Traffic Impact Study

Wallace Point Road Development, Peterborough County

D.M. Wills Project Number 22-85162

D.M. Wills Associates Limited
Partners in Engineering, Planning and Environmental Services
Peterborough

May 2023

Prepared for:
Life at Wallace Point Inc.

Summary of Revisions

Revision No.	Revision Title	Date of Release	Summary of Revisions
1	Final Report	May 19, 2023	Final Report Submitted

This report has been formatted considering the requirements of the Accessibility for Ontarians with Disabilities Act.

Executive Summary

D.M. Wills Associates Limited has been retained by Life at Wallace Point Inc. to prepare a Traffic Impact Study to support a proposed residential and commercial development, which is located at 3491 Wallace Point Road, Peterborough, Ontario.

The proposed development will consist of 50 dwelling units and a commercial block that includes difference uses (e.g., a coffee shop with a drive through, day care, shopping center, and a retail store). Based on the characteristics of the development and the surrounding area, the study area included the intersection between Wallace Point Road (Peterborough County Road 21) and Matchett Line.

This study reviews the development details and the existing traffic conditions of the study area including the investigation of the available traffic volumes. Based on this review and the development details, a traffic operation analysis has been conducted using Synchro 9.0 to investigate the impact of the traffic generated from the proposed development on the intersection of CR 21 and Matchett Line. This analysis is carried out for the traffic condition with the consideration of the development impact. The analysis has covered the a.m. and p.m. peaks, as well as the current (i.e., 2022) and horizon years (i.e., 2027 and 2032) scenarios. The study reviews the need for auxiliary turn lanes at this intersection on CR 21.

Assuming a full build-out, the development is anticipated to generate about 42 entering and 56 exiting trips during the a.m. peak, and 55 and 44 entering and exiting trips during the p.m. peak, respectively. Based on the analysis, there is no significant impact of the development on the traffic operation of CR 21 at its intersection with Matchett Line. The Level of Service (LOS) within the study area remains the same before and after considering the impact of the development for all the scenarios except the LOS on the southbound direction which will drop to LOS "B." These LOS levels reflect that the intersection of CR 21 and Matchett Line will operate at acceptable traffic operation levels. For auxiliary lanes warrant analysis, the results of the current and the horizon years show that there will be no need for any additional auxiliary lanes on CR 21 at its intersection with Matchett Line.

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1.0 Introduction and Background

D.M. Wills Associates Limited (Wills) has been retained by Life at Wallace Point Inc. to undertake a Traffic Impact Study (TIS) to support a proposed residential subdivision and a commercial development, which is located at 3491 Wallace Point Road, Peterborough County (County).

The purpose of this TIS Report is to assess the impact of the proposed residential subdivision and commercial development on traffic operations of CR 21 for future conditions, as well as to examine the need for auxiliary lanes at the intersection of CR 21 and Matchett Line. This study will assess the traffic operations in terms of the Level of Service (LOS) at the intersection of CR 21 and Matchett Line. Therefore, the study area is defined here to include this intersection on CR 21.

The land where the subdivision is proposed is currently undeveloped. The proposed development is located on the southwest corner of CR 21 and Matchett Line intersection. The lands surrounding the proposed development are a mix of rural residential homes and farmlands. An aerial photo sketching the location plan of the proposed development is included in **Appendix A**.

The proposed development is planned to include 50 residential dwelling units in addition to a commercial block as shown in **Appendix B**. The commercial block will include a group of uses such as a day care, shopping center/retail, and a drive through coffee shop with no indoor seating.

The proposed development will directly access Matchett Line and Base Line as shown in the conceptual site plan, which is included in **Appendix B.**

2.0 Background Traffic Analysis

2.1 Roadway Existing Conditions

Within the study area, CR 21 has a two-way two-lane road with a rural cross-section with unpaved shoulders and ditches on both sides of the road. The speed limit on CR 21 at the intersection with Matchett Line is 60 km/hr. Matchett Line also is a two-way two-lane with a rural cross-section with no shoulders. The speed limit on Matchett Line is 50 km/hr. The intersection of CR 21 and Matchett Line is a two-way stop-controlled intersection with the stop signs on the minor road (i.e., Matchett Line).

2.2 Existing and Future Background Traffic Conditions

This study uses the traffic counts that were collected by Ontario Traffic Inc. (OTI) on December 14, 2022, at the intersections of CR 21 and Matchett Line. The traffic counts collected at this intersection are included in **Appendix C.**

Based on the traffic data, the a.m. peak hour is identified between 7:30 a.m. and 8:30 a.m., while the p.m. peak hour occurs between 4:45 p.m. and 5:45 p.m. To obtain traffic volumes for the horizon years 2027 and 2032, the future traffic counts were estimated using an annual growth rate of 2%, which is a conservative assumption for this area.

These peak hour volumes are compared to the traffic counts on CR 21 that was collected by the County during different seasons in 2022. The comparison results showed that the peak hour traffic volumes that were observed by OTI on CR 21 are higher than the volumes that were observed by the County during any of the seasons including fall, spring, and summer of 2022. Therefore, this study will use the peak hour traffic volumes that were collected by OTI on December 14, 2022, as a worst-case scenario and no seasonal factor needs to be applied.

The collected traffic volumes during the peak hours for the current year and horizon years are summarized in **Table 1.**

Table 1 – Estimated Current and Anticipated Background Traffic Volumes at the Intersection of CR 21 and Matchett Line

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
a.m. Peak Hour												
2022 (Current)	1	47	7	11	23	3	6	3	52	6	4	3
2027	1	52	8	12	25	3	7	3	57	7	4	3
2032	1	57	9	13	28	4	7	4	63	7	5	4
p.m. Peak Hour												
2022 (Current)	1	30	13	45	54	5	5	2	24	0	1	1
2027	1	33	14	50	60	6	6	2	26	0	1	1
2032	1	37	16	55	66	6	6	2	29	0	1	1

2.3 Existing and Future Background Traffic Operation

Synchro 9 software is used to review the existing and future traffic operation of the study area without the development (i.e., background traffic conditions). Traffic operations were investigated for the traffic conditions of 2022, and the horizon years 2027 and 2032 as presented in **Table 1**. The Level of Service (LOS) results of the existing and future scenarios without the development impact (i.e., background traffic volumes) are shown in **Table 2**. More details about the LOS definition and Synchro model results for these scenarios are presented in **Appendix D** and **Appendix E,** respectively.

As shown in **Table 2,** the LOS's at the intersection of CR 21 and Matchett Line are maintained over the study horizon at LOS "A". This reflects the smooth operation of the background traffic at this intersection.

Table 2 – LOS and v/c at the intersection of CR 21 and Matchett Line based on the Background Traffic Condition

	EBL	WBL	NB	SB
a.m. Peak Hour				
2022	A (0.001)	A (0.009)	A (0.098)	A (0.025)
2027	A (0.001)	A (0.01)	A (0.108)	A (0.028)
2032	A (0.001)	A (0.011)	A (0.121)	A (0.032)
p.m. Peak Hour				
2022	A (0.001)	A (0.038)	A (0.052)	A (0.004)
2027	A (0.001)	A (0.042)	A (0.058)	A (0.004)
2032	A (0.001)	A (0.046)	A (0.064)	B (0.004)

*LOS (v/c)

3.0 Traffic Operation Conditions with the Development Consideration

3.1 Trip Generation

The estimation of trips generated by the proposed development was derived from the *Trip Generation Manual, 11th Edition*[1], published by the Institute of Transportation Engineers (ITE). The ITE code of the land use, which closely describes the development, and the corresponding trip generation rates are shown in **Table 3**. Also, the table shows the average trip generation rates for this land use for both the a.m. and the p.m. peaks and the percentages of entering and exiting.

The average trip generation rates provided by the ITE Manual for the peak hours of the adjacent street were used. Accordingly, the number of trips generated from the proposed development can be estimated as shown in **Table 4**.

It is anticipated that the commercial development will have the following statistics:

- Day care facility that will have a maximum capacity of 20 students.
- Shopping center with a gross leasable area of 200 m^2 (2153 ft^2).
- Retail store with a gross leasable area of 100 m^2 (1076 ft^2).
- A drive through coffee shop with one drive through lane and no indoor seating and a gross floor area of 100 m^2 (1076 ft^2).

[1] Trip Generation Manual, Vol. 1, 2, and 3, 11th ed. ITE, Washington, D.C., 2021.

Table 3 – Trip Generation Rates During a.m. and p.m. Peak Hours of Adjacent Street

Land Use	ITE Code	a.m. Peak			p.m. Peak		
		Avg. Rate	Entering	Exiting	Avg. Rate	Entering	Exiting
Residential Development							
Single detached dwelling unit	**210**	0.75	26%	74%	0.99	64%	36%
Commercial Development							
Day care	**565**	0.78	53%	47%	0.79	47%	53%
Strip Retail Plaza (<40k)	**822**	2.36	60%	40%	6.59	50%	50%
Drive Thru Coffee Shop – No Seats	**938**	39.81	50%	50%	15.08	50%	50%

Table 4 – The Estimated Entering and Exiting Trips during a.m. and p.m. Peak Hours of Adjacent Street

Land Use	Land Use Stats	a.m. Peak			p.m. Peak		
		Total	Entering	Exiting	Total	Entering	Exiting
Residential Development							
Single detached dwelling unit	**50 units**	35	9	26	47	30	17
Commercial Development							
Day care	**20 students**	16	8	7	16	7	8
Shopping Centre	**2.15 1000 ft²**	5	3	2	14	7	7
Retail	**1.08 1000 ft²**	3	1	1	7	4	4
Drive Thru Coffee Shop – No Seats	**One drive thru lane**	40	20	20	15	8	8
Sub Total (Commercial)		63	33	31	52	26	27
Total		98	42	56	99	55	44

*Numbers may not add up due to rounding.

3.2 Trip Distribution

The generated trips summarized in **Table 4** are distributed on the adjacent network based on the existing turning movement ratios at the intersection of CR 21 and Matchett Line, the trips generated from the development are distributed as shown in **Table 5**.

Table 5 – Residential Development Trip Distribution Ratios at the Intersection of CR 21 and Matchett Line

Traffic Direction	a.m. Peak Hour		p.m. Peak Hour	
	Volume	Ratio	Volume	Ratio
Entering				
Westbound through traffic	23	0.329	54	0.643
Eastbound through traffic	47	0.671	30	0.357
Exiting				
Northbound right traffic	52	0.852	24	0.774
Northbound through traffic	3	0.049	2	0.065
Northbound left traffic	6	0.098	5	0.161

Based on the ratios in **Table 5** and the number of trips generated by the development shown in **Table 4**, the distributed trips at the intersection of CR 21 and Matchett Line due to the residential development are presented in **Table 6**.

Table 6 – The Turning Movement Volumes Added to the Intersection of CR 21 and Matchett Line due to the Development Impact

Peak Hour	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
a.m.	0	0	28	14	0	0	6	3	48	0	0	0
p.m.	0	0	20	35	0	0	7	3	34	0	0	0

It is worth mentioning that it is assumed that the trip generated from the development will not increase over the horizon years since there is no expansion anticipated within the development.

The volumes reported in **Table 6**Error! Reference source not found. are then added to t he total background traffic to further investigate the impact of the development on the traffic operation. The updated traffic volumes (rounded) at the intersection of CR 21 and Matchett Line with the consideration of the development are in **Table 7.**

Table 7 – Estimated Future Traffic Volumes with the Development Consideration at the Intersection of CR 21 and Matchett Line

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
a.m. Peak Hour												
2022	1	47	35	25	23	3	12	6	100	6	4	3
2027	1	52	36	26	25	3	12	6	106	7	4	3
2032	1	57	36	27	28	4	13	6	111	7	5	4
p.m. Peak Hour												
2022	1	30	33	80	54	5	12	5	58	0	1	1
2027	1	33	34	85	60	6	13	5	61	0	1	1
2032	1	37	36	90	66	6	13	5	63	0	1	1

3.3 Existing and Future Traffic Operation with the Development Consideration

Again, Synchro 9 software was used to model the traffic within the study area. The model aims at assessing the traffic operation within the study area including the intersection of CR 21 and Matchett Line. Different scenarios with the consideration of the traffic generated from the development were assessed including the 2022 scenario and the horizon years (2027 and 2032) for both a.m. and p.m. peak hours. The traffic volumes used in this assessment are summarized in **Table 7**. The results summary is presented in **Table 8**. The details of the simulation models and full results can be found in **Appendix F**.

Based on the traffic operation performance for the traffic with the development consideration, the traffic operation performance measure (i.e., LOS) at the intersection of CR 21 and Matchett Line is consistently at LOS "A" over the study period except for the southbound which drop slightly to LOC "B" and the northbound will drop to LOS "B" in 2032. This reflects that the development will not have any significant impact on the traffic operation on CR 21 in this area as shown in the table.

Table 8 – LOS and v/c at the Intersection of CR 21 and Matchett Line based on Future Traffic Condition with the Development Consideration

	EBL	WBL	NB	SB
a.m. Peak Hour				
2022	A (0.001)	A (0.022)	A (0.195)	B (0.029)
2027	A (0.001)	A (0.023)	A (0.206)	B (0.033)
2032	A (0.001)	A (0.024)	B (0.218)	B (0.038)
p.m. Peak Hour				
2022	A (0.001)	A (0.068)	A (0.135)	B (0.004)
2027	A (0.001)	A (0.073)	A (0.145)	B (0.005)
2032	A (0.001)	A (0.077)	B (0.15)	B (0.005)

*LOS (v/c)

In summary, the proposed development will have no significant impact on the traffic operation in terms of LOS within the study area on CR 21.

4.0 Warrants for Auxiliary Lanes with Proposed Development

The warrants for auxiliary lanes were examined on CR 21 at its intersection with Matchett Line in accordance with Appendix 9A of MTO's *Design Supplement for the 2017 Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads*[2].

The need for a left-turn lane at an unsignalized intersection (i.e., at the intersection of CR 21 and Matchett Line) as established by the Design Supplement, Chapter 9A is based on the advancing traffic volume (V_A), the opposing traffic volume (V_O), the left-turning traffic volume (V_L), and the percentage of left-turning traffic in the advancing volume (LT%). As shown in **Table 7,** for the northbound left-turn lane and as shown in **Table 9**, the left-turning volumes range from 25 to 90 vph in all the peak hours for the current and the horizon years. Despite the relatively high left turning volumes, the traffic volumes at this intersection are considerably low. Therefore, the left turn lane warrant are conducted based on the highest percentage available in the TAC, which is 40% of the advancing traffic. Accordingly, a left-turn lane installation on CR 21 at the intersection of CR 21 and Matchett Line is not warranted for the highest anticipated traffic levels in 2032, as shown in **Figure 1**. It is assumed that the design speed is 80 km/h.

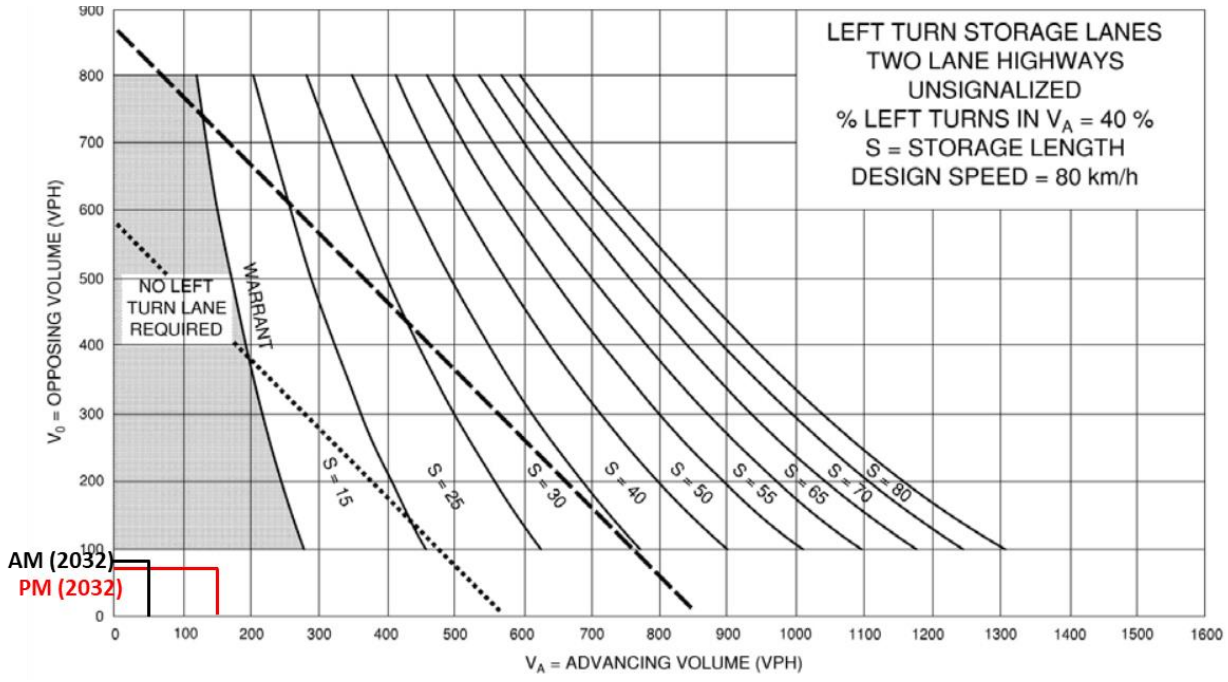
[2] Transportation Association of Canada (TAC). Geometric Design Guide for Canadian Roads: Design Controls, Classification and Consistency. Transportation Association of Canada, 2017.

This design speed is 20 km/h above the existing posted speed limit, which is 60 km/h within the study area.

Table 9 – Westbound Left Turning Volume Calculations at the Intersection of CR 21 and Matchett Line

	V_L	V_A	LT%	V_O
a.m. Peak				
2022	25	51	49%	83
2027	26	55	47%	89
2032	27	59	46%	95
p.m. Peak				
2022	80	139	58%	64
2027	85	150	57%	68
2032	90	162	56%	73

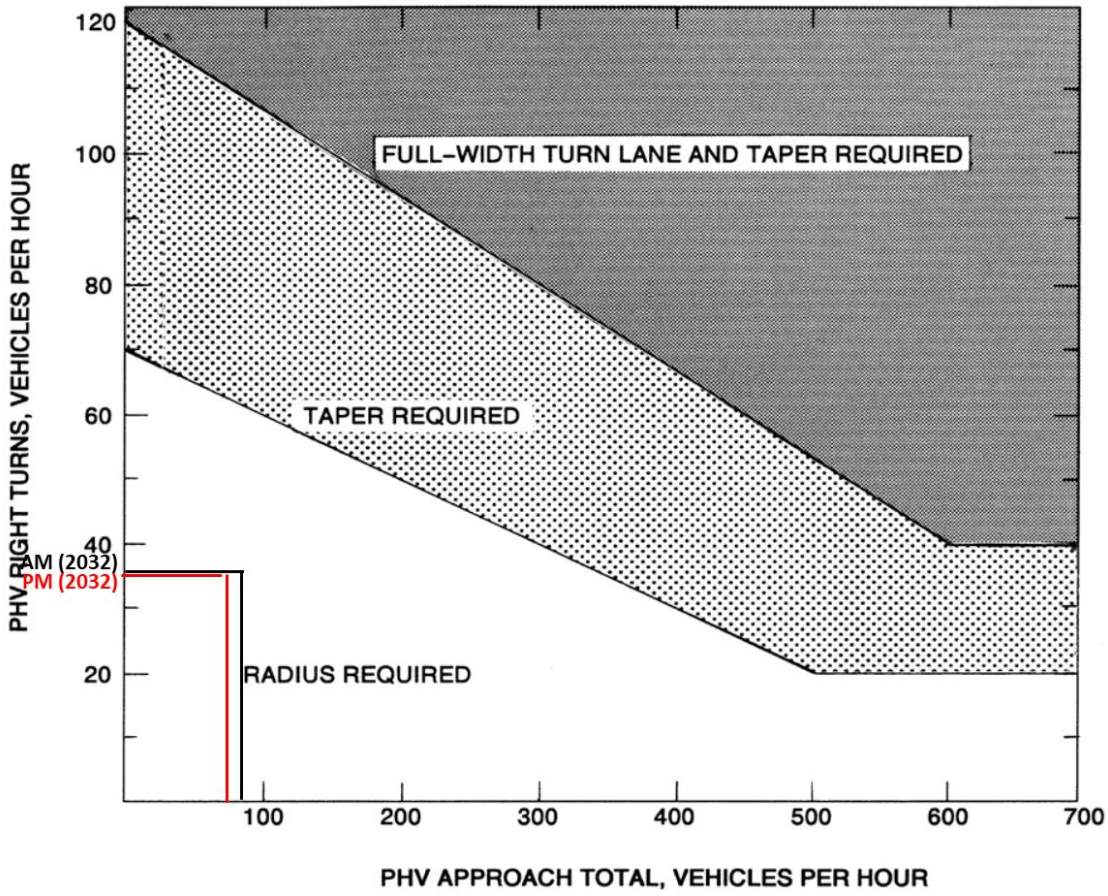
Figure 1 – Left Turn Lane Warrant for the Westbound Left Turning Volume at the Intersection of CR 21 and Matchett Line for 2032 Scenario



For the right turn lanes, the TAC Manual specifies that right turn lanes should be considered "*when the volume of decelerating or accelerating vehicles compared with through traffic volumes causes undue hazard.*" According to the County of Peterborough guidelines, a turn lane or taper is required based on the Virginia

Department of Transportation (VDOT) warrant criteria. Based on the right turning traffic volumes anticipated (36 vph for 2032 a.m. and p.m. peak hours as shown in **Table 7**) at the intersection of CR 21 and Matchett Line, a right turn taper or lane is not warranted as shown in **Figure 2**.

Figure 2 – Right Turn Warrant for the Eastbound Right Turn Volume at the Intersection of CR 21 and Matchett Line



5.0 Conclusions and Recommendations

This Traffic Impact Study investigates and evaluates the impact of the proposed residential and commercial developments at the southeast corner of CR 21 intersection with Matchett Line in Peterborough County. The background traffic operation and the traffic operation with the consideration of the traffic generated from the development at the intersection within the study area were assessed.

Based on the analysis completed in this study, the new trips generated by the development will have no significant impact on CR 21 at the intersection of CR 21 and Matchett Line in the existing or future scenarios. The LOS with the consideration of the development will remain at LOS "A" for all the scenarios on CR 21 and will drop slightly

on the southbound of Matchett Line to LOS "B", which reflect a smooth traffic operation in the area after considering the development impact.

Additionally, this study examines the need for auxiliary turn lanes at the intersection of CR 21 and Matchett Line. The results show that there is no need for any right-turn or left-turn lanes on CR 21 at its intersection with Matchett Line.

Respectfully Submitted,

Mostafa Tawfeek

Mostafa Tawfeek Mohammed, Ph.D., P.Eng., RSP1
Traffic Engineer

MT/af

Appendix A

Location Plan

Figure A – Location Plan

*For illustration purposes only. Not to scale.

Appendix B

Conceptual Site Plan

SUMMARY CHART
SECTION 51(17) PLANNING ACT

(a) THE BOUNDARIES OF THE LAND PROPOSED TO BE SUBDIVIDED, CERTIFIED BY AN ONTARIO LAND SURVEYOR;	AS REFERENCED ON DRAFT PLAN
(b) THE LOCATIONS, WIDTHS AND NAMES OF THE PROPOSED HIGHWAYS WITHIN THE PROPOSED SUBDIVISION AND OF EXISTING HIGHWAYS ON WHICH THE PROPOSED SUBDIVISION ABUTS;	AS REFERENCED ON DRAFT PLAN
(c) ON A SMALL KEY PLAN, ON A SCALE OF NOT LESS THAN ONE CENTIMETRE TO 100 METRES, ALL OF THE LAND ADJACENT TO THE PROPOSED SUBDIVISION THAT IS OWNED BY THE APPLICANT OR IN WHICH THE APPLICANT HAS AN INTEREST, EVERY SUBDIVISION ADJACENT TO THE PROPOSED SUBDIVISION AND THE RELATIONSHIP OF THE BOUNDARIES OF THE LAND TO BE SUBDIVIDED TO THE BOUNDARIES OF THE TOWNSHIP LOT OR OTHER ORIGINAL GRANT OF WHICH THE LAND FORMS THE WHOLE PART;	AS REFERENCED ON DRAFT PLAN
(d) THE PURPOSE FOR WHICH THE PROPOSED LOTS ARE TO BE USED;	AS REFERENCED ON DRAFT PLAN
(e) THE EXISTING USES OF ALL ADJOINING LANDS;	AS REFERENCED ON DRAFT PLAN
(f) THE APPROXIMATE DIMENSIONS AND LAYOUT OF THE PROPOSED LOTS;	AS REFERENCED ON DRAFT PLAN
(f1) IF ANY AFFORDABLE HOUSING UNITS ARE BEING PROPOSED, THE SHAPE AND DIMENSIONS OF EACH PROPOSED AFFORDABLE HOUSING UNIT AND THE APPROXIMATE LOCATION OF EACH PROPOSED AFFORDABLE HOUSING UNIT IN RELATION TO OTHER PROPOSED RESIDENTIAL UNITS;	REFER TO PLANNING JUSTIFICATION REPORT
(g) NATURAL AND ARTIFICIAL FEATURES SUCH AS BUILDINGS OR OTHER STRUCTURES OR INSTALLATIONS, RAILWAYS, HIGHWAYS, WATERCOURSES, DRAINAGE DITCHES, WETLANDS AND WOODED AREAS WITHIN OR ADJACENT TO THE LAND PROPOSED TO BE SUBDIVIDED;	AS REFERENCED ON DRAFT PLAN
(h) THE AVAILABILITY AND NATURE OF DOMESTIC WATER SUPPLIES;	REFER TO FUNCTIONAL SERVICING REPORT
(i) THE NATURE AND POROSITY OF THE SOIL;	REFER TO SUBSURFACE SOIL AND INFILTRATION INVESTIGATION REPORT
(j) EXISTING CONTOURS OR ELEVATIONS AS MAY BE REQUIRED TO DETERMINE THE GRADE OF THE HIGHWAYS AND THE DRAINAGE OF THE LAND PROPOSED TO BE SUBDIVIDED;	AS REFERENCED ON DRAFT PLAN
(k) THE MUNICIPAL SERVICES AVAILABLE OR TO BE AVAILABLE TO THE LAND PROPOSED TO BE SUBDIVIDED; AND	REFER TO FUNCTIONAL SERVICING REPORT
(l) THE NATURE AND EXTENT OF ANY RESTRICTIONS AFFECTING THE LAND PROPOSED TO BE SUBDIVIDED, INCLUDING RESTRICTIVE COVENANTS OR EASEMENTS. 1994, c. 23, s. 30; 1996, c. 4, s. 28 (3); 2016, c. 25, Sched. 4, s. 8 (1).	NO RESTRICTIONS ON SITE

LEGAL DESCRIPTION

LOT 17 & 18
CONCESSION 15
GEOGRAPHIC TOWNSHIP OF OTONABEE
TOWNSHIP OF OTONABEE–SOUTH MONAGHAN

OWNER'S CERTIFICATE

I AUTHORIZE D.M. WILLS ASSOCIATES LIMITED TO PREPARE AND SUBMIT THIS DRAFT PLAN OF SUBDIVISION TO THE COUNTY OF PETERBOROUGH FOR APPROVAL CERTIFY THAT:

DATED THIS ________DAY OF________2023

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LAND TO BE SUBDIVIDED AS SHOWN ON THIS PLAN, AND THEIR RELATIONSHIP TO THE ADJACENT LAND ARE ACCURATELY AND CORRECTLY SHOWN.

________ DATE

________ SHAWN M. O'CONNOR ONTARIO LAND SURVEYOR

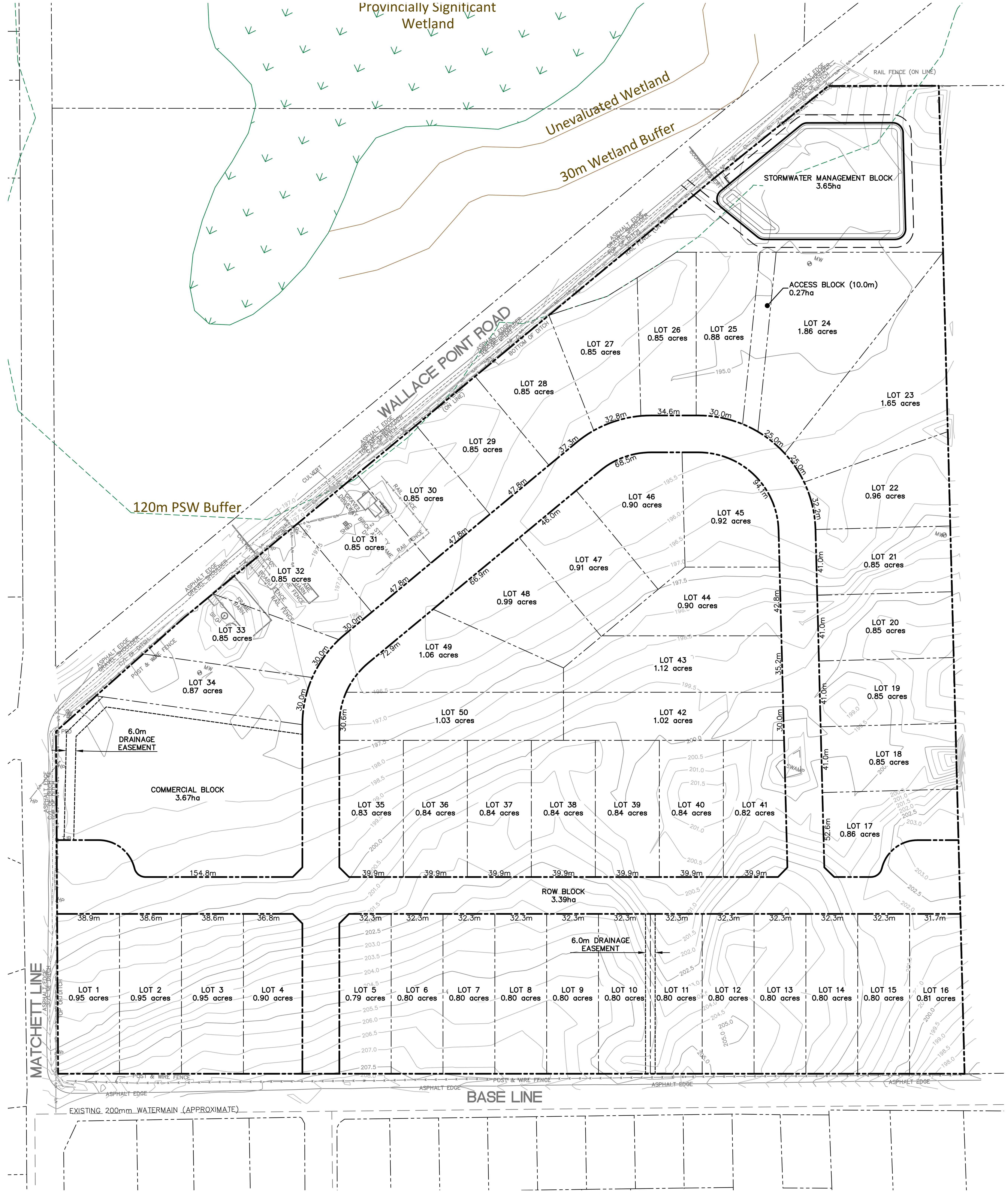
BUILDING SETBACKS

FRONT YARD	TBD
SIDE YARD	TBD
REAR YARD	TBD

SUMMARY TABLE

85162 – WALLACE POINT ROAD, OTONABEE–SOUTH MONAGHAN

REGULATIONS	PROPOSED
NUMBER OF LOTS	50 RESIDENTIAL LOTS 1 COMMERCIAL BLOCK 1 SWM BLOCK 1 ACCESS BLOCK 1 RIGHT–OF–WAY BLOCK
LOT AREA (MIN.)	0.79 ACRE (3197.0m²)
LOT FRONTAGE (MIN.)	25.0m
AVERAGE LOT DEPTH	72–84m
ROAD AREA	3.39ha
TOTAL SITE AREA	24.79ha

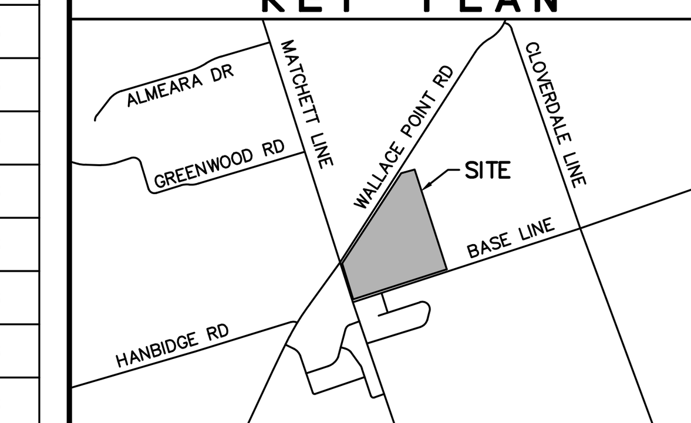


Parcel Area Table

LOT #	Area (ha/acres)	Frontage (m)	Intended Use
1	0.38/0.95	38.9	SINGLE DETACHED DWELLING
2	0.38/0.95	38.6	SINGLE DETACHED DWELLING
3	0.38/0.95	38.6	SINGLE DETACHED DWELLING
4	0.36/0.90	36.8	SINGLE DETACHED DWELLING
5	0.32/0.79	32.3	SINGLE DETACHED DWELLING
6	0.32/0.80	32.3	SINGLE DETACHED DWELLING
7	0.32/0.80	32.3	SINGLE DETACHED DWELLING
8	0.32/0.80	32.3	SINGLE DETACHED DWELLING
9	0.32/0.80	32.3	SINGLE DETACHED DWELLING
10	0.32/0.80	32.3	SINGLE DETACHED DWELLING
11	0.32/0.80	32.3	SINGLE DETACHED DWELLING
12	0.32/0.80	32.3	SINGLE DETACHED DWELLING
13	0.32/0.80	32.3	SINGLE DETACHED DWELLING
14	0.32/0.80	32.3	SINGLE DETACHED DWELLING
15	0.32/0.80	32.3	SINGLE DETACHED DWELLING
16	0.33/0.81	31.7	SINGLE DETACHED DWELLING
17	0.35/0.86	52.6	SINGLE DETACHED DWELLING
18	0.34/0.85	41.0	SINGLE DETACHED DWELLING
19	0.34/0.85	41.0	SINGLE DETACHED DWELLING
20	0.34/0.85	41.0	SINGLE DETACHED DWELLING
21	0.34/0.85	41.0	SINGLE DETACHED DWELLING
22	0.39/0.96	32.2	SINGLE DETACHED DWELLING
23	0.67/1.65	25.0	SINGLE DETACHED DWELLING
24	0.75/1.86	25.0	SINGLE DETACHED DWELLING
25	0.36/0.88	30.0	SINGLE DETACHED DWELLING
26	0.34/0.85	34.6	SINGLE DETACHED DWELLING
27	0.34/0.85	32.8	SINGLE DETACHED DWELLING
28	0.34/0.85	37.3	SINGLE DETACHED DWELLING
29	0.34/0.85	47.8	SINGLE DETACHED DWELLING
30	0.34/0.85	47.8	SINGLE DETACHED DWELLING
31	0.34/0.85	47.8	SINGLE DETACHED DWELLING
32	0.34/0.85	30.0	SINGLE DETACHED DWELLING
33	0.34/0.85	30.0	SINGLE DETACHED DWELLING
34	0.35/0.87	30.0	SINGLE DETACHED DWELLING
35	0.34/0.83	39.9	SINGLE DETACHED DWELLING
36	0.34/0.84	39.9	SINGLE DETACHED DWELLING
37	0.34/0.84	39.9	SINGLE DETACHED DWELLING
38	0.34/0.84	39.9	SINGLE DETACHED DWELLING
39	0.34/0.84	39.9	SINGLE DETACHED DWELLING
40	0.34/0.84	39.9	SINGLE DETACHED DWELLING
41	0.33/0.82	39.9	SINGLE DETACHED DWELLING
42	0.41/1.02	30.0	SINGLE DETACHED DWELLING
43	0.45/1.12	35.2	SINGLE DETACHED DWELLING
44	0.37/0.90	42.8	SINGLE DETACHED DWELLING
45	0.37/0.92	94.1	SINGLE DETACHED DWELLING
46	0.37/0.90	68.5	SINGLE DETACHED DWELLING
47	0.37/0.91	46.0	SINGLE DETACHED DWELLING
48	0.40/0.99	66.9	SINGLE DETACHED DWELLING
49	0.43/1.06	72.9	SINGLE DETACHED DWELLING
50	0.42/1.03	30.6	SINGLE DETACHED DWELLING
51	1.48/3.67	154.8	COMMERCIAL BLOCK
52	0.11/0.27	–	SWM POND ACCESS BLOCK
53	1.48/3.65	–	SWM POND BLOCK
54	3.39/8.38	–	RIGHT–OF–WAY BLOCK

TRUE NORTH

KEY PLAN



REVISIONS

No.	Description	Date
1	FIRST SUBMISSION	04/21/23

METRIC Dimensions are in METRES and/or MILLIMETRES unless otherwise shown

LEGEND TO BE READ IN CONJUNCTION WITH OPSD 100 SERIES

WILLS
D.M. Wills Associates Limited
150 Jameson Drive
Peterborough, Ontario
Canada K9J 0B9
P. 705.742.2297
F. 705.748.9944
E. wills@dmwills.com

Project Name/Location

PROPOSED RESIDENTIAL DEVELOPMENT

3491 WALLACE POINT ROAD, PETERBOROUGH

Drawing Title

DRAFT PLAN

Drawn By: M.B.	SCALE: Horz. 1:1500 Vert. –		
Designed By: M.B.	Issue Date: April 21, 2023		
Checked By: J.D.F.	Project No.: 21–85162	Sht. No.:	
Engineer: –––	Dwg File No.: 85162 – DP	200	

NOT FOR CONSTRUCTION

Appendix C

Traffic Data

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #22-432 - D.M. Wills Associates

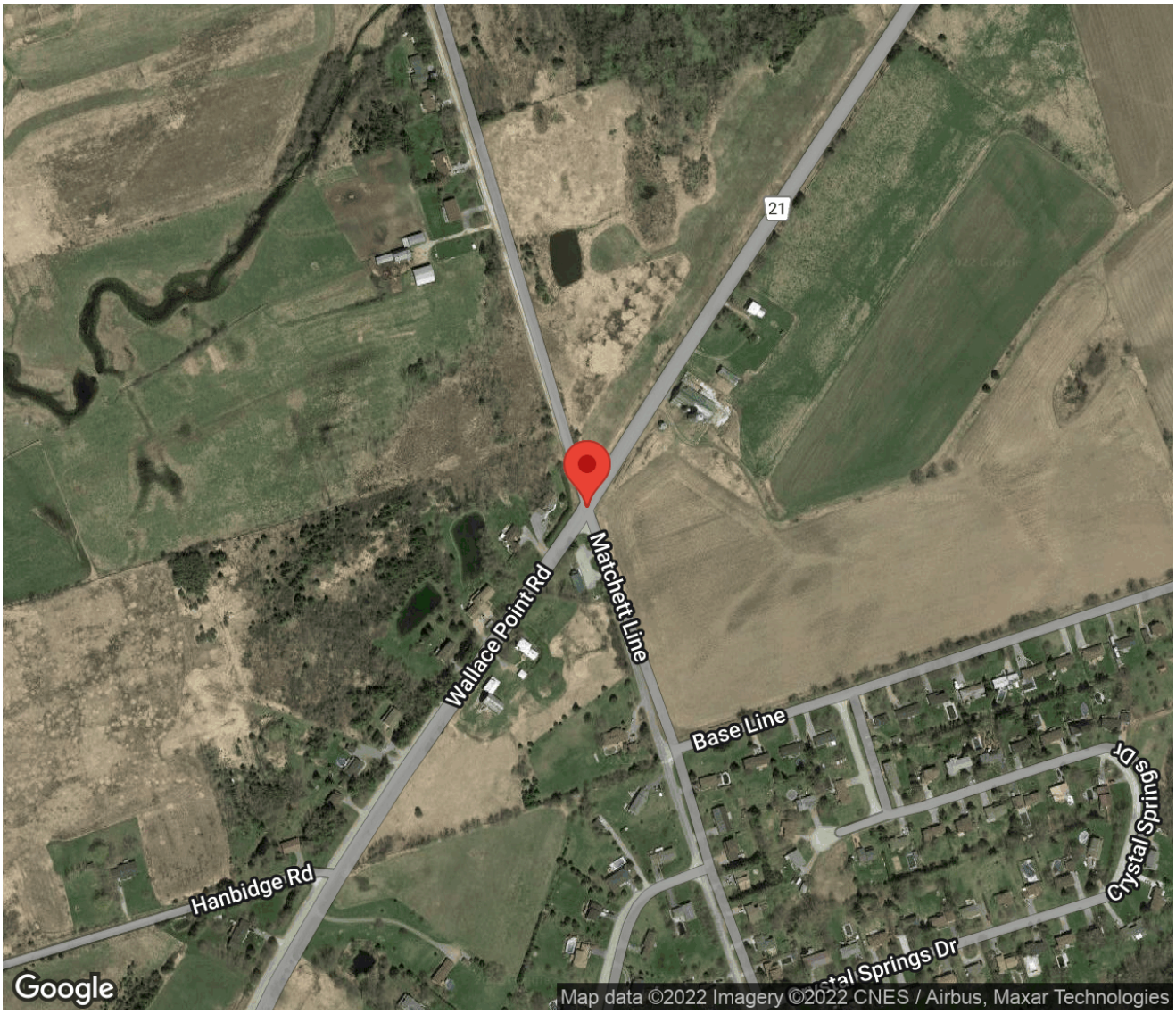
Intersection Count Report

Intersection:	Wallace Point Rd & Matchett Line
Municipality:	Peterborough
Count Date:	Wednesday, Dec 14, 2022
Site Code:	2243200001
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-18:00
Weather:	Clear
Comments:	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Map

Intersection:	Wallace Point Rd & Matchett Line
Site Code:	2243200001
Municipality:	Peterborough
Count Date:	Dec 14, 2022



Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection: Wallace Point Rd & Matchett Line
Site Code: 2243200001
Municipality: Peterborough
Count Date: Dec 14, 2022

Matchett Line - Traffic Summary

Hour	North Approach Totals (Includes Cars, Trucks, Bicycles)						South Approach Totals (Includes Cars, Trucks, Bicycles)						Total
	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	
07:00 - 08:00	2	1	5	0	8	0	6	2	39	0	47	0	55
08:00 - 09:00	5	3	0	0	8	0	4	5	42	0	51	0	59
09:00 - 10:00	2	1	0	0	3	0	2	0	12	0	14	0	17
10:00 - 11:00	2	2	4	0	8	0	7	1	16	0	24	0	32
11:00 - 12:00	5	0	2	0	7	0	3	2	13	0	18	0	25
12:00 - 13:00	1	3	0	0	4	0	1	0	13	0	14	0	18
13:00 - 14:00	2	2	2	0	6	0	4	0	12	0	16	0	22
14:00 - 15:00	2	4	1	0	7	0	4	5	16	0	25	0	32
15:00 - 16:00	2	1	0	0	3	0	2	0	15	0	17	0	20
16:00 - 17:00	1	6	3	0	10	0	7	1	19	0	27	0	37
17:00 - 18:00	2	1	0	0	3	0	3	5	21	0	29	0	32
GRAND TOTAL	**26**	**24**	**17**	**0**	**67**	**0**	**43**	**21**	**218**	**0**	**282**	**0**	**349**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection: Wallace Point Rd & Matchett Line
Site Code: 2243200001
Municipality: Peterborough
Count Date: Dec 14, 2022

Wallace Point Rd - Traffic Summary

	East Approach Totals						West Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	6	18	1	0	25	0	1	42	3	0	46	0	71
08:00 - 09:00	16	22	2	0	40	0	1	43	6	0	50	0	90
09:00 - 10:00	18	11	0	0	29	0	0	28	3	0	31	0	60
10:00 - 11:00	17	24	4	0	45	1	1	22	2	0	25	1	70
11:00 - 12:00	14	11	2	0	27	0	1	28	7	0	36	0	63
12:00 - 13:00	7	4	0	0	11	0	0	26	8	0	34	0	45
13:00 - 14:00	18	28	0	0	46	1	4	23	7	0	34	0	80
14:00 - 15:00	16	17	2	0	35	0	3	33	4	0	40	0	75
15:00 - 16:00	7	22	0	0	29	0	0	25	6	0	31	0	60
16:00 - 17:00	39	52	6	0	97	0	1	33	8	0	42	0	139
17:00 - 18:00	36	48	5	0	89	0	2	37	8	0	47	1	136
GRAND TOTAL	**194**	**257**	**22**	**0**	**473**	**2**	**14**	**340**	**62**	**0**	**416**	**2**	**889**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Wallace Point Rd & Matchett Line
Site Code: 2243200001
Municipality: Peterborough
Count Date: Dec 14, 2022

North Approach - Matchett Line

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
07:30	1	0	2	0	3	1	0	0	0	1	0	0	0	0	0	0
07:45	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0
08:00	1	2	0	0	3	0	1	0	0	1	0	0	0	0	0	0
08:15	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
09:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
09:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
10:00	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0
10:15	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0
10:30	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
11:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
11:15	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	2	0	1	0	3	0	0	1	0	1	0	0	0	0	0	0

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
12:00	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0
12:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
13:45	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
14:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
14:30	2	3	0	0	5	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	1	3	0	4	0	2	0	0	2	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	1	3	0	0	4	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
17:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
17:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	25	20	14	0	59	1	4	3	0	8	0	0	0	0	0	0
GRAND TOTAL	25	20	14	0	59	1	4	3	0	8	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Wallace Point Rd & Matchett Line
Site Code: 2243200001
Municipality: Peterborough
Count Date: Dec 14, 2022

South Approach - Matchett Line

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	2	0	5	0	7	0	0	0	0	0	0	0	0	0	0	0
07:15	1	0	5	0	6	0	0	0	0	0	0	0	0	0	0	0
07:30	1	0	15	0	16	0	1	0	0	1	0	0	0	0	0	0
07:45	2	0	14	0	16	0	1	0	0	1	0	0	0	0	0	0
08:00	0	0	12	0	12	0	0	0	0	0	0	0	0	0	0	0
08:15	2	1	11	0	14	1	0	0	0	1	0	0	0	0	0	0
08:30	0	2	13	0	15	0	1	0	0	1	0	0	0	0	0	0
08:45	1	1	6	0	8	0	0	0	0	0	0	0	0	0	0	0
09:00	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0
09:45	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0
10:00	1	0	5	0	6	0	0	0	0	0	0	0	0	0	0	0
10:15	1	0	5	0	6	0	0	0	0	0	0	0	0	0	0	0
10:30	2	0	5	0	7	0	0	0	0	0	0	0	0	0	0	0
10:45	3	1	1	0	5	0	0	0	0	0	0	0	0	0	0	0
11:00	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0
11:30	0	1	4	0	5	0	1	0	0	1	0	0	0	0	0	0
11:45	2	0	3	0	5	0	0	0	0	0	0	0	0	0	0	0

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
12:00	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0
12:30	1	0	4	0	5	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
13:00	2	0	3	0	5	0	0	0	0	0	0	0	0	0	0	0
13:15	1	0	4	0	5	0	0	0	0	0	0	0	0	0	0	0
13:30	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0
14:00	1	2	5	0	8	1	0	0	0	1	0	0	0	0	0	0
14:15	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0
14:30	1	1	2	0	4	0	0	0	0	0	0	0	0	0	0	0
14:45	1	2	5	0	8	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0
15:30	1	0	5	0	6	0	0	0	0	0	0	0	0	0	0	0
15:45	1	0	3	0	4	0	0	0	0	0	0	0	0	0	0	0
16:00	1	0	5	0	6	1	0	0	0	1	0	0	0	0	0	0
16:15	3	1	2	0	6	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0
16:45	2	0	5	0	7	0	0	0	0	0	0	0	0	0	0	0
17:00	1	0	8	0	9	0	0	0	0	0	0	0	0	0	0	0
17:15	1	2	4	0	7	0	0	0	0	0	0	0	0	0	0	0
17:30	1	0	7	0	8	0	0	0	0	0	0	0	0	0	0	0
17:45	0	3	2	0	5	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	40	17	218	0	275	3	4	0	0	7	0	0	0	0	0	0
GRAND TOTAL	**40**	**17**	**218**	**0**	**275**	**3**	**4**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Wallace Point Rd & Matchett Line
Site Code: 2243200001
Municipality: Peterborough
Count Date: Dec 14, 2022

East Approach - Wallace Point Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
07:00	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0
07:15	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
07:30	4	8	0	0	12	0	1	1	0	2	0	0	0	0	0	0
07:45	1	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0
08:00	1	6	1	0	8	0	0	1	0	1	0	0	0	0	0	0
08:15	5	4	0	0	9	0	0	0	0	0	0	0	0	0	0	0
08:30	4	3	0	0	7	0	1	0	0	1	0	0	0	0	0	0
08:45	6	7	0	0	13	0	1	0	0	1	0	0	0	0	0	0
09:00	3	2	0	0	5	0	0	0	0	0	0	0	0	0	0	0
09:15	5	3	0	0	8	0	0	0	0	0	0	0	0	0	0	0
09:30	4	4	0	0	8	0	0	0	0	0	0	0	0	0	0	0
09:45	6	2	0	0	8	0	0	0	0	0	0	0	0	0	0	0
10:00	6	5	2	0	13	0	0	0	0	0	0	0	0	0	0	1
10:15	2	5	1	0	8	0	0	0	0	0	0	0	0	0	0	0
10:30	7	7	0	0	14	0	0	0	0	0	0	0	0	0	0	0
10:45	1	7	1	0	9	1	0	0	0	1	0	0	0	0	0	0
11:00	5	3	0	0	8	0	2	0	0	2	0	0	0	0	0	0
11:15	1	3	2	0	6	0	0	0	0	0	0	0	0	0	0	0
11:30	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0
11:45	5	2	0	0	7	0	0	0	0	0	0	0	0	0	0	0

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
12:00	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0
12:15	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0
12:30	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
12:45	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0
13:00	4	9	0	0	13	0	2	0	0	2	0	0	0	0	0	0
13:15	4	4	0	0	8	0	1	0	0	1	0	0	0	0	0	0
13:30	5	5	0	0	10	0	0	0	0	0	0	0	0	0	0	0
13:45	5	7	0	0	12	0	0	0	0	0	0	0	0	0	0	1
14:00	4	6	0	0	10	1	0	0	0	1	0	0	0	0	0	0
14:15	2	6	2	0	10	0	0	0	0	0	0	0	0	0	0	0
14:30	7	4	0	0	11	0	0	0	0	0	0	0	0	0	0	0
14:45	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0
15:00	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0
15:15	1	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0
15:30	1	9	0	0	10	0	0	0	0	0	0	0	0	0	0	0
15:45	3	8	0	0	11	0	0	0	0	0	0	0	0	0	0	0
16:00	9	11	2	0	22	0	1	0	0	1	0	0	0	0	0	0
16:15	7	11	3	0	21	0	0	0	0	0	0	0	0	0	0	0
16:30	7	13	0	0	20	0	1	0	0	1	0	0	0	0	0	0
16:45	16	15	1	0	32	0	0	0	0	0	0	0	0	0	0	0
17:00	8	19	1	0	28	0	1	0	0	1	0	0	0	0	0	0
17:15	11	9	3	0	23	0	0	0	0	0	0	0	0	0	0	0
17:30	10	10	0	0	20	0	0	0	0	0	0	0	0	0	0	0
17:45	7	8	1	0	16	0	1	0	0	1	0	0	0	0	0	0
SUBTOTAL	192	245	20	0	457	2	12	2	0	16	0	0	0	0	0	2
GRAND TOTAL	192	245	20	0	457	2	12	2	0	16	0	0	0	0	0	2

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Wallace Point Rd & Matchett Line
Site Code: 2243200001
Municipality: Peterborough
Count Date: Dec 14, 2022

West Approach - Wallace Point Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	0	4	0	0	4	0	1	0	0	1	0	0	0	0	0	0
07:15	1	5	0	0	6	0	0	0	0	0	0	0	0	0	0	0
07:30	0	13	1	0	14	0	0	0	0	0	0	0	0	0	0	0
07:45	0	17	0	0	17	0	2	2	0	4	0	0	0	0	0	0
08:00	1	6	2	0	9	0	0	0	0	0	0	0	0	0	0	0
08:15	0	9	2	0	11	0	0	0	0	0	0	0	0	0	0	0
08:30	0	14	0	0	14	0	0	0	0	0	0	0	0	0	0	0
08:45	0	13	1	0	14	0	1	1	0	2	0	0	0	0	0	0
09:00	0	5	1	0	6	0	0	0	0	0	0	0	0	0	0	0
09:15	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0
09:30	0	8	2	0	10	0	0	0	0	0	0	0	0	0	0	0
09:45	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0
10:00	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0
10:15	1	5	1	0	7	0	1	0	0	1	0	0	0	0	0	0
10:30	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	1
10:45	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0
11:00	0	4	3	0	7	0	0	0	0	0	0	0	0	0	0	0
11:15	1	4	1	0	6	0	0	1	0	1	0	0	0	0	0	0
11:30	0	11	1	0	12	0	2	0	0	2	0	0	0	0	0	0
11:45	0	6	1	0	7	0	1	0	0	1	0	0	0	0	0	0

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
12:00	0	5	3	0	8	0	0	0	0	0	0	0	0	0	0	0
12:15	0	5	3	0	8	0	0	0	0	0	0	0	0	0	0	0
12:30	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0
12:45	0	9	2	0	11	0	0	0	0	0	0	0	0	0	0	0
13:00	1	4	2	0	7	0	0	0	0	0	0	0	0	0	0	0
13:15	1	4	1	0	6	2	0	0	0	2	0	0	0	0	0	0
13:30	0	7	3	0	10	0	0	0	0	0	0	0	0	0	0	0
13:45	0	8	1	0	9	0	0	0	0	0	0	0	0	0	0	0
14:00	0	4	1	0	5	0	1	0	0	1	0	0	0	0	0	0
14:15	1	7	0	0	8	0	4	0	0	4	0	0	0	0	0	0
14:30	1	11	1	0	13	1	1	2	0	4	0	0	0	0	0	0
14:45	0	4	0	0	4	0	1	0	0	1	0	0	0	0	0	0
15:00	0	6	2	0	8	0	0	0	0	0	0	0	0	0	0	0
15:15	0	7	2	0	9	0	0	0	0	0	0	0	0	0	0	0
15:30	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0
15:45	0	4	2	0	6	0	0	0	0	0	0	0	0	0	0	0
16:00	0	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0
16:15	0	9	1	0	10	1	1	0	0	2	0	0	0	0	0	0
16:30	0	6	2	0	8	0	0	0	0	0	0	0	0	0	0	0
16:45	0	5	5	0	10	0	1	0	0	1	0	0	0	0	0	0
17:00	0	8	3	0	11	0	0	0	0	0	0	0	0	0	0	0
17:15	1	7	2	0	10	0	0	0	0	0	0	0	0	0	0	1
17:30	0	8	3	0	11	0	1	0	0	1	0	0	0	0	0	0
17:45	1	13	0	0	14	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	10	322	56	0	388	4	18	6	0	28	0	0	0	0	0	2
GRAND TOTAL	10	322	56	0	388	4	18	6	0	28	0	0	0	0	0	2

Ontario Traffic Inc.
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Peak Hour Diagram

Specified Period		One Hour Peak	
From:	07:00:00	From:	07:30:00
To:	10:00:00	To:	08:30:00

Intersection: Wallace Point Rd & Matchett Line
Site Code: 2243200001
Count Date: Dec 14, 2022

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Wallace Point Rd runs E/W

North Approach

	Out	In	Total
Cars	11	3	14
Trucks	2	4	6
Bicycles	0	0	0
	13	**7**	**20**

Matchett Line

Bicycles	0	0	0	0
Trucks	0	1	1	0
Cars	3	3	5	0
Totals	**3**	**4**	**6**	**0**

East Approach

	Out	In	Total
Cars	34	102	136
Trucks	3	3	6
Bicycles	0	0	0
	37	**105**	**142**

Wallace Point Rd

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	
0	0	1	**1**	
0	2	45	**47**	
0	2	5	**7**	

Peds: 0

Peds: 0

Peds: 0

Wallace Point Rd

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	3	1	2	0
	23	22	1	0
	11	11	0	0

West Approach

	Out	In	Total
Cars	51	30	81
Trucks	4	2	6
Bicycles	0	0	0
	55	**32**	**87**

Matchett Line

Totals	**6**	**3**	**52**	**0**
Cars	5	1	52	0
Trucks	1	2	0	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	58	19	77
Trucks	3	3	6
Bicycles	0	0	0
	61	**22**	**83**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Wallace Point Rd & Matchett Line
Site Code: 2243200001
Count Date: Dec 14, 2022
Period: 07:00 - 10:00

Peak Hour Data (07:30 - 08:30)

Start Time	North Approach Matchett Line						South Approach Matchett Line						East Approach Wallace Point Rd						West Approach Wallace Point Rd						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
07:30	2	0	2	0	0	4	1	1	15	0	0	17	4	9	1	0	0	14	0	13	1	0	0	14	49
07:45	0	1	1	0	0	2	2	1	14	0	0	17	1	4	0	0	0	5	0	19	2	0	0	21	45
08:00	1	3	0	0	0	4	0	0	12	0	0	12	1	6	2	0	0	9	1	6	2	0	0	9	34
08:15	3	0	0	0	0	3	3	1	11	0	0	15	5	4	0	0	0	9	0	9	2	0	0	11	38
Grand Total	**6**	**4**	**3**	**0**	**0**	**13**	**6**	**3**	**52**	**0**	**0**	**61**	**11**	**23**	**3**	**0**	**0**	**37**	**1**	**47**	**7**	**0**	**0**	**55**	**166**
Approach %	46.2	30.8	23.1	0		-	9.8	4.9	85.2	0		-	29.7	62.2	8.1	0		-	1.8	85.5	12.7	0		-	
Totals %	3.6	2.4	1.8	0		7.8	3.6	1.8	31.3	0		36.7	6.6	13.9	1.8	0		22.3	0.6	28.3	4.2	0		33.1	
PHF	**0.5**	**0.33**	**0.38**	**0**		**0.81**	**0.5**	**0.75**	**0.87**	**0**		**0.9**	**0.55**	**0.64**	**0.38**	**0**		**0.66**	**0.25**	**0.62**	**0.88**	**0**		**0.65**	**0.85**
Cars	5	3	3	0		11	5	1	52	0		58	11	22	1	0		34	1	45	5	0		51	154
% Cars	83.3	75	100	0		84.6	83.3	33.3	100	0		95.1	100	95.7	33.3	0		91.9	100	95.7	71.4	0		92.7	92.8
Trucks	1	1	0	0		2	1	2	0	0		3	0	1	2	0		3	0	2	2	0		4	12
% Trucks	16.7	25	0	0		15.4	16.7	66.7	0	0		4.9	0	4.3	66.7	0		8.1	0	4.3	28.6	0		7.3	7.2
Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
% Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Peak Hour Diagram

Specified Period
From: 10:00:00
To: 14:00:00

One Hour Peak
From: 10:00:00
To: 11:00:00

Intersection: Wallace Point Rd & Matchett Line
Site Code: 2243200001
Count Date: Dec 14, 2022

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Wallace Point Rd runs E/W

North Approach

	Out	In	Total
Cars	7	6	13
Trucks	1	0	1
Bicycles	0	0	0
	8	**6**	**14**

Matchett Line

Bicycles	0	0	0	0
Trucks	1	0	0	0
Cars	3	2	2	0
Totals	**4**	**2**	**2**	**0**

East Approach

	Out	In	Total
Cars	44	39	83
Trucks	1	1	2
Bicycles	0	0	0
	45	**40**	**85**

Wallace Point Rd

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	
0	0	1	**1**	
0	1	21	**22**	
0	0	2	**2**	

Peds: 1

Peds: 0

Peds: 1

Peds: 0

Wallace Point Rd

Totals	Cars	Trucks	Bicycles
0	0	0	0
4	4	0	0
24	24	0	0
17	16	1	0

West Approach

	Out	In	Total
Cars	24	34	58
Trucks	1	1	2
Bicycles	0	0	0
	25	**35**	**60**

Matchett Line

Totals	**7**	**1**	**16**	**0**
Cars	7	1	16	0
Trucks	0	0	0	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	24	20	44
Trucks	0	1	1
Bicycles	0	0	0
	24	**21**	**45**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
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Peak Hour Summary

Intersection: Wallace Point Rd & Matchett Line
Site Code: 2243200001
Count Date: Dec 14, 2022
Period: 10:00 - 14:00

Peak Hour Data (10:00 - 11:00)

Start Time	North Approach Matchett Line						South Approach Matchett Line						East Approach Wallace Point Rd						West Approach Wallace Point Rd						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
10:00	1	0	1	0	0	2	1	0	5	0	0	6	6	5	2	0	1	13	0	6	0	0	0	6	27
10:15	0	1	1	0	0	2	1	0	5	0	0	6	2	5	1	0	0	8	1	6	1	0	0	8	24
10:30	1	1	1	0	0	3	2	0	5	0	0	7	7	7	0	0	0	14	0	9	0	0	1	9	33
10:45	0	0	1	0	0	1	3	1	1	0	0	5	2	7	1	0	0	10	0	1	1	0	0	2	18
Grand Total	**2**	**2**	**4**	**0**	**0**	**8**	**7**	**1**	**16**	**0**	**0**	**24**	**17**	**24**	**4**	**0**	**1**	**45**	**1**	**22**	**2**	**0**	**1**	**25**	**102**
Approach %	25	25	50	0		-	29.2	4.2	66.7	0		-	37.8	53.3	8.9	0		-	4	88	8	0		-	
Totals %	2	2	3.9	0		7.8	6.9	1	15.7	0		23.5	16.7	23.5	3.9	0		44.1	1	21.6	2	0		24.5	
PHF	**0.5**	**0.5**	**1**	**0**		**0.67**	**0.58**	**0.25**	**0.8**	**0**		**0.86**	**0.61**	**0.86**	**0.5**	**0**		**0.8**	**0.25**	**0.61**	**0.5**	**0**		**0.69**	**0.77**
Cars	2	2	3	0		7	7	1	16	0		24	16	24	4	0		44	1	21	2	0		24	99
% Cars	100	100	75	0		87.5	100	100	100	0		100	94.1	100	100	0		97.8	100	95.5	100	0		96	97.1
Trucks	0	0	1	0		1	0	0	0	0		0	1	0	0	0		1	0	1	0	0		1	3
% Trucks	0	0	25	0		12.5	0	0	0	0		0	5.9	0	0	0		2.2	0	4.5	0	0		4	2.9
Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
% Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
Peds					0	-					0	-					1	-					1	-	2
% Peds					0	-					0	-					50	-					50	-	

Peak Hour Diagram

Specified Period
From: 14:00:00
To: 18:00:00

One Hour Peak
From: 16:45:00
To: 17:45:00

Intersection: Wallace Point Rd & Matchett Line
Site Code: 2243200001
Count Date: Dec 14, 2022

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Wallace Point Rd runs E/W

North Approach

	Out	In	Total
Cars	2	8	10
Trucks	0	0	0
Bicycles	0	0	0
	2	**8**	**10**

Matchett Line

Bicycles	0	0	0	0
Trucks	0	0	0	0
Cars	0	1	1	0
Totals	**0**	**1**	**1**	**0**

Peds: 0

East Approach

	Out	In	Total
Cars	103	53	156
Trucks	1	2	3
Bicycles	0	0	0
	104	**55**	**159**

Wallace Point Rd

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	
0	0	1	**1**	
0	2	28	**30**	
0	0	13	**13**	

Peds: 1

Peds: 0

Wallace Point Rd

Totals	Cars	Trucks	Bicycles
0	0	0	0
5	5	0	0
54	53	1	0
45	45	0	0

Peds: 0

West Approach

	Out	In	Total
Cars	42	58	100
Trucks	2	1	3
Bicycles	0	0	0
	44	**59**	**103**

Totals	**5**	**2**	**24**	**0**
Cars	5	2	24	0
Trucks	0	0	0	0
Bicycles	0	0	0	0

Matchett Line

South Approach

	Out	In	Total
Cars	31	59	90
Trucks	0	0	0
Bicycles	0	0	0
	31	**59**	**90**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
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Peak Hour Summary

Intersection: Wallace Point Rd & Matchett Line
Site Code: 2243200001
Count Date: Dec 14, 2022
Period: 14:00 - 18:00

Peak Hour Data (16:45 - 17:45)

Start Time	North Approach Matchett Line						South Approach Matchett Line						East Approach Wallace Point Rd						West Approach Wallace Point Rd						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:45	0	0	0	0	0	0	2	0	5	0	0	7	16	15	1	0	0	32	0	6	5	0	0	11	50
17:00	0	0	0	0	0	0	1	0	8	0	0	9	8	20	1	0	0	29	0	8	3	0	0	11	49
17:15	0	1	0	0	0	1	1	2	4	0	0	7	11	9	3	0	0	23	1	7	2	0	1	10	41
17:30	1	0	0	0	0	1	1	0	7	0	0	8	10	10	0	0	0	20	0	9	3	0	0	12	41
Grand Total	**1**	**1**	**0**	**0**	**0**	**2**	**5**	**2**	**24**	**0**	**0**	**31**	**45**	**54**	**5**	**0**	**0**	**104**	**1**	**30**	**13**	**0**	**1**	**44**	**181**
Approach %	50	50	0	0		-	16.1	6.5	77.4	0		-	43.3	51.9	4.8	0		-	2.3	68.2	29.5	0		-	
Totals %	0.6	0.6	0	0		1.1	2.8	1.1	13.3	0		17.1	24.9	29.8	2.8	0		57.5	0.6	16.6	7.2	0		24.3	
PHF	**0.25**	**0.25**	**0**	**0**		**0.5**	**0.63**	**0.25**	**0.75**	**0**		**0.86**	**0.7**	**0.68**	**0.42**	**0**		**0.81**	**0.25**	**0.83**	**0.65**	**0**		**0.92**	**0.91**
Cars	1	1	0	0		2	5	2	24	0		31	45	53	5	0		103	1	28	13	0		42	178
% Cars	100	100	0	0		100	100	100	100	0		100	100	98.1	100	0		99	100	93.3	100	0		95.5	98.3
Trucks	0	0	0	0		0	0	0	0	0		0	0	1	0	0		1	0	2	0	0		2	3
% Trucks	0	0	0	0		0	0	0	0	0		0	0	1.9	0	0		1	0	6.7	0	0		4.5	1.7
Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
% Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
Peds					0	-					0	-					0	-					1	-	1
% Peds					0	-					0	-					0	-					100	-	

Appendix D

Level of Service Criteria for Unsignalized Intersections

According to the HCM 2010, for two-way stop-controlled intersection, the LOS is determined based on the control delay and is determined for each minor road lane group and the left-turn movement of the major road. The control delay, in this case, includes the delay due to deceleration to stop from the free-flow speed at the back of a queue (formed because of the stop sign), the move-up time within the queue, stopped delay at the front of the queue, and delay due to acceleration back to free-flow speed. The calculation of the control delay of a specific movement is a function of the flow rate and the capacity of this specific movement.

The description and criteria of the LOS at two-way stop-controlled intersections are summarized in the table below.

Table D - LOS for Two-Way Stop-Controlled Intersections

Description of Conditions	Control Delay (sec/veh)	LOS by v/c Ratio	
		v/c ≤ 1.0	v/c > 1.0
No delay for stop-controlled approaches	0 - 10	A	F
Operations with minor delay	> 10 - 15	B	F
Operations with moderate delay	> 15 - 25	C	F
Operations with some delay	> 25 - 35	D	F
Operations with high delay	> 35 - 50	E	F
Operation with extreme congestion with very high delay	> 50	F	F

Appendix E

Synchro Reports for the Background Traffic Conditions

Intersection	
Int Delay, s/veh	5.2

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	3	52	6	4	3	1	47	7	11	23	3
Future Vol, veh/h	6	3	52	6	4	3	1	47	7	11	23	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	66	66	66	90	90	90	81	81	81
Heavy Vehicles, %	7	7	7	8	8	8	5	5	5	15	15	15
Mvmt Flow	9	5	80	9	6	5	1	52	8	14	28	4

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	122	118	56	159	120	30	32	0	0	60	0	0
Stage 1	58	58	-	58	58	-	-	-	-	-	-	-
Stage 2	64	60	-	101	62	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.57	6.27	7.18	6.58	6.28	4.15	-	-	4.25	-	-
Critical Hdwy Stg 1	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4.063	3.363	3.572	4.072	3.372	2.245	-	-	2.335	-	-
Pot Cap-1 Maneuver	841	763	997	793	759	1027	1561	-	-	1464	-	-
Stage 1	941	837	-	939	835	-	-	-	-	-	-	-
Stage 2	934	835	-	891	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	825	755	997	720	751	1027	1561	-	-	1464	-	-
Mov Cap-2 Maneuver	825	755	-	720	751	-	-	-	-	-	-	-
Stage 1	940	836	-	938	827	-	-	-	-	-	-	-
Stage 2	914	827	-	814	831	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	9.1	9.7	0.1	2.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1561	-	-	962	784	1464	-	-
HCM Lane V/C Ratio	0.001	-	-	0.098	0.025	0.009	-	-
HCM Control Delay (s)	7.3	0	-	9.1	9.7	7.5	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	0	-	-

Intersection	
Int Delay, s/veh	5.3

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	3	57	7	4	3	1	52	8	12	25	3
Future Vol, veh/h	7	3	57	7	4	3	1	52	8	12	25	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	66	66	66	90	90	90	81	81	81
Heavy Vehicles, %	7	7	7	8	8	8	5	5	5	15	15	15
Mvmt Flow	11	5	88	11	6	5	1	58	9	15	31	4

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	134	130	63	174	132	33	35	0	0	67	0	0
Stage 1	65	65	-	63	63	-	-	-	-	-	-	-
Stage 2	69	65	-	111	69	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.57	6.27	7.18	6.58	6.28	4.15	-	-	4.25	-	-
Critical Hdwy Stg 1	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4.063	3.363	3.572	4.072	3.372	2.245	-	-	2.335	-	-
Pot Cap-1 Maneuver	826	751	988	776	748	1024	1557	-	-	1456	-	-
Stage 1	933	831	-	933	831	-	-	-	-	-	-	-
Stage 2	929	831	-	880	826	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	809	742	988	698	739	1024	1557	-	-	1456	-	-
Mov Cap-2 Maneuver	809	742	-	698	739	-	-	-	-	-	-	-
Stage 1	932	830	-	932	822	-	-	-	-	-	-	-
Stage 2	908	822	-	797	825	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	9.2	9.9	0.1	2.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1557	-	-	952	762	1456	-	-
HCM Lane V/C Ratio	0.001	-	-	0.108	0.028	0.01	-	-
HCM Control Delay (s)	7.3	0	-	9.2	9.9	7.5	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.1	0	-	-

Intersection	
Int Delay, s/veh	5.3

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	4	63	7	5	4	1	57	9	13	28	4
Future Vol, veh/h	7	4	63	7	5	4	1	57	9	13	28	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	66	66	66	90	90	90	81	81	81
Heavy Vehicles, %	7	7	7	8	8	8	5	5	5	15	15	15
Mvmt Flow	11	6	97	11	8	6	1	63	10	16	35	5

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	147	142	68	192	145	38	40	0	0	73	0	0
Stage 1	70	70	-	70	70	-	-	-	-	-	-	-
Stage 2	77	72	-	122	75	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.57	6.27	7.18	6.58	6.28	4.15	-	-	4.25	-	-
Critical Hdwy Stg 1	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4.063	3.363	3.572	4.072	3.372	2.245	-	-	2.335	-	-
Pot Cap-1 Maneuver	810	740	981	755	735	1017	1550	-	-	1448	-	-
Stage 1	928	827	-	925	825	-	-	-	-	-	-	-
Stage 2	920	825	-	868	821	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	791	731	981	670	726	1017	1550	-	-	1448	-	-
Mov Cap-2 Maneuver	791	731	-	670	726	-	-	-	-	-	-	-
Stage 1	927	826	-	924	816	-	-	-	-	-	-	-
Stage 2	896	816	-	776	820	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	9.3	9.9	0.1	2.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1550	-	-	942	752	1448	-	-
HCM Lane V/C Ratio	0.001	-	-	0.121	0.032	0.011	-	-
HCM Control Delay (s)	7.3	0	-	9.3	9.9	7.5	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.1	0	-	-

Intersection	
Int Delay, s/veh	4

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	2	24	0	1	1	1	30	13	45	54	5
Future Vol, veh/h	5	2	24	0	1	1	1	30	13	45	54	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	66	66	66	90	90	90	81	81	81
Heavy Vehicles, %	7	7	7	8	8	8	5	5	5	15	15	15
Mvmt Flow	8	3	37	0	2	2	1	33	14	56	67	6

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	226	227	40	244	231	70	73	0	0	47	0	0
Stage 1	42	42	-	182	182	-	-	-	-	-	-	-
Stage 2	184	185	-	62	49	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.57	6.27	7.18	6.58	6.28	4.15	-	-	4.25	-	-
Critical Hdwy Stg 1	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4.063	3.363	3.572	4.072	3.372	2.245	-	-	2.335	-	-
Pot Cap-1 Maneuver	719	664	1017	698	659	976	1508	-	-	1481	-	-
Stage 1	960	850	-	806	738	-	-	-	-	-	-	-
Stage 2	806	737	-	934	842	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	695	637	1017	650	633	976	1508	-	-	1481	-	-
Mov Cap-2 Maneuver	695	637	-	650	633	-	-	-	-	-	-	-
Stage 1	959	849	-	805	709	-	-	-	-	-	-	-
Stage 2	772	708	-	896	841	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	9.2	9.7	0.2	3.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1508	-	-	914	768	1481	-	-
HCM Lane V/C Ratio	0.001	-	-	0.052	0.004	0.038	-	-
HCM Control Delay (s)	7.4	0	-	9.2	9.7	7.5	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0.1	-	-

Intersection	
Int Delay, s/veh	4

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	2	26	0	1	1	1	33	14	50	60	6
Future Vol, veh/h	6	2	26	0	1	1	1	33	14	50	60	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	66	66	66	90	90	90	81	81	81
Heavy Vehicles, %	7	7	7	8	8	8	5	5	5	15	15	15
Mvmt Flow	9	3	40	0	2	2	1	37	16	62	74	7

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	251	252	45	271	257	78	81	0	0	53	0	0
Stage 1	47	47	-	202	202	-	-	-	-	-	-	-
Stage 2	204	205	-	69	55	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.57	6.27	7.18	6.58	6.28	4.15	-	-	4.25	-	-
Critical Hdwy Stg 1	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4.063	3.363	3.572	4.072	3.372	2.245	-	-	2.335	-	-
Pot Cap-1 Maneuver	692	643	1011	669	637	966	1498	-	-	1473	-	-
Stage 1	954	846	-	786	723	-	-	-	-	-	-	-
Stage 2	787	723	-	926	837	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	666	614	1011	618	608	966	1498	-	-	1473	-	-
Mov Cap-2 Maneuver	666	614	-	618	608	-	-	-	-	-	-	-
Stage 1	953	845	-	785	691	-	-	-	-	-	-	-
Stage 2	750	691	-	885	836	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	9.3	9.8	0.2	3.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1498	-	-	895	746	1473	-	-
HCM Lane V/C Ratio	0.001	-	-	0.058	0.004	0.042	-	-
HCM Control Delay (s)	7.4	0	-	9.3	9.8	7.6	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0.1	-	-

Intersection	
Int Delay, s/veh	3.9

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	2	29	0	1	1	1	37	16	55	66	6
Future Vol, veh/h	6	2	29	0	1	1	1	37	16	55	66	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	66	66	66	90	90	90	81	81	81
Heavy Vehicles, %	7	7	7	8	8	8	5	5	5	15	15	15
Mvmt Flow	9	3	45	0	2	2	1	41	18	68	81	7

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	275	276	50	297	282	85	88	0	0	59	0	0
Stage 1	52	52	-	221	221	-	-	-	-	-	-	-
Stage 2	223	224	-	76	61	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.57	6.27	7.18	6.58	6.28	4.15	-	-	4.25	-	-
Critical Hdwy Stg 1	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4.063	3.363	3.572	4.072	3.372	2.245	-	-	2.335	-	-
Pot Cap-1 Maneuver	667	623	1004	644	617	958	1489	-	-	1466	-	-
Stage 1	948	842	-	768	709	-	-	-	-	-	-	-
Stage 2	768	709	-	918	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	639	592	1004	589	586	958	1489	-	-	1466	-	-
Mov Cap-2 Maneuver	639	592	-	589	586	-	-	-	-	-	-	-
Stage 1	947	841	-	767	674	-	-	-	-	-	-	-
Stage 2	728	674	-	873	831	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	9.3	10	0.1	3.3
HCM LOS	A	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1489	-	-	888	727	1466	-	-
HCM Lane V/C Ratio	0.001	-	-	0.064	0.004	0.046	-	-
HCM Control Delay (s)	7.4	0	-	9.3	10	7.6	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0.1	-	-

Appendix F

Synchro Reports for the Traffic Conditions with the Development

Intersection	
Int Delay, s/veh	6.3

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	6	100	6	4	3	1	47	35	25	23	3
Future Vol, veh/h	12	6	100	6	4	3	1	47	35	25	23	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	66	66	66	90	90	90	81	81	81
Heavy Vehicles, %	7	7	7	8	8	8	5	5	5	15	15	15
Mvmt Flow	18	9	154	9	6	5	1	52	39	31	28	4

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	172	168	72	247	185	30	32	0	0	91	0	0
Stage 1	74	74	-	92	92	-	-	-	-	-	-	-
Stage 2	98	94	-	155	93	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.57	6.27	7.18	6.58	6.28	4.15	-	-	4.25	-	-
Critical Hdwy Stg 1	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4.063	3.363	3.572	4.072	3.372	2.245	-	-	2.335	-	-
Pot Cap-1 Maneuver	780	716	976	694	699	1027	1561	-	-	1426	-	-
Stage 1	923	824	-	900	807	-	-	-	-	-	-	-
Stage 2	896	807	-	833	806	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	758	700	976	568	683	1027	1561	-	-	1426	-	-
Mov Cap-2 Maneuver	758	700	-	568	683	-	-	-	-	-	-	-
Stage 1	922	823	-	899	789	-	-	-	-	-	-	-
Stage 2	866	789	-	693	805	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	9.8	10.5	0.1	3.7
HCM LOS	A	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1561	-	-	930	672	1426	-	-
HCM Lane V/C Ratio	0.001	-	-	0.195	0.029	0.022	-	-
HCM Control Delay (s)	7.3	0	-	9.8	10.5	7.6	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.7	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	6.3

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	6	106	7	4	3	1	52	36	26	25	3
Future Vol, veh/h	12	6	106	7	4	3	1	52	36	26	25	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	66	66	66	90	90	90	81	81	81
Heavy Vehicles, %	7	7	7	8	8	8	5	5	5	15	15	15
Mvmt Flow	18	9	163	11	6	5	1	58	40	32	31	4

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	183	179	78	263	197	33	35	0	0	98	0	0
Stage 1	80	80	-	97	97	-	-	-	-	-	-	-
Stage 2	103	99	-	166	100	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.57	6.27	7.18	6.58	6.28	4.15	-	-	4.25	-	-
Critical Hdwy Stg 1	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4.063	3.363	3.572	4.072	3.372	2.245	-	-	2.335	-	-
Pot Cap-1 Maneuver	767	706	969	678	688	1024	1557	-	-	1417	-	-
Stage 1	916	819	-	895	803	-	-	-	-	-	-	-
Stage 2	891	803	-	822	801	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	745	689	969	548	671	1024	1557	-	-	1417	-	-
Mov Cap-2 Maneuver	745	689	-	548	671	-	-	-	-	-	-	-
Stage 1	915	818	-	894	785	-	-	-	-	-	-	-
Stage 2	860	785	-	675	800	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	9.9	10.8	0.1	3.7
HCM LOS	A	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1557	-	-	924	646	1417	-	-
HCM Lane V/C Ratio	0.001	-	-	0.206	0.033	0.023	-	-
HCM Control Delay (s)	7.3	0	-	9.9	10.8	7.6	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.8	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	6.3

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	6	111	7	5	4	1	57	36	27	28	4
Future Vol, veh/h	13	6	111	7	5	4	1	57	36	27	28	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	66	66	66	90	90	90	81	81	81
Heavy Vehicles, %	7	7	7	8	8	8	5	5	5	15	15	15
Mvmt Flow	20	9	171	11	8	6	1	63	40	33	35	5

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	196	191	83	279	209	38	40	0	0	103	0	0
Stage 1	85	85	-	104	104	-	-	-	-	-	-	-
Stage 2	111	106	-	175	105	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.57	6.27	7.18	6.58	6.28	4.15	-	-	4.25	-	-
Critical Hdwy Stg 1	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4.063	3.363	3.572	4.072	3.372	2.245	-	-	2.335	-	-
Pot Cap-1 Maneuver	752	695	963	661	678	1017	1550	-	-	1411	-	-
Stage 1	911	815	-	887	798	-	-	-	-	-	-	-
Stage 2	882	798	-	813	797	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	727	678	963	528	661	1017	1550	-	-	1411	-	-
Mov Cap-2 Maneuver	727	678	-	528	661	-	-	-	-	-	-	-
Stage 1	910	814	-	886	779	-	-	-	-	-	-	-
Stage 2	847	779	-	661	796	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	10	10.8	0.1	3.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1550	-	-	916	646	1411	-	-
HCM Lane V/C Ratio	0.001	-	-	0.218	0.038	0.024	-	-
HCM Control Delay (s)	7.3	0	-	10	10.8	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.8	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	5.4

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	5	58	0	1	1	1	30	33	80	54	5
Future Vol, veh/h	12	5	58	0	1	1	1	30	33	80	54	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	66	66	66	90	90	90	81	81	81
Heavy Vehicles, %	7	7	7	8	8	8	5	5	5	15	15	15
Mvmt Flow	18	8	89	0	2	2	1	33	37	99	67	6

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	324	325	52	370	340	70	73	0	0	70	0	0
Stage 1	54	54	-	268	268	-	-	-	-	-	-	-
Stage 2	270	271	-	102	72	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.57	6.27	7.18	6.58	6.28	4.15	-	-	4.25	-	-
Critical Hdwy Stg 1	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4.063	3.363	3.572	4.072	3.372	2.245	-	-	2.335	-	-
Pot Cap-1 Maneuver	619	585	1002	576	572	976	1508	-	-	1452	-	-
Stage 1	946	840	-	725	676	-	-	-	-	-	-	-
Stage 2	725	676	-	889	823	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	583	543	1002	491	531	976	1508	-	-	1452	-	-
Mov Cap-2 Maneuver	583	543	-	491	531	-	-	-	-	-	-	-
Stage 1	945	839	-	724	628	-	-	-	-	-	-	-
Stage 2	671	628	-	802	822	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	9.9	10.3	0.1	4.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1508	-	-	855	688	1452	-	-
HCM Lane V/C Ratio	0.001	-	-	0.135	0.004	0.068	-	-
HCM Control Delay (s)	7.4	0	-	9.9	10.3	7.7	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0	0.2	-	-

Intersection	
Int Delay, s/veh	5.3

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	5	61	0	1	1	1	33	34	85	60	6
Future Vol, veh/h	13	5	61	0	1	1	1	33	34	85	60	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	66	66	66	90	90	90	81	81	81
Heavy Vehicles, %	7	7	7	8	8	8	5	5	5	15	15	15
Mvmt Flow	20	8	94	0	2	2	1	37	38	105	74	7

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	348	349	56	397	365	78	81	0	0	75	0	0
Stage 1	58	58	-	288	288	-	-	-	-	-	-	-
Stage 2	290	291	-	109	77	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.57	6.27	7.18	6.58	6.28	4.15	-	-	4.25	-	-
Critical Hdwy Stg 1	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4.063	3.363	3.572	4.072	3.372	2.245	-	-	2.335	-	-
Pot Cap-1 Maneuver	597	567	997	552	554	966	1498	-	-	1446	-	-
Stage 1	941	837	-	707	663	-	-	-	-	-	-	-
Stage 2	707	663	-	882	819	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	560	523	997	465	511	966	1498	-	-	1446	-	-
Mov Cap-2 Maneuver	560	523	-	465	511	-	-	-	-	-	-	-
Stage 1	940	836	-	706	613	-	-	-	-	-	-	-
Stage 2	651	613	-	791	818	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	10	10.4	0.1	4.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1498	-	-	841	668	1446	-	-
HCM Lane V/C Ratio	0.001	-	-	0.145	0.005	0.073	-	-
HCM Control Delay (s)	7.4	0	-	10	10.4	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0	0.2	-	-

Intersection	
Int Delay, s/veh	5.3

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	5	63	0	1	1	1	37	36	90	66	6
Future Vol, veh/h	13	5	63	0	1	1	1	37	36	90	66	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	66	66	66	90	90	90	81	81	81
Heavy Vehicles, %	7	7	7	8	8	8	5	5	5	15	15	15
Mvmt Flow	20	8	97	0	2	2	1	41	40	111	81	7

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	372	373	61	423	390	85	88	0	0	81	0	0
Stage 1	63	63	-	307	307	-	-	-	-	-	-	-
Stage 2	309	310	-	116	83	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.57	6.27	7.18	6.58	6.28	4.15	-	-	4.25	-	-
Critical Hdwy Stg 1	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.57	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4.063	3.363	3.572	4.072	3.372	2.245	-	-	2.335	-	-
Pot Cap-1 Maneuver	576	550	990	531	536	958	1489	-	-	1438	-	-
Stage 1	936	833	-	690	650	-	-	-	-	-	-	-
Stage 2	691	650	-	874	814	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	538	505	990	444	492	958	1489	-	-	1438	-	-
Mov Cap-2 Maneuver	538	505	-	444	492	-	-	-	-	-	-	-
Stage 1	935	832	-	689	597	-	-	-	-	-	-	-
Stage 2	632	597	-	780	813	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	10.1	10.6	0.1	4.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1489	-	-	829	650	1438	-	-
HCM Lane V/C Ratio	0.001	-	-	0.15	0.005	0.077	-	-
HCM Control Delay (s)	7.4	0	-	10.1	10.6	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0	0.3	-	-