



7 Rossland Avenue

TIA Strategy Report

DRAFT

June 2023



TIA Plan Reports

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

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

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

CERTIFICATION

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

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

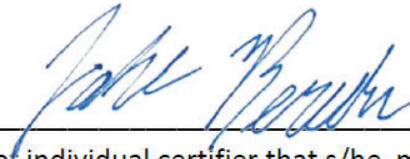
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7 Rossland Avenue

TIA Strategy Report

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DRAFT

STRATEGY REPORT

Parsons has been retained by Julian of Norwich Anglican Church to prepare a TIA in support of a Zoning By Law Amendment to re-develop the existing site into a mixed-use development. The existing buildings are to be demolished, with the current proposal to provide for two stacked townhouse dwelling buildings, an 8-storey residential building with ground-floor institutional uses and an attached single storey worship place. The total proposal would include approximately 84 new affordable dwellings, 219 m² of institutional/office use and 200m² of worship space.

This document follows the TIA process as outlined in the City Transportation Impact Assessment (TIA) Guidelines (2017). The following report represents Step 4 – Strategy Report.

1.0 SCREENING FORM

The Screening Form confirmed the need for a TIA Report based on the Location and Safety triggers. The Trip Generation trigger is not anticipated to be met as the development is below the trip generation threshold for residential units, and the worship areas with ancillary uses are anticipated to have a negligible impact on the peak hour. The Screening Form has been provided in **Appendix A**.

2.0 SCOPING REPORT

2.1. Existing and Planned Conditions

2.1.1. Proposed Development

The proposed development will be located at the municipal address of 7 Rossland Avenue. The site is currently occupied by the Julian of Norwich Anglican Church and its ancillary facilities. All buildings are to be demolished as part of this application. The development is anticipated to be constructed in a single phase with occupancy occurring by 2026.

Figure 1 illustrates the proposed site plan which includes more than 80 new affordable dwellings, 219 m² of institutional/office use and 200m² of worship space. Two accesses are proposed to Rossland Avenue, while one access is proposed to Withrow Avenue 55m west of Merivale Road. The site would be serviced by 71 parking stalls located in two parking lots, while driveways would be provided for the townhouse units. The site is currently zoned as Institutional and AM10 – Arterial Main Street Zone General Mixed-Use Zone.

The local context of the site is illustrated in **Figure 2**.

Figure 1: Conceptual Site Plan (April 2022)

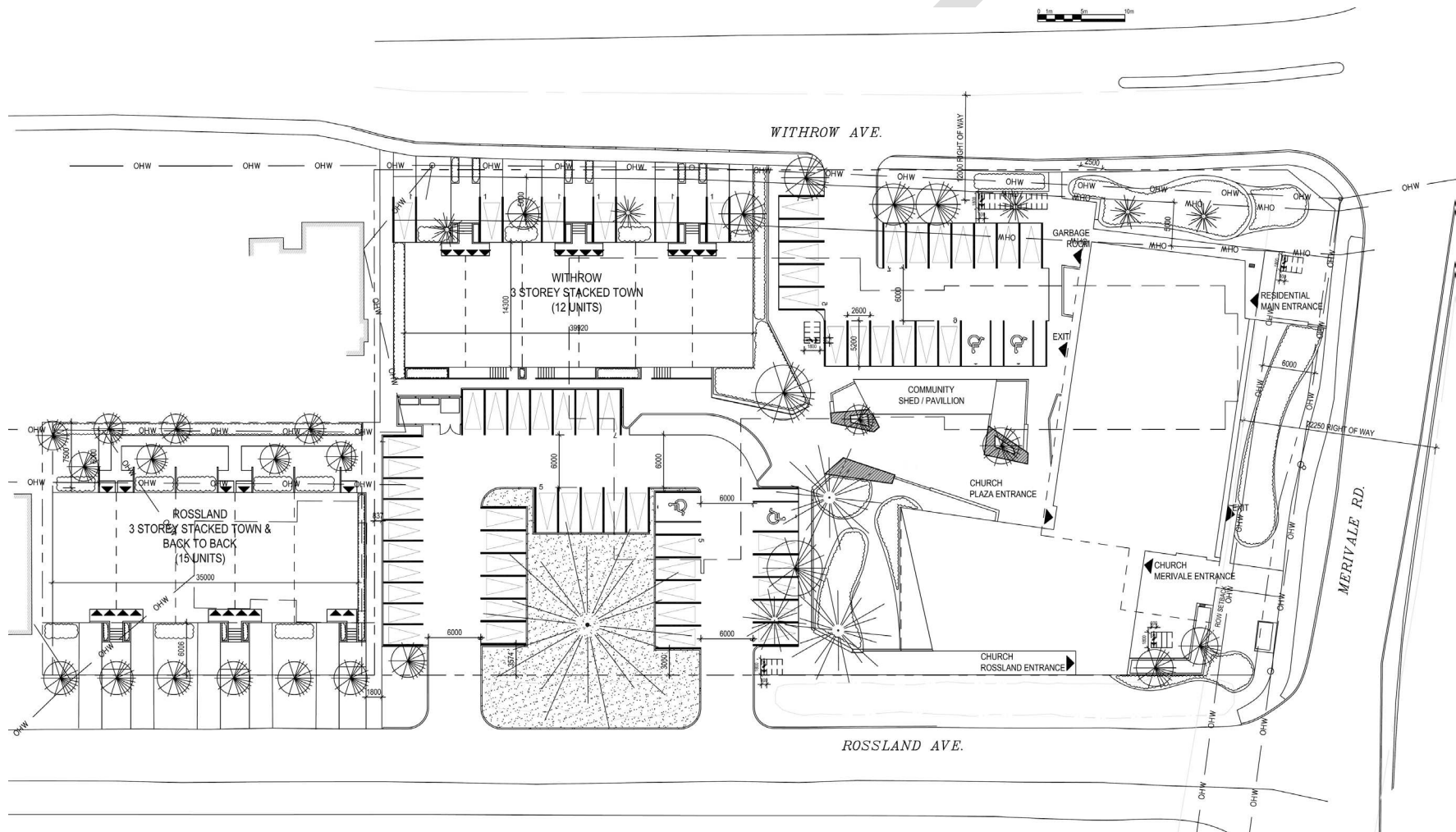


Figure 2: Local Transportation Context



2.1.2. Existing Conditions

Area Road Network

The following roadways are located nearest the proposed development. A description for each road within the greater study area has been provided below.

Merivale Road is a north-south municipal arterial road that extends from Island Park in the north to Fallowfield Road in the south. Forming the eastern boundary road, Merivale Road has a 4-lane divided urban cross section with a posted speed limit of 60 km/h. Merivale Road has a ROW protected of 44.5m.

Rossland Avenue is a local east-west municipal street that connects to Merivale Road via a median depression allowing for all movements to Merivale Road. It has a 2-lane rural cross-section and has an assumed posted speed limit of 40 km/hr.

Withrow Avenue-Capilano Drive is an east-west municipal collector road that connects to Meadowlands Drive in the east to Merivale Road, before continuing as Withrow Avenue before returning to Meadowlands Drive. It is typified by a 2-lane cross section and a posted 40 km/hr speed limit. Withrow Avenue has a ROW protection of 24m.

St. Helen's Place is a discontinuous north-south municipal local road that connects Rossland Avenue to Withrow Avenue, before proceeding north of Cleto Avenue to Tower Road. It is typified by a 2-lane cross section, residential driveways and an assumed posted 40 km/hr speed limit.

Meadowlands Drive is an east-west municipal major collector road that connects Woodroffe in the west to Prince of Wales Drive in the east, which then continues as Hogs' Back Road. It typically provides for a 2-lane urban cross-section, except in the vicinity of Merivale Road where it widens to 4-lanes with additional auxiliary lanes. Nearest Merivale Road, the speed limit is posted 50km/h.

Clyde Avenue is a north-south municipal arterial road which extends Northerly to Maitland Avenue and the HWY 417 from the Merivale/Clyde intersection at its south terminus. It is characterized by a 4-lane divided urban cross section with a 60 km/hr posted speed limit.

Existing Study Area Intersections

Merivale/Clyde

The Merivale/Clyde intersection is a four-legged signalized intersection. The westbound approach consists of a dedicated through lane, a dedicated and channelized right turn lane and a double left-turn lane. The southbound approach consists of a dedicated through lane, a dedicated left turn lane and a shared thru/right-turn lane. The northbound approach provides for a dedicated left turn lane, two dedicated through lanes and a channelized right turn lane with a large island. The eastbound approach provides for a dedicated left turn lane and a shared through/right turn lane. RTOR is permitted on all approaches.



Merivale/Capilano-Withrow

The Merivale/Withrow intersection is a four-legged signalized intersection. The minor leg eastbound and westbound approaches each provide for dedicated left turns and shared through/right turns. The major north-south approaches each provide for a dedicated right turn, 2 dedicated through lanes and a dedicated single left-turn. No RTOR restrictions are present. U-Turns are not permitted in the major north-south directions.



Merivale/Rossland

The Merivale/Rossland intersection is STOP-controlled on the east-west minor approaches. Opposite Rossland Avenue is an existing private approach with several shared uses. Rossland Avenue utilizes a median break on Walkley Road to provide for all movements to and from the public roadway. The major north-south Merivale Road approaches provide for two through lanes.



Merivale/Emerald Plaza

The Merivale/Emerald Plaza intersection is a four-legged signalized intersection where the east-west approaches serve adjacent private commercial centres. The minor east-west approaches provide for a shared through/right lane and dedicated left-turn lane. The southbound approach provides for a double left turn lane, a dedicated through lane and shared through/right lane. The northbound approach provides for a dedicated left turn lane, two dedicated through lanes and a dedicated right turn lane. No RTOR or U-turn restrictions are present.



Merivale/Meadowlands

The Merivale/Meadowlands intersection is an signalized four-legged intersection. The minor east-west approaches each provide for a dedicated left turn, two through lanes and a channelized right turn. Similarly, the major north-south approaches accommodate dedicated single left-turns, two dedicated through lanes and a channelized right turn.



Existing Driveways to Adjacent Developments

Within 200m of the proposed site access along Merivale Road, 6 accesses adjacent to the site and 4 accesses opposite the site as shown in **Figure 3**.

Figure 3: Adjacent Public and Private Driveways within 200m of Site Access



Inspection of **Figure 3** and existing private driveways within 200m of the proposed site indicates that several private driveways are located to the east along Withrow Avenue and Rossland Avenue. On Rossland Avenue, there are two private approaches to the Shell gas station and the Elizabeth Wyn Wood school, respectively. The Cleto Plaza has parking stalls fronting Withrow Avenue immediately east of Merivale Road.

Existing Area Traffic Management Measures

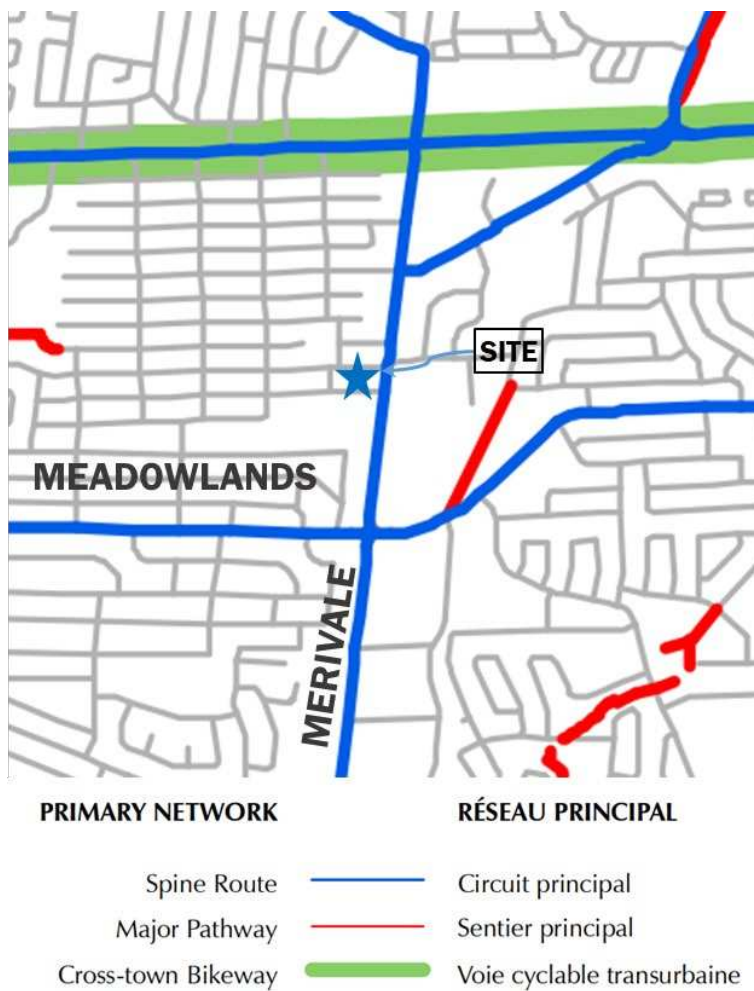
Existing area traffic management measures within the study area are limited to pedestrian advance walk phases and zebra crosswalks at intersections with Merivale Road.

Pedestrian/Cycling Network

Figure 4 illustrates an extract from the City of Ottawa's TMP, Map 1, Cycling Network – Primary Urban. Merivale Road and Meadowlands Drive are designated cycling 'Spine Routes', however, neither facility provides cycling facilities at segments or intersections in the study area. A review of GeoOttawa indicates that Capilano and Withrow provide for 'paved shoulder' facilities, however a review of street-level photography indicates that mixed-traffic is more prevalent.

A sidewalk and paved boulevard arrangement is provided along either side of Merivale Road nearest the proposed development. Capilano Drive includes a concrete sidewalk on the south side of the street with a small paved boulevard. Rossland Avenue currently does not provide for a sidewalk fronting the site.

Figure 4: Study Area Active Transportation Facilities



Transit Network

Due to the current circumstances regarding COVID-19, some bus services may have been altered by OC Transpo to operate on a different schedule. The following description of OC Transpo routes within the study area reflect the current bus operations (July, 2022):

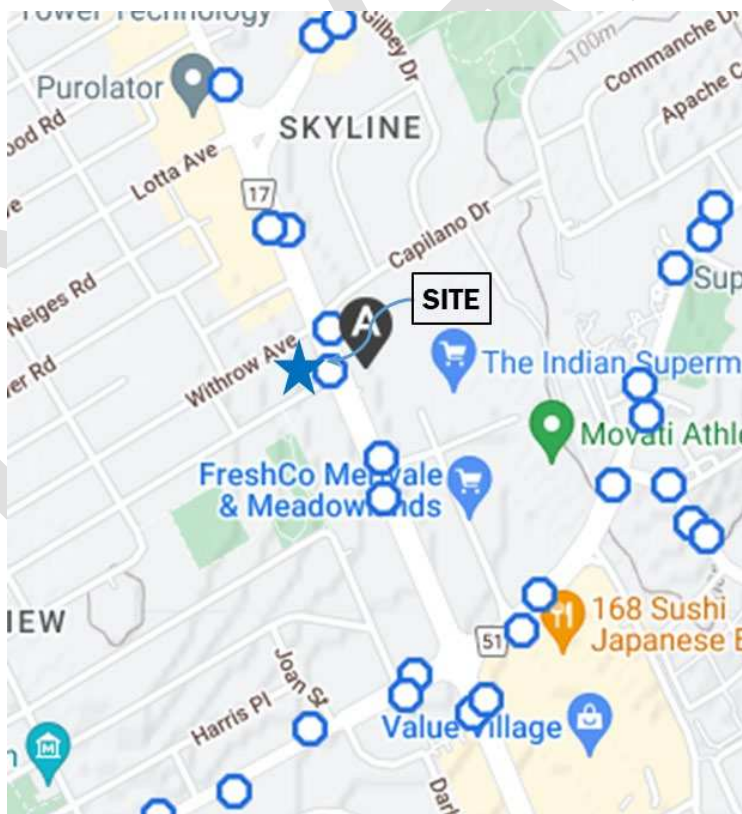
- **Route #80 (Barrhaven Centre <-> Tunney's Pasture):** identified by OC Transpo as a "Frequent Route", this route operates all day, 7 days a week and at an average rate of every 15 or less on weekdays. The nearest bus stops to the site are at the intersections of Merivale/Capilno (northbound) and Merivale/Rossland (southbound).
- **Route #81 (Clyde <-> Tunney's Pasture):** identified by OC Transpo as a "Local Route", this route operates 7 days a week (except on weekend evenings) and at an average headway of 30 minutes. The nearest bus stops to the site are located at the Merivale / Clyde intersection.
- **Route #86 (Baseline <-> Tunney's Pasture):** identified by OC Transpo as a "Local Route", this route operates 7 days a week with all day service and at an average headway of 15-to-30 minutes. The nearest bus stops to the site are located at the Merivale / Meadowlands intersection.
- **Route #186 (Lincoln Fields <-> Merivale/Slack):** identified by OC Transpo as a weekday "Local Route" with service during the peak hours, Monday to Friday. The nearest bus stops to the site are located at the Merivale / Meadowlands intersection.

The transit network for the study area is illustrated in **Figure 5** and the transit route maps are provided in **Appendix B**. **Figure 6** illustrates the bus stop locations.

Figure 5: Area Transit Network



Figure 6: Bus Stop Locations



Peak Hour Travel Demands

The existing peak hour traffic volumes at the signalized intersections within the study area were obtained from the City of Ottawa for the following intersections:

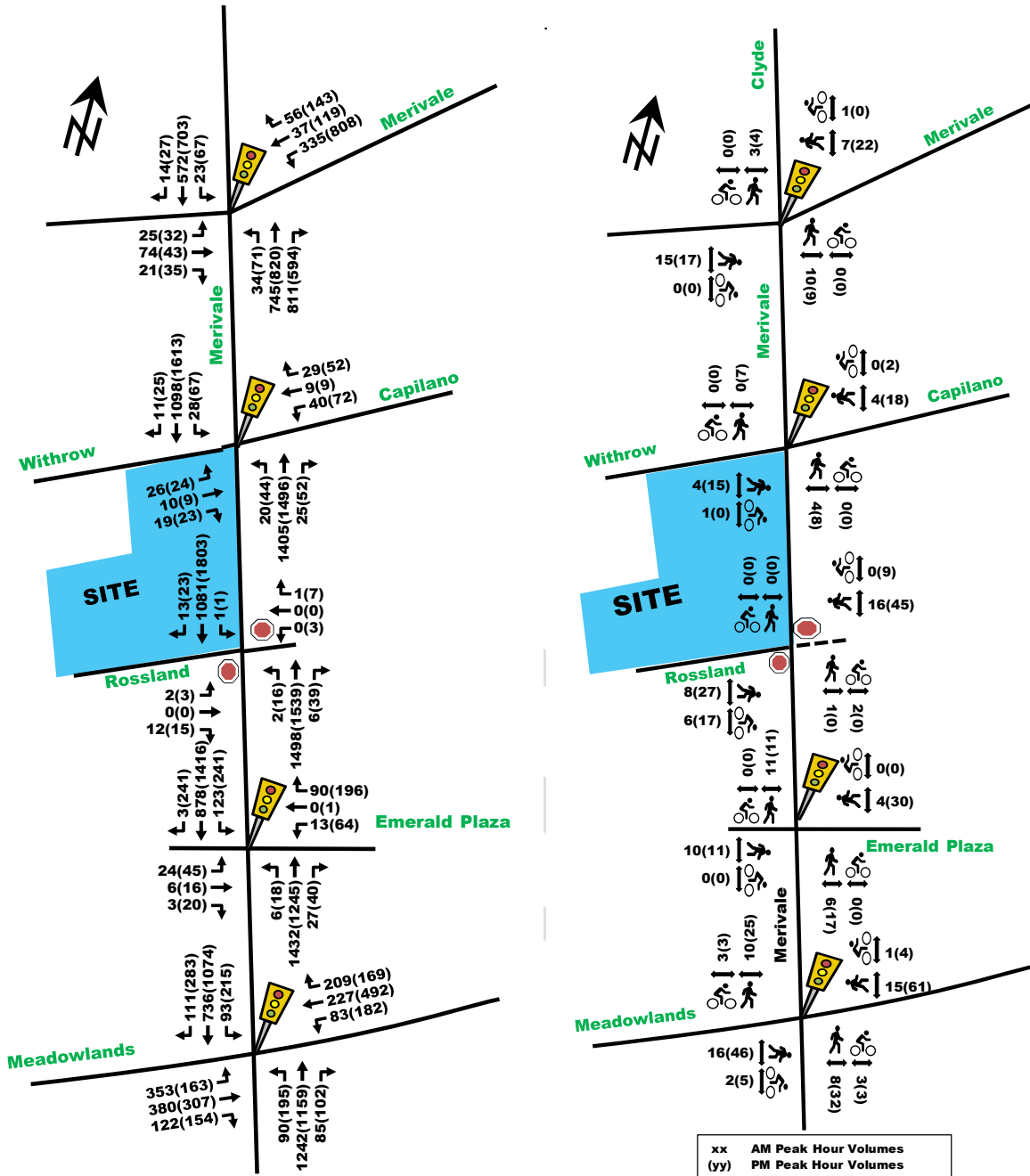
- Merivale/Clyde – Conducted Wednesday, April 05, 2017.
- Merivale/Withrow – Conducted Thursday May 4, 2023 during the AM and PM peak periods.
- Merivale/Rossland-Ultramar – Referenced TMC undertaken by the 1545 Merivale Road TIA (Parsons, 2023) Tuesday, August 2nd, 2022.
- Merivale/Emerald Plaza – Conducted Wednesday, April 05, 2017.
- Merivale/Meadowlands – Conducted Wednesday, April 05, 2017.

The traffic volumes at study area intersections are illustrated in **Figure 7**, with raw traffic count data provided in **Appendix C**.

The Merivale/Withrow-Capilano intersection was surveyed during the morning and afternoon peak periods on May 4, 2023. Comparison of the north-south traffic volumes on Merivale Road found that volumes are within 5%-to-10% of pre-COVID levels.

No adjustments such as traffic growth have been applied to the traffic volumes given the study area context in a well-established neighborhood and in a central area of the City of Ottawa.

Figure 7: Existing (2023) AM (PM) Peak Hour Traffic Volumes (Left) and Pedestrian/Cyclist Volumes (Right)



The peak hour volumes were then imported into Trafficware Synchro™ 10 software to complete intersection capacity analysis. The resultant intersection performance has been summarized in **Table 1** with detailed results provided in **Appendix D**.

Table 1: Existing (2023) Study Area Intersection Performance

Intersection	Weekday AM Peak (PM Peak)					
	Critical Movement			Intersection 'As a Whole'		
	LoS	Max Delay (s) or v/c	Movement	Delay (s)	LoS	Max v/c
SIGNALIZED INTERSECTIONS						
Clyde/Merivale	C(E)	0.74(0.96)	WBL(WBL)	20.8(41.3)	C(D)	0.72(0.81)
Withrow/Merivale	B(D)	0.61(0.81)	NBT(SBT)	10.0(18.6)	A(C)	0.58(0.77)
Emerald Plaza/Merivale	C(E)	0.75(0.93)	NBT(EBL)	17.4(18.1)	B(C)	0.70(0.75)
Meadowland/Merivale	F(E)	1.03(0.93)	EBL(NBL)	40.2(44.2)	D(D)	0.87(0.84)
UNSIGNALIZED INTERSECTIONS						
Rossland/Merivale	C(E)	16(40)	WB(WB)	0(2)	A(A)	-

Note: Analysis of intersections assumes a PHF of 0.90 and a saturation flow rate of 1800 veh/h/lane

As shown in **Table 1**, all intersections perform overall at good LoS D or better; however, most intersections also have critical turning movement, particularly left turns, approaching capacity. In the AM peak hour, the eastbound left turn at Meadowlands/Merivale operates above capacity, which can be expected from a major arterial to arterial intersection which processes a high number of vehicles per hour. Also of note, the westbound left turn at Clyde/Merivale has queue lengths longer than the available storage space for the PM peak hour, with approximately 800 left turning vehicles accommodated in a double left turn lane arrangement.

Existing Road Safety Conditions

Five years of collision history data (2016-2020, inclusive) was obtained from the City of Ottawa OpenData portal for all intersections and road segments within the study area. While 2021 data is recognized as being available, due to lower overall traffic volumes, collision occurrences are expected to be lower than the 2016-to-2020 period. Therefore, the safety review of the 2016-2020 period is considered to better capture potential safety concerns.

It was determined that a total of 367 collisions have been reported, of which 50% (185) were rear-ends, 23% (84) were turning movements, 12% (45) were sideswipes and 9% (32) were angle collisions. 81% (297) collisions resulted in property damage while the remaining result in injury. No fatalities were reported. 5 collisions involved pedestrians. The source collision data from OpenData Ottawa and detailed analysis results are provided in **Appendix E**.

A standard unit of measure for assessing collisions at an intersection is based on the number of collisions per million entering vehicles (MEV). Intersections with a ratio of 1.0 Collisions/MEV or greater are considered to be at a higher risk for collisions. At signalized intersections within the study area, reported collisions have historically taken place at a rate of:

- 1.38 Collisions/MEV at the intersection of Carling/Clyde which experienced 106 collisions in the five-year period. 54% (57) of collisions were reported as rear-ends, 18% (19) were reported as turning movements and 16% reported as sideswipes of which types are typical of congested intersections, particularly those with a heavily utilized double left-turn.
- 0.37 Collisions/MEV at the intersection of Merivale/Withrow where 29 collisions occurred. More than half the collisions were reported as rear-ends. No other discernible pattern was evident in the remaining collisions,
- 0.22 Collisions/MEV at the intersection of Merivale/Rossland where 15 collisions occurred. While 67% (10) were labelled as rear-ends (typically indicating sudden stops on the mainline) there were 4

collisions reported as turning movements and 4 collisions reported as angle collisions. These 8 collisions imply conflicts between vehicles travelling to and from Rossland and the Ultramar Gas station. However, at this time, it does not appear there is a significant pattern in collision history.

- 0.32 Collisions/MEV at the intersection of Merivale/Emerald Plaza, where a total of 23 collisions were reported. The most frequent type of collision was a rear end, where 10 collisions were reported as such.
- 1.42 Collisions/MEV at the intersection of Merivale/Meadowlands where 130 collisions were reported over the 5-year period. Notably, 53 (41%) rear end collisions, 50 (38%) turning movement collisions and 11 (8%) sideswipe collisions were reported.

With respect to the existing Merivale/Rossland intersection, vehicles have been observed to use the depressed median for turns to and from Merivale Road. To turn from Merivale Road, vehicles often wait in the limited vehicle storage area for upstream traffic signals to provide a red phase for oncoming traffic. Similarly, left turning vehicles from the side streets often need red phases from both intersections before proceeding. Two collision patterns of note are rear-ends and angled collisions. The risk of rear-end collisions in the northbound and southbound directions occur when vehicles turn from Merivale Road and remain within the partial storage lane. The driver expectation is for this vehicle to turn left at the next signalized intersection, so sudden braking can be unexpected. Left-turn angled and similar collisions carry a risk due to misjudging vehicle gaps in the 4-lane Merivale Road traffic flow.

Segment collisions have also been evaluated, with particular interest to the Merivale Road segments from Withrow Avenue to Emerald Plaza Shopping Center, an approximate 220-meter segment with the site access located between the two points. Within this segment of Merivale Road, a total of 23 collisions have been recorded, with 13 of them being north of the site access and 10 south of the site access. The collisions north of the site access were predominantly property damage only (11 or 85%) and about half of them involved rear-end collisions, normally attributed with start and go traffic or having a large number of driveway accesses. The segment south of the site however had a larger percentage of non-fatal injury, with 3 or 30% involving injuries, and one of the injuries resulting from a collision with a cyclist. Unlike the north segment, a larger percentage of collisions involved sideswipes and angle collisions, likely attributed to vehicles changing lanes or merging in and out of driveway accesses. It is noteworthy that only 1 of the 23 (4%) involved turning movements.

Of the remaining segment collisions, the majority of collisions were reported as rear-end incidents. This finding is consistent with the presence of a significant number of accesses along Merivale Road which require vehicles to come nearly to a stop resulting in conflicts with through traffic. Planned Conditions

2.1.2.1. Future Transportation Network Changes

1545A Merivale Road SPC – Rossland Avenue Right in Right Out

The 1545A Merivale Road site plan control proposal is anticipated to include a right-in right out intersection conversion at the Merivale/Rossland intersection. At this time, it will be assumed that any future analysis would accommodate the right-in right-out.

Merivale Road Secondary Plan

The proposed site is located within the Merivale Road Secondary Plan Area which provides planning direction for the Merivale Main Street corridor. The Plan is founded on the premise that Merivale Road is not a 'greenfield' area and is therefore to be maintained as a retail and service corridor between 'Activity Centres'. The purpose of the Merivale Planning Area is to support ongoing retail function.

The relevant Transportation and streetscape policies from the Merivale Road Secondary Plan include:

- **Pedestrian Realm:** Well furnished, protected and continuous pedestrian sidewalks are to be provided on the frontage of all developments.
- **Transit Network:** Pedestrian routes to and from sidewalks shall connect directly transit stops

- **Interconnected Vehicle Access:** where possible, parking aisles and bays shall be linked between sites

City of Ottawa Transportation Master Plan (2013)

A review of the City of Ottawa Official Plan, Transportation Master Plan, Pedestrian Plan and Cycling Plan has indicated the following:

- The Baseline BRT Corridor Plan and the Affordable Transit Network Plan indicates a future LRT-BRT station at the Clyde/Merivale/Baseline junction within approximately 800m of the site. The timing of which is currently unknown and likely outside this developments horizon.
- Merivale Road is designed a transit priority corridor (continuous lanes) in the TMP Network Concept. These transit improvements are omitted from the Affordable Concept. To the knowledge of the proponent, no design has been prepared.
- Merivale Road is designated a Spine Route in the Ultimate Cycling Network
- Capilano Drive-Withrow Avenue is designated a Local Route in the Ultimate Cycling Network.

2.1.3.1 Other Study Area Developments

Based on the City of Ottawa's Development Applications search tool, several applications have been initiated near the proposed development site which include:

- 1545A Merivale Road (Parsons, 2023) This site plan control proposal is located opposite Rossland Avenue. It would include a one-storey medical imaging clinic with an approximate area of 27,700 ft² and accessed from the existing driveway to Merivale Road. As part of this proposal, the Rossland Avenue intersection is anticipated to be converted to a right-in right out intersection.
- 1375 Clyde Avenue (Parsons, 2017) This proposal is located north of the Merivale/Clyde intersection within the Baseline-Clyde-Merivale triangle. The proposal includes a self-storage facility, a restaurant (With drive-thru) and an expansion on the existing retail building. The development is anticipated to generated 47 and 93 new AM and PM peak hour two-way auto trips.
- 1357 Baseline Road (Stantec, 2020) This proposal includes 174 residential units, 228 senior residence units and a 5,900 ft² ground floor retail. The total two way trips are estimated to be 53 auto trips in the AM and 66 auto trips in the PM peaks.
- 1500 Merivale Road (Novatech, 2021) This proposal is located within the Baseline-Clyde-Merivale and proposed 1m967 dwelling units and approximately 12,000 ft² of commercial over the span of 10 phases from 2023 to 2028. At 50% build-out, the development would contribute 118 two-way AM peak hour trips and 131 PM peak hour trips to the surrounding network.
- 1509 Merivale Road (CGH, 2021) This proposal is located north of Capilano Drive along Merivale and would include a high-rise residential development of 203 units. This proposal is anticipated to generate 32 and 33 morning and afternoon peak hour trips, respectively.
- 56 Capilano Drive (ZBLA) – The existing curling rink is proposed to be re-zoned from an L1 – Community Leisure Facility to an R4Z – Residential use. The proposal would include 50 units. A 2013 Transportation Overview estimated existing peak hour traffic demand of approximately 24 two-way auto trips. When considering the balance of removing the existing curling trips for 50 residential units, the net impact to Capilano and Merivale would be minimal, therefore no additional traffic has been assumed from this proposal.

2.2. Study Area and Time Periods

The proposed development will be constructed in a single phase, anticipated for 2026. Given that the site does not meet the trip generation traffic, the proposed study area intersections are proposed to be limited to the Merivale/Withrow intersection, as illustrated in **Figure 8** for site build-out forecast conditions.

As part of the 1545A Merivale TIA (2023), a traffic count was undertaken during the AM and PM peak periods to determine turning movement volumes to and from Rossland Avenue and the existing site access. The count

also identified pedestrian and cyclist movements during the peak periods. Notably, the majority of vehicles utilizing Rossland Avenue were destined to/originating from the Shell gas station west of Merivale Road. The median break was observed to be used consistently for all movements. Conflicts were also observed between the northbound and southbound left turns, which typically relied on downstream traffic signals to provide a red phase to Merivale Road before proceeding.

Figure 8: Proposed Limited TIA Study Area



2.3. Exemption Review

The following modules/elements of the TIA process are recommended to be exempt based on the City’s TIA guidelines and considering that the proposed site does not meet the TIA Trip Generation trigger. To facilitate the future Site Plan Control application, the Design Review elements of 4.1-through-4.4 will be reviewed including site circulation and parking.

Module 4.5 (Transportation Demand Measures) will be included to provide measures and design features to benefit non-auto mode travel and support the recommended parking ratio.

Table 2: Exemptions Review Summary

Module	Element	Exemption Consideration
4.6-4.9 Network Impact	All	Only required when the development exceeds 60 person trips

3.0 FORECASTING REPORT

3.1. Development Generated Travel Demand

For the purposes of remaining conservative in regard to the total projected number of peak-hour person trips, the existing site was assumed to produce a negligible number of trips during the morning and afternoon peaks as most church related trips are anticipated to occur during weekend hours. Therefore, no reductions will be applied for the removal of the existing church and related office development. Similarly, the proposed worship and supporting office space is understood to produce minimal weekday peak period trips.

The following trip generation approach provides peak-hour person-trip projections based on two potential mode shares; those presented within the TRANS 2020 Manual (reflectively of the entire Merivale area) and mode shares based upon a reflection of transit-oriented mode share targets which reflect the site being proposed as an affordable housing development.

3.1.1. Residential Trip Generation and Mode Shares

Table 3 summarizes the AM and PM peak period person-trip generation rates for the development based on the newly revised 2020 TRANS Trip Generation Manual. The 'High-Rise' person-trip rate was selected based on the definition provided by the TRANS Trip Generation Manual Summary Report, as the proposed mixed-use development is anticipated to exceed two-stories in height (8-storey building and 3-storey stacked towns are proposed).

Table 3: 2020 TRANS Residential Trip Generation Rates

Land Use	ITE/TRANS Designation	Development Size	Trip Rates	
			AM PEAK	PM PEAK
High Rise Apartments	ITE 222	84 Units	T = 0.80(du)	T = 0.90(du)

Notes: T = Average Vehicle Trip Ends; du = dwelling units

Using the TRANS Trip Generation rates, the total amount of person trips generated by the proposed 80 residential units was calculated. The results are summarized in **Table 4**.

Table 4: Projected Residential Peak Period Person Trip Generation – TRANS Model

Land Use	Development Size	AM Peak (Person Trips/Period)	PM Peak (Person Trips/Period)
High Rise Apartments	84 Units	67	76

Table 5 of the TRANS 2020 Trip Generation Manual was referenced for the base mode shares applicable to a high-rise residential development within the Merivale ward. The projected site peak period person trips according to the Merivale mode shares are summarized in **Table 5**.

Table 5: Residential Peak Period Trips using TRANS 2020 Mode Shares (Merivale)

Travel Mode	AM Peak (Person Trips/Period)		PM Peak (Person Trips/Period)	
	MODE SHARE	PERSON TRIPS	MODE SHARE	PERSON TRIPS
Auto Driver	41%	27	41%	31
Auto Passenger	6%	4	11%	8
Transit	42%	28	33%	24
Cycling	2%	2	2%	2
Walking	8%	6	13%	10
Total Person Trips	100%	67	100%	76

Standard traffic analysis is usually conducted using the morning and afternoon peak hour trips as they represent a worst-case scenario for traffic operations. The 2020 TRANS Manual used for **Table 5** uses critical peak periods which could be longer or shorter than an hour, rather than a defined critical 60-minute block.

The 2020 TRANS Manual Table 4 was referenced to convert the peak-period person-trips to peak-hour person trips by mode. **Table 6** summarizes the conversion factors from the 2020 TRANS Manual. Note that conversion factors for passenger trips are assumed to be equivalent to the published 'Auto Driver' factors for both the morning and afternoon peak period-to-hour conversion.

Table 6: Residential Peak Period to Peak Hour Conversion Factors (2020 TRANS Manual)

Travel Mode	Peak Period to Peak Hour Conversion Factors	
	AM	PM
Auto Driver	0.48	0.44
Auto Passenger	0.48	0.44
Transit	0.55	0.47
Cycling	0.58	0.48
Walking	0.58	0.52

Table 7 summarizes the residential peak hour trips for TRANS 2020 Merivale mode share generated by the site by adopting the peak period to peak hour conversion rates from **Table 6**, the derived peak period trips by mode shares from **Table 5**, and the inbound and outbound splits from TRANS 2020 Manual Table 9.

Table 7: Residential Peak Hour Trips Generated using TRANS 2020 Mode Shares

Travel Mode	Mode Share AM(PM)	AM Peak (Person Trips/h)			PM Peak (Person Trips/h)		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Auto Driver	41% (41%)	4	9	13	8	6	14
Auto Passenger	6% (11%)	1	1	2	2	1	3
Transit	42% (33%)	5	11	16	7	5	12
Cycling	2% (2%)	0	1	1	0	1	1
Pedestrian	8% (13%)	1	2	3	3	2	5
Total Person Trips	100%	11	24	35	20	15	35
'New' Auto Driver Trips		4	9	13	8	6	14

A significant transit modal share for the residential portion of the development is proposed given the site is located adjacent to frequent transit route #80, is within 800m of the future Baseline BRT to the north, and an increase in walking is also forecasted given close proximity to shopping, grocery, and employment. The development proposes affordable housing units which typically have higher non-auto mode shares, which is reflected in the reduce parking rate proposal.

Table 8 summarizes the TRANS 2020 suggested residential modal shares for Merivale, the City's Transit Oriented Development (TOD) modal shares and future projected residential modal shares based on the sites context.

Table 8: Future Residential Modal Share Targets for the Development

Travel Mode	TRANS Residential Mode Shares		City's TOD Mode Shares	Future Target Mode Share AM & PM	Residential Modal Share Target Rationale
	AM	PM			
Auto Driver	41%	41%	15%	30%	A reduction in driver mode share from TRANS is justifiable given the close proximity to frequent transit route #80 and site context near walkable destinations. A low parking ratio has also been proposed, lowering likelihood of driving.
Auto Passenger	6%	11%	5%	8%	
Transit	42%	33%	65%	45%	Development is located adjacent to frequent transit route #80. Given that the development is catered to low income housing, transit is a likelier mode share than driving alone.
Cycling	2%	2%	5%	2%	Slight increase in walking mode share given the sites context near walkable destinations (shopping, employment, etc.).
Pedestrian	8%	13%	10%	15%	

Table 9: Residential Peak Hour Trips using TOD Mode Shares

Travel Mode	Mode Share AM & PM	AM Peak (Person Trips/h)			PM Peak (Person Trips/h)		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Auto Driver	30%	3	7	10	6	4	10
Auto Passenger	8%	1	2	3	2	1	3
Transit	45%	5	11	16	9	6	15
Cycling	2%	0	1	1	0	0	1
Pedestrian	15%	2	3	5	3	2	5
Total Person Trips	100%	11	24	35	19	14	33
'New' Auto Driver Trips		3	7	10	6	4	10

3.1.2. Institutional, Office and Worship Trip Generation

The proposed concept plan of the subject development includes a place of worship and supportive office/administrative space to replace the existing Anglican Church of similar size. Currently, there are only religious services on weekends and once during weekdays at Thursdays at 11:00, which does not occur during regular AM and PM peak hours. The existing land use trips which are also a place of worship (Julian of Norwich Anglican Church) and ancillary institutional uses such as New Star Children's Theater (closed) and L'Arche Ottawa Community Center will not be removed from the analysis of the network, as their peak hour influence during weekdays is considered negligible.

Therefore, future trip generation from the institutional and supportive administrative land uses will be considered to generate negligible person-trips during weekday peak hours.

3.2. Projected Travel Demands of Proposed Development

3.2.1. Trip Distribution

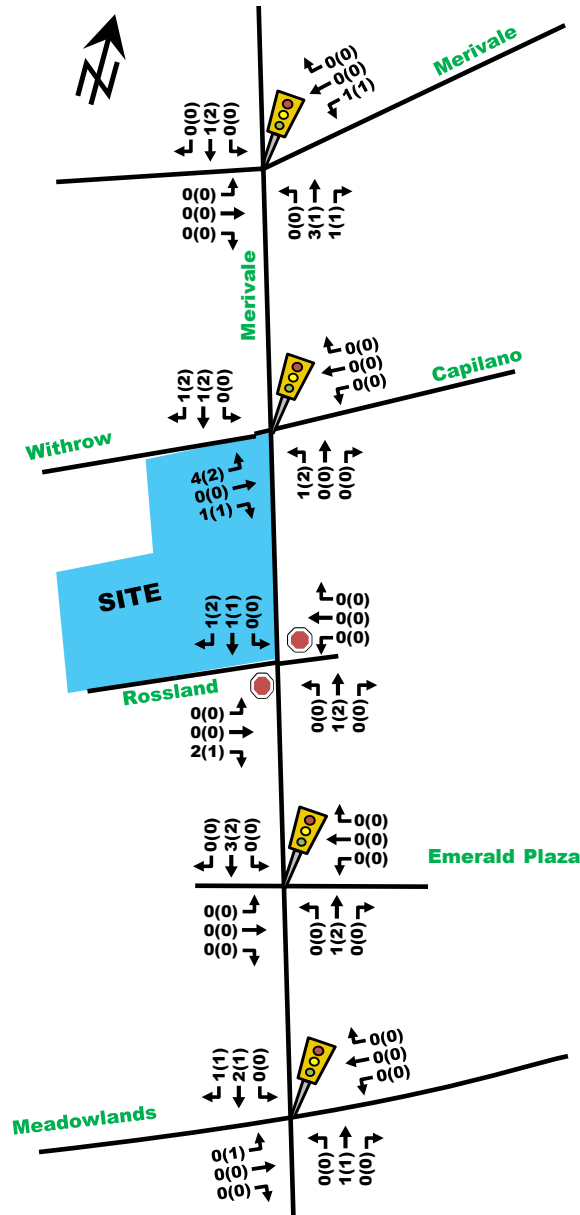
Based on the OD Mode Share Survey, existing traffic volume counts and the location of adjacent arterial roadways and neighborhoods, the distribution of site-generated traffic volumes is as follows:

- (From/To) the North: 45%;
- (From/To) the South: 20%;
- (From/To) the West: 20%; and,
- (From/To) the East: 15%.

3.2.2. Trip Assignment

Discussions with the City of Ottawa as part of this development and the adjacent 1545 Merivale Road development (located across Merivale Road from this development), have come to an understanding that a right-in-right-out (RIRO) type access is proposed at Rossland/Merivale. Any vehicle departing from the parking spaces with access to Rossland Avenue and headed northbound are anticipated to exit the site westbound on Rossland Avenue, turn on St. Helens Place and perform a left-turn at the signalized Withrow/Merivale intersection. Similarly, the opposite route is anticipated for northbound headed vehicles on Merivale who are headed to parking accessed via Rossland Avenue. The forecasted vehicle trips from **Table 9** were assigned to the network as shown in **Figure 9**.

Figure 9: 'New' Site-Generated Trips



3.3. Background Network Travel Demands

3.3.1. Transportation Network Plans

Refer to **Section 2.1.3** Planned Conditions – Planned Study Area Transportation Network Changes. The Baseline BRT corridor and station nearest Clyde Avenue are assumed to be outside of the study horizon.

3.3.2. Background Growth

The City's TRANS Regional Model forecasts were reviewed for the 2011 and 2031 horizons along Merivale Road (**Appendix F**). In general, growth was found to be essentially near-zero along Merivale Road and Clyde Avenue surrounding the proposed development.

It is anticipated that background growth along the Merivale Road corridor will be captured through the addition of other nearby developments layered on individually as described in Section 3.2.3. Therefore, a 0% background annual growth rate has been applied to study area intersections.

3.3.3. Other Area Developments

Other area developments were identified and described in **Section 2.1.3**. Peak hour trips generated by these developments, based on the supporting TIA studies, have been summarized in **Table 10**. Since a background growth rate of 0% annual is proposed, then the background volumes reflect other area developments layered on to existing traffic volumes.

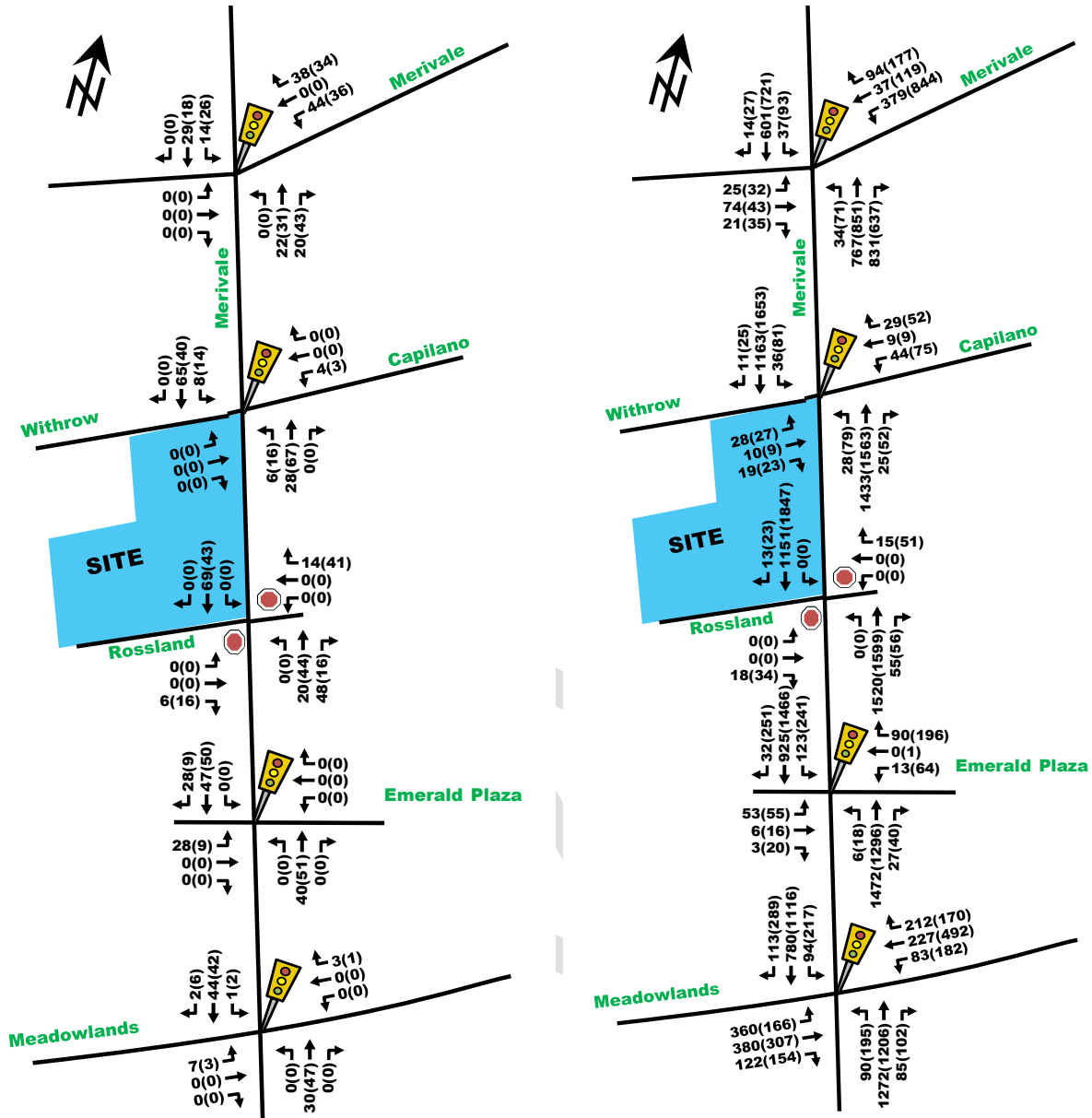
The other area development forecasted vehicle trips has been illustrated in **Figure 10** on the left side and the future total background volumes on the right side of the figure.

Rossland/Merivale was converted to a RIRO type intersection in future horizons. It is noteworthy that the study for 1375 Clyde was performed using the 2011 TRANS Trip Generation manual which is now outdated and projects a higher trip generation rate compared to the more recent TRANS 2020 Trip Generation manual. For the 1500 Merivale, the a reduced development assumption was adopted as 2038 full buildout is beyond this study horizon.

Table 10: Other Area Developments Vehicle Trip Generation

Development	AM Peak (Person Trips/h)			PM Peak (Person Trips/h)		
	IN	OUT	TOTAL	IN	OUT	TOTAL
1357 Baseline	16	38	53	38	29	66
1500 Merivale	38	80	118	75	56	131
1509 Merivale	25	56	81	47	34	81
1545 Merivale	51	14	66	17	41	58
1375 Clyde	28	19	47	47	46	93
'New' Auto Driver Trips Other Future Developments	158	207	365	224	206	429

Figure 10: Other Area Developments Vehicle Trip Generation (Left) and Future Background Total Volumes (Right)



3.4. Demand Rationalization

The forecasted background volumes from **Figure 10** were imported into Synchro software. The output intersection performance has been summarized in **Table 11**, with detailed output in **Appendix G**.

Table 11: Future Total Background Volume – Intersection Performance

Intersection	Weekday AM Peak (PM Peak)					
	Critical Movement			Intersection 'As a Whole'		
	LoS	Max Delay (s) or v/c	Movement	Delay (s)	LoS	Max v/c
SIGNALIZED INTERSECTIONS						
Clyde/Merivale	C(E)	0.74(0.93)	WBL(WBL)	20.0(38.0)	B(D)	0.69(0.81)
Withrow/Merivale	A(C)	0.56(0.75)	NBT(SBT)	8.9(17.4)	A(C)	0.53(0.71)
Emerald Plaza/Merivale	B(C)	0.69(0.73)	NBT(EBL)	13.6(17.5)	B(B)	0.65(0.69)
Meadowland/Merivale	D(D)	0.90(0.84)	EBL(WBT)	35.6(38.3)	C(D)	0.79(0.83)
UNSIGNALIZED INTERSECTIONS						
Rossland/Merivale	C(C)	17(22)	WB(EB)	0(2)	A(A)	-

Note: Analysis of intersections assumes a PHF of 0.90 and a saturation flow rate of 1800 veh/h/lane

As shown in **Table 11**, the future background intersection performance are anticipated to operate similar to, or better than, existing conditions given that a peak hour factor of 1.0 was used compared to 0.9 for existing (as per TIA guidelines).

Given that there is projected background capacity along Merivale Road and the site is forecasted to produce very few new vehicle trips of 10 vehicles two-ways per peak hour (or a new vehicle every 6 minutes, considered negligible effect on the network intersections), then no demand rationalization is proposed to modify either background volumes or development volumes. The future intersection performance analysis including the proposed development will be exempt as it will perform the same as future background conditions.

4.0 STRATEGY REPORT

4.1. Development Design

4.1.1. Design for Sustainable Modes

Location of Transit Facilities

There are existing bus stops on Merivale Road near the Withrow/Merivale and Rossland/Merivale intersections for northbound and southbound frequent transit Route #80 respectively, as shown in **Figure 5**. The site has a southbound stop adjacent to the property line and approximately 30 meters to the northbound stop which is located on the other side of Merivale Road adjacent to the site. Supplementary bus local routes are provided approximately 550 meters north for route #81 on Clyde Avenue and 650 meters south for routes #86 and #186 on Meadowlands Drive.

The bus stop will be fully considered in the site design to ensure it maintains its location, pad, shelter and lighting.

Pedestrian/Cycling Routes and Facilities

The site will maintain the concrete sidewalk along Withrow Avenue connecting to the existing pedestrian facilities on Merivale Road. A sidewalk along Rossland Avenue to the first access is currently being explored to connect the site to the adjacent transit stop. The main residential block and place of worship will provide direct connectivity and front the Merivale Road sidewalk facilities. All bus stop locations within an 800-meter walk are accessible via paved sidewalks.

Merivale Road and Meadowlands Drive are both denominated as spine bike routes, however neither of them have cycling facilities and it is assumed cyclists would share the road as mixed-user facilities. Desirable cycling routes can include the Nepean Trail Multi-Use Pathway (MUP) which provides connectivity to the Meadowlands

Drive spine route (mixed-user facility). To the north, cyclists would need to use mixed facilities or local roads to travel 1.5kms to a branch of the Experimental Pathway MUP. It is understood that the future Baseline Road BRT Corridor could provide for future cycling infrastructure, however no formalized design has been confirmed.

Bicycle Parking

The proposed development will provide higher than minimum required bike parking, with 34 located indoors and 12 in the exterior of the building. All bike parking will be easily accessible.

4.1.2. Circulation and Access

The site proposes three access driveways. One is located approximately 55m west of Merivale Road on Withrow Avenue. A 6m wide two-way driveway is proposed, which serves 20 parking spots. The other two driveways are located approximately 65m and 95m west of Merivale Road on Rossland Avenue. The two driveways on Rossland Avenue form a loop that is 6m wide and provides two-way circulation. This loop driveway provides parking for 40 vehicles. All driveways and internal aisles adhere to Part 4: Parking Queueing and Loading Provisions by-laws. A pick-up/drop-off layby has been proposed within the internal Rossland Avenue loop, located near the church plaza entrance, for patrons of the new place of worship.

Garbage pickup is proposed at the curb front for both the townhouse and worship/multi-storey residential uses. In both cases, it is envisioned that garbage will be conveyed to the curb for pick-up. Waste trucks are not anticipated to access either parking lot.

4.1.3. New Streets Network

Exempt, refer to **Table 2**.

4.2. Parking

The site is located in Area C, Schedule 1A, and is not within a 600m walk to any rapid transit station within Schedule 2A or B. The walking distance to the future Baseline BRT system is greater than 600m but is less than 800m.

The site provides the following parking supply:

- 11 driveways fronting the 27 stacked townhouse units;
- 40 parking stalls accessed via Rossland Avenue;
- 20 parking stalls access via Withrow Avenue; and
- A parking lot located in the adjacent school property for overflow parking during weekend times of worship. This lot is currently used by the church informally.

Table 12 summarizes the vehicle parking minimum rates from Part 4, Parking, Queueing and Loading Provisions parking by-law, referenced from Tables 101 and 102. The table indicates the base parking rates based on Table 101, the residential visitor rates based on Table 102, the proposed residential parking rate, and the proposed parking supply.

As indicated by **Table 12**, the proposed residential combined base and visitor parking rate for the 84 affordable housing units is 0.5 stalls/unit, resulting in a requirement of 42 parking stalls. This rate is supported by:

- The development being located on Merivale Road, adjacent to a commercial district which serve residents' needs.
- The development being located adjacent to several frequent bus routes fronting the development on Merivale Road.
- The development being located within 800m of the future Baseline BRT, which will provide transit access beyond the Merivale community.

- The proponent has committed to significant TDM measures, such as...

Without considering shared parking usage, and adopting the proposed 0.5 stall/unit parking rate, the development would require a total of 82 stalls, 57 stalls (42 tenant + 15 visitor) for the residential dwellings, 20 stalls for the place of worship and 5 stalls for the supportive administrative office spaces.

Table 12: Vehicle Parking Space Supply – Part 4, Table 101 and 102

Land Use	Size (units or m ²)	Base Rate	Visitor Rate	Proposed Tenant Parking Supply Rate	Total Auto Parking Spaces		
		MIN	MIN		MIN DEMAND BASED ON TABLE 101 AND TABLE 102	DEMAND BASED ON PROPOSED RATE, TABLE 101 AND TABLE 102.	PROPOSED
Residential (R12)	84 units	1.2/unit ¹	0.2/unit	0.5/unit	117 (15 visitors ²)	57 (15 visitors ²)	
Place of Worship (N66)	200 m ²	10/100 m ²	-	10/100m ²	20		71
Institutional Office (N59)	219 m ²	2.4/100 m ²	-	2.4/100m ²	5	14	
Total					142	71	71

1. The residential component of the development is geared to low-income housing. A lesser minimum rate closer related to rooming house (R22) with a rate of 0.5/unit has been proposed as an appropriate.
2. Per Part 4, Section 102(4), in the case of a stacked dwelling or planned unit development where a development has a driveway accessing its own garage or carport; no visitor parking is required for that dwelling unit. Therefore, visitor parking calculations are based on 73 units (82 units – 11 driveways)

Table 13 summarizes the bicycle parking requirements as per City of Ottawa Zoning By-Law-Part 4, sections 100-114. Note that only units within the apartment building and the place of worship will require bike parking spaces.

Table 13: Bicycle Parking Requirements

Land Use	Size (units or m ²)	Rate per 1,000 m ²	Bike Spaces Required	
		MIN	MIN	PROPOSED
Residential	46 units ¹	0.5/unit	23	34
Worship Space/Admin Space	419 m ²	1.0/1,500 m ²	0	12
Total			23	46

1. Only units within the apartment building were considered as per the parking by-law.

The development proposes double the minimum requirement of bike parking spaces.

4.2.1. Spillover Parking

The site proposal can result in parking deficiencies, specifically during weekend periods where peak parking demand is expected to occur during times of worship service. The overflow lot located south of the develop would be able to capture the additional parking demand resulting in minimal impact to street parking on the surrounding community.

4.3. Boundary Street Design

4.3.1. Existing Conditions

The boundary street for the development is Merivale Road.

- Merivale Road:
 - 2 vehicle travel lane in each direction;
 - 1.5m sidewalk on both sides of road with 1.5m boulevard;
 - More than 3,000 vehicles per day;
 - Posted speed 60km/h (used 70km/h) with no parking allowed;
 - Classified an arterial mainstreet roadway;
 - Classified as a spine bike route; and,
 - Identified as a Truck Route.

The proposed site is not located within 600m of a rapid transit but is located within 300m of Elizabeth Wyn Wood Secondary School. Multi-modal Level of Service analysis for the subject road segments adjacent to the site is summarized in **Table 14** with detail analysis provided in **Appendix H**.

Table 14: MMLoS – Boundary Street Segments Existing and Future Proposed

Road Segment Level of Service (LoS)	Pedestrian PLoS		Bicycle (BLoS)		Transit (TLoS)		Truck (TkLoS)	
	PLOS	TARGET	BLOS	TARGET	TLOS	TARGET	TKLOS	TARGET
Merivale Road	E	A	F	C	D	D	A	D

Pedestrian: PLoS targets were not met due to the high target goal given the site's proximity to a school, the operating speeds, and types of sidewalk facilities. To achieve the PLoS target, the sidewalk would need to be widened to at least 2-meters wide with 2-meter boulevard separation and travel speeds would need to be reduced to 40 or less km/h. Given the arterial roadway designation, it is unlikely that speeds will be reduced.

Bicycle: BLoS targets were not met due to the lack of cycling infrastructure. Cyclists currently would have to share a lane with vehicles travelling 60km/h. Providing curbside bike lanes or physically separated bike lanes would meet the BLoS target on Merivale Road.

Transit: TLoS targets were met.

Truck: TkLoS targets were met.

4.4. Access Intersection Design

Although collision data from **Section 2.1.2** does not appear to show any significant collision patterns or a high incident of turning movement within historic data at Rossland/Merivale, it is acknowledged that an increase in turning movements to and from the adjacent site (1545 Merivale) and this site poses a risk to an increase in frequency of collisions at this location. For this reason, it is understood that this all-movement access will be reduced to a right-in-right-out (RIRO) only.

4.4.1. Location and Design of Access

The development proposes two access with 5 driveways to Rossland Avenue, and one access with 6 driveways to Withrow Avenue.

The direct accesses to the development consist of an access approximately 55m from Merivale Road on Withrow Avenue and two accesses to Rossland Avenue approximately 65m and 95m from Merivale Road. None of the accesses connect to an arterial or collector road, and thus, does not have minimum clear throat length requirements. The two driveways on Rossland Avenue are further than 9m apart required by two two-way driveways within the same development. The driveways are also more than 46m of an arterial or major collector

road, and thus, no additional separation between two-way private approach and other private approaches are required. All driveways and internal aisles adhere to the Private Approach by-laws.

4.4.2. Intersection Control

All accesses will have a STOP-control on to their receiving local roads (Withrow Avenue and Rossland Avenue). The Rossland/Merivale RIRO will maintain a STOP-control on Rossland Avenue. Rossland Avenue which has a very low number of vehicle movements compared to the through movements of Merivale Road would not trigger the warrant for a traffic signal and intersection performance is anticipated to be similar to background conditions as shown in **Table 11**.

4.4.3. Intersection Design

Due to the low number of vehicular parking, and low vehicular volumes on Withrow Avenue and Rossland Avenue, no storage lanes are required for the site accesses. The site access to Withrow Avenue is located further than the eastbound left-turn storage lane at the intersection of Withrow/Merivale. **Section 4.9.3** will review if there are any queueing implications for the storage lanes at the Withrow/Merivale intersection.

4.5. Transportation Demand Management

4.5.1. Context for TDM

Given the lower than recommended vehicle parking ratio, a strong TDM program is encouraged for this development to promote sustainable modes of transportation. The site is located adjacent to transit stops for frequent route #80, and is within 800m of the future Baseline BRT, making it a good candidate to promote transit use for residents and guests to the place of worship alike. The availability of secure bicycle parking can encourage cycling to and from the development should it be provided.

4.5.2. Need and Opportunity

The proposed development will predominantly be accessed by Merivale Road, which is currently operating near capacity. TDM measures could encourage the use of sustainable active mode shares, both to relieve stress on an already congested Merivale Road and to promote environmentally conscious ways of commuting. Additionally, providing a diverse means of transportation modes could ease financial stress on low-income tenants.

4.5.3. TDM Program

The TDM infrastructure and measures checklist have been completed and have been provided in **Appendix I**. Some of the TDM measures that are proposed include:

- Display local area maps with walking/cycling access routes and key destinations at major entrances,
- Display relevant transit schedules and route maps at entrances,
- Provide online links from the worship webpage to OC Transpo information,
- Register the worship space on OttawaRideMatch.com,
- Provide a multi-modal travel option information package to residents, and make available to hotel patrons,
- Unbundle parking costs from rent (residential),
- Explore the opportunity for car sharing during detailed design.

Proposed measures identified in the TDM-supportive Development Design and Infrastructure Checklist are:

- Locate building close to the Merivale streetfront, and do not locate parking areas between the street and building,
- Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations,
- Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort,

- 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,
- 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,
- 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,
- Through provisions of on-site walking surfaces, 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,
- Provide safe, direct and attractive walking routes from building entrances to nearby transit stops,
- Ensure that walking routes to transit stops are secure and lighted wherever possible,
- Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails,
- Bicycle parking will be provided in highly visible and lighted areas. A total of 34 interior bike parking spaces and 12 exterior bike parking spaces will be provided.
- Bike parking will be provided in convenient accessible to main entrance locations.
- Bicycle parking spaces and access aisles will be designed to meet minimum dimensions such as no more than 50% of spaces are vertical spaces and that parking racks are securely anchored,
- The total number of bike parking spaces proposed is equivalent to double of the minimum bike parking required under the Parking By-Laws.
- Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for. The site proposes a reduced parking rate for the tenant parking stalls.,
- Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly. The worship space will share parking with its administrative office space, while making use of the overflow lot to minimize implications on the surrounding community,

4.6. Neighborhood Traffic Management

Exempt, refer to **Table 2**.

4.7. Transit

Exempt, refer to **Table 2**.

4.8. Review of Network Concept

Exempt, the development is anticipated to produce less than 35 people trips total. Refer to **Table 2**.

4.9. Intersection Design

4.9.1. Intersection Control

See **Section 4.4.2**.

4.9.2. Intersection Design

Multi-Modal Level of Service

As stated in the MMLoS Guidelines, only signalized intersections are considered for the intersection Level of Service measures. The MMLoS analysis is summarized in **Table 15**, with detailed analyses provided in **Appendix H**. Note, Merivale Road is classified an arterial main street from Baseline Road to West Hunt Club Road.

Table 15: MMLoS – Existing and Future Intersections

Intersection Level of Service (LoS)	Pedestrian PLoS		Bicycle (BLoS)		Transit (TLoS)		Truck (TkLoS)	
	PLOS	TARGET	BLOS	TARGET	TLOS	TARGET	TKLOS	TARGET
Clyde/Merivale	F	C	F	C	F	D	B	D
Withrow/Merivale	F	A	F	C	D	D	-	n/a
Emerald Plaza/Merivale	F	C	F	C	C	D	-	n/a
Meadowlands/Merivale	F	C	F	C	F	D	-	n/a

Pedestrian

- No intersection met the pedestrian minimum desirable target of PLoS 'A or C'. All intersections had a PLoS of 'F' predominantly based on the number of lanes that would need to be crossed for pedestrians crossing Merivale Road (note that the number of lanes was determined from dividing the crossing distance by 3.5m and not by actual visible lanes). No mitigation would lower the PLoS to a level close to the desired MMLoS target without significantly reducing the vehicle capacity.

Bicycle

- No intersection met the cyclist minimum desirable target of BLoS 'C' due to the lack of cycling facilities. Even if curb or pocket bike lanes were added, the desired targets could not be met unless 2-stage left-turn boxes were added.

Transit

- Transit TLoS targets were met at Withrow/Merivale and Emerald Plaza/Merivale due to modest intersection delays for north-south through movement.
- Clyde/Merivale and Meadowland/Merivale had certain movements used by buses which surpassed 30 second delays and triggers the TLoS of 'E' or worse, exceeding the desired TLoS target of 'D' or better. Possible transit priority measures, such as a queue jump could reduce bus delays and improve the TLoS, however Merivale Road is not classified as a transit priority corridor.

Truck

- Only Clyde/Merivale intersection has a truck route with possible turning movements. The TkLoS was met.

4.9.3. Future Intersection Performance

Section 3.4 Demand Rationalization examined the background intersection performance and determined that Merivale Road has sufficient capacity for background conditions. The proposed development will generate approximately 10 new two-way auto trips which is considered negligible, at approximately a new vehicle trip every 6 minutes. No further intersection performance is required.

4.9.4. Queuing Analysis

The following **Table 16** summarizes queuing implications at the Withrow/Merivale intersection due to the short storage lengths currently provided. The full buildout volumes which include background volumes plus site generated traffic was used.

Table 16: Queuing Analysis for Withrow/Merivale – Buildout Year

Movement	Weekday AM Peak (PM Peak) Queuing Analysis		
	Capacity	95 th % Synchro (meters)	95 th % SimTraffic (meters)
Eastbound Left-Turn	25 m	14 (13)	20 (21)
Northbound Left-Turn	60 m	m2 (m16)	12 (36)

m = metered queue by upstream intersection

As shown in **Table 16**, there are no forecasted queuing implications at Withrow/Merivale intersection with the addition of this development and other area developments layered on top.

5.0 FINDINGS AND RECOMMENDATIONS

Based on the results summarized herein the following findings and recommendations are provided:

Existing Conditions

- The existing site access is currently occupied by a place of worship (Julian of Norwich Anglican Church) and ancillary institutional uses such as New Star Children’s Theater (closed) and L’Arche Ottawa Community Center.
- Bus stops for frequent transit route #80 are located directly adjacent to the site for southbound and approximately 30-meter walk for northbound on Merivale Road. Additional local routes are available on Clyde Avenue and Meadowlands Drive.
- Historical collision records confirm elevated incident typical of major urban arterial corridors in the City. Of particular note, Clyde/Merivale and Meadowlands/Merivale experienced a high rate of collision with over 1 collision per million entering vehicles. The site access intersection though not showing high rates of collision has also been considered a sensitive location due to a potential increase in left-turning vehicles at an unsignalized intersection with heavy north-south through volumes.
- Existing study area intersections operate well overall, with LoS ‘D’ or better but most with critical movements LoS ‘E’ or better. The Meadowlands/Merivale intersection does experience additional congestion in the morning peak hour. The Rossland/Merivale intersection is also shown to experience peak hour congestion for the stop-controlled movements.

Proposed Development

- The applicant is proposing the construction of 84 affordable housing units, 219 m² of institutional/office use and 200m² of worship space.
- The development is projected to generate approximately 10 ‘new’ two-way vehicle trips during the weekday morning and afternoon peak hours.
- The development is projected to generate approximately 15 ‘new’ transit trips during the AM and PM peak hour periods, which is expected to be accommodated by existing frequent transit route #80.
- The applicant is proposing a 2m sidewalk along Withrow Avenue and Merivale Road which connects to existing pedestrian infrastructure.
- A drop off layby area is proposed near the church plaza entrance.

- The development proposes a parking rate of 0.5 stalls/unit for the residential portion of the development, with the balance of stalls being made available to the worship space. The development proposes 71 vehicle parking spaces all located on surface level.
- Overflow parking is to be provided at the off-site school lot for the worship space, which has been an informal agreement for 20-years.
- A total of 46 bike parking spaces are being proposed, which is double the minimum requirement for the site. 34 will be located indoors in a secure area while 12 will be located outdoors and catered predominantly to the place of worship visitors.

Future Conditions

- The 1545A Merivale Road application proposes that the Rossland/Merivale intersection would be converted to a right-in-right-out (RIRO) only intersection. Future background and projected buildout modelling applied a RIRO treatment to this intersection.
- Peak hour traffic volumes from nearby adjacent developments were incorporated into the future traffic volume projections. A background growth rate of 0% on study area intersections was applied.
- The MMLoS road segment analysis demonstrated that Merivale Road does not currently meet PLoS targets given the high number of curbside vehicles and the narrow sidewalks and boulevard treatment. Bicycle BLoS targets were also not met given that cyclists must share the road with vehicles on a road with high posted speed limit. All other MMLoS road segment categories were met.
- The MMLoS intersection analysis showed that all truck target goals were met. Transit targets were met at Capilano Avenue and Emerald Plaza intersections with Merivale Road, the remaining did not due to anticipated approach delays on Merivale Road in the future.

Bicycle targets were not met at any location given the lack of cycling facilities. Even if cycling facilities were added, the targets would not be met unless 2-stage left-turns were added given the number of lanes on Merivale Road.

The pedestrian targets were not met at any intersection due to the quantity of lanes required to cross on Merivale Road.

- The eastbound approach queue at the Merivale/Withrow is not anticipated to interfere with the proposed Withrow Avenue access.

Based on the preceding report, the proposed development located at 7 Rossland Avenue is recommended from a transportation perspective.

Prepared By:

Reviewed By:



Juan Lavin, P. Eng.



Jake Berube, P.Eng.

DRAFT

Appendix A:

Screening Form

City of Ottawa 2017 TIA Guidelines

Date

14-Apr-22

TIA Screening Form

Project

7 Rossland Avenue

Project Number

909979-10014

Results of Screening	Yes/No
Development Satisfies the Trip Generation Trigger	No
Development Satisfies the Location Trigger	Yes
Development Satisfies the Safety Trigger	Yes

Module 1.1 - Description of Proposed Development	
Municipal Address	1545 Merivale Road
Description of location	Property located west of Merivale Road, south of Withrow Drive and north of Rossland Avenue. Currently occupied by a place of worship and supportive institutional offices.
Land Use	Institutional 84 Stacked Townhouse
Development Size	200 m2 of institutional worship space 220 m2 of supportive office
Number of Accesses and Locations	Existing: 2 access to Rossland Avenue, waste pick up via Withrow. Proposed: 2 accesses to Rossland Avenue, 1 access to Withrow Avenue
Development Phasing	One phase
Buildout Year	2026 (Approximate)
Sketch Plan / Site Plan	See attached

Module 1.2 - Trip Generation Trigger		
Land Use Type	Townhomes or Apartments	
Development Size	84	Units
Trip Generation Trigger Met?	No	
Note: Additional Worship and Ancillary Office uses are anticipated to generate minimum additional weekday peak hour traffic.		

Module 1.3 - Location Triggers		
Development Proposes a new driveway to a boundary street that is designated as part of the City's Transit Priority, Rapid Transit, or Spine Bicycle Networks (See Sheet 3)	No	
Development is in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone. (See Sheet 3)	Yes	Merivale Main Street Secondary Plan and Traditional Main Street
Location Trigger Met?	Yes	

Module 1.4 - Safety Triggers		
Posted Speed Limit on any boundary road	<80	km/h
Horizontal / Vertical Curvature on a boundary street limits sight lines at a proposed driveway	No	
A proposed driveway is 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) or within auxiliary lanes of an intersection;	Yes	Withrow Access is 55m from Withrow/Merivale
A proposed driveway makes use of an existing median break that serves an existing site	No	
There is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development	Yes	Rossland access to Merivale noted as difficult. There exists a proposal to provide a RI RO.
The development includes a drive-thru facility	No	
Safety Trigger Met?	Yes	

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Appendix B:
Transit Route Maps



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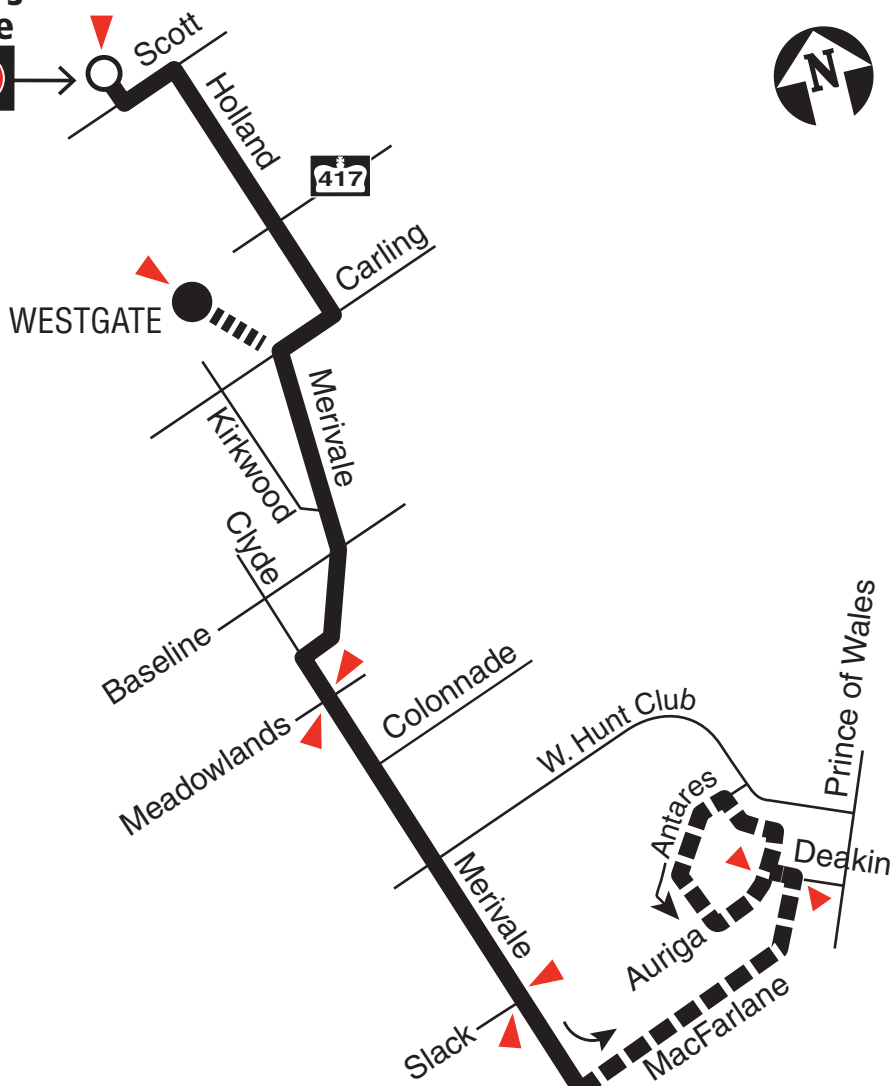
BARRHAVEN CENTRE TUNNEY'S PASTURE

Fréquent

7 days a week / 7 jours par semaine
All day service
Service toute la journée

TUNNEY'S PASTURE

Tunney's Pasture
 1



MACFARLANE

- Transitway & Station
- Monday to Friday
Lundi au vendredi
- Park & Ride / Parc-o-bus
- Timepoint / Heures de passage



BARRHAVEN CENTRE

2018.12



Schedule / Horaire.....613-560-1000
Text / Texto560560

plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

- Customer Relations / Service à la clientèle **613-842-3600**
- Lost and Found / Objets perdus..... **613-563-4011**
- Security / Sécurité **613-741-2478**

Effective June 24, 2018
En vigueur 24 juin 2018



INFO 613-741-4390
octranspo.com



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CLYDE

TUNNEY'S PASTURE

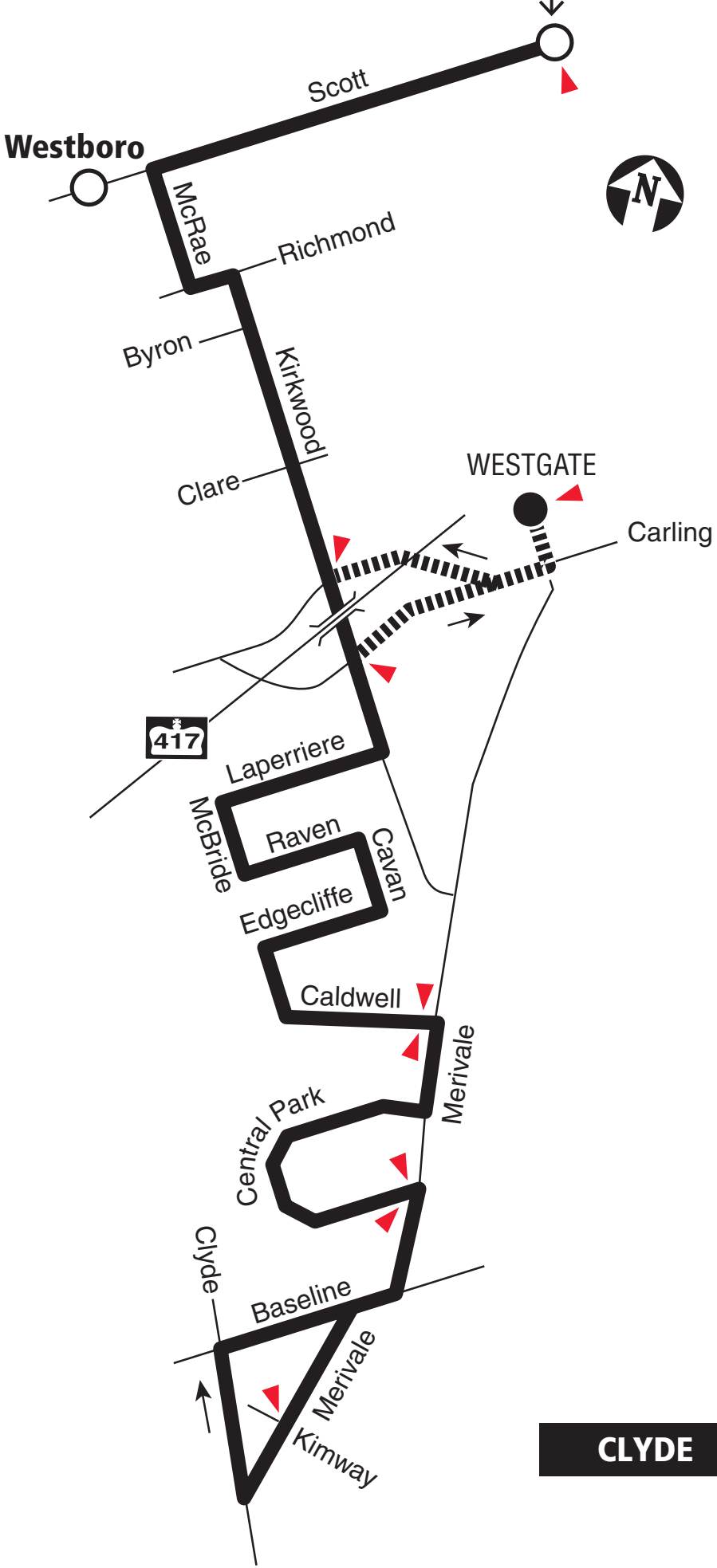
Local

7 days a week / 7 jours par semaine

No service in the evening on weekends
Aucun service le soir les fins de semaine

TUNNEY'S PASTURE

Tunney's Pasture
 1



- Station
- Some trips / Quelques trajets
- Timepoint / Heures de passage

2019.07



Future route after O-Train Line 1 is open
Trajet du circuit après l'ouverture de la Ligne 1 de l'O-Train

Lost and Found / Objets perdus..... **613-563-4011**
Security / Sécurité **613-741-2478**



INFO 613-741-4390
octranspo.com



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BASELINE

TUNNEY'S PASTURE

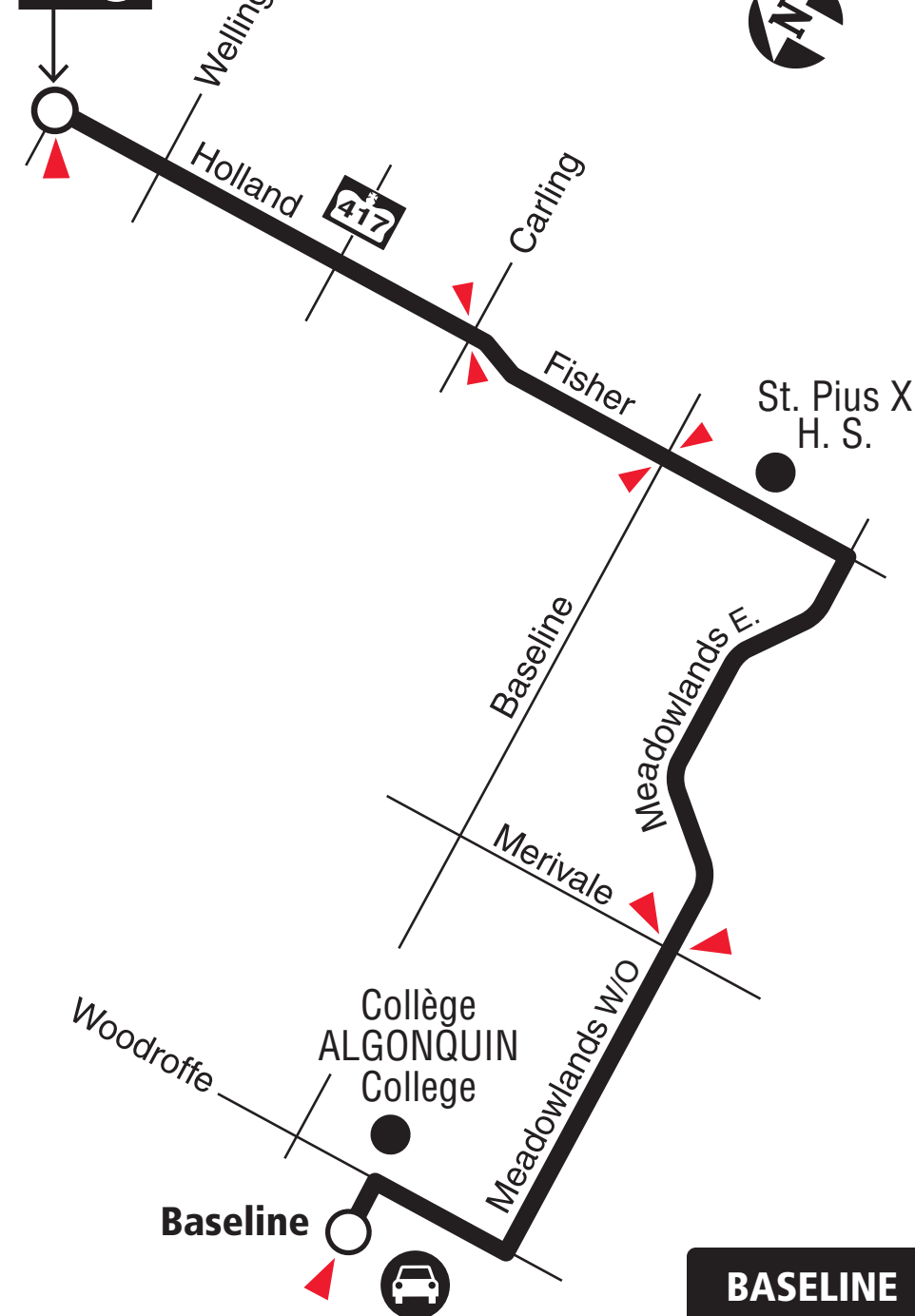
7 days a week / 7 jours par semaine

All day service

Service toute la journée

TUNNEY'S PASTURE

Tunney's Pasture



BASELINE



Station



Park & Ride / Parc-o-bus



Timepoint / Heures de passage

2019.07



1



Future route after O-Train Line 1 is open Trajet du circuit après l'ouverture de la Ligne 1 de l'O-Train

Lost and Found / Objets perdus..... 613-563-4011

Security / Sécurité 613-741-2478



INFO 613-741-4390
octranspo.com



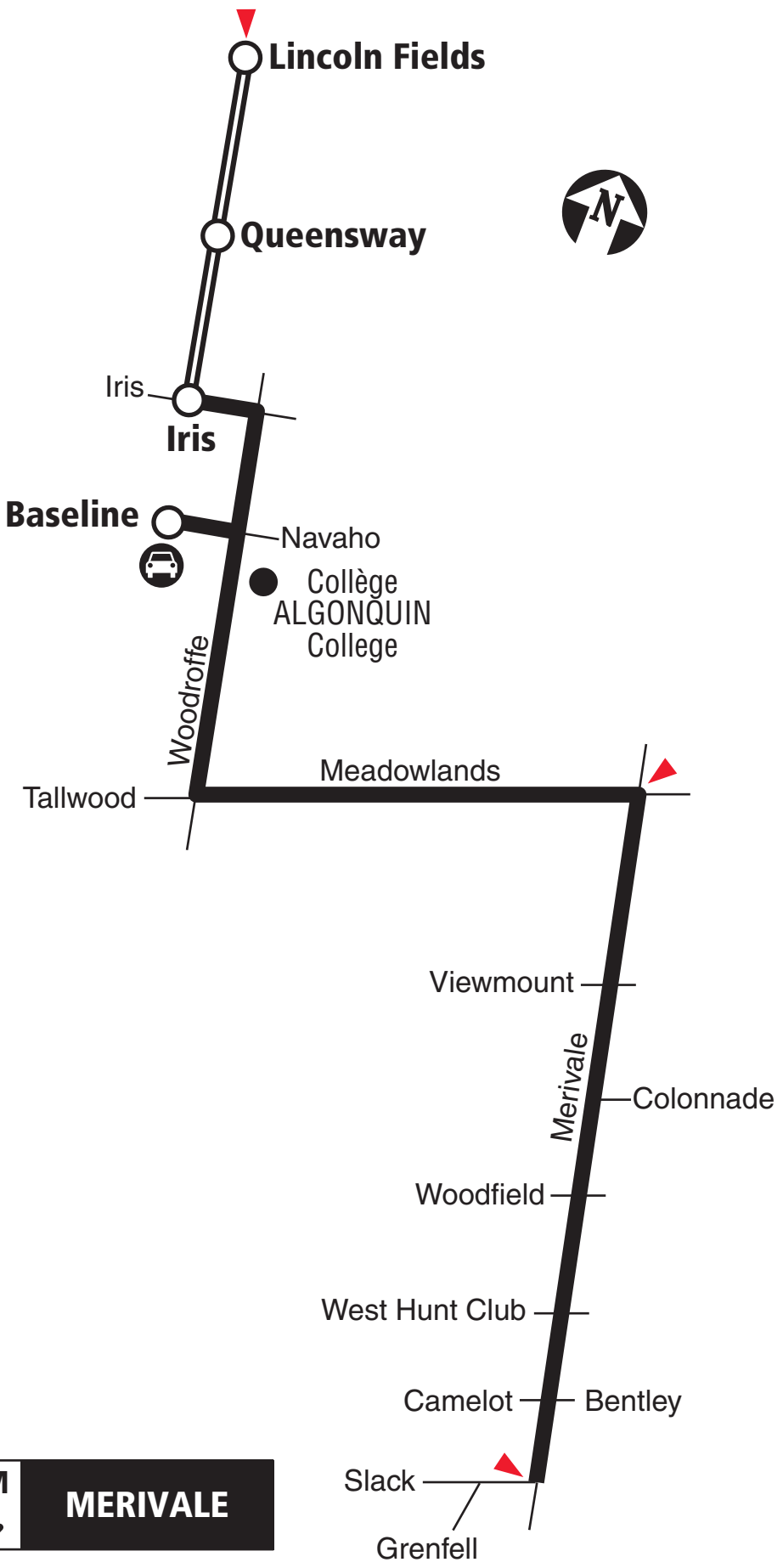
186

LINCOLN FIELDS MERIVALE

Local

Monday to Friday / Lundi au vendredi
Peak periods only
Périodes de pointe seulement

PM
↑
**LINCOLN
FIELDS**



AM
↓
MERIVALE

- Transitway & Station
- Park & Ride / Parc-o-bus
- Timepoint / Heures de passage

2022.06



Schedule / Horaire 613-560-1000

Text / Texto* 560560

plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

*Standard message rates may apply / Les tarifs réguliers de messagerie texte peuvent s'appliquer

Customer Service
Service à la clientèle **613-560-5000**

Lost and Found / Objets perdus..... **613-563-4011**

Security / Sécurité **613-741-2478**

Effective June 26, 2022

En vigueur 26 juin 2022



INFO 613-560-5000
octranspo.com

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Appendix C:

Traffic Data



Turning Movement Count

Summary Report

Including AM and PM Peak Hours

All Vehicles Except Bicycles



Capilano Drive/Withrow Avenue & Merivale Road Nepean, ON

Survey Date: Thursday, May 04, 2023 **Start Time:** 0700 **AADT Factor:** 0.9
Weather AM: Cloudy 5° C **Survey Duration:** 4 Hrs. **Survey Hours:** 0700-0900 & 1600-1800
Weather PM: Cloudy 10° C **Surveyor(s):** T. Carmody

Time Period	Withrow Ave.					Capilano Dr.					Merivale Rd.					Merivale Rd.					Street Total	Grand Total	
	Eastbound					Westbound					Northbound					Southbound							
	LT	ST	RT	UT	E/B Tot	LT	ST	RT	UT	W/B Tot	LT	ST	RT	UT	N/B Tot	LT	ST	RT	UT	S/B Tot			
0700-0800	12	0	16	0	28	18	3	26	0	47	75	11	921	13	0	945	15	869	2	0	886	1831	1906
0800-0900	26	10	19	0	55	29	9	40	0	78	133	20	1405	25	0	1450	28	1098	11	0	1137	2587	2720
1600-1700	33	11	25	0	69	59	16	44	0	119	188	42	1422	37	1	1502	63	1586	20	2	1671	3173	3361
1700-1800	28	11	21	0	60	73	10	49	0	132	192	44	1483	53	1	1581	79	1597	28	4	1708	3289	3481
Totals	99	32	81	0	212	179	38	159	0	376	588	117	5231	128	2	5478	185	5150	61	6	5402	10880	11468

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

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

Equivalent 12-hour vehicle volumes. These volumes are calculated by multiplying the 8-hour totals by the 8 → 12 expansion factor of 1.39																							
Equ. 12 Hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Average daily 12-hour vehicle volumes. These volumes are calculated by multiplying the equivalent 12-hour totals by the AADT factor of: 0.9																							
AADT 12-hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
24-Hour AADT. These volumes are calculated by multiplying the average daily 12-hour vehicle volumes by the 12 → 24 expansion factor of 1.31																							
AADT 24 Hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

AADT and expansion factors provided by the City of Ottawa

AM Peak Hour Factor → 0.94											Highest Hourly Vehicle Volume Between 0700h & 0900h												
AM Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	Gr. Tot.
0800-0900	26	10	19	0	55	29	9	40	0	78	133	20	1405	25	0	1450	28	1098	11	0	1137	2587	2720
PM Peak Hour Factor → 0.96											Highest Hourly Vehicle Volume Between 1600h & 1800h												
PM Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	Gr. Tot.
1645-1745	24	9	23	0	56	72	9	52	0	133	189	44	1496	52	1	1593	67	1613	25	4	1709	3302	3491

Comments:

OC Transpo and Para Transpo buses, private buses and school buses comprise 36.71% of the heavy vehicle traffic. This intersection is on the boundary between Wards 8 and 9. There was one pedestrian with accessibility issues using a walker. The PSAC and CRA strike was over.

Notes:

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



Turning Movement Count

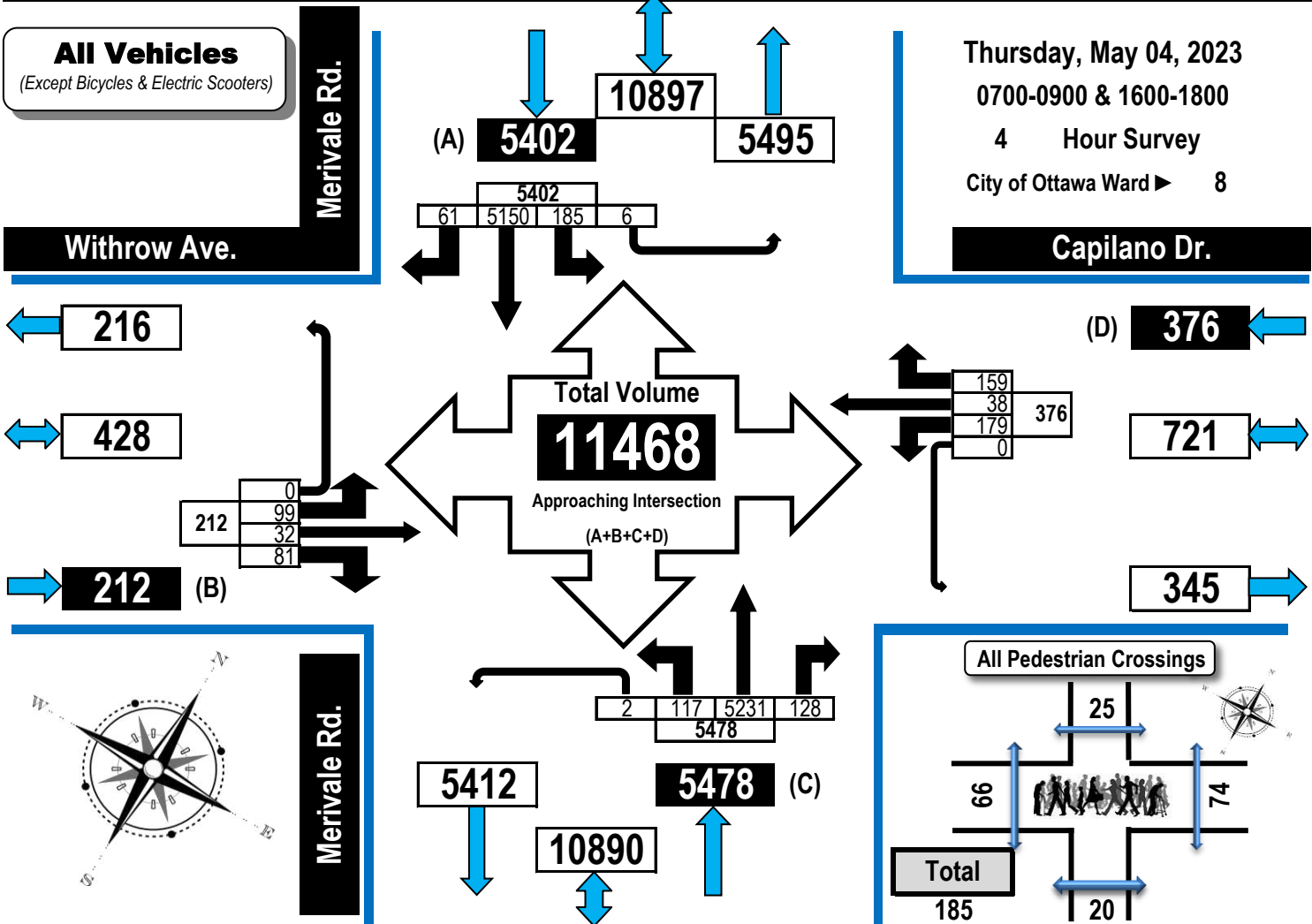
Summary, AM and PM Peak Hour

Flow Diagrams

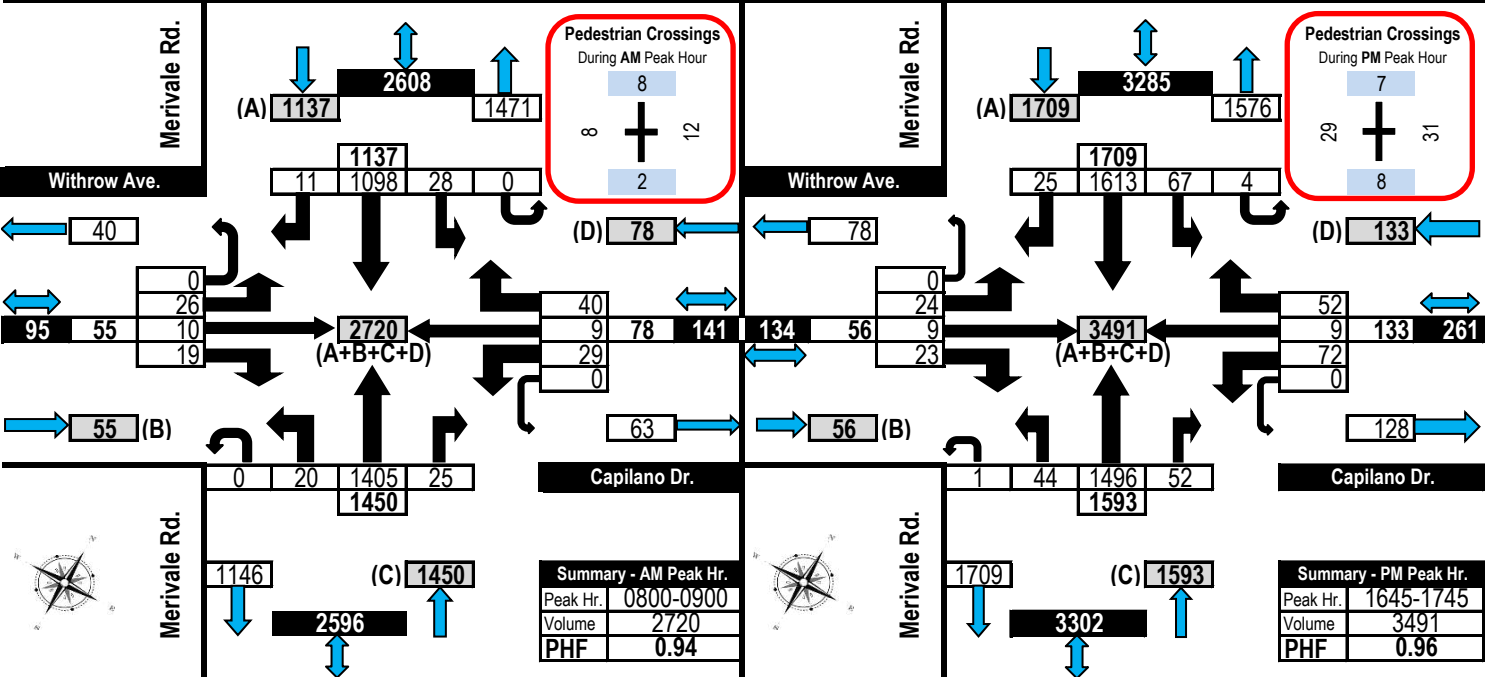
All Vehicles Except Bicycles



Capilano Drive/Withrow Avenue & Merivale Road Nepean, ON



AM Peak Hour Flow Diagram PM Peak Hour Flow Diagram

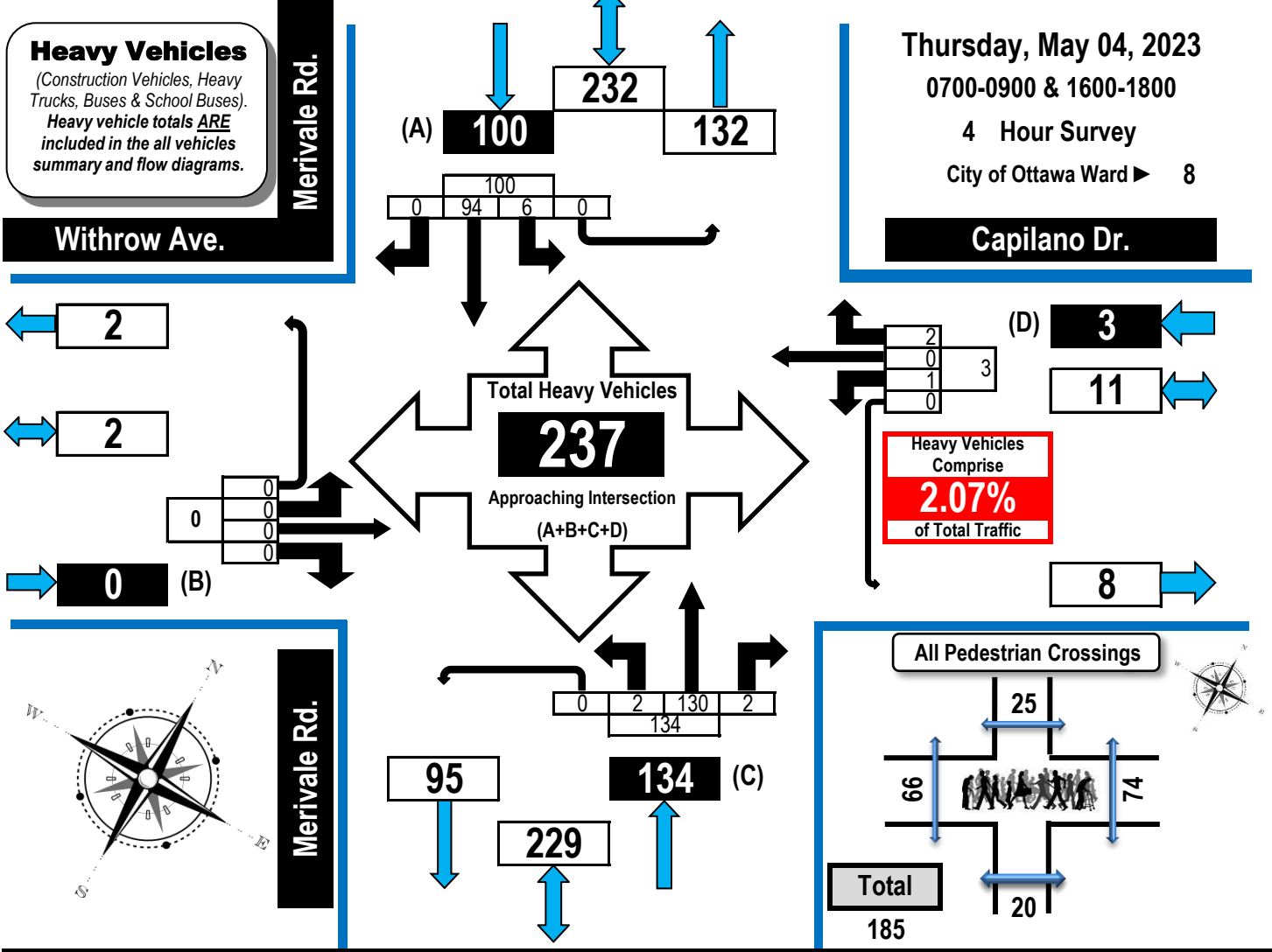




Turning Movement Count Heavy Vehicle Summary (FHWA Class 4-13) Flow Diagram



Capilano Drive/Withrow Avenue & Merivale Road Nepean, ON



Time Period	Withrow Ave. Eastbound					Capilano Dr. Westbound					Merivale Rd. Northbound					Merivale Rd. Southbound					SB Tot	GR Tot
	LT	ST	RT	UT	EB Tot	LT	ST	RT	UT	WB Tot	LT	ST	RT	UT	NB Tot	LT	ST	RT	UT			
0700-0800	0	0	0	0	0	0	0	0	0	0	1	51	1	0	53	1	19	0	0	20	73	
0800-0900	0	0	0	0	0	0	0	1	0	1	1	47	1	0	49	1	29	0	0	30	80	
1600-1700	0	0	0	0	0	0	0	1	0	1	0	19	0	0	19	3	24	0	0	27	47	
1700-1800	0	0	0	0	0	1	0	0	0	1	0	13	0	0	13	1	22	0	0	23	37	
Totals	0	0	0	0	0	1	0	2	0	3	2	130	2	0	134	6	94	0	0	100	237	

Comments:

OC Transpo and Para Transpo buses, private buses and school buses comprise 36.71% of the heavy vehicle traffic. This intersection is on the boundary between Wards 8 and 9. There was one pedestrian with accessibility issues using a walker. The PSAC and CRA strike was over.



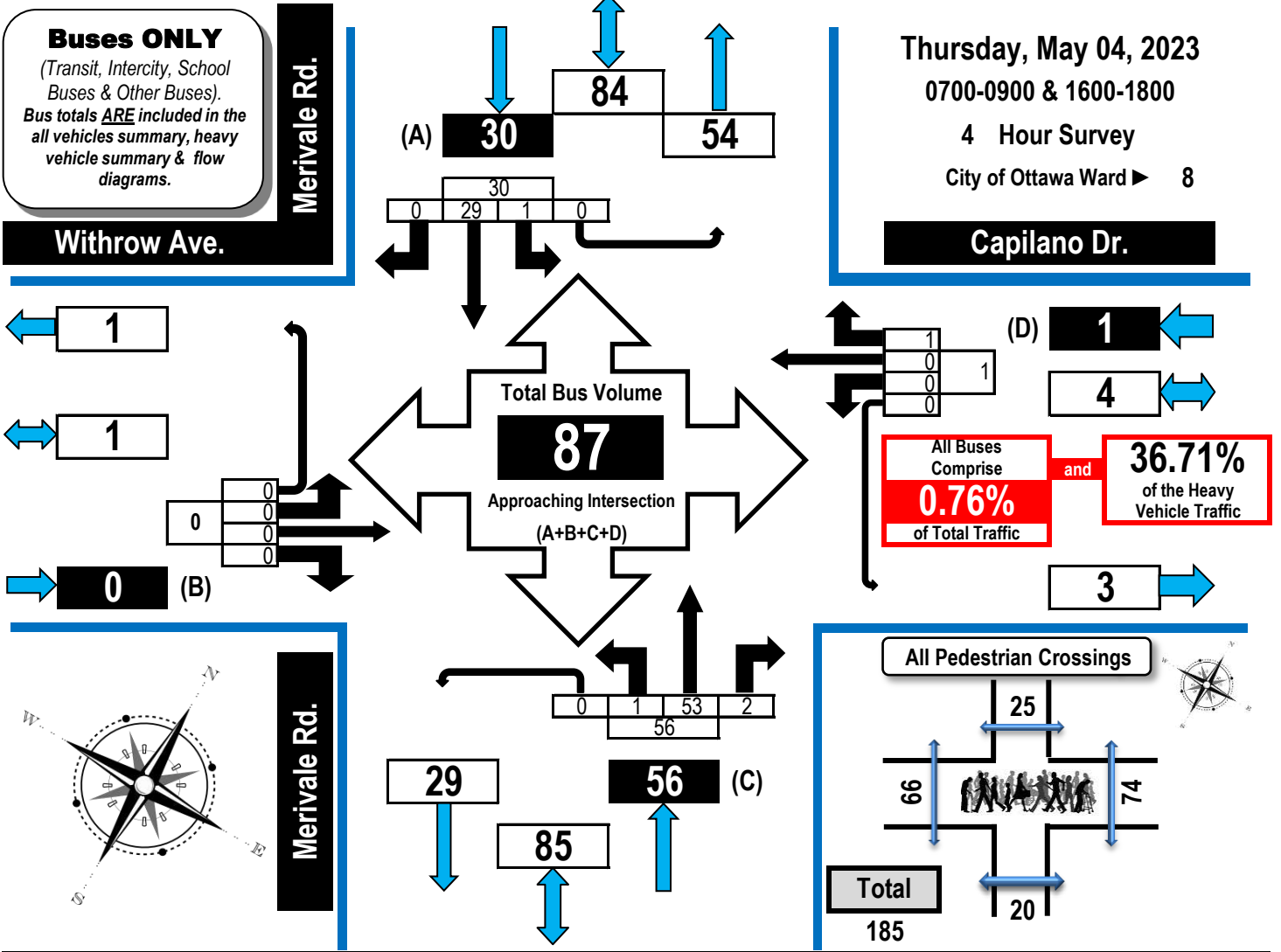
Turning Movement Count

All Buses Summary (FHWA Class 4 ONLY)

Flow Diagram



Capilano Drive/Withrow Avenue & Merivale Road Nepean, ON



Time Period	Withrow Ave. Eastbound					Capilano Dr. Westbound					Merivale Rd. Northbound					Merivale Rd. Southbound					GR Tot
	LT	ST	RT	UT	EB Tot	LT	ST	RT	UT	WB Tot	LT	ST	RT	UT	NB Tot	LT	ST	RT	UT	SB Tot	
0700-0800	0	0	0	0	0	0	0	0	0	0	1	23	1	0	25	1	8	0	0	9	34
0800-0900	0	0	0	0	0	0	0	1	0	1	0	15	1	0	16	0	8	0	0	8	25
1600-1700	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	0	6	0	0	6	15
1700-1800	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	7	0	0	7	13
Totals	0	0	0	0	0	0	0	1	0	1	1	53	2	0	56	1	29	0	0	30	87

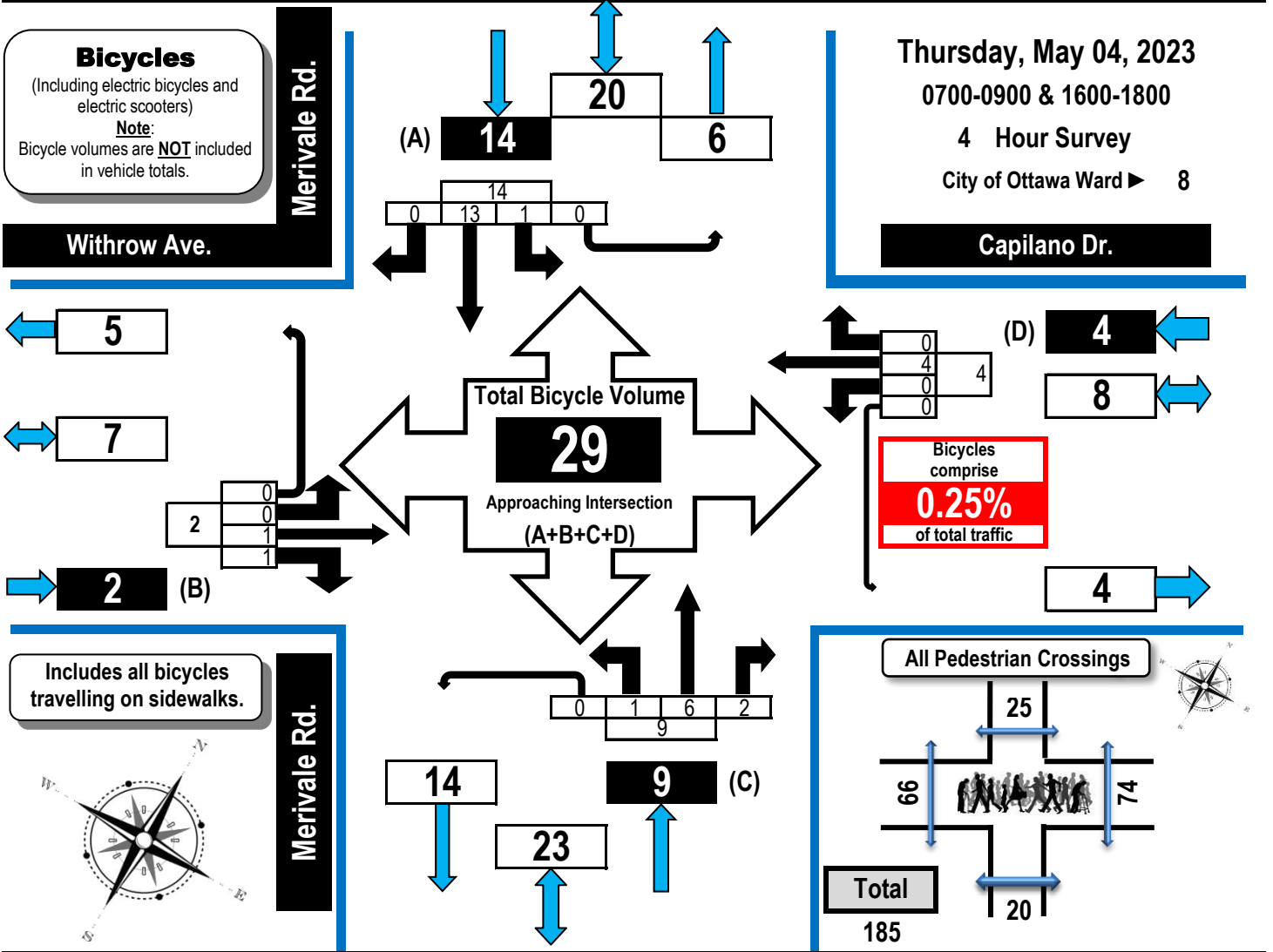
Comments:
 OC Transpo and Para Transpo buses, private buses and school buses comprise 36.71% of the heavy vehicle traffic. This intersection is on the boundary between Wards 8 and 9. There was one pedestrian with accessibility issues using a walker. The PSAC and CRA strike was over.



Turning Movement Count Bicycle Summary Flow Diagram



Capilano Drive/Withrow Avenue & Merivale Road Nepean, ON



Time Period	Withrow Ave. Eastbound				Capilano Dr. Westbound				Merivale Rd. Northbound				Merivale Rd. Southbound				GR Tot
	LT	ST	RT	UT	LT	ST	RT	UT	LT	ST	RT	UT	LT	ST	RT	UT	

Time Period	Withrow Ave. Eastbound				Capilano Dr. Westbound				Merivale Rd. Northbound				Merivale Rd. Southbound				GR Tot
	LT	ST	RT	UT	LT	ST	RT	UT	LT	ST	RT	UT	LT	ST	RT	UT	
0700-0800	0	0	0	0	0	0	0	0	0	1	1	0	0	3	0	0	5
0800-0900	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	4
1600-1700	0	1	1	0	0	2	0	0	1	1	1	0	0	3	0	0	10
1700-1800	0	0	0	0	0	0	0	0	0	4	0	0	1	5	0	0	10
Totals	0	1	1	0	0	4	0	0	1	6	2	0	1	13	0	0	29

Comments:

OC Transpo and Para Transpo buses, private buses and school buses comprise 36.71% of the heavy vehicle traffic. This intersection is on the boundary between Wards 8 and 9. There was one pedestrian with accessibility issues using a walker. The PSAC and CRA strike was over.



Turning Movement Count Pedestrian Crossings Summary and Flow Diagram



Capilano Drive/Withrow Avenue & Merivale Road Nepean, ON

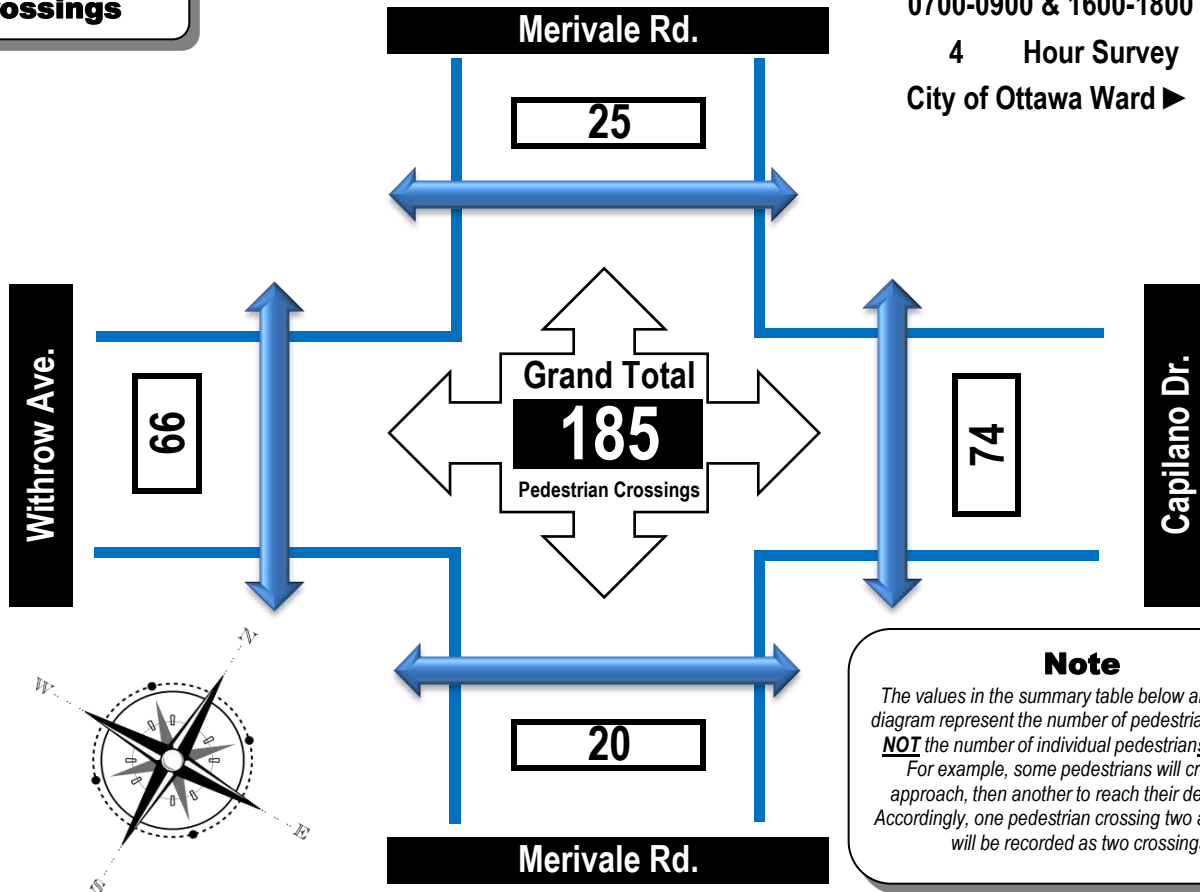
Pedestrian Crossings

Thursday, May 04, 2023

0700-0900 & 1600-1800

4 Hour Survey

City of Ottawa Ward ► 8



Note

The values in the summary table below and the flow diagram represent the number of pedestrian crossings NOT the number of individual pedestrians crossing. For example, some pedestrians will cross one approach, then another to reach their destination. Accordingly, one pedestrian crossing two approaches will be recorded as two crossings.

Time Period	West Side Crossing Withrow Ave.	East Side Crossing Capilano Dr.	Street Total	South Side Crossing Merivale Rd.	North Side Crossing Merivale Rd.	Street Total	Grand Total
0700-0800	8	5	13	1	4	5	18
0800-0900	8	12	20	2	8	10	30
1600-1700	23	29	52	12	3	15	67
1700-1800	27	28	55	5	10	15	70
Totals	66	74	140	20	25	45	185

Comments:

OC Transpo and Para Transpo buses, private buses and school buses comprise 36.71% of the heavy vehicle traffic. This intersection is on the boundary between Wards 8 and 9. There was one pedestrian with accessibility issues using a walker. The PSAC and CRA strike was over.

Turning Movement Count - Study Results

MEADOWLANDS DR @ MERIVALE RD

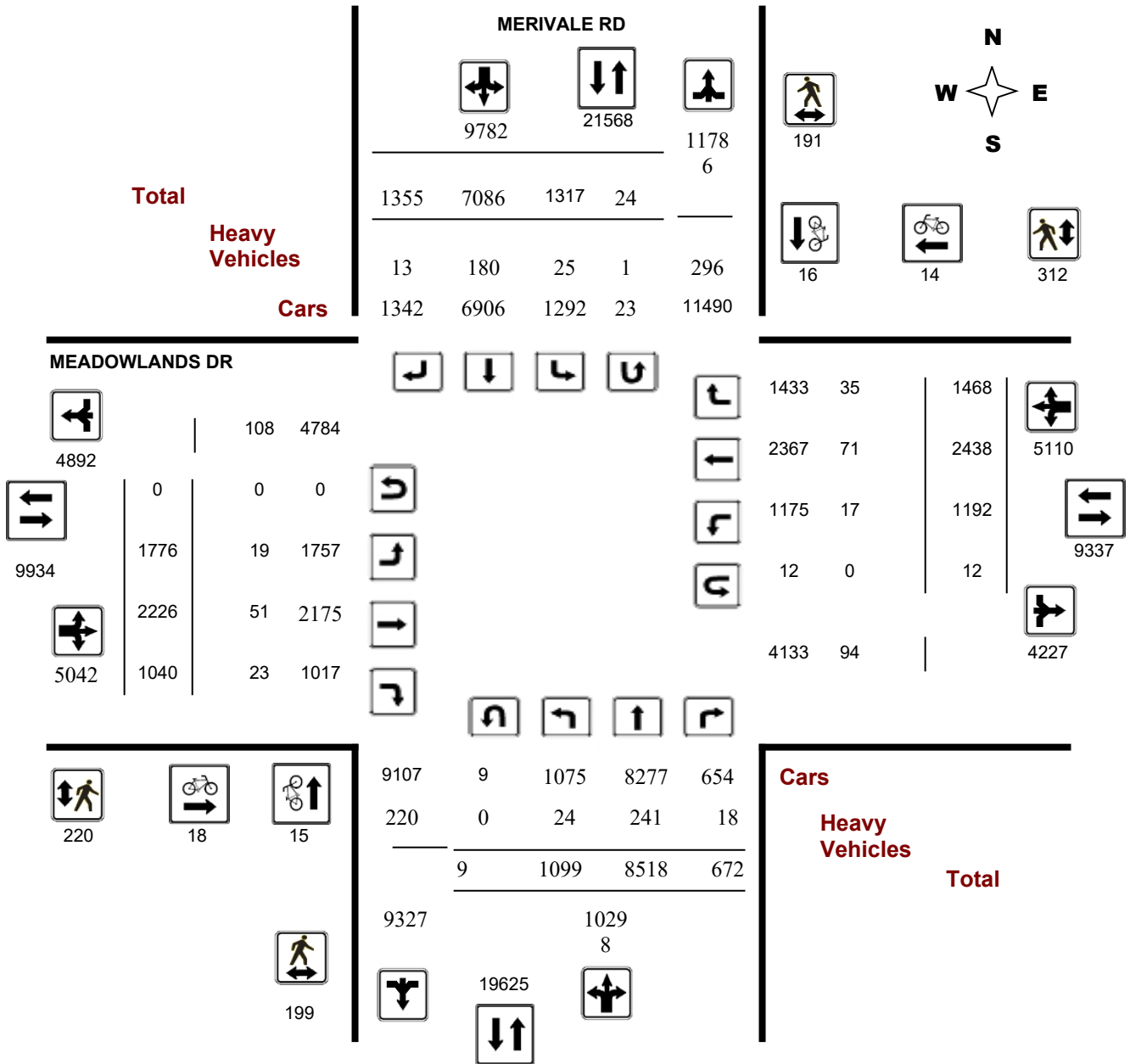
Survey Date: Thursday, November 01, 2018

WO No: 38079

Start Time: 07:00

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

MEADOWLANDS DR @ MERIVALE RD

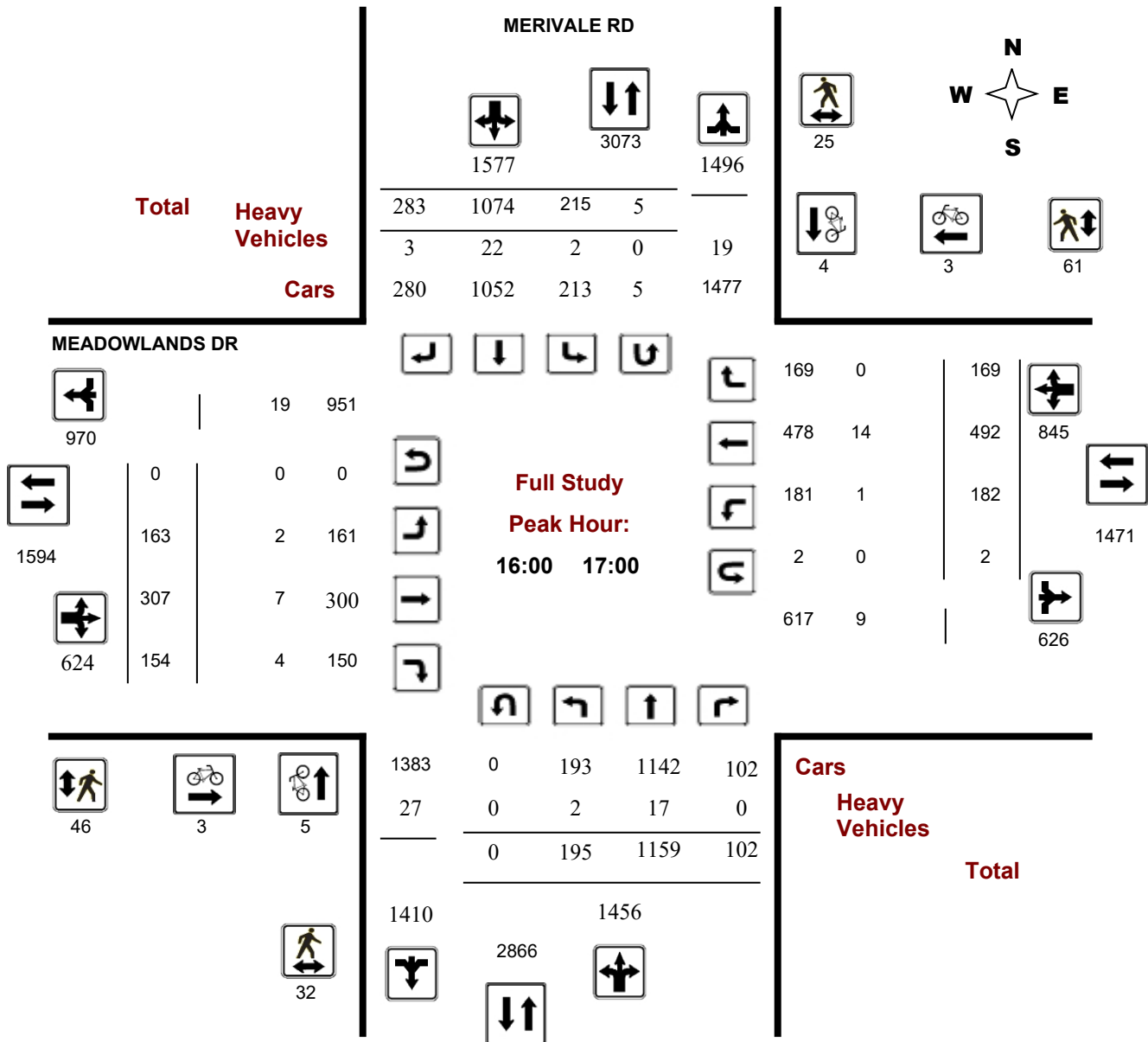
Survey Date: Thursday, November 01, 2018

WO No: 38079

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Peak Hour Diagram

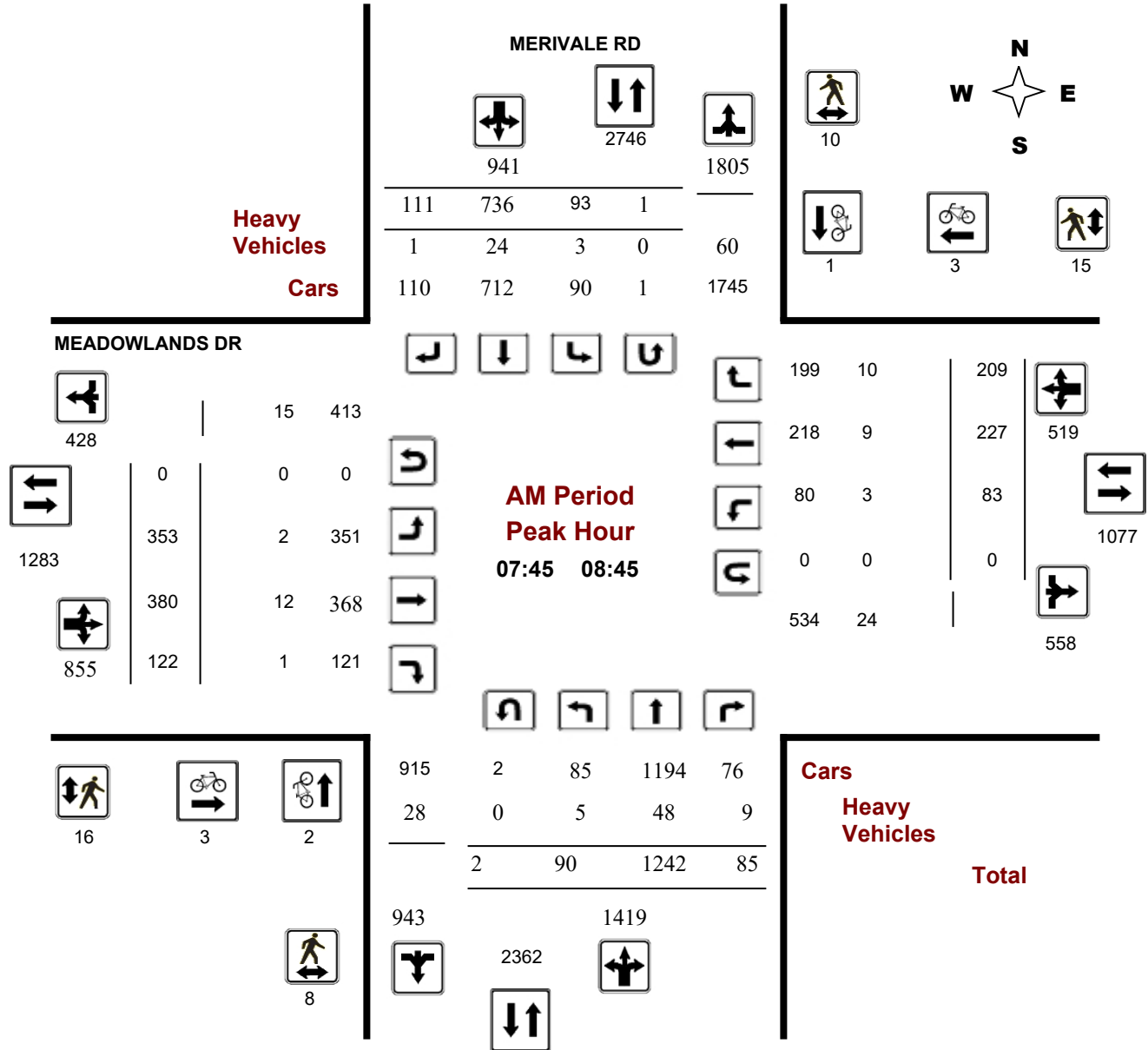
MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018

Start Time: 07:00

WO No: 38079

Device: Miovision



Turning Movement Count - Peak Hour Diagram

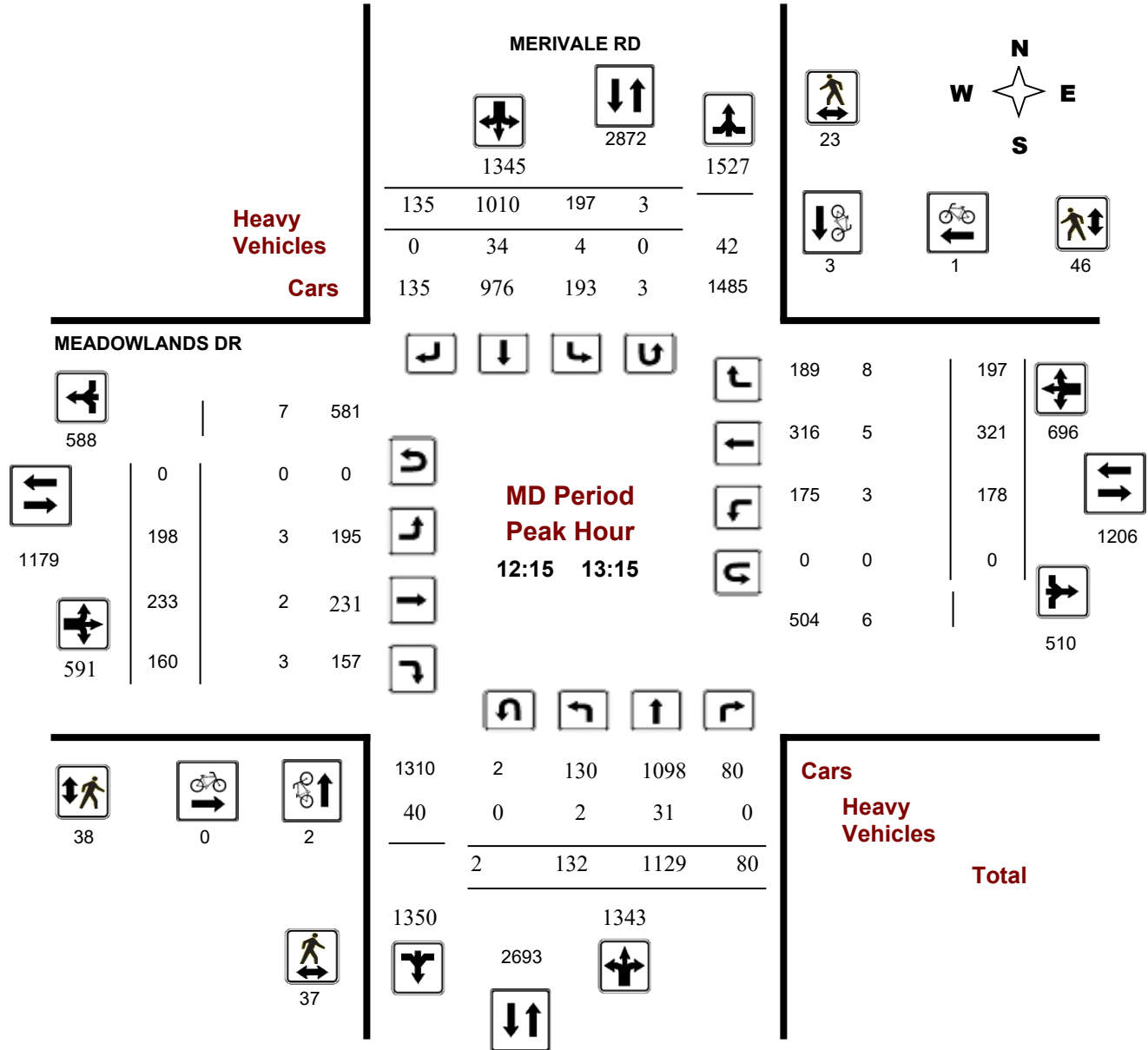
MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018

Start Time: 07:00

WO No: 38079

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Study Results

MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018

WO No: 38079

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, November 01, 2018

Total Observed U-Turns

AADT Factor

Northbound: 9 Southbound: 24

.90

Eastbound: 0 Westbound: 12

MERIVALE RD

MEADOWLANDS DR

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total
	LT	ST	RT	NB TOT	STR TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	STR TOT	LT	ST	RT	WB TOT	STR TOT	
07:00 08:00	70	953	70	1093	1872	86	628	65	779	247	217	89	553	986	98	165	170	433	986	2858	
08:00 09:00	76	1189	77	1342	2291	101	732	116	949	364	398	117	879	1427	96	245	207	548	1427	3718	
09:00 10:00	104	862	67	1033	2006	123	749	101	973	235	256	148	639	1137	120	194	184	498	1137	3143	
11:30 12:30	120	1028	73	1221	2556	204	1013	118	1335	200	237	121	558	1187	186	255	188	629	1187	3743	
12:30 13:30	151	1144	93	1388	2684	192	966	138	1296	186	210	156	552	1218	178	304	184	666	1218	3902	
15:00 16:00	178	1116	83	1377	2802	182	982	261	1425	198	276	119	593	1274	156	348	177	681	1274	4076	
16:00 17:00	195	1159	102	1456	3028	215	1074	283	1572	163	307	154	624	1467	182	492	169	843	1467	4495	
17:00 18:00	205	1067	107	1379	2808	214	942	273	1429	183	325	136	644	1444	176	435	189	800	1444	4252	
Sub Total	1099	8518	672	10289	20047	1317	7086	1355	9758	1776	2226	1040	5042	10140	1192	2438	1468	5098	10140	30187	
U Turns	9			9	33	24			24	0			0	12				12	12	45	
Total	1108	8518	672	10298	20080	1341	7086	1355	9782	1776	2226	1040	5042	10152	1204	2438	1468	5110	10152	30232	
EQ 12Hr	1540	11840	934	14314	27911	1864	9850	1883	13597	2469	3094	1446	7009	14113	1674	3389	2041	7104	14113	42024	
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.																		1.39			
AVG 12Hr	1386	10656	841	12883	25121	1678	8865	1695	12238	2222	2785	1301	6308	12702	1507	3050	1837	6394	12702	37823	
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.																		.90			
AVG 24Hr	1816	13959	1102	16877	32908	2198	11613	2220	16031	2911	3648	1704	8263	16639	1974	3996	2406	8376	16639	49547	
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

MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018

WO No: 38079

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

MERIVALE RD

MEADOWLANDS DR

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	8	179	11	198	18	131	12	161	359	50	39	21	110	21	38	24	83	193	552
07:15	07:30	15	225	11	251	19	152	15	186	437	51	41	15	107	28	28	38	94	201	638
07:30	07:45	19	245	23	287	25	156	15	196	483	74	56	24	154	21	46	48	115	269	752
07:45	08:00	28	304	25	357	24	189	23	236	593	72	81	29	182	28	53	60	141	323	916
08:00	08:15	24	314	24	362	23	178	31	232	594	81	110	31	222	17	56	55	128	350	944
08:15	08:30	20	317	20	357	26	174	31	231	588	95	87	30	212	15	60	43	118	330	918
08:30	08:45	20	307	16	343	21	195	26	242	585	105	102	32	239	23	58	51	132	371	956
08:45	09:00	14	251	17	282	33	185	28	246	528	83	99	24	206	41	71	58	170	376	904
09:00	09:15	23	225	20	268	34	183	27	244	512	78	90	24	192	23	57	52	132	324	836
09:15	09:30	25	219	15	259	21	171	24	216	475	53	69	41	163	31	41	39	111	274	749
09:30	09:45	28	196	12	236	36	189	26	251	487	53	55	37	145	30	56	44	130	275	762
09:45	10:00	28	222	20	270	34	206	24	264	534	51	42	46	139	37	40	49	126	265	799
11:30	11:45	25	254	18	297	57	253	24	334	631	41	52	27	120	50	62	48	160	280	911
11:45	12:00	33	262	24	319	52	255	26	333	652	51	53	30	134	50	75	45	170	304	956
12:00	12:15	37	237	14	288	50	222	35	307	595	52	67	27	146	48	46	41	135	281	876
12:15	12:30	26	275	17	318	52	283	33	368	686	56	65	37	158	41	72	54	167	325	1011
12:30	12:45	42	280	17	339	52	243	30	325	664	49	48	45	142	43	88	42	173	315	979
12:45	13:00	34	296	21	351	56	231	39	326	677	45	49	32	126	51	82	49	182	308	985
13:00	13:15	32	278	25	335	40	253	33	326	661	48	71	46	165	43	79	52	174	339	1000
13:15	13:30	44	290	30	364	46	239	36	321	685	44	42	33	119	42	55	41	138	257	942
15:00	15:15	46	282	18	346	50	233	51	334	680	56	69	40	165	40	91	44	175	340	1020
15:15	15:30	50	271	19	340	51	256	68	375	715	41	69	17	127	49	90	43	182	309	1024
15:30	15:45	46	295	24	365	40	256	71	367	732	44	55	31	130	43	93	40	176	306	1038
15:45	16:00	36	268	22	326	44	237	71	352	678	57	83	31	171	27	74	50	151	322	1000
16:00	16:15	53	309	26	388	57	273	63	393	781	37	87	27	151	34	137	39	210	361	1142
16:15	16:30	42	277	24	343	56	287	72	415	758	43	80	36	159	46	129	52	227	386	1144
16:30	16:45	51	294	24	369	54	258	81	393	762	47	71	35	153	46	108	38	192	345	1107
16:45	17:00	49	279	28	356	53	256	67	376	732	36	69	56	161	58	118	40	216	377	1109
17:00	17:15	47	312	11	370	54	236	80	370	740	41	92	36	169	44	112	44	200	369	1109
17:15	17:30	52	263	28	343	49	252	63	364	707	50	94	28	172	46	104	47	197	369	1076
17:30	17:45	55	275	33	363	59	222	62	343	706	40	70	40	150	56	107	52	215	365	1071
17:45	18:00	56	217	35	308	55	232	68	355	663	52	69	32	153	32	112	46	190	343	1006
Total:		1108	8518	672	1029	1341	7086	1355	9782	20080	1776	2226	1040	5042	1204	2438	1468	5110	20080	30,232

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018

WO No: 38079

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

MERIVALE RD

MEADOWLANDS DR

Time Period	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	1	1	2	1	3	4
07:30 07:45	1	2	3	1	0	1	4
07:45 08:00	1	0	1	0	1	1	2
08:00 08:15	1	0	1	1	1	2	3
08:15 08:30	0	1	1	1	0	1	2
08:30 08:45	0	0	0	1	1	2	2
08:45 09:00	0	0	0	2	0	2	2
09:00 09:15	0	0	0	0	0	0	0
09:15 09:30	0	0	0	1	0	1	1
09:30 09:45	1	1	2	3	0	3	5
09:45 10:00	0	0	0	0	0	0	0
11:30 11:45	0	1	1	0	0	0	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	1	1	0	0	0	1
12:30 12:45	0	0	0	0	1	1	1
12:45 13:00	1	1	2	0	0	0	2
13:00 13:15	1	1	2	0	0	0	2
13:15 13:30	0	0	0	0	0	0	0
15:00 15:15	0	0	0	0	1	1	1
15:15 15:30	3	0	3	0	2	2	5
15:30 15:45	0	0	0	1	0	1	1
15:45 16:00	0	0	0	0	2	2	2
16:00 16:15	1	2	3	2	0	2	5
16:15 16:30	2	0	2	0	2	2	4
16:30 16:45	1	0	1	1	1	2	3
16:45 17:00	1	2	3	0	0	0	3
17:00 17:15	0	1	1	1	0	1	2
17:15 17:30	0	0	0	0	0	0	0
17:30 17:45	0	1	1	0	0	0	1
17:45 18:00	1	1	2	0	1	1	3
Total	15	16	31	18	14	32	63



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018

WO No: 38079

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

MERIVALE RD

MEADOWLANDS DR

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	2	5	3	4	7	12
07:15 07:30	3	1	4	1	2	3	7
07:30 07:45	4	3	7	3	8	11	18
07:45 08:00	1	3	4	4	6	10	14
08:00 08:15	2	2	4	4	2	6	10
08:15 08:30	2	4	6	2	4	6	12
08:30 08:45	3	1	4	6	3	9	13
08:45 09:00	5	7	12	4	11	15	27
09:00 09:15	5	5	10	6	5	11	21
09:15 09:30	2	3	5	1	4	5	10
09:30 09:45	5	3	8	7	6	13	21
09:45 10:00	1	5	6	3	4	7	13
11:30 11:45	7	4	11	9	6	15	26
11:45 12:00	6	10	16	5	17	22	38
12:00 12:15	6	11	17	7	13	20	37
12:15 12:30	11	12	23	9	8	17	40
12:30 12:45	5	3	8	5	14	19	27
12:45 13:00	16	5	21	13	13	26	47
13:00 13:15	5	3	8	11	11	22	30
13:15 13:30	4	13	17	3	9	12	29
15:00 15:15	11	6	17	7	12	19	36
15:15 15:30	11	9	20	4	12	16	36
15:30 15:45	11	6	17	9	8	17	34
15:45 16:00	11	10	21	4	14	18	39
16:00 16:15	8	8	16	13	12	25	41
16:15 16:30	7	11	18	14	22	36	54
16:30 16:45	7	4	11	11	17	28	39
16:45 17:00	10	2	12	8	10	18	30
17:00 17:15	6	10	16	16	18	34	50
17:15 17:30	12	8	20	13	12	25	45
17:30 17:45	5	11	16	9	17	26	42
17:45 18:00	4	6	10	6	8	14	24
Total	199	191	390	220	312	532	922



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018

WO No: 38079

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

MERIVALE RD

MEADOWLANDS DR

Northbound

Southbound

Eastbound

Westbound

Time Period	Northbound			N TOT	Southbound			S TOT	STR TOT	Eastbound			E TOT	Westbound			W TOT	STR TOT	Grand Total	
	LT	ST	RT		LT	ST	RT			LT	ST	RT		LT	ST	RT				
07:00 07:15	0	14	0	14	2	6	0	8	22	0	1	1	2	0	1	0	1	3	25	
07:15 07:30	2	12	0	14	0	2	0	2	16	1	1	1	3	1	1	0	2	5	21	
07:30 07:45	0	12	1	13	0	7	0	7	20	0	2	1	3	1	4	0	5	8	28	
07:45 08:00	4	18	2	24	2	7	0	9	33	0	2	0	2	1	4	3	8	10	43	
08:00 08:15	0	14	3	17	1	5	1	7	24	0	2	0	2	0	0	3	3	5	29	
08:15 08:30	0	8	2	10	0	7	0	7	17	1	2	0	3	1	2	2	5	8	25	
08:30 08:45	1	8	2	11	0	5	0	5	16	1	6	1	8	1	3	2	6	14	30	
08:45 09:00	1	10	0	11	0	3	1	4	15	1	3	0	4	0	1	3	4	8	23	
09:00 09:15	1	7	3	11	3	6	1	10	21	1	3	2	6	0	4	1	5	11	33	
09:15 09:30	2	9	1	12	1	5	1	7	19	1	1	1	3	2	1	0	3	6	25	
09:30 09:45	0	7	0	7	2	5	1	8	15	2	1	3	6	0	1	0	1	7	22	
09:45 10:00	0	12	1	13	2	9	0	11	24	0	0	1	1	1	1	1	3	4	28	
11:30 11:45	0	10	0	10	2	9	0	11	21	0	2	0	2	0	2	3	5	7	28	
11:45 12:00	0	10	1	11	1	5	2	8	19	1	1	1	3	2	1	1	4	7	26	
12:00 12:15	1	12	0	13	0	7	0	7	20	1	2	1	4	0	1	0	1	5	25	
12:15 12:30	1	11	0	12	4	8	0	12	24	1	0	2	3	1	1	0	2	5	29	
12:30 12:45	1	6	0	7	0	9	0	9	16	0	0	1	1	0	2	6	8	9	25	
12:45 13:00	0	8	0	8	0	9	0	9	17	0	1	0	1	1	0	2	3	4	21	
13:00 13:15	0	6	0	6	0	8	0	8	14	2	1	0	3	1	2	0	3	6	20	
13:15 13:30	1	4	1	6	2	7	0	9	15	0	0	1	1	0	2	2	4	5	20	
15:00 15:15	1	1	0	2	1	4	0	5	7	0	1	0	1	0	4	1	5	6	13	
15:15 15:30	1	9	0	10	0	5	1	6	16	0	2	0	2	0	6	3	9	11	27	
15:30 15:45	2	2	0	4	0	1	1	2	6	2	2	0	4	0	2	0	2	6	12	
15:45 16:00	1	4	1	6	0	4	0	4	10	0	1	0	1	1	3	0	4	5	15	
16:00 16:15	0	5	0	5	0	9	0	9	14	1	2	2	5	0	4	0	4	9	23	
16:15 16:30	0	3	0	3	0	7	1	8	11	1	3	1	5	1	4	0	5	10	21	
16:30 16:45	2	5	0	7	1	5	1	7	14	0	0	0	0	0	3	0	3	3	17	
16:45 17:00	0	4	0	4	1	1	1	3	7	0	2	1	3	0	3	0	3	6	13	
17:00 17:15	1	2	0	3	0	5	0	5	8	2	2	0	4	0	3	0	3	7	15	
17:15 17:30	0	2	0	2	0	6	0	6	8	0	1	0	1	1	1	1	3	4	12	
17:30 17:45	1	2	0	3	0	3	0	3	6	0	3	0	3	1	2	1	4	7	13	
17:45 18:00	0	4	0	4	0	1	1	2	6	0	1	2	3	0	2	0	2	5	11	
Total:	None	24	241	18	283	25	180	13	218	501	19	51	23	93	17	71	35	123	216	718



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MEADOWLANDS DR @ MERIVALE RD

Survey Date: Thursday, November 01, 2018

WO No: 38079

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

MERIVALE RD

MEADOWLANDS DR

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	1	1	0	0	2
08:15	08:30	0	0	0	0	0
08:30	08:45	1	0	0	0	1
08:45	09:00	0	1	0	0	1
09:00	09:15	0	2	0	0	2
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	1	1
11:30	11:45	0	0	0	1	1
11:45	12:00	0	3	0	0	3
12:00	12:15	0	2	0	2	4
12:15	12:30	1	2	0	0	3
12:30	12:45	0	1	0	0	1
12:45	13:00	0	0	0	0	0
13:00	13:15	1	0	0	0	1
13:15	13:30	0	1	0	1	2
15:00	15:15	0	2	0	2	4
15:15	15:30	0	0	0	1	1
15:30	15:45	0	0	0	0	0
15:45	16:00	0	1	0	0	1
16:00	16:15	0	2	0	1	3
16:15	16:30	0	1	0	0	1
16:30	16:45	0	1	0	0	1
16:45	17:00	0	1	0	1	2
17:00	17:15	0	0	0	1	1
17:15	17:30	2	2	0	1	5
17:30	17:45	2	1	0	0	3
17:45	18:00	1	0	0	0	1
Total		9	24	0	12	45



Turning Movement Count

Summary Report

Including AM and PM Peak Hours

All Vehicles Except Bicycles



Merivale Road & Rossland Avenue Nepean, ON

Survey Date: Tuesday, August 02, 2022 **Start Time:** 0700 **AADT Factor:** 0.9
Weather AM: Mostly Cloudy 22° C **Survey Duration:** 4 Hrs. **Survey Hours:** 0700-0900 & 1600-1800
Weather PM: Clear & Sunny 25° C **Surveyor(s):** J. Mousseau

Time Period	Rossland Ave.					Ultramar (S)					Merivale Rd.					Merivale Rd.					Street Total	Grand Total	
	Eastbound					Westbound					Northbound					Southbound							
	LT	ST	RT	UT	E/B Tot	LT	ST	RT	UT	W/B Tot	LT	ST	RT	UT	N/B Tot	LT	ST	RT	UT	S/B Tot			
0700-0800	2	0	10	0	12	0	0	0	0	0	12	2	0	6	1	9	0	0	14	0	14	23	35
0800-0900	2	0	13	0	15	0	0	1	0	1	16	6	0	5	0	11	0	0	9	1	10	21	37
1600-1700	2	0	14	0	16	1	0	4	0	5	21	11	0	26	0	37	3	0	16	0	19	56	77
1700-1800	3	0	15	0	18	3	0	7	0	10	28	16	0	39	1	56	1	0	23	0	24	80	108
Totals	9	0	52	0	61	4	0	12	0	16	77	35	0	76	2	113	4	0	62	1	67	180	257

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

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

Equivalent 12-hour vehicle volumes. These volumes are calculated by multiplying the 8-hour totals by the 8 → 12 expansion factor of 1.39																						
Equ. 12 Hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Average daily 12-hour vehicle volumes. These volumes are calculated by multiplying the equivalent 12-hour totals by the AADT factor of: 0.9																						
AADT 12-hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
24-Hour AADT. These volumes are calculated by multiplying the average daily 12-hour vehicle volumes by the 12 → 24 expansion factor of 1.31																						
AADT 24 Hr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

AADT and expansion factors provided by the City of Ottawa

AM Peak Hour Factor → N/A											Highest Hourly Vehicle Volume Between 0700h & 0900h												
AM Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	Gr. Tot.
0745-0845	2	0	12	0	14	0	0	1	0	1	15	2	0	6	1	9	0	0	13	1	14	23	38
PM Peak Hour Factor → N/A											Highest Hourly Vehicle Volume Between 1600h & 1800h												
PM Peak Hr	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	LT	ST	RT	UT	Total	LT	ST	RT	UT	Total	Str. Tot.	Gr. Tot.
1700-1800	3	0	15	0	18	3	0	7	0	10	28	16	0	39	1	56	1	0	23	0	24	80	108

Comments:

This traffic count does not include N/B and S/B through traffic on Merivale Road but does include all bicycle movements and all pedestrian crossings. Accordingly, the peak hours do not reflect the total traffic at this intersection. The majority of turns to Rossland Avenue turn into the Shell gas station.

Notes:

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



Turning Movement Count

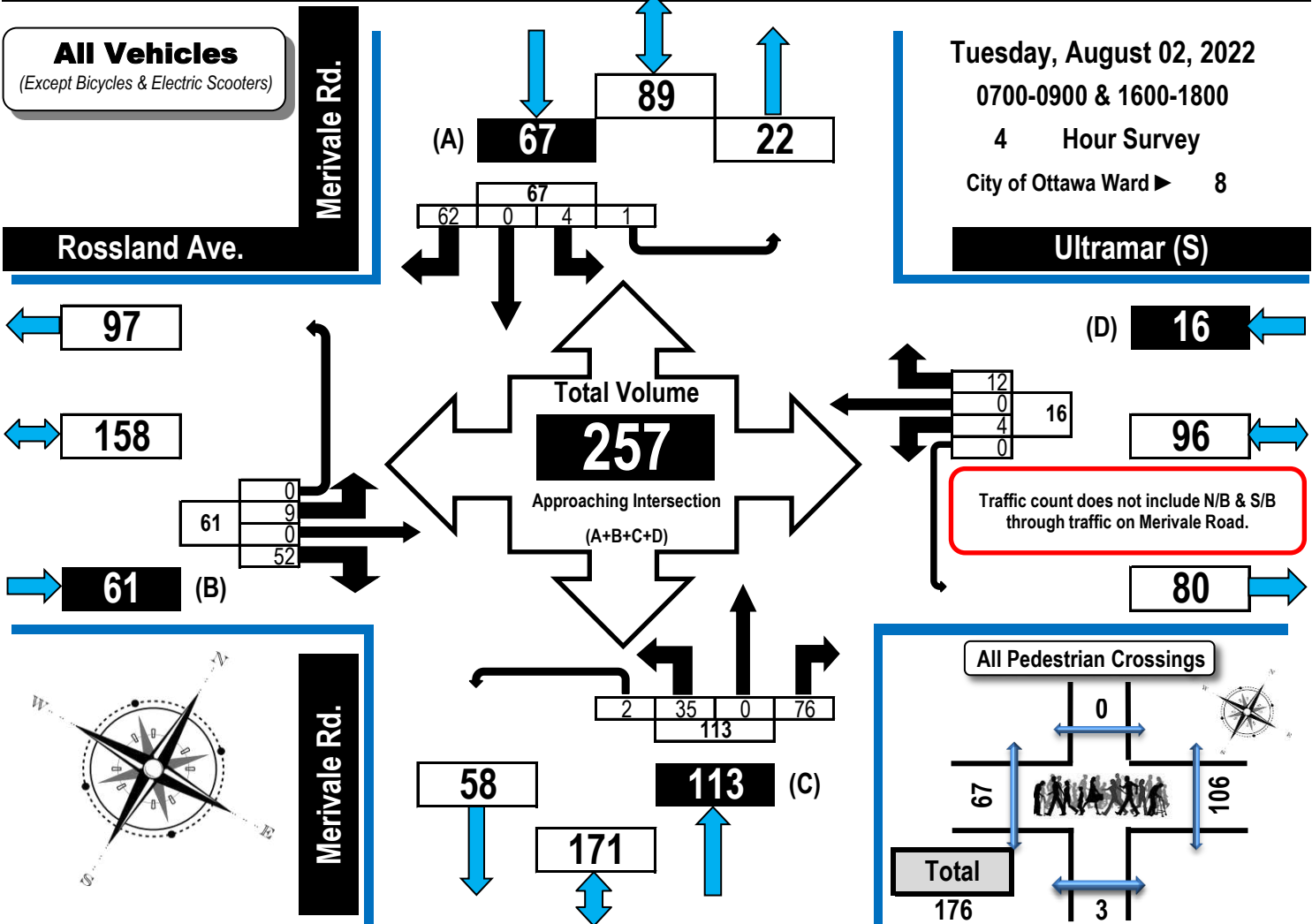
Summary, AM and PM Peak Hour

Flow Diagrams

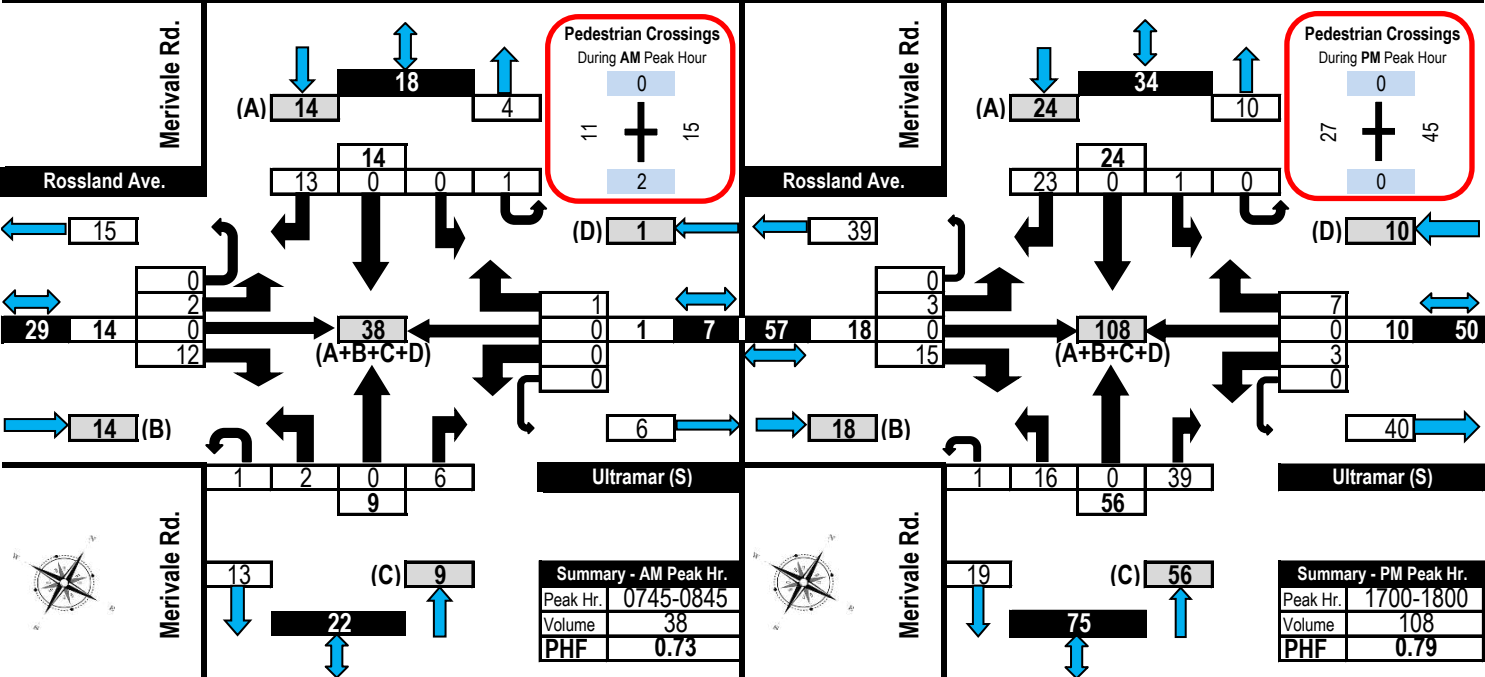
All Vehicles Except Bicycles



Merivale Road & Rossland Avenue Nepean, ON



AM Peak Hour Flow Diagram PM Peak Hour Flow Diagram

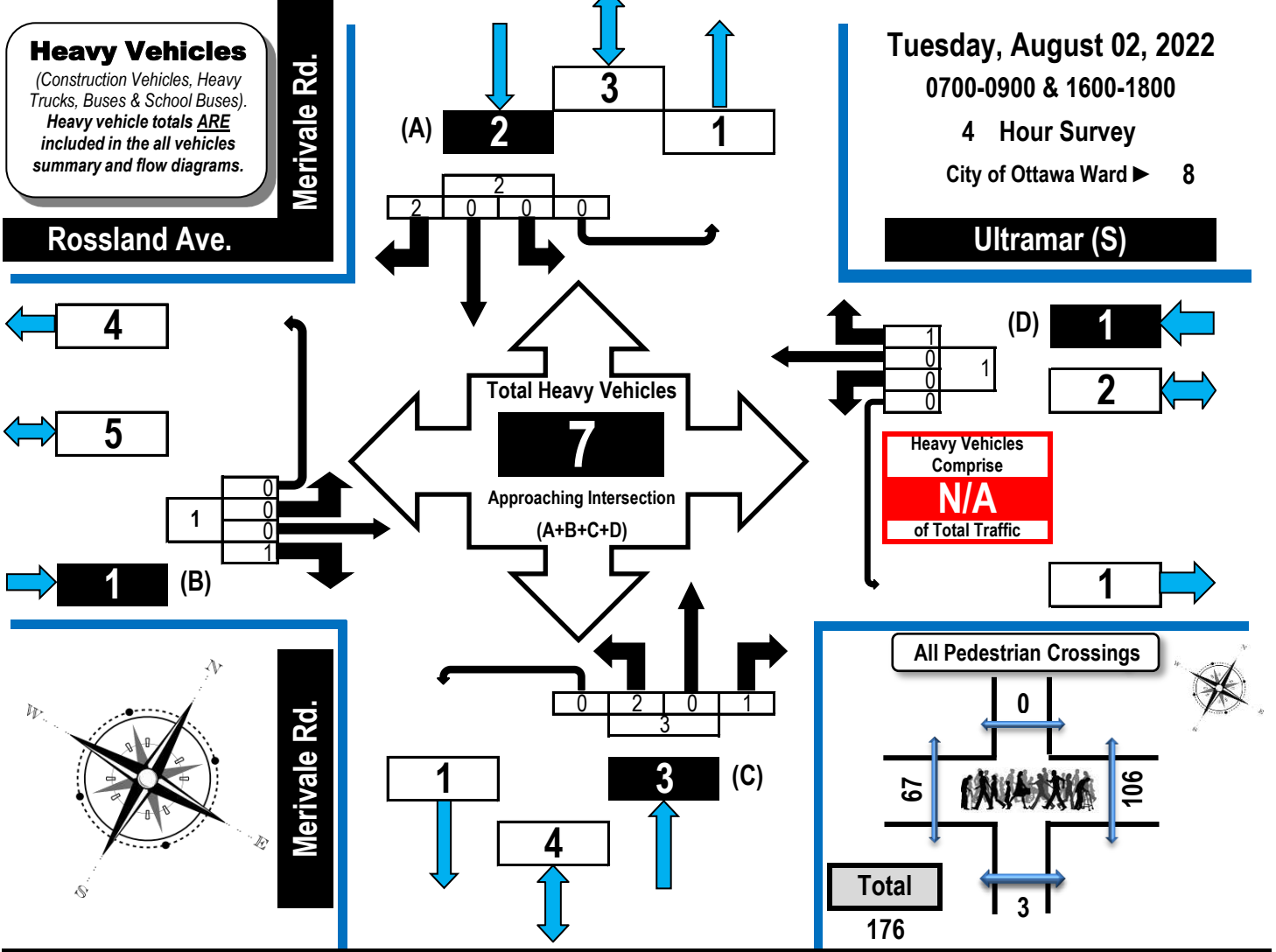




Turning Movement Count Heavy Vehicle Summary (FHWA Class 4-13) Flow Diagram



Merivale Road & Rossland Avenue Nepean, ON



Time Period	Rossland Ave. Eastbound					Ultramar (S) Westbound					Merivale Rd. Northbound					Merivale Rd. Southbound					SB Tot	GR Tot
	LT	ST	RT	UT	EB Tot	LT	ST	RT	UT	WB Tot	LT	ST	RT	UT	NB Tot	LT	ST	RT	UT			
0700-0800	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	3
0800-0900	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	0	2
1600-1700	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
1700-1800	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
Totals	0	0	1	0	1	0	0	1	0	1	2	0	1	0	3	0	0	2	0	2	2	7

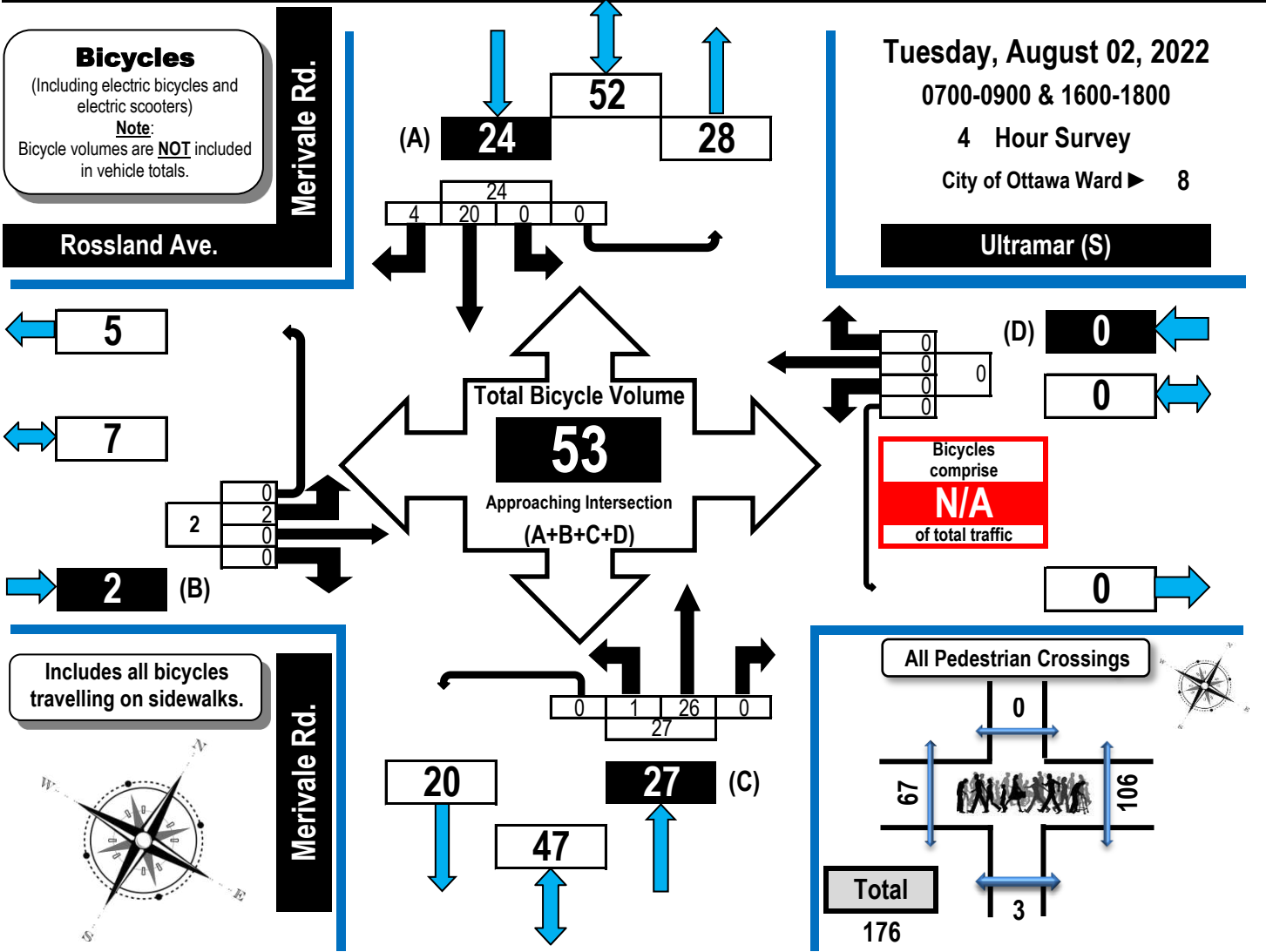
Traffic count does not include N/B & S/B through traffic on Merivale Road.

Comments:
This traffic count does not include N/B and S/B through traffic on Merivale Road but does include all bicycle movements and all pedestrian crossings. Accordingly, the peak hours do not reflect the total traffic at this intersection. The majority of turns to Rossland Avenue turn into the Shell gas station.

Turning Movement Count Bicycle Summary Flow Diagram



Merivale Road & Rosland Avenue Nepean, ON



Time Period	Rosland Ave. Eastbound				Ultramar (S) Westbound				Merivale Rd. Northbound				Merivale Rd. Southbound				GR Tot
	LT	ST	RT	UT	LT	ST	RT	UT	LT	ST	RT	UT	LT	ST	RT	UT	
0700-0800	0	0	0	0	0	0	0	0	0	6	0	0	0	4	1	0	11
0800-0900	2	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	6
1600-1700	0	0	0	0	0	0	0	0	0	12	0	0	0	7	0	0	19
1700-1800	0	0	0	0	0	0	0	0	1	8	0	0	0	6	2	0	17
Totals	2	0	0	0	0	0	0	0	1	26	0	0	27	20	4	0	53

Comments:

This traffic count does not include N/B and S/B through traffic on Merivale Road but does include all bicycle movements and all pedestrian crossings. Accordingly, the peak hours do not reflect the total traffic at this intersection. The majority of turns to Rosland Avenue turn into the Shell gas station.

Turning Movement Count Pedestrian Crossings Summary and Flow Diagram



Merivale Road & Rossland Avenue

Nepean, ON

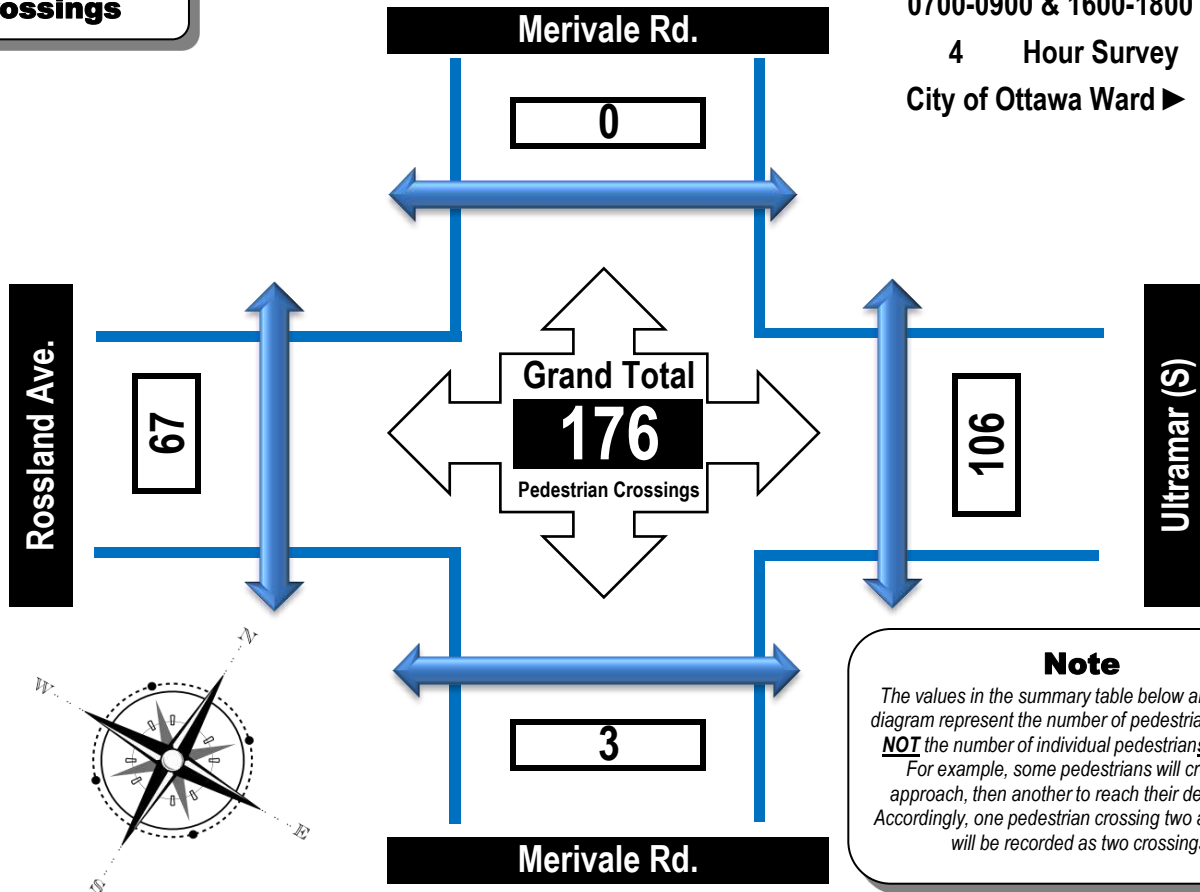
**Pedestrian
Crossings**

Tuesday, August 02, 2022

0700-0900 & 1600-1800

4 Hour Survey

City of Ottawa Ward ▶ 8



Note
The values in the summary table below and the flow diagram represent the number of pedestrian crossings NOT the number of individual pedestrians crossing. For example, some pedestrians will cross one approach, then another to reach their destination. Accordingly, one pedestrian crossing two approaches will be recorded as two crossings.

Time Period	West Side Crossing Rossland Ave.	East Side Crossing Ultramar (S)	Street Total	South Side Crossing Merivale Rd.	North Side Crossing Merivale Rd.	Street Total	Grand Total
0700-0800	10	11	21	2	0	2	23
0800-0900	8	16	24	1	0	1	25
1600-1700	22	34	56	0	0	0	56
1700-1800	27	45	72	0	0	0	72
Totals	67	106	173	3	0	3	176

Comments:

This traffic count does not include N/B and S/B through traffic on Merivale Road but does include all bicycle movements and all pedestrian crossings. Accordingly, the peak hours do not reflect the total traffic at this intersection. The majority of turns to Rossland Avenue turn into the Shell gas station.

Turning Movement Count - Study Results

MERIVALE RD @ CAPILANO DR/WITHROW AVE

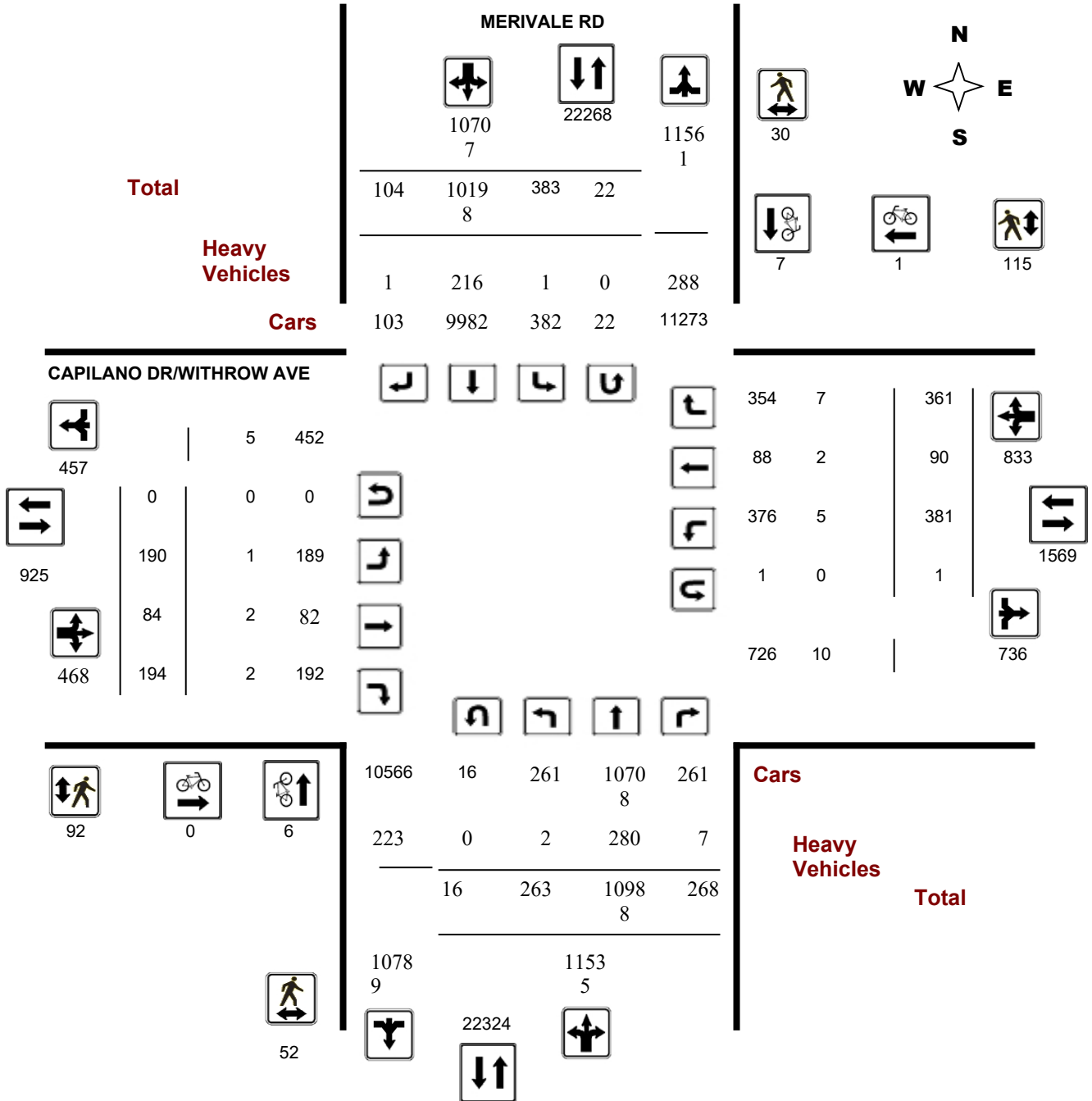
Survey Date: Wednesday, February 21, 2018

WO No: 37551

Start Time: 07:00

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

MERIVALE RD @ CAPILANO DR/WITHROW AVE

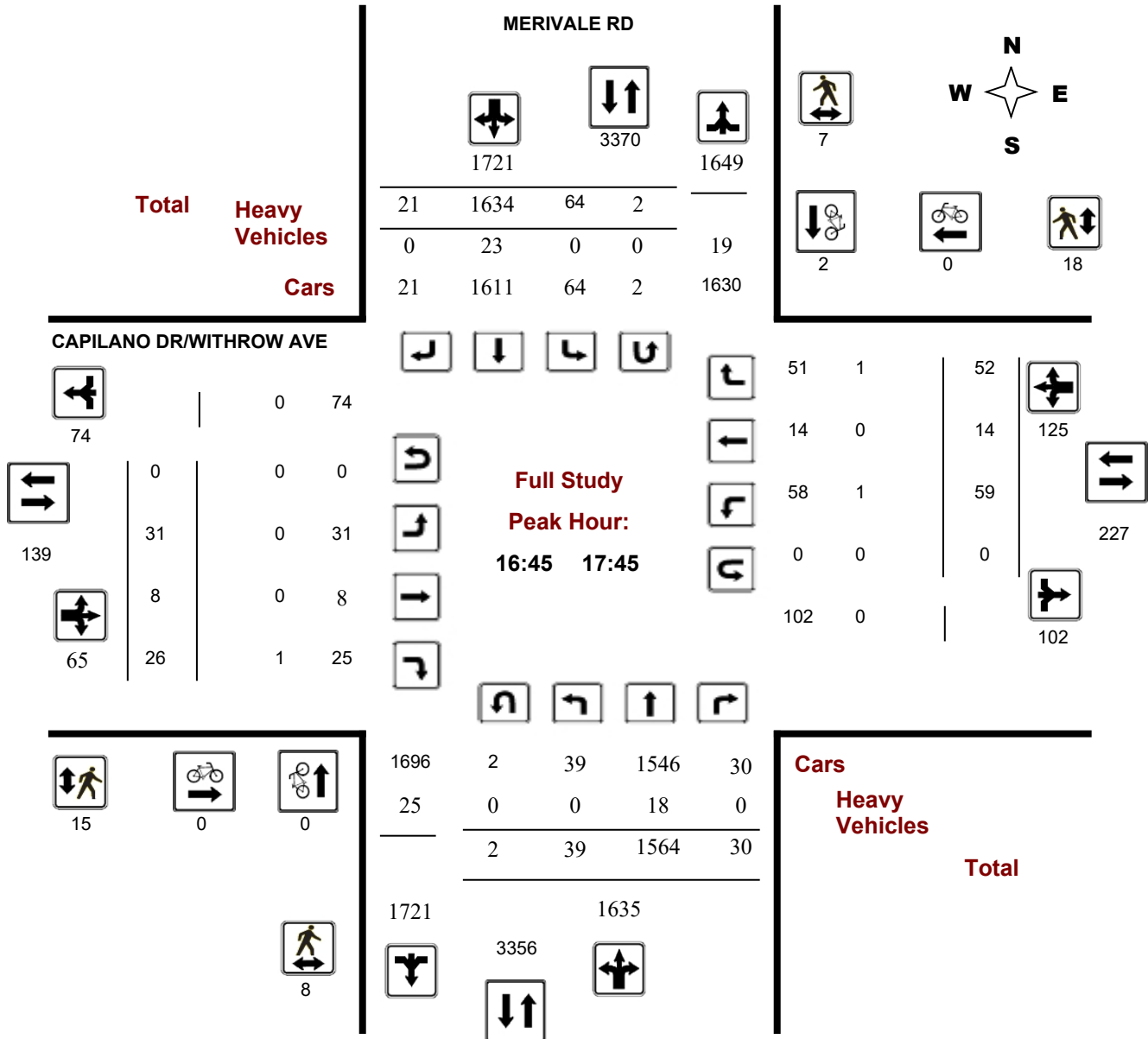
Survey Date: Wednesday, February 21, 2018

WO No: 37551

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Peak Hour Diagram

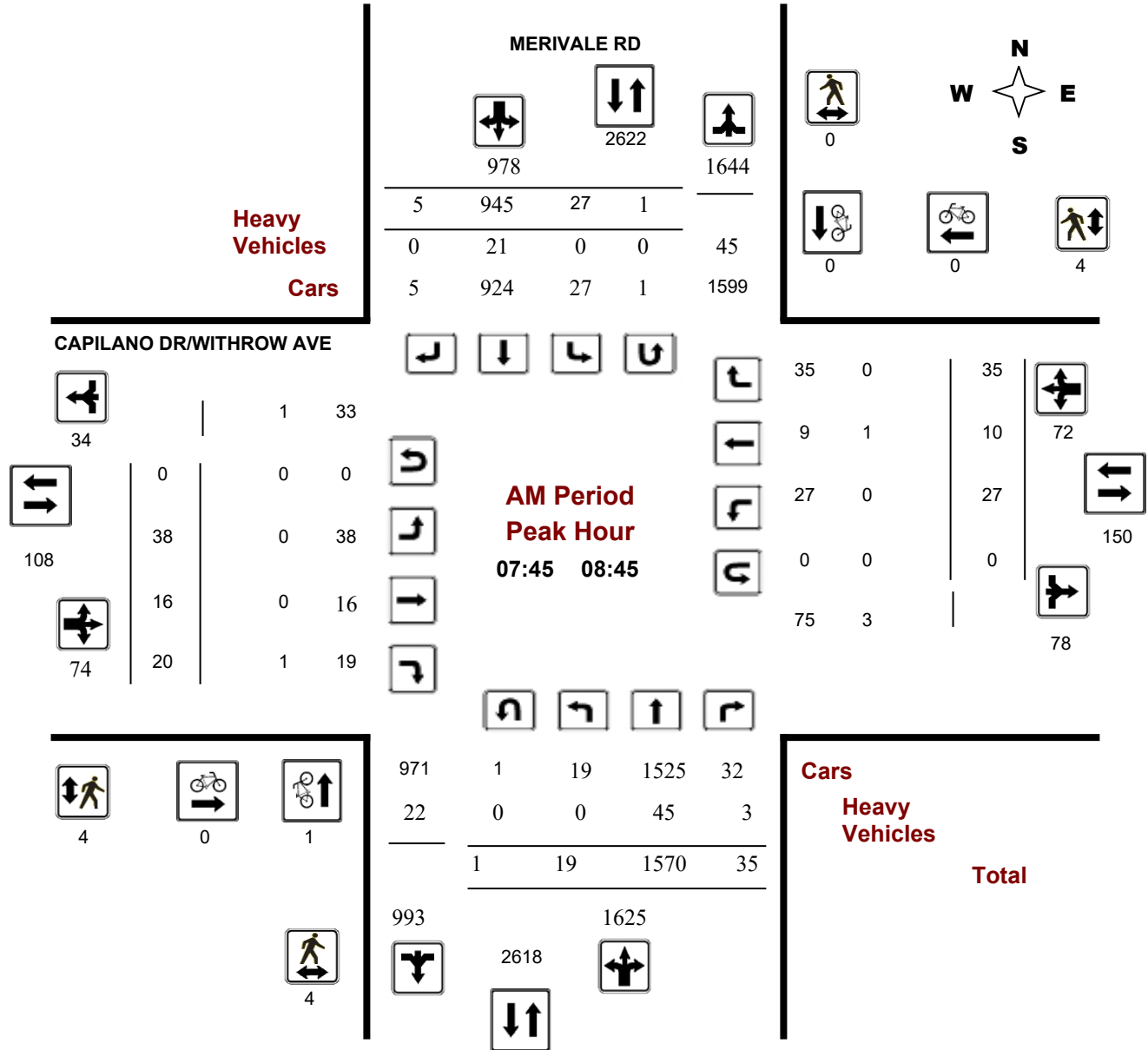
MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018

Start Time: 07:00

WO No: 37551

Device: Miovision



Turning Movement Count - Peak Hour Diagram

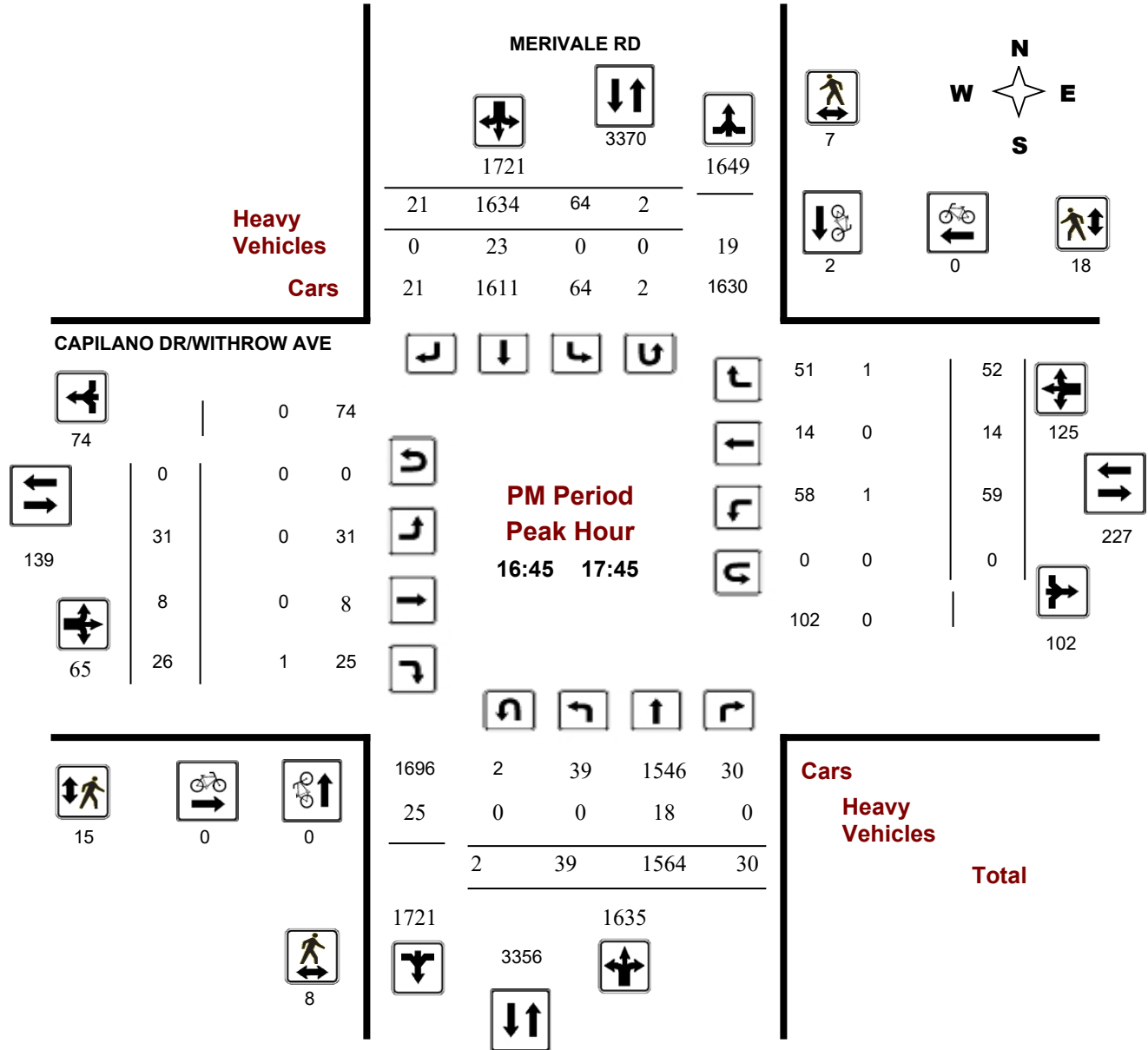
MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018

Start Time: 07:00

WO No: 37551

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018

WO No: 37551

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, February 21, 2018

Total Observed U-Turns
 Northbound: 16 Southbound: 22
 Eastbound: 0 Westbound: 1

AADT Factor
 1.00

MERIVALE RD

CAPILANO DR/WITHROW AVE

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total
	LT	ST	RT	NB TOT	STR TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	STR TOT	LT	ST	RT	WB TOT	STR TOT	
07:00 08:00	12	1278	23	1313	2141	17	807	4	828	2141	24	4	20	48	2141	20	1	25	46	94	2235
08:00 09:00	22	1525	29	1576	2588	32	976	4	1012	2588	33	18	18	69	2588	21	15	32	68	137	2725
09:00 10:00	16	1084	24	1124	2294	44	1113	13	1170	2294	17	8	27	52	2294	37	7	44	88	140	2434
11:30 12:30	48	1324	36	1408	2864	60	1384	12	1456	2864	16	15	33	64	2864	67	4	37	108	172	3036
12:30 13:30	37	1336	37	1410	2753	45	1281	17	1343	2753	23	12	26	61	2753	56	14	64	134	195	2948
15:00 16:00	41	1448	42	1531	3081	62	1474	14	1550	3081	22	8	19	49	3081	64	16	54	134	183	3264
16:00 17:00	45	1480	44	1569	3239	55	1591	24	1670	3239	27	12	26	65	3239	60	17	56	133	198	3437
17:00 18:00	42	1513	33	1588	3244	68	1572	16	1656	3244	28	7	25	60	3244	56	16	49	121	181	3425
Sub Total	263	10988	268	11519	22204	383	10198	104	10685	22204	190	84	194	468	22204	381	90	361	832	1300	23504
U Turns	16			16	38	22			22	38	0			0	38	1			1	1	39
Total	279	10988	268	11535	22242	405	10198	104	10707	22242	190	84	194	468	22242	382	90	361	833	1301	23543
EQ 12Hr	388	15273	373	16034	30917	563	14175	145	14883	30917	264	117	270	651	30917	531	125	502	1158	1809	32726
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.																			1.39		
AVG 12Hr	388	15273	373	16034	30917	563	14175	145	14883	30917	264	117	270	651	30917	531	125	502	1158	1809	32726
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.																			1.00		
AVG 24Hr	508	20008	489	21005	40502	738	18569	190	19497	40502	346	153	354	853	40502	696	164	658	1518	2371	42873
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

MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018

WO No: 37551

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

MERIVALE RD

CAPILANO DR/WITHROW 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	2	258	4	264	3	168	0	171	435	1	0	3	4	3	0	4	7	11	446
07:15 07:30	2	288	4	294	3	198	2	203	497	3	0	5	8	2	0	4	6	14	511
07:30 07:45	4	338	5	347	7	209	1	217	564	8	1	5	14	5	1	7	13	27	591
07:45 08:00	4	394	10	408	5	232	1	238	646	12	3	7	22	10	0	10	20	42	688
08:00 08:15	7	393	10	410	6	220	1	227	637	11	7	6	24	4	2	9	15	39	676
08:15 08:30	6	412	6	424	9	252	2	263	687	10	3	4	17	10	4	2	16	33	720
08:30 08:45	3	371	9	383	8	241	1	250	633	5	3	3	11	3	4	14	21	32	665
08:45 09:00	7	349	4	360	10	263	0	273	633	7	5	5	17	4	5	7	16	33	666
09:00 09:15	6	278	4	288	16	255	4	275	563	5	4	9	18	11	3	6	20	38	601
09:15 09:30	6	280	8	294	10	277	2	289	583	1	1	6	8	7	3	12	22	30	613
09:30 09:45	5	259	5	269	9	283	1	293	562	8	2	5	15	11	0	14	25	40	602
09:45 10:00	3	267	7	277	10	298	6	314	591	3	1	7	11	9	1	12	22	33	624
11:30 11:45	10	353	6	369	15	326	1	342	711	7	3	9	19	13	3	11	27	46	757
11:45 12:00	17	318	14	349	18	334	2	354	703	4	6	9	19	18	0	12	30	49	752
12:00 12:15	12	304	5	321	13	357	5	375	696	3	2	6	11	14	0	6	20	31	727
12:15 12:30	11	349	11	371	17	367	4	388	759	2	4	9	15	22	1	8	31	46	805
12:30 12:45	9	327	12	348	12	326	4	342	690	9	6	8	23	17	5	9	31	54	744
12:45 13:00	9	324	11	344	17	326	5	348	692	7	3	7	17	10	3	15	28	45	737
13:00 13:15	11	350	7	368	16	329	1	346	714	6	2	6	14	12	1	25	38	52	766
13:15 13:30	10	335	7	352	7	300	7	314	666	1	1	5	7	17	5	15	37	44	710
15:00 15:15	11	380	12	403	16	376	1	393	796	4	3	5	12	15	3	21	39	51	847
15:15 15:30	15	377	6	398	13	355	4	372	770	6	1	7	14	17	5	15	37	51	821
15:30 15:45	10	366	13	389	21	386	5	412	801	7	1	1	9	14	2	7	23	32	833
15:45 16:00	8	325	11	344	15	357	4	376	720	5	3	6	14	18	6	11	35	49	769
16:00 16:15	16	337	14	367	17	391	5	413	780	8	1	7	16	14	5	12	31	47	827
16:15 16:30	13	400	10	423	8	400	10	418	841	4	6	6	16	15	5	13	33	49	890
16:30 16:45	9	372	10	391	21	383	3	407	798	7	3	10	20	12	3	20	35	55	853
16:45 17:00	10	371	10	391	12	417	6	435	826	8	2	3	13	19	4	11	34	47	873
17:00 17:15	7	395	6	408	21	407	8	436	844	6	2	7	15	12	3	17	32	47	891
17:15 17:30	12	399	7	418	19	433	5	457	875	10	1	10	21	12	4	13	29	50	925
17:30 17:45	12	399	7	418	14	377	2	393	811	7	3	6	16	16	3	11	30	46	857
17:45 18:00	12	320	13	345	17	355	1	373	718	5	1	2	8	16	6	8	30	38	756
Total:	279	1098	268	1153	405	10198	104	10707	22242	190	84	194	468	382	90	361	833	22242	23,543

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018

WO No: 37551

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

MERIVALE RD

CAPILANO DR/WITHROW AVE

Time Period	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00 07:15	1	0	1	0	0	0	1
07:15 07:30	0	0	0	0	0	0	0
07:30 07:45	0	0	0	0	0	0	0
07:45 08:00	0	0	0	0	0	0	0
08:00 08:15	0	0	0	0	0	0	0
08:15 08:30	1	0	1	0	0	0	1
08:30 08:45	0	0	0	0	0	0	0
08:45 09:00	0	0	0	0	0	0	0
09:00 09:15	0	0	0	0	0	0	0
09:15 09:30	0	0	0	0	0	0	0
09:30 09:45	0	0	0	0	0	0	0
09:45 10:00	0	0	0	0	0	0	0
11:30 11:45	0	0	0	0	0	0	0
11:45 12:00	0	0	0	0	0	0	0
12:00 12:15	0	1	1	0	0	0	1
12:15 12:30	0	0	0	0	0	0	0
12:30 12:45	1	0	1	0	0	0	1
12:45 13:00	1	0	1	0	0	0	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	0	0	0	0	0	0	0
15:15 15:30	0	0	0	0	0	0	0
15:30 15:45	1	0	1	0	0	0	1
15:45 16:00	0	1	1	0	0	0	1
16:00 16:15	0	2	2	0	0	0	2
16:15 16:30	0	0	0	0	0	0	0
16:30 16:45	1	1	2	0	1	1	3
16:45 17:00	0	1	1	0	0	0	1
17:00 17:15	0	0	0	0	0	0	0
17:15 17:30	0	0	0	0	0	0	0
17:30 17:45	0	1	1	0	0	0	1
17:45 18:00	0	0	0	0	0	0	0
Total	6	7	13	0	1	1	14



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018

WO No: 37551

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

MERIVALE RD

CAPILANO DR/WITHROW 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	0	0	2	2	4	4
07:15 07:30	0	0	0	0	2	2	2
07:30 07:45	2	0	2	2	3	5	7
07:45 08:00	0	0	0	2	1	3	3
08:00 08:15	1	0	1	0	0	0	1
08:15 08:30	2	0	2	2	2	4	6
08:30 08:45	1	0	1	0	1	1	2
08:45 09:00	0	0	0	0	0	0	0
09:00 09:15	0	0	0	0	3	3	3
09:15 09:30	1	0	1	1	6	7	8
09:30 09:45	1	0	1	3	0	3	4
09:45 10:00	4	0	4	4	1	5	9
11:30 11:45	1	0	1	3	2	5	6
11:45 12:00	1	2	3	9	2	11	14
12:00 12:15	0	0	0	4	2	6	6
12:15 12:30	6	1	7	5	3	8	15
12:30 12:45	1	0	1	0	9	9	10
12:45 13:00	3	4	7	5	3	8	15
13:00 13:15	1	2	3	1	4	5	8
13:15 13:30	0	1	1	4	4	8	9
15:00 15:15	0	3	3	9	5	14	17
15:15 15:30	2	0	2	4	4	8	10
15:30 15:45	1	1	2	4	6	10	12
15:45 16:00	1	2	3	1	4	5	8
16:00 16:15	7	3	10	5	13	18	28
16:15 16:30	4	3	7	4	10	14	21
16:30 16:45	3	0	3	3	2	5	8
16:45 17:00	2	2	4	6	6	12	16
17:00 17:15	2	3	5	2	6	8	13
17:15 17:30	1	2	3	4	5	9	12
17:30 17:45	3	0	3	3	1	4	7
17:45 18:00	1	1	2	0	3	3	5
Total	52	30	82	92	115	207	289



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018

WO No: 37551

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

MERIVALE RD

CAPILANO DR/WITHROW AVE

Northbound

Southbound

Eastbound

Westbound

Time Period	Northbound			N TOT	Southbound			S TOT	STR TOT	Eastbound			E TOT	Westbound			W TOT	STR TOT	Grand Total
	LT	ST	RT		LT	ST	RT			LT	ST	RT		LT	ST	RT			
07:00 07:15	0	14	0	14	0	7	0	7	21	0	0	0	0	0	0	0	0	0	21
07:15 07:30	0	11	1	12	0	9	1	10	22	0	0	0	0	1	0	0	1	1	23
07:30 07:45	0	11	0	11	0	8	0	8	19	0	1	0	1	0	0	0	0	1	20
07:45 08:00	0	10	1	11	0	3	0	3	14	0	0	0	0	0	0	0	0	0	14
08:00 08:15	0	8	1	9	0	5	0	5	14	0	0	0	0	0	0	0	0	0	14
08:15 08:30	0	13	0	13	0	7	0	7	20	0	0	0	0	0	0	0	0	0	20
08:30 08:45	0	14	1	15	0	6	0	6	21	0	0	1	1	0	1	0	1	2	23
08:45 09:00	0	9	0	9	0	5	0	5	14	0	0	0	0	0	0	0	0	0	14
09:00 09:15	0	15	0	15	0	11	0	11	26	0	0	0	0	0	0	0	0	0	26
09:15 09:30	0	12	1	13	0	11	0	11	24	0	0	0	0	2	0	0	2	2	26
09:30 09:45	1	9	0	10	0	6	0	6	16	0	0	0	0	0	0	2	2	2	18
09:45 10:00	0	5	0	5	0	11	0	11	16	0	0	0	0	0	0	0	0	0	16
11:30 11:45	0	9	0	9	0	2	0	2	11	1	0	0	1	0	0	0	0	1	12
11:45 12:00	0	9	0	9	0	12	0	12	21	0	1	0	1	0	0	0	0	1	22
12:00 12:15	0	5	0	5	0	9	0	9	14	0	0	0	0	0	0	1	1	1	15
12:15 12:30	0	6	0	6	0	9	0	9	15	0	0	0	0	0	0	0	0	0	15
12:30 12:45	0	12	1	13	0	5	0	5	18	0	0	0	0	0	0	1	1	1	19
12:45 13:00	0	11	0	11	0	8	0	8	19	0	0	0	0	1	0	0	1	1	20
13:00 13:15	0	12	0	12	0	9	0	9	21	0	0	0	0	0	0	0	0	0	21
13:15 13:30	0	10	0	10	0	8	0	8	18	0	0	0	0	0	0	0	0	0	18
15:00 15:15	0	9	0	9	1	6	0	7	16	0	0	0	0	0	0	0	0	0	16
15:15 15:30	0	13	0	13	0	2	0	2	15	0	0	0	0	0	1	0	1	1	16
15:30 15:45	0	5	0	5	0	4	0	4	9	0	0	0	0	0	0	1	1	1	10
15:45 16:00	0	8	1	9	0	6	0	6	15	0	0	0	0	0	0	0	0	0	15
16:00 16:15	1	7	0	8	0	7	0	7	15	0	0	0	0	0	0	0	0	0	15
16:15 16:30	0	3	0	3	0	9	0	9	12	0	0	0	0	0	0	1	1	1	13
16:30 16:45	0	5	0	5	0	5	0	5	10	0	0	0	0	0	0	0	0	0	10
16:45 17:00	0	3	0	3	0	4	0	4	7	0	0	1	1	1	0	0	1	2	9
17:00 17:15	0	6	0	6	0	6	0	6	12	0	0	0	0	0	0	1	1	1	13
17:15 17:30	0	1	0	1	0	7	0	7	8	0	0	0	0	0	0	0	0	0	8
17:30 17:45	0	8	0	8	0	6	0	6	14	0	0	0	0	0	0	0	0	0	14
17:45 18:00	0	7	0	7	0	3	0	3	10	0	0	0	0	0	0	0	0	0	10
Total: None	2	280	7	289	1	216	1	218	507	1	2	2	5	5	2	7	14	19	526



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ CAPILANO DR/WITHROW AVE

Survey Date: Wednesday, February 21, 2018

WO No: 37551

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

MERIVALE RD

CAPILANO DR/WITHROW AVE

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	1	0	0	1
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	1	0	0	0	1
08:15	08:30	0	1	0	0	1
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	3	0	0	1	4
09:15	09:30	1	0	0	0	1
09:30	09:45	0	0	0	0	0
09:45	10:00	0	1	0	0	1
11:30	11:45	0	1	0	0	1
11:45	12:00	2	0	0	0	2
12:00	12:15	0	1	0	0	1
12:15	12:30	0	1	0	0	1
12:30	12:45	0	3	0	0	3
12:45	13:00	0	1	0	0	1
13:00	13:15	2	3	0	0	5
13:15	13:30	0	0	0	0	0
15:00	15:15	1	0	0	0	1
15:15	15:30	1	1	0	0	2
15:30	15:45	1	2	0	0	3
15:45	16:00	0	0	0	0	0
16:00	16:15	1	2	0	0	3
16:15	16:30	1	0	0	0	1
16:30	16:45	0	1	0	0	1
16:45	17:00	1	0	0	0	1
17:00	17:15	0	1	0	0	1
17:15	17:30	1	0	0	0	1
17:30	17:45	0	1	0	0	1
17:45	18:00	0	1	0	0	1
Total		16	22	0	1	39

Turning Movement Count - Study Results

MERIVALE RD @ EMERALD PLAZA SC

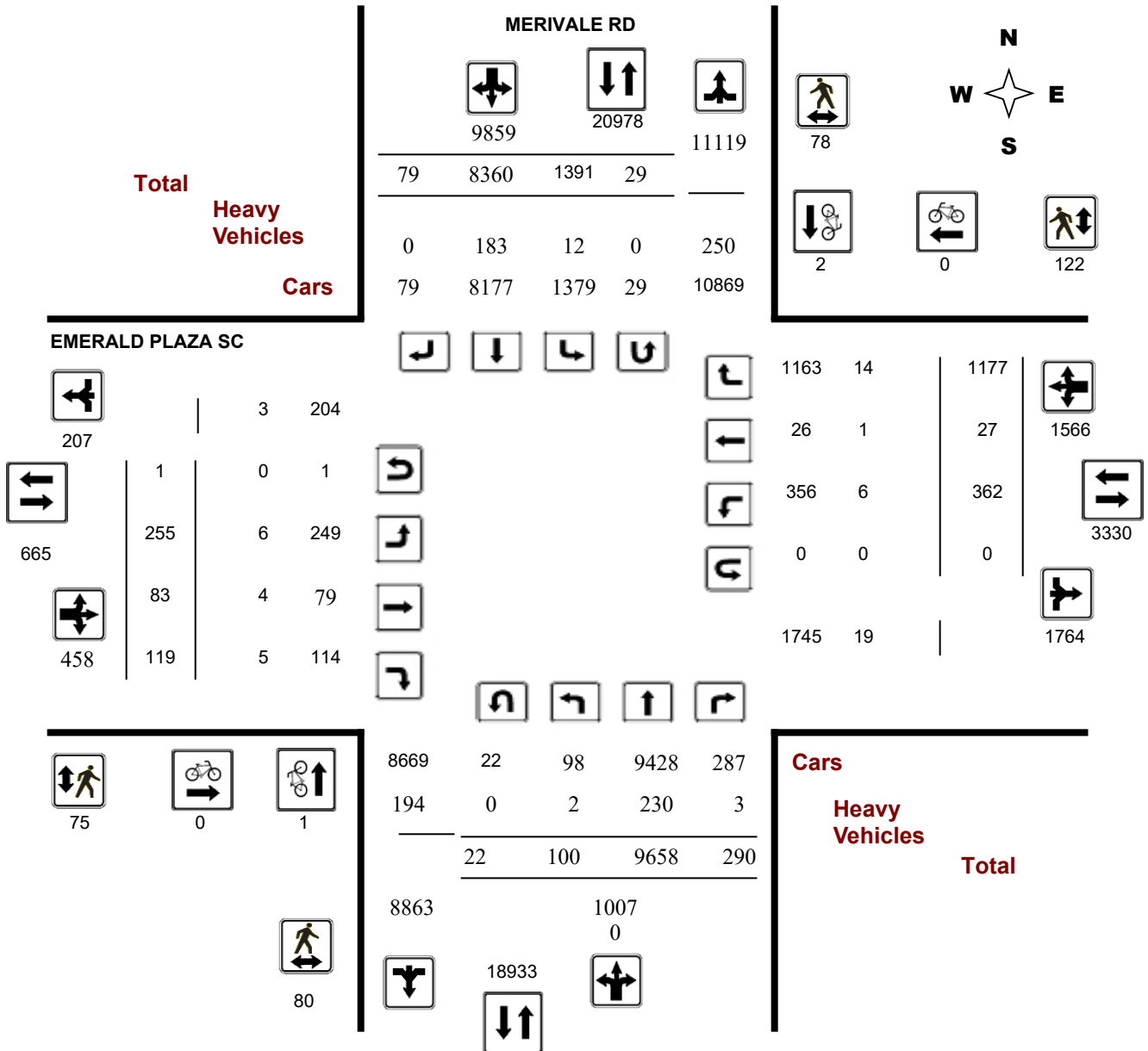
Survey Date: Monday, February 10, 2020

WO No: 39430

Start Time: 07:00

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

MERIVALE RD @ EMERALD PLAZA SC

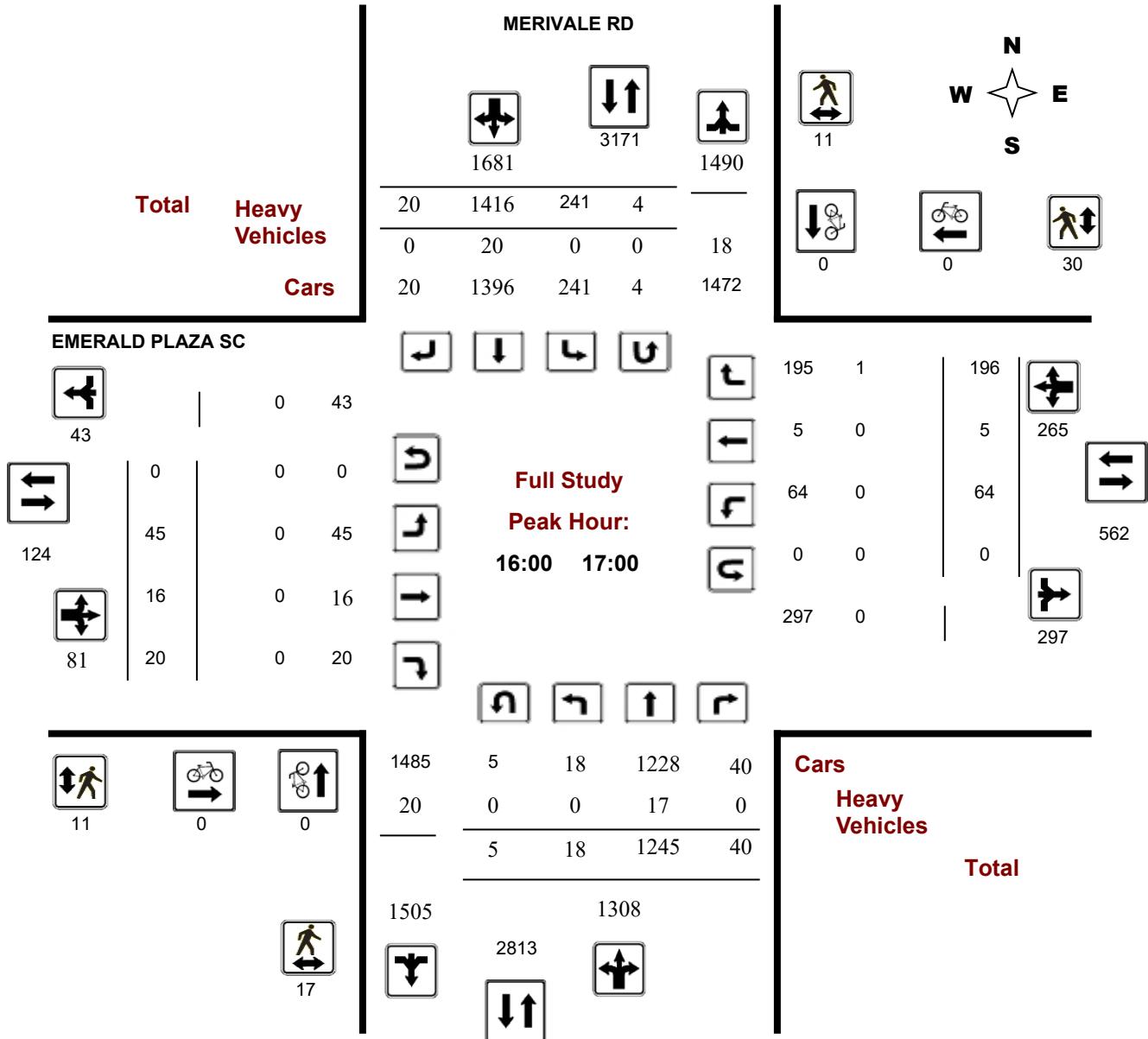
Survey Date: Monday, February 10, 2020

WO No: 39430

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Peak Hour Diagram

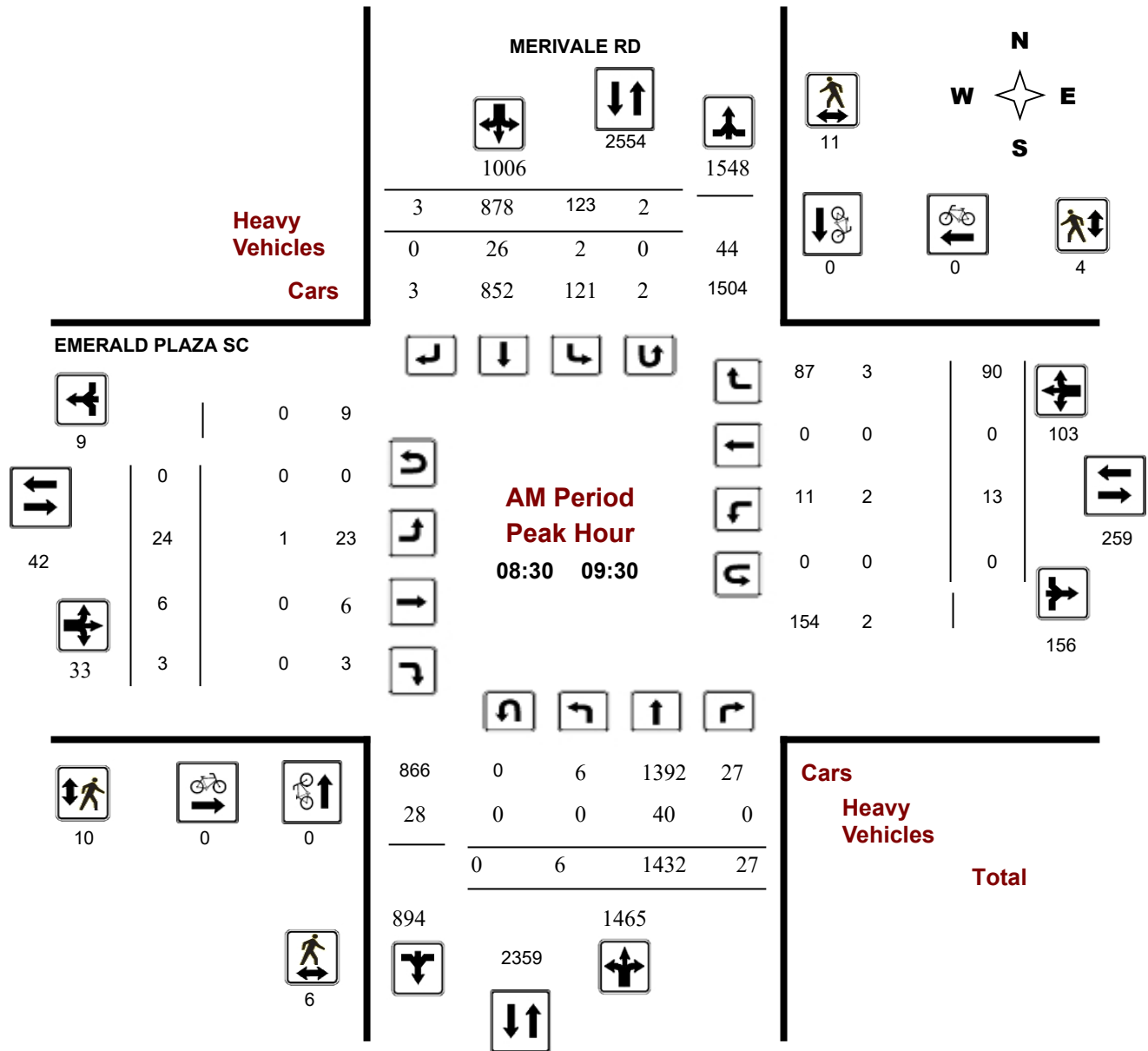
MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020

Start Time: 07:00

WO No: 39430

Device: Miovision



Turning Movement Count - Peak Hour Diagram

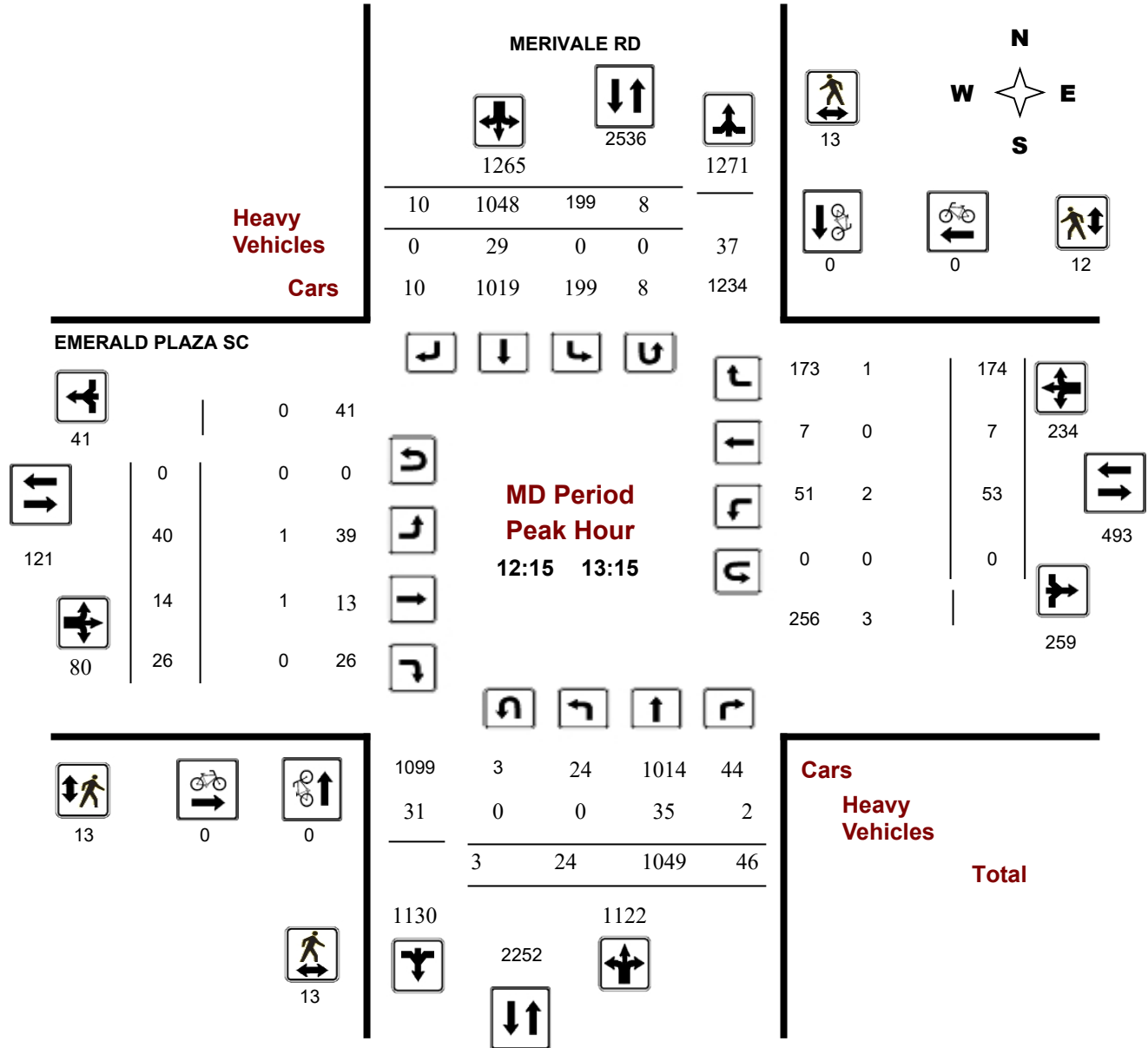
MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020

Start Time: 07:00

WO No: 39430

Device: Miovision



Turning Movement Count - Peak Hour Diagram

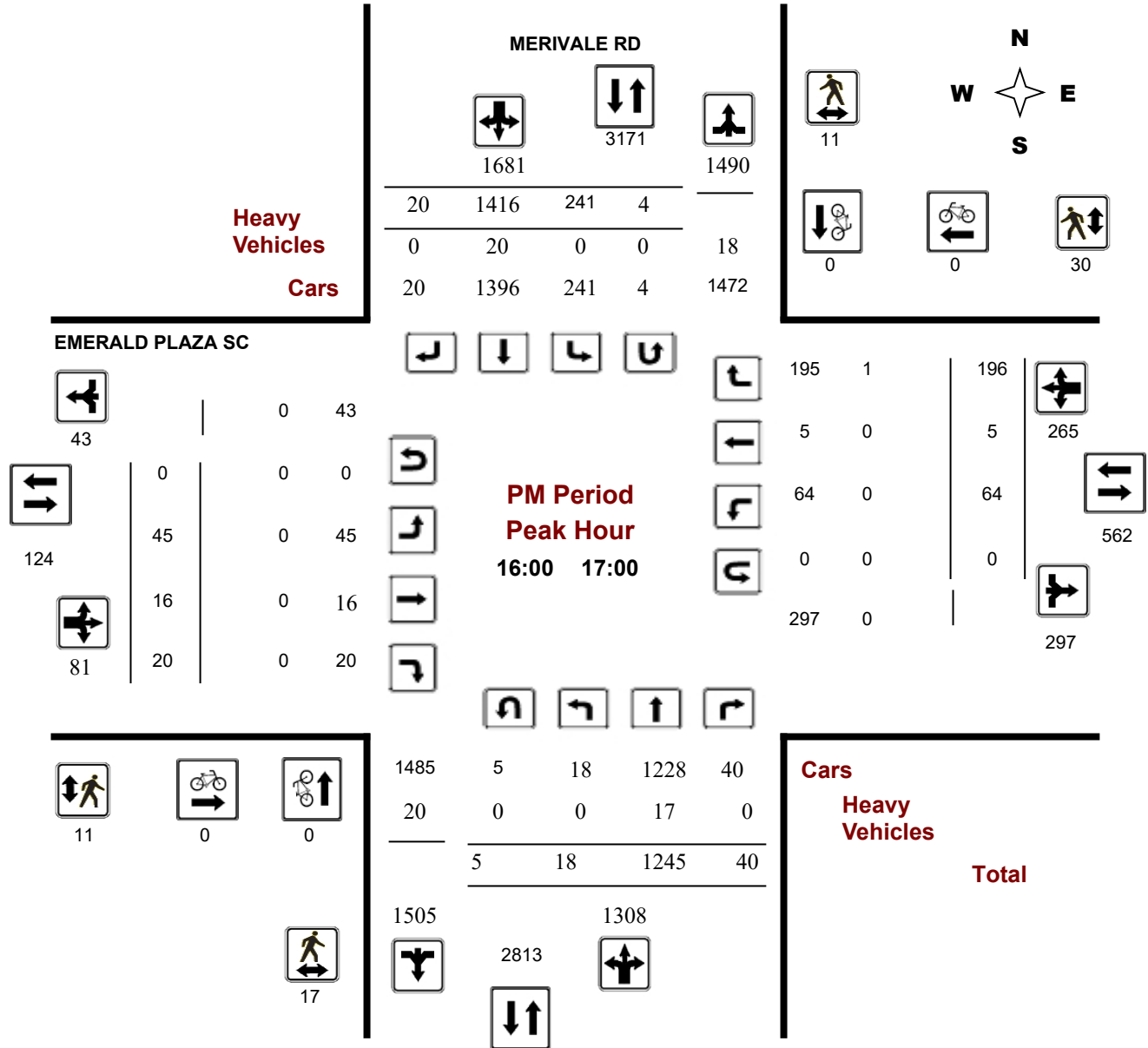
MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020

Start Time: 07:00

WO No: 39430

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020

WO No: 39430

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Monday, February 10, 2020

Total Observed U-Turns

AADT Factor

Northbound: 22 Southbound: 29

1.00

Eastbound: 1 Westbound: 0

MERIVALE RD

EMERALD PLAZA SC

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total
	LT	ST	RT	NB TOT	STR TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	STR TOT	LT	ST	RT	WB TOT	STR TOT	
07:00 08:00	0	1253	5	1258	2004	69	673	4	746	19878	8	3	3	14	255	6	0	46	52	66	2070
08:00 09:00	1	1459	15	1475	2455	91	886	3	980	19878	32	7	1	40	255	9	0	86	95	135	2590
09:00 10:00	11	1298	47	1356	2324	149	816	3	968	19878	19	4	7	30	255	24	1	96	121	151	2475
11:30 12:30	18	998	47	1063	2322	193	1064	2	1259	19878	32	13	22	67	255	60	2	159	221	288	2610
12:30 13:30	29	1041	35	1105	2339	192	1031	11	1234	19878	41	16	26	83	255	51	10	178	239	322	2661
15:00 16:00	7	1147	48	1202	2647	211	1210	24	1445	19878	32	17	22	71	255	64	5	202	271	342	2989
16:00 17:00	18	1245	40	1303	2980	241	1416	20	1677	19878	45	16	20	81	255	64	5	196	265	346	3326
17:00 18:00	16	1217	53	1286	2807	245	1264	12	1521	19878	46	7	18	71	255	84	4	214	302	373	3180
Sub Total	100	9658	290	10048	19878	1391	8360	79	9830	19878	255	83	119	457	19878	362	27	1177	1566	2023	21901
U Turns	22			22	51	29			29	51	1			1	0				0	1	52
Total	122	9658	290	10070	19929	1420	8360	79	9859	19929	256	83	119	458	19929	362	27	1177	1566	2024	21953

EQ 12Hr 170 13425 403 13998 1974 11620 110 13704 27702 356 115 165 636 503 38 1636 2177 2813 30515
 Note: These values are calculated by multiplying the totals by the appropriate expansion factor. **1.39**

AVG 12Hr 170 13425 403 13998 1974 11620 110 13704 27702 356 115 165 636 503 38 1636 2177 2813 30515
 Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor. **1.00**

AVG 24Hr 223 17587 528 18338 2586 15222 144 17952 36290 466 151 216 833 659 50 2143 2852 3685 39975
 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

MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020

WO No: 39430

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

MERIVALE RD

EMERALD PLAZA SC

Time Period	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00 07:15	0	0	0	0	0	0	0
07:15 07:30	0	0	0	0	0	0	0
07:30 07:45	0	0	0	0	0	0	0
07:45 08:00	0	0	0	0	0	0	0
08:00 08:15	0	0	0	0	0	0	0
08:15 08:30	0	0	0	0	0	0	0
08:30 08:45	0	0	0	0	0	0	0
08:45 09:00	0	0	0	0	0	0	0
09:00 09:15	0	0	0	0	0	0	0
09:15 09:30	0	0	0	0	0	0	0
09:30 09:45	0	0	0	0	0	0	0
09:45 10:00	0	0	0	0	0	0	0
11:30 11:45	0	0	0	0	0	0	0
11:45 12:00	0	0	0	0	0	0	0
12:00 12:15	1	0	1	0	0	0	1
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	0	0	0	0
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	0	0	0	0	0	0	0
15:15 15:30	0	1	1	0	0	0	1
15:30 15:45	0	0	0	0	0	0	0
15:45 16:00	0	1	1	0	0	0	1
16:00 16:15	0	0	0	0	0	0	0
16:15 16:30	0	0	0	0	0	0	0
16:30 16:45	0	0	0	0	0	0	0
16:45 17:00	0	0	0	0	0	0	0
17:00 17:15	0	0	0	0	0	0	0
17:15 17:30	0	0	0	0	0	0	0
17:30 17:45	0	0	0	0	0	0	0
17:45 18:00	0	0	0	0	0	0	0
Total	1	2	3	0	0	0	3



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020

WO No: 39430

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

MERIVALE RD

EMERALD PLAZA SC

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	0	0	1	1	2	2
07:15 07:30	0	0	0	0	2	2	2
07:30 07:45	0	2	2	1	1	2	4
07:45 08:00	0	2	2	0	1	1	3
08:00 08:15	0	1	1	2	0	2	3
08:15 08:30	1	2	3	2	0	2	5
08:30 08:45	0	0	0	0	0	0	0
08:45 09:00	2	7	9	8	0	8	17
09:00 09:15	1	2	3	1	4	5	8
09:15 09:30	3	2	5	1	0	1	6
09:30 09:45	1	2	3	3	2	5	8
09:45 10:00	8	6	14	5	5	10	24
11:30 11:45	3	2	5	1	3	4	9
11:45 12:00	2	4	6	1	3	4	10
12:00 12:15	2	6	8	4	2	6	14
12:15 12:30	6	3	9	1	5	6	15
12:30 12:45	0	1	1	1	1	2	3
12:45 13:00	3	4	7	3	3	6	13
13:00 13:15	4	5	9	8	3	11	20
13:15 13:30	3	1	4	3	7	10	14
15:00 15:15	3	2	5	3	5	8	13
15:15 15:30	2	2	4	3	9	12	16
15:30 15:45	4	1	5	1	13	14	19
15:45 16:00	2	5	7	4	3	7	14
16:00 16:15	3	0	3	1	8	9	12
16:15 16:30	0	0	0	6	6	12	12
16:30 16:45	3	5	8	1	9	10	18
16:45 17:00	11	6	17	3	7	10	27
17:00 17:15	3	1	4	1	3	4	8
17:15 17:30	5	2	7	3	7	10	17
17:30 17:45	1	0	1	3	7	10	11
17:45 18:00	4	2	6	0	2	2	8
Total	80	78	158	75	122	197	355



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020

WO No: 39430

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

MERIVALE RD

EMERALD PLAZA SC

Northbound Southbound Eastbound Westbound

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	9	0		0	4	0		13	0	0	0		0	0	0		0	13
07:15 07:30	0	10	0		0	4	0		14	0	0	1		0	0	0		1	15
07:30 07:45	0	6	0		0	4	0		10	0	1	0		0	0	0		1	11
07:45 08:00	0	10	0		0	5	0		15	1	0	1		0	0	1		3	18
08:00 08:15	0	6	0		1	5	0		12	0	0	0		0	0	0		0	12
08:15 08:30	0	12	1		0	3	0		16	0	0	0		0	0	1		1	17
08:30 08:45	0	4	0		0	5	0		9	0	0	0		0	0	1		1	10
08:45 09:00	0	12	0		0	11	0		23	1	0	0		0	0	2		3	26
09:00 09:15	0	12	0		1	5	0		18	0	0	0		1	0	0		1	19
09:15 09:30	0	12	0		1	5	0		18	0	0	0		1	0	0		1	19
09:30 09:45	0	14	0		1	5	0		20	0	1	0		0	0	1		2	22
09:45 10:00	1	5	0		0	9	0		15	0	0	2		0	0	1		3	18
11:30 11:45	0	15	0		0	7	0		22	1	0	0		0	0	0		1	23
11:45 12:00	0	3	0		0	9	0		12	0	0	0		0	0	0		0	12
12:00 12:15	0	6	0		0	8	0		14	0	0	0		0	0	0		0	14
12:15 12:30	0	5	0		0	5	0		10	0	0	0		0	0	1		1	11
12:30 12:45	0	7	1		0	9	0		17	0	1	0		0	0	0		1	18
12:45 13:00	0	9	1		0	9	0		19	0	0	0		2	0	0		2	21
13:00 13:15	0	14	0		0	6	0		20	1	0	0		0	0	0		1	21
13:15 13:30	1	9	0		1	4	0		15	1	0	0		0	0	0		1	16
15:00 15:15	0	2	0		4	9	0		15	0	0	0		1	0	0		1	16
15:15 15:30	0	6	0		0	5	0		11	0	0	1		0	0	1		2	13
15:30 15:45	0	4	0		2	6	0		12	0	1	0		0	1	1		3	15
15:45 16:00	0	4	0		1	8	0		13	0	0	0		0	0	3		3	16
16:00 16:15	0	4	0		0	8	0		12	0	0	0		0	0	0		0	12
16:15 16:30	0	5	0		0	2	0		7	0	0	0		0	0	1		1	8
16:30 16:45	0	4	0		0	4	0		8	0	0	0		0	0	0		0	8
16:45 17:00	0	4	0		0	6	0		10	0	0	0		0	0	0		0	10
17:00 17:15	0	5	0		0	2	0		7	0	0	0		0	0	0		0	7
17:15 17:30	0	6	0		0	4	0		10	1	0	0		0	0	0		1	11
17:30 17:45	0	3	0		0	4	0		7	0	0	0		0	0	0		0	7
17:45 18:00	0	3	0		0	3	0		6	0	0	0		1	0	0		1	7
Total: None	2	230	3	0	12	183	0	0	430	6	4	5	0	6	1	14	0	36	466



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD @ EMERALD PLAZA SC

Survey Date: Monday, February 10, 2020

WO No: 39430

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

MERIVALE RD

EMERALD PLAZA SC

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	2	0	0	2
07:15	07:30	0	1	0	0	1
07:30	07:45	1	0	0	0	1
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	1	0	0	1
08:45	09:00	0	0	0	0	0
09:00	09:15	0	1	0	0	1
09:15	09:30	0	0	0	0	0
09:30	09:45	2	0	0	0	2
09:45	10:00	1	0	0	0	1
11:30	11:45	0	0	0	0	0
11:45	12:00	1	1	0	0	2
12:00	12:15	0	2	0	0	2
12:15	12:30	0	3	0	0	3
12:30	12:45	1	3	0	0	4
12:45	13:00	0	1	0	0	1
13:00	13:15	2	1	0	0	3
13:15	13:30	2	0	0	0	2
15:00	15:15	0	2	0	0	2
15:15	15:30	0	0	0	0	0
15:30	15:45	3	0	0	0	3
15:45	16:00	0	0	1	0	1
16:00	16:15	2	1	0	0	3
16:15	16:30	1	0	0	0	1
16:30	16:45	1	1	0	0	2
16:45	17:00	1	2	0	0	3
17:00	17:15	1	1	0	0	2
17:15	17:30	0	1	0	0	1
17:30	17:45	1	2	0	0	3
17:45	18:00	2	3	0	0	5
Total		22	29	1	0	52

Turning Movement Count - Study Results

MERIVALE RD/LOTTA AVE @ CLYDE AVE

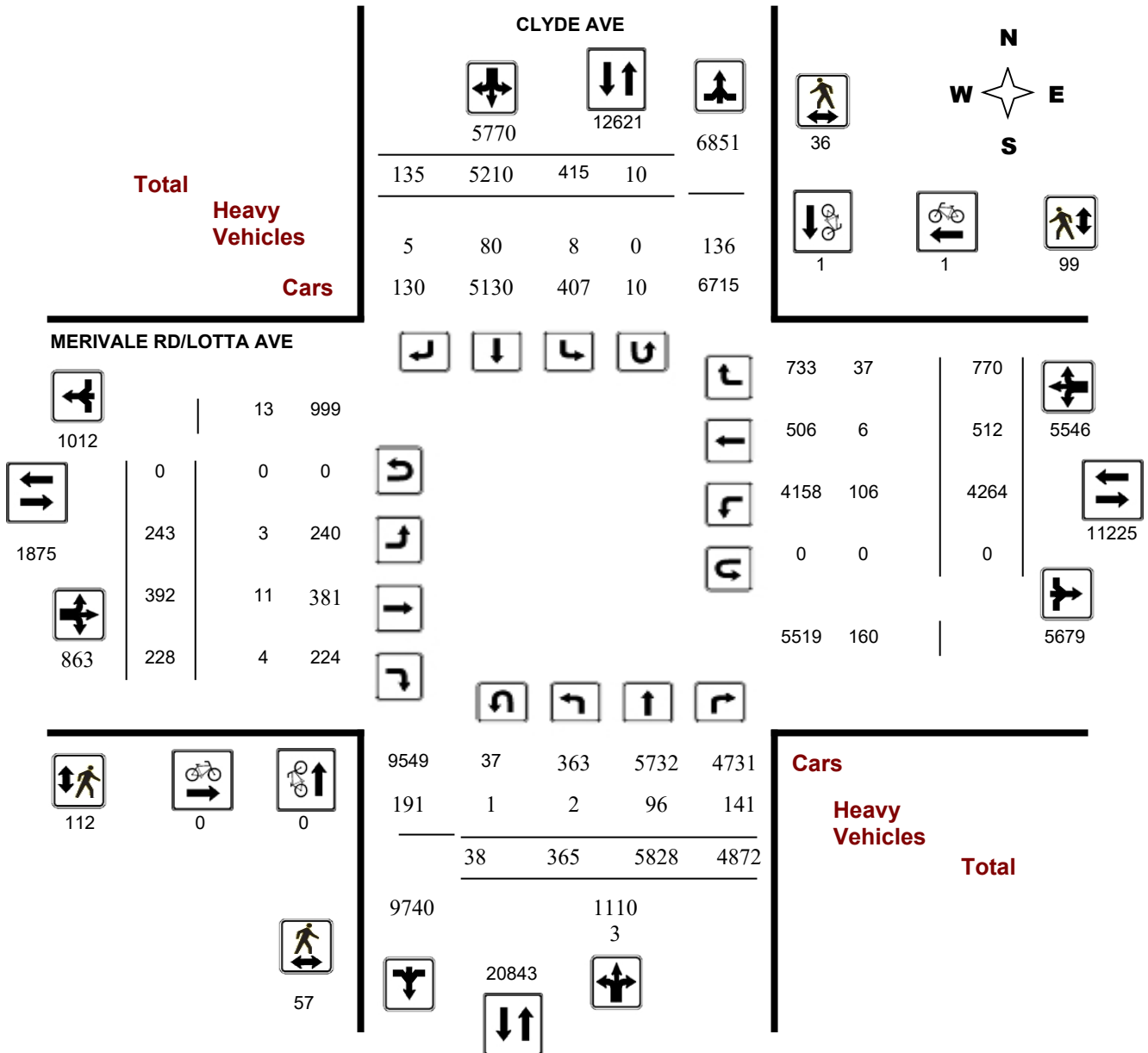
Survey Date: Monday, February 10, 2020

WO No: 39436

Start Time: 07:00

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results MERIVALE RD/LOTTA AVE @ CLYDE AVE

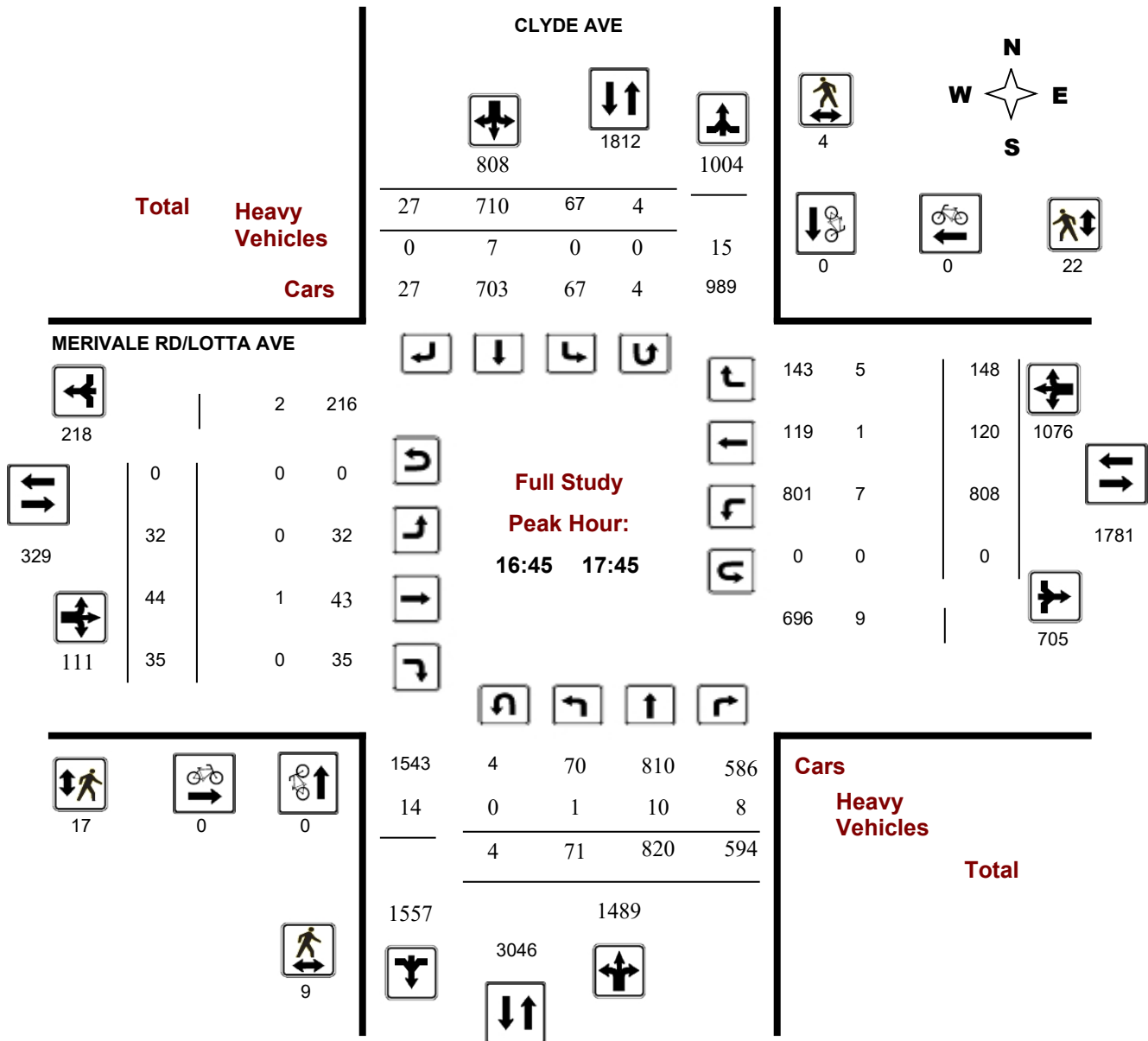
Survey Date: Monday, February 10, 2020

WO No: 39436

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Peak Hour Diagram

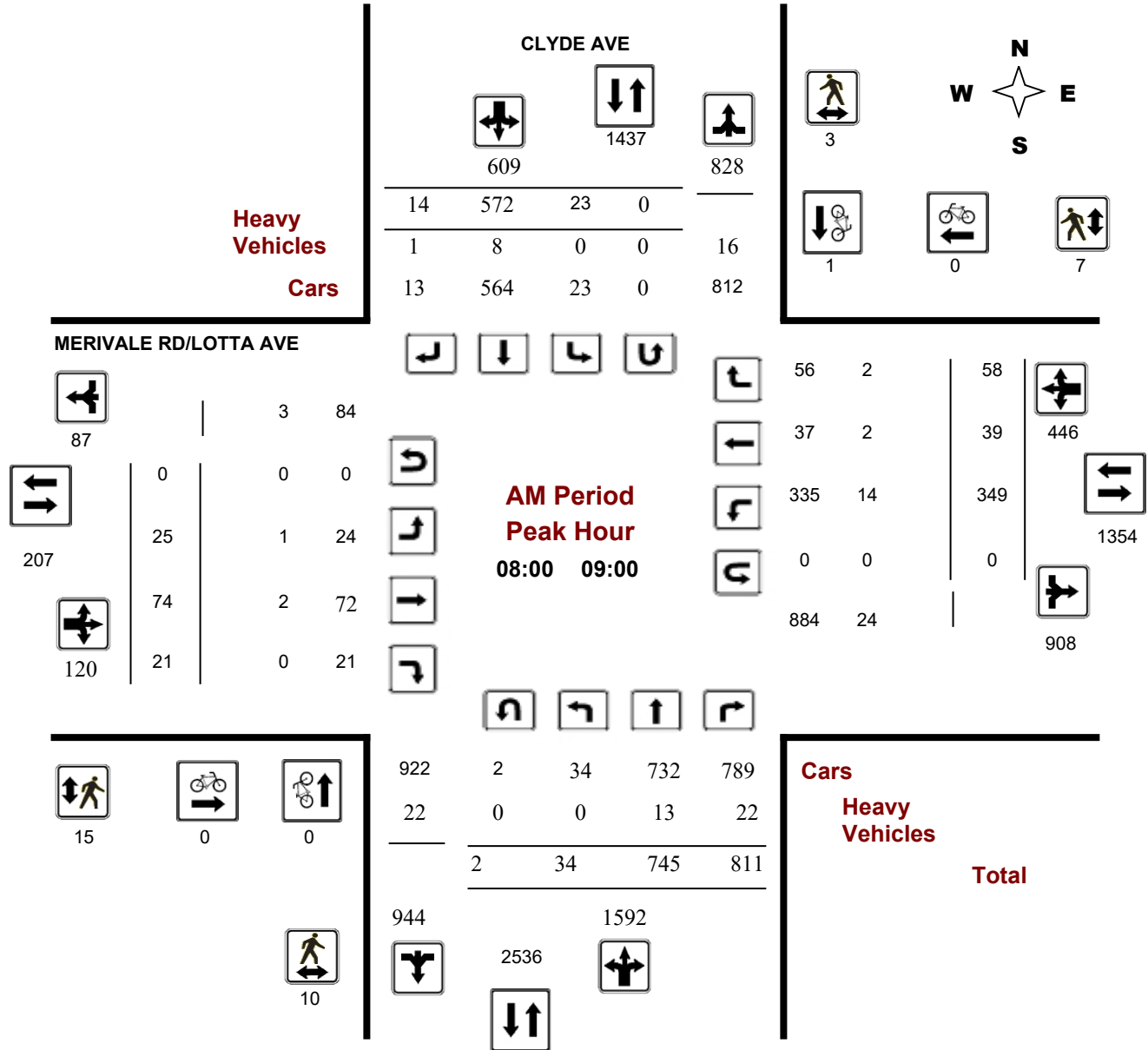
MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020

Start Time: 07:00

WO No: 39436

Device: Miovision



Turning Movement Count - Peak Hour Diagram

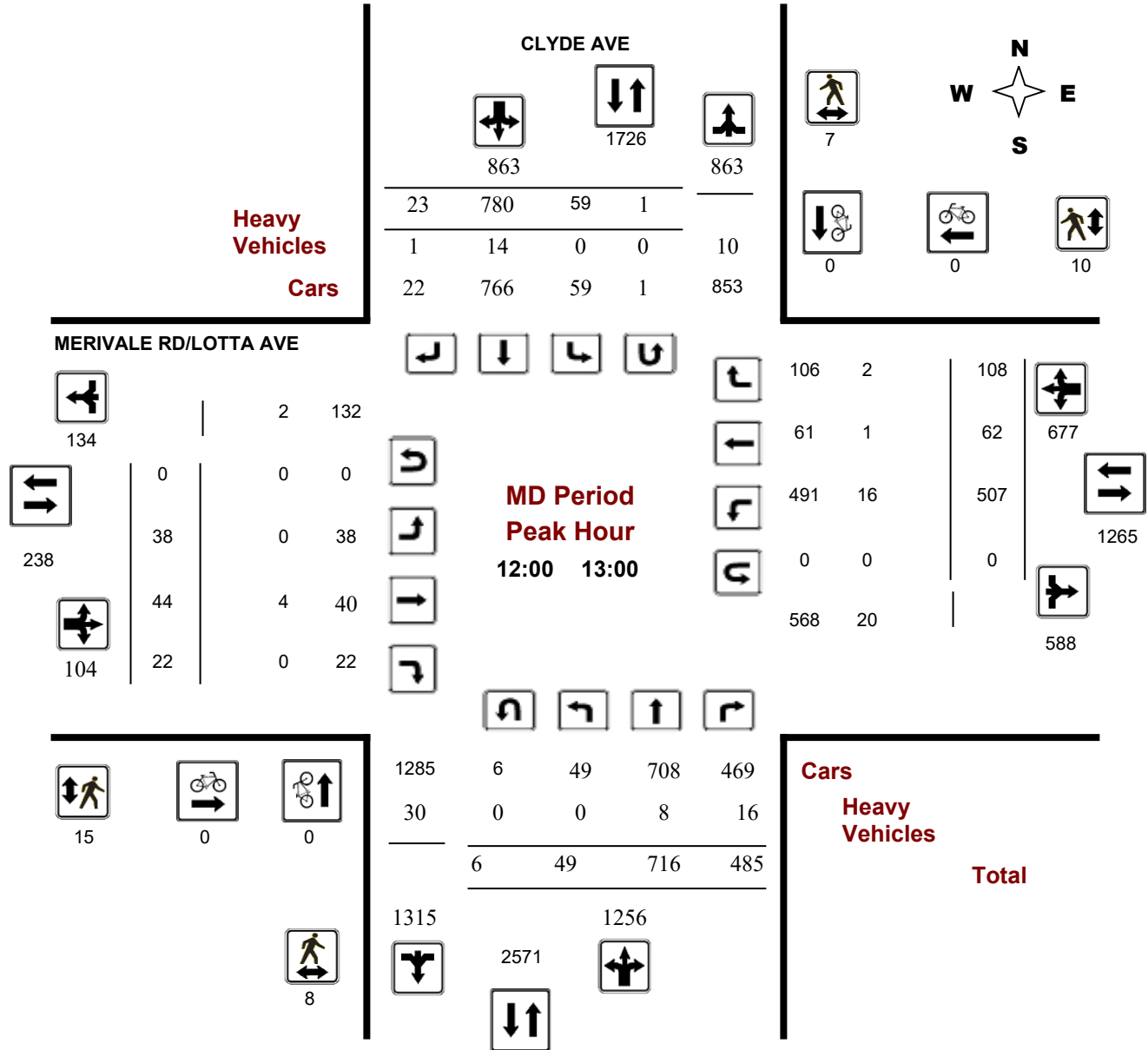
MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020

Start Time: 07:00

WO No: 39436

Device: Miovision



Comments

Turning Movement Count - Peak Hour Diagram

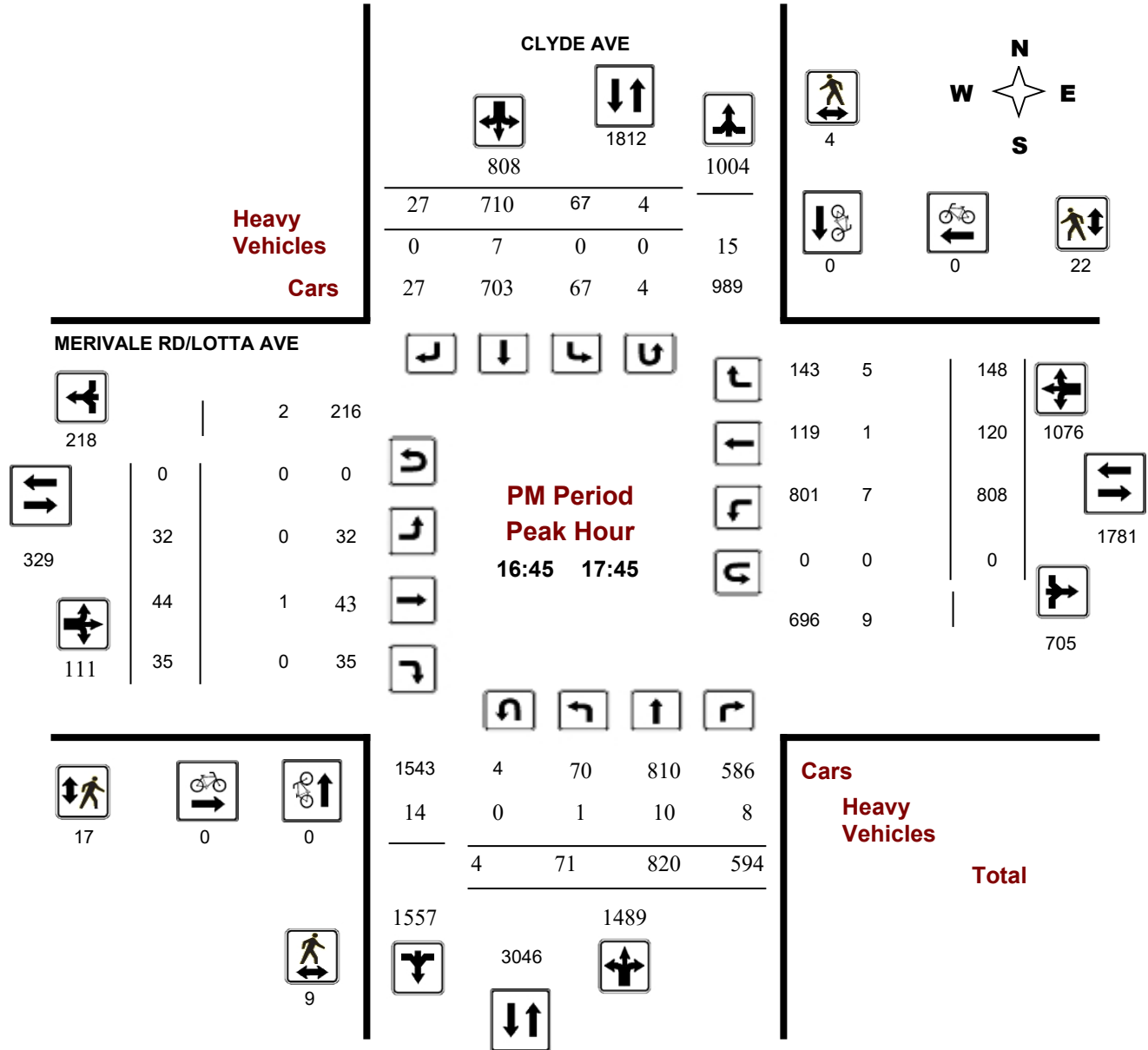
MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020

Start Time: 07:00

WO No: 39436

Device: Miovision



Comments



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020

WO No: 39436

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Monday, February 10, 2020

Total Observed U-Turns

AADT Factor

Northbound: 38 Southbound: 10

1.00

Eastbound: 0 Westbound: 0

CLYDE AVE										MERIVALE RD/LOTTA AVE										Grand Total
Northbound					Southbound					Eastbound					Westbound					
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT		
07:00 08:00	17	618	708	1343	23	429	8	460	1803	18	40	19	77	265	11	36	312	389	2192	
08:00 09:00	34	745	811	1590	23	572	14	609	2199	25	74	21	120	349	39	58	446	566	2765	
09:00 10:00	37	709	654	1400	46	548	20	614	2014	25	40	31	96	353	36	58	447	543	2557	
11:30 12:30	48	665	467	1180	58	771	35	864	2044	37	41	38	116	504	50	88	642	758	2802	
12:30 13:30	48	744	492	1284	64	755	10	829	2113	30	45	21	96	481	49	118	648	744	2857	
15:00 16:00	52	790	584	1426	63	657	11	731	2157	38	51	29	118	711	105	115	931	1049	3206	
16:00 17:00	59	738	593	1390	66	741	13	820	2210	34	50	40	124	855	109	139	1103	1227	3437	
17:00 18:00	70	819	563	1452	72	737	24	833	2285	36	51	29	116	746	113	158	1017	1133	3418	
Sub Total	365	5828	4872	11065	415	5210	135	5760	16825	243	392	228	863	4264	512	770	5546	6409	23234	
U Turns				38				10	48				0				0	0	48	
Total	365	5828	4872	11103	415	5210	135	5770	16873	243	392	228	863	4264	512	770	5546	6409	23282	
EQ 12Hr	507	8101	6772	15433	577	7242	188	8020	23453	338	545	317	1200	5927	712	1070	7709	8909	32362	
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.													1.39							
AVG 12Hr	478	7635	6382	14545	544	6825	177	7559	23453	318	514	299	1131	5586	671	1009	7265	8909	32362	
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.													1							
AVG 24Hr	626	10001	8361	19054	712	8941	232	9902	28956	417	673	391	1481	7317	879	1321	9517	10998	39954	
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

MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020

WO No: 39436

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

CLYDE AVE

MERIVALE RD/LOTTA 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	4	115	125	244	8	100	2	110	11	2	5	0	7	55	3	8	66	11	427
07:15 07:30	6	151	185	342	5	83	2	91	14	6	10	3	19	63	1	12	76	14	528
07:30 07:45	2	169	204	376	1	115	0	116	7	4	11	7	22	53	6	8	67	7	581
07:45 08:00	5	183	194	382	9	131	4	144	17	6	14	9	29	94	1	8	103	17	658
08:00 08:15	5	201	177	383	7	137	3	147	10	4	17	6	27	69	13	13	95	10	652
08:15 08:30	8	183	218	410	4	134	3	141	9	4	23	3	30	81	6	16	103	9	684
08:30 08:45	10	171	209	391	4	146	2	152	10	10	17	6	33	114	10	13	137	10	713
08:45 09:00	11	190	207	408	8	155	6	169	15	7	17	6	30	85	10	16	111	15	718
09:00 09:15	7	196	167	371	12	128	2	142	12	3	11	12	26	86	12	10	108	12	647
09:15 09:30	8	181	186	375	12	136	4	152	15	7	13	6	26	85	3	13	101	15	654
09:30 09:45	14	172	166	353	7	136	4	147	17	3	7	7	17	93	6	14	113	17	630
09:45 10:00	8	160	135	303	15	148	10	173	15	12	9	6	27	89	15	21	125	15	628
11:30 11:45	16	147	117	281	14	186	10	211	17	10	15	12	37	111	7	21	139	17	668
11:45 12:00	9	164	110	286	15	203	6	225	12	4	9	12	25	127	12	20	159	12	695
12:00 12:15	11	165	123	300	12	197	8	217	14	11	10	4	25	155	17	26	198	14	740
12:15 12:30	12	189	117	320	17	185	11	213	7	12	7	10	29	111	14	21	146	7	708
12:30 12:45	12	194	107	315	15	207	1	224	10	5	13	3	21	120	19	27	166	10	726
12:45 13:00	14	168	138	321	15	191	3	209	8	10	14	5	29	121	12	34	167	8	726
13:00 13:15	12	186	124	325	14	171	2	187	11	8	10	8	26	124	8	31	163	11	701
13:15 13:30	10	196	123	329	20	186	4	210	16	7	8	5	20	116	10	26	152	16	711
15:00 15:15	14	193	159	370	14	181	2	197	12	13	9	5	27	148	21	30	199	12	793
15:15 15:30	14	199	133	347	17	166	4	188	6	10	15	9	34	196	22	19	237	6	806
15:30 15:45	10	215	169	395	18	157	2	177	8	8	14	11	33	194	27	28	249	8	854
15:45 16:00	14	183	123	322	14	153	3	170	12	7	13	4	24	173	35	38	246	12	762
16:00 16:15	16	180	142	338	16	202	1	220	7	13	14	6	33	202	29	37	268	7	859
16:15 16:30	13	200	148	363	12	175	2	189	7	7	13	10	30	226	23	31	280	7	862
16:30 16:45	14	155	141	314	23	206	3	232	5	9	17	15	41	204	26	38	268	5	855
16:45 17:00	16	203	162	381	15	158	7	182	7	5	6	9	20	223	31	33	287	7	870
17:00 17:15	21	223	138	384	17	170	6	193	7	9	8	9	26	197	29	40	266	7	869
17:15 17:30	14	198	146	358	18	183	8	210	7	9	11	6	26	200	40	38	278	7	872
17:30 17:45	20	196	148	366	17	199	6	223	5	9	19	11	39	188	20	37	245	5	873
17:45 18:00	15	202	131	350	20	185	4	209	3	9	13	3	25	161	24	43	228	3	812
Total:	365	5828	4872	1110	415	5210	135	5770	333	243	392	228	863	4264	512	770	5546	333	23,282

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020

WO No: 39436

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

Time Period	CLYDE AVE			MERIVALE RD/LOTTA AVE			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00 07:15	0	0	0	0	0	0	0
07:15 07:30	0	0	0	0	0	0	0
07:30 07:45	0	0	0	0	0	0	0
07:45 08:00	0	0	0	0	0	0	0
08:00 08:15	0	0	0	0	0	0	0
08:15 08:30	0	0	0	0	0	0	0
08:30 08:45	0	1	1	0	0	0	1
08:45 09:00	0	0	0	0	0	0	0
09:00 09:15	0	0	0	0	0	0	0
09:15 09:30	0	0	0	0	0	0	0
09:30 09:45	0	0	0	0	0	0	0
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	0	0	0	0
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	0	0	0	0	0	0	0
15:15 15:30	0	0	0	0	0	0	0
15:30 15:45	0	0	0	0	0	0	0
15:45 16:00	0	0	0	0	0	0	0
16:00 16:15	0	0	0	0	0	0	0
16:15 16:30	0	0	0	0	0	0	0
16:30 16:45	0	0	0	0	0	0	0
16:45 17:00	0	0	0	0	0	0	0
17:00 17:15	0	0	0	0	0	0	0
17:15 17:30	0	0	0	0	0	0	0
17:30 17:45	0	0	0	0	0	0	0
17:45 18:00	0	0	0	0	0	0	0
Total	0	1	1	0	1	1	2



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020

WO No: 39436

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

CLYDE AVE

MERIVALE RD/LOTTA 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	0	0	2	0	2	2
07:15 07:30	1	0	1	3	0	3	4
07:30 07:45	1	0	1	1	3	4	5
07:45 08:00	3	0	3	3	0	3	6
08:00 08:15	3	1	4	3	3	6	10
08:15 08:30	5	1	6	4	1	5	11
08:30 08:45	1	1	2	5	0	5	7
08:45 09:00	1	0	1	3	3	6	7
09:00 09:15	0	1	1	2	1	3	4
09:15 09:30	0	1	1	6	1	7	8
09:30 09:45	1	0	1	3	1	4	5
09:45 10:00	1	1	2	1	4	5	7
11:30 11:45	2	2	4	2	8	10	14
11:45 12:00	0	1	1	2	0	2	3
12:00 12:15	0	3	3	4	2	6	9
12:15 12:30	1	1	2	6	3	9	11
12:30 12:45	3	1	4	3	1	4	8
12:45 13:00	4	2	6	2	4	6	12
13:00 13:15	1	2	3	5	10	15	18
13:15 13:30	4	1	5	4	7	11	16
15:00 15:15	1	0	1	6	0	6	7
15:15 15:30	4	1	5	4	4	8	13
15:30 15:45	2	3	5	4	3	7	12
15:45 16:00	1	1	2	3	3	6	8
16:00 16:15	2	5	7	5	5	10	17
16:15 16:30	3	2	5	3	4	7	12
16:30 16:45	1	1	2	4	4	8	10
16:45 17:00	3	1	4	6	4	10	14
17:00 17:15	4	1	5	7	4	11	16
17:15 17:30	1	1	2	0	12	12	14
17:30 17:45	1	1	2	4	2	6	8
17:45 18:00	2	0	2	2	2	4	6
Total	57	36	93	112	99	211	304



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020

WO No: 39436

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

CLYDE AVE

MERIVALE RD/LOTTA AVE

Northbound

Southbound

Eastbound

Westbound

Time Period	Northbound			N TOT	Southbound			S TOT	STR TOT	Eastbound			E TOT	Westbound			W TOT	STR TOT	Grand Total	
	LT	ST	RT		LT	ST	RT			LT	ST	RT		LT	ST	RT				
07:00 07:15	0	3	5	8	1	2	0	3	11	0	0	0	0	1	0	1	2	2	13	
07:15 07:30	0	5	6	11	1	2	0	3	14	0	0	1	1	4	0	0	4	5	19	
07:30 07:45	0	2	4	6	0	1	0	1	7	0	0	0	0	3	0	1	4	4	11	
07:45 08:00	0	4	10	14	0	1	2	3	17	0	0	0	0	4	0	1	5	5	22	
08:00 08:15	0	3	3	6	0	3	1	4	10	1	1	0	2	2	0	1	3	5	15	
08:15 08:30	0	1	7	8	0	1	0	1	9	0	0	0	0	2	0	0	2	2	11	
08:30 08:45	0	4	4	8	0	2	0	2	10	0	0	0	0	4	0	1	5	5	15	
08:45 09:00	0	5	8	13	0	2	0	2	15	0	1	0	1	6	2	0	8	9	24	
09:00 09:15	0	3	7	10	0	2	0	2	12	0	1	0	1	2	0	1	3	4	16	
09:15 09:30	0	5	7	12	1	2	0	3	15	0	2	0	2	5	0	1	6	8	23	
09:30 09:45	0	5	7	13	0	3	1	4	17	1	0	1	2	2	0	1	3	5	22	
09:45 10:00	0	7	5	12	2	1	0	3	15	0	0	1	1	4	0	1	5	6	21	
11:30 11:45	0	6	8	14	0	3	0	3	17	0	0	1	1	3	0	3	6	7	24	
11:45 12:00	1	2	2	5	0	7	0	7	12	0	0	0	0	6	0	1	7	7	19	
12:00 12:15	0	1	8	9	0	4	1	5	14	0	0	0	0	3	0	1	4	4	18	
12:15 12:30	0	2	3	5	0	2	0	2	7	0	2	0	2	3	1	0	4	6	13	
12:30 12:45	0	2	3	5	0	5	0	5	10	0	1	0	1	4	0	1	5	6	16	
12:45 13:00	0	3	2	5	0	3	0	3	8	0	1	0	1	6	0	0	6	7	15	
13:00 13:15	0	5	3	8	0	3	0	3	11	0	0	0	0	4	0	4	8	8	19	
13:15 13:30	0	4	8	12	0	4	0	4	16	0	0	0	0	1	1	1	3	3	19	
15:00 15:15	0	1	4	5	0	7	0	7	12	0	0	0	0	7	0	1	8	8	20	
15:15 15:30	0	2	1	3	0	3	0	3	6	0	0	0	0	0	0	1	1	1	7	
15:30 15:45	0	1	3	4	2	2	0	4	8	0	0	0	0	6	1	1	8	8	16	
15:45 16:00	0	6	4	10	0	2	0	2	12	1	0	0	1	4	0	2	6	7	19	
16:00 16:15	0	0	3	3	1	3	0	4	7	0	0	0	0	5	0	2	7	7	14	
16:15 16:30	0	3	3	6	0	1	0	1	7	0	0	0	0	2	0	3	5	5	12	
16:30 16:45	0	0	4	4	0	1	0	1	5	0	1	0	1	3	0	0	3	4	9	
16:45 17:00	0	3	2	5	0	2	0	2	7	0	0	0	0	2	0	2	4	4	11	
17:00 17:15	0	3	2	5	0	2	0	2	7	0	0	0	0	1	0	1	2	2	9	
17:15 17:30	1	2	3	6	0	1	0	1	7	0	0	0	0	3	0	1	4	4	11	
17:30 17:45	0	2	1	3	0	2	0	2	5	0	1	0	1	1	1	1	3	4	9	
17:45 18:00	0	1	1	2	0	1	0	1	3	0	0	0	0	3	0	2	5	5	8	
Total:	None	2	96	141	240	8	80	5	93	333	3	11	4	18	106	6	37	149	167	500



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MERIVALE RD/LOTTA AVE @ CLYDE AVE

Survey Date: Monday, February 10, 2020

WO No: 39436

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

CLYDE AVE

MERIVALE RD/LOTTA AVE

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	1	0	0	1
07:30	07:45	1	0	0	0	1
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
08:15	08:30	1	0	0	0	1
08:30	08:45	1	0	0	0	1
08:45	09:00	0	0	0	0	0
09:00	09:15	1	0	0	0	1
09:15	09:30	0	0	0	0	0
09:30	09:45	1	0	0	0	1
09:45	10:00	0	0	0	0	0
11:30	11:45	1	1	0	0	2
11:45	12:00	3	1	0	0	4
12:00	12:15	1	0	0	0	1
12:15	12:30	2	0	0	0	2
12:30	12:45	2	1	0	0	3
12:45	13:00	1	0	0	0	1
13:00	13:15	3	0	0	0	3
13:15	13:30	0	0	0	0	0
15:00	15:15	4	0	0	0	4
15:15	15:30	1	1	0	0	2
15:30	15:45	1	0	0	0	1
15:45	16:00	2	0	0	0	2
16:00	16:15	0	1	0	0	1
16:15	16:30	2	0	0	0	2
16:30	16:45	4	0	0	0	4
16:45	17:00	0	2	0	0	2
17:00	17:15	2	0	0	0	2
17:15	17:30	0	1	0	0	1
17:30	17:45	2	1	0	0	3
17:45	18:00	2	0	0	0	2
Total		38	10	0	0	48

DRAFT

Appendix D:
Existing Synchro Analysis

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	12	0	0	1	2	1498	6	1	1081	13
Future Vol, veh/h	2	0	12	0	0	1	2	1498	6	1	1081	13
Conflicting Peds, #/hr	0	0	2	2	0	0	11	0	15	15	0	11
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, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	12	0	0	1	2	1498	6	1	1081	13

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1854	2624	560	2065	2627	767	1105	0	0	1519	0	0
Stage 1	1101	1101	-	1520	1520	-	-	-	-	-	-	-
Stage 2	753	1523	-	545	1107	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	46	24	472	32	23	345	628	-	-	435	-	-
Stage 1	226	286	-	124	179	-	-	-	-	-	-	-
Stage 2	368	179	-	490	284	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	45	23	467	30	22	341	622	-	-	429	-	-
Mov Cap-2 Maneuver	143	107	-	96	107	-	-	-	-	-	-	-
Stage 1	219	282	-	120	173	-	-	-	-	-	-	-
Stage 2	360	173	-	474	280	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	15.6		15.6		0.1		0	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	622	-	-	353	341	429	-	-
HCM Lane V/C Ratio	0.003	-	-	0.04	0.003	0.002	-	-
HCM Control Delay (s)	10.8	0.1	-	15.6	15.6	13.4	0	-
HCM Lane LOS	B	A	-	C	C	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	3	0	15	3	0	7	16	1539	39	1	1803	23
Future Vol, veh/h	3	0	15	3	0	7	16	1539	39	1	1803	23
Conflicting Peds, #/hr	0	0	0	0	0	0	27	0	45	45	0	27
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, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	15	3	0	7	16	1539	39	1	1803	23

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2646	3499	940	2540	3491	834	1853	0	0	1623	0	0
Stage 1	1844	1844	-	1636	1636	-	-	-	-	-	-	-
Stage 2	802	1655	-	904	1855	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	11	6	265	14	6	311	323	-	-	397	-	-
Stage 1	77	124	-	105	157	-	-	-	-	-	-	-
Stage 2	344	154	-	298	122	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	7	3	259	8	3	299	316	-	-	382	-	-
Mov Cap-2 Maneuver	34	47	-	46	44	-	-	-	-	-	-	-
Stage 1	43	121	-	58	87	-	-	-	-	-	-	-
Stage 2	193	85	-	281	119	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	39.2		39.9		3.5		0	
HCM LOS	E		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	316	-	-	123	113	382	-	-
HCM Lane V/C Ratio	0.051	-	-	0.146	0.088	0.003	-	-
HCM Control Delay (s)	17	3.5	-	39.2	39.9	14.4	0	-
HCM Lane LOS	C	A	-	E	E	B	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.5	0.3	0	-	-

DRAFT

Appendix E:

Collision Data

Accident Year	Accident Date	Accident Time	Location	Environment_Condition	Light	Classification_of_Accident	Initial_Impact_Type	No_of_Pedestrians
2016	10/6/2016	12:43 PM	MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2016	10/15/2016	1:33 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	10/4/2016	9:43 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2016	10/5/2016	1:15 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	9/27/2016	12:12 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	10/21/2016	4:07 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	11/3/2016	3:58 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	11/6/2016	11:17 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	02 - Angle	0
2016	11/10/2016	9:25 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2016	11/13/2016	1:30 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2016	11/13/2016	12:28 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	11/14/2016	2:01 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2016	11/10/2016	1:46 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2016	11/18/2016	10:58 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2016	11/30/2016	3:15 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2016	11/30/2016	3:40 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2016	11/24/2016	11:00 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	11/25/2016	8:58 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2016	12/3/2016	5:07 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2016	11/16/2016	5:30 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2016	12/8/2016	1:53 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2016	12/19/2016	1:39 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	12/8/2016	9:52 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	07 - Dark	03 - P.D. only	07 - SMV other	0
2016	12/9/2016	5:35 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2016	1/27/2016	8:13 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2016	12/17/2016	5:34 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2016	12/24/2016	12:14 PM	MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	2/10/2016	2:54 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2016	12/26/2016	1:58 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2016	12/27/2016	7:08 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	04 - Freezing Rain	07 - Dark	03 - P.D. only	03 - Rear end	0
2016	2/12/2016	4:36 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2016	2/5/2016	8:44 AM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2016	12/29/2016	12:15 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	12/21/2016	4:19 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2016	12/21/2016	7:51 PM	MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2016	1/6/2016	4:15 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2016	2/18/2016	11:44 AM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	2/25/2016	8:24 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	04 - Freezing Rain	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2016	1/6/2016	1:44 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	2/13/2016	3:08 PM	MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2016	2/13/2016	7:57 PM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2016	3/22/2016	12:49 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2016	2/26/2016	11:53 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	3/11/2016	11:21 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	3/26/2016	11:20 AM	MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2016	3/24/2016	12:27 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	04 - Freezing Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	3/28/2016	5:55 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2016	4/7/2016	11:54 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	02 - Non-fatal injury	07 - SMV other	0
2016	4/8/2016	4:45 PM	CAPILANO DR btwn WITHROW AVE & KERRY CRES (__3ZBOK5)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	4/8/2016	8:41 PM	MEADOWLANDS DR @ MERIVALE RD (0000625)	03 - Snow	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2016	4/29/2016	1:29 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2016	5/15/2016	11:30 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	5/13/2016	5:34 AM	MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	03 - Dawn	02 - Non-fatal injury	03 - Rear end	0
2016	4/21/2016	11:43 AM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	5/9/2016	12:38 PM	MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2016	6/10/2016	10:20 AM	MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	5/30/2016	12:45 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2016	5/23/2016	7:47 PM	MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0

2016	6/2/2016	7:48 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2016	5/23/2016	12:34 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2016	6/4/2016	12:15 PM MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2016	5/24/2016	5:59 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2016	6/11/2016	6:57 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	6/12/2016	3:45 PM RITA AVE @ MERIVALE RD (0001750)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	6/13/2016	6:43 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	6/30/2016	3:31 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2016	7/2/2016	2:20 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	7/13/2016	8:43 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	1/16/2016	4:25 PM MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	02 - Rain	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2016	7/13/2016	3:39 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	7/22/2016	9:59 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	7/29/2016	5:29 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	1/18/2016	12:37 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2016	7/18/2016	2:45 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	8/16/2016	1:08 PM MERIVALE RD @ ROSSLAND AVE (0001757)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	8/12/2016	10:00 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	8/12/2016	10:14 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	8/6/2016	10:23 AM MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2016	8/9/2016	3:08 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	8/20/2016	12:30 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	8/22/2016	4:44 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	9/1/2016	6:03 PM MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	9/3/2016	12:44 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	07 - SMV other	0
2016	9/17/2016	3:50 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	9/12/2016	6:07 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2016	9/15/2016	2:43 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	10/7/2017	11:53 AM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	10/14/2017	10:00 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	10/14/2017	12:27 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	10/7/2017	5:00 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	10/5/2017	10:58 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	10/8/2017	1:01 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	01 - Approaching	0
2017	10/11/2017	7:30 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2017	1/26/2017	2:34 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	07 - SMV other	0
2017	11/11/2017	3:18 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	11/12/2017	1:56 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	11/12/2017	8:12 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	02 - Angle	0
2017	10/27/2017	8:51 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2017	11/3/2017	6:03 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2017	11/7/2017	5:24 PM MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	07 - Dark	02 - Non-fatal injury	07 - SMV other	1
2017	11/7/2017	8:50 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	11/8/2017	4:38 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	05 - Dusk	03 - P.D. only	04 - Sideswipe	0
2017	11/21/2017	5:30 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	11/16/2017	3:01 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2017	1/30/2017	6:20 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	11/24/2017	5:07 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2017	11/28/2017	7:59 PM MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	07 - Dark	03 - P.D. only	99 - Other	0
2017	11/29/2017	2:20 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	11/20/2017	12:50 PM RITA AVE @ MERIVALE RD (0001750)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	2/2/2017	12:56 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	12/12/2017	8:12 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2017	1/31/2017	8:44 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	12/16/2017	3:02 PM MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	12/5/2017	6:08 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2017	12/6/2017	10:43 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	12/6/2017	3:20 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	12/7/2017	12:40 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0

2017	12/8/2017	4:45 PM MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2017	12/18/2017	11:49 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	12/29/2017	6:49 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	07 - Dark	03 - P.D. only	03 - Rear end	0
2017	12/20/2017	4:53 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	12/21/2017	12:04 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	02 - Non-fatal injury	07 - SMV other	1
2017	12/27/2017	5:07 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	02 - Non-fatal injury	07 - SMV other	0
2017	12/30/2017	9:29 AM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	2/6/2017	7:15 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	07 - Dark	03 - P.D. only	03 - Rear end	0
2017	12/26/2017	1:39 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	12/26/2017	12:24 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	12/27/2017	11:03 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2017	12/22/2017	5:30 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	07 - Dark	03 - P.D. only	07 - SMV other	0
2017	2/15/2017	5:58 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2017	2/15/2017	9:00 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	2/17/2017	1:42 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Sideswipe	0
2017	2/18/2017	3:55 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	1/7/2017	12:36 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2017	3/8/2017	7:48 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	3/3/2017	2:30 PM MERIVALE RD btwn CLYDE AVE & RITA AVE (_3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	3/17/2017	10:36 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	3/15/2017	5:36 PM MERIVALE RD @ EMERALD PLAZA SC (0005311)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	3/10/2017	12:01 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	3/11/2017	9:43 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	3/26/2017	1:03 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	4/1/2017	2:21 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	4/4/2017	1:45 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	4/4/2017	1:46 PM MERIVALE RD btwn CLYDE AVE & RITA AVE (_3ZA4H7)	02 - Rain	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	4/11/2017	10:11 AM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	02 - Rain	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2017	1/9/2017	6:33 PM MERIVALE RD @ ROSSLAND AVE (0001757)	03 - Snow	07 - Dark	03 - P.D. only	02 - Angle	0
2017	4/15/2017	8:41 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2017	4/27/2017	11:03 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	07 - Dark	02 - Non-fatal injury	02 - Angle	0
2017	4/28/2017	4:00 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	1/10/2017	5:30 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	05 - Dusk	03 - P.D. only	05 - Turning movement	0
2017	4/21/2017	8:24 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2017	4/21/2017	9:43 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2017	4/23/2017	6:15 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	4/19/2017	10:21 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	4/21/2017	11:49 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2017	6/7/2017	5:38 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	5/31/2017	1:35 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2017	1/13/2017	4:02 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2017	7/3/2017	1:06 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	07 - Dark	03 - P.D. only	03 - Rear end	0
2017	6/30/2017	11:30 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2017	6/30/2017	3:38 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	6/22/2017	1:51 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	6/26/2017	12:16 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	6/18/2017	10:46 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	6/23/2017	8:40 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2017	7/7/2017	4:30 PM MERIVALE RD btwn CLYDE AVE & RITA AVE (_3ZA4H7)	02 - Rain	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	7/7/2017	4:58 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	7/17/2017	9:05 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2017	7/14/2017	5:00 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	7/11/2017	4:28 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	07 - SMV other	0
2017	8/22/2017	7:22 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	01 - Daylight	03 - P.D. only	02 - Angle	0
2017	8/1/2017	2:58 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	8/15/2017	11:28 AM MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	8/8/2017	10:12 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2017	8/21/2017	12:21 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	8/8/2017	8:12 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0

2017	8/16/2017	4:14 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	8/12/2017	6:15 PM MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	8/24/2017	11:30 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	8/24/2017	5:08 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	8/28/2017	12:43 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2017	9/1/2017	3:29 PM MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4H2B)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	9/11/2017	3:13 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	9/11/2017	10:47 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2017	9/3/2017	2:53 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	02 - Rain	01 - Daylight	03 - P.D. only	02 - Angle	0
2017	9/5/2017	4:17 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	9/7/2017	2:02 PM MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	9/7/2017	2:30 PM MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2017	9/8/2017	11:45 AM MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	02 - Rain	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2017	9/29/2017	11:50 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2017	9/24/2017	3:30 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	9/29/2018	9:36 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2018	1/19/2018	12:00 PM MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	1/19/2018	12:38 PM MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	10/10/2018	12:15 PM MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	10/10/2018	12:48 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	1/19/2018	1:19 PM MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4H2B)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	1/19/2018	1:42 PM MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4H2B)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	1/18/2018	7:40 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	03 - Dawn	03 - P.D. only	03 - Rear end	0
2018	10/17/2018	3:38 PM MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	10/31/2018	6:54 PM MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2018	11/1/2018	12:04 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	10/17/2018	5:00 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	10/18/2018	11:48 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2018	11/5/2018	2:52 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2018	10/19/2018	10:23 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	07 - Dark	03 - P.D. only	03 - Rear end	0
2018	10/19/2018	2:40 PM MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4H2B)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	10/20/2018	11:30 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	10/26/2018	2:30 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	10/30/2018	5:07 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2018	1/22/2018	1:02 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	11/15/2018	2:29 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	11/16/2018	10:21 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	11/16/2018	9:01 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2018	11/21/2018	1:55 PM MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	02 - Rain	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	11/22/2018	10:30 AM MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	11/23/2018	3:00 PM MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	11/17/2018	3:26 PM MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4H2B)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	11/17/2018	4:23 PM MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2018	12/11/2018	12:04 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	11/24/2018	1:07 PM MERIVALE RD btwn WITHROW AVE & RITA AVE (__3ZBOCB)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	11/24/2018	10:34 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2018	12/7/2018	5:19 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2018	11/28/2018	9:46 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	12/1/2018	1:15 PM MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	12/20/2018	3:15 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	12/11/2018	5:57 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	03 - Snow	07 - Dark	03 - P.D. only	03 - Rear end	0
2018	12/21/2018	7:30 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	07 - Dark	03 - P.D. only	05 - Turning movement	0
2018	12/21/2018	8:35 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	07 - Dark	03 - P.D. only	03 - Rear end	0
2018	12/23/2018	4:04 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	05 - Dusk	02 - Non-fatal injury	05 - Turning movement	0
2018	12/30/2018	12:15 PM MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4H2B)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	12/13/2018	7:49 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	03 - Dawn	03 - P.D. only	03 - Rear end	0
2018	12/13/2018	8:03 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	2/7/2018	5:13 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	03 - Snow	05 - Dusk	02 - Non-fatal injury	05 - Turning movement	0
2018	2/8/2018	1:06 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	01 - Daylight	03 - P.D. only	04 - Sideswipe	0

2018	12/31/2018	1:10 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	2/2/2018	12:24 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2018	2/13/2018	6:33 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	03 - Dawn	03 - P.D. only	03 - Rear end	0
2018	2/13/2018	7:27 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2018	12/31/2018	7:36 PM MERIVALE RD btwn CLYDE AVE & RITA AVE (___3ZA4H7)	01 - Clear	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2018	2/5/2018	7:30 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	03 - Dawn	03 - P.D. only	03 - Rear end	0
2018	2/5/2018	7:43 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2018	3/5/2018	2:00 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	3/5/2018	8:23 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	3/6/2018	5:30 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	1/5/2018	5:25 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2018	2/28/2018	11:13 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	3/8/2018	6:40 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	07 - Dark	03 - P.D. only	03 - Rear end	0
2018	2/18/2018	6:00 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	05 - Dusk	03 - P.D. only	04 - Sideswipe	0
2018	3/21/2018	4:59 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2018	3/26/2018	6:24 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2018	1/7/2018	12:24 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2018	4/6/2018	5:37 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	4/7/2018	4:58 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	3/11/2018	2:07 PM MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (___3ZA4HZA)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	3/21/2018	9:09 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2018	3/23/2018	5:47 PM MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (___3ZA4HZA)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	3/12/2018	11:19 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	03 - Snow	07 - Dark	03 - P.D. only	03 - Rear end	0
2018	3/12/2018	12:59 PM MERIVALE RD btwn CLYDE AVE & RITA AVE (___3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	3/13/2018	1:15 PM MERIVALE RD btwn CLYDE AVE & RITA AVE (___3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2018	5/8/2018	4:49 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	5/1/2018	11:07 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2018	5/1/2018	9:14 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	5/2/2018	7:32 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2018	5/3/2018	2:41 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	5/5/2018	12:36 PM MERIVALE RD btwn CLYDE AVE & RITA AVE (___3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	4/16/2018	5:34 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2018	5/25/2018	5:00 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	5/18/2018	4:44 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	5/11/2018	5:58 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	5/12/2018	3:30 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	5/8/2018	8:00 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	5/30/2018	3:20 PM MERIVALE RD btwn CLYDE AVE & RITA AVE (___3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	5/22/2018	1:15 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	6/1/2018	11:32 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2018	6/8/2018	12:38 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2018	6/8/2018	2:37 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2018	6/6/2018	3:43 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	1/11/2018	8:52 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	6/23/2018	4:49 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	6/23/2018	6:18 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2018	6/15/2018	11:37 AM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	6/16/2018	11:26 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2018	7/7/2018	12:16 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2018	7/20/2018	8:08 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	7/14/2018	1:32 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2018	7/12/2018	5:51 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	7/11/2018	2:18 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	1/12/2018	3:16 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	6/28/2018	7:47 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2018	7/30/2018	10:02 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2018	7/30/2018	11:52 AM MERIVALE RD btwn CLYDE AVE & RITA AVE (___3ZA4H7)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2018	7/31/2018	3:38 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	8/1/2018	1:08 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0

2018	8/11/2018	7:20 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2018	8/8/2018	3:48 PM MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2018	7/22/2018	12:39 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	7/23/2018	6:33 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	01 - Daylight	03 - P.D. only	02 - Angle	0
2018	9/4/2018	3:55 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	8/21/2018	1:03 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	07 - SMV other	1
2018	8/24/2018	8:43 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2018	8/27/2018	5:38 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2018	8/28/2018	10:33 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2018	9/2/2018	2:32 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	8/29/2018	11:33 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2018	9/23/2018	10:12 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2018	9/23/2018	9:52 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	02 - Angle	0
2018	9/21/2018	11:02 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	02 - Angle	0
2019	1/20/2019	5:35 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	03 - Snow	05 - Dusk	03 - P.D. only	02 - Angle	0
2019	9/6/2019	3:47 PM MERIVALE RD btwn WITHROW AVE & RITA AVE (__3ZBOCB)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	8/21/2019	9:44 AM MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	02 - Rain	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2019	9/2/2019	2:45 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2019	1/21/2019	3:21 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	9/23/2019	7:53 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2019	9/19/2019	4:39 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	9/26/2019	7:33 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2019	10/3/2019	9:39 AM MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	10/4/2019	11:50 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	10/12/2019	12:41 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	10/12/2019	8:02 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2019	10/10/2019	8:24 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	10/19/2019	7:10 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2019	10/20/2019	11:40 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2019	10/8/2019	7:45 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	10/9/2019	4:25 PM MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	10/9/2019	9:35 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2019	10/3/2019	2:14 PM MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2019	10/1/2019	2:30 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	1/23/2019	11:09 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	10/21/2019	1:55 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	10/29/2019	3:00 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	11/1/2019	12:00 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	10/29/2019	7:49 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2019	10/30/2019	4:36 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	01 - Daylight	02 - Non-fatal injury	02 - Angle	1
2019	1/22/2019	5:44 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2019	11/1/2019	9:45 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	03 - Snow	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	11/15/2019	2:57 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	11/21/2019	10:05 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2019	11/22/2019	10:33 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2019	11/17/2019	2:58 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2019	11/18/2019	10:49 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	04 - Sideswipe	0
2019	11/16/2019	12:19 PM MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	11/20/2019	8:24 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2019	11/23/2019	12:32 PM MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2019	11/13/2019	11:49 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2019	12/4/2019	6:00 PM MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	02 - Rain	07 - Dark	03 - P.D. only	03 - Rear end	0
2019	12/9/2019	11:44 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2019	11/28/2019	4:30 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2019	11/28/2019	4:57 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2019	1/25/2019	7:30 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2019	11/29/2019	9:00 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	12/7/2019	12:30 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	12/8/2019	12:02 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0

2019	12/9/2019	6:30 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	07 - Dark	03 - P.D. only	05 - Turning movement	0
2019	1/24/2019	5:19 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	05 - Dusk	02 - Non-fatal injury	03 - Rear end	0
2019	11/27/2019	6:40 PM MERIVALE RD @ EMERALD PLAZA SC (0005311)	02 - Rain	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2019	11/28/2019	11:57 AM MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2019	11/26/2019	5:35 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2019	12/24/2019	10:45 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	12/24/2019	9:58 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	12/14/2019	5:31 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	07 - Dark	03 - P.D. only	05 - Turning movement	0
2019	12/14/2019	7:36 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	07 - Dark	03 - P.D. only	03 - Rear end	0
2019	12/28/2019	3:45 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2019	12/28/2019	4:07 PM MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	05 - Dusk	02 - Non-fatal injury	03 - Rear end	0
2019	12/20/2019	5:48 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	02 - Angle	0
2019	12/12/2019	6:50 PM MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2019	12/19/2019	7:50 AM MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	03 - Dawn	03 - P.D. only	03 - Rear end	0
2019	12/18/2019	1:30 PM CAPILANO DR btwn WITHROW AVE & KERRY CRES (__3ZBOK5)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2019	1/30/2019	7:50 PM MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	07 - Dark	03 - P.D. only	02 - Angle	0
2019	2/2/2019	6:20 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	07 - Dark	03 - P.D. only	03 - Rear end	0
2019	2/17/2019	2:36 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2019	2/20/2019	12:35 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	3/12/2019	7:51 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	3/14/2019	1:01 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2019	3/15/2019	2:24 PM MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2019	3/3/2019	11:42 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	3/24/2019	3:10 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2019	4/12/2019	3:26 PM MERIVALE RD btwn WITHROW AVE & RITA AVE (__3ZBOCB)	01 - Clear	01 - Daylight	02 - Non-fatal injury	07 - SMV other	1
2019	4/13/2019	1:35 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	4/13/2019	4:46 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	4/9/2019	1:30 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	04 - Freezing Rain	01 - Daylight	03 - P.D. only	07 - SMV other	0
2019	5/3/2019	8:30 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2019	5/5/2019	8:26 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2019	5/2/2019	8:00 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	4/16/2019	2:15 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2019	5/8/2019	6:04 PM MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2019	4/28/2019	12:45 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2019	4/30/2019	11:13 AM MERIVALE RD btwn WITHROW AVE & RITA AVE (__3ZBOCB)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	4/17/2019	4:56 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	4/20/2019	3:15 PM MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	4/26/2019	6:54 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2019	5/21/2019	4:53 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	5/21/2019	5:50 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	5/27/2019	8:20 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	5/17/2019	12:40 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	5/18/2019	4:09 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	01 - Fatal injury	05 - Turning movement	0
2019	5/30/2019	12:00 PM MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2019	1/14/2019	2:45 PM MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	6/15/2019	11:00 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	6/5/2019	4:00 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	6/13/2019	12:22 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	6/19/2019	4:15 PM MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	02 - Rain	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	6/11/2019	8:53 AM MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	1/17/2019	10:17 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	02 - Angle	0
2019	7/8/2019	2:35 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	6/27/2019	5:46 PM MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	7/2/2019	9:18 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	1/17/2019	12:22 PM MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2019	6/28/2019	2:57 PM MERIVALE RD @ EMERALD PLAZA SC (0005311)	02 - Rain	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2019	1/2/2019	8:26 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	7/10/2019	5:24 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2019	7/5/2019	6:12 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	02 - Rain	01 - Daylight	03 - P.D. only	03 - Rear end	0

2019	7/20/2019	1:43 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	7/23/2019	3:31 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2019	7/20/2019	6:50 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2019	7/21/2019	2:50 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	07 - SMV other	0
2019	8/14/2019	10:20 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2019	8/14/2019	12:08 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2019	8/11/2019	11:37 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2019	8/17/2019	12:30 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2020	1/23/2020	1:09 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	1/23/2020	1:52 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2020	1/24/2020	2:05 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	1/1/2020	1:49 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2020	1/5/2020	2:20 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	2/19/2020	5:09 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	2/10/2020	9:54 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	01 - Daylight	03 - P.D. only	07 - SMV other	0
2020	2/12/2020	7:31 AM MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	02 - Non-fatal injury	02 - Angle	0
2020	2/22/2020	10:40 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	2/12/2020	7:33 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2020	2/10/2020	8:12 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	03 - Snow	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	2/28/2020	11:00 AM MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2020	2/29/2020	9:35 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	3/11/2020	9:00 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2020	4/15/2020	1:26 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	3/14/2020	4:23 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	4/30/2020	11:17 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2020	4/30/2020	12:33 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	02 - Rain	01 - Daylight	03 - P.D. only	02 - Angle	0
2020	5/22/2020	2:50 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	5/1/2020	9:16 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	5/14/2020	12:17 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	3/23/2020	11:21 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	3/23/2020	9:02 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	04 - Sideswipe	0
2020	1/10/2020	10:54 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	6/20/2020	10:31 AM MERIVALE RD btwn CLYDE AVE & RITA AVE (__3ZA4H7)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	6/20/2020	12:30 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	6/22/2020	1:06 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	5/27/2020	1:06 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2020	5/27/2020	9:30 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	5/28/2020	9:09 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	5/29/2020	11:55 AM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2020	5/30/2020	7:59 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2020	6/12/2020	1:28 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	6/15/2020	10:36 AM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	6/15/2020	2:00 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	7/1/2020	9:20 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2020	7/5/2020	5:18 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2020	6/5/2020	12:39 PM MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2020	6/6/2020	12:00 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2020	6/18/2020	11:55 AM MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2020	6/9/2020	5:44 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	6/9/2020	9:55 AM MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	6/10/2020	6:08 PM MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	8/9/2020	8:00 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	05 - Dusk	03 - P.D. only	02 - Angle	0
2020	7/31/2020	10:36 PM MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	07 - Dark	03 - P.D. only	99 - Other	0
2020	7/23/2020	8:20 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2020	7/27/2020	8:56 AM MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2020	8/4/2020	9:29 AM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	8/21/2020	3:12 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2020	8/21/2020	4:06 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	02 - Non-fatal injury	99 - Other	0
2020	9/16/2020	7:10 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0

2020	8/17/2020	11:11 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2020	9/6/2020	3:00 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	8/31/2020	6:30 PM MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	02 - Non-fatal injury	03 - Rear end	0
2020	9/10/2020	9:11 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2020	10/29/2020	1:05 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	1/3/2020	5:33 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2020	10/1/2020	8:13 AM MERIVALE RD @ EMERALD PLAZA SC (0005311)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2020	9/22/2020	2:22 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	10/3/2020	9:44 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2020	10/13/2020	5:11 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	05 - Dusk	03 - P.D. only	03 - Rear end	0
2020	10/13/2020	5:30 PM MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	01 - Daylight	02 - Non-fatal injury	04 - Sideswipe	0
2020	10/14/2020	1:00 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	11/16/2020	9:45 AM MERIVALE RD btwn EMERALD PLAZA SC & MEADOWLANDS DR (__3ZA4HZB)	01 - Clear	01 - Daylight	03 - P.D. only	99 - Other	0
2020	11/12/2020	5:27 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2020	1/18/2020	6:30 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	03 - Snow	07 - Dark	02 - Non-fatal injury	03 - Rear end	0
2020	11/24/2020	2:54 PM MERIVALE RD @ CAPILANO DR/WITHROW AVE (0009820)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	11/20/2020	12:04 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	11/15/2020	6:26 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	02 - Rain	07 - Dark	03 - P.D. only	05 - Turning movement	0
2020	11/4/2020	1:05 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	04 - Sideswipe	0
2020	1/18/2020	3:00 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	02 - Angle	0
2020	10/31/2020	3:00 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	12/15/2020	5:53 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	07 - Dark	03 - P.D. only	03 - Rear end	0
2020	12/17/2020	3:29 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	05 - Turning movement	0
2020	12/5/2020	3:30 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	12/24/2020	2:27 AM MERIVALE RD @ ROSSLAND AVE (0001757)	01 - Clear	07 - Dark	02 - Non-fatal injury	05 - Turning movement	0
2020	12/24/2020	7:30 AM MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	01 - Clear	03 - Dawn	03 - P.D. only	05 - Turning movement	0
2020	1/19/2020	7:11 AM MEADOWLANDS DR @ MERIVALE RD (0000625)	03 - Snow	03 - Dawn	03 - P.D. only	03 - Rear end	0
2020	11/28/2020	2:16 PM MERIVALE RD @ WEST HUNT CLUB RD (0000584)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	12/1/2020	6:19 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0
2020	12/18/2020	11:27 AM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	03 - P.D. only	03 - Rear end	0
2020	12/2/2020	2:29 PM MERIVALE RD btwn ROSSLAND AVE & EMERALD PLAZA SC (__3ZA4HZA)	02 - Rain	01 - Daylight	03 - P.D. only	02 - Angle	0
2020	1/20/2020	2:50 PM MERIVALE RD/LOTTA AVE @ CLYDE AVE (0001112)	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	0
2020	12/29/2020	4:50 PM MEADOWLANDS DR @ MERIVALE RD (0000625)	01 - Clear	07 - Dark	03 - P.D. only	05 - Turning movement	0

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Appendix F:

Historic Background Growth

TRANS Regional Model

Version 2.15 - Assigned June 16, 2020

AM Peak Hour Total Traffic Volume

Baseline/Meadowlands

2011 Model - Basecase

N/A

User Initials: KN

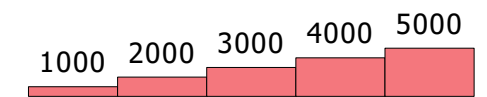
Plot Prepared: Aug 17, 2022

EMME Scenario: 21713

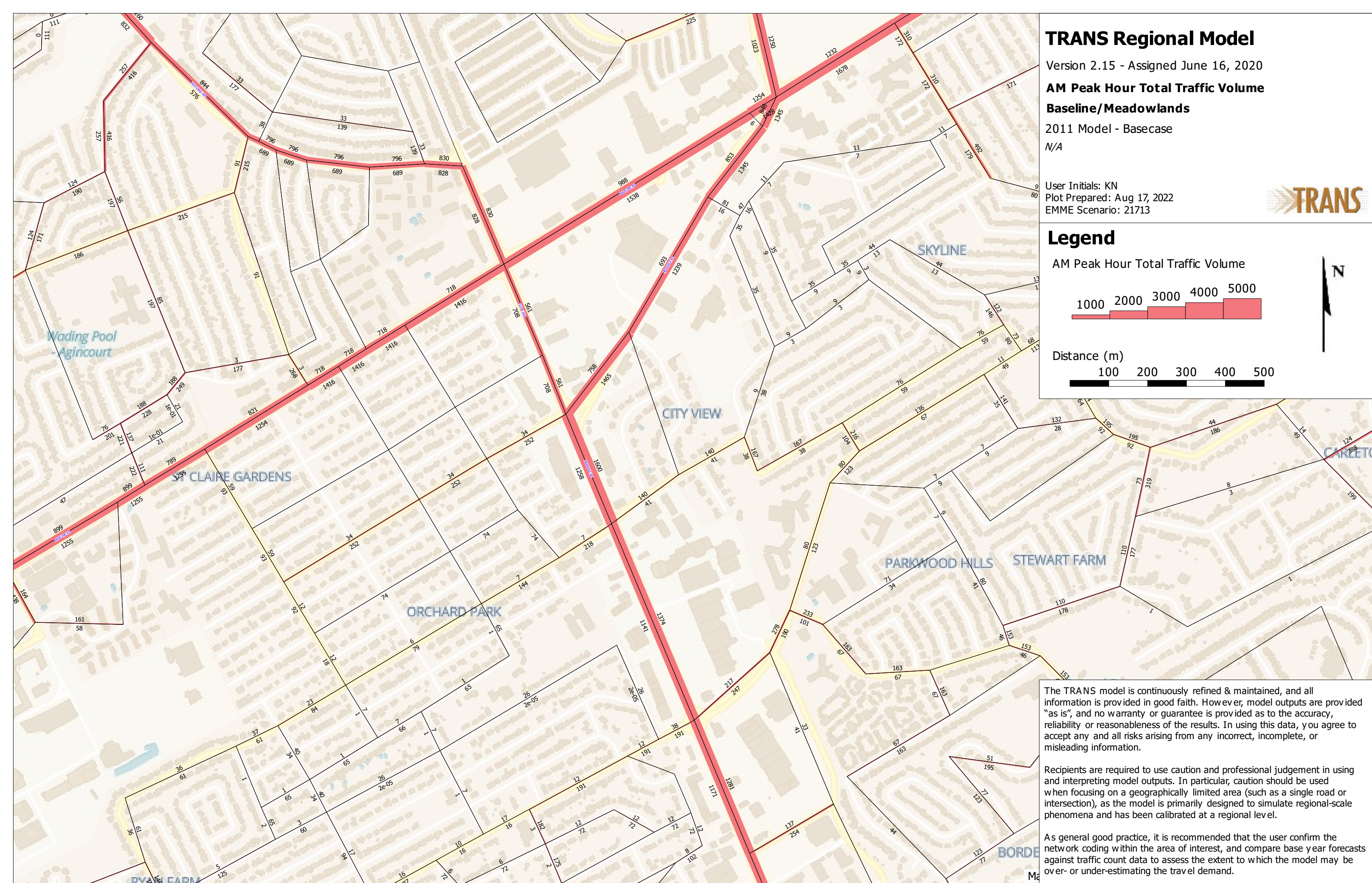


Legend

AM Peak Hour Total Traffic Volume



Distance (m)



The TRANS model is continuously refined & maintained, and all information is provided in good faith. However, model outputs are provided "as is", and no warranty or guarantee is provided as to the accuracy, reliability or reasonableness of the results. In using this data, you agree to accept any and all risks arising from any incorrect, incomplete, or misleading information.

Recipients are required to use caution and professional judgement in using and interpreting model outputs. In particular, caution should be used when focusing on a geographically limited area (such as a single road or intersection), as the model is primarily designed to simulate regional-scale phenomena and has been calibrated at a regional level.

As general good practice, it is recommended that the user confirm the network coding within the area of interest, and compare base year forecasts against traffic count data to assess the extent to which the model may be over- or under-estimating the travel demand.

TRANS Regional Model

Version 2.15 - Assigned June 16, 2020

AM Peak Hour Total Traffic Volume

BaselineMeadowlands

2031 Model - Basecase

N/A

User Initials: KN

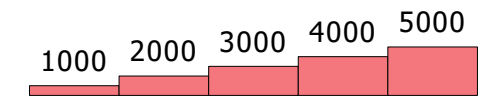
Plot Prepared: Aug 17, 2022

EMME Scenario: 21715

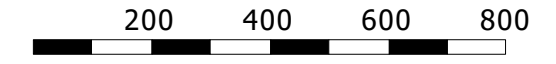


Legend

AM Peak Hour Total Traffic Volume



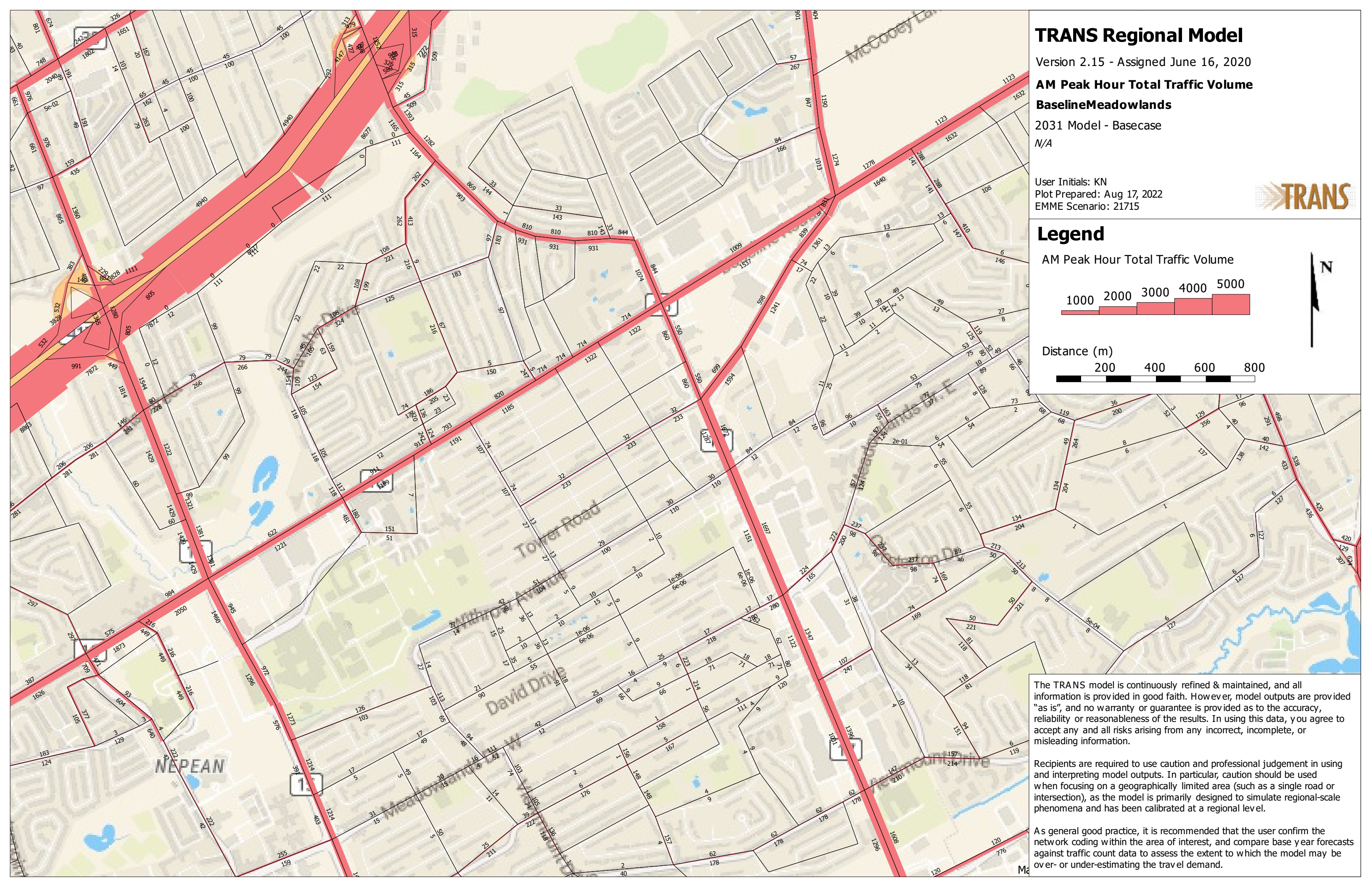
Distance (m)



The TRANS model is continuously refined & maintained, and all information is provided in good faith. However, model outputs are provided "as is", and no warranty or guarantee is provided as to the accuracy, reliability or reasonableness of the results. In using this data, you agree to accept any and all risks arising from any incorrect, incomplete, or misleading information.

Recipients are required to use caution and professional judgement in using and interpreting model outputs. In particular, caution should be used when focusing on a geographically limited area (such as a single road or intersection), as the model is primarily designed to simulate regional-scale phenomena and has been calibrated at a regional level.

As general good practice, it is recommended that the user confirm the network coding within the area of interest, and compare base year forecasts against traffic count data to assess the extent to which the model may be over- or under-estimating the travel demand.



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Appendix G:
SimTraffic and Synchro Analysis

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	18	0	0	15	0	1520	55	0	1151	13
Future Vol, veh/h	0	0	18	0	0	15	0	1520	55	0	1151	13
Conflicting Peds, #/hr	0	0	2	2	0	0	11	0	15	15	0	11
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, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	18	0	0	15	0	1520	55	0	1151	13

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1929	2759	595	2141	2738	803	1175	0	0	1590	0	0
Stage 1	1169	1169	-	1563	1563	-	-	-	-	-	-	-
Stage 2	760	1590	-	578	1175	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	40	19	447	28	20	326	590	-	-	409	-	-
Stage 1	205	265	-	117	171	-	-	-	-	-	-	-
Stage 2	364	166	-	468	264	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	38	19	442	26	20	322	585	-	-	404	-	-
Mov Cap-2 Maneuver	133	100	-	91	102	-	-	-	-	-	-	-
Stage 1	203	263	-	115	169	-	-	-	-	-	-	-
Stage 2	347	164	-	448	262	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.5		16.7		0		0	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	585	-	-	442	322	404	-	-
HCM Lane V/C Ratio	-	-	-	0.041	0.047	-	-	-
HCM Control Delay (s)	0	-	-	13.5	16.7	0	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	34	0	0	51	0	1599	56	0	1847	23
Future Vol, veh/h	0	0	34	0	0	51	0	1599	56	0	1847	23
Conflicting Peds, #/hr	0	0	0	0	0	0	27	0	45	45	0	27
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, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	34	0	0	51	0	1599	56	0	1847	23

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2686	3586	962	2596	3569	873	1897	0	0	1700	0	0
Stage 1	1886	1886	-	1672	1672	-	-	-	-	-	-	-
Stage 2	800	1700	-	924	1897	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	10	5	256	12	6	293	310	-	-	371	-	-
Stage 1	73	118	-	100	151	-	-	-	-	-	-	-
Stage 2	345	146	-	290	116	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	8	5	250	10	6	282	303	-	-	357	-	-
Mov Cap-2 Maneuver	54	60	-	67	61	-	-	-	-	-	-	-
Stage 1	71	115	-	96	145	-	-	-	-	-	-	-
Stage 2	283	140	-	251	113	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB			
HCM Control Delay, s	21.7		20.6		0		0			
HCM LOS	C		C							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	303	-	-	250	282	357	-	-
HCM Lane V/C Ratio	-	-	-	0.136	0.181	-	-	-
HCM Control Delay (s)	0	-	-	21.7	20.6	0	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.6	0	-	-

Intersection: 1: Merivale & Lotta & Clyde

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	L	TR	L	T	T	L	T	TR
Maximum Queue (m)	26.6	49.4	67.3	75.4	26.1	18.0	65.4	72.0	21.2	58.7	76.3
Average Queue (m)	7.3	22.5	37.7	48.3	8.3	4.8	27.4	29.7	6.4	27.2	37.0
95th Queue (m)	19.3	41.2	62.4	69.4	20.7	12.8	52.2	59.2	16.1	52.8	65.0
Link Distance (m)		218.8		452.2	452.2		272.2	272.2		394.0	394.0
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (m)	40.0		95.0			85.0			80.0		
Storage Blk Time (%)		2					0				
Queuing Penalty (veh)		0					0				

Intersection: 2: Merivale & Withrow/Capilano

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	T	R
Maximum Queue (m)	24.4	20.0	28.4	20.9	16.4	65.7	68.7	22.1	22.1	125.4	143.4	0.0
Average Queue (m)	8.3	6.1	9.4	7.0	4.0	32.1	50.8	2.0	4.6	33.3	55.1	0.0
95th Queue (m)	20.3	15.8	21.5	17.2	11.7	62.1	77.0	11.7	22.4	94.9	120.8	0.0
Link Distance (m)		189.7		219.0	61.8	61.8	61.8			272.2	272.2	272.2
Upstream Blk Time (%)						1	7					
Queuing Penalty (veh)						6	34					
Storage Bay Dist (m)	25.0		35.0					15.0	100.0			
Storage Blk Time (%)	1	0	0				22	0	0	0		
Queuing Penalty (veh)	0	0	0				6	0	0	0		

Intersection: 3: Merivale & Rossland

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (m)	12.8	10.6	25.6	137.6	5.2	28.0
Average Queue (m)	4.2	3.0	0.9	33.6	0.2	1.7
95th Queue (m)	11.7	9.3	17.6	108.5	2.4	13.6
Link Distance (m)	121.4	94.8	127.1	127.1	61.8	61.8
Upstream Blk Time (%)			0	1		0
Queuing Penalty (veh)			0	6		0
Storage Bay Dist (m)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: Merivale & Emerald Plaza

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	L	T	TR
Maximum Queue (m)	36.4	10.8	17.0	46.9	248.6	281.8	305.2	29.7	35.7	60.3	61.4
Average Queue (m)	14.2	2.3	3.9	17.9	26.0	248.6	292.2	10.9	19.9	21.9	24.6
95th Queue (m)	29.4	8.6	12.5	35.9	143.4	330.5	319.2	24.2	32.4	49.6	54.5
Link Distance (m)	66.7	66.7	216.2	216.2	280.7	280.7	280.7		127.1	127.1	127.1
Upstream Blk Time (%)					0	0	38				
Queuing Penalty (veh)					0	3	236				
Storage Bay Dist (m)								100.0			
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 5: Merivale & Meadowlands

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	L	T	T	R	L	T	T	R	L
Maximum Queue (m)	107.4	176.6	102.1	37.3	42.2	45.5	58.1	92.4	116.4	112.8	101.4	36.3
Average Queue (m)	101.9	135.4	50.5	15.9	24.3	25.1	18.3	28.6	96.8	105.6	41.9	16.3
95th Queue (m)	125.6	228.8	80.6	30.8	37.9	39.7	52.7	85.2	136.1	110.1	123.7	31.1
Link Distance (m)		173.4	173.4		236.6	236.6			101.4	101.4		
Upstream Blk Time (%)		21							31	61	0	
Queuing Penalty (veh)		59							222	435	0	
Storage Bay Dist (m)	100.0			130.0			105.0	85.0			95.0	140.0
Storage Blk Time (%)	67	0						0	36	72	0	
Queuing Penalty (veh)	126	1						0	33	62	2	

Intersection: 5: Merivale & Meadowlands

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (m)	65.4	71.0	5.9
Average Queue (m)	33.1	36.4	0.3
95th Queue (m)	57.2	62.5	3.7
Link Distance (m)	280.7	280.7	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			175.0
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Meadowlands

Movement	EB	WB	WB
Directions Served	T	T	T
Maximum Queue (m)	211.5	15.9	51.8
Average Queue (m)	97.8	2.0	3.2
95th Queue (m)	318.1	9.6	29.1
Link Distance (m)	367.8	173.4	173.4
Upstream Blk Time (%)	6		0
Queuing Penalty (veh)	0		0
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: Merivale

Movement	NB	NB	SB
Directions Served	T	T	T
Maximum Queue (m)	286.4	288.4	2.7
Average Queue (m)	267.5	270.8	0.1
95th Queue (m)	333.2	329.1	1.6
Link Distance (m)	272.4	272.4	101.4
Upstream Blk Time (%)	45	85	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Meadowlands

Movement	EB	EB	EB	WB	WB	WB	NB
Directions Served	T	T	R	L	T	T	LR
Maximum Queue (m)	38.8	44.5	58.3	20.6	26.0	30.5	46.2
Average Queue (m)	16.0	18.3	22.2	6.8	12.8	13.9	19.0
95th Queue (m)	31.8	36.4	43.8	17.0	22.7	24.8	36.6
Link Distance (m)	236.6	236.6	236.6		504.5	504.5	358.0
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)				50.0			
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 1232

Intersection: 1: Merivale & Lotta & Clyde

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	L	TR	L	T	T	L	T	TR
Maximum Queue (m)	28.2	43.3	102.5	465.4	466.2	63.5	100.7	107.1	87.3	128.8	139.3
Average Queue (m)	8.7	18.0	101.8	451.7	441.8	13.3	65.4	70.3	21.4	72.1	85.6
95th Queue (m)	21.2	36.4	110.7	512.0	569.1	36.1	94.9	100.1	60.2	115.3	129.5
Link Distance (m)		218.8		452.2	452.2		272.2	272.2		394.0	394.0
Upstream Blk Time (%)				87	67						
Queuing Penalty (veh)				0	0						
Storage Bay Dist (m)	40.0		95.0			85.0			80.0		
Storage Blk Time (%)		1	25	78			2		0	6	
Queuing Penalty (veh)		0	108	327			1		0	6	

Intersection: 2: Merivale & Withrow/Capilano

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	T	R
Maximum Queue (m)	23.0	23.0	38.5	33.7	35.7	67.5	70.8	22.2	107.1	288.8	284.5	168.4
Average Queue (m)	7.3	7.5	15.3	10.6	15.0	47.5	58.6	4.1	22.0	263.1	271.1	12.4
95th Queue (m)	18.9	18.5	31.3	23.4	30.1	71.9	76.9	16.8	80.3	312.1	296.7	91.9
Link Distance (m)		189.7		219.0	61.8	61.8	61.8			272.2	272.2	272.2
Upstream Blk Time (%)						3	11			8	15	0
Queuing Penalty (veh)						19	59			42	82	0
Storage Bay Dist (m)	25.0		35.0					15.0	100.0			
Storage Blk Time (%)	1	0	1	0			28	0	0	13		
Queuing Penalty (veh)	0	0	1	0			15	1	0	11		

Intersection: 3: Merivale & Rossland

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (m)	22.5	31.7	85.7	136.3	24.6	83.8
Average Queue (m)	7.2	9.9	3.6	47.9	1.3	13.0
95th Queue (m)	16.7	22.5	37.9	132.7	12.1	52.6
Link Distance (m)	121.4	94.8	127.1	127.1	61.8	61.8
Upstream Blk Time (%)			0	1	0	1
Queuing Penalty (veh)			1	10	0	6
Storage Bay Dist (m)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: Merivale & Emerald Plaza

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	L	T	TR
Maximum Queue (m)	36.5	20.0	37.5	71.4	251.7	281.2	302.9	43.2	50.0	89.3	97.2
Average Queue (m)	14.8	7.2	14.4	36.8	33.0	244.2	286.9	21.0	28.3	59.9	69.8
95th Queue (m)	29.4	16.8	30.5	62.3	160.1	343.4	321.3	38.4	44.0	82.7	91.9
Link Distance (m)	66.7	66.7	216.2	216.2	280.7	280.7	280.7		127.1	127.1	127.1
Upstream Blk Time (%)					0	0	24				
Queuing Penalty (veh)					1	2	123				
Storage Bay Dist (m)								100.0			
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 5: Merivale & Meadowlands

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	L	T	T	R	L	T	T	R	L
Maximum Queue (m)	92.2	75.9	67.9	74.7	89.4	86.8	51.9	92.4	114.1	112.2	101.4	55.6
Average Queue (m)	46.4	30.6	39.4	35.5	53.3	51.0	6.0	45.8	98.7	105.2	43.2	29.4
95th Queue (m)	83.8	62.6	61.1	64.0	78.1	76.2	30.0	102.0	130.7	109.2	125.3	50.5
Link Distance (m)		173.4	173.4		236.6	236.6			101.4	101.4		
Upstream Blk Time (%)									35	63	1	
Queuing Penalty (veh)									250	450	0	
Storage Bay Dist (m)	100.0			130.0			105.0	85.0			95.0	140.0
Storage Blk Time (%)	1					0	0	0	36	72	0	
Queuing Penalty (veh)	2					0	0	0	69	74	2	

Intersection: 5: Merivale & Meadowlands

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (m)	85.6	88.3	33.5
Average Queue (m)	48.7	52.6	6.5
95th Queue (m)	71.9	76.1	22.8
Link Distance (m)	280.7	280.7	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			175.0
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Meadowlands

Movement	EB	WB	WB
Directions Served	T	T	T
Maximum Queue (m)	6.9	6.0	78.1
Average Queue (m)	1.0	0.2	4.7
95th Queue (m)	6.9	2.8	51.6
Link Distance (m)	367.8	173.4	173.4
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: Merivale

Movement	NB	NB
Directions Served	T	T
Maximum Queue (m)	287.1	288.8
Average Queue (m)	273.4	276.6
95th Queue (m)	307.8	303.3
Link Distance (m)	272.4	272.4
Upstream Blk Time (%)	49	85
Queuing Penalty (veh)	0	0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Meadowlands

Movement	EB	EB	EB	WB	WB	WB	NB
Directions Served	T	T	R	L	T	T	LR
Maximum Queue (m)	37.9	39.2	41.8	21.9	27.8	25.9	40.0
Average Queue (m)	14.6	16.7	19.0	6.3	14.9	11.6	18.2
95th Queue (m)	27.9	31.7	34.7	16.7	24.7	21.9	34.6
Link Distance (m)	236.6	236.6	236.6		504.5	504.5	358.0
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)				50.0			
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 1664

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Appendix H:

MMLOS Analysis

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Appendix I:

TDM Measures and Infrastructure Design Checklist

TDM Measures Checklist:
Non-Residential Developments (office, institutional, retail or industrial)

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

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

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

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

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

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

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

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

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

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

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

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

TDM-supportive design & infrastructure measures: <i>Non-residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
1. WALKING & CYCLING: ROUTES		
1.1 Building location & access points		
BASIC	1.1.1 Locate building close to the street, and do not locate parking areas between the street and building entrances	✓
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 (<i>see Official Plan policy 4.3.3</i>)	✓
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 (<i>see Official Plan policy 4.3.12</i>)	✓

TDM-supportive design & infrastructure measures: <i>Non-residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3 Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks (<i>see Official Plan policy 4.3.10</i>)	✓
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 (<i>see Official Plan policy 4.3.10</i>)	✓
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 (<i>see Official Plan policy 4.3.11</i>)	✓
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: <i>Non-residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
2. WALKING & CYCLING: END-OF-TRIP FACILITIES		
2.1 Bicycle parking		
REQUIRED	2.1.1 Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible (see <i>Official Plan policy 4.3.6</i>)	✓
REQUIRED	2.1.2 Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas (see <i>Zoning By-law Section 111</i>)	✓
REQUIRED	2.1.3 Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored (see <i>Zoning By-law Section 111</i>)	✓
BASIC	2.1.4 Provide bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met), plus the expected peak number of customer/visitor cyclists	✓
BETTER	2.1.5 Provide bicycle parking spaces equivalent to the expected number of commuter and customer/visitor cyclists, plus an additional buffer (e.g. 25 percent extra) to encourage other cyclists and ensure adequate capacity in peak cycling season	✓
2.2 Secure bicycle parking		
REQUIRED	2.2.1 Where more than 50 bicycle parking spaces are provided for a single office building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers (see <i>Zoning By-law Section 111</i>)	✓
BETTER	2.2.2 Provide secure bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met)	✓
2.3 Shower & change facilities		
BASIC	2.3.1 Provide shower and change facilities for the use of active commuters	<input type="checkbox"/>
BETTER	2.3.2 In addition to shower and change facilities, provide dedicated lockers, grooming stations, drying racks and laundry facilities for the use of active commuters	<input type="checkbox"/>
2.4 Bicycle repair station		
BETTER	2.4.1 Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	<input type="checkbox"/>

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

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

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

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

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
1. WALKING & CYCLING: ROUTES		
1.1 Building location & access points		
BASIC	1.1.1 Locate building close to the street, and do not locate parking areas between the street and building entrances	✓
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 <i>(see Official Plan policy 4.3.3)</i>	<input type="checkbox"/>
REQUIRED	1.2.2 Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible <i>(see Official Plan policy 4.3.12)</i>	✓

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3 Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks (<i>see Official Plan policy 4.3.10</i>)	✓
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 (<i>see Official Plan policy 4.3.10</i>)	✓
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 (<i>see Official Plan policy 4.3.11</i>)	✓
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: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
2. WALKING & CYCLING: END-OF-TRIP FACILITIES		
2.1 Bicycle parking		
REQUIRED	2.1.1 Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible (see <i>Official Plan policy 4.3.6</i>)	✓
REQUIRED	2.1.2 Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas (see <i>Zoning By-law Section 111</i>)	✓
REQUIRED	2.1.3 Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored (see <i>Zoning By-law Section 111</i>)	✓
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 <i>Zoning By-law Section 111</i>)	✓
BETTER	2.2.2 Provide secure bicycle parking spaces equivalent to at least the number of units at condominiums or multi-family residential developments	✓ At minimum, 57 stalls inside of the multi-storey residential for tenant use.
2.3 Bicycle repair station		
BETTER	2.3.1 Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	<input type="checkbox"/>
3. TRANSIT		
3.1 Customer amenities		
BASIC	3.1.1 Provide shelters, lighting and benches at any on-site transit stops	✓
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	<input type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
4. RIDESHARING		
4.1 Pick-up & drop-off facilities		
BASIC	4.1.1 Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	<input type="checkbox"/>
5. CARSHARING & BIKESHARING		
5.1 Carshare parking spaces		
BETTER	5.1.1 Provide up to three carshare parking spaces in an R3, R4 or R5 Zone for specified residential uses (see <i>Zoning By-law Section 94</i>)	<input checked="" type="checkbox"/> Rideshare to be explored
5.2 Bikeshare station location		
BETTER	5.2.1 Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	<input type="checkbox"/>
6. PARKING		
6.1 Number of parking spaces		
REQUIRED	6.1.1 Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	<input checked="" type="checkbox"/> Proposed parking of 0.5 spaces/dwelling for tenants
BASIC	6.1.2 Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	<input checked="" type="checkbox"/>
BASIC	6.1.3 Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly (see <i>Zoning By-law Section 104</i>)	<input checked="" type="checkbox"/> Shared parking between worship and office space, make use of overflow lot.
BETTER	6.1.4 Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking (see <i>Zoning By-law Section 111</i>)	<input type="checkbox"/>
6.2 Separate long-term & short-term parking areas		
BETTER	6.2.1 Provide separate areas for short-term and long-term parking (using signage or physical barriers) to permit access controls and simplify enforcement (i.e. to discourage residents from parking in visitor spaces, and vice versa)	<input type="checkbox"/>