</i>		
BETTER	3.2.3 Arrange inclusion of same-day transit fare in price of tickets (e.g. for festivals, concerts, games)	<input type="checkbox"/>
3.3 Enhanced public transit service		
<i>Commuter travel</i>		
BETTER	3.3.1 Contract with OC Transpo to provide enhanced transit services (e.g. for shift changes, weekends)	<input type="checkbox"/>
<i>Visitor travel</i>		
BETTER	3.3.2 Contract with OC Transpo to provide enhanced transit services (e.g. for festivals, concerts, games)	<input type="checkbox"/>
3.4 Private transit service		
<i>Commuter travel</i>		
BETTER	3.4.1 Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for shift changes, weekends)	<input type="checkbox"/>
<i>Visitor travel</i>		
BETTER	3.4.2 Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for festivals, concerts, games)	<input type="checkbox"/>

TDM measures: <i>Non-residential developments</i>		Check if proposed & add descriptions
4. RIDESHARING		
4.1 Ridematching service		
<i>Commuter travel</i>		
BASIC ★	4.1.1 Provide a dedicated ridematching portal at OttawaRideMatch.com	<input type="checkbox"/>
4.2 Carpool parking price incentives		
<i>Commuter travel</i>		
BETTER	4.2.1 Provide discounts on parking costs for registered carpools	<input type="checkbox"/>
4.3 Vanpool service		
<i>Commuter travel</i>		
BETTER	4.3.1 Provide a vanpooling service for long-distance commuters	<input type="checkbox"/>
5. CARSHARING & BIKESHARING		
5.1 Bikeshare stations & memberships		
BETTER	5.1.1 Contract with provider to install on-site bikeshare station for use by commuters and visitors	<input type="checkbox"/>
<i>Commuter travel</i>		
BETTER	5.1.2 Provide employees with bikeshare memberships for local business travel	<input type="checkbox"/>
5.2 Carshare vehicles & memberships		
<i>Commuter travel</i>		
BETTER	5.2.1 Contract with provider to install on-site carshare vehicles and promote their use by tenants	<input type="checkbox"/>
BETTER	5.2.2 Provide employees with carshare memberships for local business travel	<input type="checkbox"/>
6. PARKING		
6.1 Priced parking		
<i>Commuter travel</i>		
BASIC ★	6.1.1 Charge for long-term parking (daily, weekly, monthly)	<input type="checkbox"/>
BASIC	6.1.2 Unbundle parking cost from lease rates at multi-tenant sites	<input type="checkbox"/>
<i>Visitor travel</i>		
BETTER	6.1.3 Charge for short-term parking (hourly)	<input type="checkbox"/>

TDM measures: <i>Non-residential developments</i>		Check if proposed & add descriptions
7. TDM MARKETING & COMMUNICATIONS		
7.1 Multimodal travel information		
<i>Commuter travel</i>		
BASIC ★	7.1.1 Provide a multimodal travel option information package to new/relocating employees and students	<input checked="" type="checkbox"/>
<i>Visitor travel</i>		
BETTER ★	7.1.2 Include multimodal travel option information in invitations or advertising that attract visitors or customers (e.g. for festivals, concerts, games)	<input type="checkbox"/>
7.2 Personalized trip planning		
<i>Commuter travel</i>		
BETTER ★	7.2.1 Offer personalized trip planning to new/relocating employees	<input type="checkbox"/>
7.3 Promotions		
<i>Commuter travel</i>		
BETTER	7.3.1 Deliver promotions and incentives to maintain awareness, build understanding, and encourage trial of sustainable modes	<input type="checkbox"/>
8. OTHER INCENTIVES & AMENITIES		
8.1 Emergency ride home		
<i>Commuter travel</i>		
BETTER ★	8.1.1 Provide emergency ride home service to non-driving commuters	<input type="checkbox"/>
8.2 Alternative work arrangements		
<i>Commuter travel</i>		
BASIC ★	8.2.1 Encourage flexible work hours	<input type="checkbox"/>
BETTER	8.2.2 Encourage compressed workweeks	<input type="checkbox"/>
BETTER ★	8.2.3 Encourage telework	<input type="checkbox"/>
8.3 Local business travel options		
<i>Commuter travel</i>		
BASIC ★	8.3.1 Provide local business travel options that minimize the need for employees to bring a personal car to work	<input type="checkbox"/>
8.4 Commuter incentives		
<i>Commuter travel</i>		
BETTER	8.4.1 Offer employees a taxable, mode-neutral commuting allowance	<input type="checkbox"/>
8.5 On-site amenities		
<i>Commuter travel</i>		
BETTER	8.5.1 Provide on-site amenities/services to minimize mid-day or mid-commute errands	<input type="checkbox"/>

TDM Measures Checklist:
Residential Developments (multi-family, condominium or subdivision)

Legend	
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance
★	The measure is one of the most dependably effective tools to encourage the use of sustainable modes

TDM measures: <i>Residential developments</i>		Check if proposed & add descriptions
1. TDM PROGRAM MANAGEMENT		
1.1 Program coordinator		
BASIC ★	1.1.1 Designate an internal coordinator, or contract with an external coordinator	<input type="checkbox"/>
1.2 Travel surveys		
BETTER	1.2.1 Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	<input type="checkbox"/>
2. WALKING AND CYCLING		
2.1 Information on walking/cycling routes & destinations		
BASIC	2.1.1 Display local area maps with walking/cycling access routes and key destinations at major entrances (<i>multi-family, condominium</i>)	<input checked="" type="checkbox"/>
2.2 Bicycle skills training		
BETTER	2.2.1 Offer on-site cycling courses for residents, or subsidize off-site courses	<input type="checkbox"/>

TDM measures: Residential developments		Check if proposed & add descriptions
3. TRANSIT		
3.1 Transit information		
BASIC	3.1.1 Display relevant transit schedules and route maps at entrances (<i>multi-family, condominium</i>)	<input checked="" type="checkbox"/>
BETTER	3.1.2 Provide real-time arrival information display at entrances (<i>multi-family, condominium</i>)	<input type="checkbox"/>
3.2 Transit fare incentives		
BASIC ★	3.2.1 Offer PRESTO cards preloaded with one monthly transit pass on residence purchase/move-in, to encourage residents to use transit	<input checked="" type="checkbox"/>
BETTER	3.2.2 Offer at least one year of free monthly transit passes on residence purchase/move-in	<input type="checkbox"/>
3.3 Enhanced public transit service		
BETTER ★	3.3.1 Contract with OC Transpo to provide early transit services until regular services are warranted by occupancy levels (<i>subdivision</i>)	<input type="checkbox"/>
3.4 Private transit service		
BETTER	3.4.1 Provide shuttle service for seniors homes or lifestyle communities (e.g. scheduled mall or supermarket runs)	<input type="checkbox"/>
4. CARSHARING & BIKESHARING		
4.1 Bikeshare stations & memberships		
BETTER	4.1.1 Contract with provider to install on-site bikeshare station (<i>multi-family</i>)	<input type="checkbox"/>
BETTER	4.1.2 Provide residents with bikeshare memberships, either free or subsidized (<i>multi-family</i>)	<input type="checkbox"/>
4.2 Carshare vehicles & memberships		
BETTER	4.2.1 Contract with provider to install on-site carshare vehicles and promote their use by residents	<input type="checkbox"/>
BETTER	4.2.2 Provide residents with carshare memberships, either free or subsidized	<input type="checkbox"/>
5. PARKING		
5.1 Priced parking		
BASIC ★	5.1.1 Unbundle parking cost from purchase price (<i>condominium</i>)	<input checked="" type="checkbox"/>
BASIC ★	5.1.2 Unbundle parking cost from monthly rent (<i>multi-family</i>)	<input checked="" type="checkbox"/>

TDM measures: Residential developments		Check if proposed & add descriptions
6. TDM MARKETING & COMMUNICATIONS		
6.1 Multimodal travel information		
BASIC ★	6.1.1 Provide a multimodal travel option information package to new residents	<input checked="" type="checkbox"/>
6.2 Personalized trip planning		
BETTER ★	6.2.1 Offer personalized trip planning to new residents	<input type="checkbox"/>

Appendix F

MMLOS Analysis

Multi-Modal Level of Service - Segments Form

Consultant
Scenario
Comments

CGH Transportation Inc.
Existing/Future

Project
Date

2023-020
2/25/2025

SEGMENTS			Somerset Street West	Somerset Street West	Bayswater Avenue	Bayswater Avenue
			Existing	Future	Existing	Future
Pedestrian	Sidewalk Width	-	≥ 2 m	≥ 2 m	1.8 m	1.8 m
	Boulevard Width		< 0.5	> 2 m	< 0.5 m	> 2 m
	Avg Daily Curb Lane Traffic Volume		≤ 3000	≤ 3000	≤ 3000	≤ 3000
	Operating Speed		> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h	> 50 to 60 km/h
	On-Street Parking		yes	yes	no	no
	Exposure to Traffic PLoS		C	A	C	A
	Effective Sidewalk Width					
	Pedestrian Volume					
Crowding PLoS			-	-	-	-
Level of Service			-	-	-	-
Bicycle	Type of Cycling Facility	A	Mixed Traffic	Physically Separated	Mixed Traffic	Curbside Bike Lane
	Number of Travel Lanes		2-3 lanes total		2-3 lanes total	2 ea. dir. (no median)
	Operating Speed		≥ 50 to 60 km/h		≥ 50 to 60 km/h	≤ 50 km/h
	# of Lanes & Operating Speed LoS		E	-	E	B
	Bike Lane (+ Parking Lane) Width					
	Bike Lane Width LoS		-	-	-	-
	Bike Lane Blockages					
	Blockage LoS		-	-	-	-
	Median Refuge Width (no median = < 1.8 m)					
	No. of Lanes at Unsignalized Crossing					
	Sidestreet Operating Speed					
	Unsignalized Crossing - Lowest LoS		-	A	-	-
Level of Service			-	A	-	-
Transit	Facility Type	D	Mixed Traffic	Mixed Traffic		
	Friction or Ratio Transit:Posted Speed		Vt/Vp ≥ 0.8	Vt/Vp ≥ 0.8		
	Level of Service		D	D	-	-
Truck	Truck Lane Width	C	> 3.7 m	≤ 3.5 m		
	Travel Lanes per Direction		1	1		
	Level of Service		B	C	-	-