210 Clearview Avenue

Transportation Impact Assessment

Step 1 Screening Report

Step 2 Scoping Report

Step 3 Strategy Report

Prepared for:

Homestead Land Holdings Limited
80 Johnson Street
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Prepared by:

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October 2024

PN: 2024-030

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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 site plan application.

2 Existing and Planned Conditions

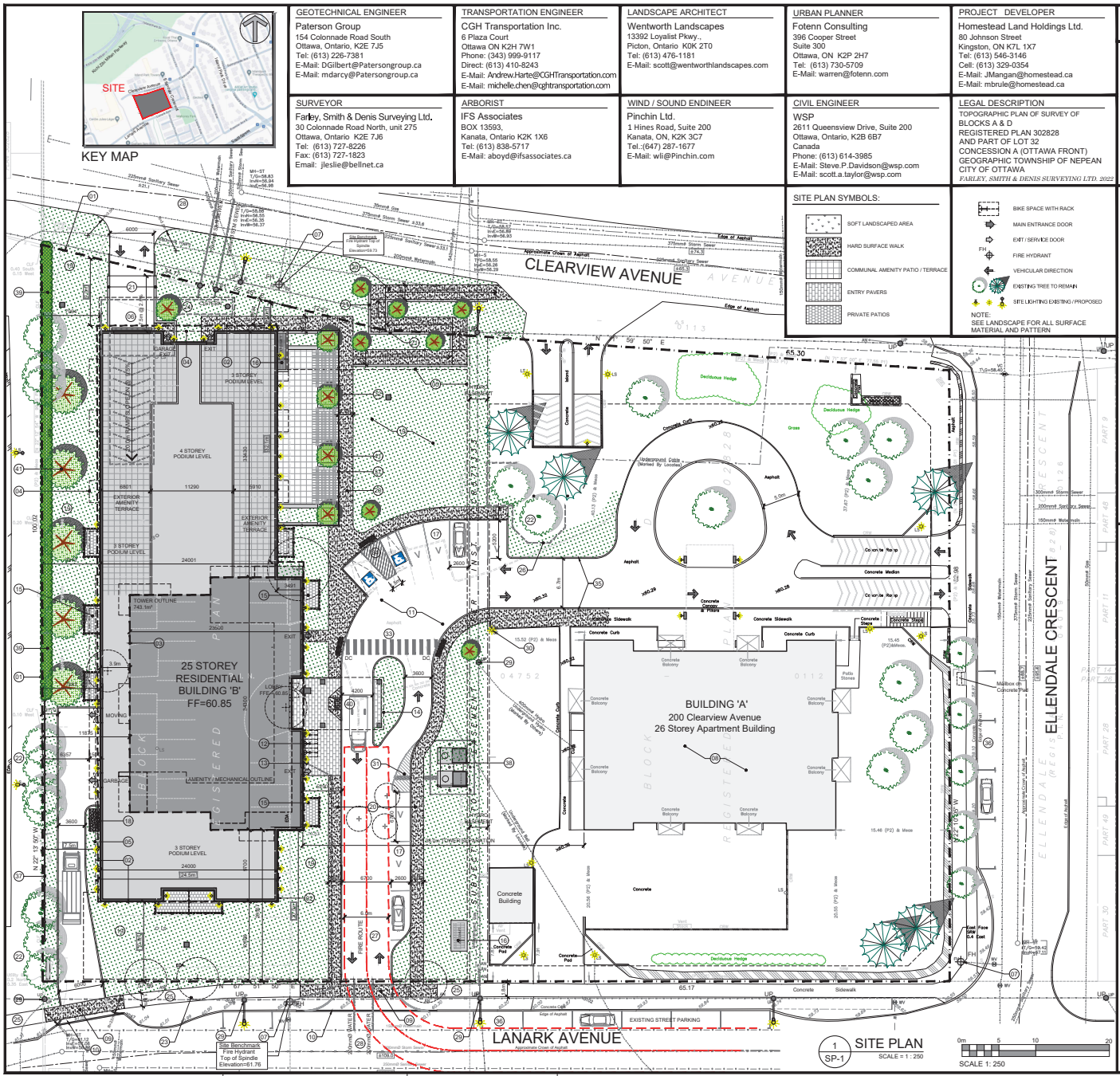
2.1 Proposed Development

The existing site, located at 200 Clearview Avenue, is planned to redevelop the existing surface parking lot. Approximately 103 existing surface parking spaces will be replaced with the two-level underground parking. The proposed development address will become 210 Clearview Avenue. The proposed building will consist of a four-storey podium and 25-storey tower with a total of 184 apartment units. The existing 26-storey apartment building will remain on the east side of the parcel with 110 existing parking spaces located underground. The two existing accesses to the surface parking lot will be converted to an access to the underground parking from Clearview Avenue and the Lanark Avenue access will be to the loading area. A new loop will be created from the existing drive aisle from Ellendale Crescent to connect to Lanark Avenue at a new access. A total of 233 residential vehicle parking spaces, 17 visitor parking spaces, and 217 bike parking spaces are proposed. Among these parking spaces, a total of ten vehicle parking spaces and ten bicycle parking spaces are proposed to be located on the surface, while the remaining spaces are planned for the underground levels. The anticipated full build-out and occupancy horizon is 2027 with construction occurring in a single phase. The site is zoned as Residential Fifth Density Zone (R5C[2909]S216) and located within the Richmond Road/Westboro secondary plan and Richmond Road/Westboro community design plan areas. 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: August 14, 2024

Figure 2: Concept Plan



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LEGAL DESCRIPTION
TOPOGRAPHIC PLAN OF SURVEY OF
BLOCKS A & D
REGISTERED PLAN 302828
AND PART OF LOT 32
CONCESSION A (OTTAWA FRONT)
GEOGRAPHIC TOWNSHIP OF NEPEAN
CITY OF OTTAWA
FARLEY, SMITH & DENIS SURVEYING LTD. 2022

SITE PLAN SYMBOLS:

- SOFT LANDSCAPED AREA
- HARD SURFACE WALK
- COMMUNAL AMENITY PATIO / TERRACE
- ENTRY PAVERS
- PRIVATE PATIOS
- BIKE SPACE WITH RACK
- MAIN ENTRANCE DOOR
- EXIT / SERVICE DOOR
- FIRE HYDRANT
- VEHICULAR DIRECTION
- EXISTING TREE TO REMAIN
- SITE LIGHTING EXISTING / PROPOSED

NOTE:
SEE LANDSCAPE FOR ALL SURFACE MATERIAL AND PATTERN

PROJECT INFORMATION

Zoning By-law 2008-250 Consolidation RSC[2909] S216

SITE AREA 1.1 ha. 10,956.0 sq. m. 117,929 sq. ft.

ZONING	REQUIRED	PROVIDED
BUILDING HEIGHT	25 STOREYS / 80.0m	25 STOREYS / 79.0m
GRADE (GEODETIC ELEVATION - ASL)	60.75m ASL	60.75m ASL
INTERIOR YARD SETBACK (WEST)	7.5m	7.8m
CORNER YARD SETBACK (LANARK AVENUE)	10.8m	10.8m
CORNER YARD SETBACK (CLEARVIEW AVENUE)	3.0m	3.6m
MAXIMUM TOWER FLOOR PLATE (25.5m X 36.0m)	918.0m²	743.1m²
AMENITY AREA - TOTAL 6.0m² PER UNIT	1,104.0m²	2,860.0m²
AMENITY AREA - 50% COMMUNAL PER UNIT	552.0m²	1,960m²
VEHICLE PARKING: RESIDENTIAL - 0.5 PER UNIT AFTER 12 UNITS	86	233
VEHICLE PARKING: VISITOR - 0.1 PER UNIT AFTER 12 UNITS	17	17
VEHICLE PARKING: RESIDENTIAL - MAX. 1.75 PER UNIT	322	250
BICYCLE PARKING - RESIDENTIAL - 1.0 PER UNIT	184	217
AISLE & DRIVEWAY MINIMUM / MAXIMUM WIDTH	6.7m	6.7m
LANDSCAPE OPENED AREA	30%	52.4%

FULL SITE

GROSS BUILDING AREA
(CITY OF OTTAWA'S DEFINITION)

EX. TOWER "A" - 26 STOREY (BASED ON A 85% EFFICIENCY	17,249.5 sq. m. 185,672 sq. ft.
NEW TOWER "B" - 25 STOREY	16,184.5 sq. m. 174,208 sq. ft.
TOTAL AREA	33,434.0 sq. m. 359,880 sq. ft.

RESIDENTIAL UNITS

EX. TOWER "A" - 26 STOREY	224
NEW TOWER "B" - 25 STOREY	184
TOTAL	408

PARKING SPACES

EX. BUILDING 'A' - P1 LEVEL	110
BUILDING 'B' - P2 LEVEL	123
BUILDING 'B' - P1 LEVEL	117
BUILDING 'B' - SURFACE SPACES	10
TOTAL	360

LOT COVERAGE

PAVED SURFACE	2,365.5 sq. m.	21.6%
LANDSCAPE OPEN SPACE	5,742.2 sq. m.	52.4%
EX. BUILDING "A"	829.3 sq. m.	7.6%
EX. ACCESSORY USE BUILDING	45.0 sq. m.	0.4%
PROPOSED BUILDING "B"	1,974.0 sq. m.	18.0%
TOTAL	10,956.0 sq. m.	100.0%

DRAWING NOTES:

1. PROPERTY LINE
2. BUILDING SETBACK LINE
3. OUTLINE OF TOWER
4. LINE OF BALCONIES ABOVE
5. LINE OF PARKING GARAGE BELOW
6. RAMP TO U/G GARAGE WITH TRENCH DRAIN
7. FIRE HYDRANT - EXISTING / PROPOSED
8. EXISTING HIGH RISE APARTMENT BUILDING
9. SIDEWALK, CONTINUOUS AND DEPRESSED @ DRIVEWAY
10. DEPRESSED STREET CURB
11. ASPHALT ROAD WITH CONCRETE BARRIER CURBS
12. BICYCLE RACKS, SEE LANDSCAPE PLAN FOR TYPE
13. SIAMESE CONNECTION
14. ENTRANCE CANOPY WITH SUPPORT COLUMNS
15. PRIVATE PATIO WITH 1.2m HT.PRIVACY FENCE
16. INTAKE / EXHAUST SHAFT
17. VISITOR PARKING SPACES
18. GAS PRESSURE RELEASE STATION
19. SOFT LANDSCAPING
20. CONCRETE WALKWAY, WIDTH AS NOTED
21. CONCRETE RETAINING WALL, RAILING AS REQUIRED
22. EXISTING TREE TO REMAIN, PROTECT AS REQUIRED
23. EXISTING TREE TO BE REMOVED
24. CISTERN SEE CIVIL AND MECHANICAL FOR DETAILS
25. EXISTING CITY SIDEWALK TO REMAIN
26. TREE PROTECTION FENCE AS PER TCR
27. 6.0 METRE WIDE FIRE ROUTE
28. PROPOSED SERVICES, SEE CIVIL
29. EXISTING UTILITY / LIGHT POLE
30. SITE LIGHTING - SEE ELECTRICAL SITE PLAN
31. PAINTED ISLAND
32. RAISED PLANTERS AT AMENITY AREA, SEE LANDSCAPE
33. CROSSWALK WITH DEPRESSED CURB AND TWSI
34. ACCESSIBLE PARKING SPACES WITH 1.5m WIDE AISLE, DEPRESSED CURB & TWSI
35. RE-ALINE DRIVEWAY AND SIDEWALK
36. EXISTING STREET PARKING TO REMAIN
37. 2.1m HT. SOLID WOOD FENCE
38. HYDRO TRANSFORMER & SWITCHGEAR EQUIPMENT
39. PRIVACY HEDGE, SEE LANDSCAPE
40. ACCESSIBLE PASSENGER LOADING AREA WITH TWSI
41. TREE, SEE LANDSCAPE

PROPOSED - BUILDING "B"

BUILDING STATISTICS

GROSS BUILDING - AREA
(CITY OF OTTAWA'S DEFINITION)

PARKING LEVEL		0.0 sq. m. 0 sq. ft.
GROUND FLOOR		704.0 sq. m. 7,578 sq. ft.
2nd & 3rd FLOOR	2 x 1,648.6 sq. m. 2 x 17,745 sq. ft.	3,297.1 sq. m. 35,490 sq. ft.
4th FLOOR		347.3 sq. m. 3,738 sq. ft.
5th - 20th FLOOR	16 x 599.13 sq. m. 16 x 6,449 sq. ft.	9,586.1 sq. m. 103,184 sq. ft.
21st FLOOR		561.0 sq. m. 6,039 sq. ft.
22nd FLOOR		574.4 sq. m. 6,183 sq. ft.
23rd FLOOR		557.2 sq. m. 5,998 sq. ft.
24th FLOOR		557.2 sq. m. 5,998 sq. ft.
25th FLOOR AMENITY / MECH. PENT.		0 sq. m. 000 sq. ft.
TOTAL AREA		16,184.5 sq. m. 174,208 sq. ft.
TOWER FOOTPRINT		743.2 sq. m. 8,000 sq. ft.

UNIT STATISTICS

STUDIO UNIT	0
1 BEDROOM UNIT	54
1 BEDROOM + DEN UNIT	0
2 BEDROOM UNIT	130
2 BEDROOM + DEN UNIT	0
TOTAL	184

CAR PARKING 184 UNITS

REQUIRED by ZONING BY-LAW

RESIDENCE	- 0.5 PER UNIT (184 UNITS) (AFTER 12 UNITS)	86
VISITOR	- 0.1 PER DWELLING UNIT (AFTER 12 UNITS)	17
TOTAL		103

PROVIDED

RESIDENCE	- 0.6 PER UNIT	233
VISITOR	- 0.1 PER UNIT	17
TOTAL		250

REQUIRED ACCESSIBLE PARKING

TYPE 'A'	3.40 x 5.20	1
TYPE 'B'	2.40 x 5.20	0
TOTAL		1

PARKING SPACE TYPE

STANDARD PARKING SPACE (2.60 x 5.20)	193
SMALL CAR SPACE (2.40 x 4.60)	50
PARALLEL PARKING SPACE (2.60 x 6.70)	3
BARRIER FREE SPACE TYPE A (3.40 x 5.20)	3
BARRIER FREE SPACE TYPE B (2.40 x 5.20)	1

BICYCLE PARKING 184 UNITS

REQUIRED

RESIDENCE	- 1.0 PER UNIT	184

PROVIDED

P2 U/G PARKING LEVEL	66
P1 U/G PARKING LEVEL	142
EXTERIOR AT GRADE	10
TOTAL	217

AMENITY SPACE

GROUND FLOOR COMMUNAL INTERIOR =	355.0 sq. m.
GROUND FLOOR COMMUNAL EXTERIOR =	115.0 sq. m.
4th FLOOR COMMUNAL INTERIOR =	520.0 sq. m.
4th FLOOR COMMUNAL TERRACE =	500.0 sq. m.
25th FLOOR COMMUNAL INTERIOR =	230.0 sq. m.
25th FLOOR COMMUNAL TERRACE =	240.0 sq. m.
PRIVATE BALCONIES / TERRACE =	900.0 sq. m.
TOTAL =	2,860.0 sq. m.
TOTAL COMMUNAL =	1,960.0 sq. m.
REQUIRED - 6.0m² PER UNIT (184) =	1,104.0 sq. m.
REQUIRED COMMUNAL @ 50% =	552.0 sq. m.

REFUSE REQUIREMENT 184 UNITS

GARBAGE	- 0.11 PER UNIT	20 YARDS
RECYCLING GMP	- 0.018 PER UNIT	4 YARDS
RECYCLING FIBER	- 0.038 PER UNIT	7 YARDS
COMPOST	- 240L PER 50 UNITS	4

IT IS THE RESPONSIBILITY OF THE APPROPRIATE CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON SITE AND TO REPORT ALL ERRORS AND/OR OMISSIONS TO THE ARCHITECT.

ALL CONTRACTORS MUST COMPLY WITH ALL PERTINENT CODES AND BY-LAWS.

THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION UNTIL SIGNED BY THE ARCHITECT.

DO NOT SCALE DRAWINGS.

NOTATION SYMBOLS:

- (00) INDICATES DRAWING NOTES, LISTED ON EACH SHEET.
- (00) INDICATES ASSEMBLIE TYPE; REFER TO TYPICAL ASSEMBLIES SCHEDUAL.
- (00) INDICATES WINDOW TYPE; REFER TO WINDOW ELEVATIONS AND DETAILS ON A900 SERIES.
- (000) INDICATES DOOR TYPE; REFER TO DOOR SCHEDULE AND DETAILS ON A900 SERIES.
- 00 DETAIL NUMBER / TITLE
- 00 / 0000 DETAIL REFERENCE PAGE
- DETAIL CROSS REFERENCE PAGE

GENERAL NOTES:

A. REFER TO TYPICAL ASSEMBLIES SHEET FOR WALL, PARTITION, ROOF CEILING & FLOOR TYPES.

B. FOR DOOR TYPES AND HARDWARE REQUIREMENTS REFER TO DOOR SCHEDULE ON A900 SERIES.

C. ALL INTERIOR DIMENSIONS ARE TAKEN FROM THE FACE OF DRYWALL.

D. ALL EXTERIOR DIMENSIONS ARE TAKEN FROM THE FACE OF CLADDING.

E. ALL EXTERIOR WALLS ARE TO BE TYPE 'W1' UNLESS NOTED OTHER WISE.

F. ALL INTERIOR PARTITIONS ARE TO BE TYPE 'P1' UNLESS NOTED OTHER WISE.

No.	DESCRIPTION	DATE (D/M/Y)
7	ISSUED FOR SITE PLAN CONTROL APPLICATION	2024-09-30
6	ISSUED FOR OWNER / CONSULTANT REVIEW	2024-09-04
5	ISSUED FOR OWNER / CONSULTANT REVIEW	2024-07-04
4	ISSUED FOR OWNER / CONSULTANT REVIEW	2024-03-14
3	ISSUED FOR OPA & ZA ROUND 3 COMMENT	2023-06-05
2	ISSUED FOR OPA & ZA ROUND 2 COMMENT	2023-03-17
1	ISSUED FOR ZONING APPLICATION	2021-05-28

REVISIONS:

ARCHITECT SEAL: ONTARIO ASSOCIATION OF ARCHITECTS — RODERICK LAHEY — LICENCE 4575 — SEAL DATE: STAMP DATE

NORTH ARROW:

CLIENT: HOMESTEAD
Homestead Land Holdings Ltd.
80 Johnson Street, Kingston

ARCHITECT: rla/architecture
roderick lahey architect inc.
56 beech street, ottawa, ontario K1S 3J6
t. 613.724.9932 | 613.724.1209 rlaarchitecture.ca

PROJECT TITLE:
210 CLEARVIEW AVENUE
OTTAWA ONTARIO

SHEET TITLE:
SITE PLAN
BLDG. 'B'

DRAWN:	CHECKED:
R.V.	JS
SCALE: 1:250	SHEET No. SP-1
PROJECT No. 2117	

2.2 Existing Conditions

2.2.1 Area Road Network

Island Park Drive: Island Park Drive is a federally owned arterial road with a two-lane urban cross-section. Bike lanes and pathways are provided on both sides of the road. The posted speed limit is 40 km/h, and the existing right-of-way within the study area is 30.5 metres.

Kichi Zibi Mikan Parkway (Previous Sir John A. Macdonald Parkway): Kichi Zibi Mikan Parkway is a federally owned arterial road with a divided, four-lane urban cross-section. A pathway is provided on the south side of the roadway within the study area. The posted speed limit is 60km/h east of Island Park Drive and 50 km/h west of Island Park Drive. The existing right-of-way throughout the study area varies along adjacent properties.

Churchill Avenue: Churchill Avenue is a City of Ottawa arterial road with a two-lane urban cross-section south of Scott Street, a collector road between Scott Street and Lanark Avenue, and a local road north of Lanark Avenue. Sidewalks are provided on both sides of the roadway south of Lanark Avenue. The unposted speed limit is 50 km/h. Parking is permitted on both sides of the road north of Scott Street and for a maximum of one hour on both sides of the road south of Scott Street from 7 AM to 7 PM. The existing right-of-way within the study area is 21.0 metres. Churchill Avenue south of Scott Street is designated as a truck route.

Scott Street: Scott Street is a City of Ottawa arterial road with a three-lane urban cross-section, with an eastbound transit lane to the west of Island Park Drive and a continuous left-turn lane to the east of Island Park Drive. On the north side of the road, a multi-use pathway is present, and on the south side a sidewalk and cycletrack are provided west of Lanark Avenue, a cycletrack with a pathway outside of the right-of-way between Lanark Avenue and Island Park Drive, and a sidewalk and cycletrack east of Island Park Drive. The posted speed limit is 50 km/h, and the City-protected right-of-way is 26.0 metres. Scott Street is designated as a truck route.

Lanark Avenue: Lanark Avenue is a City of Ottawa collector road with a two-lane urban cross-section. Sidewalks are located on both sides of the roadway. The posted speed limit is 40km/h on school days between 7:00 AM to 9:00 AM and 2:00 PM to 5:00 PM. The existing right-of-way within the study area is 20.5 metres.

Clearview Avenue: Clearview Avenue is a City of Ottawa local road with a two-lane urban cross-section east of Ellendale Crescent and a two-lane rural cross-section west of Ellendale Crescent. Sidewalks are present on both sides of the roadway between Ellendale Crescent and Latchford Road, on the north side of the road between Latchford Road and Island Park Drive, and on both sides east of Island Park Drive. The posted speed limit is 40 km/h, and parking is permitted on the south side of the road west of Ellendale Crescent. 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:

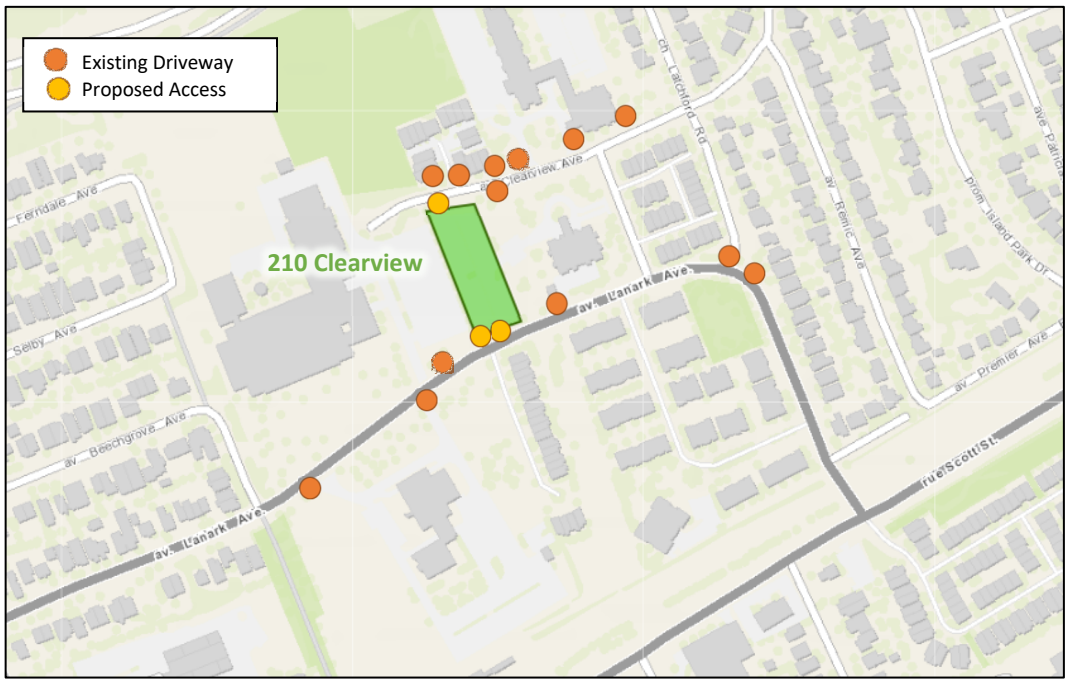
Island Park Drive at Kichi Zibi Mikan Parkway	The intersection of Island Park Drive at Kichi Zibi Mikan Parkway is a signalized intersection. Island Park Drive will be considered the north-south roadway. The northbound approach has a through lane, a bike lane, and an auxiliary channelized right-turn lane, and the southbound approach has an auxiliary left-turn lane, a left-turn lane, a through lane, a bike lane, and an auxiliary channelized right-turn lane. The eastbound and the westbound approaches each consist of an auxiliary left-turn lane, two through lanes, and an auxiliary channelized right-turn lane. Northbound left turns are prohibited, and

	an additional westbound right-turn prohibition is included between the channelized right-turn and the intersection.
Island Park Drive at Clearview Avenue	The intersection of Island Park Drive and Clearview Avenue is a stop-controlled intersection on the minor approaches of Clearview Avenue. Island Park Drive will be considered the north-south roadway. The northbound and southbound approaches each consists of a shared all-movement lane and a bike lane. The eastbound and westbound approaches each consists of a shared all-movement lane. The vehicles are prohibited from making westbound right-turn and eastbound left-turn movements during weekdays between 3:30 – 6:00 PM. Bicycles are permitted to make these movements, and authorized vehicles are permitted to make eastbound left-turn movement. Trucks are restricted from accessing the east leg. A pedestrian cross-over is provided across Island Park Drive on the north side of the intersection.
Island Park Drive at Scott Street	The intersection of Island Park Drive at Scott Street is a signalized intersection. The northbound approach consists of a shared all-movement lane, and the southbound approach consists of an auxiliary left-turn lane and a shared through/right-turn lane. The eastbound approach consists of an auxiliary left-turn lane, a through lane, and a shared bus lane/right-turn lane, and the westbound approaches each consists of left-turn lane, a through lane, and an auxiliary right-turn lane. A bus stop is located in the eastbound auxiliary right-turn lane and a queue-jump style receiving lane is provided on the east side of the intersection to merge transit into the general travel lane. Bike crossrides are provided for all directions.
Lanark Avenue at *Scott Street*	The intersection of Lanark Avenue at Scott Street is a signalized intersection. The northbound, southbound, and westbound approaches each consists of an auxiliary left-turn lane and a shared through/right-turn lane. The eastbound approach consists of an auxiliary left-turn lane, a through, and a shared bus lane/right-turn lane. No turn restrictions were noted. Bike cross rides are provided for all directions.
Lanark Avenue at *Churchill Avenue*	The intersection of Lanark Avenue at Churchill Avenue is an all-way stop-controlled T-intersection. The northbound approach consists of a shared through/right-turn land, and the southbound approach consists of a shared left-turn/through lane. The westbound approach consists of a shared left-turn/right-turn lane. No turn restrictions were noted.

2.2.3 Existing Driveways

Within 200 metres of the site accesses, one driveway to a school, two driveways to an office, one driveway to a high-rise building, and two driveways to two dwelling units are located on Lanark Avenue. Four driveways to three high-rise buildings and three driveways to six townhouses are on Clearview Avenue. Figure 3 illustrates the existing driveways.

Figure 3: Existing Driveways



Source: http://maps.ottawa.ca/geoOttawa/ Accessed: August 16, 2024

2.2.4 Cycling and Pedestrian Facilities

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

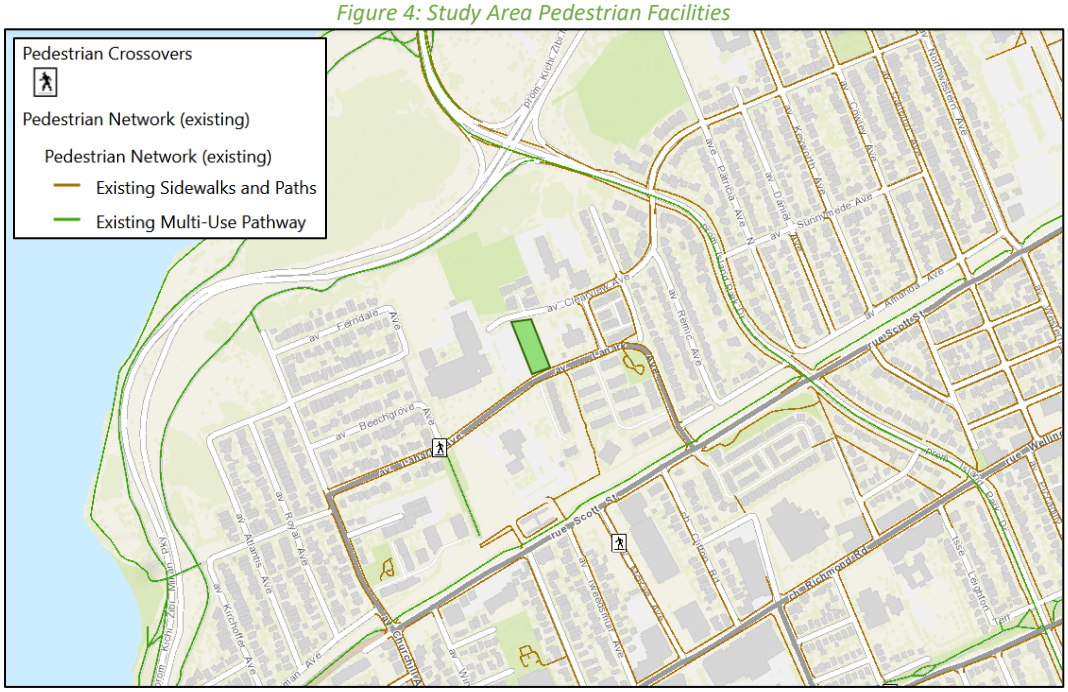
Sidewalks are provided on both sides along Lanark Avenue, Churchill Avenue south of Lanark Avenue, and on the south side along Scott Street. Along Clearview Avenue, sidewalks are presented on both sides between Ellendale Crescent and Latchford Road, on the north side of the road between Latchford Road and Island Park Drive, and on both sides east of Island Park Drive. A pedestrian pathway extends south of Lanark Avenue between the 200 Lanark Avenue and 38 Metropole Private properties, and loops to Westboro Station. Multi use pathways are present on the north side of Scott Street and another connects Lanark Avenue from the Beechgrove Avenue intersection to the Westboro Station.

Pedestrian crossovers are present at the intersections of Beechgrove Avenue at Lanark Avenue and Island Park Drive at Clearview Avenue.

Bike lanes are provided on both sides along Island Park Drive, and Scott Street has a multi-use pathway on the north side and an eastbound cycle track on the south side.

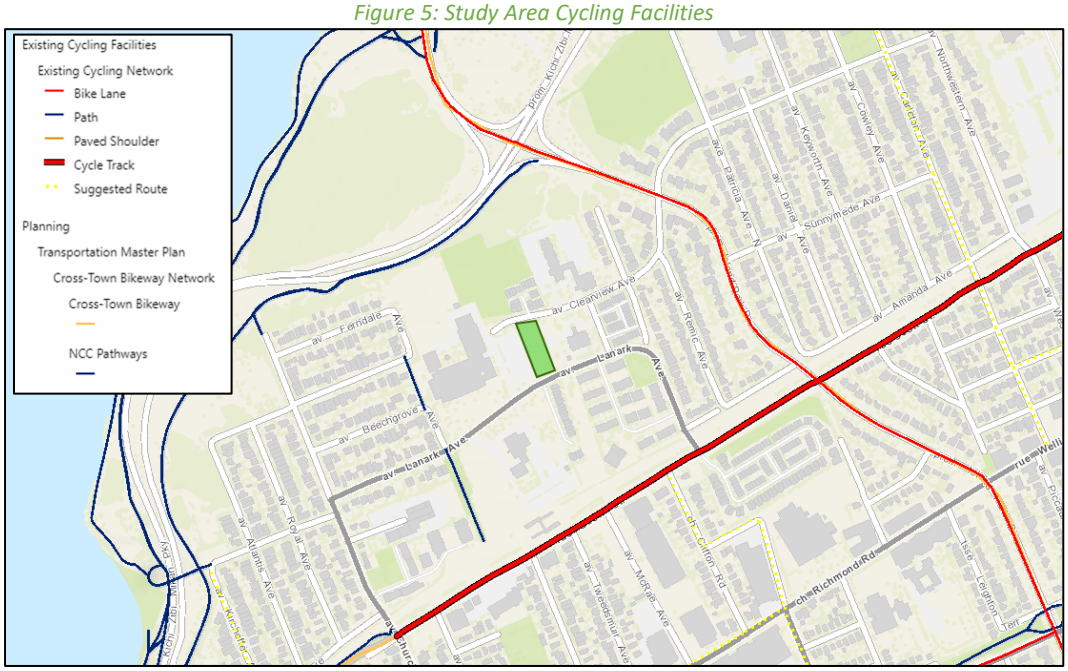
The Transportation Master Plan – Part 1 (2023) identified Island Park Drive and Scott Street as cross-town bikeways and Kichi Zibi Mikan Parkway east of Island Park Drive as NCC Pathway.

Figure 4: Study Area Pedestrian Facilities



Source: http://maps.ottawa.ca/geoOttawa/ Accessed: August 16, 2024

Figure 5: Study Area Cycling Facilities



Source: http://maps.ottawa.ca/geoOttawa/ Accessed: August 16, 2024

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.

Figure 6: Existing Pedestrian Volumes

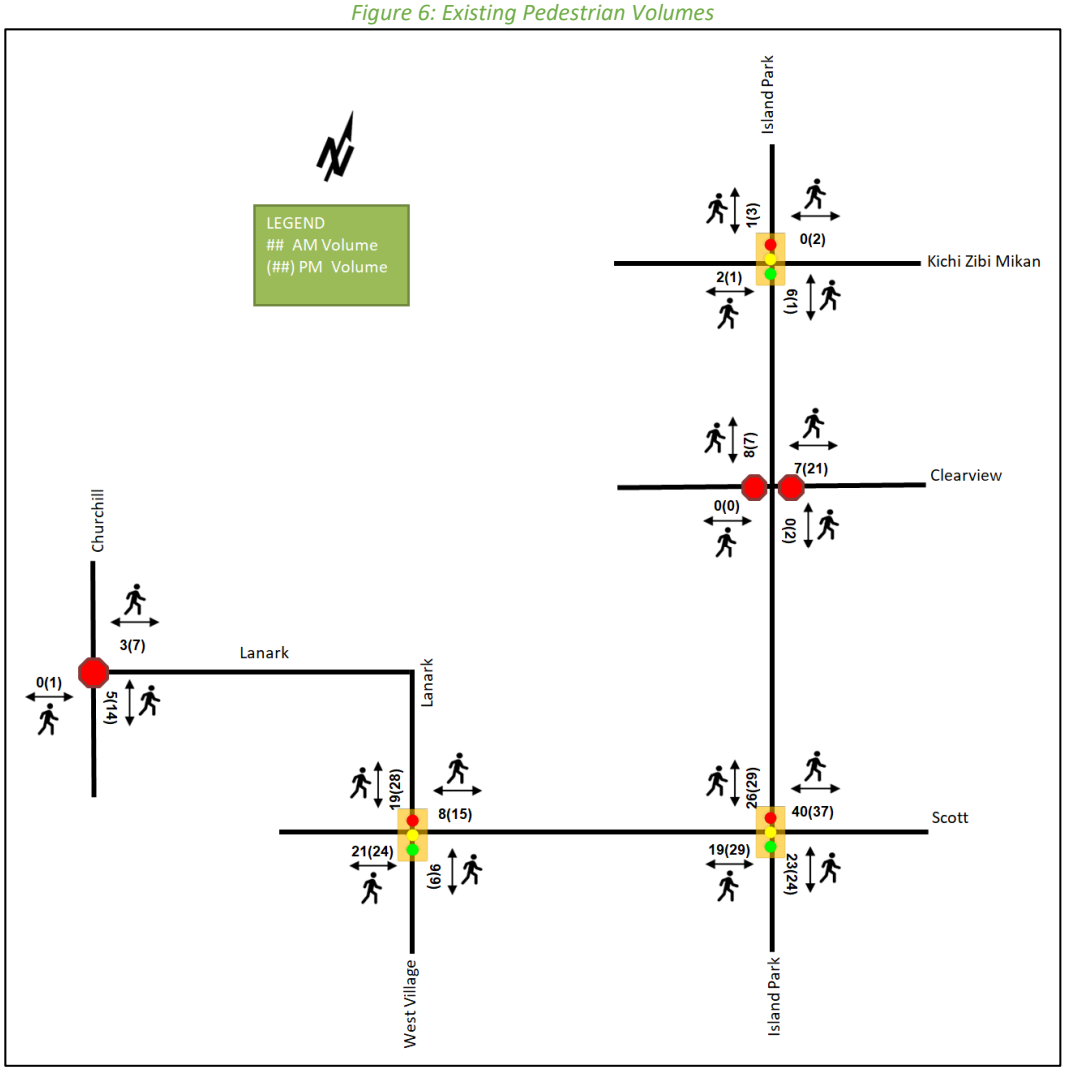
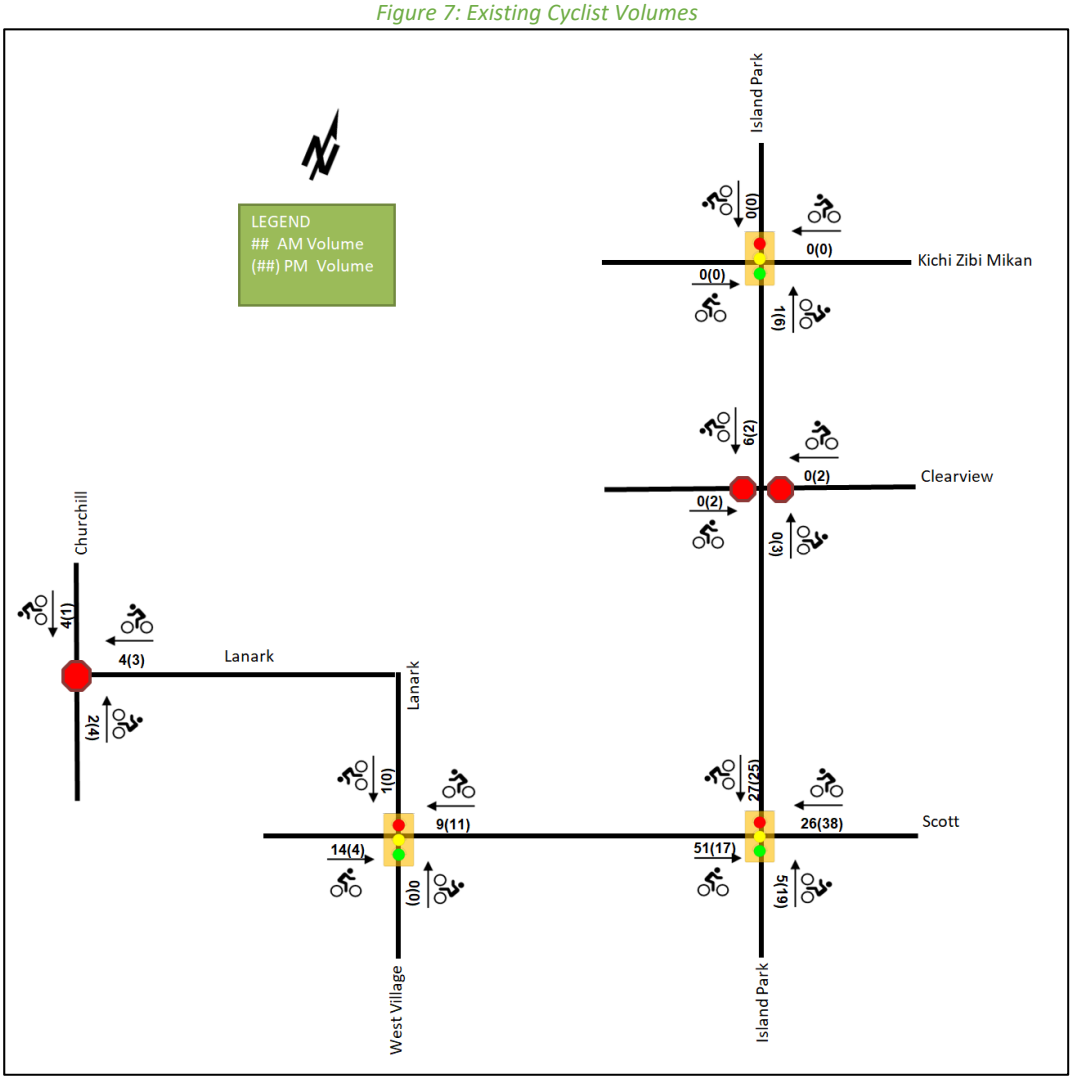


Figure 7: Existing Cyclist Volumes



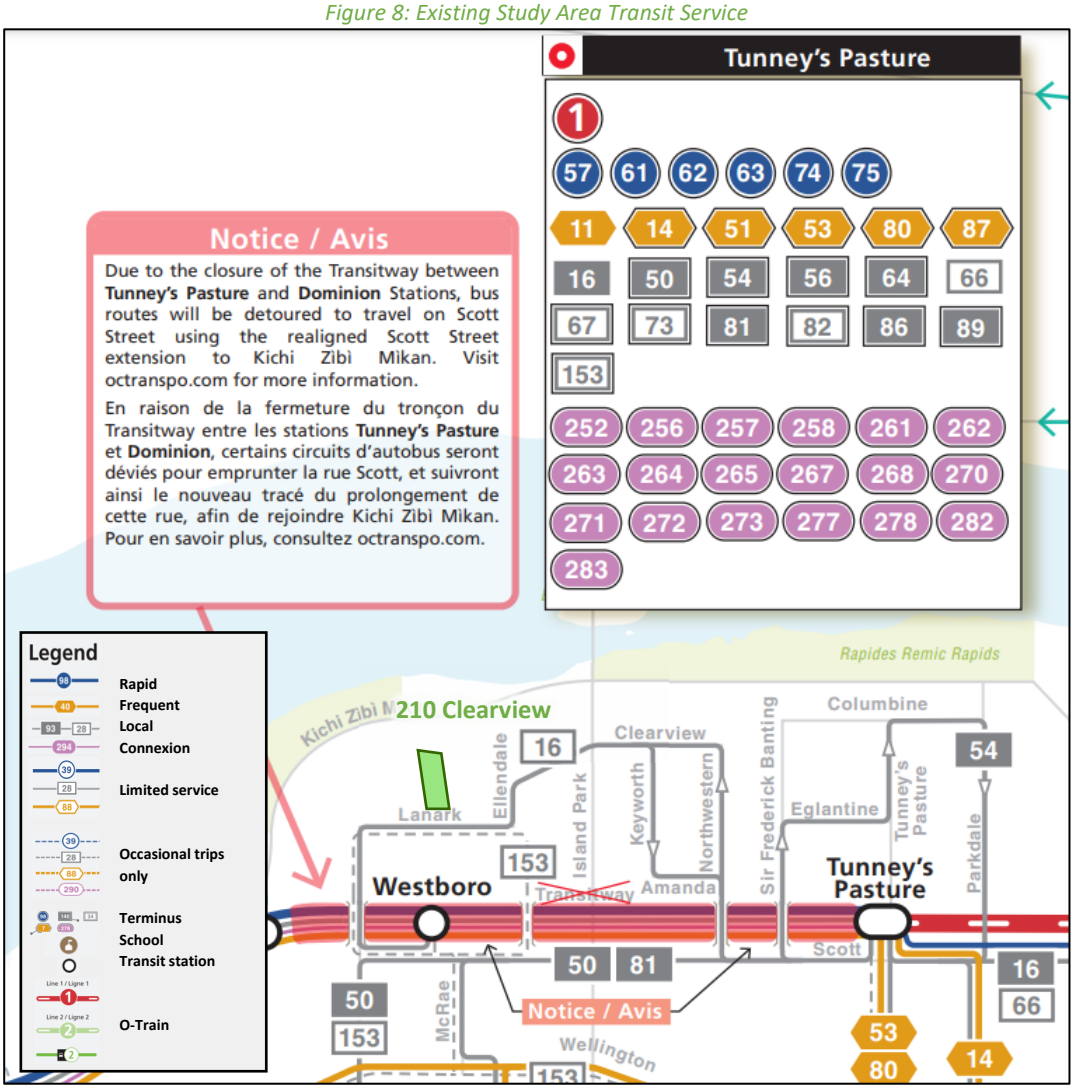
2.2.5 Existing Transit

Figure 8 illustrates the transit system map in the study area and Figure 9 illustrates transit stops within 400-metre radius of the site and transit stations within 800-metre radius of the site. All transit information is from August 16, 2024 and is included for general information purposes and context to the surrounding area.

Within the study area, routes #16 and #153 travel along Lanark Avenue. Nearest stops are located at the intersections of Lanark Avenue at Briarway Private and Lanark Avenue at Champlain. The frequency of these routes within proximity of the proposed site based on August 16, 2024 service levels are:

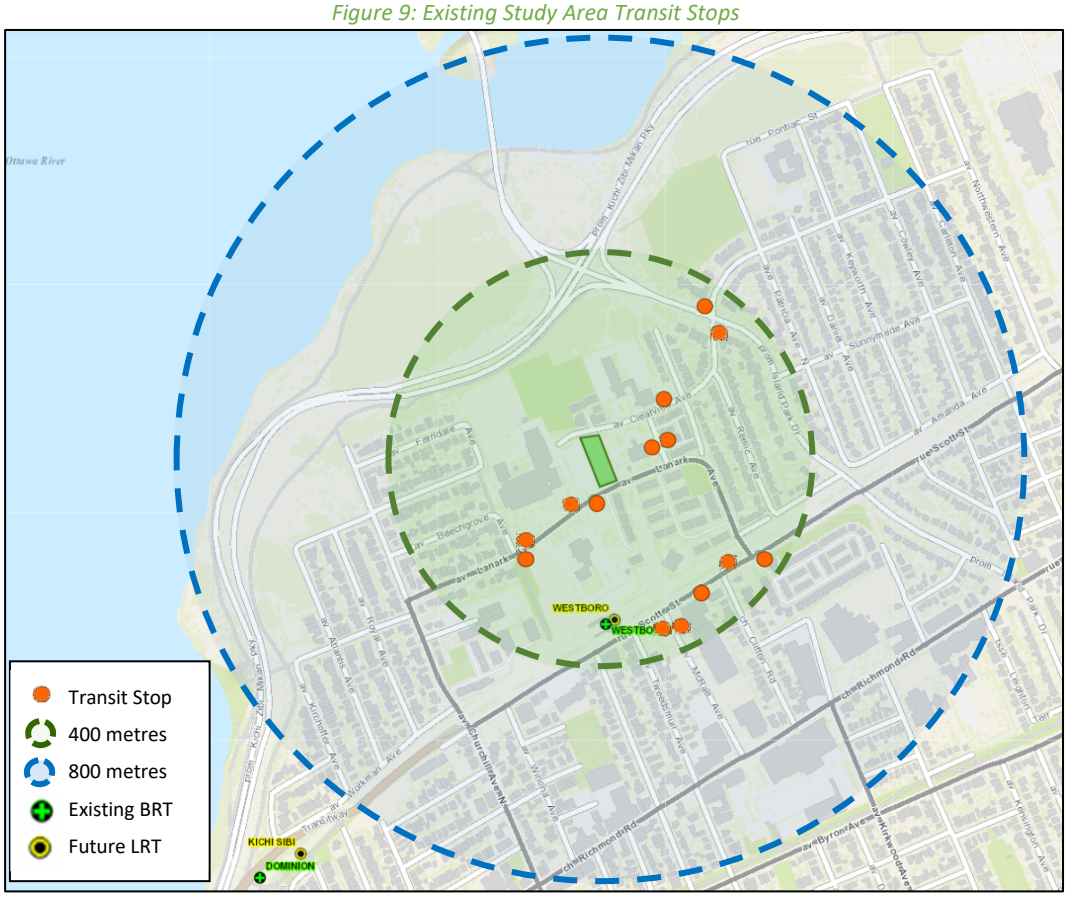
- Route # 16 – 30-minute service all day
- Route # 153 – 2-hour service from 11:00 AM to 7:00 PM

Figure 8: Existing Study Area Transit Service



Source: http://www.octranspo.com/ Accessed: August 16, 2024

Figure 9: Existing Study Area Transit Stops



Source: http://www.octranspo.com/ Accessed: August 16, 2024

2.2.6 Existing Area Traffic Management Measures

Bulb-outs are provided at the Lanark Avenue at Scott Street intersection, along Scott Street, along Lanark Avenue, and along Churchill Avenue south of Lanark Avenue. At the Island Park Drive and Clearview Avenue intersection, the vehicles are prohibited from making westbound right-turn and eastbound left-turn movements during weekdays between 3:30 – 6:00 PM. Bicycles are permitted to make these movements, and authorized vehicles are permitted to make eastbound left-turn movements.

2.2.7 Existing Peak Hour Travel Demand

Existing turning movement counts were acquired from the City of Ottawa for the existing study area intersections. Table 1 summarizes the intersection count dates. As City's request, the existing traffic counts are unbalanced in the existing condition, and discrepancies have been noted along Island Park Drive.

Table 1: Intersection Count Date

Intersection	Count Date
Island Park Drive at Kichi Zibi Mikan Parkway	Wednesday, August 21, 2024
Island Park Drive at Clearview Avenue	Tuesday, March 21, 2023
Island Park Drive at Scott Street	Thursday, October 27, 2022
Lanark Avenue at Scott Street	Thursday, November 30, 2023
Lanark Avenue at Churchill Avenue	Thursday, October 24, 2019

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

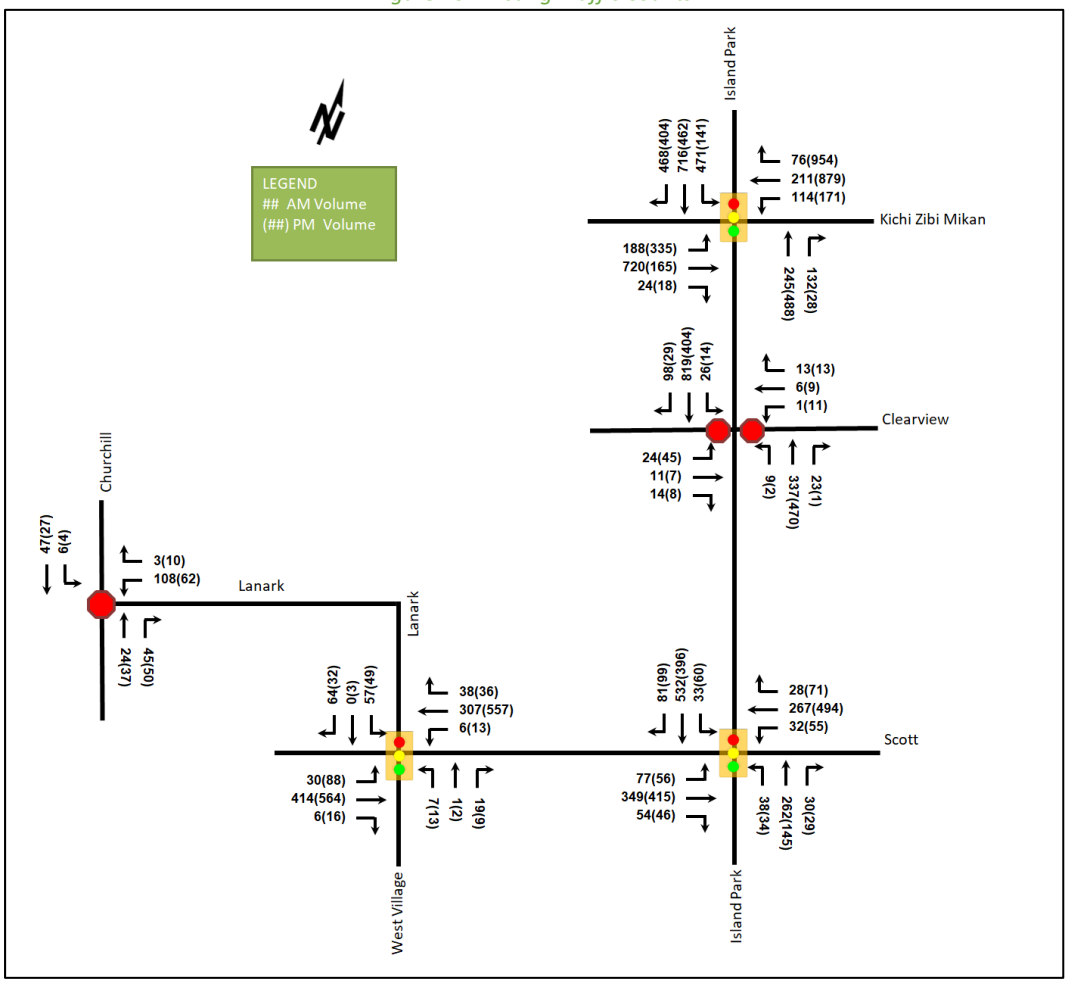


Table 2: Existing Intersection Operations

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay (s)	Q (95th)	LOS	V/C	Delay (s)	Q (95th)
Island Park Drive at Kichi Zibi Mikan Parkway *Signalized*	EBL	F	1.99	511.5	#191.5	F	1.09	138.2	#212.5
	EBT	D	0.82	62.5	#201.4	A	0.16	40.6	33.6
	EBR	A	0.06	0.2	0.0	A	0.04	0.1	0.0
	WBL	F	1.21	213.7	#115.7	A	0.56	69.7	88.4
	WBT	A	0.24	46.9	52.4	D	0.86	62.8	196.9
	WBR	A	0.17	10.1	15.2	F	1.71	355.6	#582.7
	NBT/R	D	0.87	72.1	185.0	F	1.29	194.9	#329.2
	SBL	D	0.81	73.1	120.0	D	0.88	121.4	#50.3
	SBT/R	F	1.50	258.5	#739.1	F	1.65	335.6	#563.6
	Overall	F	1.37	161.7	-	F	1.69	214.5	-

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay (s)	Q (95th)	LOS	V/C	Delay (s)	Q (95th)
Island Park Drive at Clearview Avenue *Unsignalized*	EB	**F**	**0.44**	**55.0**	**14.3**	D	0.33	31.7	10.5
	WB	C	0.10	23.7	2.3	C	0.15	21.7	3.8
	NB	B	0.02	10.4	0.0	A	0.00	8.4	0.0
	SB	A	0.03	8.2	0.8	A	0.02	8.6	0.0
	Overall	**A**	-	**2.5**	-	**A**	-	**2.7**	-
Island Park Drive at Scott Street *Signalized*	EBL	A	0.37	25.5	22.5	A	0.46	27.9	m20.8
	EBT	D	0.82	41.4	**#112.9**	B	0.70	25.6	111.2
	EBR	A	0.12	1.3	0.9	A	0.08	0.5	m0.3
	WBL	A	0.19	26.0	12.4	A	0.25	21.9	17.1
	WBT/R	B	0.67	34.9	80.5	E	0.98	61.6	**#190.4**
	NB	A	0.54	18.1	67.0	A	0.42	21.2	48.4
	SBL	A	0.08	11.9	8.2	A	0.15	18.0	16.1
	SBT/R	C	0.76	24.4	139.3	C	0.74	30.1	125.4
	Overall	**D**	**0.82**	**27.5**	-	**D**	**0.90**	**36.1**	-
Lanark Avenue at Scott Street *Signalized*	EBL	A	0.05	4.1	4.2	A	0.19	5.3	11.1
	EBT/R	A	0.40	5.9	48.8	A	0.52	7.2	75.3
	WBL	A	0.01	1.7	m0.2	A	0.03	4.5	m0.7
	WBT/R	A	0.32	2.2	m13.4	A	0.53	5.2	m38.4
	NBL	A	0.05	35.6	5.3	A	0.09	38.5	8.0
	NBT/R	A	0.11	16.3	6.6	A	0.06	22.2	5.3
	SBL	A	0.40	45.0	22.5	A	0.33	44.3	20.9
	SBT/R	A	0.11	0.4	0.0	A	0.19	16.1	9.6
	Overall	**A**	**0.42**	**6.9**	-	**A**	**0.53**	**8.1**	-
Lanark Avenue at Churchill Avenue *Unsignalized*	WB	A	0.15	8.2	3.8	A	0.10	7.8	2.3
	NB	A	0.09	7.4	2.3	A	0.10	7.2	2.3
	SB	A	0.07	7.6	1.5	A	0.04	7.4	0.8
	Overall	**A**	-	**7.8**	-	**A**	-	**7.5**	-

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 peak hours, the Island Park Drive at Kichi Zibi Mikan Parkway intersection is over capacity and subject to queuing issues.

At the intersection of Island Park Drive at Kichi Zibi Mikan Parkway, the eastbound through left, westbound left, and southbound shared through/right movements, and overall intersection during the AM peak and eastbound left, westbound right, northbound shared through/right, and southbound shared through/right movements, and overall intersection during the PM peak are over theoretical capacity and may subject to high delays and extended queues. Extended queues may be exhibited on the eastbound through movement during the AM peak and southbound left during the PM peak. High delays are noted on the southbound left during the PM peak.

The delay for eastbound traffic during the AM peak at the intersection of Island Park Drive and Clearview Avenue is noted to be over 50 seconds.

At the intersection of Island Park Drive and Scott Street, extended queues may be exhibited on the eastbound through during the AM peak and westbound share through/right-turn movements during the PM peak. These queues are in the peak direction of travel for these peak hours.

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

		Number	%
Total Collisions		**4**	**100%**
Classification	**Fatality**	0	0%
	Non-Fatal Injury	2	50%
	Property Damage Only	2	50%
Initial Impact Type	**SMV Unattended**	3	75%
	Other	1	25%
Road Surface Condition	**Dry**	4	100%
Pedestrian Involved		0	0%
Cyclists Involved		0	0%

Figure 11: Study Area Collision Records

Table 4: Summary of Collision Locations, 2018-2022

	Number	%
Intersections / Segments	**4**	**100%**
Lanark Ave btwn Beechgrove Ave & Churchill Ave N	2	50%
Lanark Ave btwn Beechgrove Ave & Briarway Priv	1	25%
Lanark Ave btwn Briarway Priv & Metropole Priv	1	25%

Within the study area, the intersection and segments have a total of four collisions during the 2018-2022 time period with two involving property damage only and two having non-fatal injuries. There are three SMV

Unattended collisions and one other collision type. Due to the low number of collisions in the vicinity of the site, no further collision analysis is required within this study.

2.3 Planned Conditions

2.3.1 Changes to the Area Transportation Network

2.3.1.1 Richmond Road/Westboro Community Design Plan (CDP)

The subject development is within the Richmond Road/Westboro Community Design Plan (CDP) Area. The CDP illustrates green street, two-metre sidewalk and dedicated on-road cycle-lanes or signed cycle route on key local streets and informal pedestrian/cycling links connected to transitway station, local parks, community, and Ottawa River to be incorporated into the development as it redevelops or undergoes rehabilitation.

2.3.1.2 Confederation Line West Extension - Westboro Station

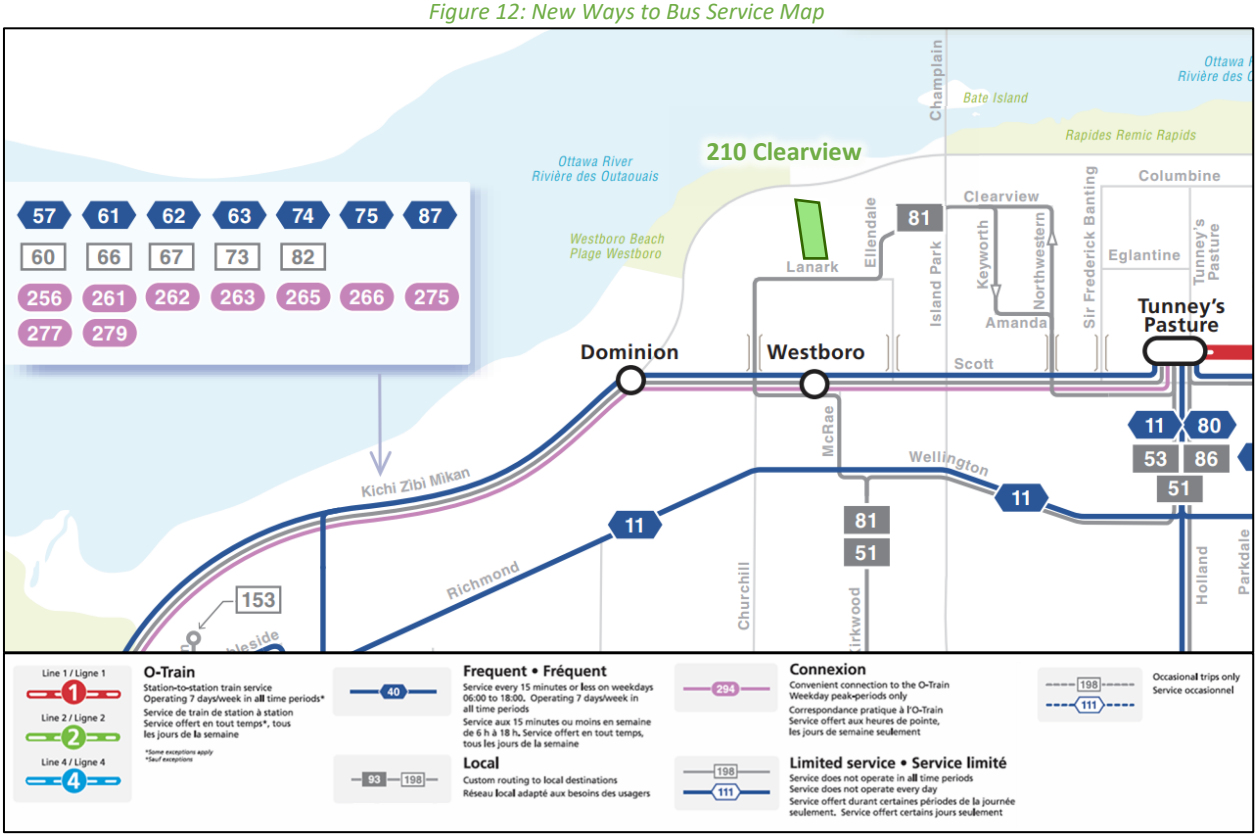
Westboro station is identified as one of the Confederation Line West extension new stations in the Stage 2 Light Rail Transit (LRT) project and will be converted to accommodate LRT. Additional pedestrian connectivity, bicycle facilities, and a bus staging area will be provided. The anticipated build-out year of the project is 2026.

Additionally, as stated by the City of Ottawa, Scott Street between Churchill Avenue and Tunney's Pasture has been used as a Transitway detour during the construction of the Stage 2 Confederation Line West extension. The bus only eastbound lane on Scott Street from Clifton Road to Island Park Drive, and the westbound right-turn lane at Island Park Drive are part of detour plan. It is noted that the westbound right-turn lane at Island Park Drive is to alleviate westbound queues at the intersection. It is expected that the Transitway detour will be removed prior to 2026. The proposed detour plan can be found in Appendix E.

2.3.1.3 OC Transpo 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 2024, and the new service map is illustrated in Figure 12.

Figure 12: New Ways to Bus Service Map



Source: www.octranspo.com Accessed: August 30, 2024

2.3.2 Other Study Area Developments

234 Atlantis Avenue and 745 Kichi Zibi Mikan Parkway

The proposed development includes a zoning by-law amendment, which consists of a parking lot, a lookout parking area, modifications to the SJAM Parkway at the Kitchissippi lookout, and an expansion of the existing Westboro Beach Café pavilion into new 14,000 m^2 Pavilion building facility. Due to the small change in the number of parking spots provided and decrease in the size of the proposed building, it is expected not to have any significant impact on the overall network. (exp Services Inc., 2020)

316-322 Clifton Road

The proposed development application includes a site plan application for the construction of 31 dwelling units. The development is anticipated to be built out in 2025. The Screening Form did not identify the need for a full TIA.

70 Richmond Road and 376 Island Park Drive

The proposed development includes a site plan application for the construction of a nine-storey mixed-use building, including 96 residential units and 1,455 ft^2 of ground floor retail. The anticipated built out year was 2023, and it is assumed to be 2025. The trip generation trigger does not meet. (CGH Transportation, 2023)

175 Richmond Road

The proposed development application includes a zoning by-law amendment consist of a six-storey mixed-use building with 104 residential units and 7,525 ft^2 of retail. The development is anticipated to be built out in 2025. Only TIA scoping report is available at this time. (Novatech, 2020)

295, 299, 301 Ashton Avenue and 2046, 2050 Scott Street
The proposed development application includes a site plan application for the construction of a 30-storey mixed use residential tower with 353 units and 233 m² of ground commercial/office. The anticipated built out year was 2021, and it is assumed to be 2025. The development is anticipated to generate 35 new AM and 35 PM peak hour two-way auto trips. (Parsons, 2021)

315 Tweedsmuir Avenue and 320 McRae Avenue
The proposed development includes a zoning by-law amendment and site plan control application to construct a 26-storey mixed-use development containing 325 apartment units, 11 townhouse units, and 820 m² (8,826 ft^2) of commercial space. The anticipated full build-out and occupancy horizon is 2022 and is anticipated to generate 34 new AM and 41 PM peak hour two-way auto trips. (CGH Transportation, 2020)

2070 Scott Street
The proposed development includes a zoning by-law amendment and site plan control application to construct a 25-storey mixed-use building with 264 residential units and 5,554 ft^2 of ground floor retail. The anticipated full build-out and occupancy horizon is 2022 and it is anticipated to generate 38 new AM and 35 PM peak hour two-way auto trips. (Stantec, 2019)

319-327 Richmond Road, 380 Winona Avenue, and 381 Churchill Avenue
The proposed development application includes a site plan application for the construction of a nine-storey building with 180 apartment units, 18,675 sq. ft. of retail space. The anticipated built out year was 2021, and it is assumed to be 2024. The development is anticipated to generate 21 new AM and 30 PM peak hour two-way auto trips. (CGH Transportation, 2021)

2006, 2020, and 2026 Scott Street, 314 and 318 Athlone Avenue
The proposed development application includes a site plan application consist of two 40-storey towers with a total of 856 dwelling units and approximately 3,207 ft^2 of ground-floor commercial space. Phase One includes 392 dwellings and 1,287 ft^2 of commercial space, and Phase Two includes 464 dwellings and 1,920 ft^2 of commercial space. The anticipated buildout of Phase One is 2026 and the buildout of Phase Two is 2029, and the net additional auto trips are anticipated to be 20 AM and -4 PM peak hour two-way auto trips. (Novatech, 2024)

3 Study Area and Time Periods

3.1 Study Area

The study area will include the intersections of:

- Island Park Drive at:
  - Kichi Zibi Mikan Parkway
  - Clearview Avenue
  - Scott Street
- Lanark Avenue:
  - Scott Street
  - Churchill Avenue

The boundary road will be Clearview Avenue and Lanark Avenue, and no screenlines are present within proximity to the site.

3.2 Time Periods

As the proposed development is composed entirely of residential units 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)		TOD Area
	AM	PM	AM & PM
Auto Driver	28%	33%	15%
Auto Passenger	11%	11%	5%
Transit	41%	26%	65%
Cycling	3%	7%	15%
Walking	16%	23%	
Total	**100%**	**100%**	**100%**

Since the future Westboro LRT station, which is located within a 300-metre linear distance (500-metre walking distance) from the site, is planned to be completed by 2026, a higher transit mode is considered achievable at this location. A 15% shift to transit mode taken from the auto mode is proposed for both peak hours. The proposed modified mode share targets for the development and are summarized in Table 6.

Table 6: Proposed Development Mode Shares

Travel Mode	Multi-Unit (High-Rise)	
	AM	PM
Auto Driver	17%	21%
Auto Passenger	8%	8%
Transit	56%	41%
Cycling	3%	7%
Walking	16%	23%
Total	**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). Table 7 summarizes the person trip rates for the proposed residential land uses for each peak period.

Table 7: Trip Generation Person Trip Rates by Peak Period

Land Use	Land Use Code	Peak Period	Person Trip Rates
Multi-Unit (High-Rise)	221 & 222 (TRANS)	AM	0.80
		PM	0.90

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.

Table 8: Total Person Trip Generation by Peak Period

Land Use	Units	AM Peak Period			PM Peak Period		
		In	Out	Total	In	Out	Total
Multi-Unit (High-Rise)	184	46	101	147	96	70	166

Using the above mode share targets for a LRT area 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 9 summarizes the residential trip generation by mode and peak hour.

Table 9: 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	**17%**	4	8	12	**21%**	8	7	15
	Auto Passenger	**8%**	2	4	6	**8%**	3	3	6
	Transit	**56%**	14	32	45	**41%**	18	14	32
	Cycling	**3%**	1	1	2	**7%**	3	3	6
	Walking	**16%**	4	10	14	**23%**	11	9	20
	Total	**100%**	**25**	**55**	**79**	**100%**	**43**	**36**	**79**

As shown above, a total of 12 AM and 15 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 10 below summarizes the distributions.

Table 10: OD Survey Distribution – Ottawa West

To/From	Residential % of Trips
North	5%
South	50%
East	40%
West	5%
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. It is noted that traffic cannot be assigned to the eastbound left-turn movement from Clearview Avenue to Island Park Drive during the PM peak hour, as it is a prohibited movement. As a result, the trip assignment will differ between the AM and PM peak hours. Table 11 and Table 12 summarize the proportional assignment to the study area roadways during the AM peak hour and the PM peak hour, and Figure 13 illustrates the new site generated volumes.

Table 11: Trip Assignment – AM Peak Hour

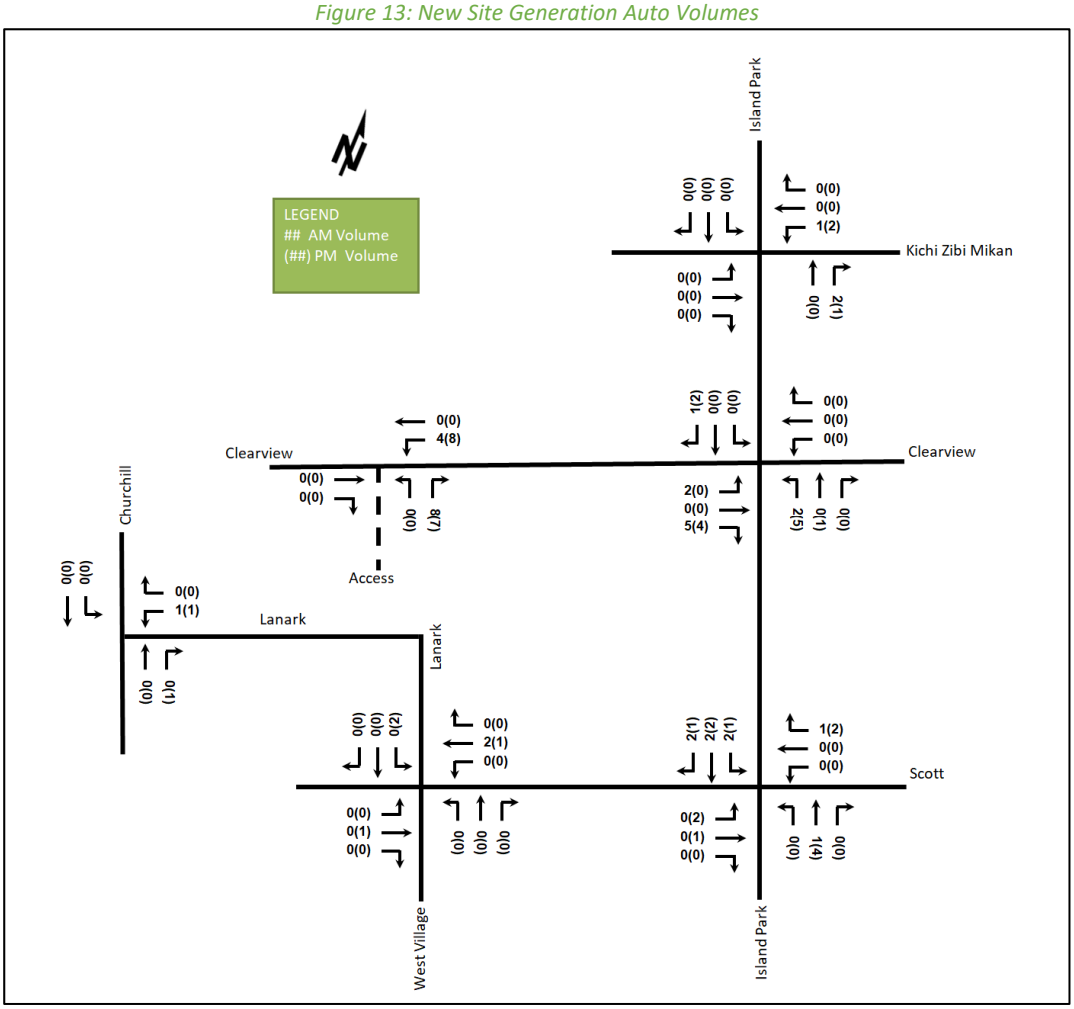
To/From	Via
North	3% Kichi Zibi Mikan Parkway (E) 2% Island Park Drive (N)
South	30% Island Park Drive (S) 20% Churchill Avenue (S)

To/From	Via
East	20% Kichi Zibi Mikan Parkway (E) 20% Scott Street (E)
West	2% Churchill Avenue (S) 2% Kichi Zibi Mikan Parkway (W) 1% Island Park Drive (N)
Total	**100%**

Table 12: Trip Assignment – PM Peak Hour

To/From	Inbound Via	Outbound Via
North	3% Kichi Zibi Mikan Parkway (E) 2% Island Park Drive (N)	3% Kichi Zibi Mikan Parkway (E) 2% Island Park Drive (N)
South	30% Island Park Drive (S) 20% Churchill Avenue (S)	30% Island Park Drive (S) 20% Churchill Avenue (S)
East	20% Kichi Zibi Mikan Parkway (E) 20% Scott Street (E)	40% Scott Street (E)
West	2% Churchill Avenue (S) 2% Kichi Zibi Mikan Parkway (W) 1% Island Park Drive (N)	2% Churchill Avenue (S) 2% Kichi Zibi Mikan Parkway (W) 1% Island Park Drive (N)
Total	**100%**	**100%**

Figure 13: New Site Generation Auto Volumes



5 Exemption Review

Table 13 summarizes the exemptions for this TIA.

Table 13: 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
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	Exempt
3.3 Demand Rationalization		Only required when one or more other Network Impact Modules are triggered	Exempt
4.6 Neighbourhood Traffic Calming	4.6.1 Adjacent Neighbourhoods	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: 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: • 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;	Exempt

Module	Element	Explanation	Exempt/Required
		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.	
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
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 proposed development is a residential building with a total of 217 bicycle parking spaces including ten exterior bike spaces at grade and 207 underground bike parking spaces. A 1.8-metre sidewalk is proposed along both sides of the internal drive aisle to connect to the hard surface around the buildings and existing sidewalks along Lanark Avenue, and to the adjacent building pedestrian connection to Ellendale Crescent. Additionally, the internal sidewalks connect to Clearview Avenue via a 2.0-metre concrete sidewalk.

The existing and proposed sidewalks provide connections from the site to the nearby transit stops and the future Westboro LRT station.

The infrastructure TDM Checklist is provided in Appendix F.

6.2 Circulation and Access

Vehicle access to the underground parking is provided via the access on Clearview Avenue. Garbage facilities are located on the west side of the building and move-in trucks and garbage collection are expected to access the site via the western access on Lanark Avenue. Additionally, an access is proposed on Lanark Avenue to access the surface parking and provide the internal connection between Lanark Avenue and Ellendale Crescent.

The fire route is proposed from the access on Lanark Avenue to the island in front of the proposed building.

The garbage truck, move-in truck, and fire truck turning movements can be accommodated on site. The turning templates are provided in Appendix G.

7 Parking

7.1 Parking Supply

Approximately 103 existing surface parking spaces will be replaced with the two-level underground parking. A total of 250 parking spaces are proposed including 233 residential parking spaces and 17 visitor parking spaces.

Among these parking spaces, a total of ten vehicle parking spaces are proposed to be located on the surface, while the remaining spaces are planned for the underground levels.

According to the parking zoning by-law, within Area X on Schedule 1A, no off-street motor vehicle parking and visitor parking are required to be provided for the first twelve dwelling units. The minimum residential vehicle parking requirement is 0.5 spaces per unit after the first twelve dwelling units, totaling 86 spaces, and the minimum visitor parking is 0.1 spaces per unit after the first twelve dwelling units, totaling 17 spaces. The proposed residential vehicle exceeds the parking zoning by-law requirement, and the proposed visitor parking meets the minimum visitor parking zoning by-law requirement.

A total of 110 existing parking spaces will be retained in the existing building. Given all parking spaces provided are located below grade in the same building, the parking required may be reduced by 10% of the required parking spaces, and the minimum residential parking is 96 spaces. The minimum visitor parking is 21 spaces. The existing parking spaces retained are seven spaces less than the parking zoning by-law requirement.

The site provides 217 bicycle spaces, including ten exterior and 207 underground. According to the site-specific zoning by-law requirement, the minimum bicycle requirement is 1.0 spaces per unit, totaling 184 spaces. The proposed bicycle parking exceeds the minimum bicycle parking requirement.

8 Boundary Street Design

Table 14 summarizes the MMLOS analysis for the boundary streets of Lanark Avenue and Clearview Avenue. The existing and future conditions for both streets will be the same and are considered in one row. The boundary street analysis is based on the land-use designation of “General Urban Area”. The MMLOS worksheets have been provided in Appendix H.

Table 14: Boundary Street MMLOS Analysis

Segment	Pedestrian LOS		Bicycle LOS		Transit LOS		Truck LOS	
	PLOS	Target	BLOS	Target	TLOS	Target	TrLOS	Target
Lanark Avenue	B	C	B	D	N/A	N/A	N/A	N/A
Clearview Avenue	**F**	C	B	D	N/A	N/A	N/A	N/A

Clearview Avenue does not meet the pedestrian MMLOS targets due to the lack of a sidewalk along the existing roadway. A minimum of 1.8 metres of sidewalk or less than 30km/h of operating speed would be required along Clearview Avenue to meet the pedestrian MMLOS targets. It is noted that internal sidewalks have been proposed to connect Lanark Avenue and Ellendale Crescent. These sidewalks will provide pedestrian access from existing sidewalks along Clearview Avenue to the existing sidewalks along Ellendale Crescent and will also connect to the site. Given that the sidewalk will need to be provided along Clearview Avenue west of Ellendale Crescent to connect to the existing sidewalk, and the existing sidewalks along Clearview Avenue and Ellendale Crescent, as well as the proposed sidewalks along the internal aisle will provide similar functions, no improvements are required.

9 Transportation Demand Management

9.1 Context for TDM

The mode shares used within the TIA represent a shift from auto modes to transit ridership with the future LRT station. Overall, the modal shares are likely to be achieved and supporting TDM measures should be provided.

The subject site is within the Richmond Road/ Westboro Secondary Plan and Richmond Road/ Westboro community design plan areas. The total bedroom count within the development is subject to the final unit breakdown and layout selections by purchasers. No age restrictions are noted.

9.2 Need and Opportunity

The subject site has been assumed to rely predominantly on transit ridership with proximity to the future LRT station, and those assumptions have been carried through the analysis. The increase in transit ridership is achievable.

9.3 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 F. The key TDM measures recommended include:

- Display local area maps with walking and cycling routes, and transit route information and schedules at major entrances
- Provide a multimodal travel option information package to new residents
- Contract with providers to install on-site bikeshare (or other micromobility alternatives) and carshare spaces
- Unbundle parking cost from purchase or rental costs

10 Access Intersection Design

10.1 Location and Design of Access

The two existing accesses to the surface parking lot will be converted to an access to the underground parking from Clearview Avenue and the Lanark Avenue access will be to the loading area. A new loop will be created from the existing drive aisle from Ellendale Crescent to connect to Lanark Avenue at a new access. All accesses are proposed as two-way access. It is noted that two proposed accesses and one existing access for the adjacent building will be on Lanark Avenue. Although total accesses on Lanark Avenue will exceed the private approach by-law maximum number of private approaches permitted, the western proposed access is only for loading purposes, therefore the additional proposed access for loading is considered acceptable.

The access to underground parking on Clearview Avenue is 6.1 metres wide at the property line, and it meets the private approach by-law requirements of a minimum width of 2.4 metres and a maximum width of 9.0 metres. The access to the loading area on Lanark Avenue is 5.9 metres wide at the property line and 9.1 meters wide at the curb line. The general vehicle access on Lanark Avenue is 6.9 meters wide at the property line and 14.3 meters wide at the curb line. The widths of proposed accesses on Lanark Avenue comply with the private approach by-law maximum width requirement at the property line; however, it does not comply at the curb line due to the larger radii required to accommodate larger truck movements.

The distance between two accesses on Lanark Avenue at the curb line is 25.9 metres, and the distance between the general vehicle access on Lanark Avenue and the existing access for the adjacent building is 15.7 metres at the curb line. The distance between two accesses on Clearview Avenue at the curb line is 51.0 metres. All distances meet the private approach by-law minimum distance between a private approach and any other private approach.

The access to underground parking on Clearview Avenue is approximately 110 metres from the intersection with Ellendale Crescent, and the existing access to underground parking in the adjacent building is approximately 45 metres from the same intersection. The existing drive aisle on Ellendale Crescent for the adjacent building is approximately 20 metres from the intersection with Clearview Avenue. On Lanark Avenue, the general vehicle

access is approximately 75 metres from the intersection of Ellendale Crescent, and the existing access for the adjacent building is approximately 50 metres from the same intersection. All accesses exceed the minimum corner clearance of 20 meters for collector roads and 15 meters for local roads as indicated in the TAC.

According to Table 8.9.3 of the TAC Geometric Design Guidelines, for the apartment units between 100 and 200, the minimum throat length requirement is 15 metres for the collector road, and no requirement for the local road. The throat length for the access to underground parking on Clearview Avenue is 13 metres, and it is considered to be sufficient. The throat length for access to the loading area on Lanark Avenue is approximately 28.2 metres, and it meets the TAC requirement. The throat length for the general vehicle access on Lanark Avenue is 5.3 metres, and it does not meet the TAC requirement. As this access is provided for drop-off/pick-up purposes, low volumes are expected for the loop as the primary vehicle accesses are through the underground ramps on Clearview Avenue, the throat length for the access on Lanark Avenue is considered acceptable.

Accesses on Lanark Avenue will comply with the City of Ottawa standard drawing SC7.1.

11 Summary of Improvements Indicated and Modifications Options

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

Proposed Site

- The proposed site includes 184 apartment units and a total of 233 residential vehicle parking spaces, 17 visitor parking spaces, and 217 bike parking spaces are proposed
- Approximately 103 existing surface parking spaces will be replaced with the two-level underground parking
- The two existing accesses to the surface parking lot will be converted to an access to the underground parking from Clearview Avenue and the Lanark Avenue access will be to the loading area
- A new loop will be created from the existing drive aisle from Ellendale Crescent to connect to Lanark Avenue at a new access
- The development is proposed to be completed as a single phase by 2027

TIA Screening and Exemptions

- The TIA Screening form indicated a full TIA was required due to trip generation
- The exemption review for the TIA did not require new street networks, background network travel demand, demand rationalization, neighbourhood traffic calming, transit review, network concept review, intersection control review or intersection design review

Existing Conditions

- Island Park Drive and Kichi Zibi Mikan Parkway are federally owned arterial roads, and Churchill Avenue south of Scott Street and Scott Street are City of Ottawa arterial roads within the study area
- Churchill Avenue between Scott Street and Lanark Avenue and Lanark Avenue are City of Ottawa collector roads, and Clearview Avenue is a local road within the study area
- Sidewalks are provided on both sides along Lanark Avenue, Churchill Avenue south of Lanark Avenue, Clearview Avenue between Ellendale Crescent and Latchford Road, and east of Island Park Drive, on the north side of Clearview Avenue between Latchford Road and Island Park Drive, and on the south side of Scott Street

- A pedestrian pathway extends south of Lanark Avenue between the 200 Lanark Avenue and 38 Metropole Private properties, and loops to Westboro Station
- Multi use pathways are present on the north side of Scott Street and another connects Lanark Avenue from the Beechgrove Avenue intersection to the Westboro Station
- Bike lanes are provided on both sides along Island Park Drive, and a cycle track is present on the south side of Scott Street
- Island Park Drive and Scott Street are cross-town bikeways and Kichi Zibi Mikan Parkway east of Island Park Drive is a NCC Pathway in the Transportation Master Plan – Part 1 (2023)
- Within the study area, the intersection and segments have a total of four collisions during the 2018-2022 time period
- No further collision analysis is required within this study due to the low number of collisions in the vicinity of the site
- The Island Park Drive at Kichi Zibi Mikan Parkway intersection is over capacity and subject to queuing issues at the existing condition

Planned Conditions

- Westboro station, which is identified as one of the Confederation Line West extension new stations in the Stage 2 Light Rail Transit project, will be converted to accommodate LRT in 2026
- The bus-only eastbound lane on Scott Street from Clifton Road to Island Park Drive, and the westbound right-turn lane at Island Park Drive are part of the detour plan

Development Generated Travel Demand

- The proposed development is forecasted to produce 79 AM and 79 PM two-way people trips
- Of the forecasted people trips, 12 AM and 15 PM two-way trips will be vehicle trips based on 17% and 21% modal share target
- Of the forecasted trips, 5% are anticipated to travel to the north and west, 50% to the south, and 40% to the east

Development Design

- The proposed development is a residential building with a total of 217 bicycle parking spaces including ten exterior bike spaces at grade and 207 underground bike parking spaces
- A 1.8-metre sidewalk is proposed along both sides of the internal drive aisle to connect to the hard surface around the buildings and existing sidewalks along Lanark Avenue, and to the adjacent building pedestrian connection to Ellendale Crescent
- The existing and proposed sidewalks provide connections from the site to the nearby transit stops and the Westboro station
- The fire route is proposed from the access on Lanark Avenue to the island in front of the proposed building
- The garbage truck, move-in truck, and fire truck turning movements can be accommodated on site

Parking

- A total of 250 parking spaces are proposed including 250 residential parking spaces and 17 visitor parking spaces
- The proposed residential vehicle exceeds the parking zoning by-law requirement, and the proposed visitor parking meets the minimum visitor parking zoning by-law requirement

- The site provides 217 bicycle spaces, including ten exterior and 207 underground
- The proposed bicycle parking exceeds the minimum site-specific zoning by-law requirement for bicycle
- The existing parking spaces retained are seven spaces less than the parking zoning by-law requirement

Boundary Street Design

- Clearview Avenue does not meet the pedestrian MMLOS targets due to the lack of a sidewalk along the boundary
- Given that the sidewalk will need to be provided along Clearview Avenue west of Ellendale Crescent to connect to the existing sidewalk, and the existing sidewalks along Clearview Avenue and Ellendale Crescent, as well as the proposed sidewalks along the internal aisle will provide similar functions, no improvements are required

TDM

- Supportive TDM measures to be included within the proposed development should include:
    - Display local area maps with walking and cycling routes, and transit route information and schedules at major entrances
    - Provide a multimodal travel option information package to new residents
    - Contract with providers to install on-site bikeshare (or other micromobility alternatives) and carshare spaces
    - Unbundle parking cost from purchase or rental costs

Access Intersection Design

- The two existing accesses to the surface parking lot will be converted to an access to the underground parking from Clearview Avenue and the Lanark Avenue access will be to the loading area
- A new loop will be created from the existing drive aisle from Ellendale Crescent to connect to Lanark Avenue at a new access
- Although total accesses on Lanark Avenue will exceed the private approach by-law maximum number of private approaches permitted, the western proposed access is only for loading purpose, therefore, the additional proposed access for loading is considered acceptable
- The access to underground parking on Clearview Avenue is 6.1 metres wide measured at the property line, and it meets the private approach by-law minimum and maximum width requirements
- The widths of proposed accesses on Lanark Avenue comply with the private approach by-law maximum width requirement at the property line; however, it does not comply at the curb line due to the larger radii required to accommodate larger truck movements
- All distances meet the private approach by-law minimum distance between a private approach and any other private approach
- All accesses exceed the minimum corner clearance indicated in the TAC
- Although the throat length for the general vehicle access on Lanark Avenue does not meet the TAC requirement, the throat length for the access on Lanark Avenue is considered acceptable given lower volumes are expected
- Accesses on Lanark Avenue will comply with the City of Ottawa standard drawing SC7.1

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

6 Plaza Court
Ottawa, ON K2H 7W1

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

Date: 10-Sep-24
Project Number: 2024-030
Project Reference: 210 Clearview Avenue

1.1 Description of Proposed Development	
Municipal Address	210 Clearview Avenue
Description of Location	Ward 15. Rectangular parcel fronting Clearview Avenue and Lanark Avenue
Land Use Classification	Residential Fifth Density Zone (R5C[2909]S216)
Development Size	184 Residential Units
Accesses	One onto Clearview Avenue and two onto Lanark Avenue
Phase of Development	Single phase
Buildout Year	2027
TIA Requirement	Full TIA Required

1.2 Trip Generation Trigger		
Land Use Type	Multi-Family (High-Rise)	
Development Size	184	Units
Trip Generation Trigger	Yes	

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?	No
Is the development in a Hub, a Protected Major Transit Station Area (PMTSA), or a Design Priority Area (DPA)?	No
Location Trigger	No

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
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

Certification Form for TIA Study PM

TIA Plan Reports

On April 14, 2022, the Province's Bill 109 received Royal Assent providing legislative direction to implement the More Homes for Everyone Act, 2022 aiming to increase the supply of a range of housing options to make housing more affordable. Revisions have been made to the TIA guidelines to comply with Bill 109 and streamline the process for applicants and staff.

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 they meet the four criteria listed below.

CERTIFICATION

- ☑ 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; (Update effective July 2023)
- ☑ 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;
- ☑ 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
- ☑ I am either a licensed or registered[1] professional in good standing, whose field of expertise
  - ☑ is either transportation engineering
  - ☐ or transportation planning.

[1] 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
Planning, Real Estate and Economic Development
110 Laurier Avenue West, 4th fl.
Ottawa, ON
K1P 1J1
Tel. : 613-580-2424
Fax: 613-560-6006

Revision Date: June 2023

Dated at Ottawa (City) this 17 day of August , 20 23 .

Name : Andrew Harte

Professional title: Senior Transportation Engineer / Vice-President Ottawa

Signature of individual certifier that s/he/they meet the above criteria

Office Contact Information (Please Print)
Address: 6 Plaza Court
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Email Address: andrew.harte@cghtransportation.com

Stamp

Revision Date: June 2023

Appendix B

Turning Movement Counts

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #24-348 - CGH Transportation

Intersection Count Report

Intersection:	Island Park Dr & Kichi Zibi Mikan Pkwy
Municipality:	Ottawa
Count Date:	Wednesday, Aug 21, 2024
Site Code:	2434800001
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	06:30-09:30, 15:00-18:00
Weather:	Clear
Comments:	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Island Park Dr & Kichi Zibi Mikan Pkwy
Site Code:	2434800001
Municipality:	Ottawa
Count Date:	Aug 21, 2024

Island Park Dr - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	**Left**	**Thru**	**Right**	**U-Turn**	**Total**	**Peds**	**Left**	**Thru**	**Right**	**U-Turn**	**Total**	**Peds**	**Total**
06:30 - 07:00	241	379	260	0	880	1	0	86	20	0	106	0	986
07:00 - 08:00	480	767	472	0	1719	0	0	219	87	0	306	1	2025
08:00 - 09:00	410	678	437	0	1525	0	1	272	154	0	427	1	1952
09:00 - 09:30	150	333	183	0	666	0	0	145	56	0	201	0	867
BREAK													
15:00 - 16:00	149	419	393	0	961	3	0	561	52	0	613	4	1574
16:00 - 17:00	133	448	403	0	984	1	0	496	28	0	524	0	1508
17:00 - 18:00	137	481	401	0	1019	3	0	526	21	0	547	2	1566
GRAND TOTAL	**1700**	**3505**	**2549**	**0**	**7754**	**8**	**1**	**2305**	**418**	**0**	**2724**	**8**	**10478**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection: Island Park Dr & Kichi Zibi Mikan Pkwy
Site Code: 2434800001
Municipality: Ottawa
Count Date: Aug 21, 2024

Kichi Zibi Mikan Pkwy - Traffic Summary

	East Approach Totals						West Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
06:30 - 07:00	41	79	19	0	139	2	69	154	3	0	226	2	365
07:00 - 08:00	92	183	68	0	343	5	204	564	16	0	784	6	1127
08:00 - 09:00	138	213	84	0	435	3	187	697	30	0	914	0	1349
09:00 - 09:30	51	85	32	1	169	0	77	217	22	0	316	2	485
BREAK													
15:00 - 16:00	130	841	773	0	1744	5	346	230	20	0	596	4	2340
16:00 - 17:00	159	892	922	0	1973	0	332	172	17	0	521	2	2494
17:00 - 18:00	168	774	844	0	1786	4	352	212	19	0	583	1	2369
GRAND TOTAL	**779**	**3067**	**2742**	**1**	**6589**	**19**	**1567**	**2246**	**127**	**0**	**3940**	**17**	**10529**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Island Park Dr & Kichi Zibi Mikan Pkwy
Site Code: 2434800001
Municipality: Ottawa
Count Date: Aug 21, 2024

North Approach - Island Park Dr

	Cars					Trucks					Bicycles					
Start Time	↰	↑	↱	↩	Total	↰	↑	↱	↩	Total	↰	↑	↱	↩	Total	Total Peds
06:30	116	193	151	0	460	2	0	0	0	2	0	0	0	0	0	1
06:45	123	186	108	0	417	0	0	1	0	1	0	0	0	0	0	0
07:00	115	186	115	0	416	1	1	0	0	2	0	0	0	0	0	0
07:15	102	190	118	0	410	2	0	0	0	2	0	0	0	0	0	0
07:30	117	207	127	0	451	1	0	0	0	1	0	0	0	0	0	0
07:45	139	183	111	0	433	3	0	1	0	4	0	0	0	0	0	0
08:00	103	174	110	0	387	1	0	0	0	1	0	0	0	0	0	0
08:15	126	185	120	0	431	0	0	0	0	0	0	0	0	0	0	0
08:30	98	173	126	0	397	1	1	0	0	2	0	0	0	0	0	0
08:45	80	145	81	0	306	1	0	0	0	1	0	0	0	0	0	0
09:00	73	165	99	0	337	0	0	0	0	0	0	0	0	0	0	0
09:15	77	168	84	0	329	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	1269	2155	1350	0	4774	12	2	2	0	16	0	0	0	0	0	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Island Park Dr & Kichi Zibi Mikan Pkwy
Site Code: 2434800001
Municipality: Ottawa
Count Date: Aug 21, 2024

North Approach - Island Park Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↩	Total	↰	↑	↱	↩	Total	↰	↑	↱	↩	Total	
15:00	24	111	81	0	216	1	0	1	0	2	0	0	0	0	0	1
15:15	41	103	108	0	252	3	1	0	0	4	0	0	0	0	0	1
15:30	32	106	109	0	247	0	2	0	0	2	0	0	0	0	0	1
15:45	48	95	94	0	237	0	1	0	0	1	0	0	0	0	0	0
16:00	28	97	97	0	222	0	2	0	0	2	0	0	0	0	0	0
16:15	37	125	90	0	252	2	0	1	0	3	0	0	0	0	0	0
16:30	38	107	105	0	250	1	1	0	0	2	0	0	0	0	0	0
16:45	26	116	109	0	251	1	0	1	0	2	0	0	0	0	0	1
17:00	35	113	97	0	245	1	0	1	0	2	0	0	0	0	0	1
17:15	25	112	90	0	227	0	0	0	0	0	0	0	0	0	0	0
17:30	38	121	104	0	263	1	0	0	0	1	0	0	0	0	0	0
17:45	37	135	109	0	281	0	0	0	0	0	0	0	0	0	0	2
SUBTOTAL	409	1341	1193	0	2943	10	7	4	0	21	0	0	0	0	0	7
GRAND TOTAL	1678	3496	2543	0	7717	22	9	6	0	37	0	0	0	0	0	8

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Island Park Dr & Kichi Zibi Mikan Pkwy
Site Code: 2434800001
Municipality: Ottawa
Count Date: Aug 21, 2024

South Approach - Island Park Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↩	Total	↰	↑	↱	↩	Total	↰	↑	↱	↩	Total	
06:30	0	47	7	0	54	0	0	0	0	0	0	1	0	0	1	0
06:45	0	38	13	0	51	0	0	0	0	0	0	0	0	0	0	0
07:00	0	50	17	0	67	0	1	0	0	1	0	0	0	0	0	0
07:15	0	56	24	0	80	0	1	0	0	1	0	0	0	0	0	0
07:30	0	59	18	0	77	0	0	0	0	0	0	1	0	0	1	0
07:45	0	51	28	0	79	0	0	0	0	0	0	0	0	0	0	1
08:00	1	65	32	0	98	0	1	0	0	1	0	0	0	0	0	0
08:15	0	60	35	0	95	0	0	0	0	0	0	1	0	0	1	1
08:30	0	67	37	0	104	0	0	0	0	0	0	0	0	0	0	0
08:45	0	77	50	0	127	0	1	0	0	1	0	0	0	0	0	0
09:00	0	80	29	0	109	0	1	0	0	1	0	0	0	0	0	0
09:15	0	64	27	0	91	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	1	714	317	0	1032	0	5	0	0	5	0	3	0	0	3	2

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Island Park Dr & Kichi Zibi Mikan Pkwy
Site Code: 2434800001
Municipality: Ottawa
Count Date: Aug 21, 2024

South Approach - Island Park Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
15:00	0	150	13	0	163	0	0	1	0	1	0	4	0	0	4	0
15:15	0	136	14	0	150	0	0	0	0	0	0	1	0	0	1	0
15:30	0	140	11	0	151	0	0	0	0	0	0	0	0	0	0	3
15:45	0	128	13	0	141	0	0	0	0	0	0	2	0	0	2	1
16:00	0	126	5	0	131	0	0	0	0	0	0	2	0	0	2	0
16:15	0	124	9	0	133	0	0	0	0	0	0	0	0	0	0	0
16:30	0	117	7	0	124	0	0	0	0	0	0	2	0	0	2	0
16:45	0	122	7	0	129	0	0	0	0	0	0	3	0	0	3	0
17:00	0	125	5	0	130	0	0	0	0	0	0	1	0	0	1	1
17:15	0	130	6	0	136	0	0	0	0	0	0	2	0	0	2	0
17:30	0	128	5	0	133	0	0	0	0	0	0	0	0	0	0	1
17:45	0	138	5	0	143	0	1	0	0	1	0	1	0	0	1	0
SUBTOTAL	0	1564	100	0	1664	0	1	1	0	2	0	18	0	0	18	6
GRAND TOTAL	1	2278	417	0	2696	0	6	1	0	7	0	21	0	0	21	8

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Island Park Dr & Kichi Zibi Mikan Pkwy
Site Code: 2434800001
Municipality: Ottawa
Count Date: Aug 21, 2024

East Approach - Kichi Zibi Mikan Pkwy

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
06:30	21	41	8	0	70	0	0	1	0	1	0	0	0	0	0	2
06:45	20	38	8	0	66	0	0	2	0	2	0	0	0	0	0	0
07:00	18	30	15	0	63	0	1	0	0	1	0	0	0	0	0	1
07:15	35	54	21	0	110	0	1	2	0	3	0	0	0	0	0	0
07:30	21	43	16	0	80	0	1	1	0	2	0	0	0	0	0	1
07:45	18	51	12	0	81	0	2	1	0	3	0	0	0	0	0	3
08:00	24	48	15	0	87	0	0	1	0	1	0	0	0	0	0	0
08:15	32	51	22	0	105	0	0	1	0	1	0	0	0	0	0	2
08:30	40	59	23	0	122	0	0	1	0	1	0	0	0	0	0	1
08:45	40	55	20	0	115	2	0	1	0	3	0	0	0	0	0	0
09:00	24	51	19	0	94	0	0	1	0	1	0	0	0	0	0	0
09:15	27	33	12	1	73	0	1	0	0	1	0	0	0	0	0	0
SUBTOTAL	320	554	191	1	1066	2	6	12	0	20	0	0	0	0	0	10

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Island Park Dr & Kichi Zibi Mikan Pkwy
Site Code: 2434800001
Municipality: Ottawa
Count Date: Aug 21, 2024

East Approach - Kichi Zibi Mikan Pkwy

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
15:00	26	179	142	0	347	0	0	3	0	3	0	0	0	0	0	0
15:15	37	187	196	0	420	1	0	1	0	2	0	0	0	0	0	2
15:30	33	248	227	0	508	2	0	1	0	3	0	0	0	0	0	3
15:45	31	225	203	0	459	0	2	0	0	2	0	0	0	0	0	0
16:00	33	220	223	0	476	0	0	0	0	0	0	0	0	0	0	0
16:15	41	235	236	0	512	0	0	1	0	1	0	0	0	0	0	0
16:30	41	208	201	0	450	0	1	2	0	3	0	0	0	0	0	0
16:45	44	228	258	0	530	0	0	1	0	1	0	0	0	0	0	0
17:00	45	207	254	0	506	0	0	1	0	1	0	0	0	0	0	1
17:15	35	209	214	0	458	0	1	2	0	3	0	0	0	0	0	2
17:30	47	225	205	0	477	0	0	1	0	1	0	0	0	0	0	1
17:45	41	132	166	0	339	0	0	1	0	1	0	0	0	0	0	0
SUBTOTAL	454	2503	2525	0	5482	3	4	14	0	21	0	0	0	0	0	9
GRAND TOTAL	774	3057	2716	1	6548	5	10	26	0	41	0	0	0	0	0	19

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Island Park Dr & Kichi Zibi Mikan Pkwy
Site Code: 2434800001
Municipality: Ottawa
Count Date: Aug 21, 2024

West Approach - Kichi Zibi Mikan Pkwy

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
06:30	28	53	0	0	81	0	0	0	0	0	0	0	0	0	0	2
06:45	41	101	3	0	145	0	0	0	0	0	0	0	0	0	0	0
07:00	35	94	1	0	130	0	0	0	0	0	0	0	0	0	0	2
07:15	53	141	3	0	197	0	0	0	0	0	0	0	0	0	0	2
07:30	69	128	5	0	202	0	2	0	0	2	0	0	0	0	0	1
07:45	47	199	7	0	253	0	0	0	0	0	0	0	0	0	0	1
08:00	41	197	4	0	242	0	0	0	0	0	0	0	0	0	0	0
08:15	48	152	5	0	205	0	1	0	0	1	0	0	0	0	0	0
08:30	51	171	8	0	230	1	0	0	0	1	0	0	0	0	0	0
08:45	46	175	13	0	234	0	1	0	0	1	0	0	0	0	0	0
09:00	41	125	12	0	178	2	1	0	0	3	0	0	0	0	0	1
09:15	33	90	10	0	133	1	1	0	0	2	0	0	0	0	0	1
SUBTOTAL	533	1626	71	0	2230	4	6	0	0	10	0	0	0	0	0	10

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Island Park Dr & Kichi Zibi Mikan Pkwy
Site Code: 2434800001
Municipality: Ottawa
Count Date: Aug 21, 2024

West Approach - Kichi Zibi Mikan Pkwy

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
15:00	86	73	4	0	163	0	1	0	0	1	0	0	0	0	0	2
15:15	91	53	6	0	150	1	0	0	0	1	0	0	0	0	0	1
15:30	85	54	5	0	144	2	0	0	0	2	0	0	0	0	0	1
15:45	81	49	5	0	135	0	0	0	0	0	0	0	0	0	0	0
16:00	86	40	5	0	131	1	1	0	0	2	0	0	0	0	0	0
16:15	78	43	4	0	125	1	0	0	0	1	0	0	0	0	0	1
16:30	87	49	4	0	140	0	1	0	0	1	0	0	0	0	0	0
16:45	79	38	4	0	121	0	0	0	0	0	0	0	0	0	0	1
17:00	90	34	6	0	130	0	0	0	0	0	0	0	0	0	0	1
17:15	93	65	7	0	165	0	0	0	0	0	0	0	0	0	0	0
17:30	77	51	2	0	130	0	0	0	0	0	0	0	0	0	0	0
17:45	92	62	4	0	158	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	1025	611	56	0	1692	5	3	0	0	8	0	0	0	0	0	7
GRAND TOTAL	1558	2237	127	0	3922	9	9	0	0	18	0	0	0	0	0	17

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	06:30:00	From:	07:45:00
To:	09:30:00	To:	08:45:00

Intersection: Island Park Dr & Kichi Zibi Mikan Pkwy
Site Code: 2434800001
Count Date: Aug 21, 2024

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Kichi Zibi Mikan Pkwy runs E/W

North Approach

	Out	In	Total
Cars	1648	502	2150
Trucks	7	6	13
Bicycles	0	1	1
	1655	509	2164

Island Park Dr

Bicycles	0	0	0	0
Trucks	1	1	5	0
Cars	467	715	466	0
Totals	468	716	471	0

East Approach

	Out	In	Total
Cars	395	1317	1712
Trucks	6	6	12
Bicycles	0	0	0
	401	1323	1724

Kichi Zibi Mikan Pkwy

Bicycles	Trucks	Cars	Totals
0	0	0	0
0	1	187	188
0	1	719	720
0	0	24	24

Peds: 0
Peds: 1
Peds: 6
Peds: 2

Kichi Zibi Mikan Pkwy

Totals	Cars	Trucks	Bicycles
0	0	0	0
76	72	4	0
211	209	2	0
114	114	0	0

West Approach

	Out	In	Total
Cars	930	677	1607
Trucks	2	3	5
Bicycles	0	0	0
	932	680	1612

Island Park Dr

Totals	1	245	132	0
Cars	1	243	132	0
Trucks	0	1	0	0
Bicycles	0	1	0	0

South Approach

	Out	In	Total
Cars	376	853	1229
Trucks	1	1	2
Bicycles	1	0	1
	378	854	1232

- Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Island Park Dr & Kichi Zibi Mikan Pkwy
Site Code: 2434800001
Count Date: Aug 21, 2024
Period: 06:30 - 09:30

Peak Hour Data (07:45 - 08:45)

Start Time	North Approach Island Park Dr						South Approach Island Park Dr						East Approach Kichi Zibi Mikan Pkwy						West Approach Kichi Zibi Mikan Pkwy						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
07:45	142	183	112	0	0	437	0	51	28	0	1	79	18	53	13	0	3	84	47	199	7	0	1	253	853
08:00	104	174	110	0	0	388	1	66	32	0	0	99	24	48	16	0	0	88	41	197	4	0	0	242	817
08:15	126	185	120	0	0	431	0	61	35	0	1	96	32	51	23	0	2	106	48	153	5	0	0	206	839
08:30	99	174	126	0	0	399	0	67	37	0	0	104	40	59	24	0	1	123	52	171	8	0	0	231	857
Grand Total	**471**	**716**	**468**	**0**	**0**	**1655**	**1**	**245**	**132**	**0**	**2**	**378**	**114**	**211**	**76**	**0**	**6**	**401**	**188**	**720**	**24**	**0**	**1**	**932**	**3366**
Approach %	28.5	43.3	28.3	0		-	0.3	64.8	34.9	0		-	28.4	52.6	19	0		-	20.2	77.3	2.6	0		-	
Totals %	14	21.3	13.9	0		49.2	0	7.3	3.9	0		11.2	3.4	6.3	2.3	0		11.9	5.6	21.4	0.7	0		27.7	
PHF	**0.83**	**0.97**	**0.93**	**0**		**0.95**	**0.25**	**0.91**	**0.89**	**0**		**0.91**	**0.71**	**0.89**	**0.79**	**0**		**0.82**	**0.9**	**0.9**	**0.75**	**0**		**0.92**	**0.98**
Cars	466	715	467	0		1648	1	243	132	0		376	114	209	72	0		395	187	719	24	0		930	3349
% Cars	98.9	99.9	99.8	0		99.6	100	99.2	100	0		99.5	100	99.1	94.7	0		98.5	99.5	99.9	100	0		99.8	99.5
Trucks	5	1	1	0		7	0	1	0	0		1	0	2	4	0		6	1	1	0	0		2	16
% Trucks	1.1	0.1	0.2	0		0.4	0	0.4	0	0		0.3	0	0.9	5.3	0		1.5	0.5	0.1	0	0		0.2	0.5
Bicycles	0	0	0	0		0	0	1	0	0		1	0	0	0	0		0	0	0	0	0		0	1
% Bicycles	0	0	0	0		0	0	0.4	0	0		0.3	0	0	0	0		0	0	0	0	0		0	0
Peds					0	-					2	-					6	-					1	-	9
% Peds					0	-					22.2	-					66.7	-					11.1	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 16:15:00
To: 17:15:00

Intersection: Island Park Dr & Kichi Zibi Mikan Pkwy
Site Code: 2434800001
Count Date: Aug 21, 2024

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Kichi Zibi Mikan Pkwy runs E/W

North Approach

	Out	In	Total
Cars	998	1771	2769
Trucks	9	6	15
Bicycles	0	6	6
	1007	**1783**	**2790**

Island Park Dr

Bicycles	0	0	0	0
Trucks	3	1	5	0
Cars	401	461	136	0
Totals	**404**	**462**	**141**	**0**

East Approach

	Out	In	Total
Cars	1998	328	2326
Trucks	6	6	12
Bicycles	0	0	0
	2004	**334**	**2338**

Kichi Zibi Mikan Pkwy

			Totals
0	0	0	**0**
0	1	334	**335**
0	1	164	**165**
0	0	18	**18**

Peds: 2
Peds: 3
Peds: 1
Peds: 1

Kichi Zibi Mikan Pkwy

	Totals			
0	0	0	0
954	949	5	0
879	878	1	0
171	171	0	0

West Approach

	Out	In	Total
Cars	516	1279	1795
Trucks	2	4	6
Bicycles	0	0	0
	518	**1283**	**1801**

Totals	**0**	**494**	**28**	**0**
Cars	0	488	28	0
Trucks	0	0	0	0
Bicycles	0	6	0	0

Island Park Dr

South Approach

	Out	In	Total
Cars	516	650	1166
Trucks	0	1	1
Bicycles	6	0	6
	522	**651**	**1173**

- Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Island Park Dr & Kichi Zibi Mikan Pkwy
Site Code: 2434800001
Count Date: Aug 21, 2024
Period: 15:00 - 18:00

Peak Hour Data (16:15 - 17:15)

Start Time	North Approach Island Park Dr						South Approach Island Park Dr						East Approach Kichi Zibi Mikan Pkwy						West Approach Kichi Zibi Mikan Pkwy						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:15	39	125	91	0	0	255	0	124	9	0	0	133	41	235	237	0	0	513	79	43	4	0	1	126	1027
16:30	39	108	105	0	0	252	0	119	7	0	0	126	41	209	203	0	0	453	87	50	4	0	0	141	972
16:45	27	116	110	0	1	253	0	125	7	0	0	132	44	228	259	0	0	531	79	38	4	0	1	121	1037
17:00	36	113	98	0	1	247	0	126	5	0	1	131	45	207	255	0	1	507	90	34	6	0	1	130	1015
Grand Total	**141**	**462**	**404**	**0**	**2**	**1007**	**0**	**494**	**28**	**0**	**1**	**522**	**171**	**879**	**954**	**0**	**1**	**2004**	**335**	**165**	**18**	**0**	**3**	**518**	**4051**
Approach %	14	45.9	40.1	0		-	0	94.6	5.4	0		-	8.5	43.9	47.6	0		-	64.7	31.9	3.5	0		-	
Totals %	3.5	11.4	10	0		24.9	0	12.2	0.7	0		12.9	4.2	21.7	23.5	0		49.5	8.3	4.1	0.4	0		12.8	
PHF	**0.9**	**0.92**	**0.92**	**0**		**0.99**	**0**	**0.98**	**0.78**	**0**		**0.98**	**0.95**	**0.94**	**0.92**	**0**		**0.94**	**0.93**	**0.83**	**0.75**	**0**		**0.92**	**0.98**
Cars	136	461	401	0		998	0	488	28	0		516	171	878	949	0		1998	334	164	18	0		516	4028
% Cars	96.5	99.8	99.3	0		99.1	0	98.8	100	0		98.9	100	99.9	99.5	0		99.7	99.7	99.4	100	0		99.6	99.4
Trucks	5	1	3	0		9	0	0	0	0		0	0	1	5	0		6	1	1	0	0		2	17
% Trucks	3.5	0.2	0.7	0		0.9	0	0	0	0		0	0	0.1	0.5	0		0.3	0.3	0.6	0	0		0.4	0.4
Bicycles	0	0	0	0		0	0	6	0	0		6	0	0	0	0		0	0	0	0	0		0	6
% Bicycles	0	0	0	0		0	0	1.2	0	0		1.1	0	0	0	0		0	0	0	0	0		0	0.1
Peds					2	-					1	-					1	-					3	-	7
% Peds					28.6	-					14.3	-					14.3	-					42.9	-	

Ottawa

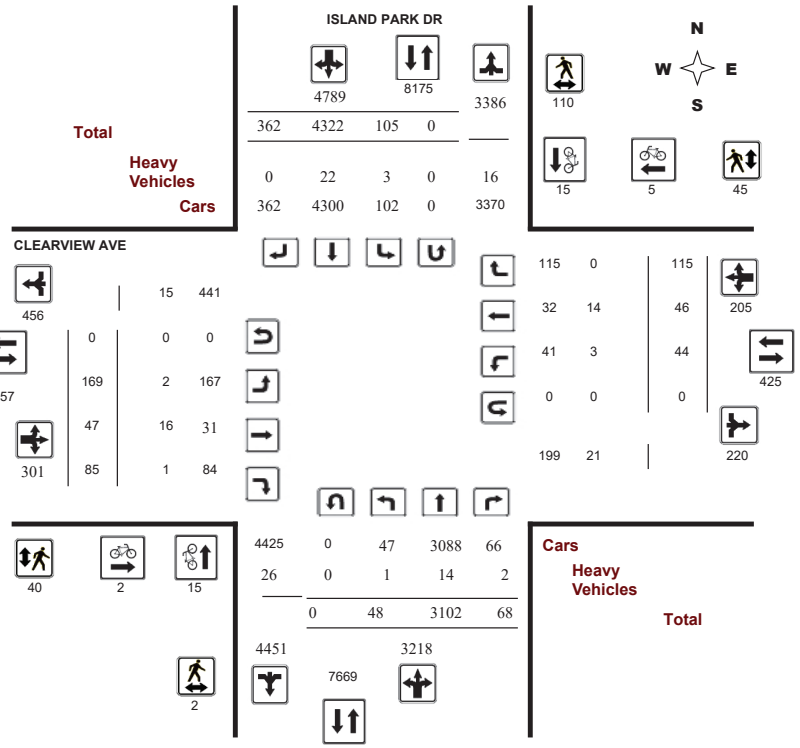
Transportation Services - Traffic Services

Turning Movement Count - Study Results

CLEARVIEW AVE @ ISLAND PARK DR

Survey Date: Tuesday, March 21, 2023
Start Time: 07:00
WO No: 40857
Device: Miovision

Full Study Diagram



Transportation Services - Traffic Services

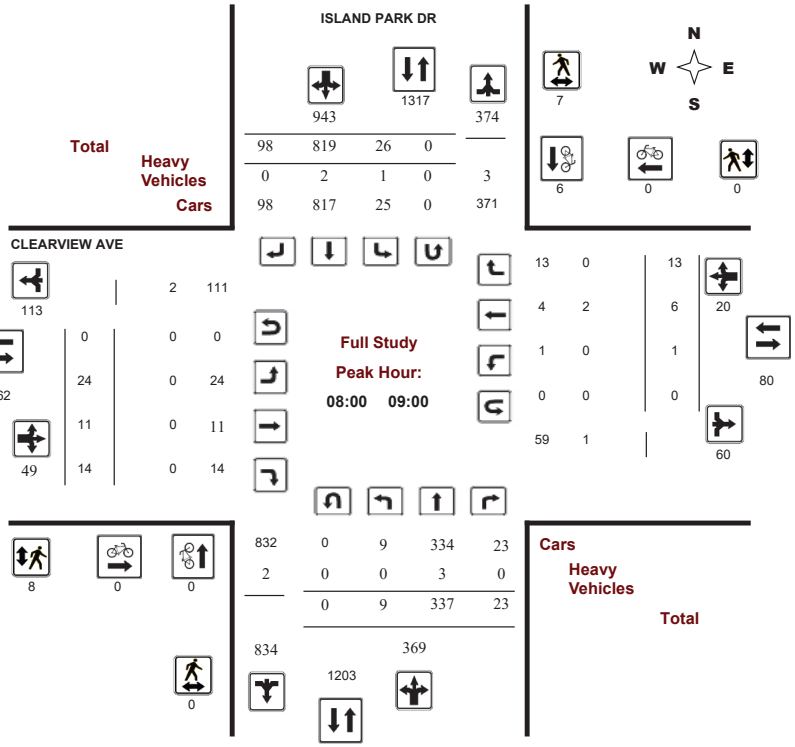
Turning Movement Count - Study Results

CLEARVIEW AVE @ ISLAND PARK DR

Survey Date: Tuesday, March 21, 2023 **WO No:** 40857

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



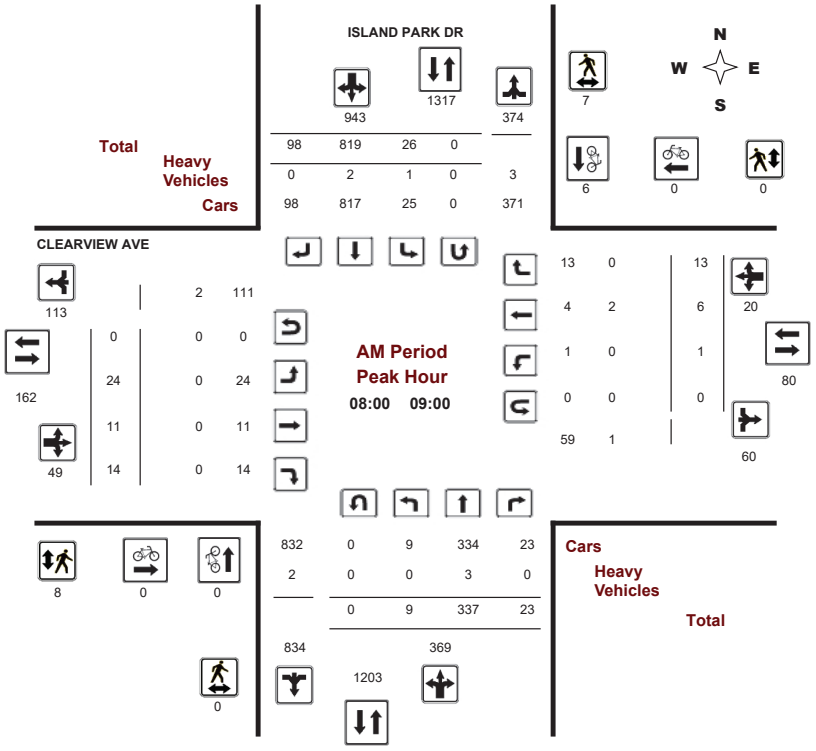
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

CLEARVIEW AVE @ ISLAND PARK DR

Survey Date: Tuesday, March 21, 2023 **WO No:** 40857

Start Time: 07:00 **Device:** Miovision



Comments:

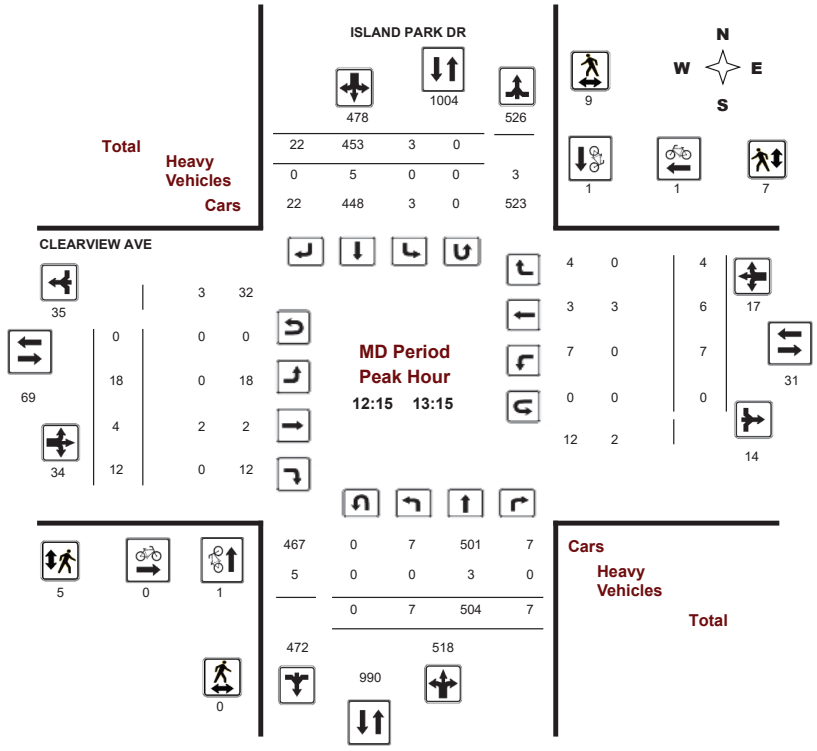
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

CLEARVIEW AVE @ ISLAND PARK DR

Survey Date: Tuesday, March 21, 2023 **WO No:** 40857

Start Time: 07:00 **Device:** Miovision



Comments:

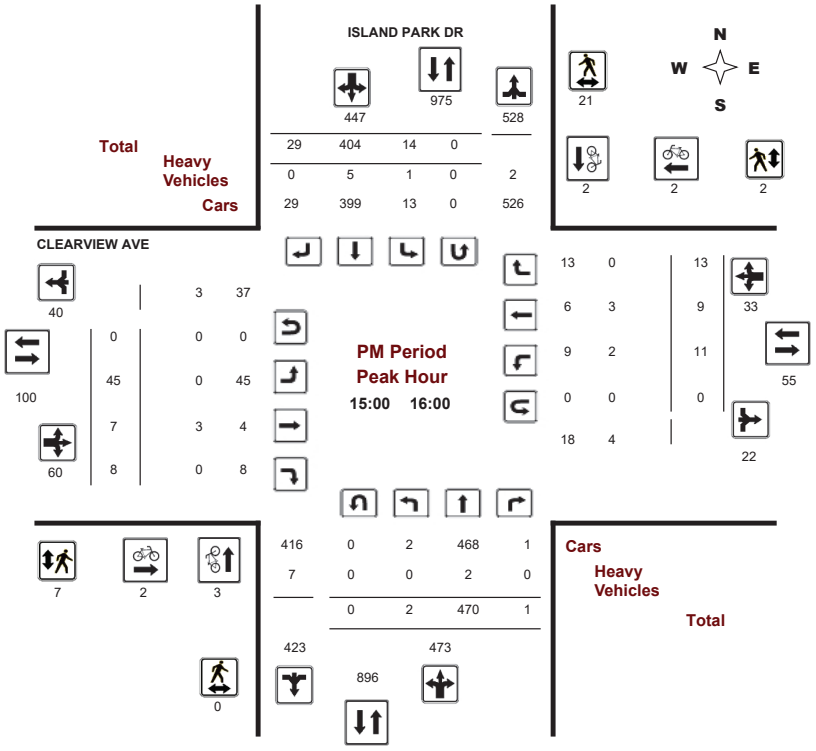
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

CLEARVIEW AVE @ ISLAND PARK DR

Survey Date: Tuesday, March 21, 2023 **WO No:** 40857

Start Time: 07:00 **Device:** Miovision



Comments:

Transportation Services - Traffic Services

Turning Movement Count - Study Results

CLEARVIEW AVE @ ISLAND PARK DR

Survey Date: Tuesday, March 21, 2023 **WO No:** 40857

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, March 21, 2023

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 0 Westbound: 0

AADT Factor

1.00

	ISLAND PARK DR									CLEARVIEW AVE									
	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	Grand Total
07:00 08:00	6	283	3	**292**	8	758	58	**824**	**1116**	12	3	7	**22**	1	1	4	**6**	**28**	**1144**
08:00 09:00	9	337	23	**369**	26	819	98	**943**	**1312**	24	11	14	**49**	1	6	13	**20**	**69**	**1381**
09:00 10:00	10	336	26	**372**	11	554	50	**615**	**987**	18	9	10	**37**	9	10	13	**32**	**69**	**1056**
11:30 12:30	7	478	10	**495**	7	427	26	**460**	**955**	16	3	12	**31**	9	3	5	**17**	**48**	**1003**
12:30 13:30	9	503	4	**516**	5	429	23	**457**	**973**	18	4	10	**32**	4	4	5	**13**	**45**	**1018**
15:00 16:00	2	470	1	**473**	14	404	29	**447**	**920**	45	7	8	**60**	11	9	13	**33**	**93**	**1013**
16:00 17:00	3	339	0	**342**	13	483	31	**527**	**869**	22	5	7	**34**	4	5	19	**28**	**62**	**931**
17:00 18:00	2	356	1	**359**	21	448	47	**516**	**875**	14	5	17	**36**	5	8	43	**56**	**92**	**967**
Sub Total	48	3102	68	**3218**	105	4322	362	**4789**	**8007**	169	47	85	**301**	44	46	115	**205**	**506**	**8513**
U Turns				**0**				**0**	**0**				**0**				**0**	**0**	**0**
Total	48	3102	68	**3218**	105	4322	362	**4789**	**8007**	169	47	85	**301**	44	46	115	**205**	**506**	**8513**
EQ 12Hr	67	4312	95	**4473**	146	6008	503	**6657**	**11130**	235	65	118	**418**	61	64	160	**285**	**703**	**11833**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	67	4312	95	**4473**	146	7870	659	**6657**	**11130**	235	65	118	**418**	61	64	160	**285**	**703**	**11833**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**1.00**					
AVG 24Hr	88	5649	124	**5860**	191	10310	863	**8721**	**14580**	308	85	155	**548**	80	84	210	**373**	**921**	**15501**
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

CLEARVIEW AVE @ ISLAND PARK DR

Survey Date: Tuesday, March 21, 2023 **WO No:** 40857

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute Increments

		ISLAND PARK DR									CLEARVIEW AVE									
		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
15:30	15:45	0	104	0	104	4	98	10	112	216	8	2	2	12	0	0	3	3	15	231
15:45	16:00	0	100	0	100	4	93	5	102	202	4	2	0	6	8	5	6	19	25	227
16:00	16:15	0	84	0	84	2	104	8	114	198	2	1	2	5	0	0	1	1	6	204
16:15	16:30	1	95	0	96	3	128	6	137	233	8	1	2	11	2	3	3	8	19	252
16:30	16:45	1	86	0	87	1	119	10	130	217	7	0	2	9	1	1	6	8	17	234
17:15	17:30	0	82	0	82	8	119	12	139	221	4	0	5	9	1	3	10	14	23	244
17:30	17:45	1	91	0	92	4	122	18	144	236	4	0	2	6	1	1	7	9	15	251
17:45	18:00	1	96	1	98	6	110	8	124	222	5	3	4	12	1	3	13	17	29	251
15:15	15:30	1	113	1	115	4	128	6	138	253	25	1	4	30	0	4	1	5	35	288
09:00	09:15	1	82	17	100	6	154	22	182	282	4	5	1	10	6	4	5	15	25	307
16:45	17:00	1	74	0	75	7	132	7	146	221	5	3	1	9	1	1	9	11	20	241
17:00	17:15	0	87	0	87	3	97	9	109	196	1	2	6	9	2	1	13	16	25	221
07:00	07:15	0	76	0	76	0	176	10	186	262	3	1	3	7	1	0	0	1	8	270
07:15	07:30	3	70	0	73	0	220	19	239	312	4	1	0	5	0	1	1	2	7	319
07:30	07:45	2	66	2	70	2	190	13	205	275	1	0	1	2	0	0	1	1	3	278
07:45	08:00	1	71	1	73	6	172	16	194	267	4	1	3	8	0	0	2	2	10	277
08:00	08:15	3	92	4	99	5	191	20	216	315	6	2	1	9	0	1	1	2	11	326
08:15	08:30	2	88	6	96	6	215	23	244	340	2	3	5	10	1	2	5	8	18	358
08:30	08:45	1	68	5	74	11	207	29	247	321	8	4	4	16	0	3	4	7	23	344
08:45	09:00	3	89	8	100	4	206	26	236	336	8	2	4	14	0	0	3	3	17	353
09:15	09:30	4	88	3	95	2	147	15	164	259	4	3	3	10	2	5	7	14	24	283
11:30	11:45	2	119	2	123	2	106	8	116	239	3	0	0	3	2	1	1	4	7	246
11:45	12:00	1	118	2	121	2	98	6	106	227	5	2	4	11	3	0	1	4	15	242
12:00	12:15	4	108	1	113	2	104	7	113	226	4	0	4	8	1	0	2	3	11	237
12:15	12:30	0	133	5	138	1	119	5	125	263	4	1	4	9	3	2	1	6	15	278
12:30	12:45	1	132	1	134	0	101	9	110	244	7	1	3	11	2	2	1	5	16	260
12:45	13:00	1	114	0	115	1	120	3	124	239	5	2	2	9	1	1	2	4	13	252
13:00	13:15	5	125	1	131	1	113	5	119	250	2	0	3	5	1	1	0	2	7	257
13:15	13:30	2	132	2	136	3	95	6	104	240	4	1	2	7	0	0	2	2	9	249
15:00	15:15	1	153	0	154	2	85	8	95	249	8	2	2	12	3	0	3	6	18	267
09:45	10:00	4	82	2	88	2	131	9	142	230	3	1	4	8	0	0	0	0	8	238
09:30	09:45	1	84	4	89	1	122	4	127	216	7	0	2	9	1	1	1	3	12	228
Total:		48	3102	68	3218	105	4322	362	4789	8007	169	47	85	301	44	46	115	205	506	8,513

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

CLEARVIEW AVE @ ISLAND PARK DR

Survey Date: Tuesday, March 21, 2023 **WO No:** 40857

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

Time Period		ISLAND PARK DR			CLEARVIEW AVE			
		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
15:30	15:45	0	0	0	1	1	2	2
15:45	16:00	2	0	2	0	0	0	2
16:00	16:15	0	0	0	0	1	1	1
16:15	16:30	0	0	0	0	0	0	0
16:30	16:45	2	0	2	0	1	1	3
17:15	17:30	2	0	2	0	0	0	2
17:30	17:45	1	0	1	0	0	0	1
17:45	18:00	2	0	2	0	0	0	2
15:15	15:30	0	1	1	1	1	2	3
09:00	09:15	0	1	1	0	0	0	1
16:45	17:00	1	1	2	0	0	0	2
17:00	17:15	1	0	1	0	0	0	1
07:00	07:15	0	1	1	0	0	0	1
07:15	07:30	0	1	1	0	0	0	1
07:30	07:45	0	2	2	0	0	0	2
07:45	08:00	1	0	1	0	0	0	1
08:00	08:15	0	1	1	0	0	0	1
08:15	08:30	0	1	1	0	0	0	1
08:30	08:45	0	2	2	0	0	0	2
08:45	09:00	0	2	2	0	0	0	2
09:15	09:30	0	0	0	0	0	0	0
11:30	11:45	0	0	0	0	0	0	0
11:45	12:00	1	0	1	0	0	0	1
12:00	12:15	0	0	0	0	0	0	0
12:15	12:30	0	0	0	0	0	0	0
12:30	12:45	1	1	2	0	0	0	2
12:45	13:00	0	0	0	0	1	1	1
13:00	13:15	0	0	0	0	0	0	0
13:15	13:30	0	0	0	0	0	0	0
15:00	15:15	1	1	2	0	0	0	2
09:45	10:00	0	0	0	0	0	0	0
09:30	09:45	0	0	0	0	0	0	0
Total		15	15	**30**	2	5	7	37

Transportation Services - Traffic Services

Turning Movement Count - Study Results

CLEARVIEW AVE @ ISLAND PARK DR

Survey Date: Tuesday, March 21, 2023 **WO No:** 40857

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

Time Period		ISLAND PARK DR			CLEARVIEW AVE			
		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
15:30	15:45	0	5	**5**	2	0	**2**	**7**
15:45	16:00	0	14	**14**	2	0	**2**	**16**
16:00	16:15	1	2	**3**	0	3	**3**	**6**
16:15	16:30	0	6	**6**	3	4	**7**	**13**
16:30	16:45	0	7	**7**	4	3	**7**	**14**
17:15	17:30	1	2	**3**	0	0	**0**	**3**
17:30	17:45	0	3	**3**	3	4	**7**	**10**
17:45	18:00	0	4	**4**	1	6	**7**	**11**
15:15	15:30	0	2	**2**	1	0	**1**	**3**
09:00	09:15	0	18	**18**	3	0	**3**	**21**
16:45	17:00	0	5	**5**	1	2	**3**	**8**
17:00	17:15	0	6	**6**	0	4	**4**	**10**
07:00	07:15	0	0	**0**	0	2	**2**	**2**
07:15	07:30	0	2	**2**	0	0	**0**	**2**
07:30	07:45	0	0	**0**	1	0	**1**	**1**
07:45	08:00	0	3	**3**	0	2	**2**	**5**
08:00	08:15	0	0	**0**	4	0	**4**	**4**
08:15	08:30	0	4	**4**	2	0	**2**	**6**
08:30	08:45	0	3	**3**	1	0	**1**	**4**
08:45	09:00	0	0	**0**	1	0	**1**	**1**
09:15	09:30	0	7	**7**	1	0	**1**	**8**
11:30	11:45	0	0	**0**	0	1	**1**	**1**
11:45	12:00	0	1	**1**	1	0	**1**	**2**
12:00	12:15	0	2	**2**	0	3	**3**	**5**
12:15	12:30	0	4	**4**	2	1	**3**	**7**
12:30	12:45	0	1	**1**	0	4	**4**	**5**
12:45	13:00	0	4	**4**	0	2	**2**	**6**
13:00	13:15	0	0	**0**	3	0	**3**	**3**
13:15	13:30	0	3	**3**	1	1	**2**	**5**
15:00	15:15	0	0	**0**	2	2	**4**	**4**
09:45	10:00	0	1	**1**	0	0	**0**	**1**
09:30	09:45	0	1	**1**	1	1	**2**	**3**
Total		2	110	**112**	40	45	**85**	**197**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

CLEARVIEW AVE @ ISLAND PARK DR

Survey Date: Tuesday, March 21, 2023 **WO No:** 40857

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

		ISLAND PARK DR									CLEARVIEW AVE									
		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
15:30	15:45	0	0	0	**0**	1	3	0	**4**	**4**	0	0	0	**0**	0	0	0	**0**	**0**	**4**
15:45	16:00	0	1	0	**1**	0	0	0	**0**	**1**	0	1	0	**1**	2	2	0	**4**	**5**	**6**
16:00	16:15	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	0	0	**0**	**1**	**1**
16:15	16:30	0	1	0	**1**	0	1	0	**1**	**2**	0	1	0	**1**	0	1	0	**1**	**2**	**4**
16:30	16:45	0	0	0	**0**	0	0	0	**0**	**0**	1	0	0	**1**	0	0	0	**0**	**1**	**1**
17:15	17:30	0	1	0	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	1	0	**1**	**1**	**2**
17:30	17:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
17:45	18:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	1	0	**1**	**2**	**2**
15:15	15:30	0	1	0	**1**	0	1	0	**1**	**2**	0	1	0	**1**	0	1	0	**1**	**2**	**4**
09:00	09:15	0	1	1	**2**	0	1	0	**1**	**3**	0	0	0	**0**	1	0	0	**1**	**1**	**4**
16:45	17:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	1	0	**1**	**2**	**2**
17:00	17:15	0	0	0	**0**	0	2	0	**2**	**2**	0	1	0	**1**	0	0	0	**0**	**1**	**3**
07:00	07:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
07:15	07:30	1	0	0	**1**	0	2	0	**2**	**3**	0	1	0	**1**	0	0	0	**0**	**1**	**4**
07:30	07:45	0	0	1	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
07:45	08:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	0	0	**0**	**1**	**1**
08:00	08:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
08:15	08:30	0	0	0	**0**	0	1	0	**1**	**1**	0	0	0	**0**	0	2	0	**2**	**2**	**3**
08:30	08:45	0	2	0	**2**	1	1	0	**2**	**4**	0	0	0	**0**	0	0	0	**0**	**0**	**4**
08:45	09:00	0	1	0	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
09:15	09:30	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	1	0	**1**	**2**	**2**
11:30	11:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	1	0	**1**	**1**	**1**
11:45	12:00	0	2	0	**2**	1	2	0	**3**	**5**	1	1	1	**3**	0	0	0	**0**	**3**	**8**
12:00	12:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
12:15	12:30	0	1	0	**1**	0	0	0	**0**	**1**	0	1	0	**1**	0	1	0	**1**	**2**	**3**
12:30	12:45	0	0	0	**0**	0	3	0	**3**	**3**	0	0	0	**0**	0	1	0	**1**	**1**	**4**
12:45	13:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	0	0	**0**	**1**	**1**
13:00	13:15	0	2	0	**2**	0	2	0	**2**	**4**	0	0	0	**0**	0	1	0	**1**	**1**	**5**
13:15	13:30	0	0	0	**0**	0	2	0	**2**	**2**	0	1	0	**1**	0	0	0	**0**	**1**	**3**
15:00	15:15	0	0	0	**0**	0	1	0	**1**	**1**	0	1	0	**1**	0	0	0	**0**	**1**	**2**
09:45	10:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	0	0	**0**	**1**	**1**
09:30	09:45	0	1	0	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
Total:	None	1	14	2	**17**	3	22	0	**25**	**42**	2	16	1	**19**	3	14	0	**17**	**36**	**78**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

CLEARVIEW AVE @ ISLAND PARK DR

Survey Date: Tuesday, March 21, 2023 **WO No:** 40857

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

		ISLAND PARK DR		CLEARVIEW AVE		
Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
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
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
15:15	15:30	0	0	0	0	0
09:00	09:15	0	0	0	0	0
16:45	17:00	0	0	0	0	0
17:00	17:15	0	0	0	0	0
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
09:15	09:30	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
09:45	10:00	0	0	0	0	0
09:30	09:45	0	0	0	0	0
Total		0	0	0	0	0

Transportation Services - Traffic Services

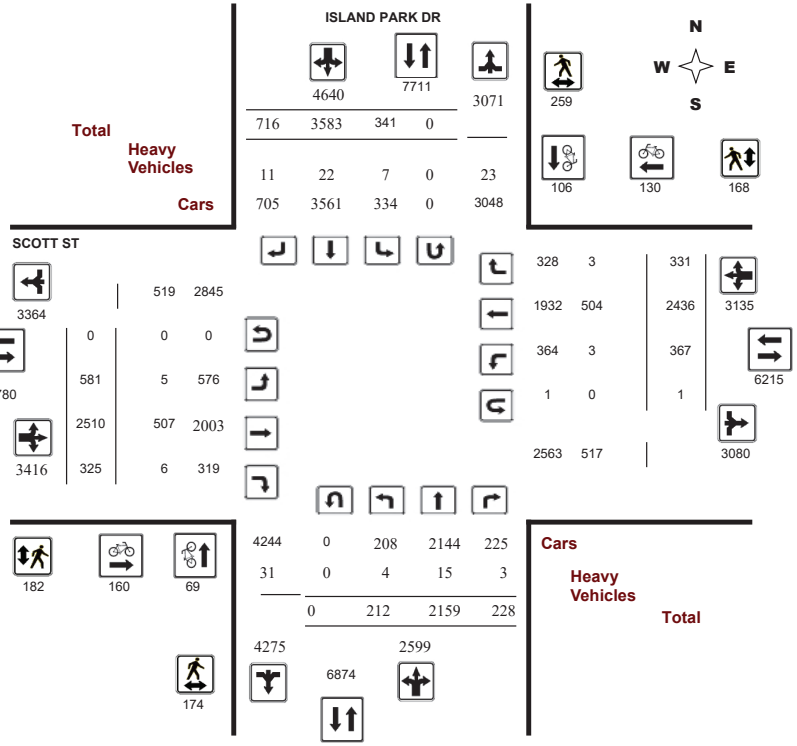
Turning Movement Count - Study Results

ISLAND PARK DR @ SCOTT ST

Survey Date: Thursday, October 27, 2022 **WO No:** 40675

Start Time: 07:00 **Device:** Miovision

Full Study Diagram



Transportation Services - Traffic Services

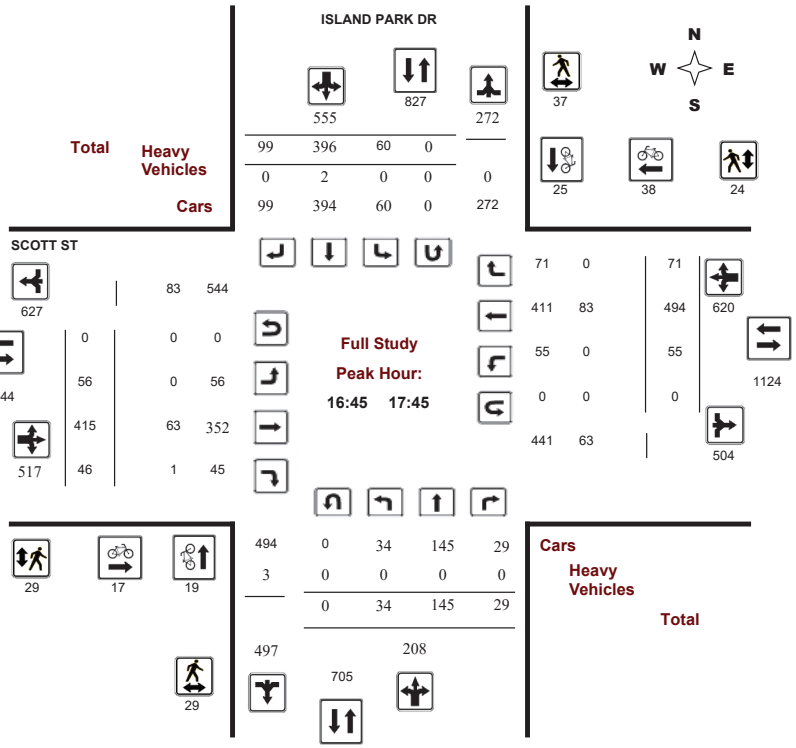
Turning Movement Count - Study Results

ISLAND PARK DR @ SCOTT ST

Survey Date: Thursday, October 27, 2022 **WO No:** 40675

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



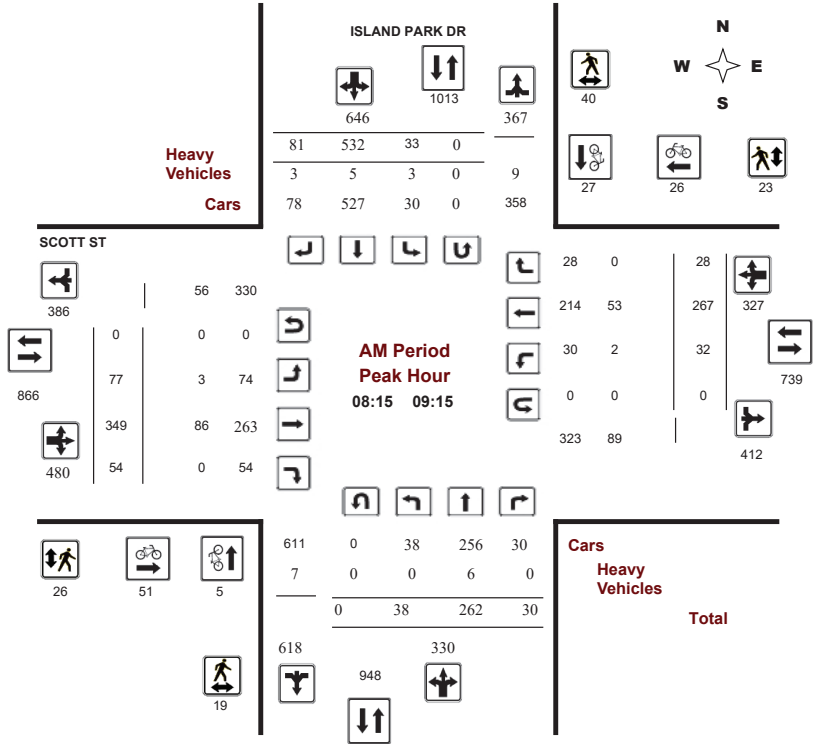
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

ISLAND PARK DR @ SCOTT ST

Survey Date: Thursday, October 27, 2022 **WO No:** 40675

Start Time: 07:00 **Device:** Miovision



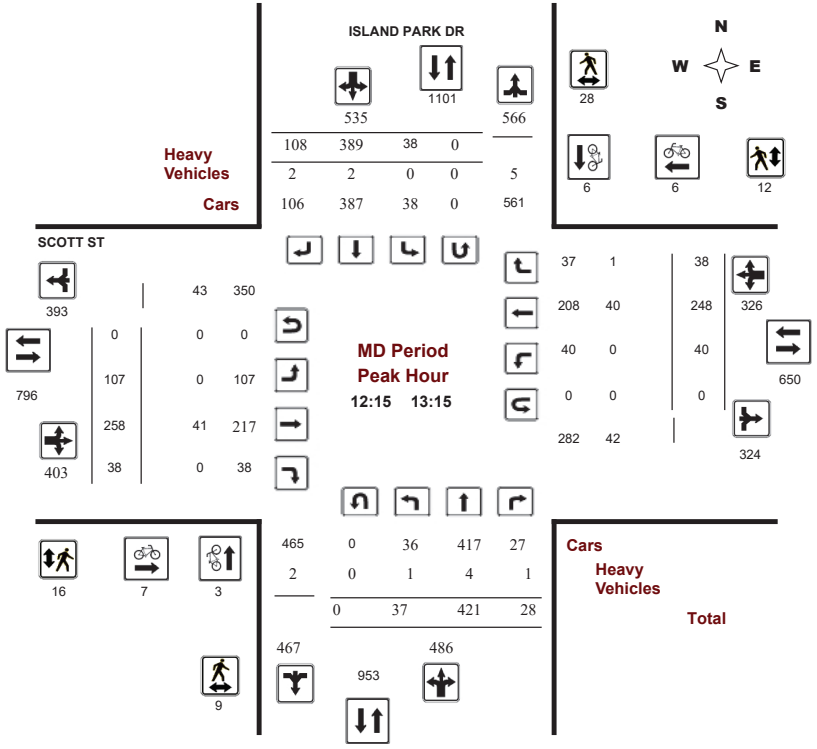
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

ISLAND PARK DR @ SCOTT ST

Survey Date: Thursday, October 27, 2022 **WO No:** 40675

Start Time: 07:00 **Device:** Miovision



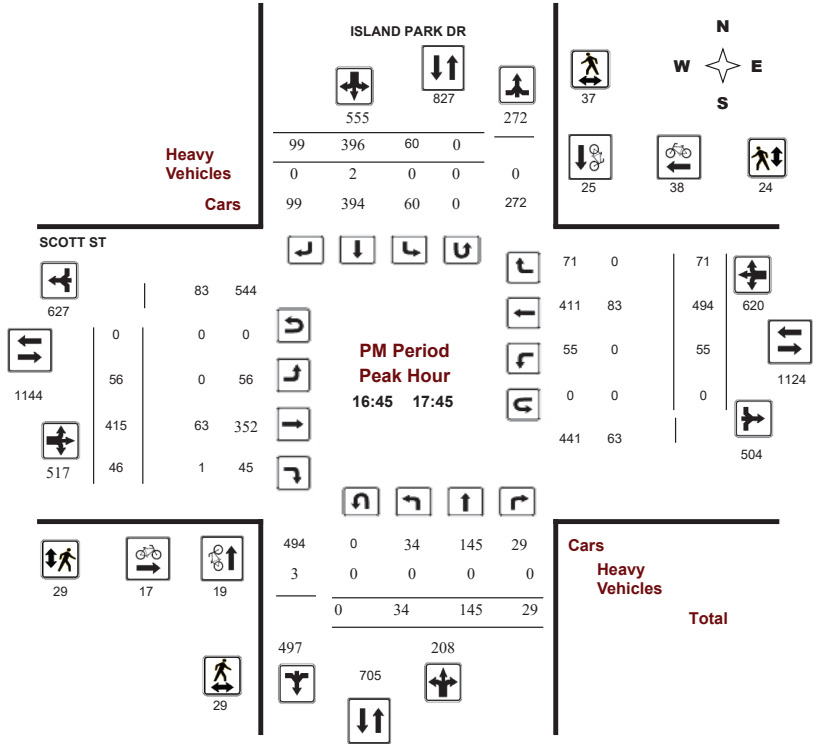
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

ISLAND PARK DR @ SCOTT ST

Survey Date: Thursday, October 27, 2022 **WO No:** 40675

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

ISLAND PARK DR @ SCOTT ST

Survey Date: Thursday, October 27, 2022 **WO No:** 40675

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, October 27, 2022

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 0 Westbound: 1

AADT Factor .90

	ISLAND PARK DR								SCOTT ST								
	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	Grand Total
07:00 08:00	20	241	31	**292**	37	604	77	**718**	**1010**	48	248	27	**323**	32	187	17	**236**	**559**	**1569**
08:00 09:00	35	237	32	**304**	32	531	76	**639**	**943**	76	340	51	**467**	33	256	26	**315**	**782**	**1725**
09:00 10:00	22	328	22	**372**	40	508	88	**636**	**1008**	75	267	50	**392**	24	228	39	**291**	**683**	**1691**
11:30 12:30	29	378	19	**426**	47	406	111	**564**	**990**	87	247	41	**375**	35	257	39	**331**	**706**	**1696**
12:30 13:30	41	406	26	**473**	35	370	93	**498**	**971**	98	245	30	**373**	41	228	44	**313**	**686**	**1657**
15:00 16:00	15	261	45	**321**	43	371	71	**485**	**806**	76	341	41	**458**	69	345	43	**457**	**915**	**1721**
16:00 17:00	24	164	28	**216**	41	409	97	**547**	**763**	64	388	34	**486**	76	448	70	**594**	**1080**	**1843**
17:00 18:00	26	144	25	**195**	66	384	103	**553**	**748**	57	434	51	**542**	57	487	53	**597**	**1139**	**1887**
Sub Total	212	2159	228	**2599**	341	3583	716	**4640**	**7239**	581	2510	325	**3416**	367	2436	331	**3134**	**6550**	**13789**
U Turns				**0**				**0**	**0**				**0**				**1**	**1**	**1**
Total	212	2159	228	**2599**	341	3583	716	**4640**	**7239**	581	2510	325	**3416**	367	2436	331	**3135**	**6551**	**13790**
EQ 12Hr	295	3001	317	**3613**	474	4980	995	**6450**	**10062**	808	3489	452	**4748**	510	3386	460	**4358**	**9106**	**19168**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	266	2701	285	**3252**	427	5872	1173	**5805**	**9056**	727	3140	407	**4273**	459	3047	414	**3922**	**8195**	**17251**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**.90**					
AVG 24Hr	348	3538	373	**4260**	559	7692	1537	**7605**	**11863**	952	4113	533	**5598**	601	3992	542	**5138**	**10735**	**22599**
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

ISLAND PARK DR @ SCOTT ST

Survey Date: Thursday, October 27, 2022 **WO No:** 40675

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute Increments

		ISLAND PARK DR									SCOTT 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	3	46	4	53	9	163	14	186	239	8	50	3	61	5	39	2	47	108	347
07:15	07:30	4	63	2	69	4	150	19	173	242	9	47	10	66	5	28	4	37	103	345
07:30	07:45	9	63	8	80	9	149	23	181	261	14	52	3	69	10	50	5	65	134	395
07:45	08:00	4	69	17	90	15	142	21	178	268	17	99	11	127	12	70	6	88	215	483
08:00	08:15	6	72	6	84	9	142	16	167	251	17	82	12	111	10	40	8	58	169	420
08:15	08:30	4	61	7	72	4	146	14	164	236	23	90	10	123	7	78	5	90	213	449
08:30	08:45	13	50	13	76	12	124	19	155	231	20	79	14	113	10	63	5	78	191	422
08:45	09:00	12	54	6	72	7	119	27	153	225	16	89	15	120	6	75	8	89	209	434
09:00	09:15	9	97	4	110	10	143	21	174	284	18	91	15	124	9	51	10	70	194	478
09:15	09:30	4	73	7	84	13	122	26	161	245	26	64	10	100	3	59	10	72	172	417
09:30	09:45	4	82	3	89	10	122	22	154	243	20	51	12	83	6	70	11	87	170	413
09:45	10:00	5	76	8	89	7	121	19	147	236	11	61	13	85	6	48	8	62	147	383
11:30	11:45	7	95	2	104	11	126	21	158	262	19	64	10	93	6	48	9	63	156	418
11:45	12:00	12	88	4	104	10	87	24	121	225	24	56	6	86	6	64	15	85	171	396
12:00	12:15	4	94	5	103	13	92	32	137	240	14	53	9	76	11	72	6	89	165	405
12:15	12:30	6	101	8	115	13	101	34	148	263	30	74	16	120	12	73	9	94	214	477
12:30	12:45	13	93	12	118	11	100	21	132	250	27	68	8	103	10	63	14	87	190	440
12:45	13:00	11	126	5	142	4	94	27	125	267	24	62	7	93	9	48	8	65	158	425
13:00	13:15	7	101	3	111	10	94	26	130	241	26	54	7	87	9	64	7	80	167	408
13:15	13:30	10	86	6	102	10	82	19	111	213	21	61	8	90	13	53	15	81	171	384
15:00	15:15	2	110	8	120	7	99	16	122	242	29	66	12	107	14	69	13	96	203	445
15:15	15:30	5	63	15	83	10	98	18	126	209	24	82	14	120	11	81	10	102	222	431
15:30	15:45	2	54	14	70	12	82	15	109	179	15	104	9	128	21	104	11	136	264	443
15:45	16:00	6	34	8	48	14	92	22	128	176	8	89	6	103	23	91	9	123	226	402
16:00	16:15	8	42	8	58	8	93	21	122	180	17	89	8	114	25	114	13	152	266	446
16:15	16:30	1	47	2	50	10	101	23	134	184	18	95	6	119	19	113	17	149	268	452
16:30	16:45	4	40	6	50	12	103	25	140	190	15	111	11	137	19	94	17	130	267	457
16:45	17:00	11	35	12	58	11	112	28	151	209	14	93	9	116	13	127	23	163	279	488
17:00	17:15	2	35	4	41	11	96	25	132	173	14	107	16	137	16	130	14	160	297	470
17:15	17:30	13	36	6	55	20	84	22	126	181	17	106	10	133	13	111	20	144	277	458
17:30	17:45	8	39	7	54	18	104	24	146	200	11	109	11	131	13	126	14	153	284	484
17:45	18:00	3	34	8	45	17	100	32	149	194	15	112	14	141	15	120	5	140	281	475
Total:		212	2159	228	2599	341	3583	716	4640	7239	581	2510	325	3416	367	2436	331	3135	6551	13,790

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

ISLAND PARK DR @ SCOTT ST

Survey Date: Thursday, October 27, 2022 **WO No:** 40675

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

		ISLAND PARK DR			SCOTT ST			
Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	2	1	3	1	1	2	5
07:15	07:30	2	1	3	2	1	3	6
07:30	07:45	2	2	4	6	1	7	11
07:45	08:00	4	8	12	11	6	17	29
08:00	08:15	1	6	7	9	4	13	20
08:15	08:30	1	9	10	15	1	16	26
08:30	08:45	1	10	11	15	6	21	32
08:45	09:00	2	3	5	13	14	27	32
09:00	09:15	1	5	6	8	5	13	19
09:15	09:30	0	2	2	7	1	8	10
09:30	09:45	0	4	4	3	1	4	8
09:45	10:00	3	1	4	1	2	3	7
11:30	11:45	0	0	0	1	2	3	3
11:45	12:00	3	1	4	3	3	6	10
12:00	12:15	1	2	3	2	2	4	7
12:15	12:30	2	1	3	3	3	6	9
12:30	12:45	0	2	2	1	0	1	3
12:45	13:00	0	2	2	2	1	3	5
13:00	13:15	1	1	2	1	2	3	5
13:15	13:30	0	3	3	2	4	6	9
15:00	15:15	0	2	2	5	0	5	7
15:15	15:30	2	1	3	5	3	8	11
15:30	15:45	10	1	11	8	5	13	24
15:45	16:00	1	0	1	1	4	5	6
16:00	16:15	1	5	6	7	5	12	18
16:15	16:30	7	2	9	4	7	11	20
16:30	16:45	0	4	4	2	6	8	12
16:45	17:00	4	12	16	3	12	15	31
17:00	17:15	5	4	9	10	14	24	33
17:15	17:30	7	7	14	3	8	11	25
17:30	17:45	3	2	5	1	4	5	10
17:45	18:00	3	2	5	5	2	7	12
Total		69	106	**175**	160	130	290	465

Transportation Services - Traffic Services

Turning Movement Count - Study Results

ISLAND PARK DR @ SCOTT ST

Survey Date: Thursday, October 27, 2022 **WO No:** 40675

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

		ISLAND PARK DR			SCOTT 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	3	7	**10**	2	3	**5**	**15**
07:15	07:30	2	8	**10**	4	4	**8**	**18**
07:30	07:45	1	4	**5**	4	1	**5**	**10**
07:45	08:00	19	4	**23**	11	14	**25**	**48**
08:00	08:15	7	9	**16**	12	5	**17**	**33**
08:15	08:30	5	15	**20**	12	5	**17**	**37**
08:30	08:45	4	11	**15**	8	9	**17**	**32**
08:45	09:00	8	10	**18**	1	5	**6**	**24**
09:00	09:15	2	4	**6**	5	4	**9**	**15**
09:15	09:30	2	15	**17**	4	3	**7**	**24**
09:30	09:45	1	2	**3**	2	1	**3**	**6**
09:45	10:00	5	6	**11**	4	6	**10**	**21**
11:30	11:45	4	8	**12**	5	8	**13**	**25**
11:45	12:00	3	1	**4**	1	1	**2**	**6**
12:00	12:15	3	4	**7**	3	2	**5**	**12**
12:15	12:30	1	9	**10**	3	1	**4**	**14**
12:30	12:45	3	6	**9**	6	4	**10**	**19**
12:45	13:00	4	5	**9**	3	3	**6**	**15**
13:00	13:15	1	8	**9**	4	4	**8**	**17**
13:15	13:30	7	3	**10**	6	4	**10**	**20**
15:00	15:15	5	7	**12**	3	7	**10**	**22**
15:15	15:30	7	7	**14**	4	10	**14**	**28**
15:30	15:45	6	11	**17**	4	7	**11**	**28**
15:45	16:00	7	11	**18**	5	9	**14**	**32**
16:00	16:15	11	10	**21**	11	3	**14**	**35**
16:15	16:30	11	10	**21**	7	5	**12**	**33**
16:30	16:45	5	19	**24**	15	3	**18**	**42**
16:45	17:00	9	13	**22**	8	10	**18**	**40**
17:00	17:15	8	10	**18**	7	2	**9**	**27**
17:15	17:30	10	8	**18**	10	9	**19**	**37**
17:30	17:45	2	6	**8**	4	3	**7**	**15**
17:45	18:00	8	8	**16**	4	13	**17**	**33**
Total	.....	174	259	**433**	182	168	**350**	**783**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

ISLAND PARK DR @ SCOTT ST

Survey Date: Thursday, October 27, 2022 **WO No:** 40675

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

		ISLAND PARK DR									SCOTT 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	**1**	0	1	0	**1**	**2**	0	25	0	**45**	0	20	0	**45**	**90**	**46**
07:15	07:30	0	0	0	**1**	0	0	0	**1**	**2**	0	18	1	**30**	0	11	1	**30**	**60**	**31**
07:30	07:45	0	0	0	**0**	0	0	1	**1**	**1**	0	22	0	**43**	0	20	0	**42**	**85**	**43**
07:45	08:00	0	0	1	**2**	1	0	0	**1**	**3**	0	22	1	**43**	0	20	0	**44**	**87**	**45**
08:00	08:15	0	2	0	**2**	0	0	0	**2**	**4**	0	22	0	**38**	0	16	0	**38**	**76**	**40**
08:15	08:30	0	1	0	**3**	0	2	1	**5**	**8**	1	20	0	**39**	0	17	0	**37**	**76**	**42**
08:30	08:45	0	2	0	**3**	1	1	1	**6**	**9**	1	19	0	**35**	0	14	0	**34**	**69**	**39**
08:45	09:00	0	1	0	**3**	0	1	1	**4**	**7**	1	24	0	**40**	1	14	0	**39**	**79**	**43**
09:00	09:15	0	2	0	**4**	2	1	0	**5**	**9**	0	23	0	**31**	1	8	0	**34**	**65**	**37**
09:15	09:30	1	0	0	**3**	0	2	0	**2**	**5**	0	16	0	**30**	0	13	0	**29**	**59**	**32**
09:30	09:45	0	0	0	**2**	0	1	0	**1**	**3**	0	17	1	**32**	0	14	0	**31**	**63**	**33**
09:45	10:00	0	1	0	**1**	0	0	1	**3**	**4**	0	10	0	**24**	0	13	1	**24**	**48**	**26**
11:30	11:45	0	1	0	**2**	0	0	0	**1**	**3**	0	8	1	**18**	0	9	0	**17**	**35**	**19**
11:45	12:00	0	0	0	**2**	1	1	0	**3**	**5**	1	11	1	**24**	0	11	0	**23**	**47**	**26**
12:00	12:15	0	0	0	**0**	0	0	1	**1**	**1**	0	13	0	**26**	0	12	0	**25**	**51**	**26**
12:15	12:30	0	0	0	**1**	0	1	0	**1**	**2**	0	10	0	**20**	0	10	0	**20**	**40**	**21**
12:30	12:45	0	1	1	**3**	0	1	0	**2**	**5**	0	8	0	**20**	0	12	0	**21**	**41**	**23**
12:45	13:00	0	2	0	**2**	0	0	2	**4**	**6**	0	10	0	**21**	0	9	0	**19**	**40**	**23**
13:00	13:15	1	1	0	**2**	0	0	0	**2**	**4**	0	13	0	**23**	0	9	1	**23**	**46**	**25**
13:15	13:30	2	0	0	**3**	0	1	1	**2**	**5**	0	11	0	**22**	0	8	0	**19**	**41**	**23**
15:00	15:15	0	0	0	**1**	0	1	1	**3**	**4**	1	11	0	**34**	0	21	0	**32**	**66**	**35**
15:15	15:30	0	0	0	**1**	0	1	0	**1**	**2**	0	10	0	**29**	0	19	0	**29**	**58**	**30**
15:30	15:45	0	0	1	**2**	1	0	0	**1**	**3**	0	11	0	**35**	1	24	0	**38**	**73**	**38**
15:45	16:00	0	0	0	**1**	0	1	0	**1**	**2**	0	18	0	**30**	0	12	0	**30**	**60**	**31**
16:00	16:15	0	0	0	**0**	0	0	0	**0**	**0**	0	17	0	**40**	0	23	0	**40**	**80**	**40**
16:15	16:30	0	1	0	**4**	0	3	1	**5**	**9**	0	15	0	**35**	0	19	0	**34**	**69**	**39**
16:30	16:45	0	0	0	**1**	0	1	0	**1**	**2**	0	28	0	**52**	0	24	0	**52**	**104**	**53**
16:45	17:00	0	0	0	**2**	0	2	0	**2**	**4**	0	18	0	**33**	0	15	0	**33**	**66**	**35**
17:00	17:15	0	0	0	**0**	0	0	0	**0**	**0**	0	14	0	**38**	0	24	0	**38**	**76**	**38**
17:15	17:30	0	0	0	**0**	0	0	0	**0**	**0**	0	18	0	**44**	0	26	0	**44**	**88**	**44**
17:30	17:45	0	0	0	**1**	0	0	0	**0**	**1**	0	13	1	**32**	0	18	0	**31**	**63**	**32**
17:45	18:00	0	0	0	**0**	1	0	0	**1**	**1**	0	12	0	**31**	0	19	0	**32**	**63**	**32**
Total:	None	4	15	3	**53**	7	22	11	**63**	**116**	5	507	6	**1037**	3	504	3	**1027**	**2064**	**1,090**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

ISLAND PARK DR @ SCOTT ST

Survey Date: Thursday, October 27, 2022 **WO No:** 40675

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

Time Period		ISLAND PARK DR Northbound U-Turn Total	ISLAND PARK DR Southbound U-Turn Total	SCOTT ST Eastbound U-Turn Total	SCOTT ST Westbound U-Turn Total	Total
07:00	07:15	0	0	0	1	1
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	1	1

Transportation Services - Traffic Services

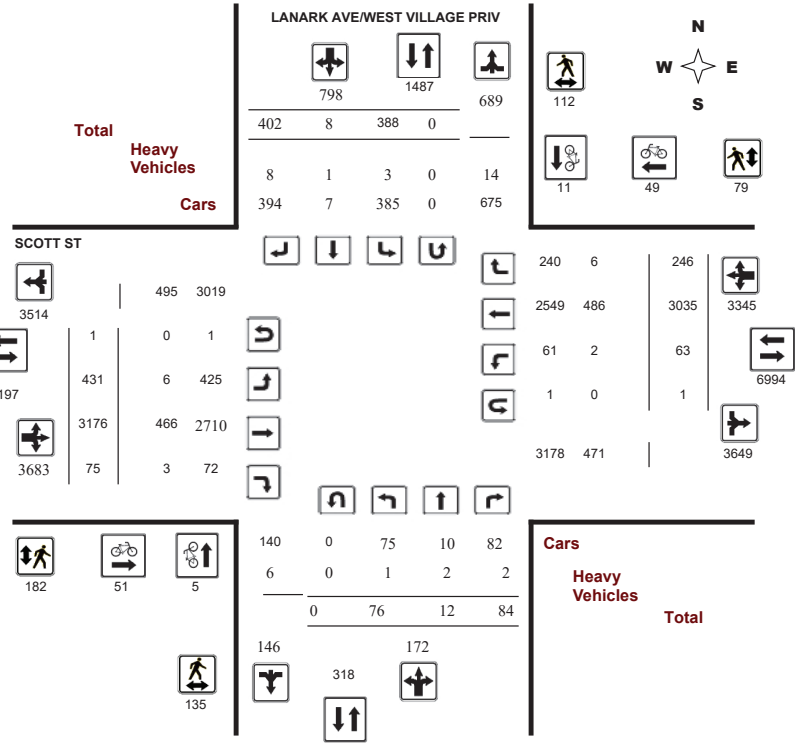
Turning Movement Count - Study Results

LANARK AVE/WEST VILLAGE PRIV @ SCOTT ST

Survey Date: Thursday, November 30, 2023 **WO No:** 41268

Start Time: 07:00 **Device:** Miovision

Full Study Diagram



Transportation Services - Traffic Services

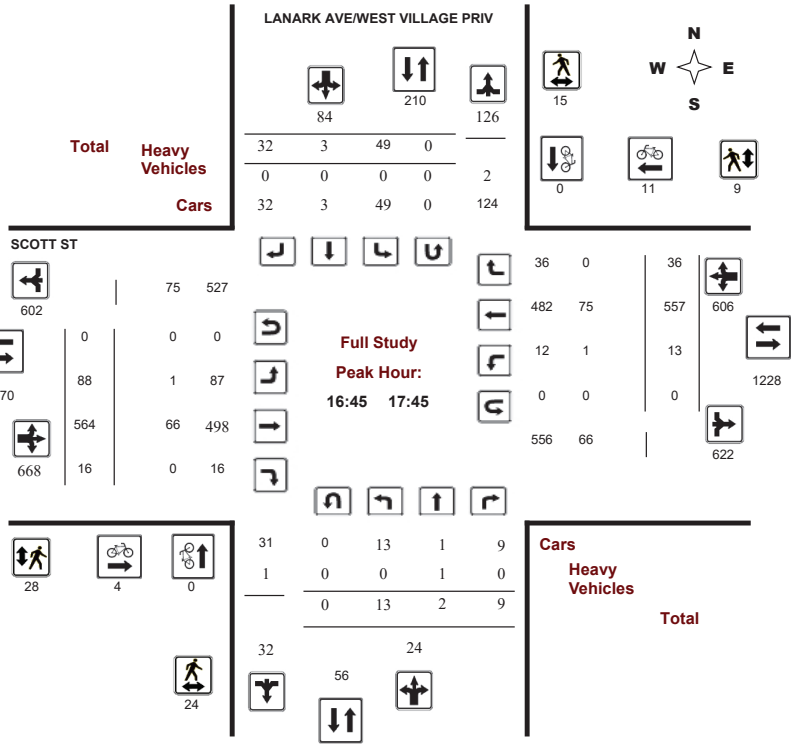
Turning Movement Count - Study Results

LANARK AVE/WEST VILLAGE PRIV @ SCOTT ST

Survey Date: Thursday, November 30, 2023 **WO No:** 41268

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



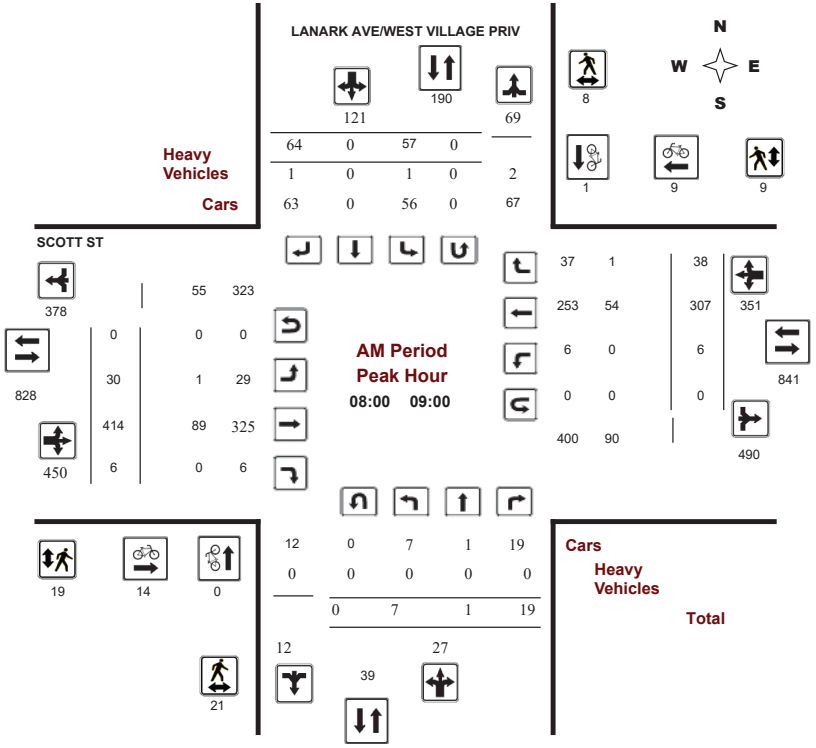
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

LANARK AVE/WEST VILLAGE PRIV @ SCOTT ST

Survey Date: Thursday, November 30, 2023 **WO No:** 41268

Start Time: 07:00 **Device:** Miovision



Comments

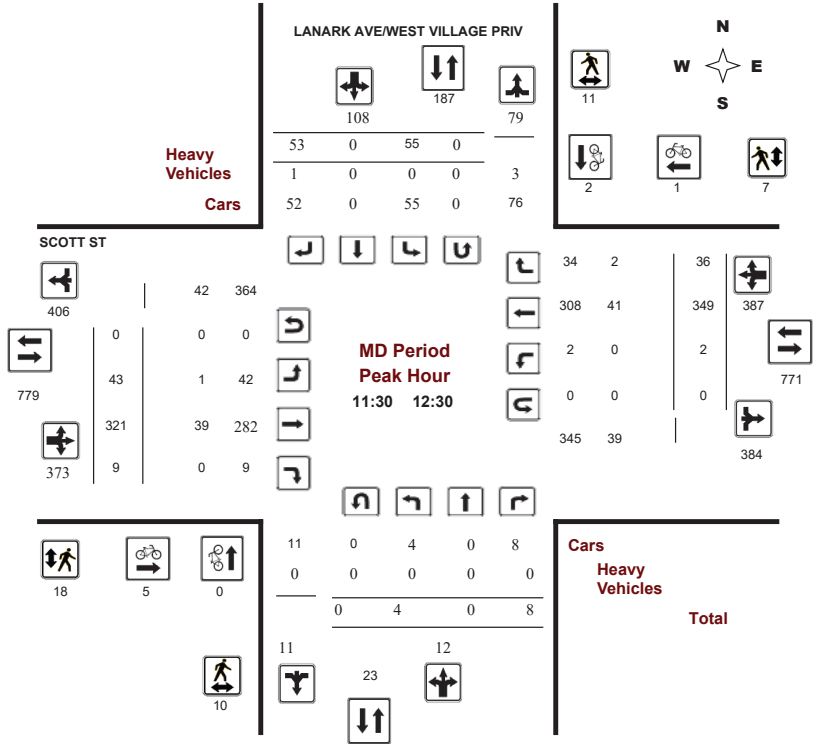
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

LANARK AVE/WEST VILLAGE PRIV @ SCOTT ST

Survey Date: Thursday, November 30, 2023 **WO No:** 41268

Start Time: 07:00 **Device:** Miovision



Comments

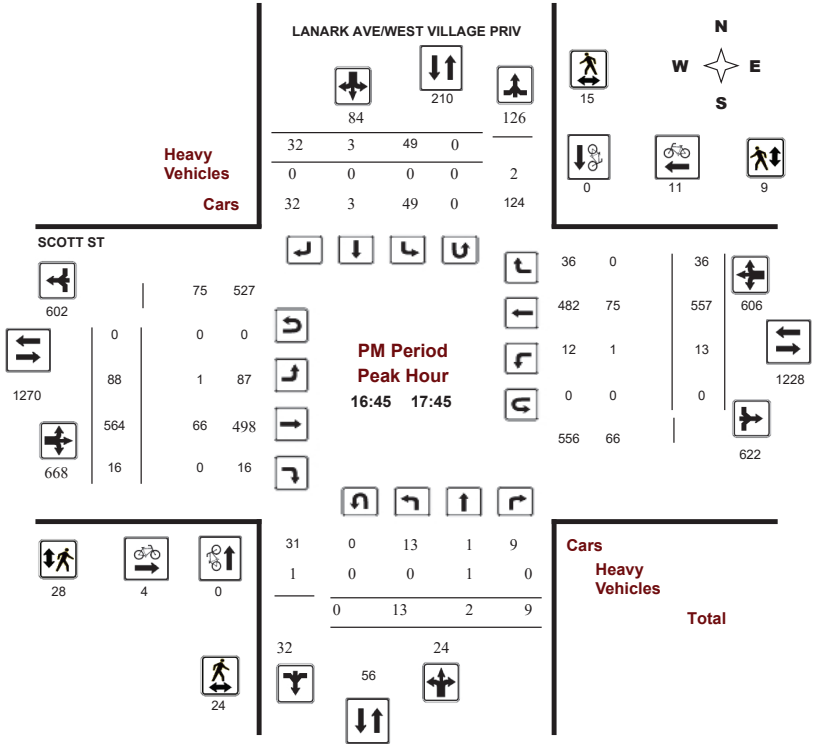
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

LANARK AVE/WEST VILLAGE PRIV @ SCOTT ST

Survey Date: Thursday, November 30, 2023 **WO No:** 41268

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

LANARK AVE/WEST VILLAGE PRIV @ SCOTT ST

Survey Date: Thursday, November 30, 2023 **WO No:** 41268

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, November 30, 2023

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 1 Westbound: 1

AADT Factor .90

	LANARK AVE/WEST VILLAGE PRIV								SCOTT ST									
	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	Grand Total
07:00 08:00	11	0	10	**21**	50	0	71	**121**	**142**	17	283	1	**301**	5	249	12	**266**	**567**	**709**
08:00 09:00	7	1	19	**27**	57	0	64	**121**	**148**	30	414	6	**450**	6	307	38	**351**	**801**	**949**
09:00 10:00	12	0	8	**20**	40	0	46	**86**	**106**	27	296	5	**328**	9	297	19	**325**	**653**	**759**
11:30 12:30	4	0	8	**12**	55	0	53	**108**	**120**	43	321	9	**373**	2	349	36	**387**	**760**	**880**
12:30 13:30	4	1	4	**9**	36	1	47	**84**	**93**	56	329	9	**394**	6	292	37	**335**	**729**	**822**
15:00 16:00	9	7	18	**34**	62	2	46	**110**	**144**	82	517	11	**610**	12	476	36	**524**	**1134**	**1278**
16:00 17:00	11	2	11	**24**	49	3	35	**87**	**111**	90	478	13	**581**	13	540	30	**583**	**1164**	**1275**
17:00 18:00	18	1	6	**25**	39	2	40	**81**	**106**	86	538	21	**645**	10	525	38	**573**	**1218**	**1324**
Sub Total	76	12	84	**172**	388	8	402	**798**	**970**	431	3176	75	**3682**	63	3035	246	**3344**	**7026**	**7996**
U Turns				**0**				**0**	**0**				**1**				**1**	**2**	**2**
Total	76	12	84	**172**	388	8	402	**798**	**970**	431	3176	75	**3683**	63	3035	246	**3345**	**7028**	**7998**
EQ 12Hr	106	17	117	**239**	539	11	559	**1109**	**1348**	599	4415	104	**5119**	88	4219	342	**4650**	**9769**	**11117**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.													**1.39**						
AVG 12Hr	95	15	105	**215**	485	13	659	**998**	**1213**	539	3974	94	**4607**	79	3797	308	**4185**	**8792**	**10005**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.													**.90**						
AVG 24Hr	124	20	138	**282**	635	17	863	**1307**	**1589**	706	5206	123	**6035**	103	4974	403	**5482**	**11518**	**13107**
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

LANARK AVE/WEST VILLAGE PRIV @ SCOTT ST

Survey Date: Thursday, November 30, 2023 **WO No:** 41268

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute Increments

		LANARK AVE/WEST VILLAGE PRIV									SCOTT 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	2	0	0	2	9	0	8	17	19	4	66	0	70	0	50	1	51	121	140
07:15	07:30	1	0	3	4	11	0	20	31	35	4	64	1	69	1	49	2	52	121	156
07:30	07:45	5	0	4	9	16	0	16	32	41	5	70	0	75	1	69	7	77	152	193
07:45	08:00	3	0	3	6	14	0	27	41	47	4	83	0	87	3	81	2	86	173	220
08:00	08:15	3	0	5	8	10	0	14	24	32	7	111	1	119	0	68	12	80	199	231
08:15	08:30	0	1	4	5	16	0	17	33	38	9	117	3	129	4	68	8	80	209	247
08:30	08:45	1	0	4	5	9	0	10	19	24	7	102	2	111	0	80	12	92	203	227
08:45	09:00	3	0	6	9	22	0	23	45	54	7	84	0	91	2	91	6	99	190	244
09:00	09:15	1	0	1	2	14	0	12	26	28	12	104	2	118	5	72	7	84	202	230
09:15	09:30	3	0	3	6	9	0	12	21	27	10	74	2	86	2	85	7	94	180	207
09:30	09:45	5	0	0	5	6	0	14	20	25	4	63	1	68	0	72	2	74	142	167
09:45	10:00	3	0	4	7	11	0	8	19	26	1	55	0	56	2	68	3	73	129	155
11:30	11:45	2	0	2	4	14	0	11	25	29	9	85	4	98	0	90	10	100	198	227
11:45	12:00	1	0	3	4	13	0	12	25	29	10	80	1	91	0	105	8	113	204	233
12:00	12:15	0	0	2	2	16	0	14	30	32	11	70	2	83	2	76	8	86	169	201
12:15	12:30	1	0	1	2	12	0	16	28	30	13	86	2	101	0	78	10	88	189	219
12:30	12:45	1	1	1	3	9	1	12	22	25	15	82	2	99	3	82	7	92	191	216
12:45	13:00	1	0	0	1	13	0	10	23	24	21	84	1	106	0	75	15	90	196	220
13:00	13:15	1	0	2	3	10	0	12	22	25	11	83	2	96	2	75	9	86	182	207
13:15	13:30	1	0	1	2	4	0	13	17	19	9	80	4	93	1	60	6	67	160	179
15:00	15:15	3	2	3	8	12	1	8	21	29	19	118	1	138	4	104	9	117	255	284
15:15	15:30	1	3	5	9	19	1	17	37	46	24	121	3	148	3	123	14	141	289	335
15:30	15:45	4	2	5	11	17	0	11	28	39	17	145	3	165	2	115	5	122	287	326
15:45	16:00	1	0	5	6	14	0	10	24	30	22	133	4	159	3	134	8	145	304	334
16:00	16:15	2	0	0	2	10	0	15	25	27	19	113	4	136	3	133	8	144	280	307
16:15	16:30	4	0	3	7	12	0	7	19	26	22	125	4	152	1	128	9	138	290	316
16:30	16:45	4	0	3	7	12	2	9	23	30	29	103	2	134	4	131	5	140	274	304
16:45	17:00	1	2	5	8	15	1	4	20	28	20	137	3	160	5	148	8	161	321	349
17:00	17:15	3	0	2	5	9	0	11	20	25	20	148	1	169	3	153	4	160	329	354
17:15	17:30	6	0	2	8	12	2	10	24	32	26	148	6	180	2	136	16	154	334	366
17:30	17:45	3	0	0	3	13	0	7	20	23	22	131	6	159	3	120	8	131	290	313
17:45	18:00	6	1	2	9	5	0	12	17	26	18	111	8	137	2	116	10	128	265	291
Total:		76	12	84	172	388	8	402	798	970	431	3176	75	3683	63	3035	246	3345	7028	7,998

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

LANARK AVE/WEST VILLAGE PRIV @ SCOTT ST

Survey Date: Thursday, November 30, 2023 **WO No:** 41268

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

Time Period		LANARK AVE/WEST VILLAGE PRIV			SCOTT ST			
		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	0	1	0	1	1
07:15	07:30	0	0	0	2	0	2	2
07:30	07:45	0	0	0	1	2	3	3
07:45	08:00	0	2	2	3	0	3	5
08:00	08:15	0	0	0	1	1	2	2
08:15	08:30	0	0	0	4	3	7	7
08:30	08:45	0	0	0	7	4	11	11
08:45	09:00	0	1	1	2	1	3	4
09:00	09:15	0	0	0	1	0	1	1
09:15	09:30	0	0	0	0	1	1	1
09:30	09:45	0	0	0	0	0	0	0
09:45	10:00	0	0	0	2	1	3	3
11:30	11:45	0	1	1	2	0	2	3
11:45	12:00	0	1	1	3	0	3	4
12:00	12:15	0	0	0	0	0	0	0
12:15	12:30	0	0	0	0	1	1	1
12:30	12:45	0	1	1	1	2	3	4
12:45	13:00	0	0	0	0	0	0	0
13:00	13:15	1	0	1	1	2	3	4
13:15	13:30	0	0	0	2	0	2	2
15:00	15:15	0	1	1	4	2	6	7
15:15	15:30	3	0	3	1	1	2	5
15:30	15:45	0	1	1	2	2	4	5
15:45	16:00	0	0	0	2	1	3	3
16:00	16:15	0	0	0	0	3	3	3
16:15	16:30	1	2	3	2	4	6	9
16:30	16:45	0	0	0	2	3	5	5
16:45	17:00	0	0	0	3	1	4	4
17:00	17:15	0	0	0	1	4	5	5
17:15	17:30	0	0	0	0	2	2	2
17:30	17:45	0	0	0	0	4	4	4
17:45	18:00	0	1	1	1	4	5	6
Total		5	11	**16**	51	49	100	116

Transportation Services - Traffic Services

Turning Movement Count - Study Results

LANARK AVE/WEST VILLAGE PRIV @ SCOTT ST

Survey Date: Thursday, November 30, 2023 **WO No:** 41268

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

Time Period		LANARK AVE/WEST VILLAGE PRIV			SCOTT ST			
		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	1	1	**2**	0	0	**0**	**2**
07:15	07:30	2	4	**6**	2	1	**3**	**9**
07:30	07:45	4	6	**10**	5	0	**5**	**15**
07:45	08:00	6	4	**10**	7	6	**13**	**23**
08:00	08:15	6	2	**8**	1	6	**7**	**15**
08:15	08:30	4	3	**7**	9	2	**11**	**18**
08:30	08:45	4	3	**7**	2	1	**3**	**10**
08:45	09:00	7	0	**7**	7	0	**7**	**14**
09:00	09:15	2	2	**4**	1	1	**2**	**6**
09:15	09:30	5	0	**5**	3	3	**6**	**11**
09:30	09:45	4	1	**5**	4	2	**6**	**11**
09:45	10:00	2	1	**3**	5	0	**5**	**8**
11:30	11:45	1	3	**4**	4	3	**7**	**11**
11:45	12:00	0	3	**3**	6	0	**6**	**9**
12:00	12:15	4	4	**8**	3	1	**4**	**12**
12:15	12:30	5	1	**6**	5	3	**8**	**14**
12:30	12:45	2	4	**6**	6	3	**9**	**15**
12:45	13:00	4	5	**9**	9	3	**12**	**21**
13:00	13:15	3	5	**8**	7	0	**7**	**15**
13:15	13:30	5	5	**10**	13	1	**14**	**24**
15:00	15:15	5	2	**7**	5	7	**12**	**19**
15:15	15:30	3	3	**6**	5	0	**5**	**11**
15:30	15:45	6	4	**10**	10	8	**18**	**28**
15:45	16:00	5	4	**9**	7	6	**13**	**22**
16:00	16:15	3	8	**11**	5	6	**11**	**22**
16:15	16:30	10	3	**13**	8	3	**11**	**24**
16:30	16:45	3	10	**13**	11	3	**14**	**27**
16:45	17:00	6	4	**10**	14	1	**15**	**25**
17:00	17:15	3	3	**6**	2	2	**4**	**10**
17:15	17:30	11	5	**16**	7	4	**11**	**27**
17:30	17:45	4	3	**7**	5	2	**7**	**14**
17:45	18:00	5	6	**11**	4	1	**5**	**16**
Total		135	112	**247**	182	79	**261**	**508**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

LANARK AVE/WEST VILLAGE PRIV @ SCOTT ST

Survey Date: Thursday, November 30, 2023 **WO No:** 41268

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

LANARK AVE/WEST VILLAGE PRIV **SCOTT 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	STR TOT	
07:00	07:15	0	0	0	**0**	0	0	0	**1**	**1**	1	26	0	**44**	0	17	0	**43**	**87**	**44**
07:15	07:30	0	0	0	**0**	0	0	0	**0**	**0**	0	22	0	**34**	0	12	0	**34**	**68**	**34**
07:30	07:45	0	0	0	**0**	0	0	0	**0**	**0**	0	20	0	**38**	0	18	0	**38**	**76**	**38**
07:45	08:00	0	0	0	**0**	0	0	0	**0**	**0**	0	17	0	**37**	0	20	0	**37**	**74**	**37**
08:00	08:15	0	0	0	**0**	0	0	0	**1**	**1**	0	19	0	**32**	0	13	1	**33**	**65**	**33**
08:15	08:30	0	0	0	**0**	1	0	1	**2**	**2**	0	28	0	**46**	0	17	0	**46**	**92**	**47**
08:30	08:45	0	0	0	**0**	0	0	0	**1**	**1**	1	19	0	**30**	0	10	0	**29**	**59**	**30**
08:45	09:00	0	0	0	**0**	0	0	0	**0**	**0**	0	23	0	**37**	0	14	0	**37**	**74**	**37**
09:00	09:15	0	0	0	**0**	0	0	1	**1**	**1**	0	23	0	**34**	0	10	0	**33**	**67**	**34**
09:15	09:30	0	0	0	**0**	0	0	0	**0**	**0**	0	13	0	**28**	0	15	0	**28**	**56**	**28**
09:30	09:45	0	0	0	**0**	0	0	0	**0**	**0**	0	11	0	**26**	0	15	0	**26**	**52**	**26**
09:45	10:00	0	0	0	**0**	0	0	0	**0**	**0**	0	10	0	**22**	0	12	0	**22**	**44**	**22**
11:30	11:45	0	0	0	**0**	0	0	0	**1**	**1**	0	11	0	**21**	0	10	1	**22**	**43**	**22**
11:45	12:00	0	0	0	**0**	0	0	0	**0**	**0**	0	9	0	**25**	0	16	0	**25**	**50**	**25**
12:00	12:15	0	0	0	**0**	0	0	0	**1**	**1**	1	9	0	**18**	0	8	0	**17**	**35**	**18**
12:15	12:30	0	0	0	**0**	0	0	1	**2**	**2**	0	10	0	**18**	0	7	1	**18**	**36**	**19**
12:30	12:45	0	0	1	**2**	0	1	1	**2**	**4**	0	7	0	**17**	0	9	0	**17**	**34**	**19**
12:45	13:00	0	0	0	**0**	0	0	1	**1**	**1**	0	11	0	**22**	0	10	0	**21**	**43**	**22**
13:00	13:15	0	0	0	**0**	0	0	1	**3**	**3**	1	8	0	**22**	0	12	1	**21**	**43**	**23**
13:15	13:30	0	0	0	**0**	0	0	0	**0**	**0**	0	14	0	**19**	0	5	0	**19**	**38**	**19**
15:00	15:15	0	0	0	**2**	1	0	0	**2**	**4**	1	4	1	**23**	1	17	0	**23**	**46**	**25**
15:15	15:30	0	1	0	**1**	1	0	0	**2**	**3**	0	2	0	**17**	0	15	0	**18**	**35**	**19**
15:30	15:45	0	0	0	**0**	0	0	0	**0**	**0**	0	13	0	**39**	0	26	0	**39**	**78**	**39**
15:45	16:00	0	0	0	**0**	0	0	0	**0**	**0**	0	17	0	**39**	0	22	0	**39**	**78**	**39**
16:00	16:15	0	0	0	**0**	0	0	1	**2**	**2**	0	17	0	**40**	0	22	1	**40**	**80**	**41**
16:15	16:30	1	0	0	**2**	0	0	0	**0**	**2**	0	14	1	**31**	0	15	0	**29**	**60**	**31**
16:30	16:45	0	0	0	**0**	0	0	1	**1**	**1**	0	10	0	**37**	0	26	0	**36**	**73**	**37**
16:45	17:00	0	1	0	**1**	0	0	0	**1**	**2**	0	17	0	**33**	0	16	0	**33**	**66**	**34**
17:00	17:15	0	0	0	**0**	0	0	0	**0**	**0**	0	18	0	**39**	0	21	0	**39**	**78**	**39**
17:15	17:30	0	0	0	**0**	0	0	0	**1**	**1**	1	15	0	**38**	0	22	0	**37**	**75**	**38**
17:30	17:45	0	0	0	**1**	0	0	0	**0**	**1**	0	16	0	**32**	1	16	0	**33**	**65**	**33**
17:45	18:00	0	0	1	**2**	0	0	0	**1**	**3**	0	13	1	**32**	0	18	1	**33**	**65**	**34**
Total:	None	1	2	2	**11**	3	1	8	**26**	**37**	6	466	3	**970**	2	486	6	**965**	**1935**	**986**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

LANARK AVE/WEST VILLAGE PRIV @ SCOTT ST

Survey Date: Thursday, November 30, 2023 **WO No:** 41268

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

LANARK AVE/WEST VILLAGE PRIV **SCOTT 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	1	1
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	1	0	1
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	1	2

Transportation Services - Traffic Services

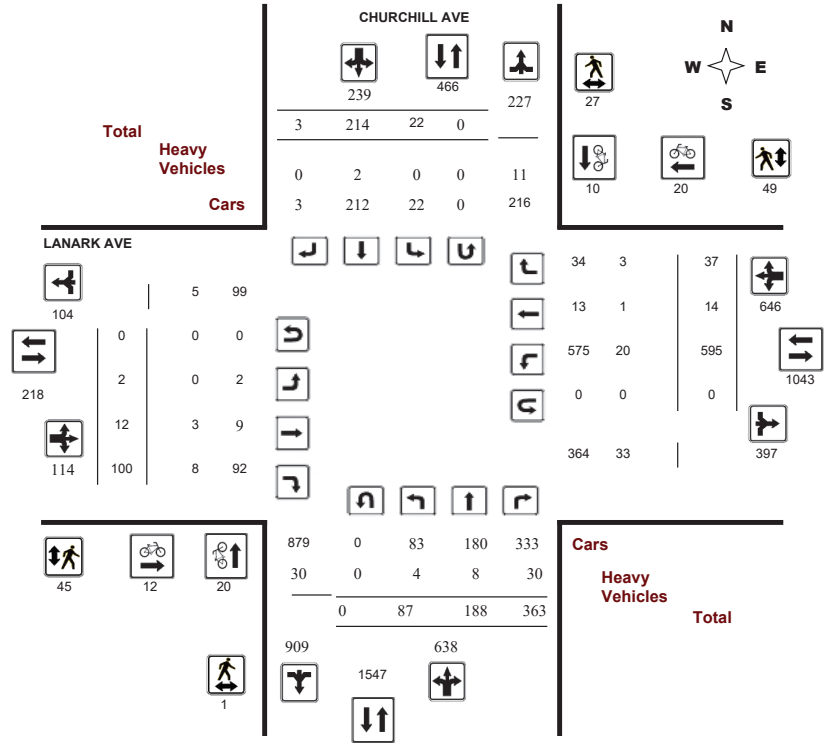
Turning Movement Count - Study Results

CHURCHILL AVE @ LANARK AVE

Survey Date: Thursday, October 24, 2019 **WO No:** 38900

Start Time: 07:00 **Device:** Miovision

Full Study Diagram



Transportation Services - Traffic Services

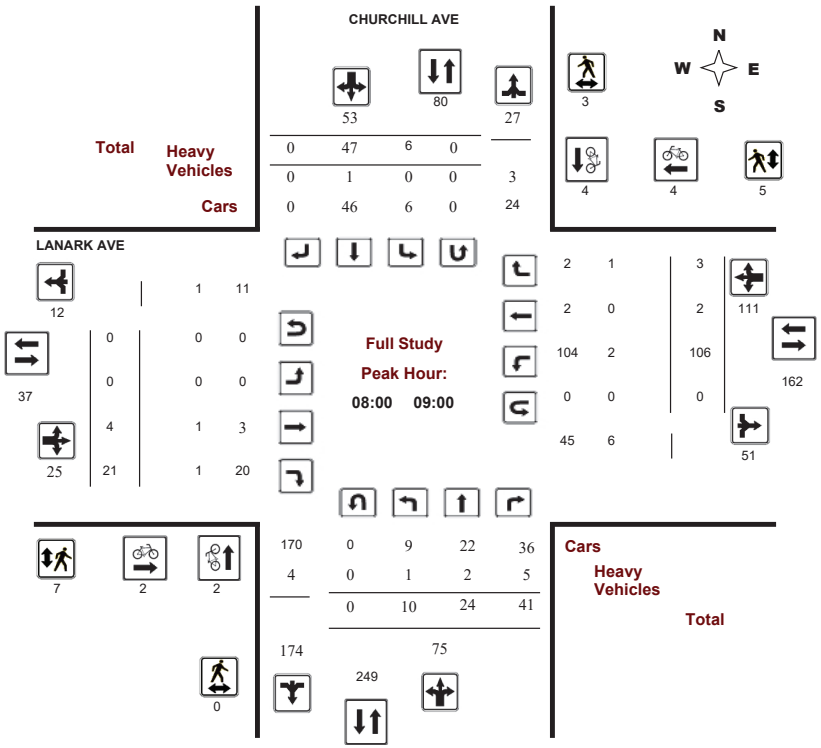
Turning Movement Count - Study Results

CHURCHILL AVE @ LANARK AVE

Survey Date: Thursday, October 24, 2019 **WO No:** 38900

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



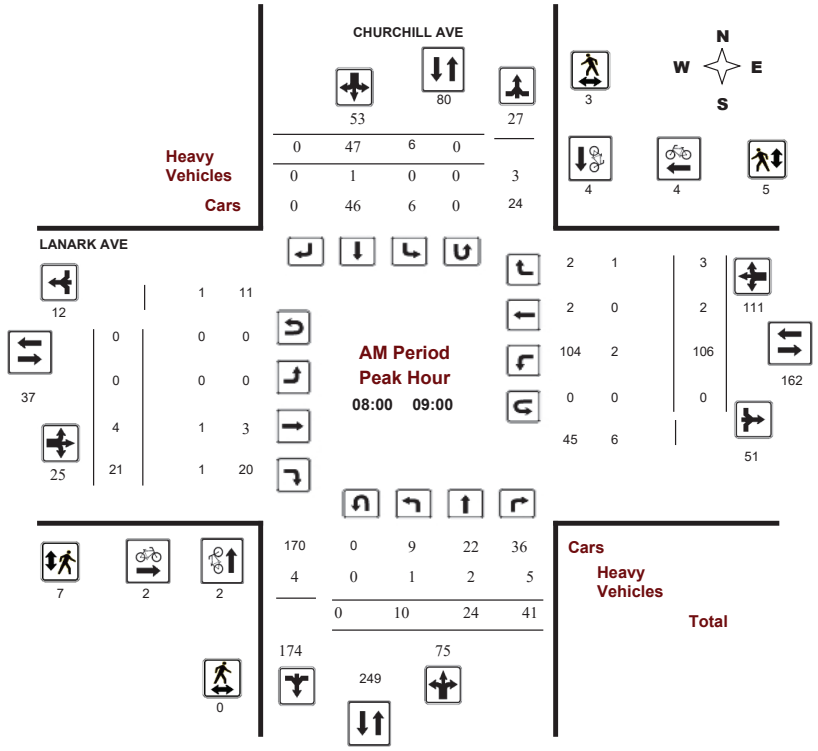
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

CHURCHILL AVE @ LANARK AVE

Survey Date: Thursday, October 24, 2019 **WO No:** 38900

Start Time: 07:00 **Device:** Miovision



Comments

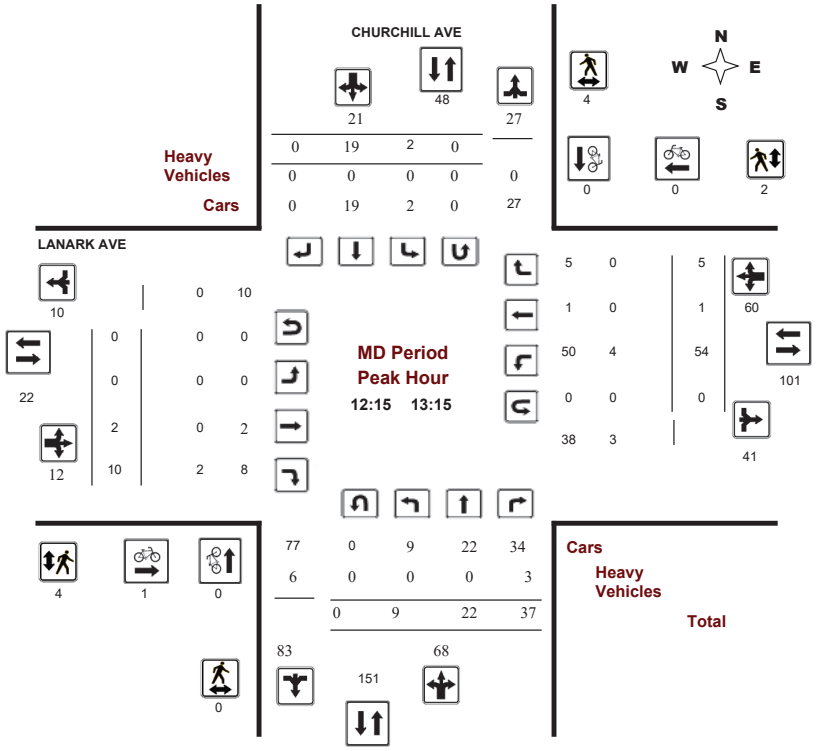
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

CHURCHILL AVE @ LANARK AVE

Survey Date: Thursday, October 24, 2019 **WO No:** 38900

Start Time: 07:00 **Device:** Miovision



Comments

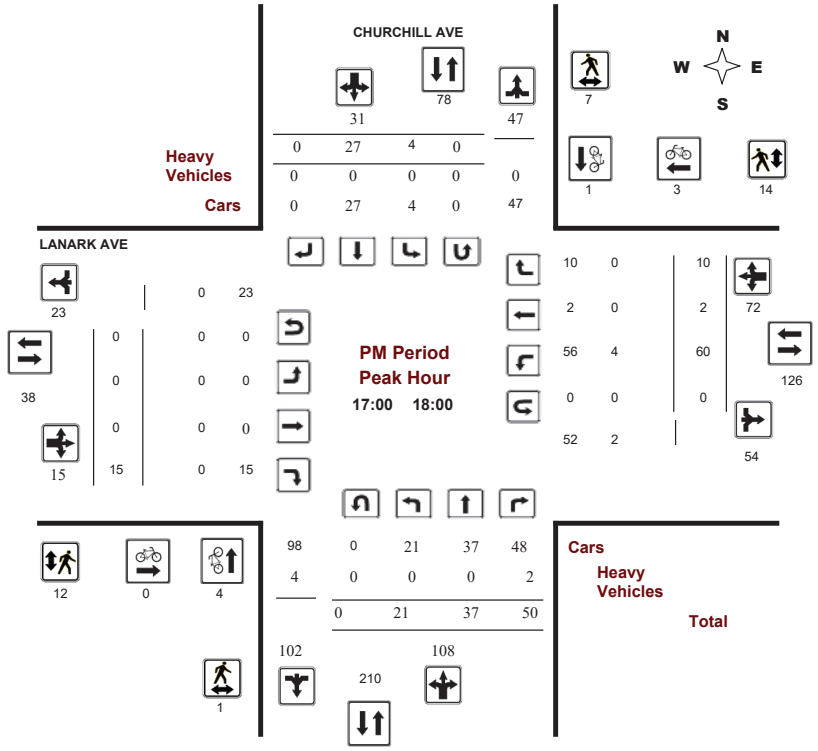
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

CHURCHILL AVE @ LANARK AVE

Survey Date: Thursday, October 24, 2019 **WO No:** 38900

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

CHURCHILL AVE @ LANARK AVE

Survey Date: Thursday, October 24, 2019 **WO No:** 38900

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, October 24, 2019

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 0 Westbound: 0

AADT Factor .90

	CHURCHILL AVE								LANARK AVE								
	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	Grand Total
07:00 08:00	6	16	42	**64**	3	24	1	**28**	**92**	0	2	10	**12**	111	0	2	**113**	**125**	**217**
08:00 09:00	10	24	41	**75**	6	47	0	**53**	**128**	0	4	21	**25**	106	2	3	**111**	**136**	**264**
09:00 10:00	7	21	44	**72**	4	22	1	**27**	**99**	1	1	12	**14**	100	0	2	**102**	**116**	**215**
11:30 12:30	13	21	29	**63**	2	19	1	**22**	**85**	1	0	7	**8**	47	3	2	**52**	**60**	**145**
12:30 13:30	6	22	37	**65**	1	15	0	**16**	**81**	0	2	12	**14**	54	1	7	**62**	**76**	**157**
15:00 16:00	8	20	64	**92**	1	26	0	**27**	**119**	0	3	13	**16**	62	3	7	**72**	**88**	**207**
16:00 17:00	16	27	56	**99**	1	34	0	**35**	**134**	0	0	10	**10**	55	3	4	**62**	**72**	**206**
17:00 18:00	21	37	50	**108**	4	27	0	**31**	**139**	0	0	15	**15**	60	2	10	**72**	**87**	**226**
Sub Total	87	188	363	**638**	22	214	3	**239**	**877**	2	12	100	**114**	595	14	37	**646**	**760**	**1637**
U Turns	0			**0**	0			**0**	**0**	**0**			**0**	0			**0**	**0**	**0**
Total	87	188	363	**638**	22	214	3	**239**	**877**	2	12	100	**114**	595	14	37	**646**	**760**	**1637**
EQ 12Hr	121	261	505	**887**	31	297	4	**332**	**1219**	3	17	139	**159**	827	19	51	**897**	**1056**	**2275**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	109	235	454	**798**	28	267	4	**299**	**1097**	3	15	125	**143**	744	17	46	**807**	**950**	**2047**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**.90**					
AVG 24Hr	143	308	595	**1046**	37	350	5	**392**	**1438**	4	20	164	**188**	975	22	60	**1057**	**1245**	**2683**
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

CHURCHILL AVE @ LANARK AVE

Survey Date: Thursday, October 24, 2019 **WO No:** 38900

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute Increments

		CHURCHILL AVE									LANARK AVE									
		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	3	2	6	11	1	3	0	4	**15**	0	0	1	1	22	0	0	22	**23**	**38**
07:15	07:30	0	3	12	15	0	3	0	3	**18**	0	1	4	5	28	0	1	29	**34**	**52**
07:30	07:45	2	6	12	20	1	12	0	13	**33**	0	0	2	2	18	0	1	19	**21**	**54**
07:45	08:00	1	5	12	18	1	6	1	8	**26**	0	1	3	4	43	0	0	43	**47**	**73**
08:00	08:15	5	4	11	20	2	12	0	14	**34**	0	2	9	11	18	0	1	19	**30**	**64**
08:15	08:30	1	5	11	17	2	7	0	9	**26**	0	1	3	4	27	2	1	30	**34**	**60**
08:30	08:45	1	8	9	18	2	13	0	15	**33**	0	0	3	3	23	0	1	24	**27**	**60**
08:45	09:00	3	7	10	20	0	15	0	15	**35**	0	1	6	7	38	0	0	38	**45**	**80**
09:00	09:15	1	8	12	21	1	7	1	9	**30**	0	1	2	3	26	0	0	26	**29**	**59**
09:15	09:30	2	4	13	19	1	2	0	3	**22**	0	0	5	5	30	0	1	31	**36**	**58**
09:30	09:45	3	7	10	20	1	8	0	9	**29**	1	0	3	4	24	0	1	25	**29**	**58**
09:45	10:00	1	2	9	12	1	5	0	6	**18**	0	0	2	2	20	0	0	20	**22**	**40**
11:30	11:45	3	6	9	18	1	2	1	4	**22**	0	0	2	2	7	1	0	8	**10**	**32**
11:45	12:00	1	3	7	11	0	5	0	5	**16**	1	0	2	3	15	1	1	17	**20**	**36**
12:00	12:15	4	3	4	11	0	4	0	4	**15**	0	0	3	3	12	1	1	14	**17**	**32**
12:15	12:30	5	9	9	23	1	8	0	9	**32**	0	0	0	0	13	0	0	13	**13**	**45**
12:30	12:45	1	4	7	12	0	3	0	3	**15**	0	0	2	2	15	0	1	16	**18**	**33**
12:45	13:00	0	4	11	15	1	3	0	4	**19**	0	2	5	7	12	0	3	15	**22**	**41**
13:00	13:15	3	5	10	18	0	5	0	5	**23**	0	0	3	3	14	1	1	16	**19**	**42**
13:15	13:30	2	9	9	20	0	4	0	4	**24**	0	0	2	2	13	0	2	15	**17**	**41**
15:00	15:15	4	6	18	28	1	4	0	5	**33**	0	3	5	8	9	1	0	10	**18**	**51**
15:15	15:30	0	4	22	26	0	12	0	12	**38**	0	0	3	3	20	1	3	24	**27**	**65**
15:30	15:45	2	3	14	19	0	6	0	6	**25**	0	0	2	2	18	1	1	20	**22**	**47**
15:45	16:00	2	7	10	19	0	4	0	4	**23**	0	0	3	3	15	0	3	18	**21**	**44**
16:00	16:15	4	9	12	25	0	9	0	9	**34**	0	0	3	3	9	2	2	13	**16**	**50**
16:15	16:30	3	8	15	26	0	16	0	16	**42**	0	0	3	3	13	0	0	13	**16**	**58**
16:30	16:45	4	5	15	24	0	8	0	8	**32**	0	0	2	2	21	1	1	23	**25**	**57**
16:45	17:00	5	5	14	24	1	1	0	2	**26**	0	0	2	2	12	0	1	13	**15**	**41**
17:00	17:15	5	5	12	22	0	3	0	3	**25**	0	0	1	1	14	0	1	15	**16**	**41**
17:15	17:30	7	17	11	35	2	8	0	10	**45**	0	0	6	6	16	0	5	21	**27**	**72**
17:30	17:45	3	7	15	25	0	11	0	11	**36**	0	0	4	4	12	0	3	15	**19**	**55**
17:45	18:00	6	8	12	26	2	5	0	7	**33**	0	0	4	4	18	2	1	21	**25**	**58**
Total:		87	188	363	638	22	214	3	239	**877**	2	12	100	114	595	14	37	646	**877**	**1,637**

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

CHURCHILL AVE @ LANARK AVE

Survey Date: Thursday, October 24, 2019 **WO No:** 38900

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

		CHURCHILL AVE			LANARK AVE			
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	1	**1**	0	0	**0**	**1**
07:30	07:45	2	1	**3**	0	1	**1**	**4**
07:45	08:00	0	1	**1**	1	3	**4**	**5**
08:00	08:15	0	0	**0**	0	2	**2**	**2**
08:15	08:30	1	2	**3**	2	0	**2**	**5**
08:30	08:45	1	0	**1**	0	2	**2**	**3**
08:45	09:00	0	2	**2**	0	0	**0**	**2**
09:00	09:15	0	0	**0**	1	1	**2**	**2**
09:15	09:30	0	0	**0**	1	0	**1**	**1**
09:30	09:45	1	0	**1**	0	0	**0**	**1**
09:45	10:00	0	0	**0**	0	0	**0**	**0**
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**	0	0	**0**	**0**
12:15	12:30	0	0	**0**	0	0	**0**	**0**
12:30	12:45	0	0	**0**	0	0	**0**	**0**
12:45	13:00	0	0	**0**	1	0	**1**	**1**
13:00	13:15	0	0	**0**	0	0	**0**	**0**
13:15	13:30	0	0	**0**	1	0	**1**	**1**
15:00	15:15	0	0	**0**	1	1	**2**	**2**
15:15	15:30	4	1	**5**	0	1	**1**	**6**
15:30	15:45	0	0	**0**	1	3	**4**	**4**
15:45	16:00	3	0	**3**	1	0	**1**	**4**
16:00	16:15	2	0	**2**	0	0	**0**	**2**
16:15	16:30	1	1	**2**	1	0	**1**	**3**
16:30	16:45	0	0	**0**	0	0	**0**	**0**
16:45	17:00	1	0	**1**	1	2	**3**	**4**
17:00	17:15	1	0	**1**	0	1	**1**	**2**
17:15	17:30	1	0	**1**	0	0	**0**	**1**
17:30	17:45	0	0	**0**	0	2	**2**	**2**
17:45	18:00	2	1	**3**	0	0	**0**	**3**
Total		20	10	**30**	12	20	**32**	**62**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

CHURCHILL AVE @ LANARK AVE

Survey Date: Thursday, October 24, 2019 **WO No:** 38900

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

		CHURCHILL AVE			LANARK AVE			
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	0	1	**1**	0	0	**0**	**1**
07:15	07:30	0	0	**0**	1	1	**2**	**2**
07:30	07:45	0	0	**0**	1	2	**3**	**3**
07:45	08:00	0	2	**2**	5	2	**7**	**9**
08:00	08:15	0	0	**0**	3	1	**4**	**4**
08:15	08:30	0	1	**1**	4	0	**4**	**5**
08:30	08:45	0	2	**2**	0	0	**0**	**2**
08:45	09:00	0	0	**0**	0	4	**4**	**4**
09:00	09:15	0	0	**0**	0	1	**1**	**1**
09:15	09:30	0	0	**0**	1	0	**1**	**1**
09:30	09:45	0	2	**2**	0	1	**1**	**3**
09:45	10:00	0	1	**1**	1	0	**1**	**2**
11:30	11:45	0	1	**1**	0	1	**1**	**2**
11:45	12:00	0	0	**0**	0	0	**0**	**0**
12:00	12:15	0	0	**0**	2	0	**2**	**2**
12:15	12:30	0	0	**0**	0	0	**0**	**0**
12:30	12:45	0	1	**1**	2	0	**2**	**3**
12:45	13:00	0	0	**0**	1	0	**1**	**1**
13:00	13:15	0	3	**3**	1	2	**3**	**6**
13:15	13:30	0	0	**0**	1	1	**2**	**2**
15:00	15:15	0	0	**0**	0	0	**0**	**0**
15:15	15:30	0	1	**1**	0	2	**2**	**3**
15:30	15:45	0	1	**1**	1	2	**3**	**4**
15:45	16:00	0	2	**2**	0	2	**2**	**4**
16:00	16:15	0	1	**1**	1	8	**9**	**10**
16:15	16:30	0	1	**1**	5	1	**6**	**7**
16:30	16:45	0	0	**0**	1	3	**4**	**4**
16:45	17:00	0	0	**0**	2	1	**3**	**3**
17:00	17:15	0	2	**2**	1	1	**2**	**4**
17:15	17:30	0	1	**1**	7	3	**10**	**11**
17:30	17:45	1	4	**5**	1	7	**8**	**13**
17:45	18:00	0	0	**0**	3	3	**6**	**6**
Total	.....	1	27	**28**	45	49	**94**	**122**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

CHURCHILL AVE @ LANARK AVE

Survey Date: Thursday, October 24, 2019 **WO No:** 38900

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

		CHURCHILL AVE									LANARK AVE									
		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	0	0	**0**	0	0	0	**0**	**0**	**0**
07:15	07:30	0	1	2	**3**	0	0	0	**0**	**3**	0	1	0	**1**	1	0	1	**2**	**3**	**6**
07:30	07:45	1	0	1	**2**	0	0	0	**0**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
07:45	08:00	0	0	2	**2**	0	0	0	**0**	**2**	0	0	0	**0**	1	0	0	**1**	**1**	**3**
08:00	08:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	1	**1**	**1**	**1**
08:15	08:30	1	0	2	**3**	0	1	0	**1**	**4**	0	0	0	**0**	1	0	0	**1**	**1**	**5**
08:30	08:45	0	0	1	**1**	0	0	0	**0**	**1**	0	0	0	**0**	1	0	0	**1**	**1**	**2**
08:45	09:00	0	2	2	**4**	0	0	0	**0**	**4**	0	1	1	**2**	0	0	0	**0**	**2**	**6**
09:00	09:15	0	2	0	**2**	0	0	0	**0**	**2**	0	0	1	**1**	0	0	0	**0**	**1**	**3**
09:15	09:30	0	0	2	**2**	0	0	0	**0**	**2**	0	0	0	**0**	1	0	0	**1**	**1**	**3**
09:30	09:45	1	0	0	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
09:45	10:00	0	0	1	**1**	0	0	0	**0**	**1**	0	0	0	**0**	1	0	0	**1**	**1**	**2**
11:30	11:45	0	2	0	**2**	0	0	0	**0**	**2**	0	0	0	**0**	0	1	0	**1**	**1**	**3**
11:45	12:00	0	0	2	**2**	0	0	0	**0**	**2**	0	0	0	**0**	1	0	0	**1**	**1**	**3**
12:00	12:15	0	0	1	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
12:15	12:30	0	0	1	**1**	0	0	0	**0**	**1**	0	0	0	**0**	2	0	0	**2**	**2**	**3**
12:30	12:45	0	0	1	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
12:45	13:00	0	0	1	**1**	0	0	0	**0**	**1**	0	0	1	**1**	2	0	0	**2**	**3**	**4**
13:00	13:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	1	**1**	0	0	0	**0**	**1**	**1**
13:15	13:30	0	0	1	**1**	0	0	0	**0**	**1**	0	0	0	**0**	1	0	0	**1**	**1**	**2**
15:00	15:15	0	0	1	**1**	0	0	0	**0**	**1**	0	1	1	**2**	1	0	0	**1**	**3**	**4**
15:15	15:30	0	0	1	**1**	0	1	0	**1**	**2**	0	0	0	**0**	1	0	0	**1**	**1**	**3**
15:30	15:45	0	0	1	**1**	0	0	0	**0**	**1**	0	0	1	**1**	0	0	0	**0**	**1**	**2**
15:45	16:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	1	**1**	1	0	1	**2**	**3**	**3**
16:00	16:15	0	1	1	**2**	0	0	0	**0**	**2**	0	0	1	**1**	0	0	0	**0**	**1**	**3**
16:15	16:30	1	0	2	**3**	0	0	0	**0**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
16:30	16:45	0	0	2	**2**	0	0	0	**0**	**2**	0	0	0	**0**	1	0	0	**1**	**1**	**3**
16:45	17:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
17:00	17:15	0	0	1	**1**	0	0	0	**0**	**1**	0	0	0	**0**	1	0	0	**1**	**1**	**2**
17:15	17:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	2	0	0	**2**	**2**	**2**
17:30	17:45	0	0	1	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
17:45	18:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	1	0	0	**1**	**1**	**1**
Total:	None	4	8	30	**42**	0	2	0	**2**	**44**	0	3	8	**11**	20	1	3	**24**	**35**	**79**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

CHURCHILL AVE @ LANARK AVE

Survey Date: Thursday, October 24, 2019 **WO No:** 38900

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

Time Period		CHURCHILL AVE Northbound U-Turn Total	CHURCHILL AVE Southbound U-Turn Total	LANARK AVE Eastbound U-Turn Total	LANARK AVE 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**

Appendix C

Synchro Intersection Worksheets – Existing Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	188	720	24	114	211	76	0	245	132	471	716	468
Future Volume (vph)	188	720	24	114	211	76	0	245	132	471	716	468
Satd. Flow (prot)	1658	3316	1483	1658	3316	1441	0	1647	0	3216	1633	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1658	3316	1441	1653	3316	1441	0	1647	0	3168	1633	0
Satd. Flow (RTOR)			81			84		14			30	
Lane Group Flow (vph)	209	800	27	127	234	84	0	419	0	523	1316	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm		NA		Prot	NA	
Protected Phases	9	2		13	6			16		15	12	
Permitted Phases			2			6						
Detector Phase	9	2	2	13	6	6		16		15	12	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0		10.0		5.0	10.0	
Minimum Split (s)	10.6	30.1	30.1	10.6	30.1	30.1		29.1		11.5	29.1	
Total Split (s)	15.6	56.1	56.1	15.6	26.1	26.1		76.1		56.5	26.1	
Total Split (%)	7.6%	27.5%	27.5%	7.6%	12.8%	12.8%		37.2%		27.7%	12.8%	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7		3.7		3.7	3.7	
All-Red Time (s)	1.9	2.4	2.4	1.9	2.4	2.4		2.4		2.8	2.4	
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)	5.6	6.1	6.1	5.6	6.1	6.1		6.1		6.5	6.1	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Recall Mode	None	Min	Min	None	Min	Min		None		None	None	
Act Effct Green (s)	10.2	47.2	47.2	10.2	47.2	47.2		46.3		32.4	85.4	
Actuated g/C Ratio	0.06	0.29	0.29	0.06	0.29	0.29		0.29		0.20	0.53	
v/c Ratio	1.99	0.82	0.06	1.21	0.24	0.17		0.87		0.81	1.50	
Control Delay	511.5	62.5	0.2	213.7	46.9	10.1		72.1		73.1	258.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay	511.5	62.5	0.2	213.7	46.9	10.1		72.1		73.1	258.5	
LOS	F	E	A	F	D	B		E		E	F	
Approach Delay		151.5			87.6			72.1			205.8	
Approach LOS		F			F			E			F	
Queue Length 50th (m)	~105.6	124.5	0.0	~50.8	29.7	0.0		126.4		84.4	~589.7	
Queue Length 95th (m)	#191.5	#201.4	0.0	#115.7	52.4	15.2		185.0		120.0	#739.1	
Internal Link Dist (m)		762.8			208.9			249.0			166.2	
Turn Bay Length (m)	104.5		88.0	89.6						80.0		
Base Capacity (vph)	105	1052	512	105	1052	514		739		1021	1315	
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	1.99	0.76	0.05	1.21	0.22	0.16		0.57		0.51	1.00	

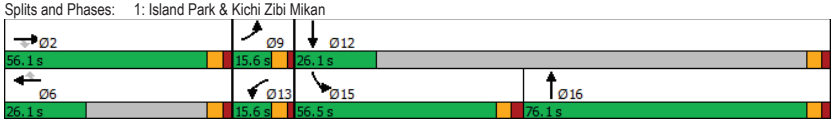
Intersection Summary
Cycle Length: 204.3
Actuated Cycle Length: 161
Natural Cycle: 145
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.99

Intersection Signal Delay: 161.7 Intersection LOS: F
Intersection Capacity Utilization 112.5% ICU Level of Service H
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 1: Island Park & Kichi Zibi Mikan



Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	24	11	14	1	6	13	9	337	23	26	819	98
Future Vol, veh/h	24	11	14	1	6	13	9	337	23	26	819	98
Conflicting Peds, #/hr	7	0	0	0	0	7	8	0	0	0	0	8
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	33	2	2	2	2	4	2	2
Mvmt Flow	27	12	16	1	7	14	10	374	26	29	910	109

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1456	1451	973	1444	1492	394	1027	0	0	400	0	0
Stage 1	1031	1031	-	407	407	-	-	-	-	-	-	-
Stage 2	425	420	-	1037	1085	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.83	6.22	4.12	-	-	4.14	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.83	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.83	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.297	3.318	2.218	-	-	2.236	-	-
Pot Cap-1 Maneuver	108	131	306	110	106	655	676	-	-	1148	-	-
Stage 1	281	310	-	621	547	-	-	-	-	-	-	-
Stage 2	607	589	-	279	258	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	93	120	304	91	97	651	672	-	-	1148	-	-
Mov Cap-2 Maneuver	93	120	-	91	97	-	-	-	-	-	-	-
Stage 1	274	290	-	609	537	-	-	-	-	-	-	-
Stage 2	572	578	-	238	241	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	55	23.7	0.3	0.2
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1		SBL	SBT	SBR
Capacity (veh/h)	672	-	-	124	215	1148	-	-
HCM Lane V/C Ratio	0.015	-	-	0.439	0.103	0.025	-	-
HCM Control Delay (s)	10.4	0	-	55	23.7	8.2	0	-
HCM Lane LOS	B	A	-	F	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.9	0.3	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								↕			↕	
Traffic Volume (vph)	77	349	54	32	267	28	38	262	30	33	532	81
Future Volume (vph)	77	349	54	32	267	28	38	262	30	33	532	81
Satd. Flow (prot)	1626	1424	1483	1595	1464	0	0	1704	0	1551	1688	0
Flt Permitted	0.426			0.347				0.753		0.527		
Satd. Flow (perm)	697	1424	1294	573	1464	0	0	1289	0	842	1688	0
Satd. Flow (RTOR)			92		5			8			12	
Lane Group Flow (vph)	86	388	60	36	328	0	0	366	0	37	681	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	28.5	28.5	28.5	28.5	28.5		34.0	34.0		37.0	37.0	
Total Split (s)	32.0	32.0	32.0	32.0	32.0		57.0	57.0		57.0	57.0	
Total Split (%)	33.7%	33.7%	33.7%	33.7%	33.7%		60.0%	60.0%		60.0%	60.0%	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.0	3.0		3.0	3.0	
All-Red Time (s)	3.2	3.2	3.2	3.2	3.2		4.0	4.0		4.0	4.0	
Lost Time Adjust (s)	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			7.0		7.0	7.0	
Lead/Lag	Lag	Lag	Lag	Lag	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	Max	Max	Max	Max	Max		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	31.5	31.5	31.5	31.5	31.5			50.0		50.0	50.0	
Actuated g/C Ratio	0.33	0.33	0.33	0.33	0.33			0.53		0.53	0.53	
v/c Ratio	0.37	0.82	0.12	0.19	0.67			0.54		0.08	0.76	
Control Delay	25.5	41.4	1.3	26.0	34.9			18.1		11.9	24.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0		0.0	0.0	
Total Delay	25.5	41.4	1.3	26.0	34.9			18.1		11.9	24.4	
LOS	C	D	A	C	C			B		B	C	
Approach Delay		34.4			34.1			18.1			23.7	
Approach LOS		C			C			B			C	
Queue Length 50th (m)	12.4	66.9	0.3	4.7	50.5			41.0		3.2	92.1	
Queue Length 95th (m)	22.5	#112.9	0.9	12.4	80.5			67.0		8.2	139.3	
Internal Link Dist (m)		211.2			266.0			304.9			415.7	
Turn Bay Length (m)	58.7		29.5	250.0						36.5		
Base Capacity (vph)	231	472	490	189	488			682		443	894	
Starvation Cap Reductn	0	0	0	0	0			0		0	0	
Spillback Cap Reductn	0	0	0	0	0			0		0	0	
Storage Cap Reductn	0	0	0	0	0			0		0	0	
Reduced v/c Ratio	0.37	0.82	0.12	0.19	0.67			0.54		0.08	0.76	

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 95
Offset: 38 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Lane Group	Ø3	Ø7
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	7
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	5.0	5.0
Total Split (s)	6.0	6.0
Total Split (%)	6%	6%
Yellow Time (s)	2.0	2.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (m)		
Queue Length 95th (m)		
Internal Link Dist (m)		
Turn Bay Length (m)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

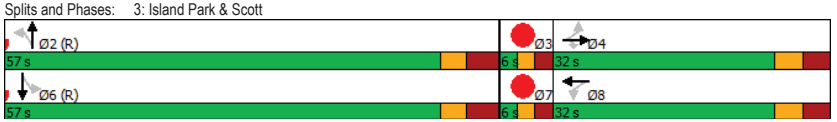
Intersection Summary

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 27.5	Intersection LOS: C
Intersection Capacity Utilization 95.2%	ICU Level of Service F
Analysis Period (min) 15	

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

Splits and Phases: 3: Island Park & Scott



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	414	6	6	307	38	7	1	19	57	0	64
Future Volume (vph)	30	414	6	6	307	38	7	1	19	57	0	64
Satd. Flow (prot)	1642	1470	0	1658	1498	0	1658	1427	0	1658	1364	0
Flt Permitted	0.535			0.485			0.711			0.743		
Satd. Flow (perm)	916	1470	0	829	1498	0	1173	1427	0	1261	1364	0
Satd. Flow (RTOR)		2			12			21			523	
Lane Group Flow (vph)	33	467	0	7	383	0	8	22	0	63	71	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	28.6	28.6		28.6	28.6		22.2	22.2		22.2	22.2	
Total Split (s)	66.0	66.0		66.0	66.0		29.0	29.0		29.0	29.0	
Total Split (%)	69.5%	69.5%		69.5%	69.5%		30.5%	30.5%		30.5%	30.5%	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	
All-Red Time (s)	3.3	3.3		3.3	3.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.6	6.6		6.6	6.6		6.2	6.2		6.2	6.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Act Effct Green (s)	74.7	74.7		74.7	74.7		12.0	12.0		12.0	12.0	
Actuated g/C Ratio	0.79	0.79		0.79	0.79		0.13	0.13		0.13	0.13	
v/c Ratio	0.05	0.40		0.01	0.32		0.05	0.11		0.40	0.11	
Control Delay	4.1	5.9		1.7	2.2		35.6	16.3		45.0	0.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	4.1	5.9		1.7	2.2		35.6	16.3		45.0	0.4	
LOS	A	A		A	A		D	B		D	A	
Approach Delay		5.8			2.2			21.4			21.3	
Approach LOS		A			A			C			C	
Queue Length 50th (m)	1.2	24.3		0.1	8.7		1.4	0.2		11.1	0.0	
Queue Length 95th (m)	4.2	48.8		m0.2	m13.4		5.3	6.6		22.5	0.0	
Internal Link Dist (m)		332.8			211.2			80.9			82.5	
Turn Bay Length (m)	36.5			42.0			18.0			18.0		
Base Capacity (vph)	720	1157		652	1181		281	358		302	724	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.05	0.40		0.01	0.32		0.03	0.06		0.21	0.10	

Intersection Summary

Cycle Length: 95
Actuated Cycle Length: 95
Offset: 83 (87%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.40
Intersection Signal Delay: 6.9 Intersection LOS: A
Intersection Capacity Utilization 48.2% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: West Village/Lanark & Scott

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	108	3	24	45	6	47
Future Vol, veh/h	108	3	24	45	6	47
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	33	8	13	2	2
Mvmt Flow	120	3	27	50	7	52
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.2	7.4	7.6
HCM LOS	A	A	A

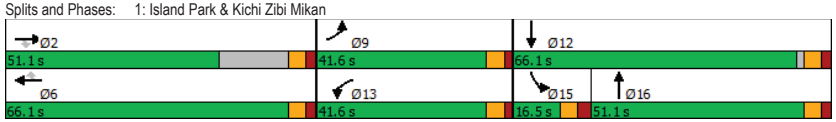
Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	97%	11%
Vol Thru, %	35%	0%	89%
Vol Right, %	65%	3%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	69	111	53
LT Vol	0	108	6
Through Vol	24	0	47
RT Vol	45	3	0
Lane Flow Rate	77	123	59
Geometry Grp	1	1	1
Degree of Util (X)	0.083	0.149	0.069
Departure Headway (Hd)	3.907	4.345	4.234
Convergence, Y/N	Yes	Yes	Yes
Cap	902	819	833
Service Time	1.999	2.406	2.325
HCM Lane V/C Ratio	0.085	0.15	0.071
HCM Control Delay	7.4	8.2	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	0.5	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	335	165	18	171	879	954	0	488	28	141	462	404
Future Volume (vph)	335	165	18	171	879	954	0	488	28	141	462	404
Satd. Flow (prot)	1658	3316	1483	1658	3316	1483	0	1731	0	3154	1609	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1655	3316	1448	1653	3316	1443	0	1731	0	3149	1609	0
Satd. Flow (RTOR)			95			191		2			28	
Lane Group Flow (vph)	372	183	20	190	977	1060	0	573	0	157	962	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm		NA		Prot	NA	
Protected Phases	9	2		13	6			16		15	12	
Permitted Phases			2			6						
Detector Phase	9	2	2	13	6	6		16		15	12	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0		10.0		5.0	10.0	
Minimum Split (s)	20.6	30.1	30.1	20.6	30.1	30.1		29.1		11.5	29.1	
Total Split (s)	41.6	51.1	51.1	41.6	66.1	66.1		51.1		16.5	66.1	
Total Split (%)	23.7%	29.2%	29.2%	23.7%	37.7%	37.7%		29.2%		9.4%	37.7%	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7		3.7		3.7	3.7	
All-Red Time (s)	1.9	2.4	2.4	1.9	2.4	2.4		2.4		2.8	2.4	
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)	5.6	6.1	6.1	5.6	6.1	6.1		6.1		6.5	6.1	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Recall Mode	None	None	None	None	None	None		None		None	None	
Act Effct Green (s)	36.0	60.0	60.0	36.0	60.0	60.0		45.0		10.0	61.5	
Actuated g/C Ratio	0.21	0.34	0.34	0.21	0.34	0.34		0.26		0.06	0.35	
v/c Ratio	1.09	0.16	0.04	0.56	0.86	1.71		1.29		0.88	1.65	
Control Delay	138.2	40.6	0.1	69.7	62.8	355.6		194.9		121.4	335.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay	138.2	40.6	0.1	69.7	62.8	355.6		194.9		121.4	335.6	
LOS	F	D	A	E	E	F		F		F	F	
Approach Delay		102.4			202.8			194.9			305.5	
Approach LOS		F			F			F			F	
Queue Length 50th (m)	~146.0	23.5	0.0	60.4	168.2	~500.0		~253.8		28.6	~481.7	
Queue Length 95th (m)	#212.5	33.6	0.0	88.4	196.9	#582.7		#329.2		#50.3	#563.6	
Internal Link Dist (m)		750.5			213.6			249.0			157.2	
Turn Bay Length (m)	104.5		88.0	89.6						80.0		
Base Capacity (vph)	340	1134	558	340	1134	619		445		179	582	
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	1.09	0.16	0.04	0.56	0.86	1.71		1.29		0.88	1.65	

Intersection Summary
Cycle Length: 175.3
Actuated Cycle Length: 175.3
Natural Cycle: 145
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.71

Intersection Signal Delay: 214.5 Intersection LOS: F
Intersection Capacity Utilization 125.9% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Island Park & Kichi Zibi Mikan



Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	45	7	8	11	9	13	2	470	1	14	404	29
Future Vol, veh/h	45	7	8	11	9	13	2	470	1	14	404	29
Conflicting Peds, #/hr	21	0	0	0	0	21	7	0	2	2	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	43	2	18	33	2	2	2	2	7	2	2
Mvmt Flow	50	8	9	12	10	14	2	522	1	16	449	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1064	1033	472	1035	1049	546	488	0	0	525	0	0
Stage 1	504	504	-	529	529	-	-	-	-	-	-	-
Stage 2	560	529	-	506	520	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.93	6.22	7.28	6.83	6.22	4.12	-	-	4.17	-	-
Critical Hdwy Stg 1	6.12	5.93	-	6.28	5.83	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.93	-	6.28	5.83	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.387	3.318	3.662	4.297	3.318	2.218	-	-	2.263	-	-
Pot Cap-1 Maneuver	201	198	592	196	201	538	1075	-	-	1017	-	-
Stage 1	550	479	-	505	480	-	-	-	-	-	-	-
Stage 2	513	466	-	520	484	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	180	192	589	183	195	528	1069	-	-	1015	-	-
Mov Cap-2 Maneuver	180	192	-	183	195	-	-	-	-	-	-	-
Stage 1	546	466	-	502	478	-	-	-	-	-	-	-
Stage 2	479	464	-	493	471	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	31.7	21.7	0	0.3
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1069	-	-	200	252	1015	-	-
HCM Lane V/C Ratio	0.002	-	-	0.333	0.146	0.015	-	-
HCM Control Delay (s)	8.4	0	-	31.7	21.7	8.6	0	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.4	0.5	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	415	46	55	494	71	34	145	29	60	396	99
Future Volume (vph)	56	415	46	55	494	71	34	145	29	60	396	99
Satd. Flow (prot)	1658	1548	1483	1658	1491	0	0	1680	0	1658	1661	0
Flt Permitted	0.183			0.342				0.738		0.608		
Satd. Flow (perm)	319	1548	1334	583	1491	0	0	1246	0	1029	1661	0
Satd. Flow (RTOR)			87		8			10			16	
Lane Group Flow (vph)	62	461	51	61	628	0	0	231	0	67	550	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	28.5	28.5	28.5	28.5	28.5		34.0	34.0		34.0	34.0	
Total Split (s)	43.0	43.0	43.0	43.0	43.0		51.0	51.0		51.0	51.0	
Total Split (%)	43.0%	43.0%	43.0%	43.0%	43.0%		51.0%	51.0%		51.0%	51.0%	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.0	3.0		3.0	3.0	
All-Red Time (s)	3.2	3.2	3.2	3.2	3.2		4.0	4.0		4.0	4.0	
Lost Time Adjust (s)	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			7.0		7.0	7.0	
Lead/Lag	Lag	Lag	Lag	Lag	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	Max	Max	Max	Max	Max		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	42.5	42.5	42.5	42.5	42.5			44.0		44.0	44.0	
Actuated g/C Ratio	0.42	0.42	0.42	0.42	0.42			0.44		0.44	0.44	
v/c Ratio	0.46	0.70	0.08	0.25	0.98			0.42		0.15	0.74	
Control Delay	27.9	25.6	0.5	21.9	61.6			21.2		18.0	30.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0		0.0	0.0	
Total Delay	27.9	25.6	0.5	21.9	61.6			21.2		18.0	30.1	
LOS	C	C	A	C	E			C		B	C	
Approach Delay		23.6			58.1			21.2			28.8	
Approach LOS		C			E			C			C	
Queue Length 50th (m)	6.2	74.4	0.2	7.4	116.4			28.5		7.6	84.1	
Queue Length 95th (m)	m20.8	111.2	m0.3	17.1	#190.4			48.4		16.1	125.4	
Internal Link Dist (m)		217.8			273.2			304.9			417.3	
Turn Bay Length (m)	58.7		29.5	250.0						36.5		
Base Capacity (vph)	135	657	616	247	638			553		452	739	
Starvation Cap Reductn	0	0	0	0	0			0		0	0	
Spillback Cap Reductn	0	0	0	0	0			0		0	0	
Storage Cap Reductn	0	0	0	0	0			0		0	0	
Reduced v/c Ratio	0.46	0.70	0.08	0.25	0.98			0.42		0.15	0.74	

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 2 (2%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Lane Group	Ø3	Ø7
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	7
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	5.0	5.0
Total Split (s)	6.0	6.0
Total Split (%)	6%	6%
Yellow Time (s)	2.0	2.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (m)		
Queue Length 95th (m)		
Internal Link Dist (m)		
Turn Bay Length (m)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

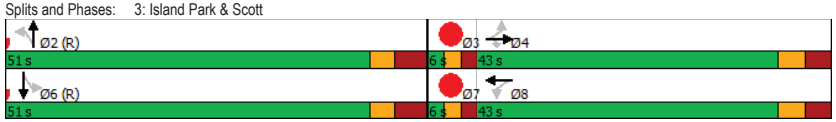
Intersection Summary

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 36.1	Intersection LOS: D
Intersection Capacity Utilization 98.9%	ICU Level of Service F
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Island Park & Scott



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	88	564	16	13	557	36	13	2	9	49	3	32
Future Volume (vph)	88	564	16	13	557	36	13	2	9	49	3	32
Satd. Flow (prot)	1658	1584	0	1566	1565	0	1658	1358	0	1658	1349	0
Flt Permitted	0.376			0.383			0.732			0.750		
Satd. Flow (perm)	650	1584	0	621	1565	0	1164	1358	0	1270	1349	0
Satd. Flow (RTOR)		3			7			10			36	
Lane Group Flow (vph)	98	645	0	14	659	0	14	12	0	54	39	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	28.6	28.6		28.6	28.6		21.2	21.2		21.2	21.2	
Total Split (s)	71.0	71.0		71.0	71.0		29.0	29.0		29.0	29.0	
Total Split (%)	71.0%	71.0%		71.0%	71.0%		29.0%	29.0%		29.0%	29.0%	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	
All-Red Time (s)	3.3	3.3		3.3	3.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.6	6.6		6.6	6.6		6.2	6.2		6.2	6.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Act Effct Green (s)	78.8	78.8		78.8	78.8		13.0	13.0		13.0	13.0	
Actuated g/C Ratio	0.79	0.79		0.79	0.79		0.13	0.13		0.13	0.13	
v/c Ratio	0.19	0.52		0.03	0.53		0.09	0.06		0.33	0.19	
Control Delay	5.3	7.2		4.5	5.2		38.5	22.2		44.3	16.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	5.3	7.2		4.5	5.2		38.5	22.2		44.3	16.1	
LOS	A	A		A	A		D	C		D	B	
Approach Delay		7.0			5.2			30.9			32.5	
Approach LOS		A			A			C			C	
Queue Length 50th (m)	5.3	49.9		0.6	38.1		2.4	0.3		9.4	0.5	
Queue Length 95th (m)	11.1	75.3		m0.7	m38.4		8.0	5.3		20.9	9.6	
Internal Link Dist (m)		332.8			217.8			81.9			75.1	
Turn Bay Length (m)	36.5			42.0			18.0			18.0		
Base Capacity (vph)	512	1248		489	1233		265	317		289	335	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.19	0.52		0.03	0.53		0.05	0.04		0.19	0.12	

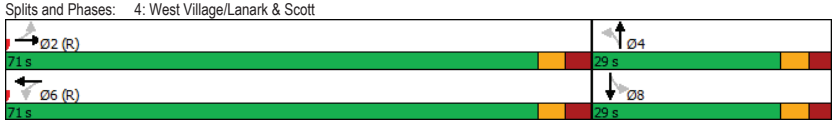
Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 40 (40%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 8.1	Intersection LOS: A
Intersection Capacity Utilization 69.2%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 4: West Village/Lanark & Scott



Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	62	10	37	50	4	27
Future Vol, veh/h	62	10	37	50	4	27
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	6	2	2	4	2	2
Mvmt Flow	69	11	41	56	4	30
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.8	7.2	7.4
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	86%	13%
Vol Thru, %	43%	0%	87%
Vol Right, %	57%	14%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	87	72	31
LT Vol	0	62	4
Through Vol	37	0	27
RT Vol	50	10	0
Lane Flow Rate	97	80	34
Geometry Grp	1	1	1
Degree of Util (X)	0.101	0.096	0.04
Departure Headway (Hd)	3.755	4.318	4.174
Convergence, Y/N	Yes	Yes	Yes
Cap	945	826	850
Service Time	1.813	2.364	2.238
HCM Lane V/C Ratio	0.103	0.097	0.04
HCM Control Delay	7.2	7.8	7.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	0.3	0.1

Appendix D

Collision Data

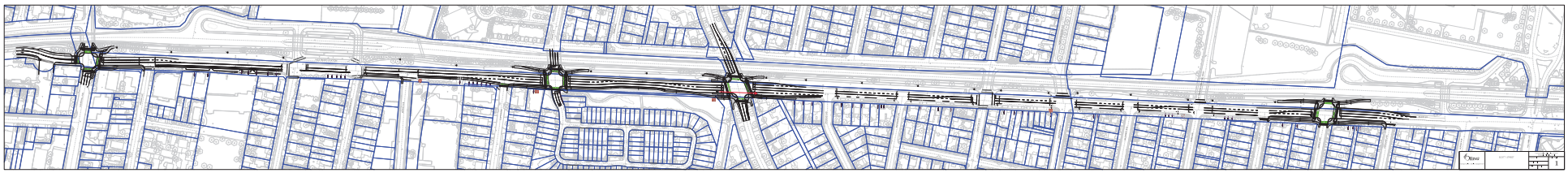
CGH TRANSPORTATION

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
1/14/2019	2019	10:53	LANARK AVE btwn BEECHGROVE AVE & BRIARWAY PRIV (__4TZO67)	01 - Clear	01 - Daylight	10 - No control	0	03 - P.D. only	06 - SMV unattended vehicle	01 - Dry	0	0	0	0
11/29/2021	2021	18:20	LANARK AVE btwn BEECHGROVE AVE & CHURCHILL AVE N (__3ZA02S)	01 - Clear	07 - Dark	10 - No control	0	03 - P.D. only	06 - SMV unattended vehicle	01 - Dry	0	0	0	0
6/2/2022	2022	12:38	LANARK AVE btwn BEECHGROVE AVE & CHURCHILL AVE N (__3ZA02S)	01 - Clear	01 - Daylight	10 - No control	0	02 - Non-fatal injury	99 - Other	01 - Dry	0	0	0	0
7/28/2019	2019	19:11	LANARK AVE btwn BRIARWAY PRIV & METROPOLE PRIV (__4TZO9Y)	01 - Clear	01 - Daylight	10 - No control	0	02 - Non-fatal injury	06 - SMV unattended vehicle	01 - Dry	0	0	0	0

Appendix E

Scott Street Bus Detour and Cycling Concept

CGH TRANSPORTATION



Appendix F

TDM Checklist

CGH TRANSPORTATION

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: *Residential developments*	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	☐
	1.2	**Travel surveys**	
BETTER	1.2.1	Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	☐
	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 *(multi-family, condominium)*	☑
	2.2	**Bicycle skills training**	
BETTER	2.2.1	Offer on-site cycling courses for residents, or subsidize off-site courses	☐

		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 *(multi-family, condominium)*	☑
BETTER	3.1.2	Provide real-time arrival information display at entrances *(multi-family, condominium)*	☐
	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	☐
BETTER	3.2.2	Offer at least one year of free monthly transit passes on residence purchase/move-in	☐
	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 *(subdivision)*	☐
	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)	☐
	4.	**CARSHARING & BIKESHARING**	
	4.1	**Bikeshare stations & memberships**	
BETTER	4.1.1	Contract with provider to install on-site bikeshare station *(multi-family)*	☑
BETTER	4.1.2	Provide residents with bikeshare memberships, either free or subsidized *(multi-family)*	☐
	4.2	**Carshare vehicles & memberships**	
BETTER	4.2.1	Contract with provider to install on-site carshare vehicles and promote their use by residents	☑
BETTER	4.2.2	Provide residents with carshare memberships, either free or subsidized	☐
	5.	**PARKING**	
	5.1	**Priced parking**	
BASIC ★	5.1.1	Unbundle parking cost from purchase price *(condominium)*	☑
BASIC ★	5.1.2	Unbundle parking cost from monthly rent *(multi-family)*	☑

			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	☑
		6.2	**Personalized trip planning**	
BETTER	★	6.2.1	Offer personalized trip planning to new residents	☐

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: *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	☐
BASIC	1.1.2	Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	☐
BASIC	1.1.3	Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	☐
	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 Official Plan policy 4.3.3)*	☑
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 Official Plan policy 4.3.12)*	☑

		TDM-supportive design & infrastructure measures: *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 Official Plan policy 4.3.10)*	☑
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 Official Plan policy 4.3.10)*	☑
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 Official Plan policy 4.3.11)*	☑
BASIC	1.2.6	Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	☑
BASIC	1.2.7	Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	☐
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	☐
	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	☐
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)	☐

		TDM-supportive design & infrastructure measures: *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 Official Plan policy 4.3.6)*	☑
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 Zoning By-law Section 111)*	☑
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 Zoning By-law Section 111)*	☑
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	☐
	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 Zoning By-law Section 111)*	☑
BETTER	2.2.2	Provide secure bicycle parking spaces equivalent to at least the number of units at condominiums or multi-family residential developments	☐
	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)	☐
	3.	**TRANSIT**	
	3.1	**Customer amenities**	
BASIC	3.1.1	Provide shelters, lighting and benches at any on-site transit stops	☐
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	☐
BETTER	3.1.3	Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	☐

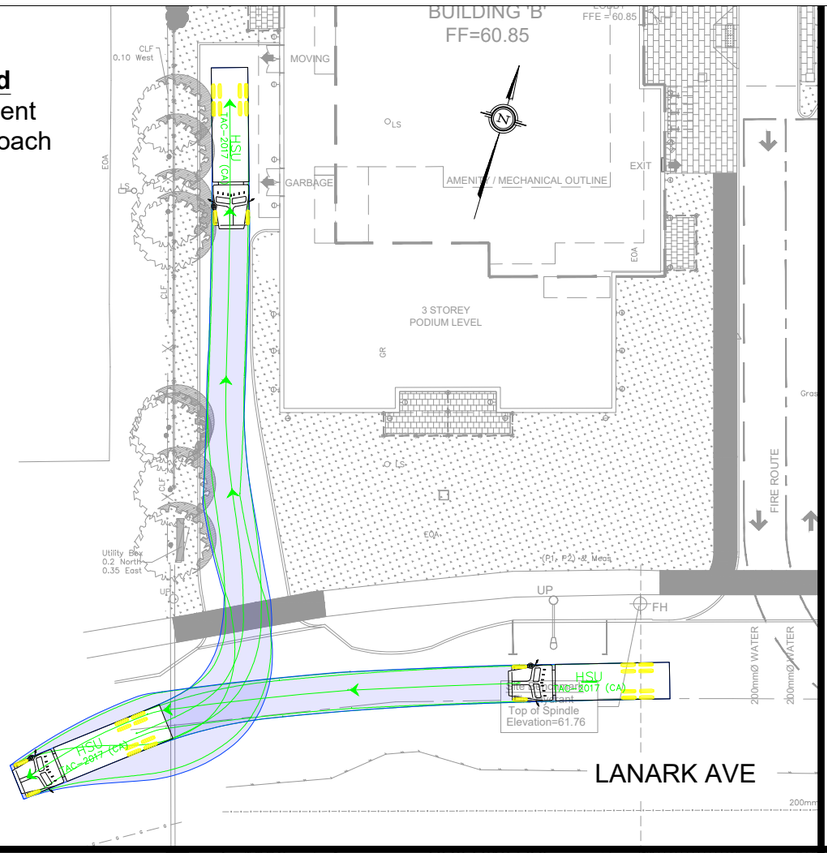
		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	4.	**RIDESHARING**	
	4.1	**Pick-up & drop-off facilities**	
BASIC	4.1.1	Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	☑
	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 Zoning By-law Section 94)*	☐
	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	☐
	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	☑
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	☐
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 Zoning By-law Section 104)*	☐
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 Zoning By-law Section 111)*	☐
	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)	☐

Appendix G

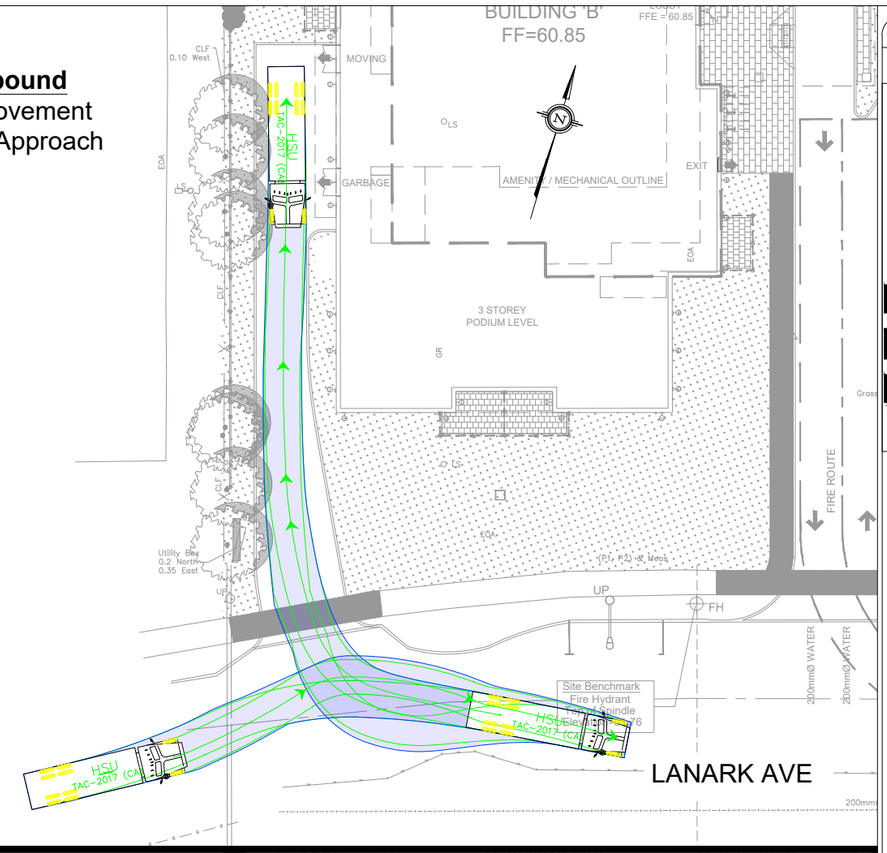
Turning Templates

CGH TRANSPORTATION

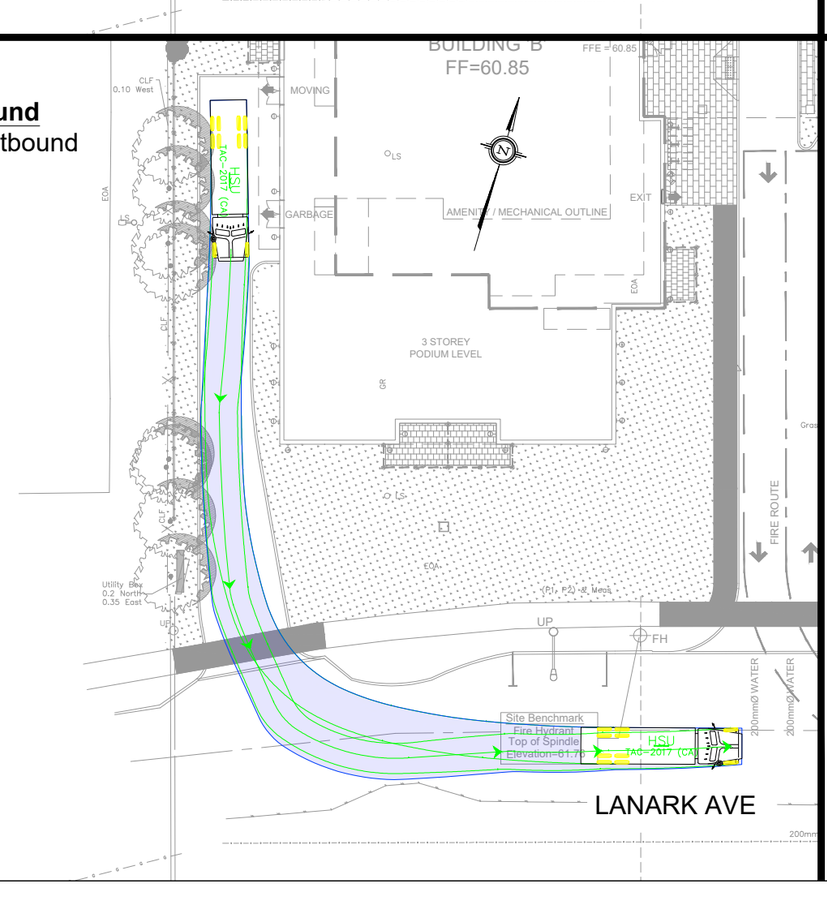
HSU **Inbound**
Loading Movement
Westbound Approach



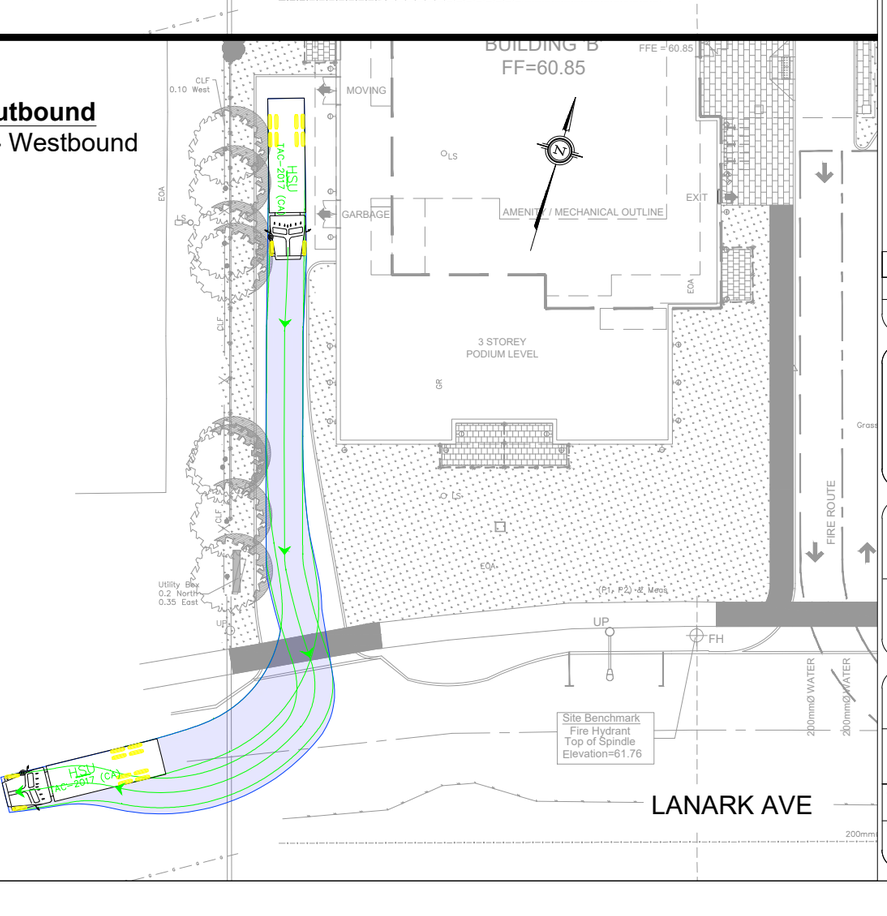
HSU **Inbound**
Loading Movement
Eastbound Approach



HSU **Outbound**
Movement - Eastbound

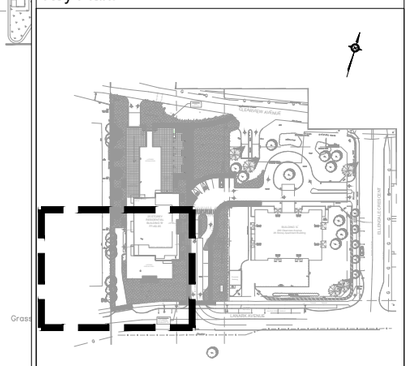


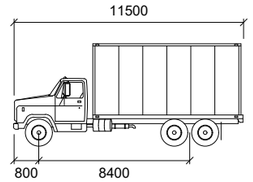
HSU **Outbound**
Movement - Westbound



Notes:

Key Plan:





HSU

	mm
Width	: 2600
Track	: 2600
Lock to Lock Time	: 6.0
Steering Angle	: 40.0

REV:	DESCRIPTION:	BY:	DATE:
02	Issued for Review:	AN	2024-09-13

STATUS:

CGH Transportation
6 Plaza Court
Ottawa, ON
K2H 7W1
(343) 999-9117

CLIENT: Homestead Land Holdings

ARCHITECT:

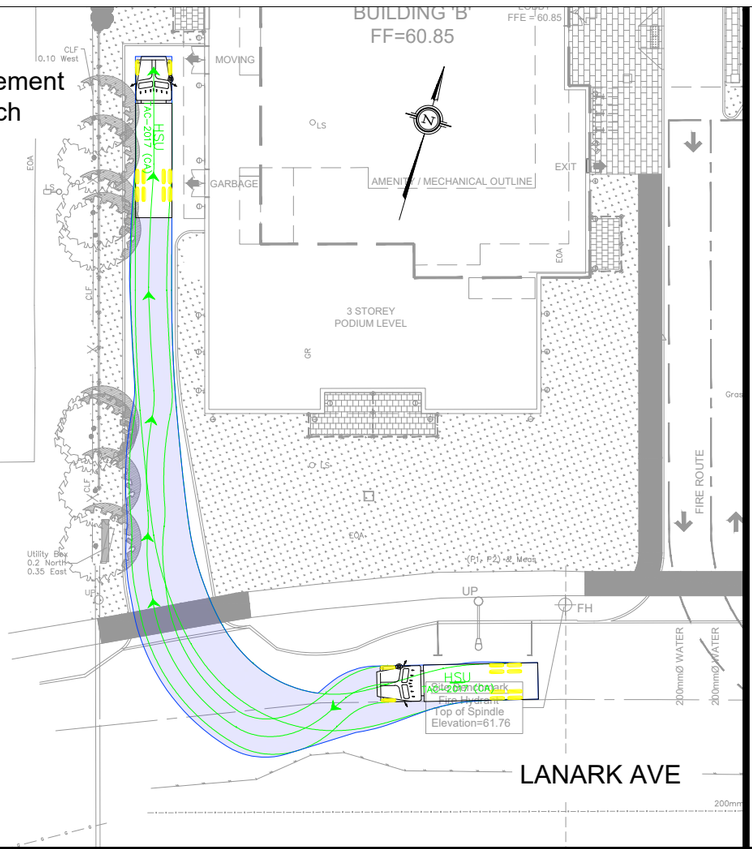
SITE: 210 Clearview Ave

TITLE: Turning Movement Analysis
HSU Turning Movements

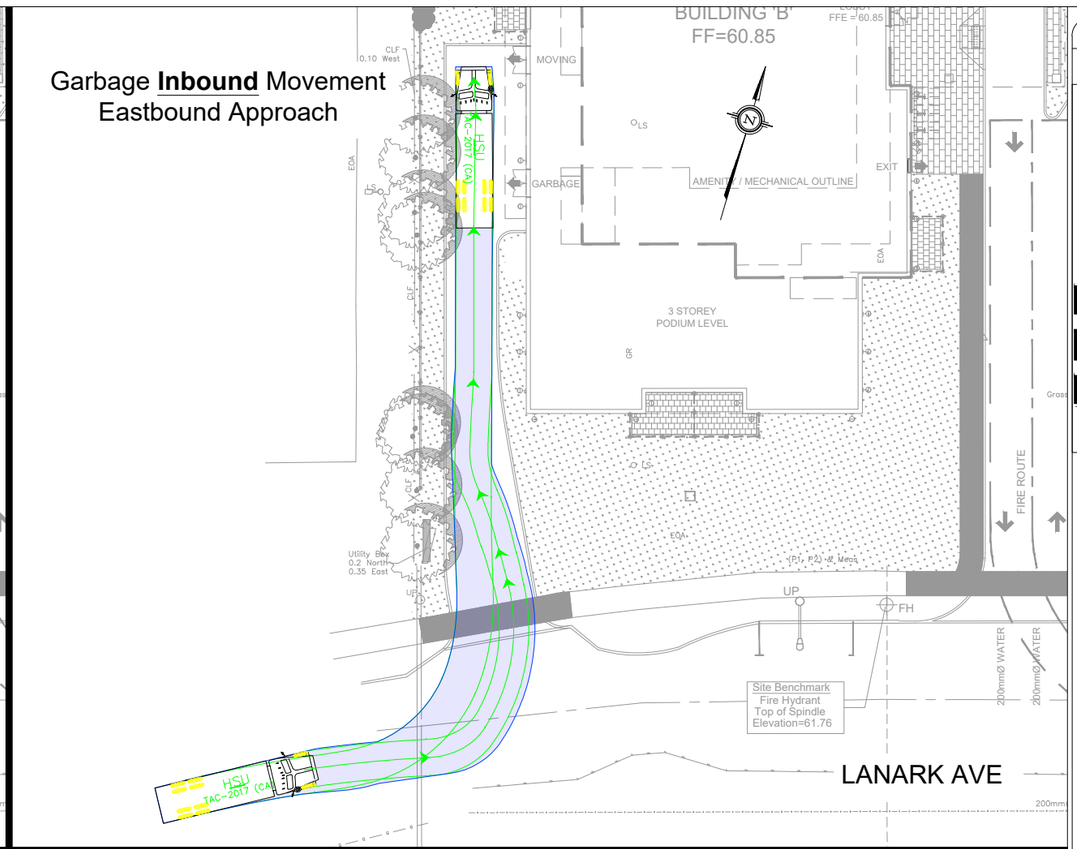
SCALE AT A3:	DATE:	DRAWN:	CHECKED:
NTS	2024-09-13	AN	AH

PROJECT NO:	DRAWING NO:	REVISION:
2024-030	001	02

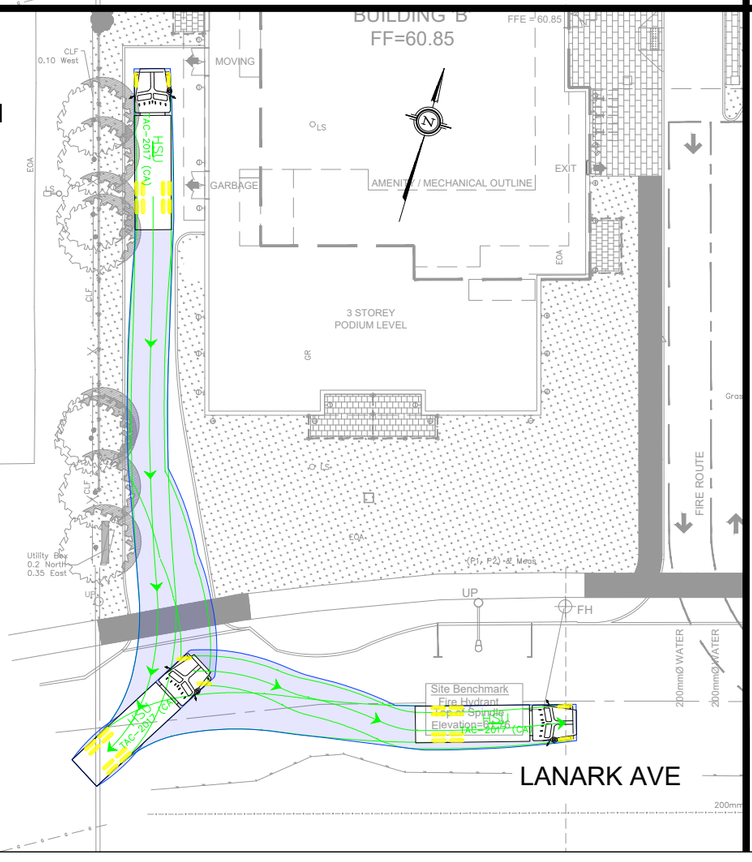
Garbage **Inbound** Movement
Westbound Approach



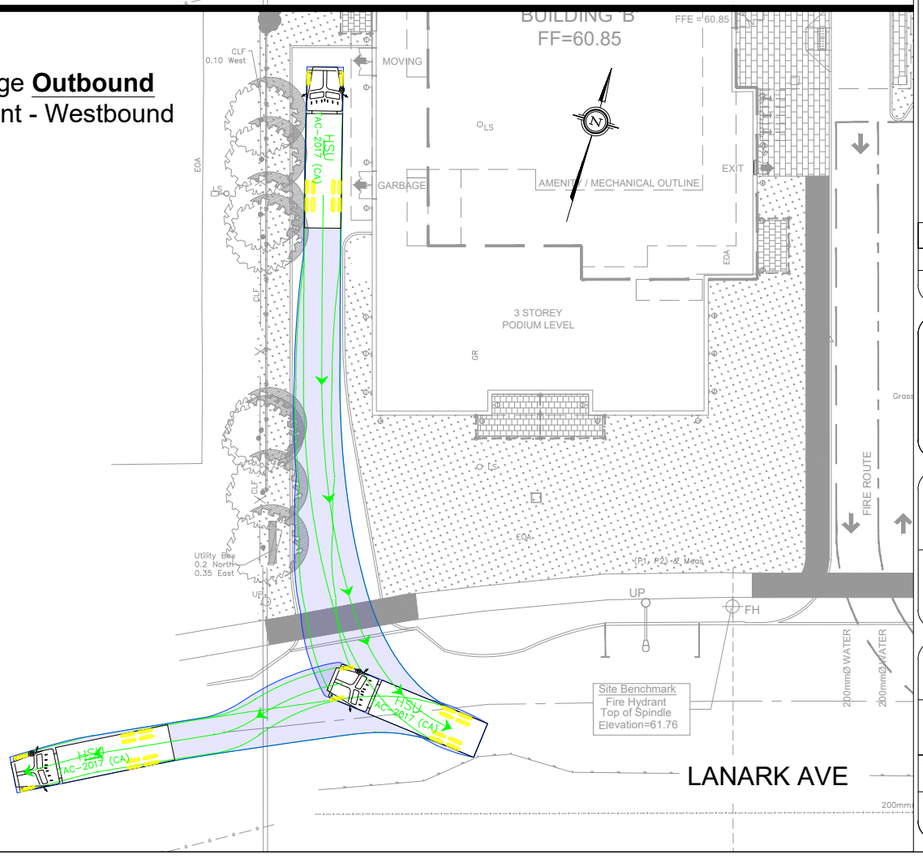
Garbage **Inbound** Movement
Eastbound Approach



Garbage **Outbound**
Movement - Eastbound



Garbage **Outbound**
Movement - Westbound



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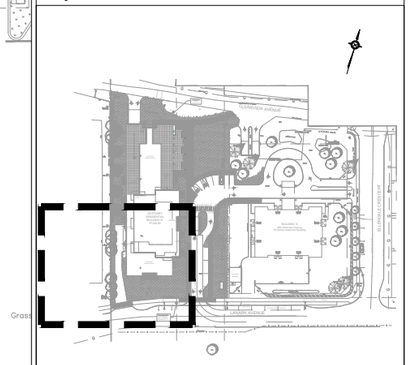
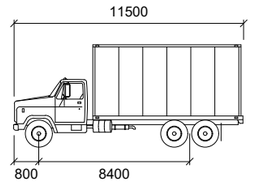
Key Plan:





HSU

	mm
Width	: 2600
Track	: 2600
Lock to Lock Time	: 6.0
Steering Angle	: 40.0

REV:	DESCRIPTION:	BY:	DATE:
02	Issued for Review:	AN	2024-09-13

STATUS:

CGH Transportation
6 Plaza Court
Ottawa, ON
K2H 7W1
(343) 999-9117

CLIENT: Homestead Land Holdings

ARCHITECT:

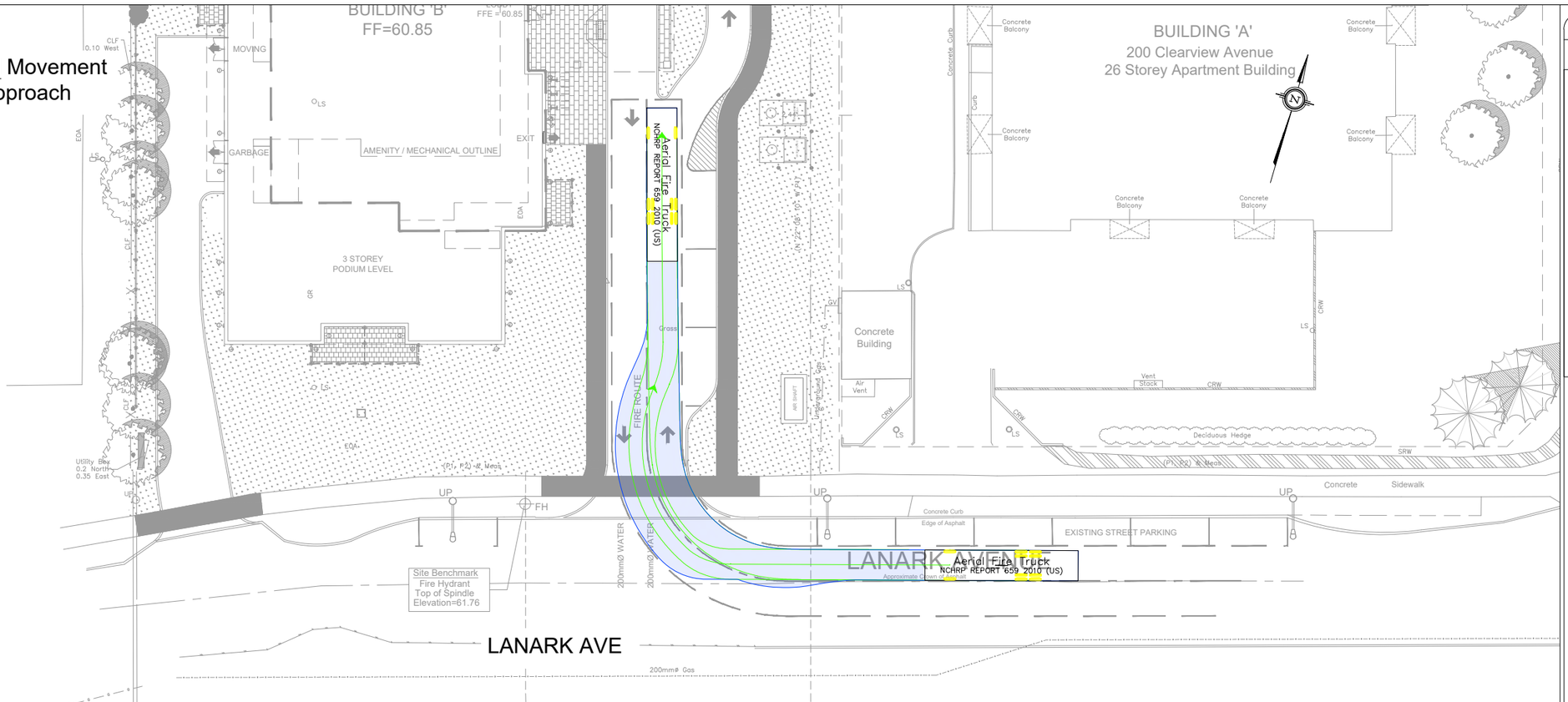
SITE: 210 Clearview Ave

TITLE: Turning Movement Analysis
Garbage Turning Movements

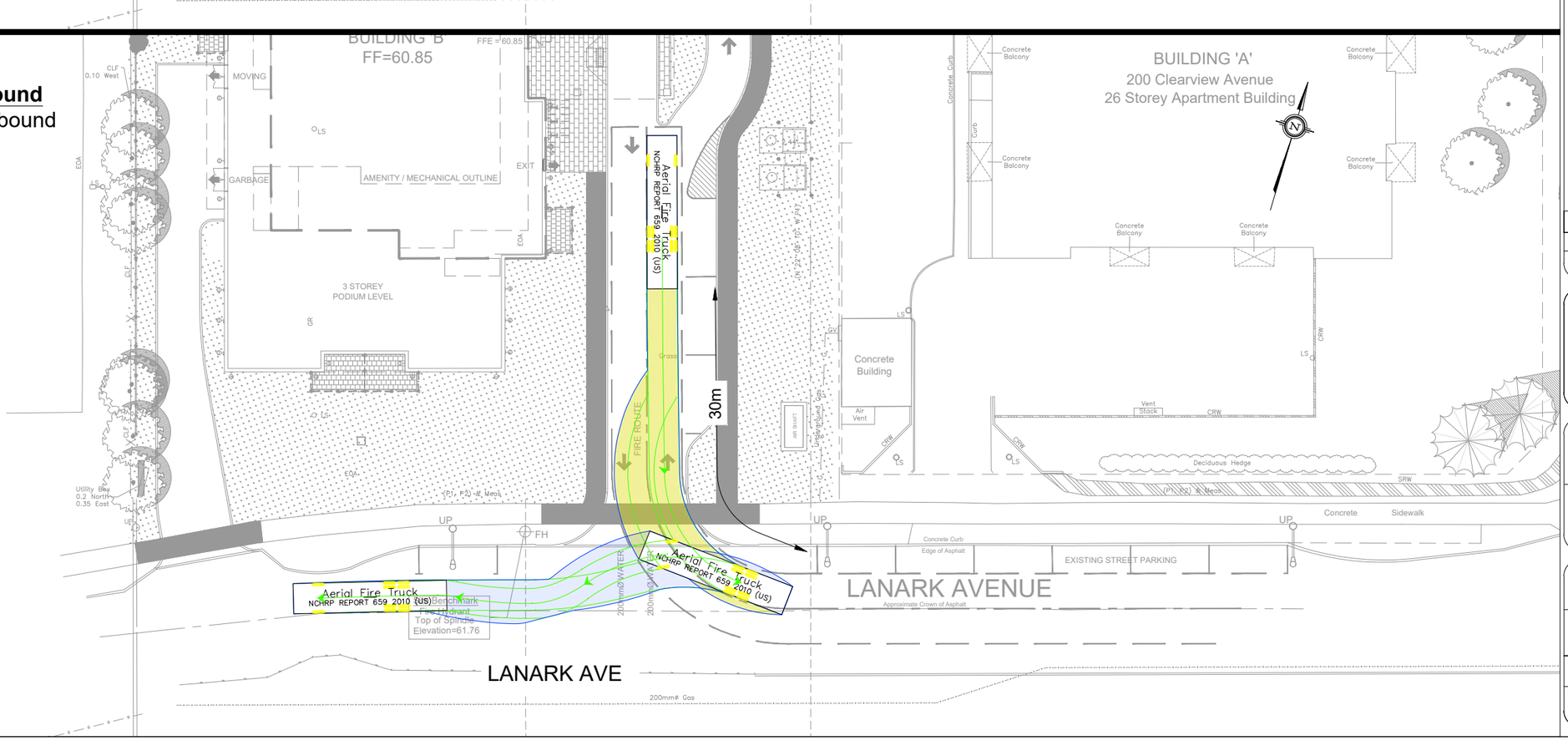
SCALE AT A3:	DATE:	DRAWN:	CHECKED:
NTS	2024-09-13	AN	AH

PROJECT NO:	DRAWING NO:	REVISION:
2024-030	002	02

Garbage **Inbound** Movement
Westbound Approach



Garbage **Outbound**
Movement - Eastbound



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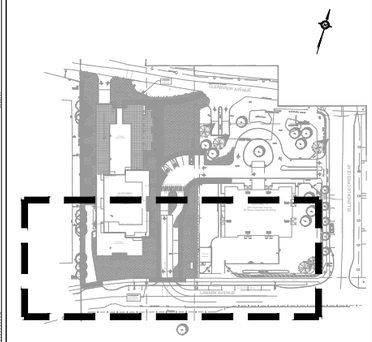
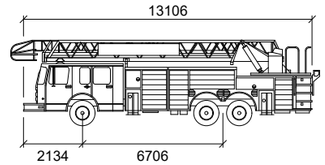
Key Plan:





Aerial Fire Truck

	mm
Width	: 2591
Track	: 2591
Lock to Lock Time	: 6.0
Steering Angle	: 33.3

REV:	DESCRIPTION:	BY:	DATE:
02	Issued for Review:	AN	2024-09-13

STATUS:

CGH Transportation
6 Plaza Court
Ottawa, ON
K2H 7W1
(343) 999-9117

CLIENT: Homestead Land Holdings

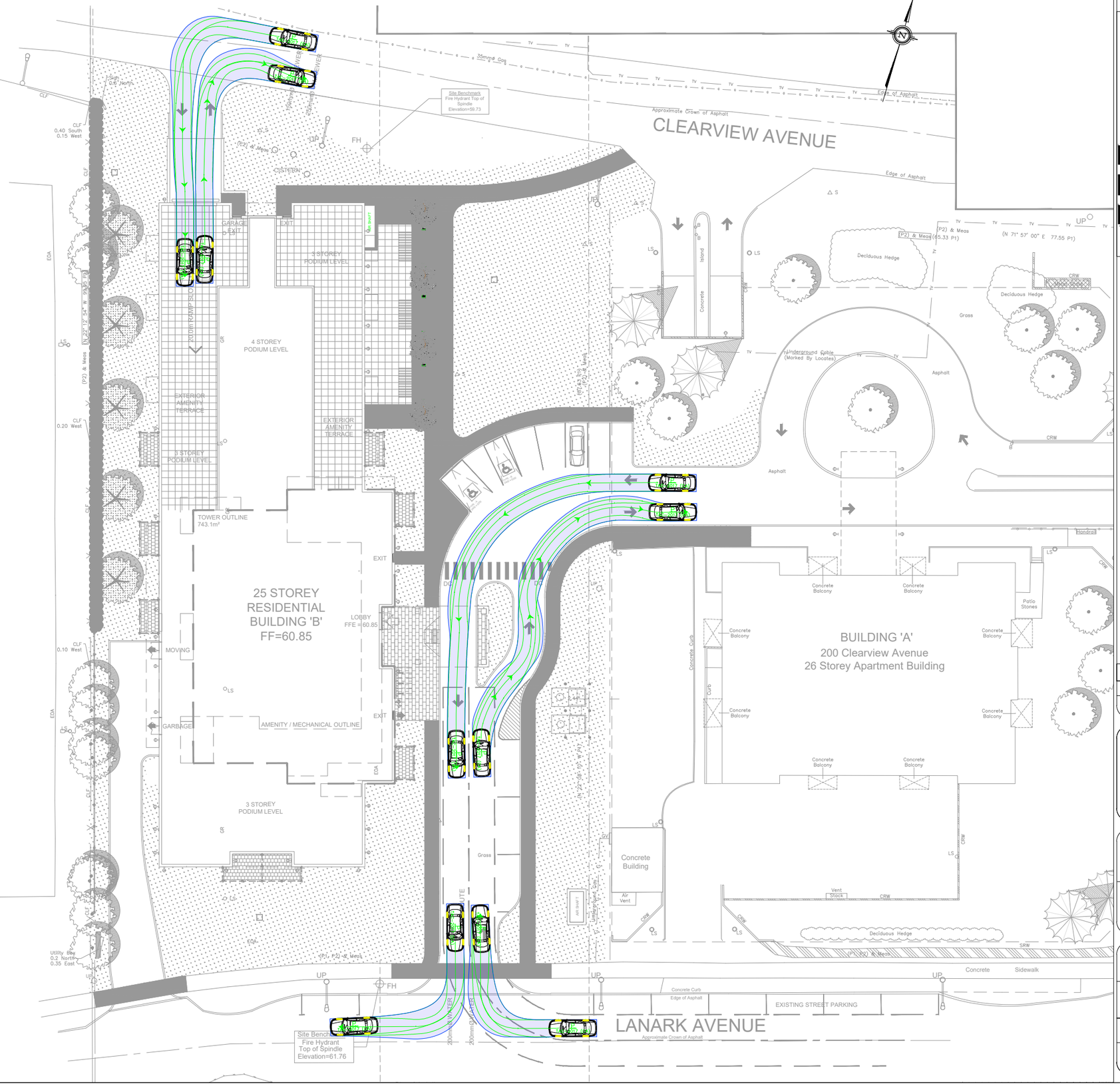
ARCHITECT:

SITE: 210 Clearview Ave

TITLE: Turning Movement Analysis
Fire Turning Movements

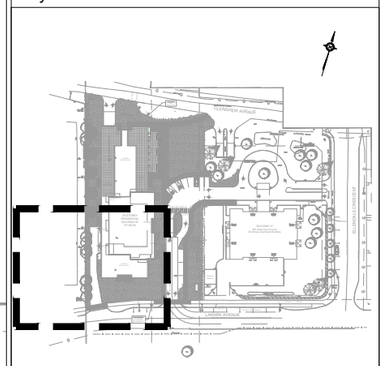
SCALE AT A3:	DATE:	DRAWN:	CHECKED:
NTS	2024-09-13	AN	AH
PROJECT NO:	DRAWING NO:		REVISION:
2024-030	003		02

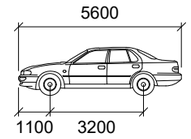
Passenger Vehicle Turning Movements



Notes:

Key Plan:





P

	mm
Width	: 2000
Track	: 2000
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

REV:	DESCRIPTION:	BY:	DATE:
02	Issued for Review:	AN	2024-09-13

STATUS:

CGH Transportation
6 Plaza Court
Ottawa, ON
K2H 7W1
(343) 999-9117

CLIENT: Homestead Land Holdings

ARCHITECT:

SITE: 210 Clearview Ave

TITLE: Turning Movement Analysis
Tac P Turning Movements

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
NTS	2024-09-13	AN	AH
PROJECT NO:	DRAWING NO:		REVISION:
2024-030	004		02

Appendix H

MMLOS Analysis

CGH TRANSPORTATION

Multi-Modal Level of Service - Segments Form

Consultant	**CGH Transportation Inc**	**Project**	**2024-030**
Scenario	**Existing/Future**	**Date**	**9/13/2024**
Comments			

SEGMENTS			Lanark Avenue	Clearview Avenue	Section
			Ex/Fu	Ex/Fu	3
Pedestrian	Sidewalk Width Boulevard Width		1.8 m 0.5 - 2 m	no sidewalk n/a	
	Avg Daily Curb Lane Traffic Volume		≤ 3000	≤ 3000	
	Operating Speed On-Street Parking		> 30 to 50 km/h yes	> 30 to 50 km/h yes	
	Exposure to Traffic PLoS	-	**B**	**F**	-
	Effective Sidewalk Width				
	Pedestrian Volume				
	Crowding PLoS		-	-	-
	Level of Service		-	-	-
Bicycle	Type of Cycling Facility		Mixed Traffic	Mixed Traffic	
	Number of Travel Lanes		≤ 2 (no centreline)	≤ 2 (no centreline)	
	Operating Speed		>40 to <50 km/h	>40 to <50 km/h	
	# of Lanes & Operating Speed LoS		**B**	**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		-	-	-
	Level of Service		-	-	-
Transit	Facility Type				
	Friction or Ratio Transit:Posted Speed	-			
	Level of Service		-	-	-
Truck	Truck Lane Width				
	Travel Lanes per Direction	-			
	Level of Service		-	-	-