6333 Hurontario Street Dymon Transportation Brief

Prepared for:

Dymon Group of Companies

Prepared by:

628 Haines Road
Newmarket, ON
L3Y 6V5

December 2020

PN: 2020-20

Table of Contents

1 Introduction 1
2 Existing Conditions 3
2.1 Area Road Network 3
2.2 Existing Intersections 3
2.2.1 Existing Driveways 3
2.3 Cycling and Pedestrian Facilities 4
2.4 Existing Transit 4
2.5 Existing Peak Hour Travel Demand 5
3 Future Background Conditions 6
3.1 Planned Conditions 6
3.1.1 Changes to Area Transportation Network 6
3.1.2 Background Growth 8
3.1.3 Other Study Area Developments 8
4 Forecasting 8
4.1 Development-Generated Travel Demand 8
4.1.1 Dymon Storage, Reception, and Retail Trip Generation 8
4.1.2 Third-Party Office Trip Generation 10
4.1.3 Total Trip Generation 11
4.1.4 Trip Assignment 12
4.1.5 Future Total Travel Demand 13
5 Operational Analysis 13
5.1 2025 Future Background Conditions – Scenario 1 14
5.2 2025 Future Background Conditions – Scenario 2 14
5.3 Transportation Demand Management 15
5.4 Turning Template Analysis 15
5.5 Multi-Modal Sightlines 16
6 Conclusions 17

List of Figures

Figure 1: Site Context 1
Figure 2: Concept Plan 2
Figure 3: Existing MiWay Study Area Transit Service 4
Figure 4: Existing Brampton Transit Study Area Service 5

Figure 5: 2020 Traffic Volumes 6
Figure 6: Future Hurontario Street Cross-Section at Courtneypark Drive 7
Figure 7: Future Hurontario Street Cross-Section at Britannia Road 7
Figure 8: Trip Generation vs. Gross Floor Area 10
Figure 9: New Site Generated Auto Volumes – Scenario 1 12
Figure 10: New Site Generated Auto Volumes – Scenario 2 12
Figure 11: 2025 Future Total Volumes – Scenario 1 13
Figure 12: 2025 Future Total Volumes – Scenario 2 13
Figure 13: Vehicular Clear Sight Distance - Site Access at Hurontario Street 16

List of Tables

Table 1: Turning Movement Count Data Dates 5
Table 2: Analysis Scenarios 8
Table 3: Site Statistics Comparison 9
Table 4: Proxy Site Trip Generation 9
Table 5: Proxy Site Trip Generation Rates 9
Table 6: Projected 6333 Hurontario Site Trip Generation – Self- Storage Use 10
Table 7: ITE Trip Generation LUC 151 Mini-Warehouse 10
Table 8: ITE LUC 151 Trip Generation 10
Table 9: ITE Trip Generation LUC 710 General Office Building 11
Table 10: ITE LUC 710 General Office Building 11
Table 11: Projected 6333 Hurontario Site Trip Generation – Office Use, Scenario 2 11
Table 12: Total Site Trip Generation – Scenario 1 11
Table 13: Total Site Trip Generation – Scenario 2 12
Table 14: Level of Service Criteria for Unsignalized Intersections 14
Table 15: 2025 Future Total Conditions Operational Analysis – Scenario 1 14
Table 16: 2025 Future Total Conditions Operational Analysis –Scenario 2 15
Table 17: Clear Sight Distance - Vehicles 16

List of Appendices

Appendix A – Ministry of Transportation Ontario Consultation Summary
Appendix B – Turning Movement Count Data
Appendix C – Hurontario LRT Environmental Project Report Preliminary Design
Appendix D – Proxy Site Trip Generation Data and Site Plans
Appendix E – LUC 151 Mini Warehouse Description
Appendix F – LUC 710 General Office Building Description
Appendix G – 2025 Total Future Conditions Synchro Worksheets – Scenario 1
Appendix H – 2025 Total Future Conditions Synchro Worksheets – Scenario 2
Appendix I – Turning Template Drawings

1 Introduction

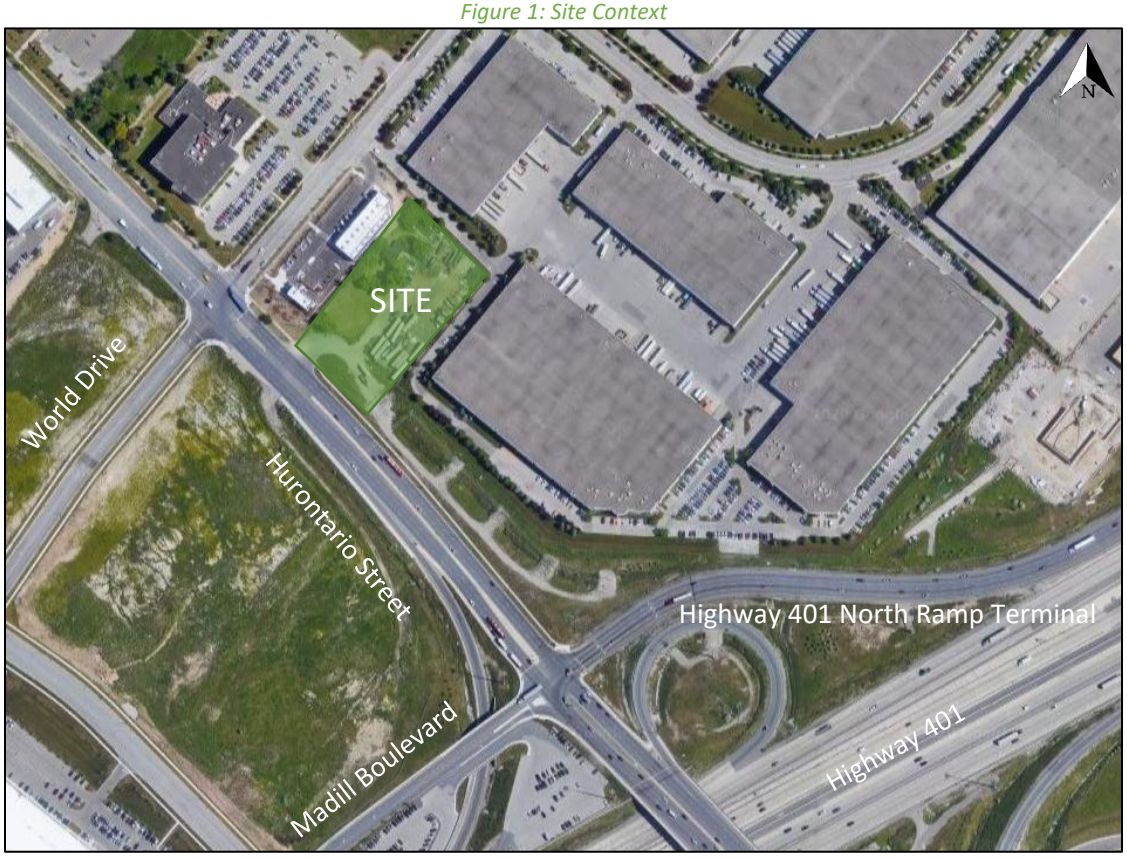
This Transportation Brief has been prepared according to support the proposed development at 6333 Hurontario Street in City of Mississauga. The subject site is located approximately 300 metres north of Highway 401 at Hurontario Street, inside the Ministry of Transportation Ontario (MTO) Permit Control Area. The scope of this Transportation Brief has been confirmed with transportation staff from the Ministry of Transportation Ontario. E-mail correspondence discussing the scope is included in Appendix A.

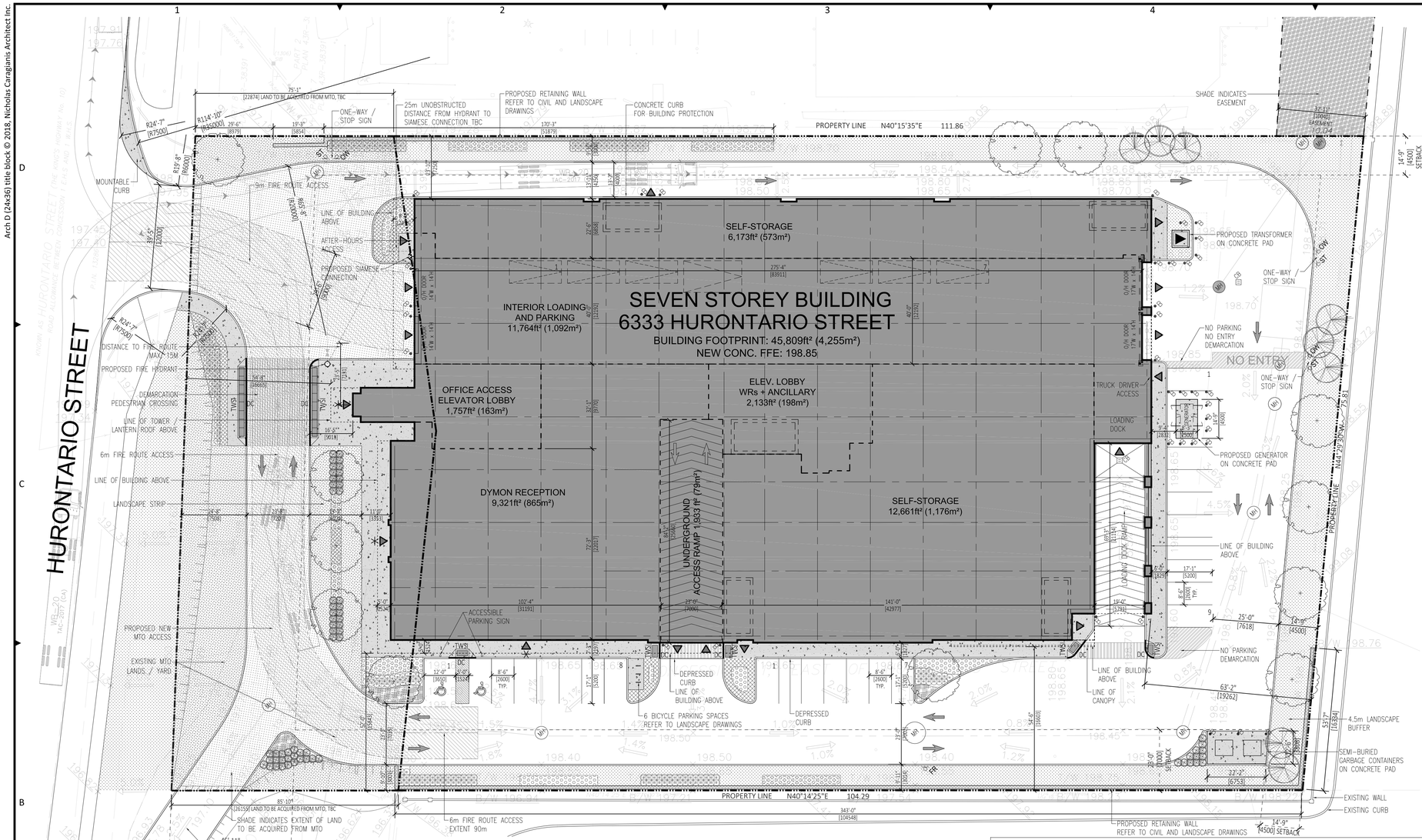
The subject property is zoned as a Development Zone and currently contains a detached single-family building. The property is currently being rezoned to allow mixed-use and the existing building will be removed as part of this development. The proposed development includes a 21,895 square metre Dymon Self-Storage Facility (including drive aisle and reception/retail area). Additionally, the building includes 7,221 square metres of office space. According to the site plan, total of 216 parking spaces are proposed, out of which 24 parking slots are exterior, 7 parking spaces are interior at grade, and 185 parking spaces are located underground.

Access to the site will be accommodated via Hurontario Street, approximately 300 metres north of Hurontario Street and Highway 401 North Ramp Terminal/Madill Boulevard, measured from centreline to centreline. As Hurontario Street is a future LRT corridor, the site access would be restricted to right-in / right-out only. The configuration of this access will be confirmed as part of this Transportation Brief.

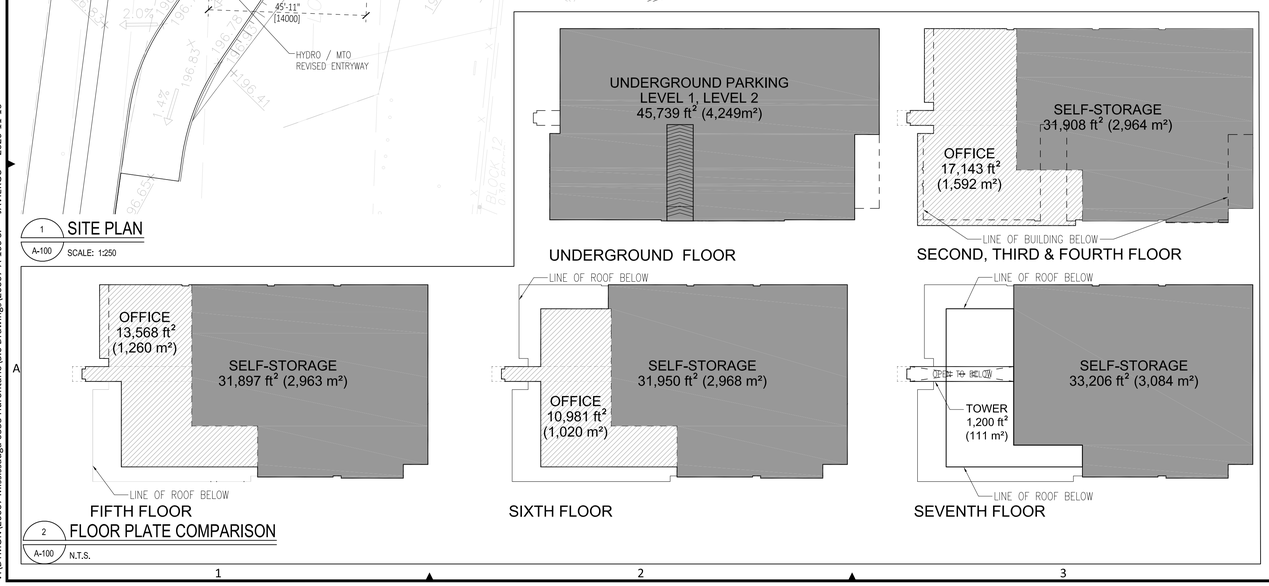
For the purposes of this study, the projected full build-out and occupancy horizon is 2025. Figure 1 illustrates the site context. Figure 2 illustrates the proposed site plan.

Figure 1: Site Context





1 SITE PLAN
A-100 SCALE: 1:250



2 FLOOR PLATE COMPARISON
A-100 N.T.S.

LEGEND

- PROPOSED BUILDING LOCATION
- EXISTING NEIGHBORING BUILDINGS
- LANDSCAPED AREA
- CONCRETE/ SIDEWALK
- EXISTING CONCRETE/SIDEWALK
- BARRIER FREE PARKING CLEARANCE
- CURB
- DENOTES PAINTED LINES
- DEPRESSED CURB
- DENOTES FIRE ROUTE ACCESS
- TWSI TACTILE WALKING SURFACE INDICATOR
- NEW TREE/ VEGETATION (REFER TO LANDSCAPE PLAN FOR TYPE, SIZE AND LOCATION)
- EXISTING TREE (VEGETATION IS FOR REFERENCE ONLY, REFER TO LANDSCAPE PLAN)
- BARRIER FREE PARKING
- INTERIOR PARKING
- CATCH BASIN
- SIAMESE CONNECTION
- PEDESTRIAN CROSSING DEMARCATION
- ENTRANCE/ EXIT LOCATION
- PRINCIPAL ENTRANCE
- TRANSFORMER
- ONE-WAY SIGN
- FENCE & GATE
- NO ENTRY SIGN
- MAN HOLE / CATCH BASIN
- FIRE ROUTE ACCESS / NO PARKING SIGN
- LIGHT POLE (HYDRO)
- TRAFFIC DIRECTION
- FIRE HYDRANT
- NLS (NEW LIGHT STANDARD, REFER TO ELECTRICAL)
- BOLLARD

SITE STATISTICS

LEGAL DESCRIPTION OF PROPERTY:

PART OF THE WEST HALF OF LOT 7
CONCESSION 1, HURONTARIO STREET
SURVEYED BY SPEIGHT, VAN NOSTRAND & GIBSON LIMITED
ONTARIO LAND SURVEYORS

ZONING REGULATION	REQUIRED	PROPOSED
Lot Area Land acquired from MTO Total Lot Area	N/A	7,983 m2 2,027 m2 10,010 m2
Front Yard Setback	14.0 m	16.6 m
Side Yard Setback	4.5 m (NORTH) 7.0 m (SOUTH)	7.2 m 15.8 m
Rear Yard Setback	4.5 m	19.2 m
Building Height	N/A	31.3 m AVG GRADING TO TOP OF ROOF
Self-Storage Warehouse, Reception and Retail 0.6 spaces per 100 m2 of GFA	132	25 at grade Including 7 Interior Parking/Loading
Third-Party Office 3.2 spaces per 100 m2 of GFA	232	191 Including 6 at grade, 89 at underground Level 1 and 96 at underground Level 2
Accessible Parking Space	9	9 included in count above (2 at grade, 1 interior loading, 6 at underground Level 1 & 2)
Landscaped abutting Hurontatio St Landscaped abutting North boundary Landscaped abutting East boundary Landscaped abutting South boundary	N/A N/A N/A N/A	7.5 m (Average) 3.0 m 4.5 m 3.0 m
Bicycle Porking Space Retail	N/A	6 exterior (short term) 10 interior at underground levels
Loading	4	1 exterior 1 Interior Loading and Parking
Drive Aisle Width	7.0m	7.0 m (two-way) 4.0 m (one-way)
PAVED AREA LANDSCAPED AREA	3,364 m² (34 %) 2,238 m² (22 % Including interior side walks)	

BUILDING AREAS

DRIVE-THRU LOADING, RECEPTION & RETAIL:	2,236 m²	(24,078 ft²)
SELF STORAGE GROUND TO 7TH FLOOR:	19,659 m²	(211,611 ft²)
OFFICE GROUND TO 7TH FLOOR:	7,221 m²	(77,735 ft²)
PARKING UNDERGROUND LEVEL 1 & 2:	8,857 m²	(95,344 ft²)
TOTAL BUILDING	37,648 m²	(408,768 ft²)

GROSS FLOOR AREA (GFA)

BUILDING FOOTPRINT (INCLUDES INT. LOADING & PARKING AND LOADING DOCK, AND RAMP DOWN TO UNDERGROUND LEVEL 1)	4,255 m²	(45,809 ft²)	14 % (42.5 % OF LOT AREA)	
STAIRS GROUND FLOOR TO 7TH	602 m²	(6,480 ft²)		
ELEVATORS GROUND FLOOR TO 7TH	322 m²	(3,480 ft²)		
STAIRS UNDERGROUND LEVEL 1 & 2	133 m²	(1,440 ft²)		
ELEVATORS LOBBY UNDERGROUND LEVEL 1 & 2	291 m²	(3,142 ft²)		
MECHANICAL & ELECTRICAL & SERVICE AREAS	332 m²	(3,584 ft²)		
ELEVATORS LOBBY / ANCILLARY SPACES GROUND FLOOR SELF-STORAGE	166 m²	(1,793 ft²)	1 %	
INTERIOR LOADING & PARKING AND LOADING DOCK	1,092 m²	(11,764 ft²)	3.7 %	
DYMON RECEPTION & RETAIL	865 m²	(9,321 ft²)	3 %	100%
TOTAL SELF STORAGE GROUND TO 7TH (***)	19,126 m²	(205,871 ft²)	68 %	
TOTAL OFFICE GROUND TO 7TH FLOOR (***)	6,798 m²	(73,175 ft²)	24 %	
FEATURE STAIR / TOWER 7TH FLOOR	111 m²	(1,200 ft²)	0.3 %	
TOTAL GFA 7-STOREY BUILDING	28,161 m²	(303,124 ft²)	100 %	
TOTAL GFA (****)	27,068 m²	(291,360 ft²)		

(***) EXCLUDES ELEVATORS AND STAIRS (2nd TO 7th FLOOR)
(****) EXCLUDES INTERIOR LOADING & PARKING AND LOADING DOCK

TOTAL GFA UNDERGROUND LEVEL 1 & 2 (*****) 7,770 m² (87,512 ft²)

(*****) EXCLUDES ELEVATORS, STAIRS, MECHANICAL, ELECTRICAL, SERVICE AREAS

SCALE 1 : 250
10 0 10 20 m

BOUNDARY INFORMATION FROM SURVEY BY:
SPEIGHT, VAN NOSTRAND & GIBSON LIMITED ONTARIO LAND SURVEYORS
COMPLETED ON FEBRUARY 4th, 2020

nicholas caragianis architect inc.
137 Pamilla Street
Ottawa ON K1S 3K9
613 237 6801 ncarchitect.ca

PROJECT NORTH:
TRUE NORTH:

ARCHITECT'S SEAL:
ONTARIO ASSOCIATION OF ARCHITECTS
NICHOLAS CARAGIANIS LICENCE 5057

Notes: Contractor must verify all drawings, dimensions, details and specifications and report any discrepancies to the architect before proceeding with work. All drawings and specifications are instruments of service and the property of the architect, and these must be returned at the completion of the project, and may not be reproduced without the architect's written permission. All drawings are to be read in conjunction with specifications and consultants' documents. Do not scale drawings. Do not use for construction unless both indicated as "For Construction" and bearing the architect's stamp and signature. All construction to meet local, provincial and federal requirements.

PLANNING & URBAN DESIGN
MHBC Planning, Urban Design & Landscape Architecture
7050 Weston Road, Suite 230, Woodbridge ON. L4L 8G7
tel: (905) 761-5588 fax: (905) 761-5589
www.mhbcplan.com

DESIGN ARCHITECT
TACT Architecture Inc
660R College Street (Rear Lane) Toronto ON. M6G 1B8
tel: (416) 516-1949
email: info@tactdesign.ca

CIVIL ENGINEER
C.F. Crozier & Associates Consulting Engineers
211 Yonge street, Suite 301, Toronto ON. M5B 1M4
tel: (416) 477-3392
cfcrozier.ca

ISSUE	YYYY/MM/DD	ISSUES DESCRIPTION
10	2020/11/13	ISSUED FOR OPA & ZBA
9	2020/10/18	ISSUED FOR COORDINATION
8	2020/10/01	ISSUED FOR COORDINATION
7	2020/09/15	ISSUED FOR COORDINATION
6	2020/08/26	ISSUED FOR COORDINATION
5	2020/07/28	ISSUED FOR COORDINATION
4	2020/07/24	ISSUED FOR DISCUSSION
3	2020/07/17	ISSUED FOR COORDINATION
2	2020/06/29	ISSUED FOR DISCUSSION
1	2018/11/27	ISSUED FOR DISCUSSION

DYMON STORAGE

CLIENT NAME AND ADDRESS:
DYMON CAPITAL CORP.
2-1830 WALKLEY ROAD
OTTAWA ON. K1H 8K3

PROJECT NAME & LOCATION:
HURONTARIO
6333 HURONTARIO STREET
MISSISSAUGA ON

NCA PROJECT NUMBER: 2020.0007
FILE NUMBER: 00-00-00
OWNER'S CONTRACT NUMBER:
OWNER'S PROJECT NUMBER:
CAD FILE NAME: 20007-A-100 SP

SHEET TITLE:
SITE PLAN

SCALE: 1:250
DRAWN BY: SG
DATE CREATED: 2018.11.15
SHEET ID: A-100

2 Existing Conditions

2.1 Area Road Network

Hurontario Street

Hurontario street is a City of Mississauga arterial road with a six-lane urban cross-section, including sidewalks on both sides, and a boulevard on the east side. The City of Mississauga Official Plan protects a 60-metre right-of-way for this road. Left turn lanes are included at major intersections. A 60 km/h posted speed limit applies. Hurontario Street is a future LRT corridor, with trackworks and guideway construction anticipated to start in 2021 and the substantial completion anticipated in 2024. The future cross-section of Hurontario Street is discussed in detail in Section 3.1.1

Highway 401 North Ramp Terminal

Highway 401 North Ramp Terminal is a City of Mississauga major collector road, west of Hurontario Street, and an MTO ramp, east of Hurontario Street. West of Hurontario Street, the Ramp has one travel lane in each direction. East of Hurontario Street, the Ramp has four westbound travel lanes, including two left-turn lanes, a through/right-turn lane, and a dedicated right-turn lane. There are sidewalks on both sides of the road, west of Hurontario Street. The sidewalk on the south side, however, ends shortly after the intersection. West of Hurontario Street the measured right-of-way on this road is 16 metres and the unposted speed limit is 50 km/hr. East of Hurontario Street the measured right-of-way is 22 metres, and the unposted speed limit is 100 km/hr.

2.2 Existing Intersections

Hurontario Street at Highway 401 North Ramp Terminal

Hurontario Street at Highway 401 North Ramp Terminal is a signalized intersection. The westbound approach consists of two right-turn lanes, a shared through/left-turn lane, and a dedicated left-turn lane. The eastbound approach consists of an eastbound right-turn lane. The northbound approach consists of three through lanes, and the southbound approach consists of two through lanes and a shared movement through/right-turn lane. The northbound left and right turns are prohibited at this intersection. Crosswalks are present along north, east and west legs of the intersection with pedestrian signal heads and call buttons.

2.2.1 Existing Driveways

Within the site there is a driveway that provides access to hydro poles located south of the subject property lot. This driveway will be maintained by Dymon to allow for access to hydro easement as per the Agreement of Purchase and Sale.

2.3 Cycling and Pedestrian Facilities

There is a sidewalk and a boulevard on the east side of Hurontario Street along frontage of the proposed development. Sidewalk is also present on the west side of Hurontario Street, both sides of World Drive and Capston Drive and on the north side of Highway 401 North Ramp Terminal, west of Hurontario Street.

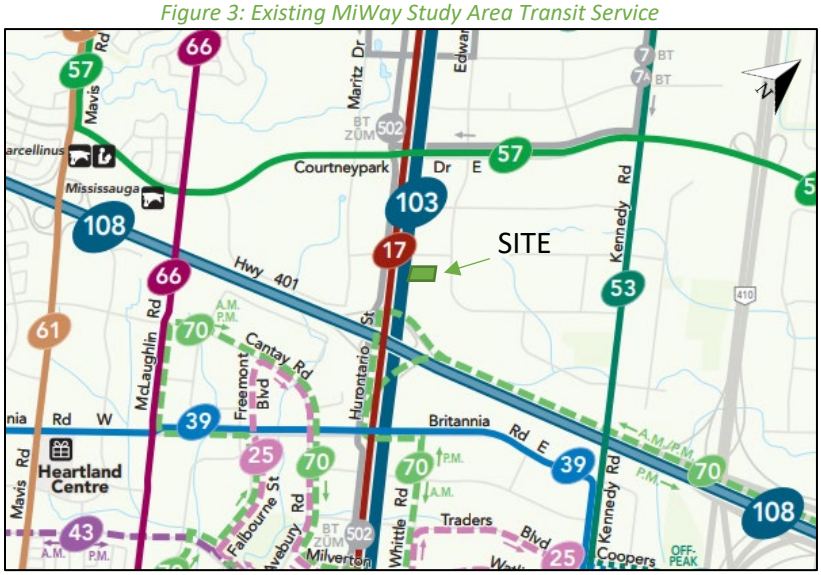
Currently, there is no cycling infrastructure in the Study Area. Raised segregated bike lanes on both sides of the road have been identified in the proposed Hurontario LRT cross-sections at Courtneypark Drive (closest stop to the north) and at Britannia Road (closest stop to the south).

2.4 Existing Transit

As of September 2020, MiWay Route #17 and Express Route #103 run along Hurontario Street within the Study Area. Express Route #103 connects to Highway 407 & Hurontario Park and Ride, as well as Brampton Gateway Terminal to the north, and Mississauga City Centre Transit Terminal to the south, after which the Route continues further south towards Queensway. Route #17 runs between Highway 407 & Hurontario Park and Ride and the Mississauga City Centre Transit Terminal. The existing Study Area MiWay Service is presented in Figure 3. The September 2020 Brampton Transit Map includes Express Route #502, which runs from Sandalwood Loop Terminal in Brampton towards Mississauga City Centre Terminal. The #502 route can be seen in Figure 4. The closest transit stops to the proposed development are located on the north leg of Hurontario Street and World Drive/Capston Drive intersection. However, the Express Routes #103 and #502 only stop at intersection of Hurontario Street and Courtneypark drive, 650 metres north of the proposed development. The frequency of the routes within the proximity of the proposed site currently are:

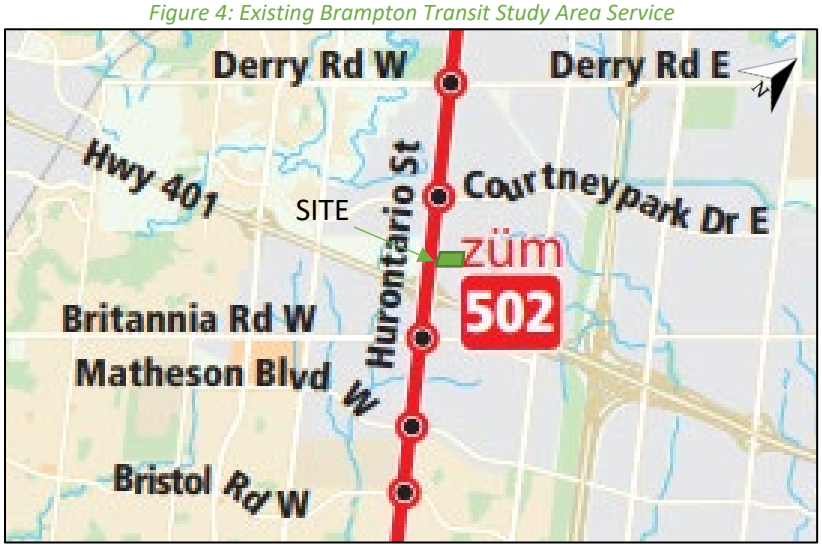
- MiWay Route # 103 – every 7-15 minutes during the AM peak hours, and every 10 minutes during the PM MiWay peak hours.
- Route #17 – every 2-11 minutes during the AM peak hours, and every 10 minutes during the PM peak hours.
- Brampton Transit Route #502 – every 7 minutes during the AM peak hours, and every 6-9 minutes during the PM peak hours.

Figure 3: Existing MiWay Study Area Transit Service



Source: https://web.mississauga.ca/ Accessed: September 8, 2020

Figure 4: Existing Brampton Transit Study Area Service



Source: https://brampton.ca/ Accessed: September 8, 2020

2.5 Existing Peak Hour Travel Demand

To understand the existing AM and PM peak hour traffic volumes turning movement counts (TMC) for the Study Area intersections have been acquired from the MTO. Table 1 summarizes the date of the most recent turning movement count at each Study Area intersection.

Table 1: Turning Movement Count Data Dates

Intersection	Count Date
Highway 401 @ Hurontario Street (NRT)	October 12, 2016

Turning movement counts at Hurontario Street and Highway 401 North Ramp Terminal were used to determine the volumes at Hurontario Street and the site access. Southbound through volumes at Hurontario Street and site access are expected to be higher due to the westbound on-ramp located between the site access and the Highway 401 North Ramp Terminal. However, since the site access consists of right-in/right-out movements only, the southbound through volumes at Hurontario Street will not be impacted nor will impact the operational analysis of the site access. Figure 5 illustrates the 2020 existing horizon traffic volumes. No current right-in and right-out movements are shown in the 2020 traffic volume figure, as the current land use will be removed as part of this development, and thus it is irrelevant to future horizon operational analysis.

As shown above, the turning movement count data has been collected at a nearby intersection in 2016. Due to the ongoing COVID-19 health crisis undertaking turning movement counts is not possible as the counted volumes would not reflect typical traffic conditions. To understand the current traffic conditions, a 2% background growth rate was applied. This is considered conservative, as in 2016, the intersection of Hurontario Street at Highway 401 North Terminal was already approaching capacity. Further, since 2016, the intersection of Hurontario Street at Highway 401 North Ramp Terminal has been reconfigured, and the eastbound and northbound left-turns prohibited. To remain conservative, the eastbound left-turns at this intersection were still used in determining the northbound through volume at Hurontario Street along the site frontage. The northbound left-turns were assumed to proceed north and were also added to the northbound through volume along the site frontage. Detailed turning movement count data is included in Appendix B.

Figure 5: 2020 Traffic Volumes

3 Future Background Conditions

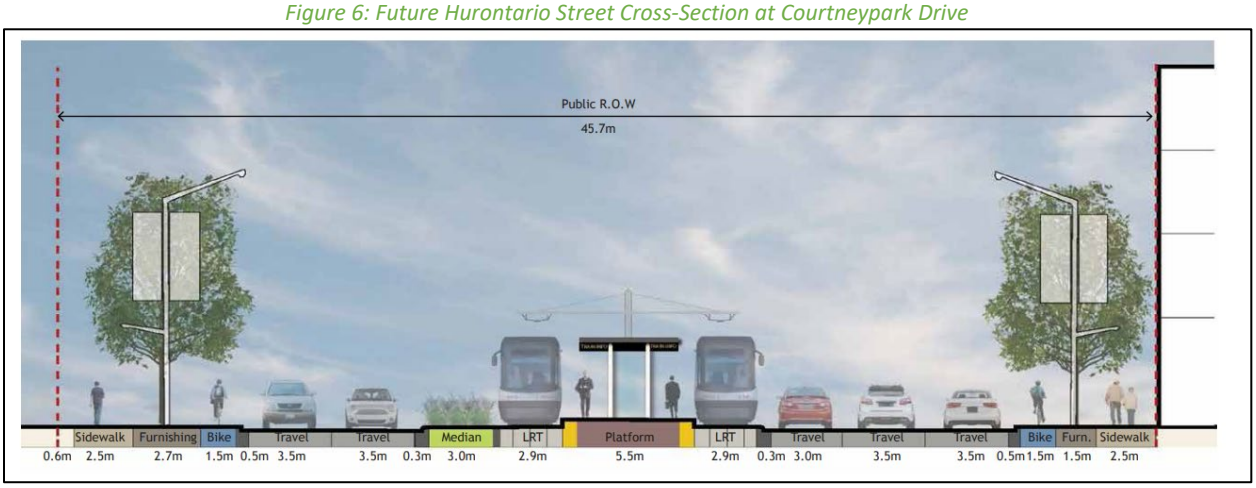
3.1 Planned Conditions

3.1.1 Changes to Area Transportation Network

The subject development fronts the future Hurontario LRT Corridor, which will enhance mobility and transit experience along Hurontario Street. The completion of the LRT is expected in fall of 2024. The closest LRT stop to the proposed development will be located at Courtneypark Drive to the north and at Britannia Road to the south. Figure 6 and Figure 7 show the proposed Hurontario Street cross-sections at Courtneypark Drive and at Britannia Road and are excerpt from Hurontario LRT Preliminary Design Environmental Project Report. The Hurontario Street at Courtneypark Drive cross-section includes the following elements, from left(west) to right(east):

- 0.6 metre buffer
- 2.5 metre sidewalk
- 2.7 metre planting strip and furnishings
- 1.5 metre segregated bike lane
- 0.5 metre buffer
- Two 3.5 metre drive lanes
- 0.3 metre buffer
- 3.0 metre median (left turn lane at intersections)
- 11.3 metre LRT tracks and platform
- 3.0 metre median (left turn lane at intersections)
- 0.3 metre buffer
- Two 3.5 metre drive lanes
- 0.5 metre buffer
- 1.5 metre segregated bike lane
- 1.5 metre planting strip and furnishings
- 2.5 metre sidewalk

Figure 6: Future Hurontario Street Cross-Section at Courtneypark Drive

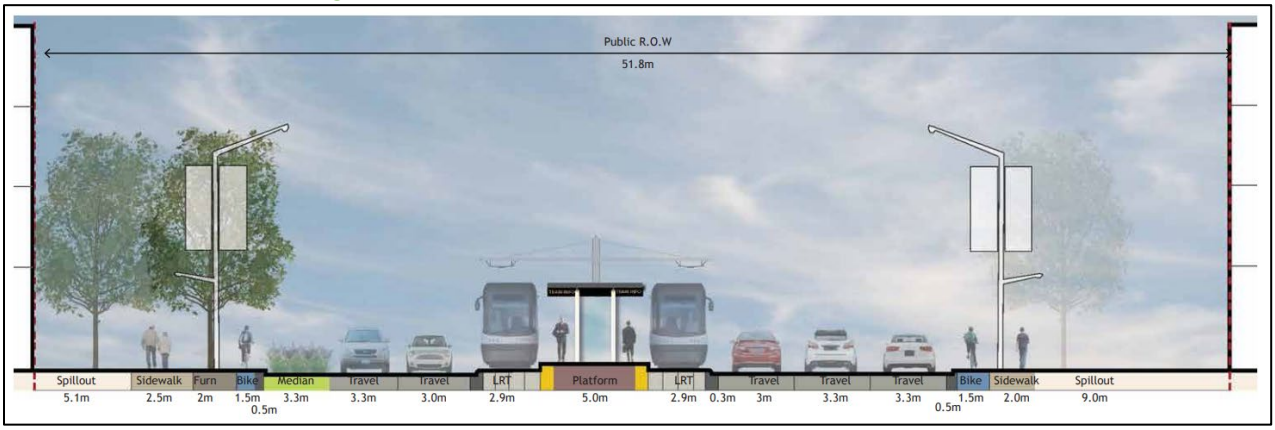


Source: Hurontario-Main Project Preliminary Design/TPAP Environmental Project Report (June 2014)

The Hurontario Street at Britannia Road cross-section includes the following elements, from left(west) to right(east):

- 5.1 metre spillout
- 2.5 metre sidewalk
- 2.5 metre planting strip and furnishings
- 1.5 metre segregated bike lane
- 0.5 metre buffer
- 3.3 metre median
- 3.3 and a 3.0 metre drive lane
- 0.3 metre buffer
- 10.8 metre LRT tracks and platform
- 0.3 metre buffer
- 3.0 metre median (left turn lane at intersections)
- Two 3.3 metre drive lanes
- 0.5 metre buffer
- 2.0 metre sidewalk

Figure 7: Future Hurontario Street Cross-Section at Britannia Road



Source: Hurontario-Main Project Preliminary Design/TPAP Environmental Project Report (June 2014)

It should be noted that the plan drawings in the 2014 Environmental Report show that the median at Britannia Road intersection is located next to the LRT tracks, which allows for it to transition to left-turn lane at intersections. Given the context, the plan drawing appears to be correct. The plan drawing of future Hurontario Street in vicinity of the site can be seen in Appendix C.

3.1.2 Background Growth

With the addition of LRT, the number of travel lanes on Hurontario Street will be reduced to two. As a result, there will be no capacity on this street to support growth in through vehicular traffic. The addition of LRT will also increase the transit mode share along the corridor, further reducing vehicular traffic. Therefore, the existing 2020 traffic volume will be used as background traffic for future analyses.

3.1.3 Other Study Area Developments

No active development applications are available for properties within one-kilometre radius of the subject site.

4 Forecasting

4.1 Development-Generated Travel Demand

Because of the potential impacts of future changes to the road network two development-generated travel demand scenarios were analysed in the following section. Table 2 outlines the network and demand assumptions considered in these scenarios. Each of the scenarios will be discussed in detail in the following sections.

Table 2: Analysis Scenarios

Scenario	Network Assumptions	Demand Assumptions
Scenario 1	Current transit and infrastructure conditions	Dymon Storage, Reception, and Retail component trip generation aligned with proxy site trip generation Third-Party Office component trip generation aligned with ITE trip generation for LUC 710 – General Office Building
Scenario 2	Hurontario LRT implemented and travel lanes reduced to four lanes	Dymon Storage, Reception and Retail component trip generation aligned with proxy site trip generation Third-Party Office component trip generation equal to 60% of ITE trip generation for LUC 710 – General Office Building Office vehicle trip generation reduced by additional 10% as a result of anticipated modal shift due to LRT implementation

4.1.1 Dymon Storage, Reception, and Retail Trip Generation

To better understand the Dymon Storage, Reception, and Retail component trip generation, a proxy site trip generation survey has been undertaken at three established, comparable Dymon sites in Ottawa. These sites have been selected as they are similar in size to the proposed development and have similar features (GFA, Land Uses, Arterial Road Access). The selected sites include the new Dymon retail functions and sell the home storage

solutions. These will operate in the same manner as the proposed site plan at 6333 Hurontario Street and are appropriate proxy sites for comparison. Ottawa sites have been selected for review as no Dymon sites have been completed and/or opened in the GTA and current data can not be collected as a result of current lockdown measures due to the COVID-19 pandemic. However, this data has been used to support proposed Dymon developments in the City of Toronto, the City of Hamilton, and the Town of Oakville. Table 3 summarizes the site statistics for the surveyed and proposed sites.

Table 3: Site Statistics Comparison

Site	Reception/Retail GFA(m^2)	Self-Storage GFA (m^2)	Total GFA (m^2)
1554 Carling Avenue	2,714	18,204	21,685
323 Coventry Road	867	11,484	12,351
6333 Hurontario	865	21,116	21,895
300 Greenbank Road	~700	8,495	9,195

Table 4 summarizes the surveyed trip generation for 1554 Carling Avenue, 323 Coventry Road (two survey dates), and 300 Greenbank Road.

Table 4: Proxy Site Trip Generation

Site	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
1554 Carling	6	2	8	13	9	22
323 Coventry (May Counts)	14	9	23	17	19	36
323 Coventry (June Counts)	7	5	12	11	15	26
300 Greenbank	7	4	11	10	10	20

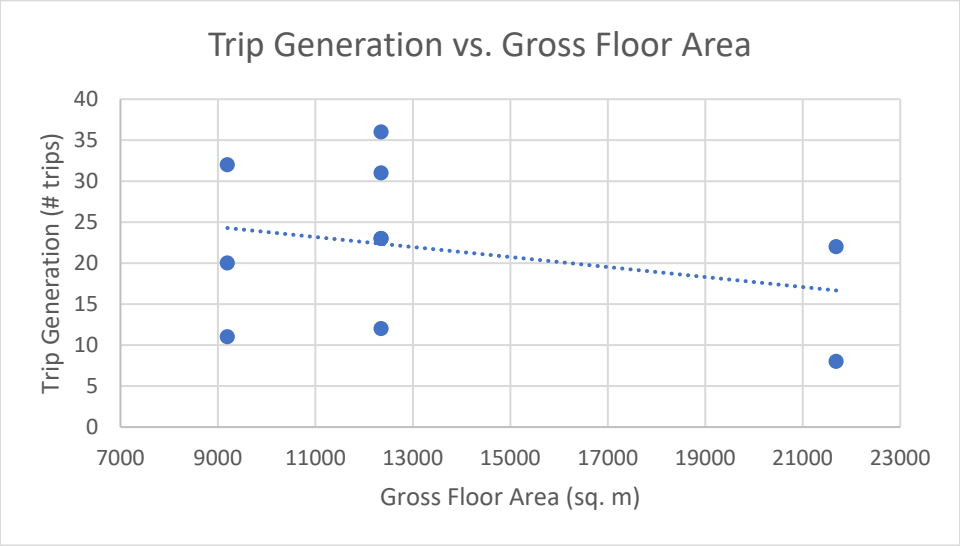
The selected sites have a wide range of gross floor areas. To accurately compare these sites to the proposed site, the trip generation rate has been determined for each survey in terms of vehicle trips generated per 1000 square metres. Table 5 summarizes the trip generation rates for each site. Appendix D includes the trip generation proxy counts and site plans for each surveyed site.

Table 5: Proxy Site Trip Generation Rates

Site	GFA (m^2)	AM Peak Hour Rate (/1000 sm gfa)	PM Peak Hour Rate (/1000 sm gfa)
1554 Carling	21,685	0.37	1.01
323 Coventry (May)	12,351	1.86	2.91
323 Coventry (June)	12,351	0.97	2.11
300 Greenbank	9,195	1.20	2.18
Average Rate	-	1.10	2.05

The trip generation rates above have been examined and these sites do not have a strong correlation between increased gross floor area and increased trip generation. Figure 8 is a graph illustrating the relationship between trip generation and gross floor area. A linear trendline has been added to the graph to illustrate the correlation.

Figure 8: Trip Generation vs. Gross Floor Area



Given the number of sites surveyed, and the various survey dates, an average of the trip generation rates has been calculated. The average trip generation rate has been applied to the proposed site to determine the anticipated trip generation of the subject development. Table 6 summarizes the projected trip generation for the Storage, Reception and Retail uses of a proposed Dymon storage facility at 6333 Hurontario Street based on proxy site trip generation rates.

Table 6: Projected 6333 Hurontario Site Trip Generation – Self- Storage Use

Site	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Average Rate	15	9	24	22	23	45

For comparison ITE Trip Generation Rates for ITE Land Use Code (LUC) 151 Mini Warehouse have also been used to calculate the trip generation. Table 7 summarizes the ITE Trip Generation rates for LUC 151 Mini-Warehouse. Appendix E includes a summary of the description of LUC 151. Table 8 summarizes the trip generation for the proposed site based on the ITE LUC 151 rates.

Table 7: ITE Trip Generation LUC 151 Mini-Warehouse

	AM Peak	PM Peak
Average Rate (/1000 sf gfa)	0.10	0.17
In/Out	60%/40%	47%/53%

Table 8: ITE LUC 151 Trip Generation

Land Use	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
LUC 151 Trip Gen	14	10	24	19	22	41

The proxy site trip generation results are similar to the projections created using ITE trip rates.

4.1.2 Third-Party Office Trip Generation

In addition to the Dymon Self-Storage use, this site will accommodate 7,221 square metres of non-Dymon office space. The anticipated trip generation from the office use will be estimated using ITE average trips rates for Land

Use Code 710 – General Office Building. Appendix F includes a summary of the description of LUC 710. Table 9 and Table 10 summarize the trip generation rates and trip generation for the third-party office portion of the development.

Table 9: ITE Trip Generation LUC 710 General Office Building

	AM Peak	PM Peak
Average Rate (/1000 sf gfa)	1.16	1.15
In/Out	86%/14%	16%/84%

Table 10: ITE LUC 710 General Office Building

Land Use	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
LUC 710 Trip Gen	78	13	91	14	76	90

In scenario 2, the number of trips generated by the Office component of the development will be 60% of the trip generation determined using the ITE LUC 710. This is because the Third-Party Office component is expected to be rented out to multiple tenants on a day-by-day basis. Given this shared-use model, it is expected that the office component of the development will not operate at full capacity. Further, a shared office use will result in flattening of the peak hour office generated trips, as occasional and uncoordinated office users are more likely to arrive and leave the site during off-peak hours when compared to office users who work in the office full-time and belong to a single organisation. As a result of Hurontario LRT implementation, the resulting vehicular trips are further reduced by 10% to account for increase in transit mode share. The total trip reduction based on scenario 2 trip generation of the Third-Party Office use as well as scenario 2 transit use can be seen in Table 11.

Table 11: Projected 6333 Hurontario Site Trip Generation – Office Use, Scenario 2

Site	Reduction	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Average Rate, Scenario 1	-	78	13	91	14	76	90
Part-Time Office Use Reduction	*-40%*	*-31*	*-5*	*-36*	*-6*	*-30*	*-36*
Auto Mode Share Reduction	*-10%*	*-5*	*-1*	*-6*	*-1*	*-4*	*-5*
Average Rate, Scenario 2	-	42	7	49	7	42	49

4.1.3 Total Trip Generation

Using the Dymon Storage, Reception, and Retail trip generation, calculated in Section 4.1.1, along with the Third-Party Office trip generation, calculated in Section 4.1.2, the total trip generation for the site has been calculated. Scenario 1 total trip generation is summarized in Table 12. Scenario 2 total trip generation in summarized in Table 13.

Table 12: Total Site Trip Generation – Scenario 1

Land Use	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Dymon Storage, Reception, and Retail	15	9	24	22	23	45
Third-Party Office	78	13	91	14	76	90
Total	93	22	115	36	99	135

Table 13: Total Site Trip Generation – Scenario 2

Land Use	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Dymon Storage, Reception, and Retail	15	9	24	22	23	45
Third-Party Office	42	7	49	7	42	49
Total	57	16	73	29	65	94

As shown above, scenario 1 projection results in 115 AM, and 136 PM peak hour two-way auto trips. Scenario 2 auto trip generation is 73 AM, and 95 PM peak hour two-way auto trips.

4.1.4 Trip Assignment

Using the trip generation scenarios outlined above, the right-in/right-out access configuration, the trips generated by the site have been assigned to the Hurontario Street at site access intersection. Scenario 1 and scenario 2 site generated traffic volumes from the proposed development can be seen in Figure 9, and Figure 10, respectively.

Figure 9: New Site Generated Auto Volumes – Scenario 1

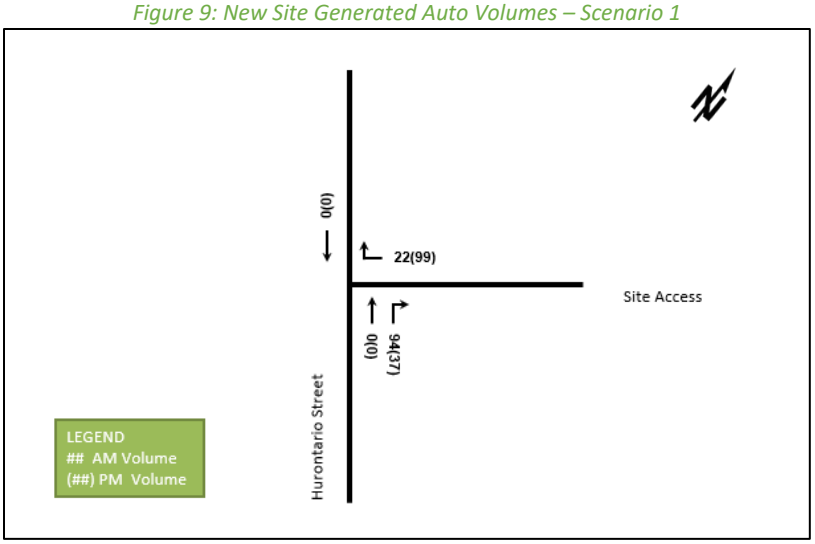


Figure 10: New Site Generated Auto Volumes – Scenario 2

4.1.5 Future Total Travel Demand

The site generated traffic has been combined with the 2020 Existing traffic volumes to estimate the 2025 future total traffic volumes. Scenario 1 and scenario 2 2025 future total traffic volumes are illustrated Figure 11 and Figure 12, respectively.

Figure 11: 2025 Future Total Volumes – Scenario 1

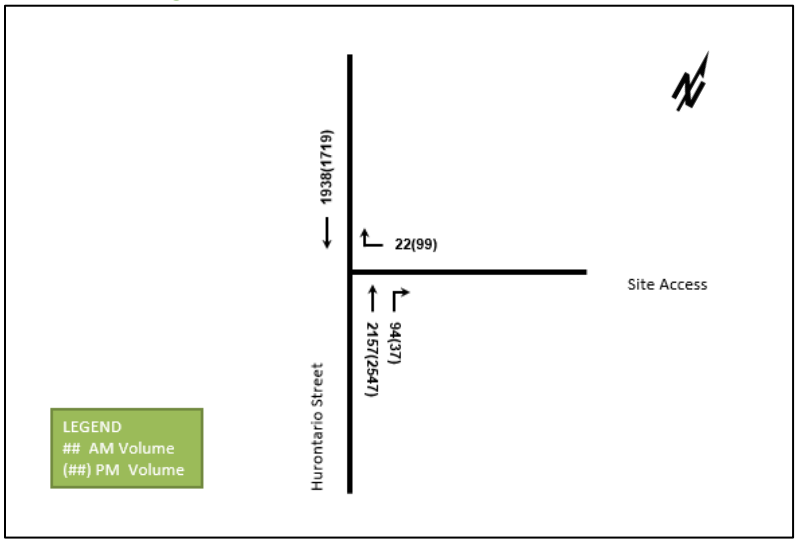
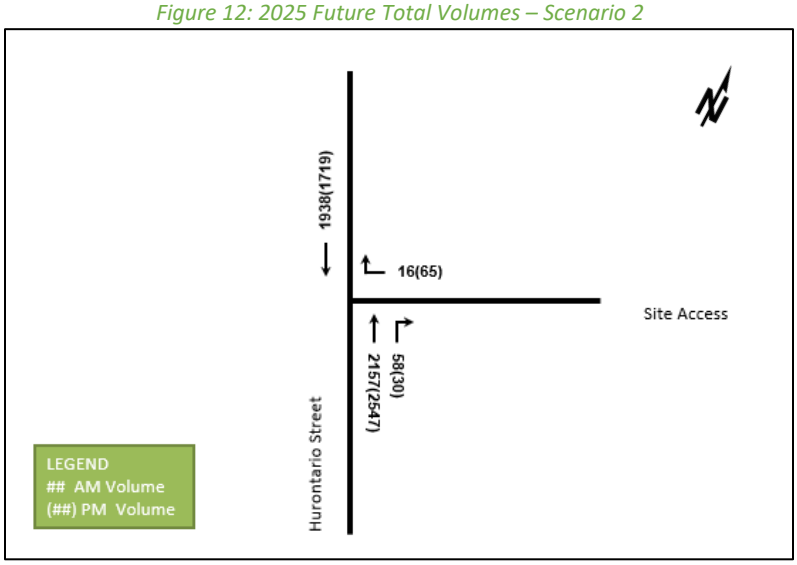


Figure 12: 2025 Future Total Volumes – Scenario 2



5 Operational Analysis

To understand the operational characteristics of the Hurontario Street at site access intersection, a Synchro model has been created using Trafficware's Synchro (Version 11). Peak Hour factors have been calculated based on the existing turning movement counts. Queueing has been modeled using SimTraffic. All other parameters have been coded using accepted best practices and default parameters where applicable.

LOS has been defined using HCM 2010 definition for LOS at unsignalized intersections (Table 14).

Table 14: Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay (Second/Vehicle)
A	0 – 10
B	>10 – 25
C	>15 – 25
D	>25 – 35
E	>35 – 50
F	>50

5.1 2025 Future Background Conditions – Scenario 1

Scenario 1 2025 future total intersection volumes, including the site generated traffic and background traffic, have been analysed to understand the future performance of the study area intersection. As described previously in Table 5, scenario 1 assumptions include the existing roadway configuration and transit network. Further, conservative office use trip generation rates were used to determine office-generated auto trips. Table 15 summarizes the operational analysis of scenario 1 2025 total future conditions. Appendix G contains the Synchro Sheets for this scenario.

Table 15: 2025 Future Total Conditions Operational Analysis – Scenario 1

Intersection	Mvmnt	AM Peak Hour					PM Peak Hour				
		LOS	V/C	Del. (s)	Q (avg)	Q (95th)	LOS	V/C	Del. (s)	Q (avg)	Q (95th)
Site Access at Hurontario Street *(Unsignalized)*	WBR	D	0.14	31	4.9	12.8	F	0.88	120	12.3	20.8
	NBT/R	-	-	-	-	-	-	-	-	-	-
	SBT	-	-	-	-	-	-	-	-	-	-

The queue generated by site traffic will back up onto the site driveway and will have no impact on the Highway 401 North Ramp Terminal.

The level of service of the westbound right approach is F during the PM peak hour. However, the V/C ratio is within the acceptable range, which indicates that there is an adequate capacity to move the traffic from site onto the adjacent road.

Based on the site plan, it was determined that a westbound right queue under 20 metres can be accommodated within the site driveway without obstructing the entrance to the Dymon Storage interior loading area. The 95th percentile queue during PM peak period is more than 20 metres. However, since the 95th percentile queue is based on the 95th percentile volume, and no V/C ratio is larger than 1.0, the 95th percentile queue will occur rarely. On average, one vehicle every one minute and a half will be entering the site during the PM peak hour. Considering this, and the fact that the site access throat length allows for two inbound vehicles to wait for the westbound right queue to clear without impacting the traffic flow on Hurontario Street, the effect of westbound right queue on the operational performance of the site access will be minimal. Further, the average peak hour queue length is lower than 20 metres.

5.2 2025 Future Background Conditions – Scenario 2

Scenario 2 2025 future total intersection volumes, including the site generated traffic and background traffic, have been analysed to understand the future performance of study area intersection. As described previously in Table 5, scenario 2 assumptions include the implementation of Hurontario LRT and reduction of the auto mode share. Further, the office trip generation was reduced to account for the fact that the office will be rented out on daily

basis to multiple tenants and will likely operate under capacity. Table 16 summarizes the operational analysis of scenario 2 2025 total future conditions. Appendix H contains the 2025 Synchro Sheets for this scenario.

Table 16: 2025 Future Total Conditions Operational Analysis –Scenario 2

Intersection	Mvmnt	AM Peak Hour					PM Peak Hour				
		LOS	V/C	Del. (s)	Q (avg)	Q (95th)	LOS	V/C	Del. (s)	Q (avg)	Q (95th)
Site Access at Hurontario Street *(Unsignalized)*	WBR	D	0.09	26	4.0	12.1	F	0.49	54	17.5	36.8
	NBT/R	-	-	-	-	-	-	-	-	-	-
	SBT	-	-	-	-	-	-	-	-	-	-

Similar to scenario 1, the queue generated by scenario 2 site traffic will back up onto the site driveway and will have no impact on the Highway 401 North Ramp Terminal.

The level of service of the westbound right approach is F during the PM peak hour. However, similar to the previous scenario, the V/C ratio is within the acceptable range, which indicates that there is an adequate capacity to move the traffic from site onto the adjacent road.

The 95th percentile queue during PM peak period is more than 20 metres. However, since the 95th percentile queue is based on the 95th percentile volume, and no V/C ratio is larger than 1, the 95th percentile queue will occur rarely. On average, one vehicle per every two minutes will be entering the site during the PM peak hour. Considering this, and the fact that the site access throat length allows for two inbound vehicles to wait for the westbound right queue to clear without impacting the traffic flow on Hurontario Street, the effect of westbound right queue on the operational performance of the site access will be minimal. Further, the average peak hour queue length is lower than 20 metres.

5.3 Transportation Demand Management

The subject development fronts the future Hurontario LRT Corridor. Transit schedule and route maps will be displayed at office use entrance to minimize transit wait times and enhance transit user experience.

The proposed cross-section of Hurontario Street includes segregated bike lanes. Six bicycle parking spaces at grade are proposed within the development site plan, which will further encourage office users to utilize the proposed bike lanes on Hurontario street to reach the subject site. In addition to this, a permanent bike repair station will be provided at the site. Local area maps with cycling infrastructure will also be provided at building entrances to allow cyclists to select safer routes towards their destinations.

Pedestrian facilities have been proposed within the development site plan and will connect pedestrians to the visitor bike parking, surface vehicle parking, and pedestrian network on Hurontario Street.

5.4 Turning Template Analysis

The proposed site plan and access configuration has been reviewed using two design vehicles including an HSU (standard delivery truck) and WB-20 tractor trailer (infrequent delivery truck). It is assumed that the HSU will drive through the loading area or access the garbage bins at the rear of the property, and the WB-20 will utilize the rear loading dock. Appendix I includes two drawings illustrating the turning paths for all design vehicles. All turning paths are accommodated by the proposed curbs and driveways.

5.5 Multi-Modal Sightlines

Clear stopping and departure sight distances for Hurontario Street have been summarized in Table 17 and are excerpt from the 2017 Transportation Association of Canada's Geometric Design Guide for Canadian Roads (TAC), Table 9.9.6. Decision Sight Distance for an 80km/hr design speed and avoidance manoeuvre B (stop on urban roadway) is also listed in Table 17 and is excerpt from Table 2.5.6 of the TAC Geometric Design Guide. Figure 13 illustrates each of the vehicular clear sight distances at the intersection of Site Access and Hurontario Street.

Table 17: Clear Sight Distance - Vehicles

Major Street	Design Speed	Stopping Sight Distance	Departure Sight Distance	Decision Sight Distance
Hurontario Street	80 km/hr	130 m.	145 m.	300 m.

Figure 13: Vehicular Clear Sight Distance - Site Access at Hurontario Street

Based on anticipated stop bar location, the vehicular sight triangles are within the City's ROW and should be maintained clear of obstruction by the City in future scenarios. Both the stopping and the clear sight distance are met at the subject intersection. The decision sight distance of 300 metres, while not required to be met as a result of straightforward geometry of the analyzed segment, is also met as the distance between the Site Access and the intersection to the south is approximately 300 metres. Further, the westbound right-turning vehicles leaving the site will need to stop at the stop bar, which will provide drivers time to identify any approaching pedestrians.

6 Conclusions

This Transportation Brief has examined the trip generation, access requirements, and study intersection impact of the proposed development at 6333 Hurontario Street in Mississauga. The Traffic Brief has shown the following:

A. The proposed development includes a 21,895 square metre Dymon Self-Storage Facility and a 7,221 square metre office space. Approximately 215 vehicle parking spaces will be provided.
B. Access to the site will be accommodated via Hurontario Street, approximately 300 metres north of Hurontario Street and Highway 401 North Ramp Terminal/Madill Boulevard. As Hurontario Street is a future LRT corridor, the site access would be restricted to right-in / right-out only.
C. The existing Study Area is currently served by MiWay bus routes #103 and #17, and Brampton Transit Bus route #502. Hurontario Street is a future LRT corridor, with trackworks and guideway construction anticipated to start in 2021 and the substantial completion anticipated in 2024.
D. Development generated demand was based on scenario 1 and scenario 2.
E. Scenario 1 trip generation assumptions were:
    - Current infrastructure and transit conditions
    - The Dymon Storage, Reception and Retail component trip generation is aligned with proxy site trip generation
    - The Third-Party Office component trip generation is aligned with ITE trip generation for LUC 710 – General Office Building
F. Scenario 2 trip generation assumptions were:
    - Hurontario LRT implemented and travel lanes reduced to four lanes
    - The Dymon Storage, Reception and Retail component trip generation is aligned with proxy site trip generation
    - The Third-Party Office component trip generation is equal to 60% of ITE trip generation for LUC 710 – General Office Building.
    - Office vehicle trip generation is reduced by additional 10% as a result of LRT implementation
G. It was found that scenario 1 trip projection results in 115 AM, and 135 PM peak hour two-way auto trips. Scenario 2 auto trip generation is 73 AM, and 94 PM peak hour two-way auto trips.
H. The Study Area intersection operates similarly during scenario 1 and scenario 2. The Study Area intersection operates at LOS D and LOS F during AM, and PM peak hours, respectively. The 95th percentile queue of the westbound right approach is more than 20 metres during the PM peak period and can potentially obstruct the northbound right flow into the site. However, since the 95th percentile queue is based on the 95th percentile volume, and no V/C ratio is larger than 1, the 95th percentile queue will occur rarely. Additionally, the site access throat length allows for two inbound vehicles to wait for the westbound right queue to clear without impacting the traffic flow on Hurontario Street. Considering this, the effect of westbound right queue on the operational performance of the site access will be minimal. Further, the average peak hour queue lengths are lower than 20 metres.
I. All turning paths are accommodated by the proposed curbs and driveways.
J. Stopping sight distance, departure sight distance and decision sight distance requirements defined by TAC Geometric Design Manual are met.

The proposed development will function within the Study Area Road Network. It is recommended that, from a transportation perspective, the proposed development application process proceeds.

Prepared By:

Viktoriya Zaytseva, E.I.T.
437-221-1343
Viktoriya.Zaytseva@CGHTransportation.com

Reviewed By:

Mark Crockford, P. Eng.
905-251-4070
Mark.Crockford@CGHTransportation.com

Appendix A

Ministry of Transportation Ontario Consultation Summary

From: Iannacito, Phil (MTO)
To: Mark Crockford
Cc: Viktoriya Zaytseva; Aurini, Shawn (MTO)
Subject: RE: 6333 Hurontario - Traffic Brief Discussion
Date: September 15, 2020 12:02:13 PM
Attachments: image001.png

Hi Mark,

My pleasure, glad we had the opportunity to discuss this project in detail.

The criteria outlined below for the traffic brief are acceptable.

Thanks,

Phil

From: Mark Crockford <mark.crockford@cghtransportation.com>
Sent: September 15, 2020 11:58 AM
To: Iannacito, Phil (MTO) <Phil.Iannacito@ontario.ca>
Cc: Viktoriya Zaytseva <viktoriya.zaytseva@cghtransportation.com>
Subject: 6333 Hurontario - Traffic Brief Discussion

Hi Phil,

Thanks again for the call this morning, it was great talking to you.

Just some quick notes on the traffic brief for the site at 6333 Hurontario Street that we discussed this morning.

We are going to prepare a traffic brief documenting the self-storage and office uses. This will focus on the following:

-Overall Site Trip Generation

-this will include a discussion of our proxy trip generation counts, as well as a description of the office uses, which are likely to include some amount of “shared” offices for short-term or daily rental tenants. Dymon is currently surveying one of their sites that has a similar setup and we will include that data if it’s available. If it’s not ready in time we will document a range of trip generation based on the anticipated uses and will include discussion of the potential reduction in traffic volumes based on a shared office space not being fully utilized all-day everyday.

-Operation Analysis

-Our Synchro analysis will look at the right-in/right-out access configuration.

-Site operations

-We will document the site operations, particularly focusing on the storage space available for inbound vehicles and ensuring that there is adequate space for inbound traffic to queue without impacting the adjacent road, and in particular the ramp terminal just south of the site.
-Our traffic brief will also make note of the shared access agreement that will allow hydro access to the towers south of the site.

We will also include the standard items for a transportation brief (i.e. description of existing roadway, site description, land use description, etc.).

Let me know if there is anything else that you would like us to cover in our brief.

Thanks,
Mark

Mark Crockford, P.Eng.
CGH Transportation Inc.
P:905-251-4070
E:Mark.Crockford@CGHTransportation.com

Appendix B

Turning Movement Count Data

Ministry of Transportation
Ministère des Transports

Intersection Layout Sheet

Version: 1.0 Feb 1, 2016

2016

Contract # 9015-E-0009
Work Order # 544

Date: Oct / 12 Day: Wed / Hrs: 6 - 10 + 15 - 19 + - -

Location: HWY 401 @ HWY 10 - Hurontario ST IC-342 Ramps: North 161, 162, 163

Reg/Mun: CR Town/City: Mississauga Area:

File Name: 14768000000 Device: Gretch / Jamar Unit # 14 / Interval 1: (AM) NN / PM

Observer: Neyezhsal Olga Weather: Clear Road Condition: good /

LHRS & O/S: 47680 0

GPS: G-Star IV

Datum: WGS 84 (Y) / N

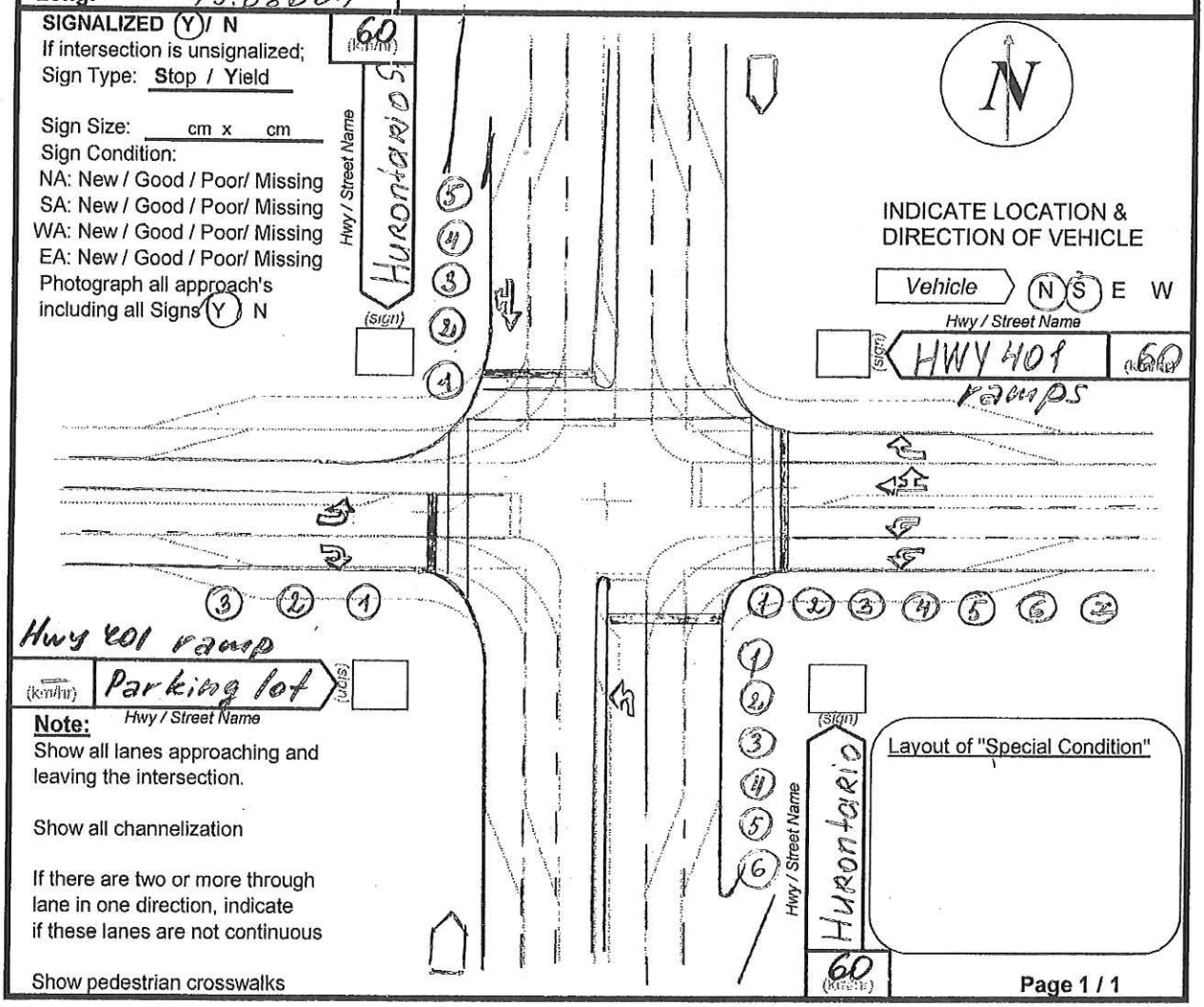
Lat: 43.65116

Long: -79.68604

Comments:

SIGNALIZED (Y) / N
If intersection is unsignalized;
Sign Type: Stop / Yield

Sign Size: cm x cm
Sign Condition:
NA: New / Good / Poor / Missing
SA: New / Good / Poor / Missing
WA: New / Good / Poor / Missing
EA: New / Good / Poor / Missing
Photograph all approach's including all Signs (Y) N



Note:
Show all lanes approaching and leaving the intersection.

Show all channelization

If there are two or more through lane in one direction, indicate if these lanes are not continuous

Show pedestrian crosswalks

Ontario

Ministry of Transportation

TVIS II - Traffic Volume Information System

Turning Movement Peak Hour Report

Description: HWY 401 @ HURONTARIO STREET (NRT)

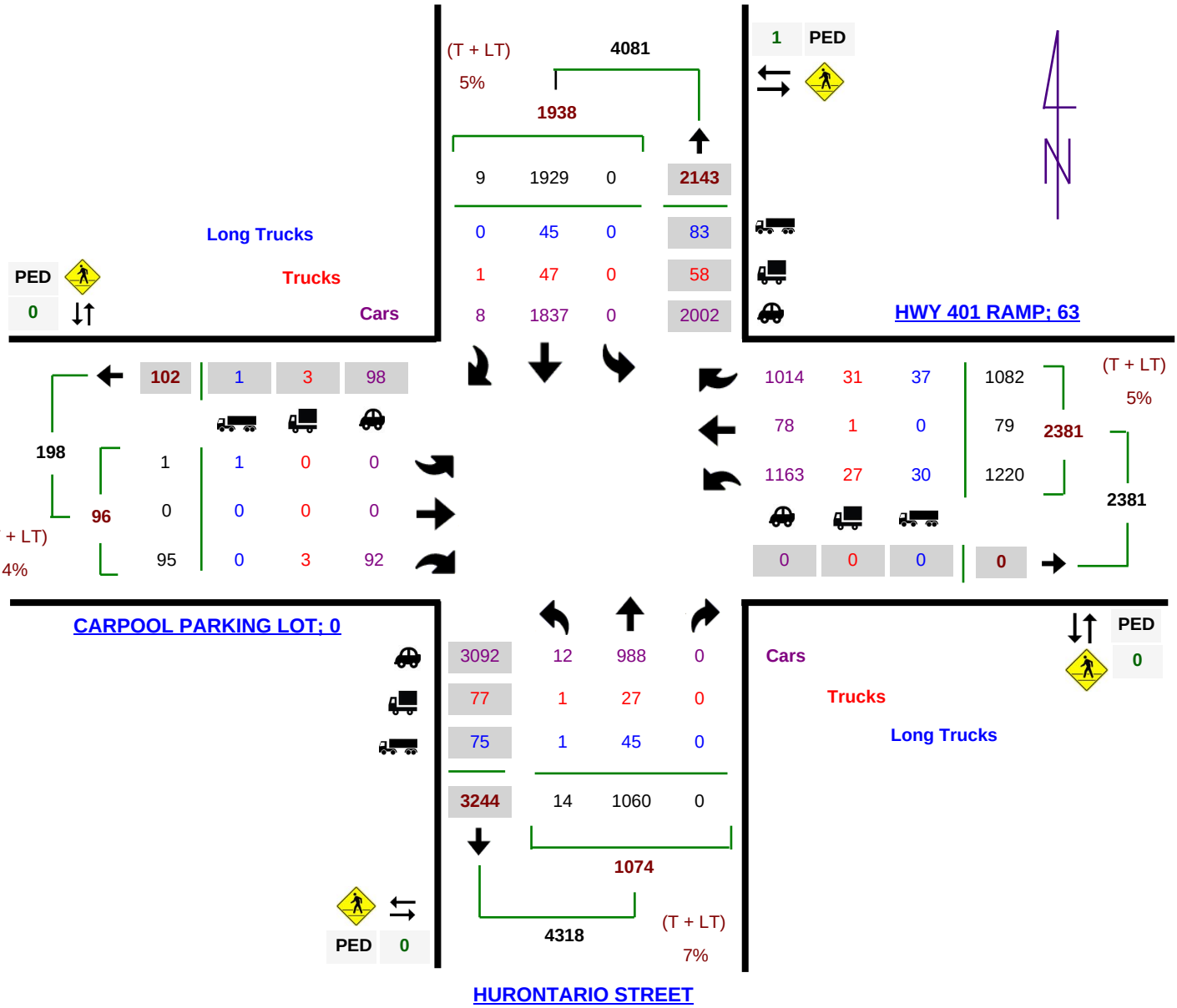
Region: CENTRAL | **Survey Type:** TM – Interchange | **Hwy:** 401

Start Date: 12-Oct-2016 (Wed) | **I/C Side:** N | **LHRS:** 47680

End Date: 12-Oct-2016 (Wed) | **Int. Type:** Four Leg | **Offset:** 0

Schedule Summary: TUES-THURS, 06:00-10:00, 15:00-19:00

AM Peak Hour Report - Start Time: 08:15



Ontario

Ministry of Transportation

TVIS II - Traffic Volume Information System

Turning Movement Peak Hour Report

Description: HWY 401 @ HURONTARIO STREET (NRT)

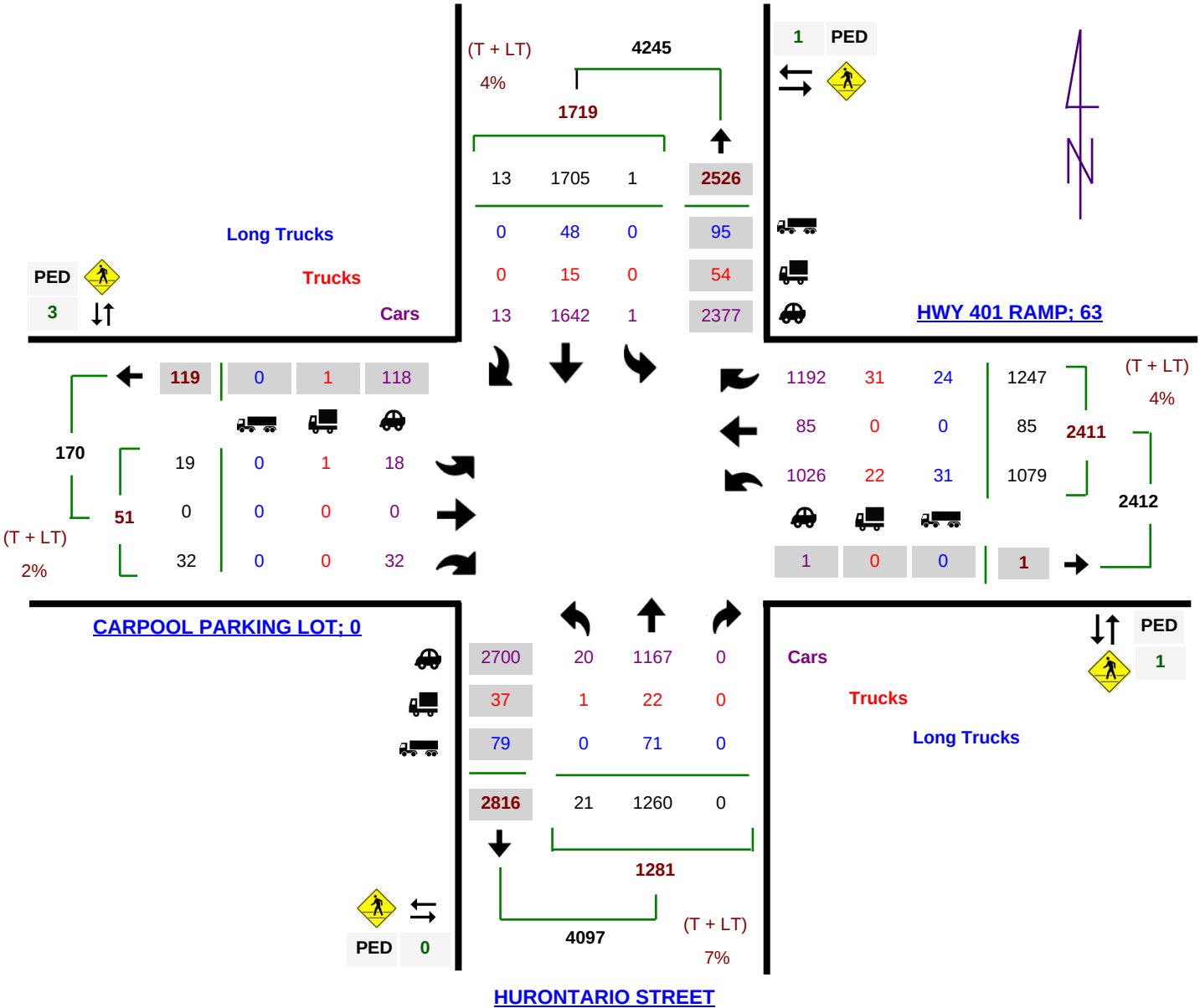
Region: CENTRAL | **Survey Type:** TM – Interchange | **Hwy:** 401

Start Date: 12-Oct-2016 (Wed) | **I/C Side:** N | **LHRS:** 47680

End Date: 12-Oct-2016 (Wed) | **Int. Type:** Four Leg | **Offset:** 0

Schedule Summary: TUES-THURS, 06:00-10:00, 15:00-19:00

PM Peak Hour Report - Start Time: 16:45



Ontario

Ministry of Transportation

TVIS II - Traffic Volume Information System

AdHoc Turning Movement Total Count and Peak Summary Report

Description: HWY 401 @ HURONTARIO STREET (NRT)

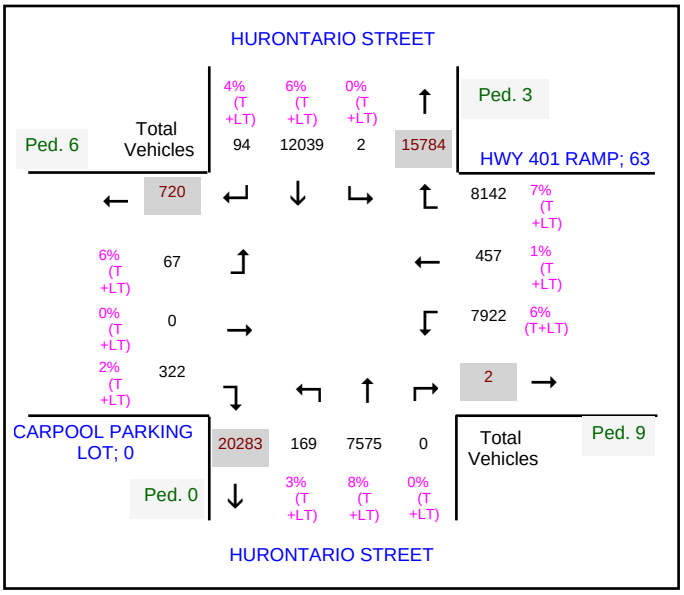
Region: CENTRAL | **Survey Type:** TM – Interchange | **Hwy:** 401

Start Date: 12-Oct-2016 (Wed) | **I/C Side:** N | **LHRS:** 47680

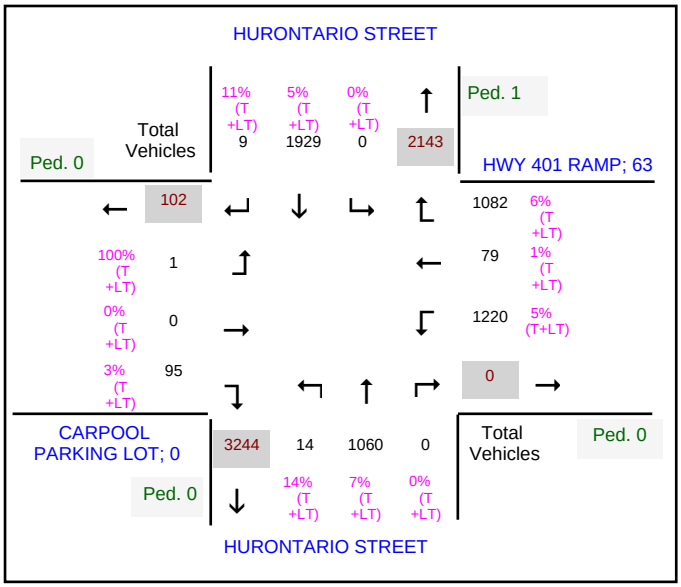
End Date: 12-Oct-2016 (Wed) | **Int. Type:** Four Leg | **Offset:** 0

Schedule Summary: TUES-THURS, 06:00-10:00, 15:00-19:00

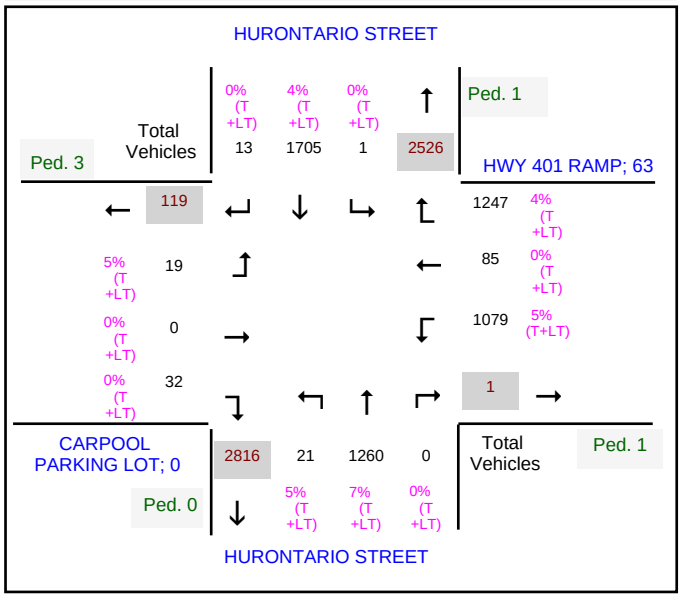
Total Count — Number of hours: 8



AM Peak Hour Report — Start Time: 08:15



PM Peak Hour Report — Start Time: 16:45



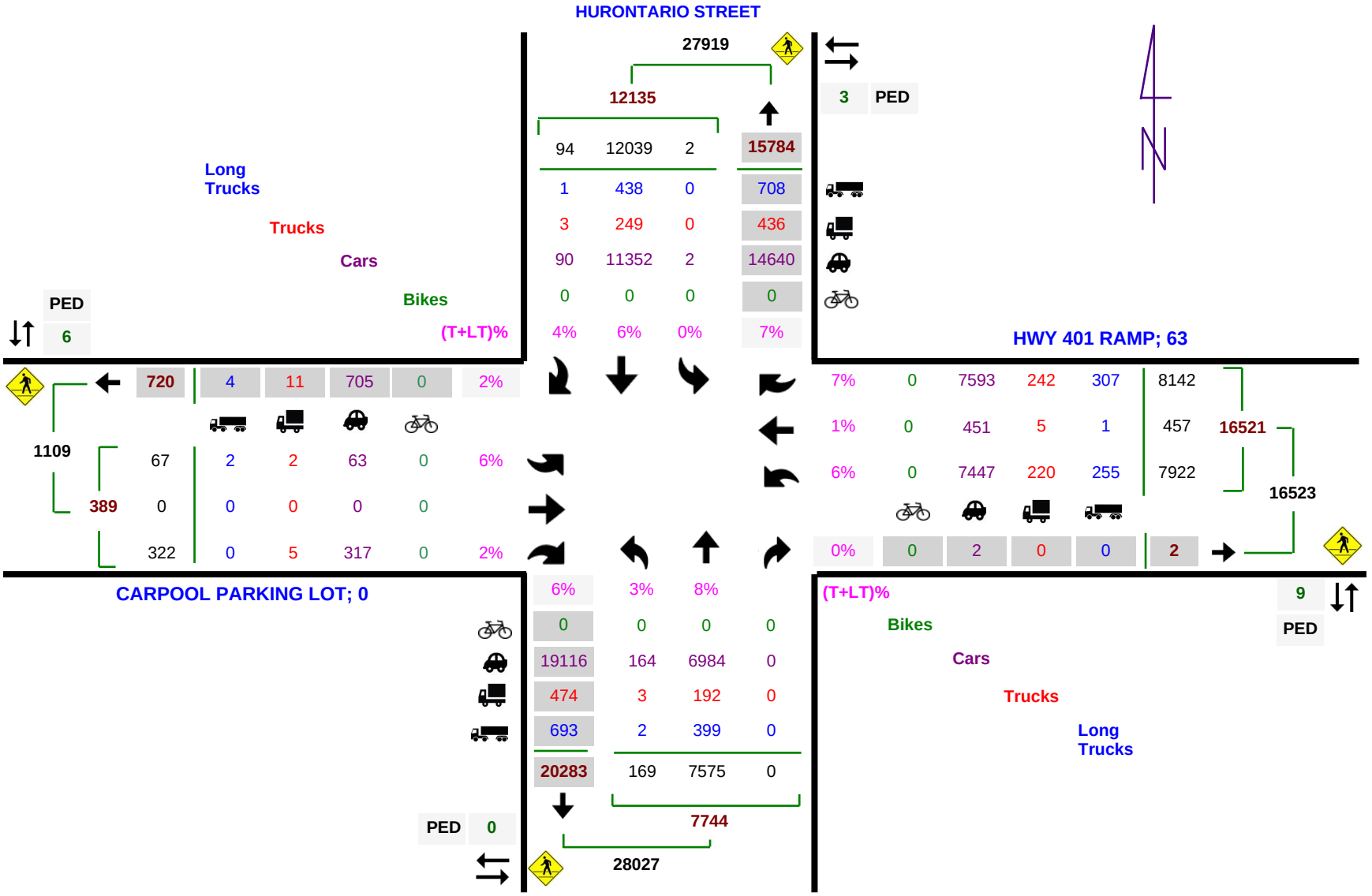
Ontario

Ministry of Transportation

TVIS II - Traffic Volume Information System

Ad Hoc Turning Movement Count Total Report

Description: HWY 401 @ HURONTARIO STREET (NRT)
Region: CENTRAL | **Survey Type:** TM – Interchange | **Hwy:** 401
Start Date: 12-Oct-2016 (Wed) | **I/C Side:** N | **LHRS:** 47680
End Date: 12-Oct-2016 (Wed) | **Int. Type:** Four Leg | **Offset:** 0
Schedule Summary: TUES-THURS, 06:00-10:00, 15:00-19:00



Ontario

Ministry of Transportation

TVIS II - Traffic Volume Information System

Turning Movement 15 Minute Report

Description: HWY 401 @ HURONTARIO STREET (NRT)

Region: CENTRAL | **Survey Type:** TM – Interchange | **Hwy:** 401

Start Date: 12-Oct-2016 (Wed) | **I/C Side:** N | **LHRS:** 47680

End Date: 12-Oct-2016 (Wed) | **Int. Type:** Four Leg | **Offset:** 0

Schedule Summary: TUES-THURS, 06:00-10:00, 15:00-19:00

	Major Road Approaches																		Minor Road Approaches																
	North HURONTARIO STREET									South HURONTARIO STREET									East HWY 401 RAMP: Ramp(s): 63									West CARPOOL PARKING LOT: Ramp(s): 0									
Start Time	Cars			Trucks			Long Trucks			Ped	Cars			Trucks			Long Trucks			Ped	Cars			Trucks			Long Trucks			Ped	Cars			Trucks			Long Trucks			Ped	Total Veh.
	←	↑	→	←	↑	→	←	↑	→		←	↑	→	←	↑	→	←	↑	→		←	↑	→	←	↑	→	←	↑	→		←	↑	→	←	↑	→	←	↑	→		
Period 1																																								
06:00	0	168	3	0	9	1	0	8	0	0	8	80	0	0	2	0	0	5	0	0	63	8	64	5	0	1	11	0	2	0	2	0	7	0	0	1	0	0	0	0	448
06:15	0	212	7	0	7	0	0	8	0	0	7	87	0	0	0	0	0	8	0	0	78	4	92	4	0	4	5	0	7	0	3	0	8	0	0	0	0	0	0	0	541
06:30	0	335	2	0	7	0	0	20	0	0	8	121	0	0	1	0	0	9	0	0	159	7	97	5	0	5	8	0	3	0	0	0	6	0	0	0	0	0	0	0	793
06:45	0	344	8	0	5	0	0	21	1	0	3	151	0	0	0	0	0	7	0	0	185	2	115	7	0	6	8	0	4	0	1	0	8	0	0	0	0	0	0	0	876
07:00	0	364	5	0	9	0	0	8	0	0	11	127	0	0	2	0	0	9	0	0	211	6	155	6	0	4	10	0	12	0	1	0	6	0	0	0	0	0	0	0	946
07:15	0	444	10	0	9	1	0	12	0	0	14	149	0	0	3	0	0	10	0	0	203	4	195	5	1	8	5	0	10	0	3	0	3	0	0	1	0	0	0	0	1090
07:30	0	438	3	0	12	0	0	13	0	0	5	146	0	0	5	0	0	7	0	0	244	1	217	10	0	5	5	0	6	0	1	0	5	0	0	0	0	0	0	0	1123
07:45	0	465	4	0	12	0	0	13	0	0	6	214	0	0	7	0	0	8	0	0	260	7	229	9	0	2	6	0	9	0	0	0	10	0	0	0	0	0	0	1	1261
08:00	0	509	3	0	9	0	0	14	0	0	3	213	0	0	5	0	1	9	0	0	264	17	221	2	0	3	10	0	7	0	2	0	16	0	0	0	0	0	0	0	1308
08:15	0	475	5	0	12	0	0	8	0	0	4	262	0	0	6	0	0	12	0	0	299	22	268	9	1	9	9	0	7	0	0	0	24	0	0	1	0	0	0	0	1433
08:30	0	453	0	0	15	1	0	12	0	0	2	213	0	1	5	0	1	12	0	0	292	26	236	8	0	7	5	0	13	0	0	0	31	0	0	2	0	0	0	0	1335
08:45	0	432	1	0	6	0	0	13	0	0	3	255	0	0	7	0	0	11	0	0	293	22	258	6	0	13	8	0	8	0	0	0	18	0	0	0	0	0	0	0	1354
09:00	0	477	2	0	14	0	0	12	0	1	3	258	0	0	9	0	0	10	0	0	279	8	252	4	0	2	8	0	9	0	0	0	19	0	0	0	1	0	0	0	1367
09:15	0	339	2	0	16	0	0	21	0	0	0	176	0	0	6	0	0	8	0	0	314	25	210	10	0	8	16	0	18	0	1	0	19	0	0	0	0	0	0	0	1189
09:30	0	333	0	0	9	0	0	13	0	0	4	164	0	0	6	0	0	10	0	0	160	1	103	13	0	12	11	0	11	0	0	0	4	0	0	0	0	0	0	0	854
09:45	0	236	4	0	18	0	0	18	0	0	5	157	0	0	8	0	0	14	0	0	197	2	110	8	0	10	16	0	8	0	1	0	5	0	0	0	0	0	0	0	817
Period 2																																								
15:00	0	326	0	0	12	0	0	12	0	0	5	220	0	0	15	0	0	11	0	0	223	12	238	12	1	16	14	0	16	0	1	0	4	0	0	0	0	0	0	0	1138
15:15	0	342	1	0	6	0	0	22	0	0	2	232	0	0	14	0	0	12	0	0	186	20	289	6	0	13	10	0	19	0	1	0	2	0	0	0	0	0	0	0	1177
15:30	0	373	0	0	5	0	0	17	0	0	3	244	0	0	12	0	0	14	0	0	265	23	296	11	1	10	8	0	14	0	1	0	5	0	0	0	0	0	0	0	1302
15:45	0	286	0	0	9	0	0	23	0	0	6	289	0	0	9	0	0	15	0	0	257	28	305	2	0	8	10	0	15	0	0	0	8	0	0	0	0	0	0	1	1270
16:00	0	362	2	0	4	0	0	12	0	0	5	267	0	0	9	0	0	13	0	0	232	14	318	8	0	13	10	1	8	0	2	0	5	0	0	0	1	0	0	1	1286

Ontario

Ministry of Transportation

TVIS II - Traffic Volume Information System

Turning Movement 15 Minute Report

Description: HWY 401 @ HURONTARIO STREET (NRT)
Region: CENTRAL **Survey Type:** TM – Interchange **Hwy:** 401
Start Date: 12-Oct-2016 (Wed) **I/C Side:** N **LHRS:** 47680
End Date: 12-Oct-2016 (Wed) **Int. Type:** Four Leg **Offset:** 0
Schedule Summary: TUES-THURS, 06:00-10:00, 15:00-19:00

	Major Road Approaches																					Minor Road Approaches																					
	North HURONTARIO STREET										South HURONTARIO STREET										East HWY 401 RAMP: Ramp(s): 63										West CARPOOL PARKING LOT: Ramp(s): 0										
Start Time	Cars			Trucks			Long Trucks			Ped	Cars			Trucks			Long Trucks			Ped	Cars			Trucks			Long Trucks			Ped	Cars			Trucks			Long Trucks			Ped	Total Veh.
	←	↑	→	←	↑	→	←	↑	→		←	↑	→	←	↑	→	←	↑	→		←	↑	→	←	↑	→	←	↑	→		←	↑	→	←	↑	→	←	↑	→		
16:15	0	335	4	0	7	0	0	19	0	0	9	292	0	0	9	0	0	24	0	0	226	11	309	6	0	9	6	0	11	0	3	0	7	0	0	0	0	0	0	0	**1287**
16:30	0	381	2	0	5	0	0	16	0	0	9	281	0	0	6	0	0	21	0	0	238	7	273	7	0	15	2	0	12	0	4	0	10	0	0	0	0	0	0	0	**1289**
16:45	0	435	3	0	3	0	0	14	0	0	2	298	0	0	6	0	0	20	0	0	249	15	346	3	0	16	9	0	3	0	4	0	7	0	0	0	0	0	0	1	**1433**
17:00	0	443	1	0	4	0	0	11	0	0	6	290	0	0	5	0	0	19	0	0	269	30	314	8	0	2	4	0	7	0	3	0	5	0	0	0	0	0	0	0	**1421**
17:15	1	416	7	0	6	0	0	14	0	1	5	272	0	1	7	0	0	13	0	0	259	18	242	4	0	8	11	0	6	1	4	0	10	1	0	0	0	0	0	2	**1305**
17:30	0	348	2	0	2	0	0	9	0	0	7	307	0	0	4	0	0	19	0	0	249	22	290	7	0	5	7	0	8	0	7	0	10	0	0	0	0	0	0	0	**1303**
17:45	1	301	3	0	2	0	0	8	0	1	4	275	0	0	8	0	0	17	0	0	274	18	320	5	0	7	6	0	9	3	5	0	17	0	0	0	0	0	0	0	**1280**
18:00	0	268	3	0	7	0	0	14	0	0	5	263	0	1	2	0	0	13	0	0	246	21	283	11	0	9	4	0	10	3	7	0	14	0	0	0	0	0	0	0	**1181**
18:15	0	247	1	0	1	0	0	10	0	0	3	232	0	0	3	0	0	14	0	0	272	15	364	5	1	2	4	0	10	1	3	0	8	1	0	0	0	0	0	0	**1196**
18:30	0	252	1	0	5	0	0	10	0	0	6	252	0	0	8	0	0	15	0	0	264	18	320	6	0	6	3	0	12	0	0	0	8	0	0	0	0	0	0	0	**1186**
18:45	0	213	1	0	2	0	0	13	0	0	1	197	0	0	3	0	0	10	0	0	237	17	264	8	0	4	6	0	13	1	3	0	8	0	0	0	0	0	0	0	**1000**

Bicycle Count Form

Location: HWY 401 @ HWY 10 - HURONTARIO ST. IC-342 NORTH RAMPS

Site ID: 6476800000
Count Start Date: 10/12/2016
Count Start Time: 06:00:00

HWY: 401
Count End Date: 10/12/2016
Count End Time: 19:00:00

Date	Time	North Approach			East Approach			South Approach			West Approach		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
10/12/2016	06:00 to 06:15	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	06:15 to 06:30	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	06:30 to 06:45	0	0	0	0	0	0	0	**1**	0	0	0	0
10/12/2016	06:45 to 07:00	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	07:00 to 07:15	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	07:15 to 07:30	0	**1**	0	0	0	0	0	0	0	0	0	0
10/12/2016	07:30 to 07:45	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	07:45 to 08:00	0	**1**	0	0	0	0	0	0	0	0	0	0
10/12/2016	08:00 to 08:15	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	08:15 to 08:30	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	08:30 to 08:45	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	08:45 to 09:00	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	09:00 to 09:15	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	09:15 to 09:30	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	09:30 to 09:45	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	09:45 to 10:00	0	0	0	0	0	0	0	0	0	0	0	0
	10:00 to 10:15												
	10:15 to 10:30												
	10:30 to 10:45												
	10:45 to 11:00												
	11:00 to 11:15												
	11:15 to 11:30												
	11:30 to 11:45												
	11:45 to 12:00												
	12:00 to 12:15												
	12:15 to 12:30												
	12:30 to 12:45												
	12:45 to 13:00												
	13:00 to 13:15												
	13:15 to 13:30												
	13:30 to 13:45												
	13:45 to 14:00												
	14:00 to 14:15												
	14:15 to 14:30												
	14:30 to 14:45												
	14:45 to 15:00												
10/12/2016	15:00 to 15:15	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	15:15 to 15:30	0	**1**	0	0	0	0	0	0	0	0	0	0
10/12/2016	15:30 to 15:45	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	15:45 to 16:00	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	16:00 to 16:15	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	16:15 to 16:30	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	16:30 to 16:45	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	16:45 to 17:00	0	0	0	0	0	0	0	**1**	0	0	0	0
10/12/2016	17:00 to 17:15	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	17:15 to 17:30	0	0	0	0	0	0	0	**1**	0	0	0	0
10/12/2016	17:30 to 17:45	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	17:45 to 18:00	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	18:00 to 18:15	0	**1**	0	0	0	0	0	0	0	0	0	0
10/12/2016	18:15 to 18:30	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	18:30 to 18:45	0	0	0	0	0	0	0	0	0	0	0	0
10/12/2016	18:45 to 19:00	0	0	0	0	0	0	0	0	0	0	0	0
	19:00 to 19:15												
	19:15 to 19:30												
	19:30 to 19:45												
	19:45 to 20:00												
	Sub Totals	0	**4**	0	0	0	0	0	**3**	0	0	0	0
	Total		**4**			0			**3**			0	

Appendix C

Hurontario LRT Environmental Project Report Preliminary Design

5.12 BRITANNIA ROAD

STREETSCAPE DESIGN RECOMMENDATIONS LEGEND:

1. PPA at Brittania Road Stop. Urban streetscaping around anticipated employment nodes, and Enhanced Urban streetscaping around the stop.
2. Special consideration will have to be given to the existing church and its access.
3. Ensure pedestrian and cyclist safety and highway ramp crossing
4. Pedestrian connectivity on both east and west side of the Highway 401 bridge.

5.12.1 BRITANNIA ROAD - STOP CONDITION

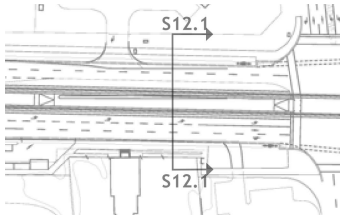
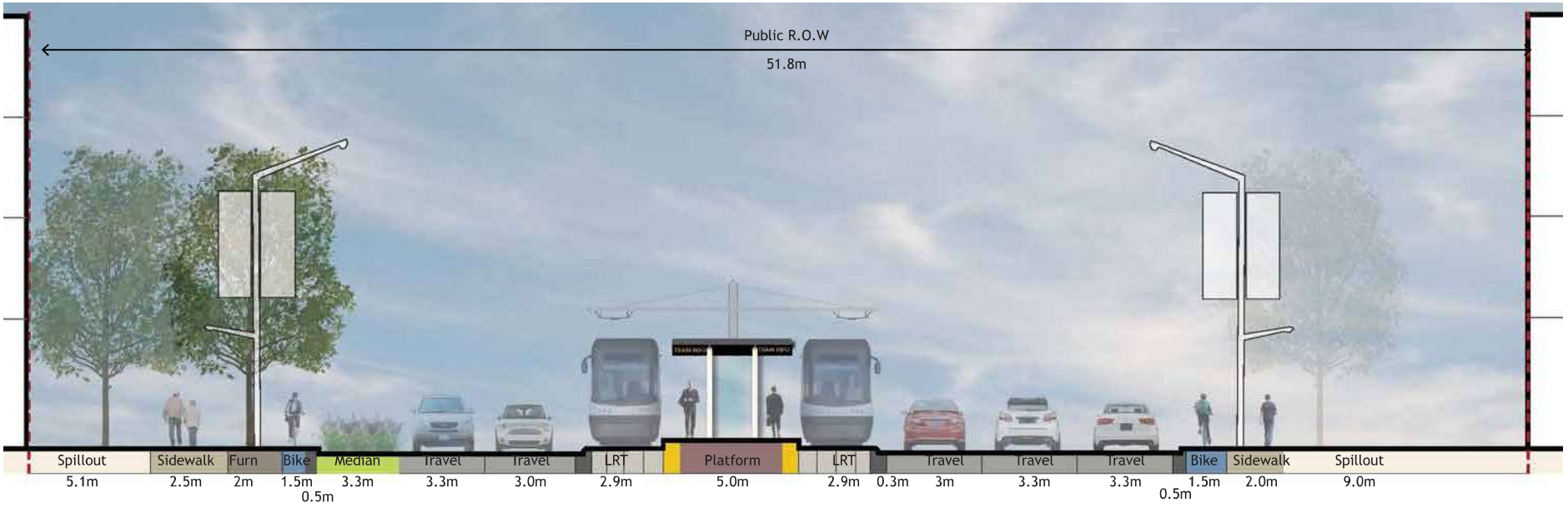


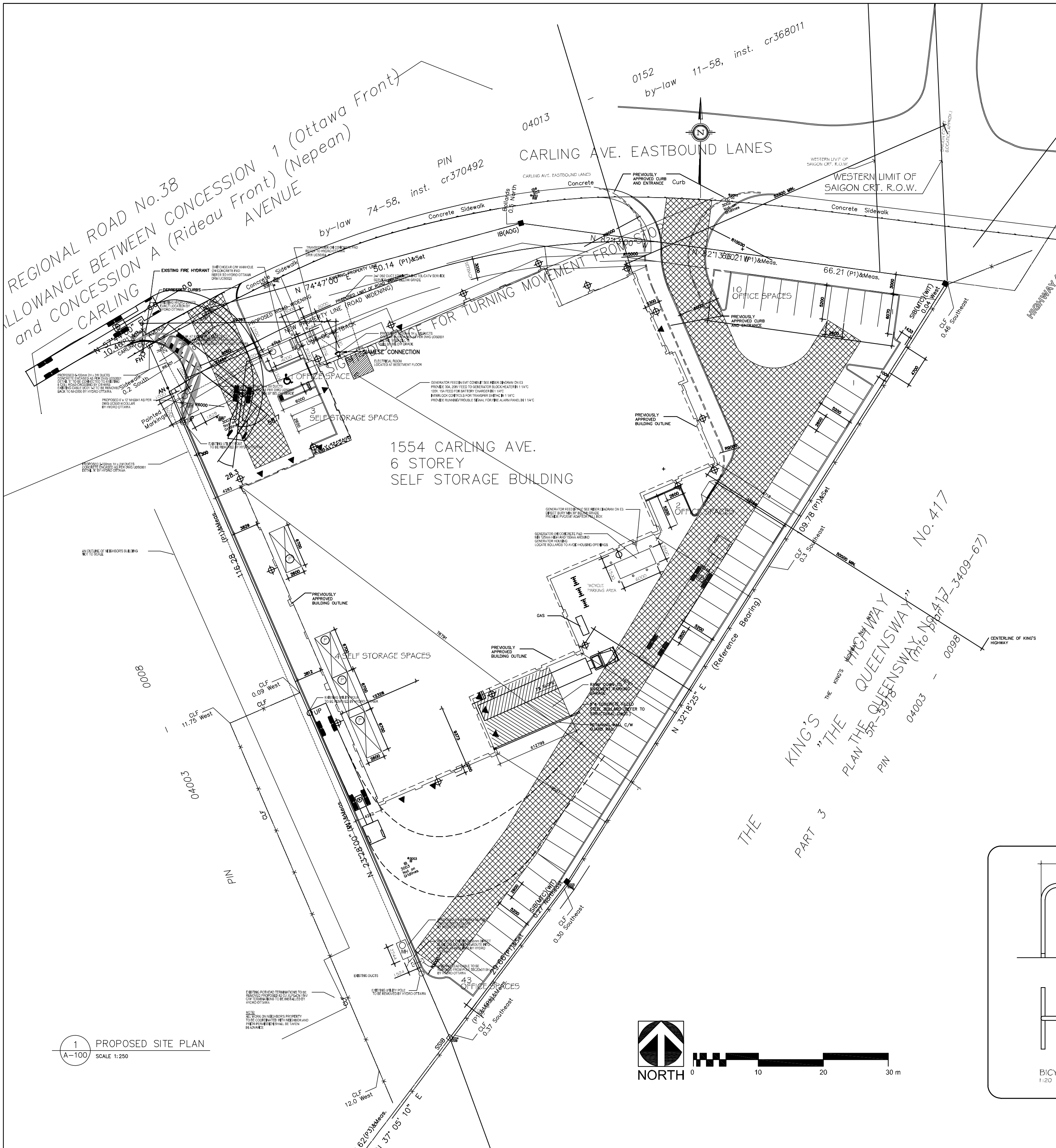
FIGURE 70: BRITTANIA ROAD - STOP CONDITION



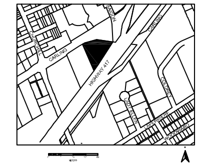
*Section 1:150 @ 11x17

Appendix D

Proxy Site Trip Generation Data and Site Plans



1 PROPOSED SITE PLAN
A-100
SCALE 1:250



LEGEND

- NEW BUIDLING
- INDICATES BUIDLING ENTRANCE
- 150 mm CONCRETE CURB
- CONCRETE SIDEWALK
- DEPRESSED CURB
- FIRE LANE
- LS EXISTING LIGHT STANDARD
- WALL-MOUNTED LIGHT FIXTURE
- FH FIRE HYDRANT
- SIAMESE FIRE CONNECTION
- B CONCRETE FILLED STEEL BOLLARD
- DYMON PEDESTAL

=== SEPT 29, 2008 REVISED SITE PLAN

USE	BUILDING AREA	PARKING RATE (TABLE 110)	PARKING REQUIRED	PARKING PROVIDED
SELF-STORAGE/ WAREHOUSE AREA (m²)	18204.2 m²	8 SPACES	8 SPACES	8 SPACES*
DRIVE-THRU AREA (m²)	766.6 m²	N/A	N/A	N/A
OFFICE AREA (m²)	2,714.1 m²	2 SPACES/100m²	55 SPACES	55 SPACES
TOTAL BUILDING AREA, INCLUDING BELOW GRADE (m²)	21,684.9 m²	N/A	N/A	N/A
*4 SPACES LOCATED WITHIN DRIVE-THRU AREA. (P)				

ZONE:	CE3 [1002] F(2.5) Sch. 68
PERMITTED USES (AMONG OTHERS):	WAREHOUSE OFFICE
MIN. LOT AREA:	7,500 m² (81,8008 s.f.)
MIN. LOT WIDTH:	NO MINIMUM
MIN. FRONT YARD SETBACK:	NO MINIMUM
MIN. REAR YARD SETBACK:	7.5 m (24.6 ft.)
MIN. SIDE YARD SETBACK:	NO MINIMUM
MAX. BUILDING HEIGHT:	30 m
ACCESS DRIVE MIN. WIDTH:	6.7 m (21.98 ft.)
PARKING SPACE MIN. WIDTH:	2.6 m (8.53 ft.)
MIN. LENGTH:	5.2 m (17.06 ft.)
PARKING AISLE: MIN. WIDTH:	6.7 m (21.98 ft.)
PARKING LOCATION:	NONE IN REQUIRED FRONT YARD SETBACK
PARKING REQUIREMENT:	
SELF-STORAGE FACILITY:	8 SPACES
OFFICE (MAX. PERMITTED):	2 SPACES / 100 m² G.F.A. = 54 SPACES
TOTAL PARKING:	62

AREA:
BUILDING AREA: 35,429.41 sq.ft. (3,291.5 sq.m)
DRIVE THROUGH AREA: 8304.0 sq.ft. (771.5 sq.m)
GROSS AREA: 197,786.85 sq.ft. (18,375.0 sq.m.)

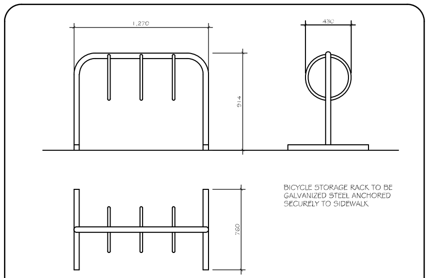
PREVIOUS GROSS BUILDING AREA: 200,101.1 sq.ft. (18,590 sq.m)

LEGAL DESCRIPTION

TOPOGRAPHICAL PLAN OF
PART OF LOT LETTER 'I'
CONCESSION A (Rideau Front)
Geographic Township of Nepean
NOW CITY OF OTTAWA

TOPOGRAPHICAL INFORMATION FROM SURVEY BY:
ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
FEBRUARY 10, 2006

SITE AREA: 84,625 SQ.FT. (7,862 SQ.M)



BICYCLE STORAGE RACK TO BE GALVANIZED STEEL ANCHORED SECURELY TO SIDEWALK

BICYCLE STORAGE RACK DETAIL
1:20

GENERAL NOTES

1. DO NOT SCALE DRAWINGS. FIGURED DIMENSIONS ONLY TO BE USED.

2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT.

3. ALL WORK DESCRIBED UNDER THIS CONTRACT TO COMPLY WITH ONTARIO BUILDING CODE, 2006 AND/OR NATIONAL BUILDING CODE, 2005 AND OTHER CODES AND BY-LAWS IN EFFECT.

4. THIS DRAWING IS AN INSTRUMENT OF SERVICE AND IS PROTECTED BY COPYRIGHT. COPYRIGHT FOR THE ARCHITECT'S INSTRUMENT OF SERVICE BELONGS TO THE ARCHITECT. COPIES, INCLUDING ELECTRONIC COPIES, MAY ONLY BE USED OF THE PURPOSE INTENDED AND FOR A ONE-TIME USE, ON THE SAME SITE, AND FOR THE SAME PROJECT AND MAY NOT BE OFFERED FOR SALE OR TRANSFER WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ARCHITECT.

ISSUE RECORD

ISSUE	REV	DESCRIPTION	DATE
01	00	FOR COORDINATION	25/MAR/'08
02	01	FOR PERMIT	04/JUL/'08
03	02	FOR SITE PLAN	28/AUG/'08
04	03	FOR PERMIT - REVISED	12/SEP/'08
05	04	FOR REVISED SITE PLAN	29/SEP/'08
06	05	FOR FOUNDATION PERMIT	12/NOV/'08
07	06	FOR COORDINATION	22/JUL/'11
08	07	FOR COORDINATION	03/AUG/'11
09	08	FOR REVIEW	21/SEP/'11
10	09	FOR COORDINATION	28/SEP/'11
11	10	FOR COORDINATION	04/OCT/'11
12	11	FOR CLIENT REVIEW	21/OCT/'11
13	12	FOR COORDINATION	07/DEC/'11
14	13	ISSUED FOR REVISED BUILDING PERMIT	21/DEC/'11
15	14	ISSUED FOR REVIEW	11/JAN/'12
16	15	FOR COORDINATION	23/JAN/'12
17	16	FOR COORDINATION	10/FEB/'12

No	DATE	REVISION
07	23/JAN/12'	ISSUED FOR REVISED BUILDING PERMIT
06	21/DEC/11'	ISSUED FOR REVISED BUILDING PERMIT
05	28/SEP/11'	GENERAL REVISIONS
04	21/SEP/11'	GENERAL REVISIONS
03	29/SEP/08'	CITY COMMENTS
02	12/SEP/08'	CITY COMMENTS
01	28/AUG/'08	ENTRANCE SHIFTED
00	MAR/'08	ORIGINAL DOCUMENT

PROJECT NORTH

CLIENT
DYMON CAPITAL CORPORATION
TEL: 613-247-0888
FAX: 613-247-7730

CONSULTANTS
CLELAND JARDINE ENGINEERING
STRUCTURAL ENGINEERS
TEL: 613-591-1533
FAX: 613-591-1703
GOODKEY WEEDMARK & ASSOCIATES
MECHANICAL/ELECTRICAL ENGINEERS
TEL: 613-727-5112
FAX: 613-727-5115
SITE PLANNING BY
FOTENN PLANNING & URBAN DESIGN

Farrow Architects Inc.
TEL: 613-725-2294
FAX: 613-724-6632

PROJECT TITLE
DYMON SELF STORAGE
CARLING AVENUE

DRAWING TITLE
PROPOSED SITE PLAN

DATE	DRAWN	JOB No	DRAWING No
MAR. 2008	MB/EC	1975	A-100
SCALE: AS SHOWN	CHECKED: ER		

ARCHITECTURAL

ACCURATE TRUSTED TRAFFIC DATA

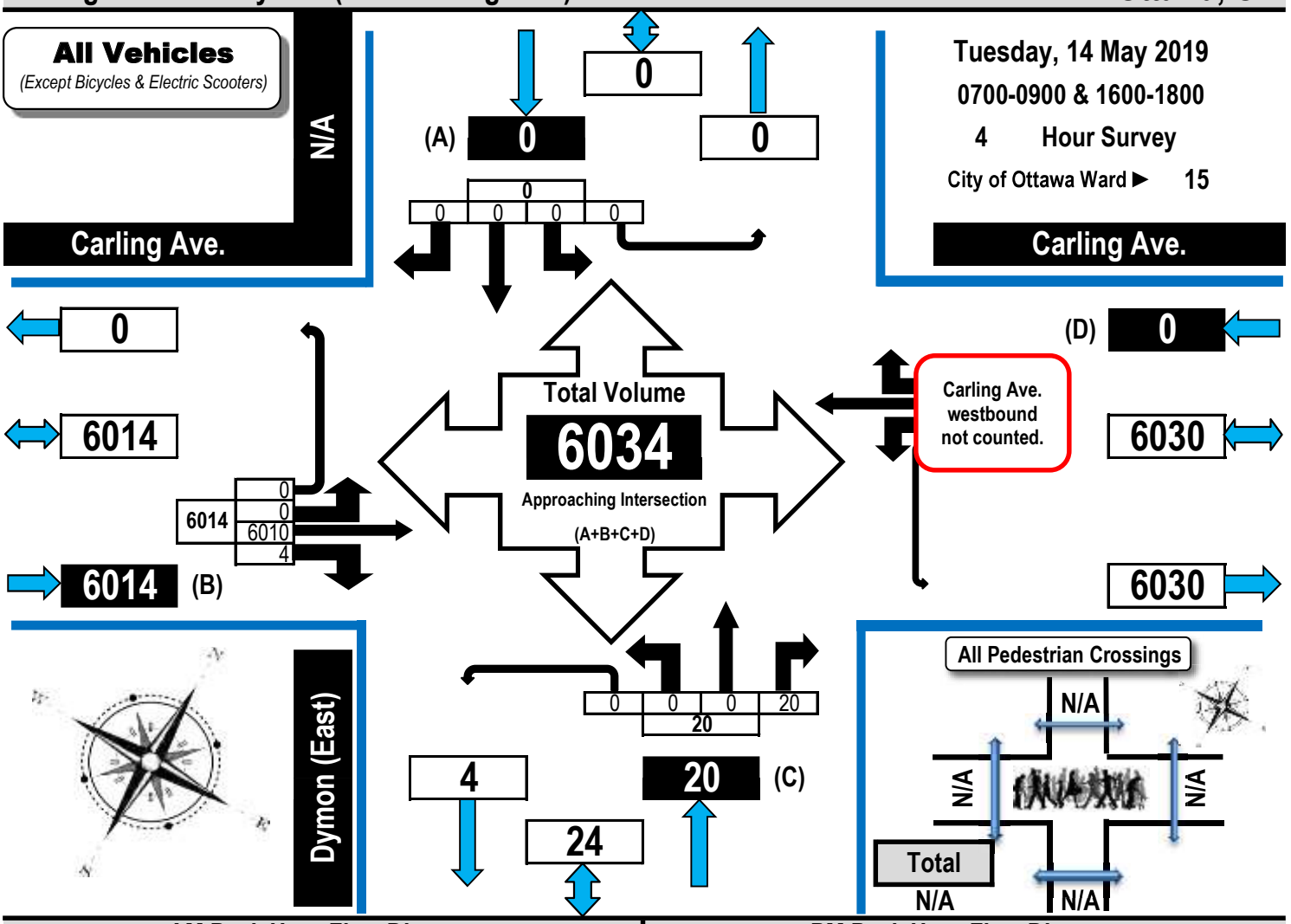
Turning Movement Count
Summary, AM and PM Peak Hour Flow Diagrams

Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

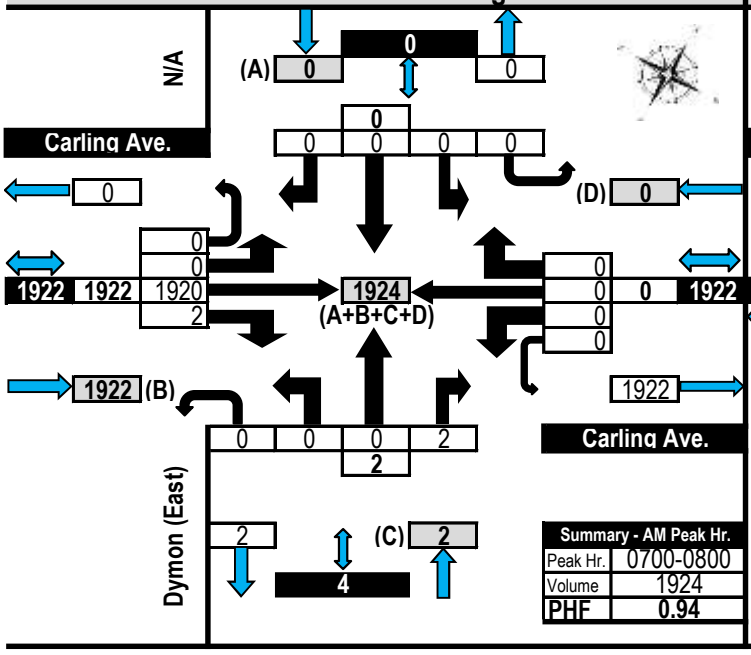
Carling Avenue & Dymon (1554 Carling Ave.) EAST Access — Ottawa, ON

All Vehicles
(Except Bicycles & Electric Scooters)

Tuesday, 14 May 2019
0700-0900 & 1600-1800
4 Hour Survey
City of Ottawa Ward ▶ 15

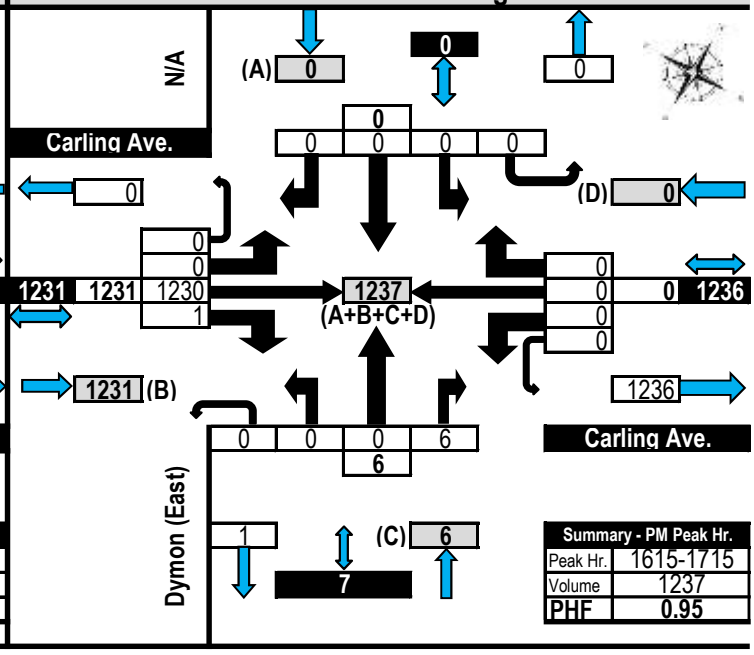


AM Peak Hour Flow Diagram



Summary - AM Peak Hr.	
Peak Hr.	0700-0800
Volume	1924
PHF	0.94

PM Peak Hour Flow Diagram



Summary - PM Peak Hr.	
Peak Hr.	1615-1715
Volume	1237
PHF	0.95

ACCURATE TRUSTED TRAFFIC DATA

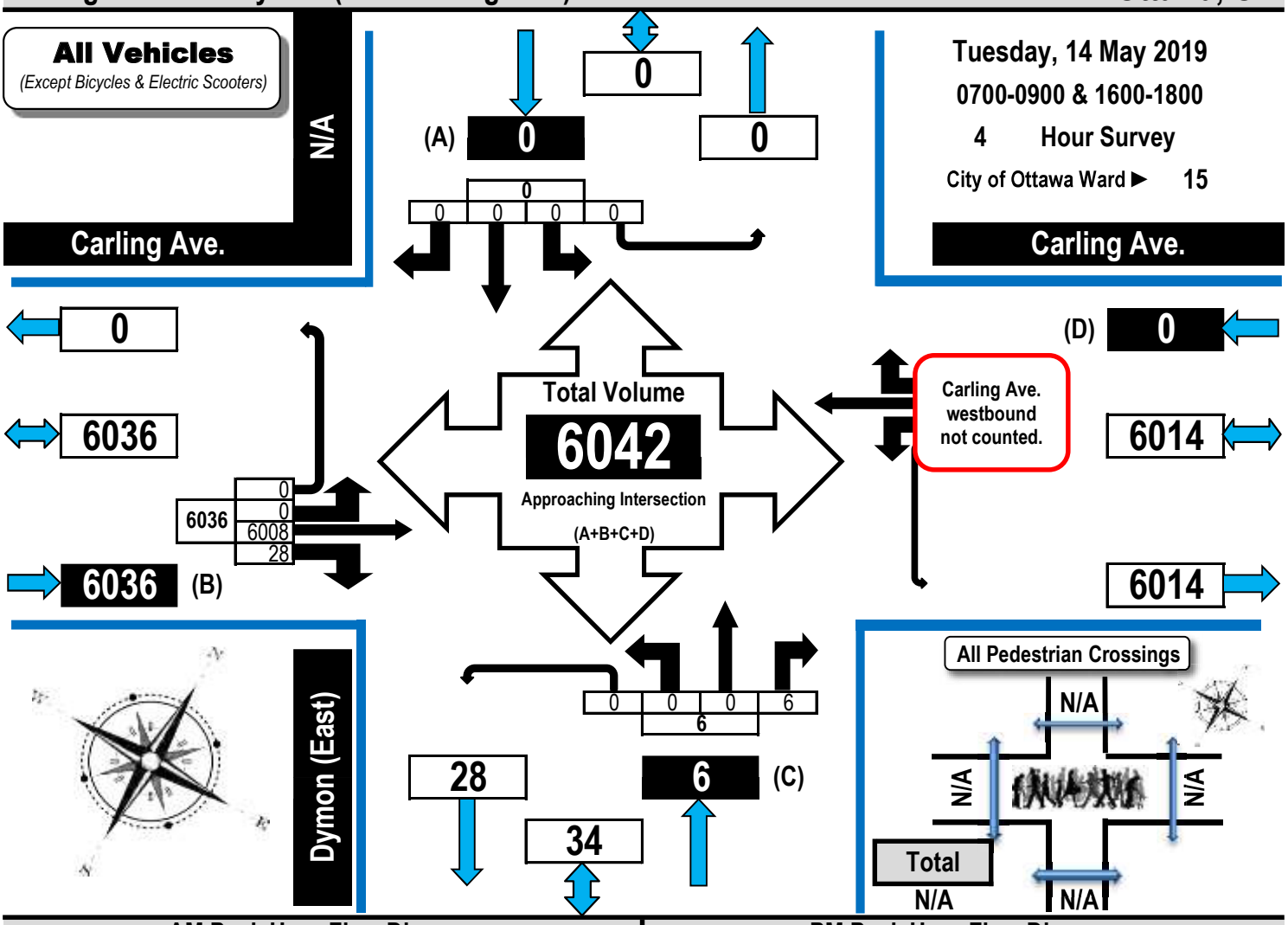
Turning Movement Count
Summary, AM and PM Peak Hour Flow Diagrams

Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

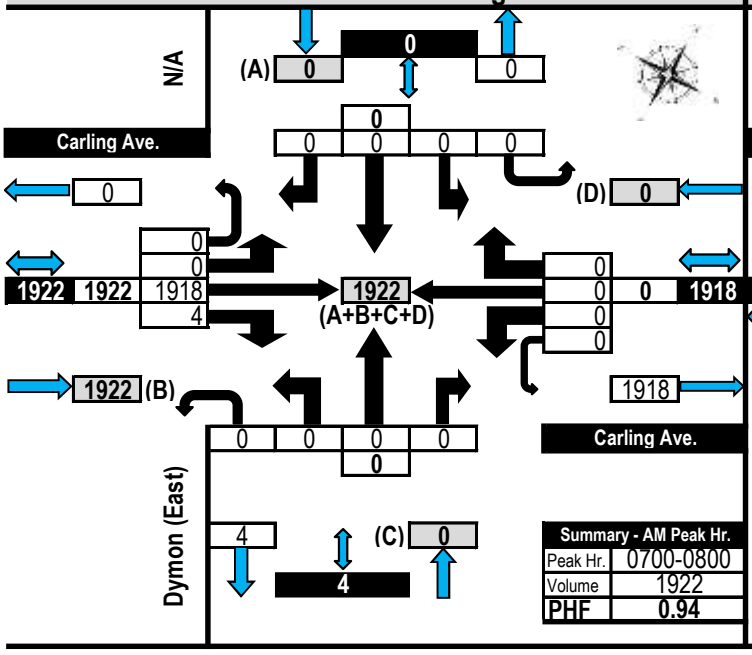
Carling Avenue & Dymon (1554 Carling Ave.) WEST Access — Ottawa, ON

All Vehicles
(Except Bicycles & Electric Scooters)

Tuesday, 14 May 2019
0700-0900 & 1600-1800
4 Hour Survey
City of Ottawa Ward ▶ 15

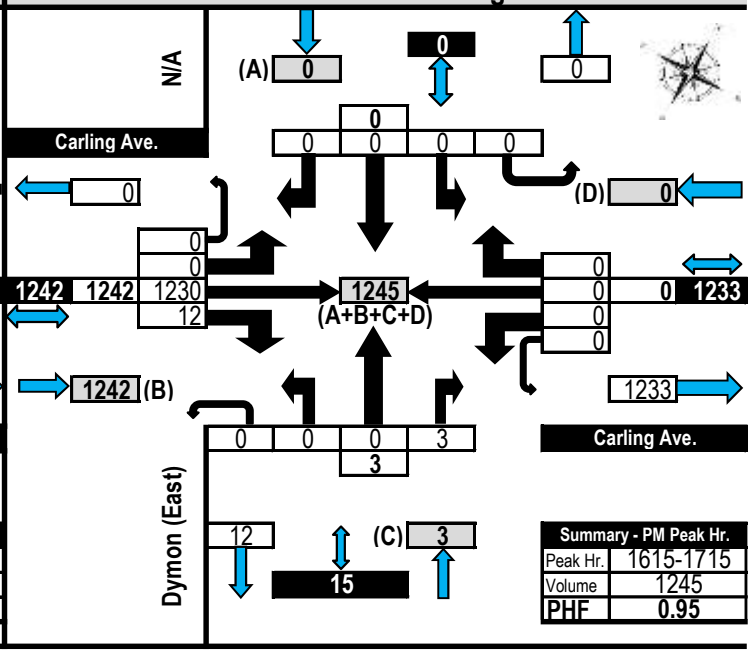


AM Peak Hour Flow Diagram

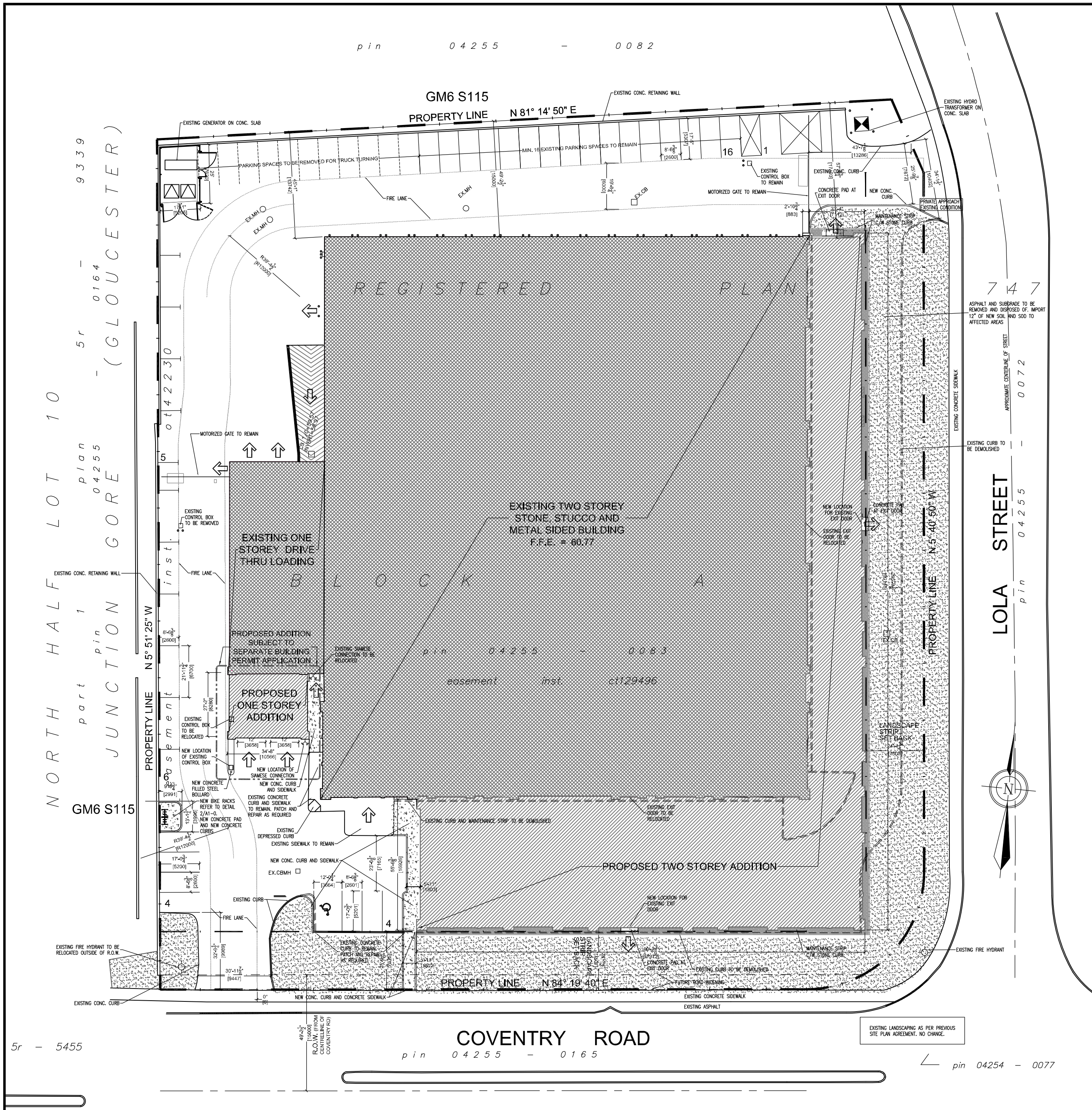


Summary - AM Peak Hr.	
Peak Hr.	0700-0800
Volume	1922
PHF	0.94

PM Peak Hour Flow Diagram



Summary - PM Peak Hr.	
Peak Hr.	1615-1715
Volume	1245
PHF	0.95



1 SITE PLAN
A1-0 SCALE: 1:200

LEGAL DESCRIPTION OF PROPERTY:

PART OF BLOCK A
REGISTERED PLAN 747
CITY OF OTTAWA

SITE STATISTICS

LOT AREA: 119181.57 SQ.FT. (11072.34 SQ.M.)
EXISTING LOT COVERAGE: 43.9%
PROPOSED LOT COVERAGE: 58.1% (INCLUDING GARAGE ADDITION SUBJECT TO SEPARATE BUILDING PERMIT APPLICATION)

EXISTING BUILDING HEIGHT: 22'–4" (6.81m) TOP OF STEEL
29'–0" (8.84m) TOP OF HIGHEST PARAPET
PROPOSED BUILDING HEIGHT TO MATCH EXISTING

7.5m LANDSCAPED STRIP ALONG COVENTRY ROAD AND LOLA STREET
36 PARKING SPACES PROVIDED

BOUNDARY INFORMATION FROM SURVEY BY: ANNIS, O'SULLIVAN, VOLLEBEKK LTD. JUNE 24, 2008.

BUILDING AREA

EXISTING GROUND FLOOR: 52326.5 SQ.FT. (4861.3 SQ.M.)
EXISTING SECOND FLOOR: 48708.1 SQ.FT. (4525.1 SQ.M.)
TOTAL EXISTING GROSS FLOOR AREA: 101034.6 SQ.FT. (9386.4 SQ.M.)

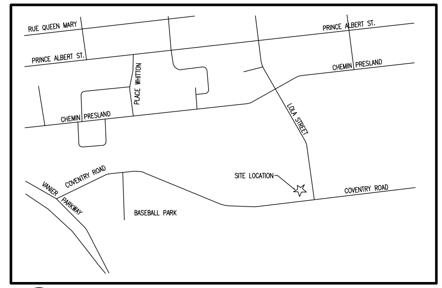
PROPOSED GROUND FLOOR: 16005.9 SQ.FT. (1487.0 SQ.M.)
PROPOSED SECOND FLOOR: 15902.2 SQ.FT. (1477.4 SQ.M.)
TOTAL PROPOSED GROSS FLOOR AREA: 31908.1 SQ.FT. (2964.4 SQ.M.)

TOTAL GROUND FLOOR AREA: 68332.4 SQ.FT. (6348.3 SQ.M)
TOTAL SECOND FLOOR AREA: 64610.3 SQ.FT. (6002.5 SQ.M)
TOTAL GROSS FLOOR AREA: 132942.7 SQ.FT. (12350.8 SQ.M.)

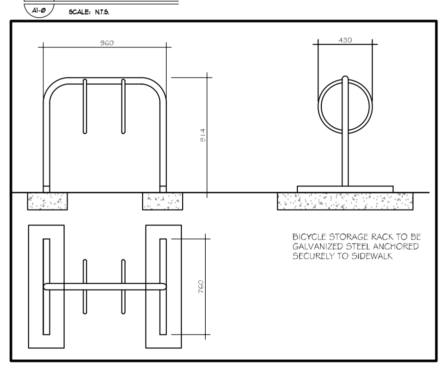
GROSS FLOOR AREA OF PROPOSED GARAGE ADDITION (SUBJECT TO SEPARATE BUILDING PERMIT APPLICATION): 909.8 SQ.FT. (84.5 SQ.M.)
TOTAL GROSS FLOOR AREA (INCLUDING GFA OF GARAGE ADDITION): 133852.5 SQ.FT. (12435.3 SQ.M.)

GROSS LEASABLE AREA

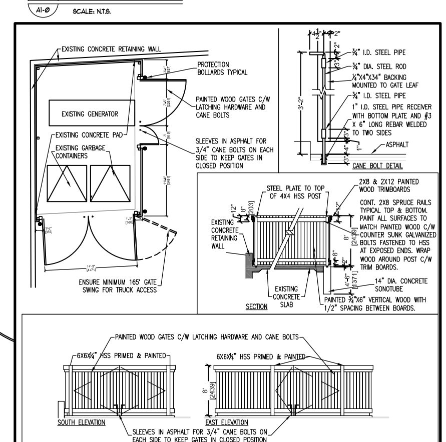
PROPOSED GROUND FLOOR: 15852.6 SQ.FT. (1472.76 SQ.M.)
PROPOSED SECOND FLOOR: 15852.6 SQ.FT. (1472.76 SQ.M.)
TOTAL PROPOSED GROSS LEASABLE AREA: 31705.2 (2945.5 SQ.M.)



2 SITE KEY PLAN
A1-0 SCALE: N.T.S.



2 BICYCLE STORAGE RACK DETAIL
A1-0 SCALE: N.T.S.



4 GARBAGE ENCLOSURE DETAIL
A1-0 SCALE: N.T.S.

1. Contractor must verify all job dimensions, all drawings, details, specifications and report any discrepancies to owners before proceeding with work.
2. All drawings and specifications are instruments of service and the property of the architects which must be returned at the completion of the work, and may not be reproduced without their written permission.

ref	description	date
6	Revised Site Plan	24 Oct. 2012
5	Revised Site Plan Walkway & Bicycle	2 August 2012
4	Revised For Site Plan & Siamese	31 July 2012
3	Revised For Building Permit Application	16 July 2012
2	For Building Permit Application	12 Dec 2011
1	For Internal Review	29 July 2011

revisions

RE-ISSUE FOR SITE PLAN CONTROL

STRUCTURAL ENGINEER
Cleland Jardine Engineering Ltd.
Ryan Munden
200-580 Terry Fox Drive, Kanata ON K2L 4B9
tel: (613) 591-1533 fax: (613) 591-1703
e-mail: mail@clelandjardine.com

MECHANICAL/ELECTRICAL
Goodkey Weedmark Consulting Engineers
Tim Belokourov, Andre Bogdanowicz
1688 Woodward Dr. Ottawa ON K2C 0P9
tel: (613) 727-5111 fax: (613) 727-5115
web: www.gwal.com e-mail: info@gwal.com

CIVIL ENGINEER
David Schaeffer Engineering Ltd.
Matt Wingate
120 Iber Road, Suite 203, Ottawa ON K2S 1E9
tel: (613) 836-0856 fax: (613) 836-7183
e-mail: ottawa@DSEL.ca

PLANNING & URBAN DESIGN
FoTenn
Miguel Tremblay
223 McLeod Street, Ottawa ON K2P 0Z8
tel: (613) 730-5709 fax: (613) 730-1136
web: www.FoTenn.com e-mail: tremblay@FoTenn.com

owner:
DYMON SELF STORAGE

architect
nicholas caragianis architect inc.
137 Pamilla Street, Ottawa, ON K1S 3K9
t: 613 237 6801
f: 613 237 8289
e: info@ncarchitect.ca
www.ncarchitect.ca

project & location
RENOVATION & ADDITION TO:
DYMON SELF–STORAGE
323 COVENTRY ROAD, OTTAWA

title of drawing
SITE PLAN
& WIDENING ROAD

scale	drawing
AS NOTED	A1-0
date: 2012/08/02	
drawn by: KL CT	

ACCURATE TRUSTED TRAFFIC DATA

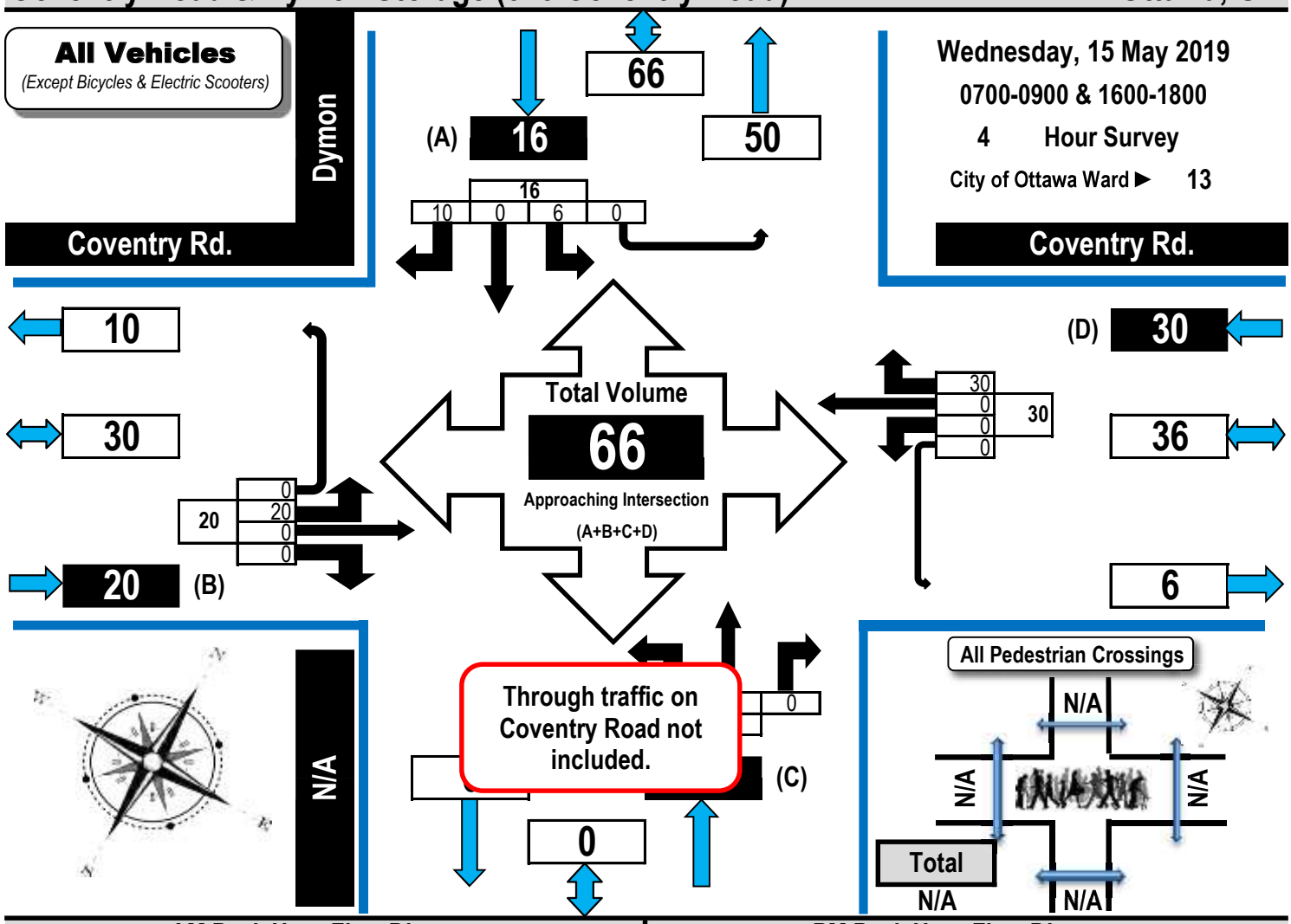
Turning Movement Count
Summary, AM and PM Peak Hour Flow Diagrams

Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

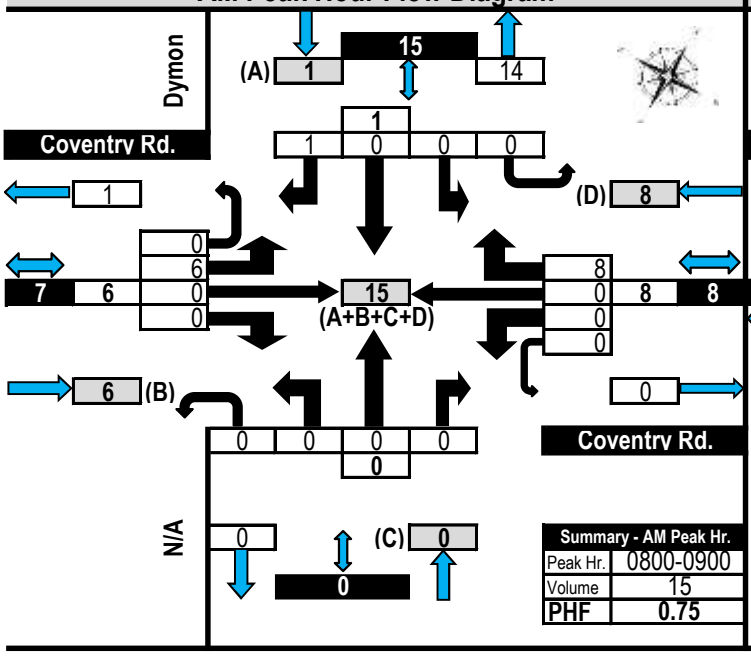
Coventry Road & Dymon Storage (343 Coventry Road) — Ottawa, ON

All Vehicles
(Except Bicycles & Electric Scooters)

Wednesday, 15 May 2019
0700-0900 & 1600-1800
4 Hour Survey
City of Ottawa Ward ▶ 13

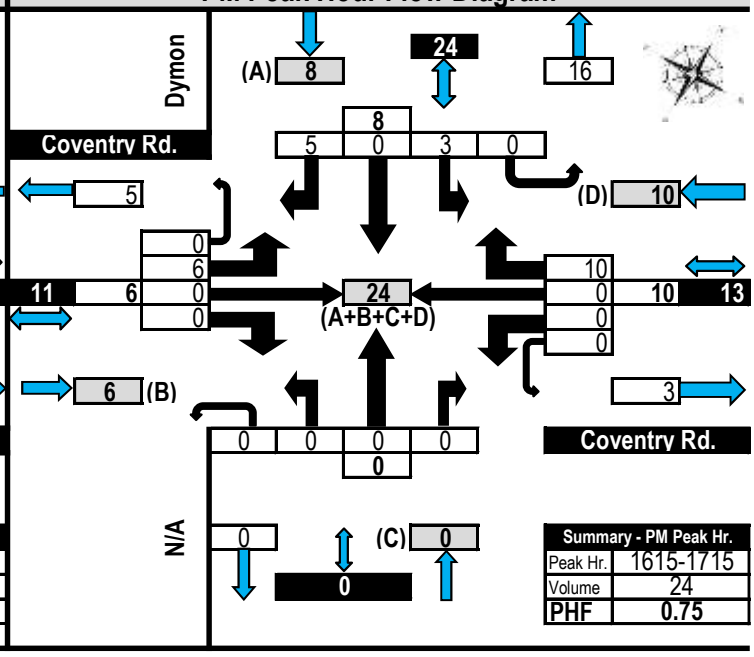


AM Peak Hour Flow Diagram



Summary - AM Peak Hr.	
Peak Hr.	0800-0900
Volume	15
PHF	0.75

PM Peak Hour Flow Diagram



Summary - PM Peak Hr.	
Peak Hr.	1615-1715
Volume	24
PHF	0.75

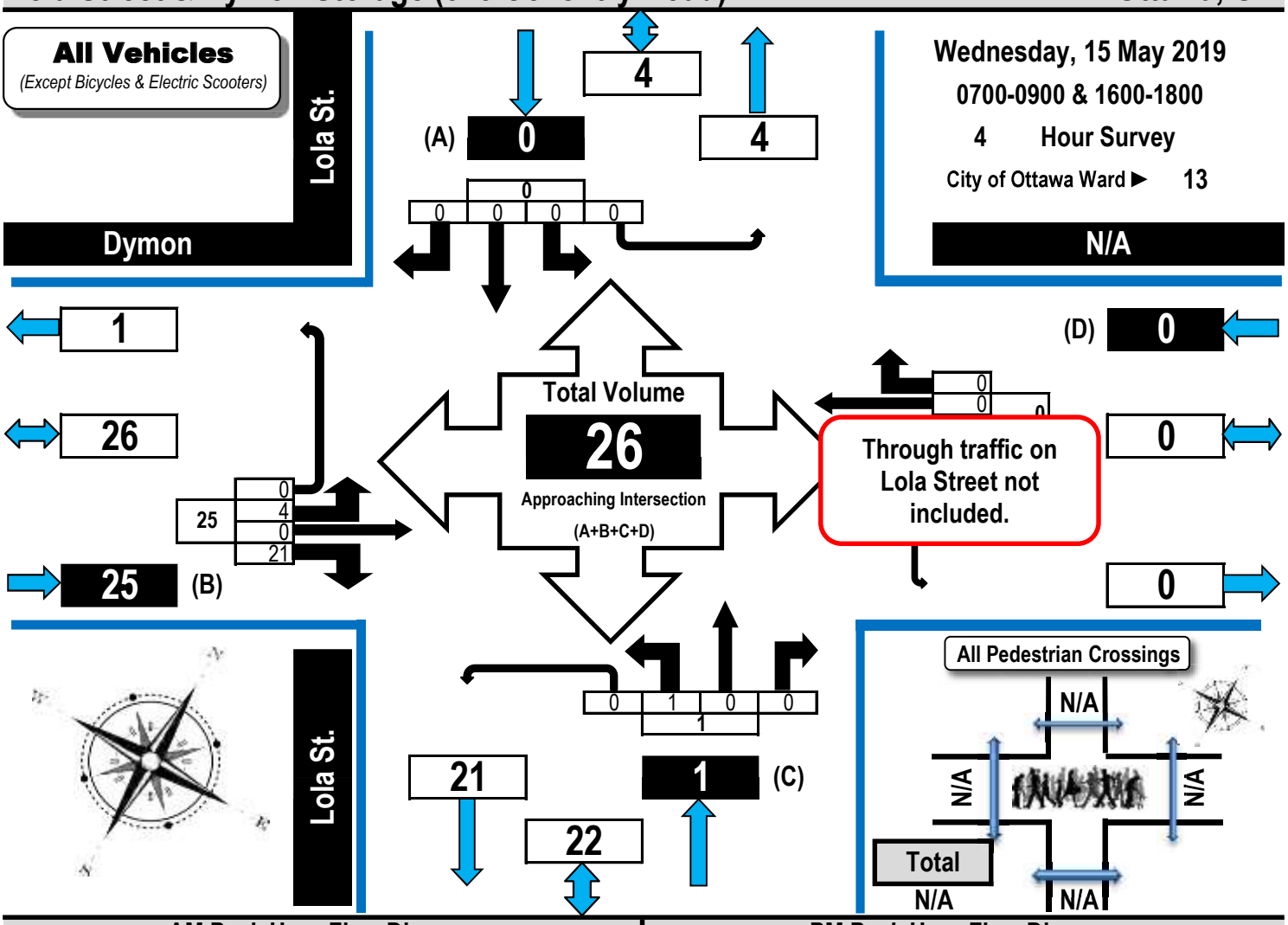
Turning Movement Count
Summary, AM and PM Peak Hour Flow Diagrams

Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

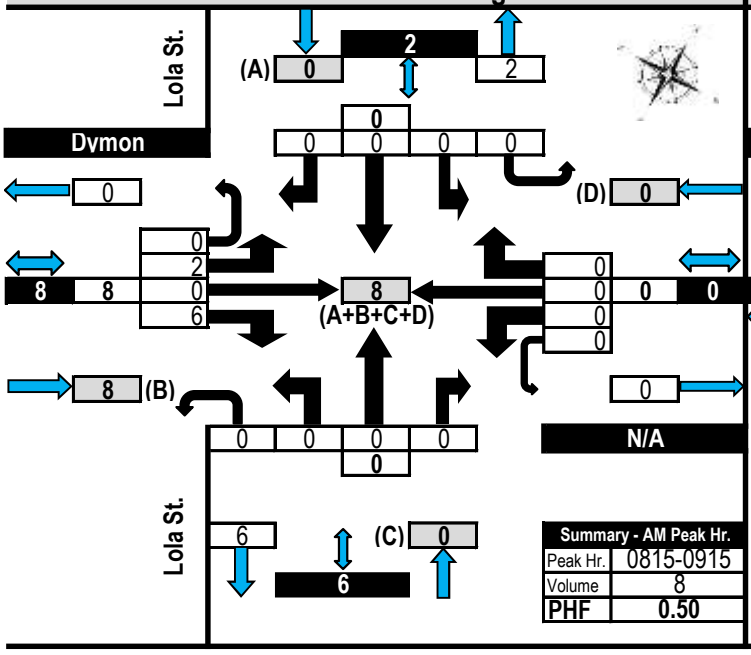
Lola Street & Dymon Storage (343 Coventry Road) — Ottawa, ON

All Vehicles
(Except Bicycles & Electric Scooters)

Wednesday, 15 May 2019
0700-0900 & 1600-1800
4 Hour Survey
City of Ottawa Ward ▶ 13

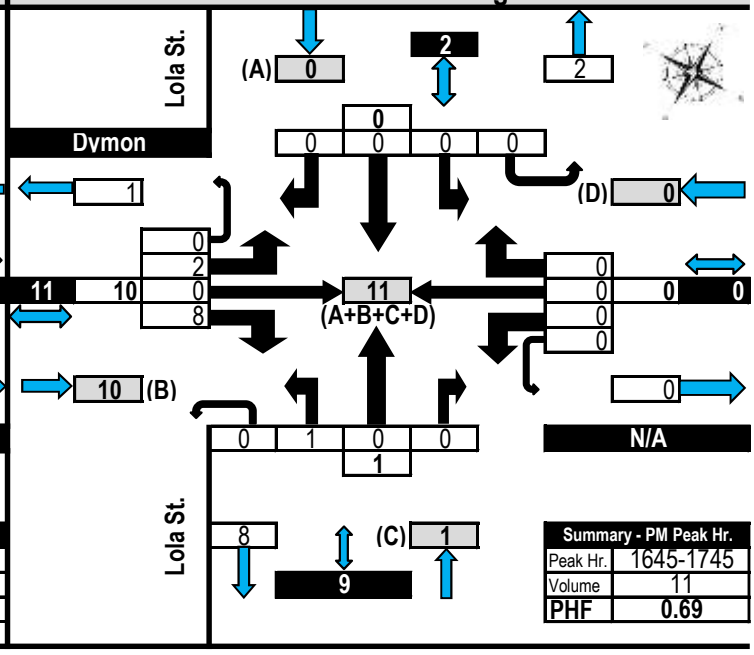


AM Peak Hour Flow Diagram



Summary - AM Peak Hr.	
Peak Hr.	0815-0915
Volume	8
PHF	0.50

PM Peak Hour Flow Diagram



Summary - PM Peak Hr.	
Peak Hr.	1645-1745
Volume	11
PHF	0.69

ACCURATE TRUSTED TRAFFIC DATA

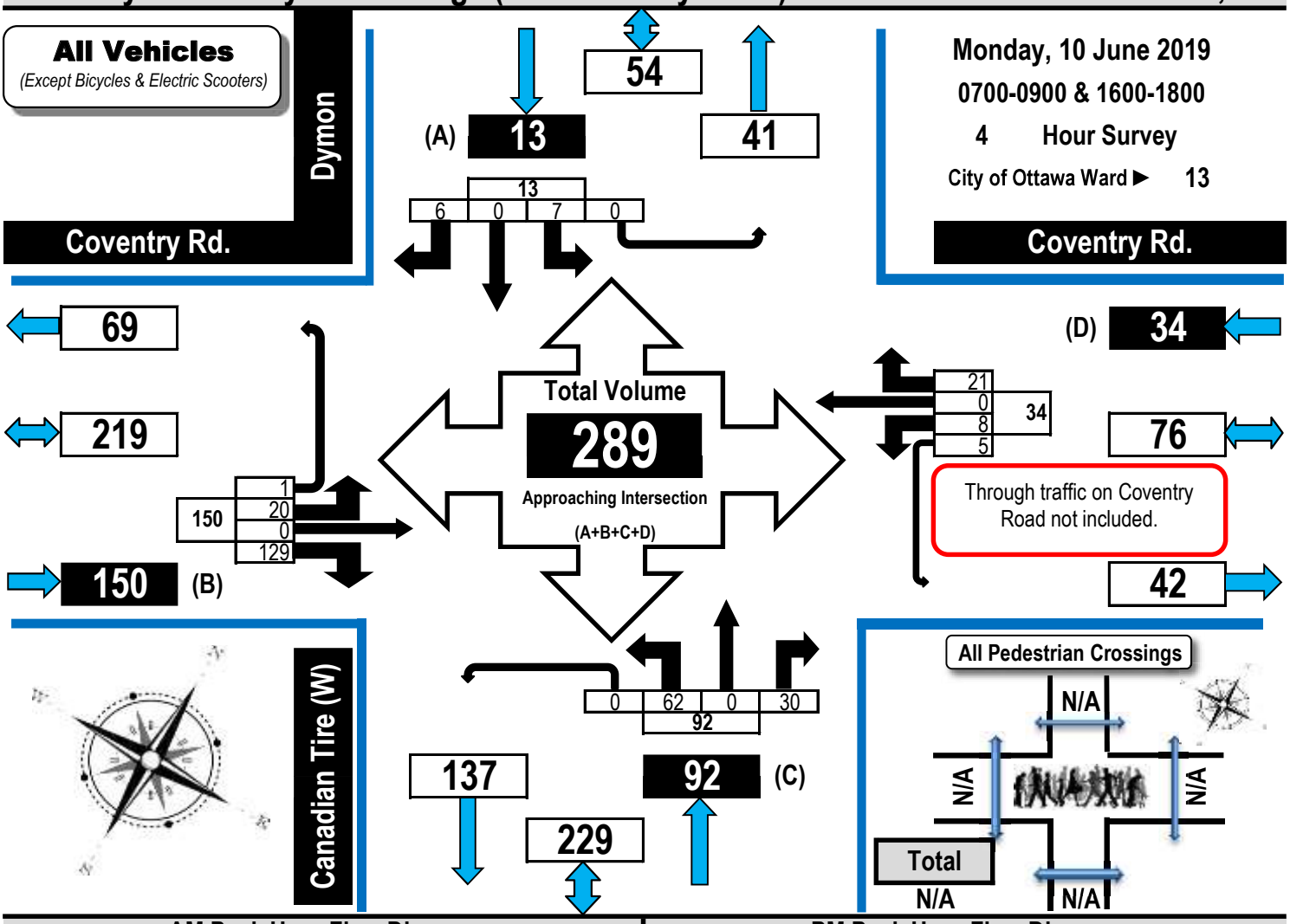
Turning Movement Count
Summary, AM and PM Peak Hour Flow Diagrams

Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

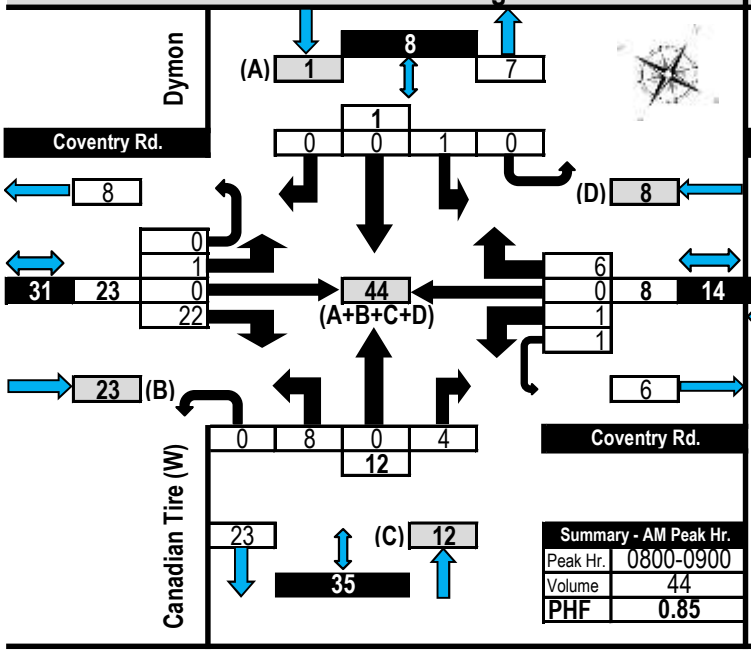
Coventry Road & Dymon Storage (343 Coventry Road) — Ottawa, ON

All Vehicles
(Except Bicycles & Electric Scooters)

Monday, 10 June 2019
0700-0900 & 1600-1800
4 Hour Survey
City of Ottawa Ward ▶ 13

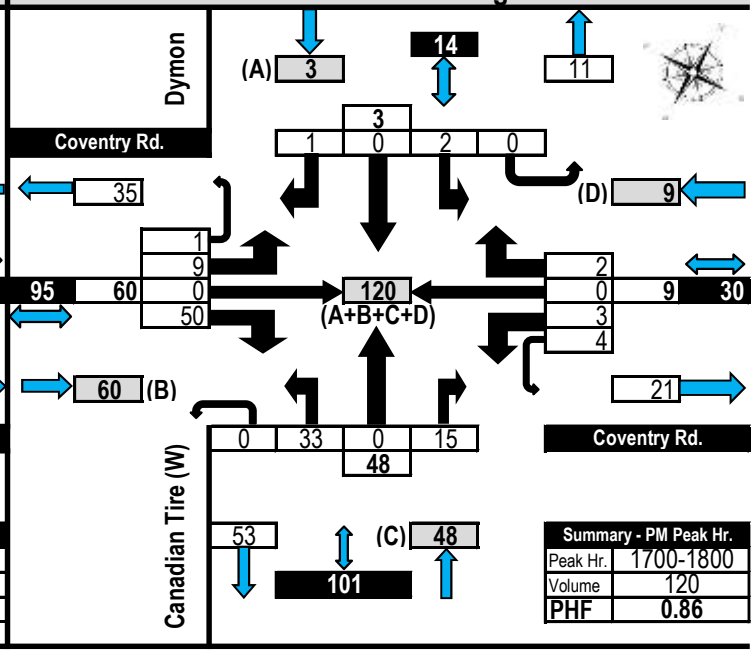


AM Peak Hour Flow Diagram



Summary - AM Peak Hr.	
Peak Hr.	0800-0900
Volume	44
PHF	0.85

PM Peak Hour Flow Diagram



Summary - PM Peak Hr.	
Peak Hr.	1700-1800
Volume	120
PHF	0.86

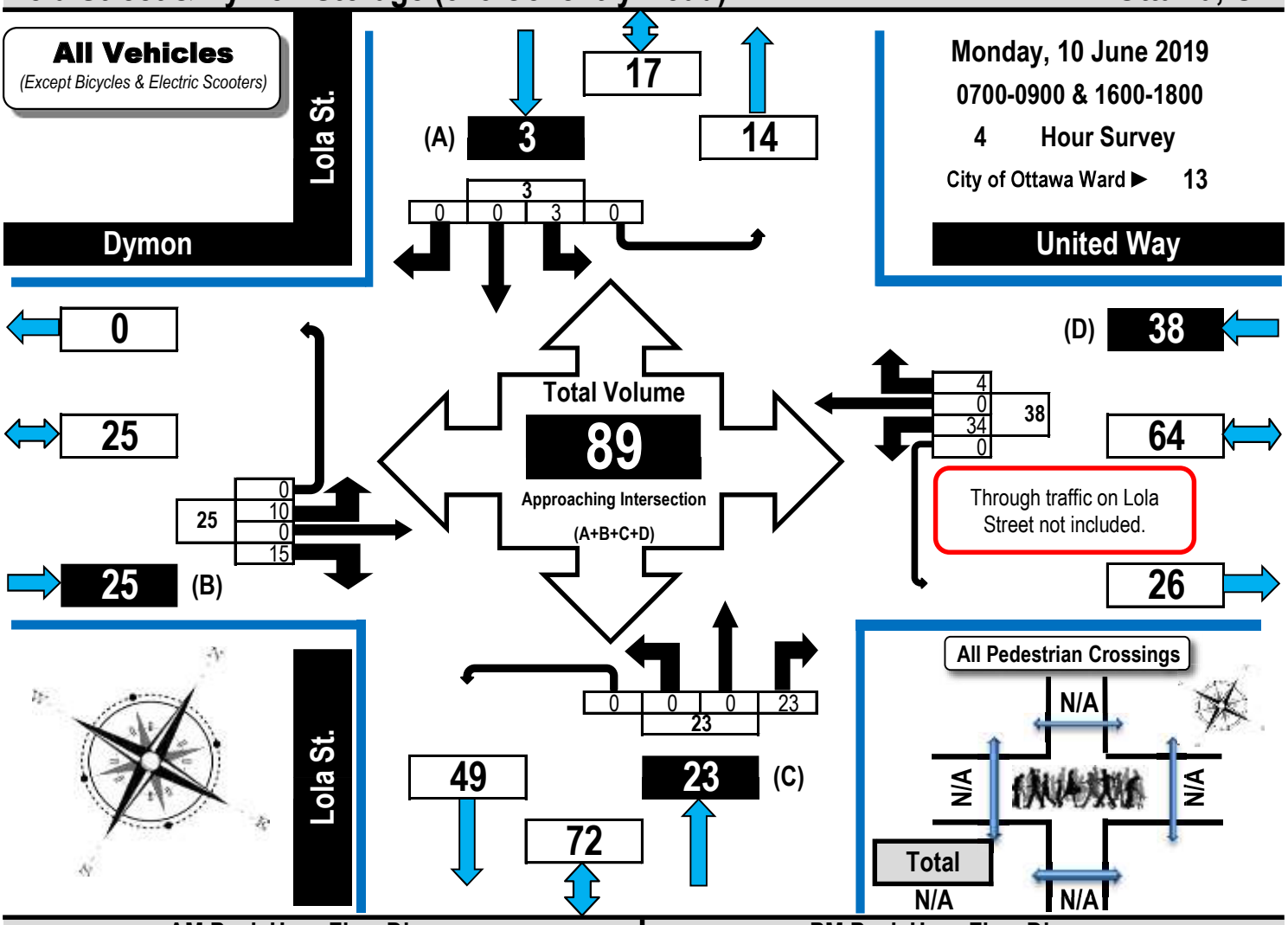
Turning Movement Count
Summary, AM and PM Peak Hour Flow Diagrams

Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

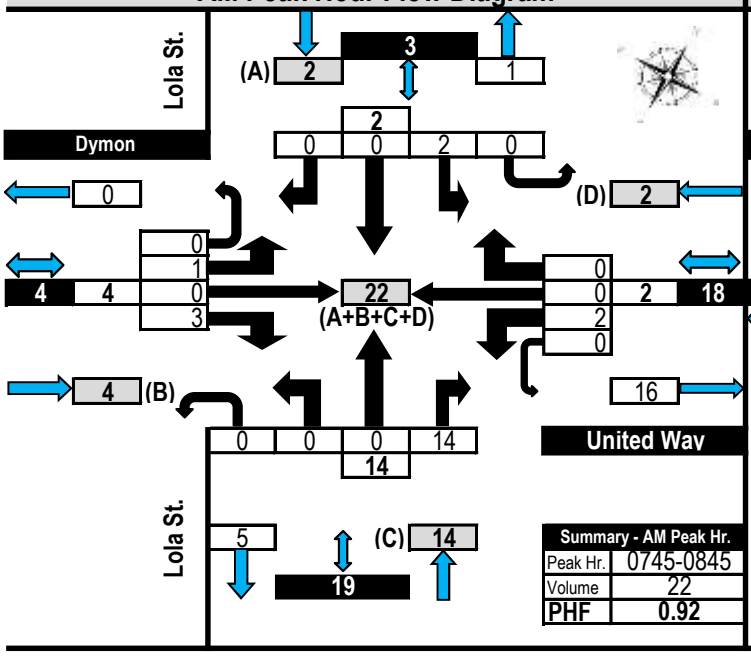
Lola Street & Dymon Storage (343 Coventry Road) — Ottawa, ON

All Vehicles
(Except Bicycles & Electric Scooters)

Monday, 10 June 2019
0700-0900 & 1600-1800
4 Hour Survey
City of Ottawa Ward ▶ 13

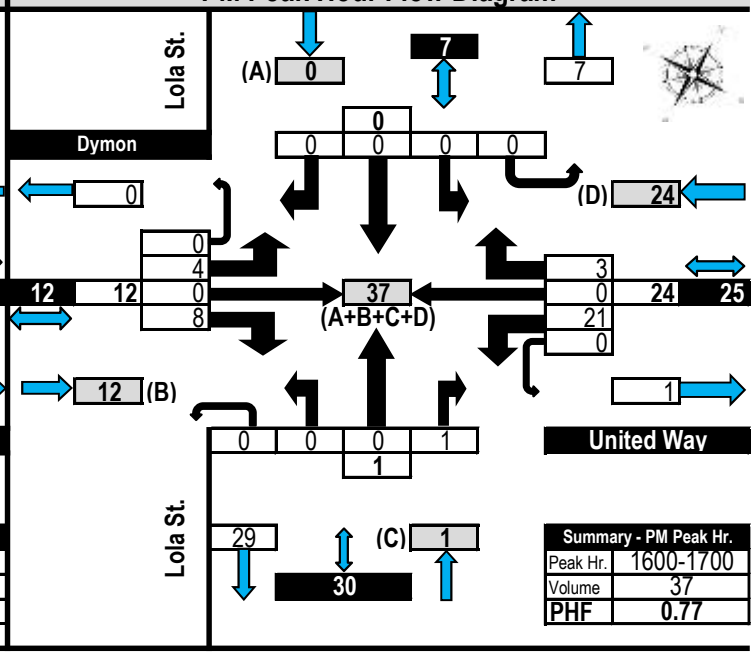


AM Peak Hour Flow Diagram



Summary - AM Peak Hr.	
Peak Hr.	0745-0845
Volume	22
PHF	0.92

PM Peak Hour Flow Diagram



Summary - PM Peak Hr.	
Peak Hr.	1600-1700
Volume	37
PHF	0.77

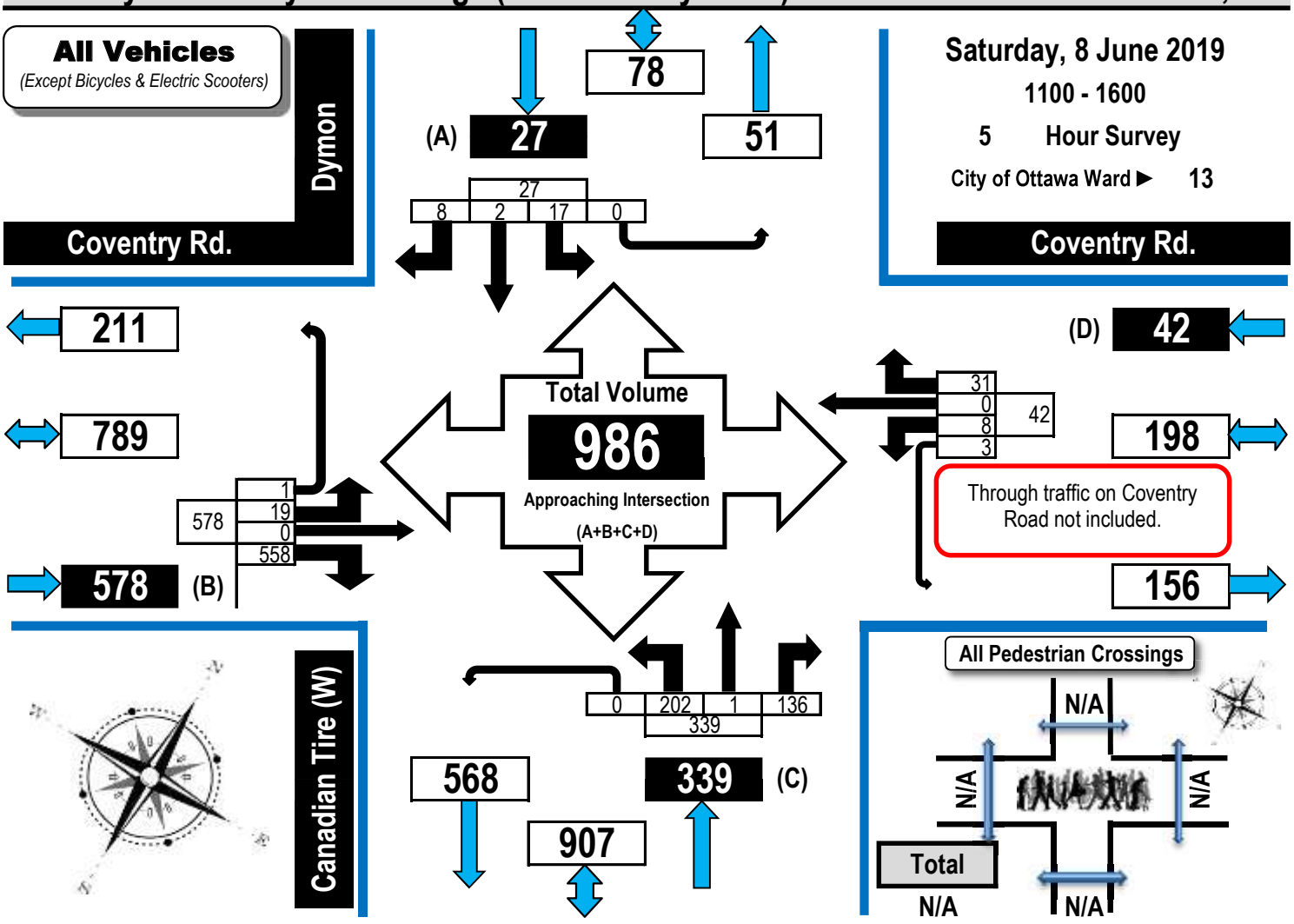
Turning Movement Count
Summary, OFF and PM Peak Hour Flow Diagrams

Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

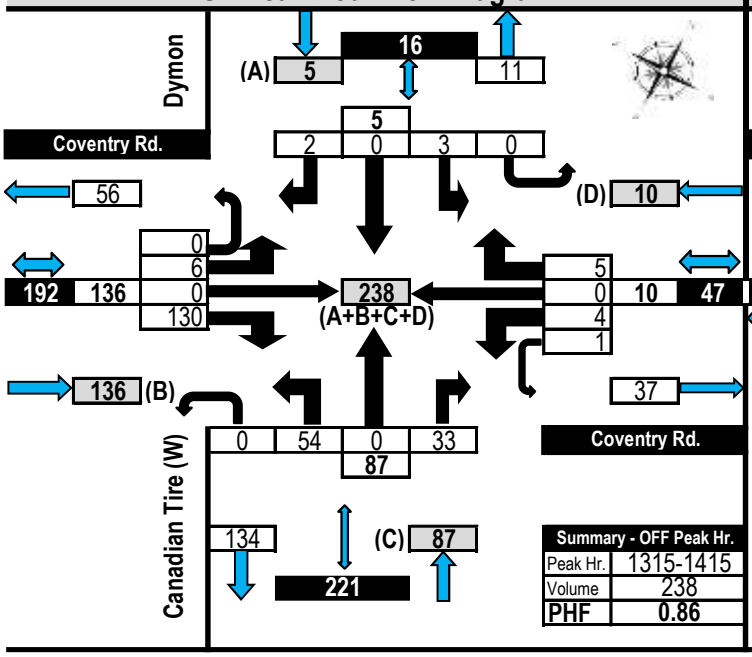
Coventry Road & Dymon Storage (343 Coventry Road) — Ottawa, ON

All Vehicles
(Except Bicycles & Electric Scooters)

Saturday, 8 June 2019
1100 - 1600
5 Hour Survey
City of Ottawa Ward ▶ 13

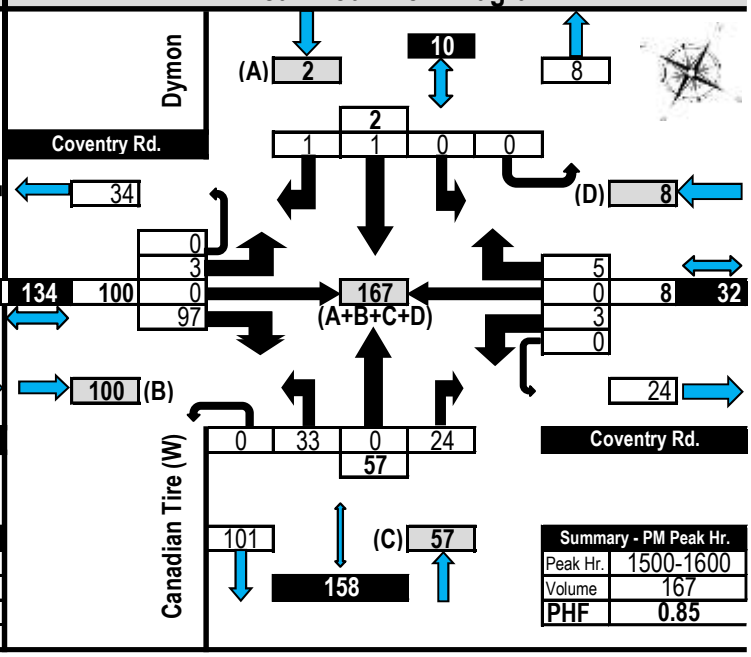


Off Peak Hour Flow Diagram



Summary - OFF Peak Hr.	
Peak Hr.	1315-1415
Volume	238
PHF	0.86

PM Peak Hour Flow Diagram



Summary - PM Peak Hr.	
Peak Hr.	1500-1600
Volume	167
PHF	0.85

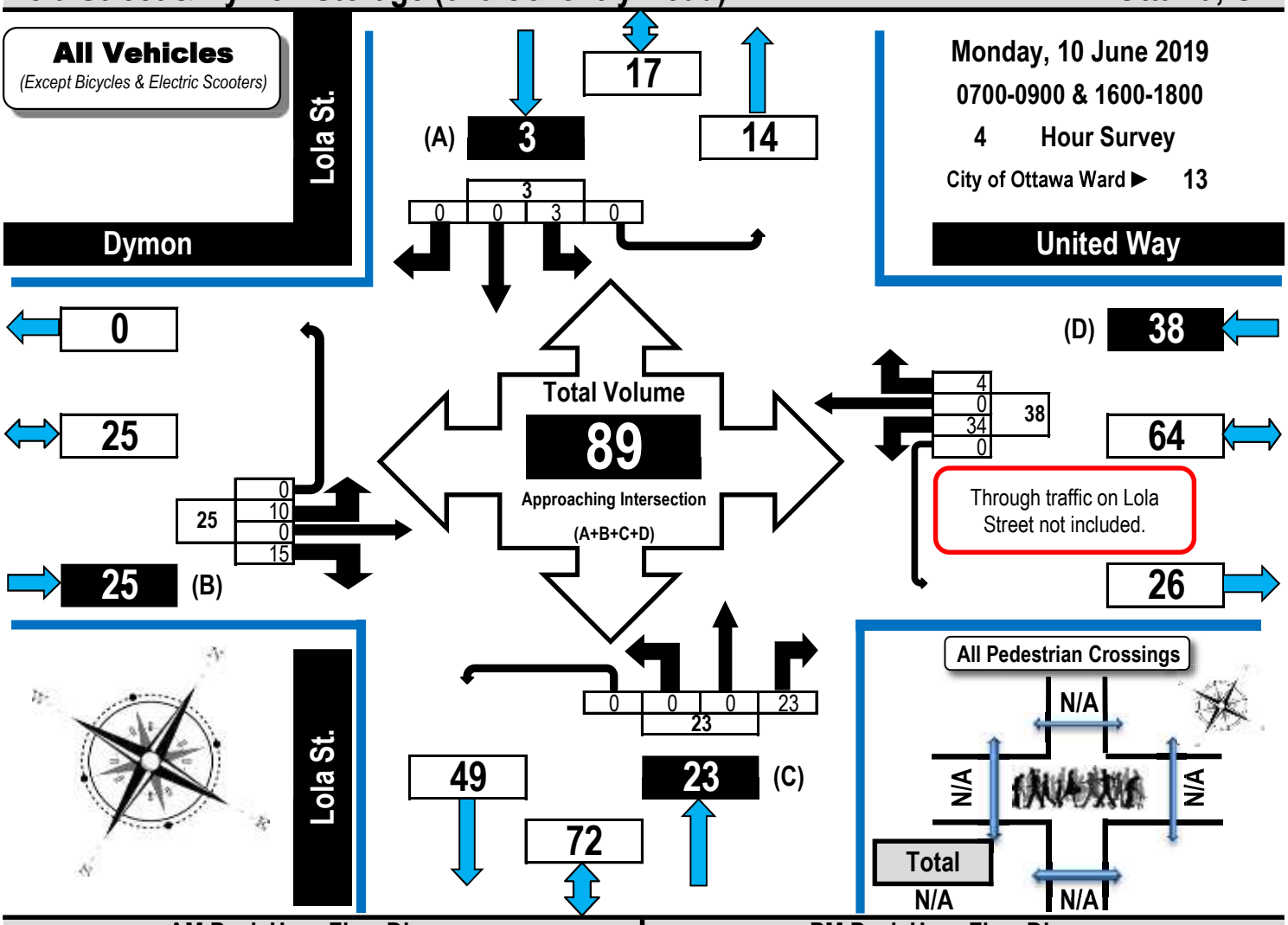
Turning Movement Count
Summary, AM and PM Peak Hour Flow Diagrams

Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

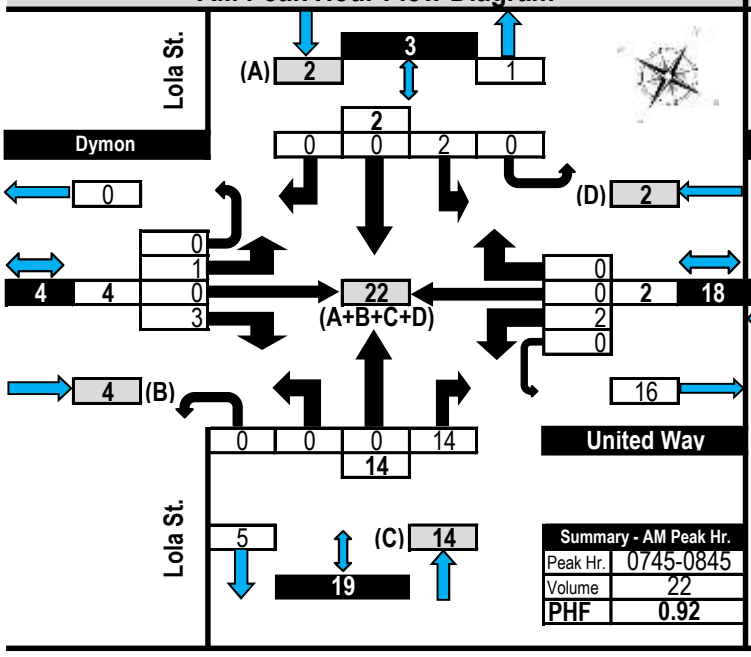
Lola Street & Dymon Storage (343 Coventry Road) — Ottawa, ON

All Vehicles
(Except Bicycles & Electric Scooters)

Monday, 10 June 2019
0700-0900 & 1600-1800
4 Hour Survey
City of Ottawa Ward ▶ 13

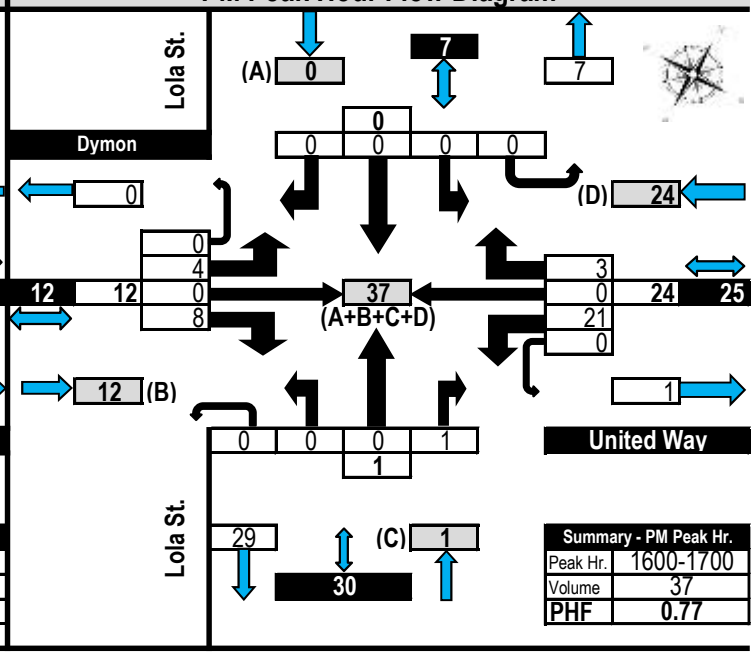


AM Peak Hour Flow Diagram

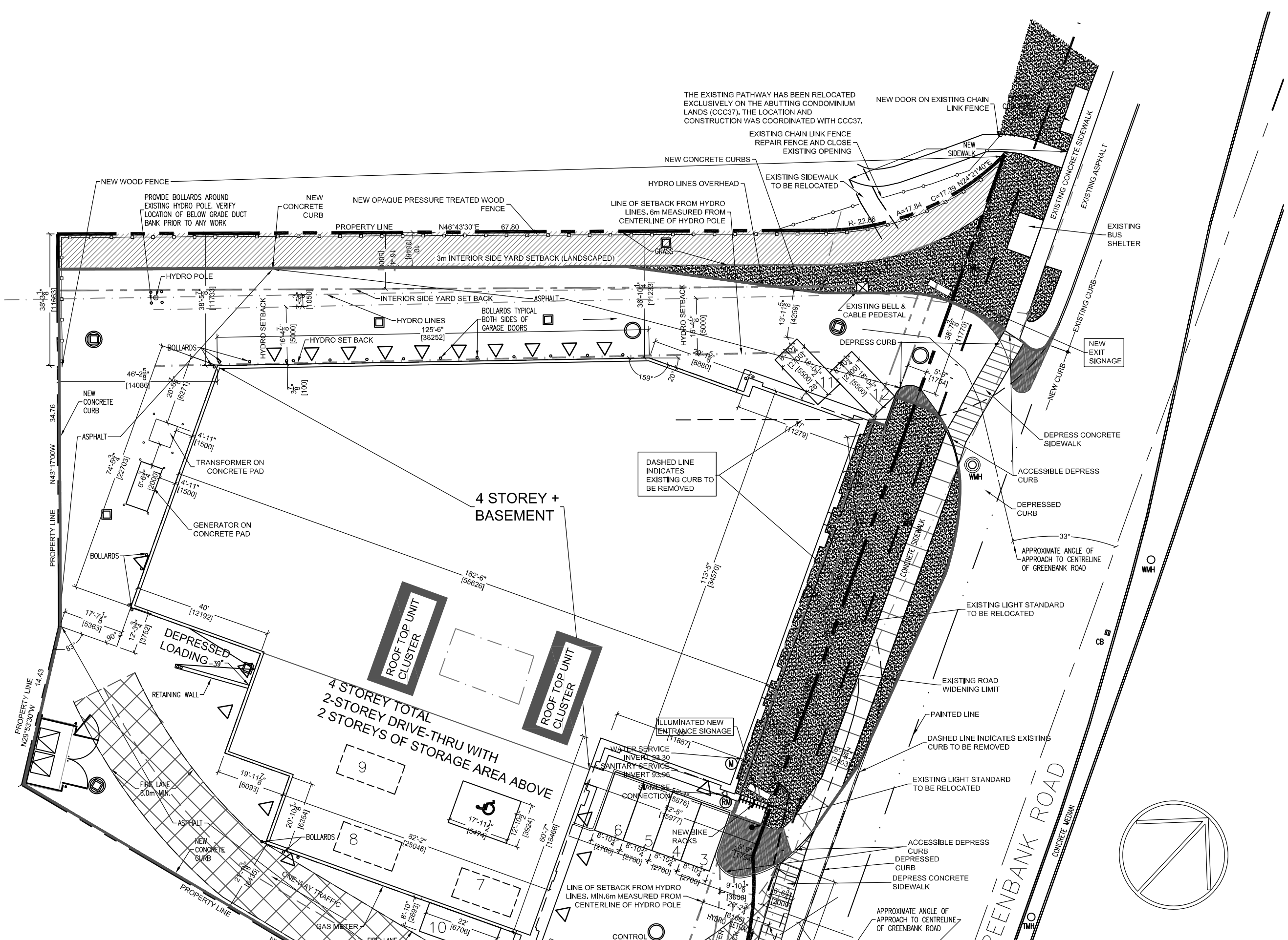


Summary - AM Peak Hr.	
Peak Hr.	0745-0845
Volume	22
PHF	0.92

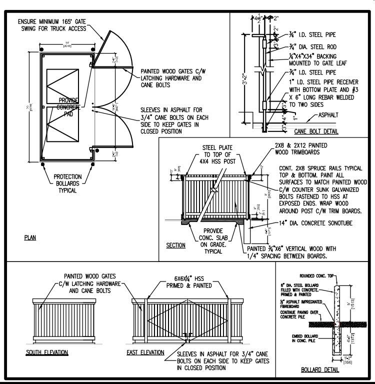
PM Peak Hour Flow Diagram



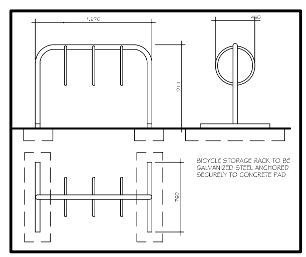
Summary - PM Peak Hr.	
Peak Hr.	1600-1700
Volume	37
PHF	0.77



1 SITE PLAN
A0-1 SCALE: 1:200



5 GARBAGE ENCLOSURE DETAIL
A0-1 SCALE: NTS



3 BICYCLE STORAGE RACK DETAIL
A0-1 SCALE: NTS

LEGAL DESCRIPTION OF PROPERTY:

PART OF BLOCKS "O" & "N3"
REGISTERED PLAN 627624
AND PART OF THE ROAD ALLOWANCE BETWEEN LOTS 30 & 31 (AS CLOSED)
CONCESSION 3 (RIDEAU FRONT)
GEOGRAPHIC TOWNSHIP OF NEPEAN
NOW CITY OF OTTAWA

SITE STATISTICS

LOT AREA 4.738.5m²
LOT WIDTH 94.1m (308'-7½")
PARKING REQUIRED :9 SPACES
4 PARKING SPACES + 5 IN DRIVE-THRU PROVIDED

ZONING INFORMATION
ZONE GM15[1672]H(17.5)

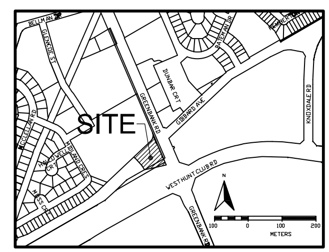
	REQUIRED	PROVIDED
MIN. FRONT YARD	1.75 m	3.78
CORNER YARD SETBACK	3.0 m	3.0m
MIN. INTERIOR SIDE YARD SETBACK:		
ABUTTING A RESIDENTIAL ZONE	5.0 m	11.0m
OTHER CASES	NO MIN.	
MIN. REAR YARD SETBACK:		
ABUTTING A RESIDENTIAL ZONE	7.5 m	N/A
OTHER CASES	NO MIN.	6.15m
MAX. BUILDING HEIGHT	17.5 m	17.3m (56'-7½") T.O. HIGH PARAPET 15.0m (49'-2") T.O. STEEL
MAX. FLOOR SPACE INDEX:	2.15	2.146
MIN. WIDTH OF LANDSCAPED AREA:		
ABUTTING A STREET	3.0 m	3.0m
ABUTTING A RESIDENTIAL ZONE	3.0 m	3.0m (10'-0")
OTHER CASES	NO MIN.	

BOUNDARY INFORMATION FROM SURVEY BY: FAIRHALL, MOFFATT & WOODLAND LIMITED, ONTARIO LAND SURVEYORS. 26 NOVEMBER 2009.

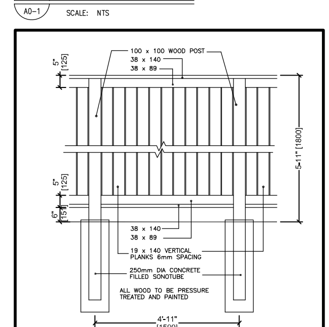
BUILDING AREA (FOOTPRINT)
2,211,7 m² (23,806.97 SQF)

GROSS FLOOR AREA AS PER CITY OF OTTAWA DEFINITION)

BASEMENT	1 633.2 m²	(17,580 sqf)
GROUND	1 257 m²	(13,531 sqf)+ OFFICE 415m² (4,466.7 sqf) TOTAL 1 672 m²(17,997.7 SQF)
SECOND	1 731.6 m²	(18,638.7 sqf)
THIRD	2 079 m²	(22,379 sqf)
FOURTH	2 079 m²	(22,379 sqf)
TOTAL GFA	9 194.8 m²	(98,972.8 sqf)



2 SITE KEY PLAN
A0-1 SCALE: NTS



4 WOOD FENCE DETAIL
A0-1 SCALE: NTS

1. Contractor must verify all job dimensions, all drawings, details, specifications and report any discrepancies to owners before proceeding with work.
2. All drawings and specifications are instruments of service and the property of the architects which must be returned at the completion of the work, and may not be reproduced without their written permission.

ref	description	date
25	FOR TENDER	2015 07 03
24	BUILDING PERMIT	2015 05 12
23	ELEVATIONS	2015 03 25
22	FOR COORDINATION	2015 03 20
21	NEW LAYOUT	2015 03 06
20	CHANGED AREAS	2014 04 17
19	CHANGED AREAS	2014 01 15
18	REISSUED FOR BUILDING PERMIT	2013 05 02
17	FINAL SITE PLAN CONTROL	2013 03 14
16	FOR FINAL COORDINATION	2013 02 20
15	BUILDING PERMIT	2013 01 18
14	REISSUE FOR SITE PLAN CONTROL	2013 01 07
13	PLANS FOR JANUS LAYOUT	2012 11 28
12	PLANS FOR COORDINATION	2012 11 27
11	COORDINATION FTP	2012 10 02
10	SENT TO CLIENT	2012 09 12
9	UPDATE ELEV. TOP PARAPET	2012 08 24
8	UPDATE ELEV. + FLOOR PLANS	2012 07 26
7	UPDATE ELEVATIONS	2012 07 25
6	UPDATE GROUND FLOOR	2012 07 16
5	SEND TO LAYOUT	2012 07 09
4	EXTENDED LOADING DOCK	2012 07 06
3	SENT FOR APPROVAL	2012 06 27
2	SENT TO CLIENT	2012 06 11
1	SITE PLAN CONTROL	2012 02 13

revisions

2015 08 06
- SHOWING EXTERIOR DOORS ON NORTH ELEVATION

ISSUED FOR REVIEW

STRUCTURAL ENGINEER
Cleland Jardine Engineering Ltd.
Ryan Munden
200-580 Terry Fox Drive, Kanata ON K2L 4B9
tel: (613) 591-1533 fax: (613) 591-1703
e-mail: mail@clelandjardine.com

MECHANICAL/ELECTRICAL
Goodkey Weedmark Consulting Engineers
Tim Belokourov, Andre Bogdanowicz
1688 Woodward Dr. Ottawa ON K2C 0P9
tel: (613) 727-5111 fax: (613) 727-5115
web: www.gwal.com e-mail: info@gwal.com

CIVIL ENGINEER
David Schaeffer Engineering Ltd.
Matt Wingate
120 Iber Road, Suite 203, Ottawa ON K2S 1E9
tel: (613) 836-0856 fax: (613) 836-7183
e-mail: ottawa@DSEL.ca

PLANNING & URBAN DESIGN
FoTenn
Miguel Tremblay
223 McLeod Street, Ottawa ON K2P 0Z8
tel: (613) 730-5709 fax: (613) 730-1136
web: www.FoTenn.com e-mail: tremblay@FoTenn.com

owner:
Dymon Capital Corporation
2-1830 Walkley Road
Ottawa ON K1H 8K3
tel: 613-247-0888 fax: 613-247-7730

NORTH

architect
nicholas caragianis architect inc.
137 Pamilla Street,
Ottawa, ON K1S 3K9
t: 613 237 6801
f: 613 237 8289
e: info@ncarchitect.ca
www.ncarchitect.ca

project & location
DYMON SELF-STORAGE
300 GREENBANK ROAD
OTTAWA, ONT.

title of drawing
SITE PLAN

scale	drawing
AS NOTED	A0-1
date 2015/07/29	
drawn by KS CT	

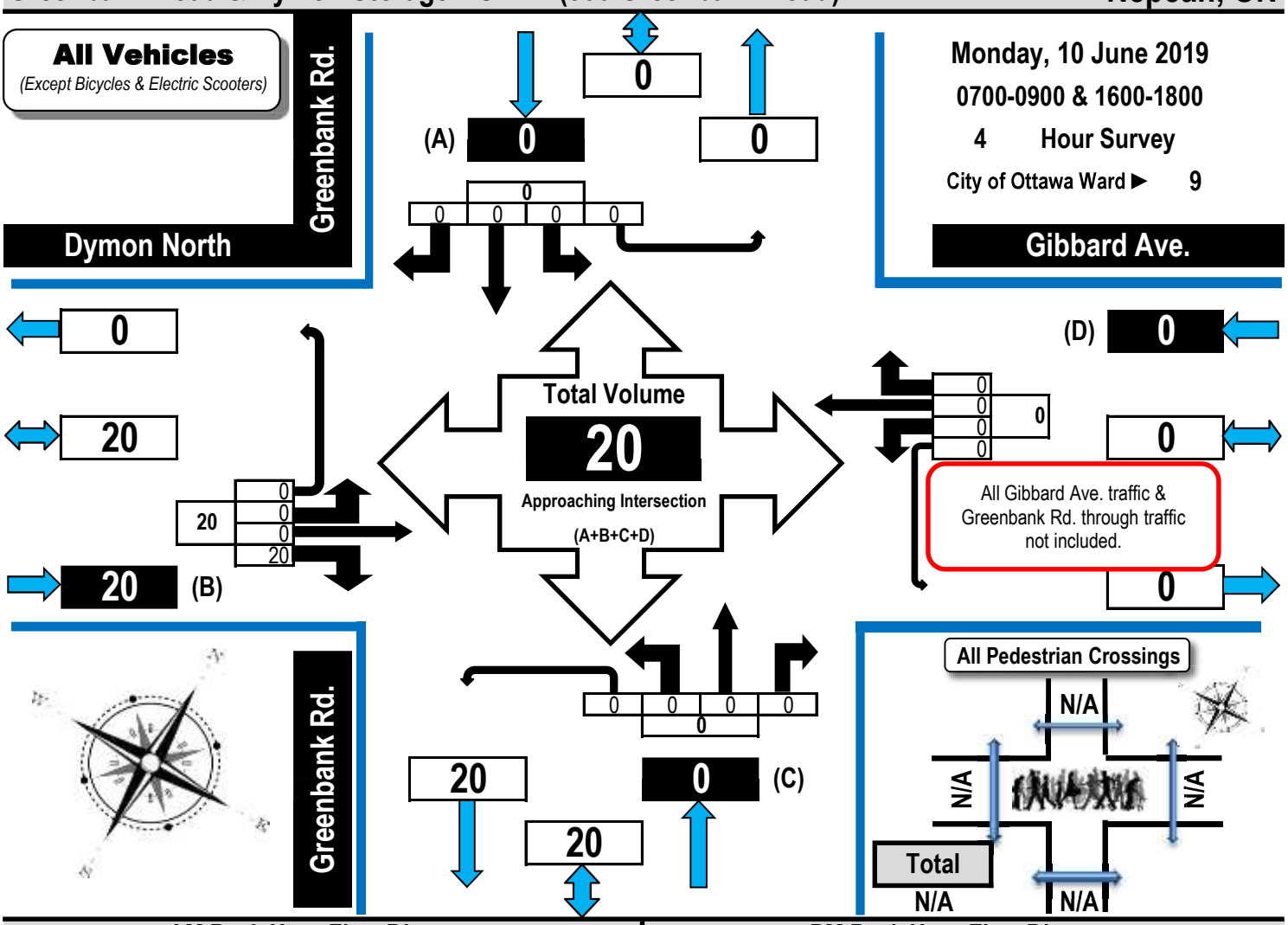
Turning Movement Count
Summary, AM and PM Peak Hour Flow Diagrams

Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

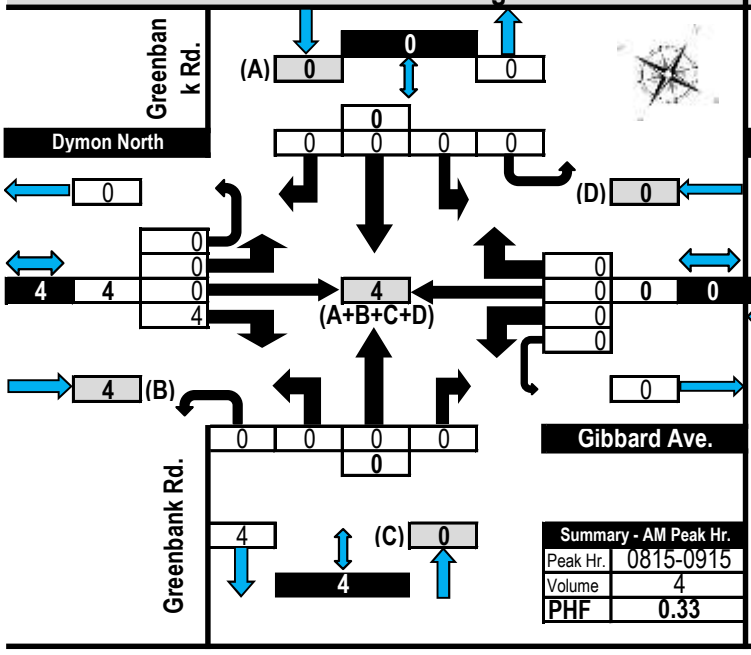
Greenbank Road & Dymon Storage NORTH (300 Greenbank Road) — **Nepean, ON**

All Vehicles
(Except Bicycles & Electric Scooters)

Monday, 10 June 2019
0700-0900 & 1600-1800
4 Hour Survey
City of Ottawa Ward ▶ 9

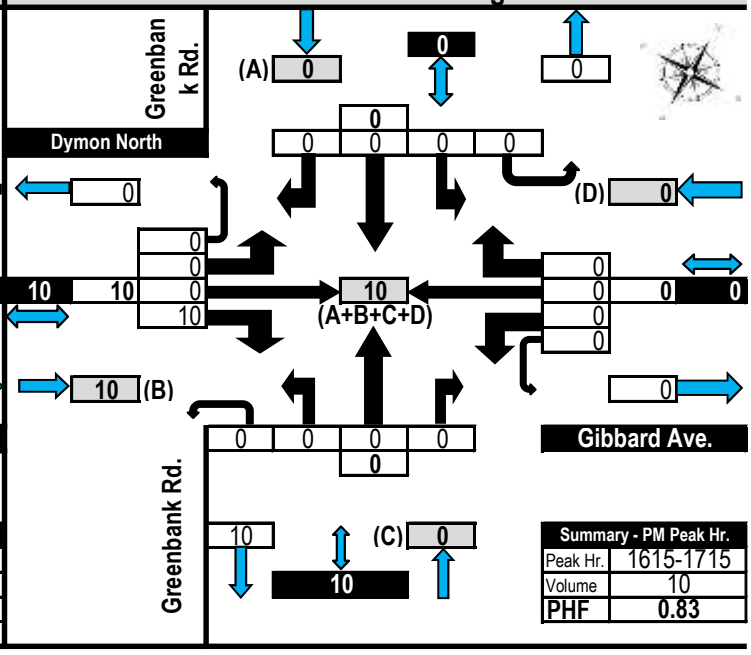


AM Peak Hour Flow Diagram



Summary - AM Peak Hr.	
Peak Hr.	0815-0915
Volume	4
PHF	0.33

PM Peak Hour Flow Diagram

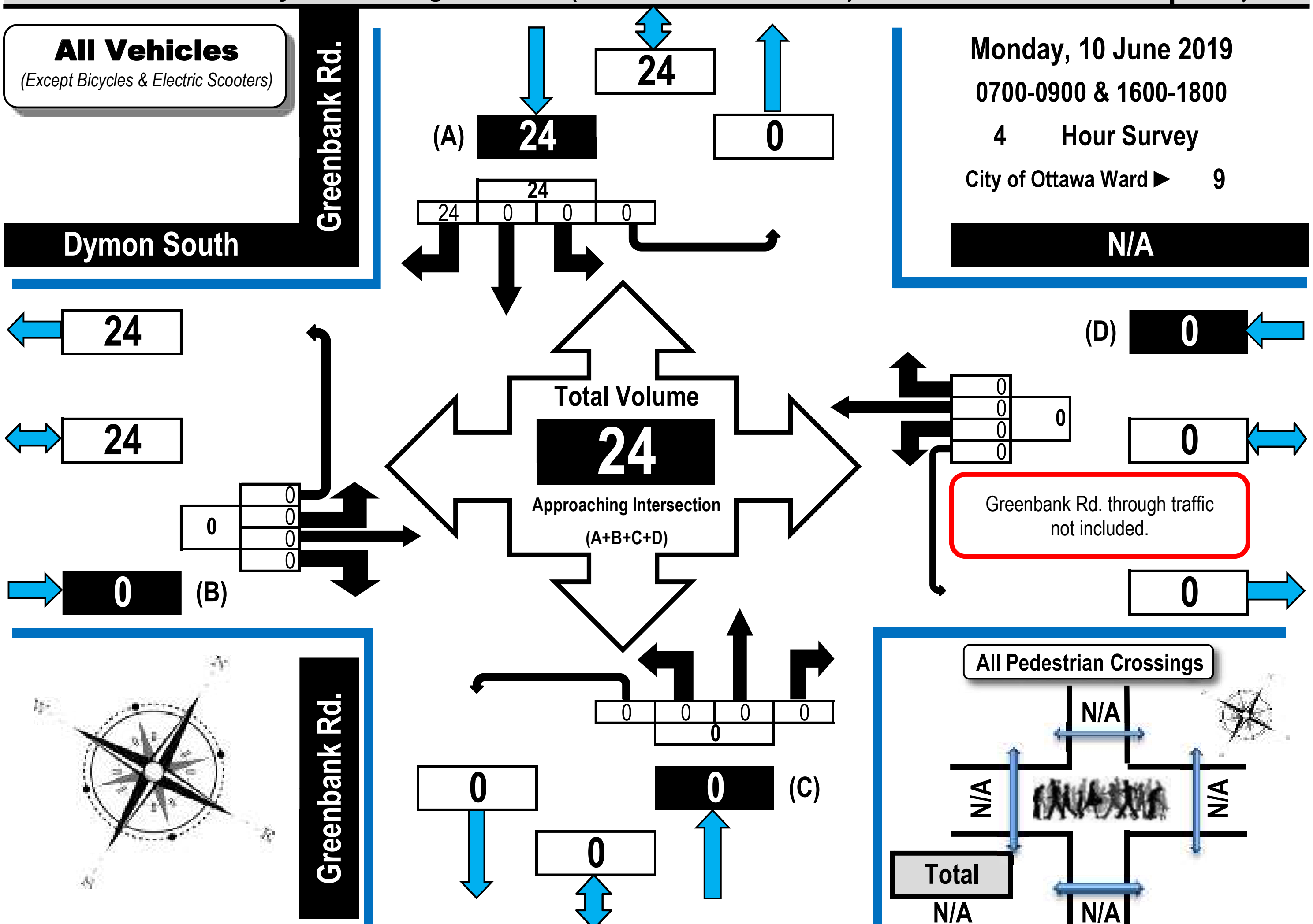


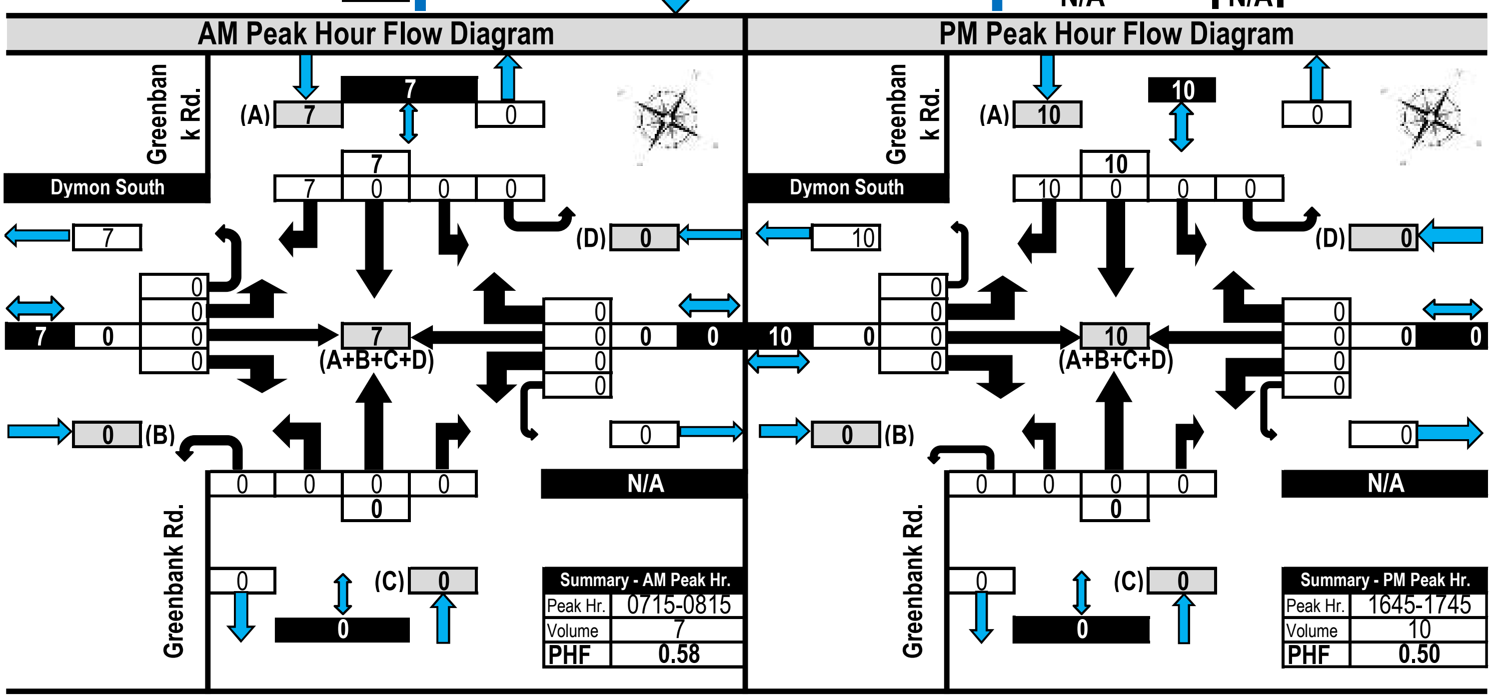
Summary - PM Peak Hr.	
Peak Hr.	1615-1715
Volume	10
PHF	0.83

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

Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

Greenbank Road & Dymon Storage SOUTH (300 Greenbank Road) — **Nepean, ON**





Summary - AM Peak Hr.	
Peak Hr.	0715-0815
Volume	7
PHF	0.58

Summary - PM Peak Hr.	
Peak Hr.	1645-1745
Volume	10
PHF	0.50

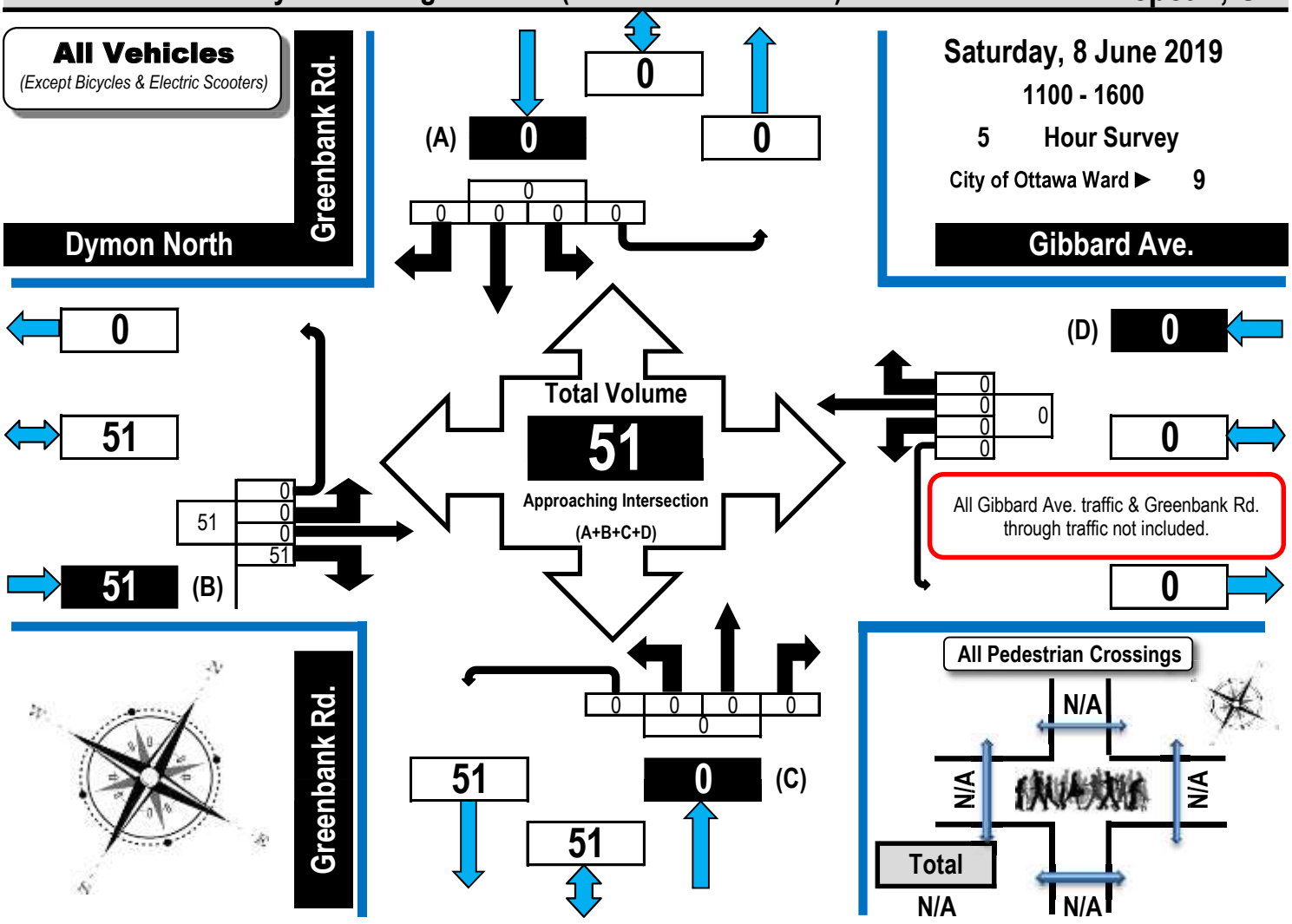
Turning Movement Count
Summary, OFF and PM Peak Hour Flow Diagrams

Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

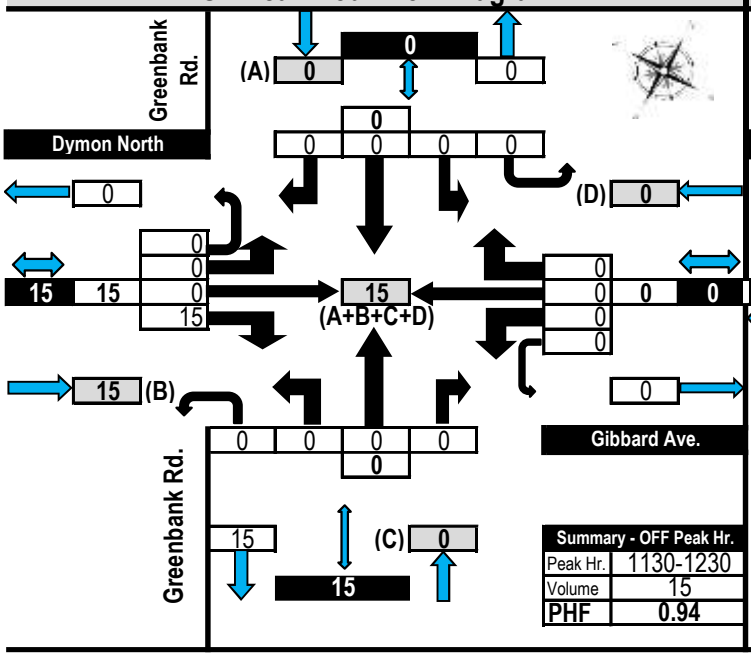
Greenbank Road & Dymon Storage NORTH (300 Greenbank Road) — Nepean, ON

All Vehicles
(Except Bicycles & Electric Scooters)

Saturday, 8 June 2019
1100 - 1600
5 Hour Survey
City of Ottawa Ward ▶ 9

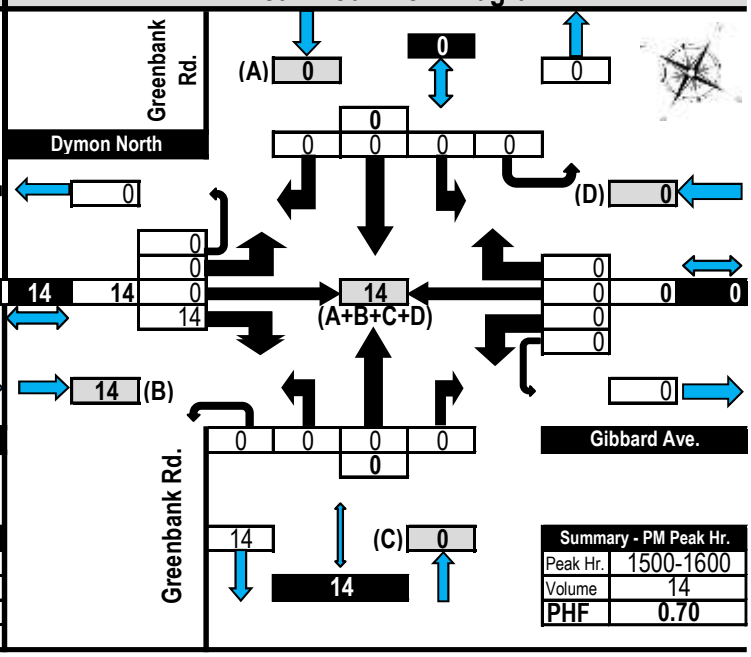


Off Peak Hour Flow Diagram



Summary - OFF Peak Hr.	
Peak Hr.	1130-1230
Volume	15
PHF	0.94

PM Peak Hour Flow Diagram



Summary - PM Peak Hr.	
Peak Hr.	1500-1600
Volume	14
PHF	0.70

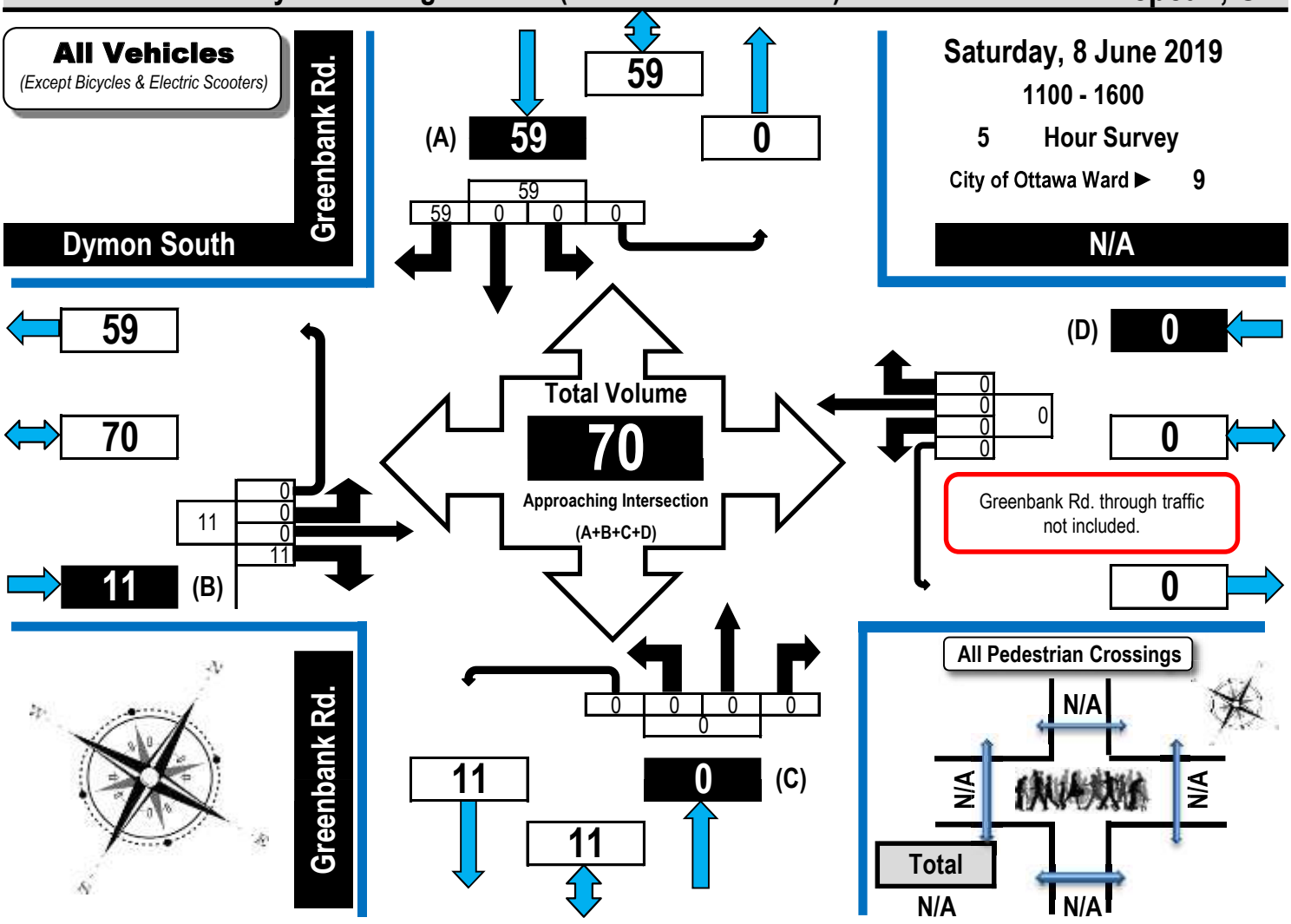
Turning Movement Count
Summary, OFF and PM Peak Hour Flow Diagrams

Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

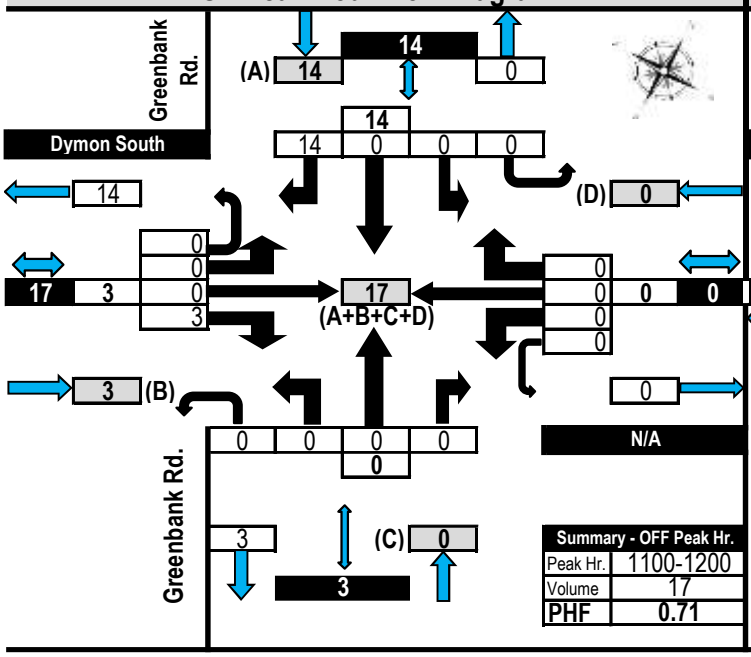
Greenbank Road & Dymon Storage SOUTH (300 Greenbank Road) — Nepean, ON

All Vehicles
(Except Bicycles & Electric Scooters)

Saturday, 8 June 2019
1100 - 1600
5 Hour Survey
City of Ottawa Ward ▶ 9

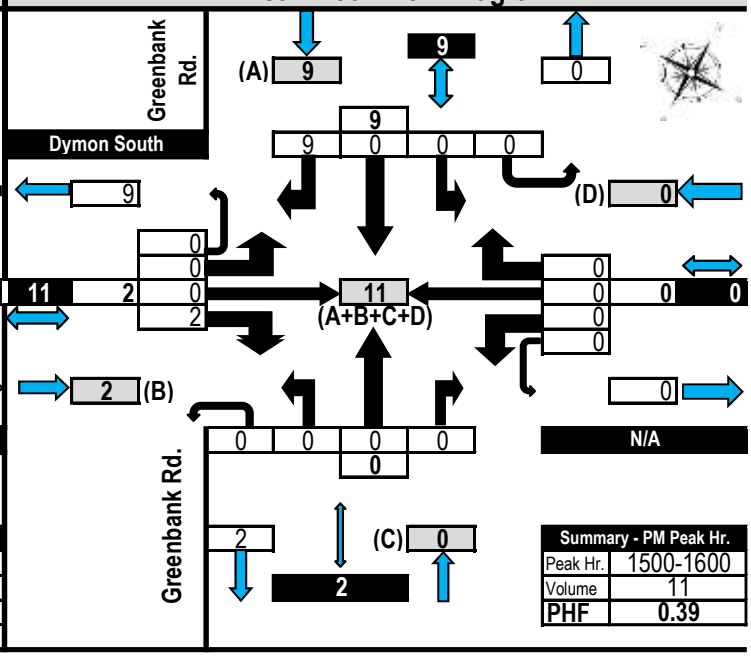


Off Peak Hour Flow Diagram



Summary - OFF Peak Hr.	
Peak Hr.	1100-1200
Volume	17
PHF	0.71

PM Peak Hour Flow Diagram



Summary - PM Peak Hr.	
Peak Hr.	1500-1600
Volume	11
PHF	0.39

Appendix E

LUC 151 Mini Warehouse Description

Land Use: 151
Mini-Warehouse

Description

A mini-warehouse is a building in which a number of storage units or vaults are rented for the storage of goods. They are typically referred to as "self-storage" facilities. Each unit is physically separated from other units, and access is usually provided through an overhead door or other common access point.

Additional Data

Time-of-day distribution data for this land use are presented in Appendix A. For the 10 general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 10:30 and 11:30 a.m. and 1:15 and 2:15 p.m., respectively.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in California, Colorado, Massachusetts, Minnesota, New Jersey, Texas, and Utah.

Source Numbers

212, 403, 551, 568, 642, 708, 724, 850, 868, 876

Appendix F

LUC 710 General Office Building Description

Land Use: 710 General Office Building

Description

A general office building houses multiple tenants. It is a location where affairs of businesses, commercial or industrial organizations, or professional persons or firms are conducted. An office building or buildings may contain a mixture of tenants including professional services, insurance companies, investment brokers, and tenant services, such as a bank or savings and loan institution, a restaurant, or cafeteria and service retail facilities. A general office building with a gross floor area of 5,000 square feet or less is classified as a small office building (Land Use 712). Corporate headquarters building (Land Use 714), single tenant office building (Land Use 715), medical-dental office building (Land Use 720), office park (Land Use 750), and research and development center (Land Use 760) are additional related uses.

If information is known about individual buildings, it is suggested that the general office building category be used rather than office parks when estimating parking generation for one or more office buildings in a single development. The office park category is more general and should be used when a breakdown of individual or different uses is not known. If the general office building category is used and if additional buildings, such as banks, restaurants, or retail stores are included in the development, the development should be treated as a multiuse project. On the other hand, if the office park category is used, internal trips are already reflected in the data and do not need to be considered.

When the buildings are interrelated (defined by shared parking facilities or the ability to easily walk between buildings) or house one tenant, it is suggested that the total area or employment of all the buildings be used for calculating parking generation. When the individual buildings are isolated and not related to one another, it is suggested that parking generation be calculated for each building separately and then summed.

Time of Day Distribution for Parking Demand

The following table presents a time-of-day distribution of parking demand on a weekday at 30 study sites in a general urban/suburban setting and two study sites in a dense multi-use urban setting.

	Percent of Weekday Peak Parking Demand	
Hour Beginning	General Urban/Suburban	Dense Multi–Use Urban
12:00–4:00 a.m.	–	–
5:00 a.m.	–	–
6:00 a.m.	–	–
7:00 a.m.	13	26
8:00 a.m.	48	65
9:00 a.m.	88	95
10:00 a.m.	100	100
11:00 a.m.	100	100
12:00 p.m.	85	99
1:00 p.m.	84	99
2:00 p.m.	93	97
3:00 p.m.	94	94
4:00 p.m.	85	90
5:00 p.m.	56	–
6:00 p.m.	20	–
7:00 p.m.	11	–
8:00 p.m.	–	–
9:00 p.m.	–	–
10:00 p.m.	–	–
11:00 p.m.	–	–

Additional Data

The average parking supply ratios for the study sites with parking supply information are as follows:

- 2.9 spaces per 1,000 square feet GFA in a dense multi-use urban setting that is not within ½ mile of rail transit (seven sites)
- 3.3 spaces per 1,000 square feet GFA (73 sites) and 1.2 spaces per employee (20 sites) in a general urban/suburban setting that is not within ½ mile of rail transit
- 3.0 spaces per 1,000 square feet GFA (seven sites) and 0.8 spaces per employee (two sites) in a general urban/suburban setting that is within ½ mile of rail transit

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Arizona, California, Colorado, Connecticut, Georgia, Illinois, Massachusetts, Minnesota, Montana, New Jersey, New York, Oklahoma, Oregon, Pennsylvania, Texas, Utah, and Washington.

Source Numbers

21, 22, 47, 122, 124, 142, 172, 201, 202, 205, 211, 215, 216, 217, 227, 239, 241, 243, 276, 295, 399, 400, 425, 431, 433, 436, 438, 440, 516, 531, 540, 551, 555, 556, 557, 571, 572, 588

Appendix G

2025 Total Future Conditions Synchro Worksheets – Scenario 1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	22	2157	94	0	1938
Future Volume (vph)	0	22	2157	94	0	1938
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	0.91
Frt		0.865	0.994			
Flt Protected						
Satd. Flow (prot)	0	1593	4774	0	0	4885
Flt Permitted						
Satd. Flow (perm)	0	1593	4774	0	0	4885
Link Speed (k/h)	30		60			60
Link Distance (m)	99.5		154.8			161.2
Travel Time (s)	11.9		9.3			9.7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	7%	2%	2%	5%
Adj. Flow (vph)	0	23	2247	98	0	2019
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	23	2345	0	0	2019
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	0.0		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	3.0		3.0			3.0
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15		15	25	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 53.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	22	2157	94	0	1938
Future Vol, veh/h	0	22	2157	94	0	1938
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	7	2	2	5
Mvmt Flow	0	23	2247	98	0	2019

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1173	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	159	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	159	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	31.4	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	159	-
HCM Lane V/C Ratio	-	-	0.144	-
HCM Control Delay (s)	-	-	31.4	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	0.5	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	99	2547	37	0	1719
Future Volume (vph)	0	99	2547	37	0	1719
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	0.91
Frt		0.865	0.998			
Flt Protected						
Satd. Flow (prot)	0	1593	4832	0	0	4932
Flt Permitted						
Satd. Flow (perm)	0	1593	4832	0	0	4932
Link Speed (k/h)	30		60			60
Link Distance (m)	99.5		154.8			161.2
Travel Time (s)	11.9		9.3			9.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	6%	2%	2%	4%
Adj. Flow (vph)	0	104	2681	39	0	1809
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	104	2720	0	0	1809
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	0.0		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	3.0		3.0			3.0
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15		15	25	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 62.8%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	99	2547	37	0	1719
Future Vol, veh/h	0	99	2547	37	0	1719
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	6	2	2	4
Mvmt Flow	0	104	2681	39	0	1809

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1360	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	119	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	119	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	120	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	119	-
HCM Lane V/C Ratio	-	-	0.876	-
HCM Control Delay (s)	-	-	120	-
HCM Lane LOS	-	-	F	-
HCM 95th %tile Q(veh)	-	-	5.4	-

Intersection: 1: Hurontario Street & Site Access

Movement	WB
Directions Served	R
Maximum Queue (m)	13.1
Average Queue (m)	4.9
95th Queue (m)	12.8
Link Distance (m)	85.8
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: Hurontario Street & Site Access

Movement	WB
Directions Served	R
Maximum Queue (m)	26.3
Average Queue (m)	12.3
95th Queue (m)	20.8
Link Distance (m)	85.8
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Appendix H

2025 Total Future Conditions Synchro Worksheets – Scenario 2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	16	2157	58	0	1938
Future Volume (vph)	0	16	2157	58	0	1938
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.865	0.996			
Flt Protected						
Satd. Flow (prot)	0	1593	3327	0	0	3400
Flt Permitted						
Satd. Flow (perm)	0	1593	3327	0	0	3400
Link Speed (k/h)	30		60			60
Link Distance (m)	99.5		154.8			161.2
Travel Time (s)	11.9		9.3			9.7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	7%	2%	2%	5%
Adj. Flow (vph)	0	17	2247	60	0	2019
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	17	2307	0	0	2019
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	0.0		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	3.0		3.0			3.0
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15		15	25	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 71.5%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	16	2157	58	0	1938
Future Vol, veh/h	0	16	2157	58	0	1938
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	7	2	2	5
Mvmt Flow	0	17	2247	60	0	2019

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1154	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	190	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	190	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.8	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	190	-
HCM Lane V/C Ratio	-	-	0.088	-
HCM Control Delay (s)	-	-	25.8	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	0.3	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	65	2547	30	0	1719
Future Volume (vph)	0	65	2547	30	0	1719
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.865	0.998			
Flt Protected						
Satd. Flow (prot)	0	1593	3363	0	0	3433
Flt Permitted						
Satd. Flow (perm)	0	1593	3363	0	0	3433
Link Speed (k/h)	30		60			60
Link Distance (m)	99.5		154.8			161.2
Travel Time (s)	11.9		9.3			9.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	6%	2%	2%	4%
Adj. Flow (vph)	0	68	2681	32	0	1809
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	68	2713	0	0	1809
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	0.0		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	3.0		3.0			3.0
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15		15	25	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 82.1%		ICU Level of Service E	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	65	2547	30	0	1719
Future Vol, veh/h	0	65	2547	30	0	1719
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	6	2	2	4
Mvmt Flow	0	68	2681	32	0	1809

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1357	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	139	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	139	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	53.7	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	139	-
HCM Lane V/C Ratio	-	-	0.492	-
HCM Control Delay (s)	-	-	53.7	-
HCM Lane LOS	-	-	F	-
HCM 95th %tile Q(veh)	-	-	2.3	-

Intersection: 1: Hurontario Street & Site Access

Movement	WB
Directions Served	R
Maximum Queue (m)	14.5
Average Queue (m)	4.0
95th Queue (m)	12.1
Link Distance (m)	89.4
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: Hurontario Street & Site Access

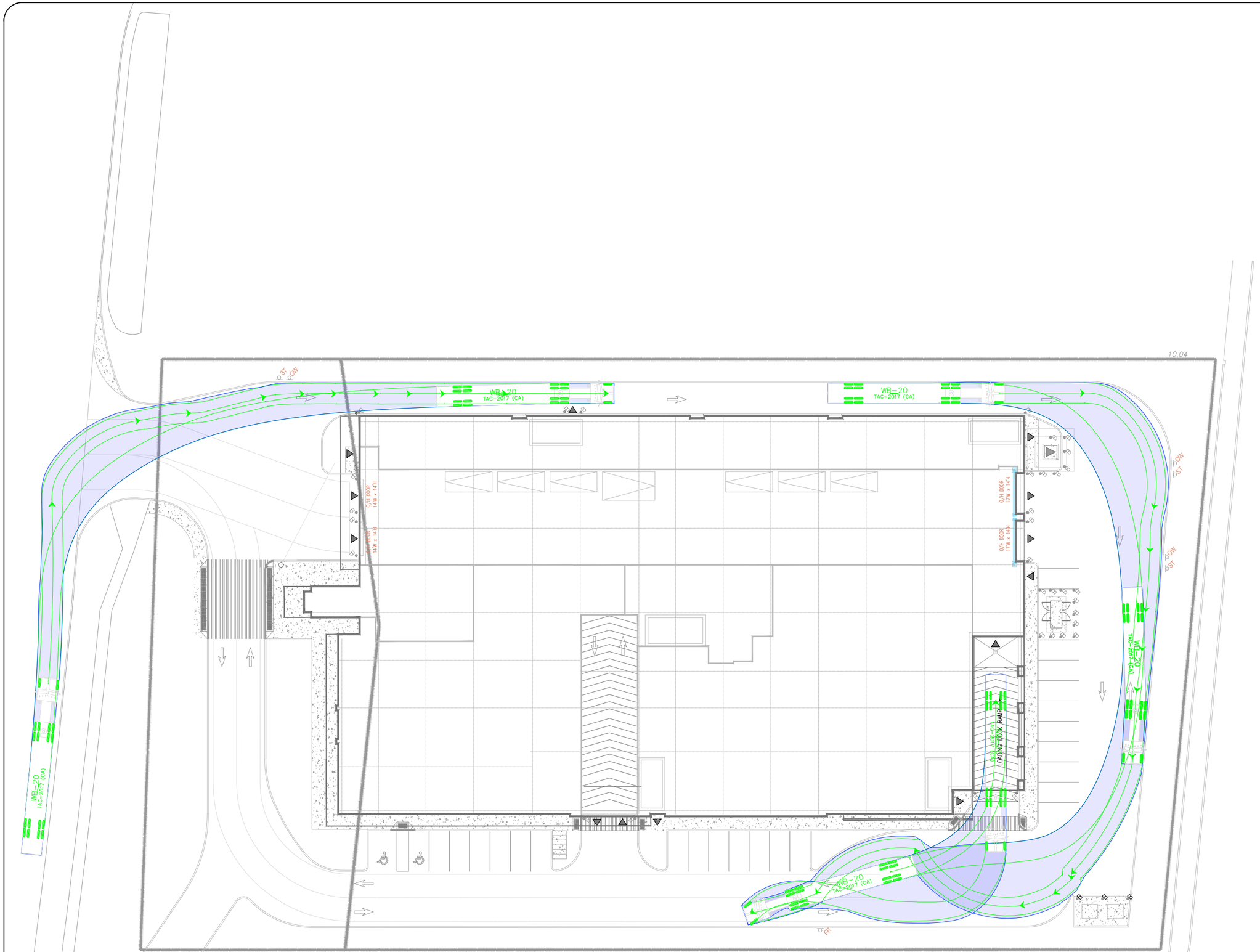
Movement	WB
Directions Served	R
Maximum Queue (m)	49.8
Average Queue (m)	17.5
95th Queue (m)	36.8
Link Distance (m)	89.4
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Appendix I

Turning Template Drawings



Notes:

REV:	DESCRIPTION:	BY:	DATE:
01	Client Submission	MC	2020/10/22

STATUS: -

CGH Transportation
628 Haines Road
Newmarket, ON
L3Y 6V5
(905) 251-4070

CLIENT: Dymon Capital Corp.

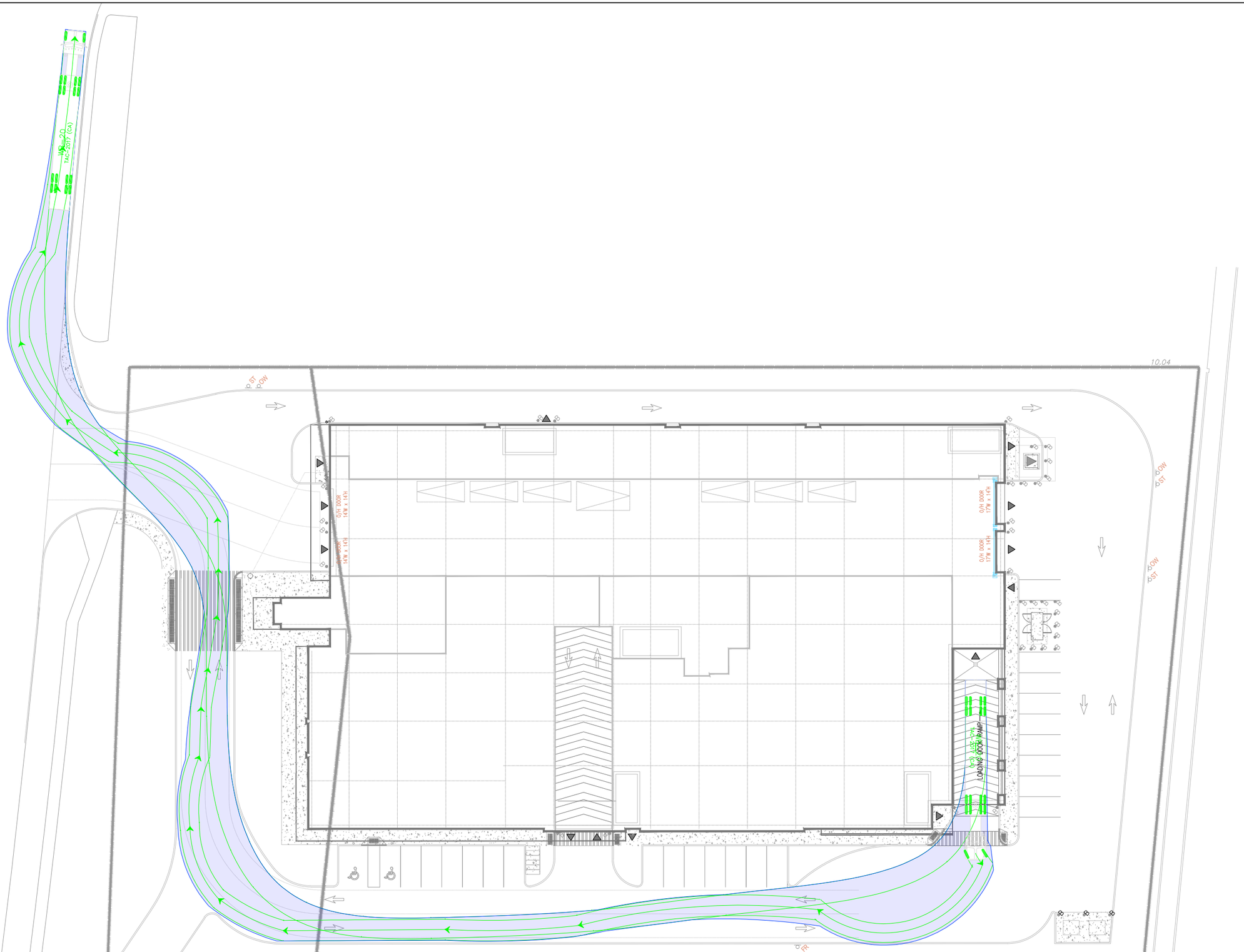
ARCHITECT: NCA

SITE: 6333 Hurontario St.

TITLE: WB-20 Entrance Templates & Loading Bay Access

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
NTS	2020-10-22	JK	MC

PROJECT NO:	DRAWING NO:	REVISION:
2020-20	001	01



Notes:

REV:	DESCRIPTION:	BY:	DATE:
01	Client Submission	MC	2020/10/22

STATUS: –

CGH Transportation
628 Haines Road
Newmarket, ON
L3Y 6V5
(905) 251-4070

CLIENT: Dymon Capital Corp.

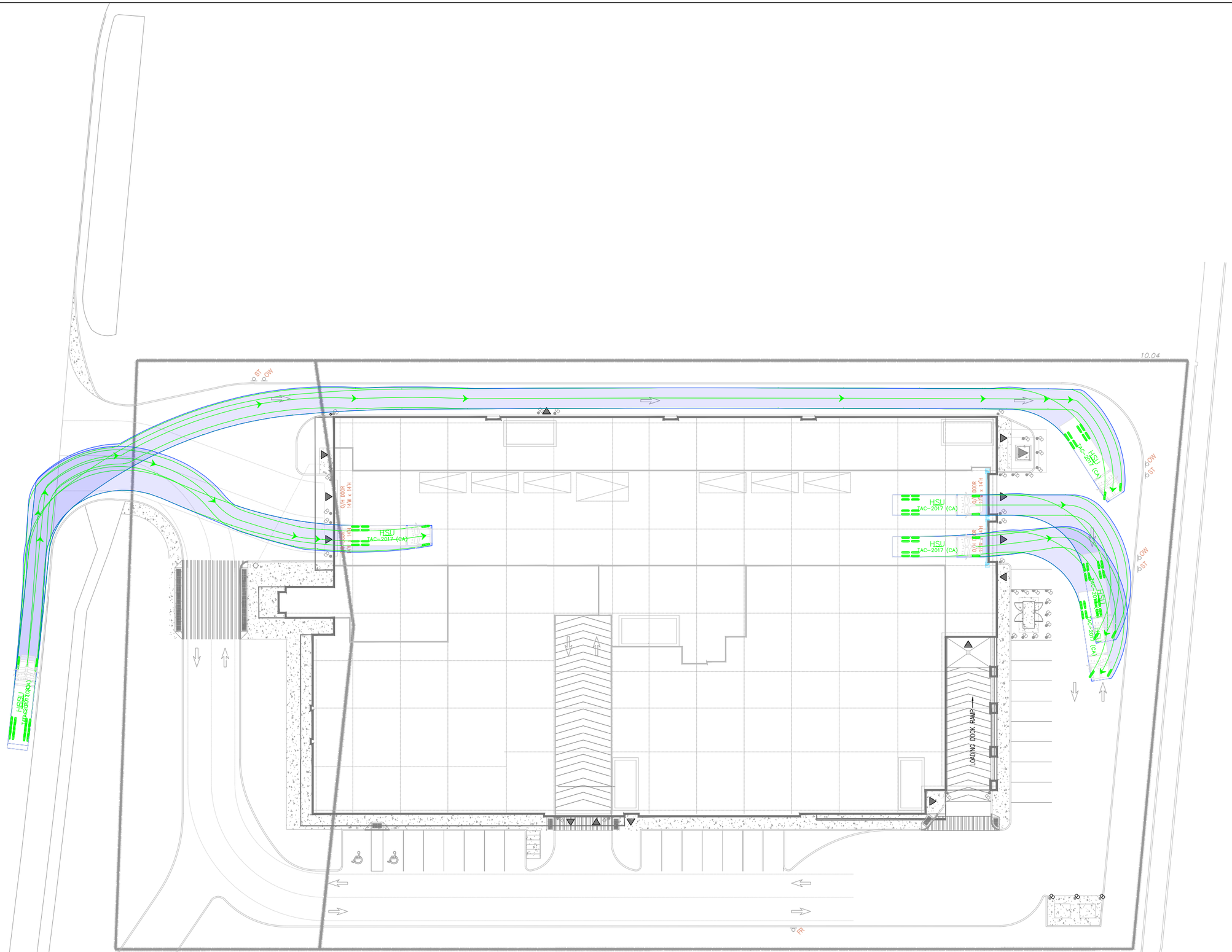
ARCHITECT: NCA

SITE: 6333 Hurontario St.

TITLE: WB-20 Exit Templates & Loading Bay Departure

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
NTS	2020-10-22	JK	MC

PROJECT NO:	DRAWING NO:	REVISION:
2020-20	002	01



Notes:

REV:	DESCRIPTION:	BY:	DATE:
01	Client Submission	MC	2020/10/22

STATUS: –

CGH Transportation
628 Haines Road
Newmarket, ON
L3Y 6V5
(905) 251-4070

CLIENT: Dymon Capital Corp.

ARCHITECT: NCA

SITE: 6333 Hurontario St.

TITLE: HSU Templates

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
NTS	2020-10-22	JK	MC

PROJECT NO:	DRAWING NO:	REVISION:
2020-20	003	01