3RD ANNUAL TRAFFIC & SAFETY REVIEW

CODRINGTON PIT

FINAL ▪ OCTOBER 2019

REPORT PREPARED FOR

VOTORANTIM CIMENTOS (CBM AGGREGATES)
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TMIG PROJECT NUMBER 17169

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EXECUTIVE SUMMARY

This study represents the third annual Traffic and Safety Review of the now-operating Codrington Pit and its site access to County Road 30.

This report concludes:

- ✓ The Pit access continues to operate in accordance with the conditions of the OMB Settlement and the executed Development Agreement, and to the satisfaction of the County of Northumberland.
- ✓ Codrington Pit truck activity has again been measured to be less than forecasted in the approved traffic impact study (i.e., much less than the approved annual extraction amount), which is consistent with available shipping activity records obtained from CBM.
- ✓ County Road 30 passing traffic was also observed to be less than forecasted in the original traffic study and there has been virtually no growth in traffic along this section of roadway since the last annual traffic and safety review (or even over the last 12 years).
- ✓ Intersection analyses indicates very good peak hour traffic operations are being experienced at the Pit access, with excess capacity available for future traffic growth and/or increased Pit activity.
- ✓ Neither the County, the Ministry of Transportation, nor the Ontario Provincial Police has any available records of collisions in the study area since the opening of the Pit access.
- ✓ TMIG finds the Codrington Pit access is operating as intended, and given the available information, provides an acceptable degree of efficiency and safety.

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1 INTRODUCTION

1.1 Retainer and Objective

The Municipal Infrastructure Group Ltd. (TMIG) was retained by Votorantim Cimentos (CBM Aggregates) to prepare a third annual Traffic and Safety Review for Codrington Pit, herein after referred to as the 'Pit', in Northumberland County. The Pit site is located south of the hamlet of Codrington on the east side of County Road 30, between of County Road No. 27 and Old Wooler Road, as illustrated on **Figure 1-1.**

Figure 1-1 Site Location

This Review has been prepared to ensure that the Codrington Pit entrance and County Road 30 in the vicinity of the Pit access are operating as anticipated. The report includes information on how the operation of the Pit is affecting traffic on County Road 30 from an operational and safety perspective.

The Traffic and Safety Review will address the following items:

- Review traffic volumes generated by Codrington Pit and the forecasted County Road 30 passing traffic.
- Monitor performance of the Pit access during the periods of typical shipping activity.
- Review available collision statistics at the new Pit access.
- Report on any traffic incidents filed (if any) that have been reported by, or to CBM, through the formal reporting system, by independent truckers or by residents / travelling public.

1.2 Study Background

CBM Aggregates operates Codrington Pit, located in Codrington, Municipality of Brighton, Northumberland County known (municipally) as 2851 County Road 30. The existing Pit is permitted to ship a maximum of 650,000 tonnes per year.

As part of the approved and executed Development Agreement with the County (excerpt copied below), CBM Aggregates is to complete an annual traffic and safety review for County Road 30:

"St. Marys [CBM] *agree that it shall, at its sole cost, provide the County with an annual report with respect to traffic operations and road safety on County Road 30 in the vicinity of the intersection. The report shall be based on traffic and accident information obtained from the Ontario Provincial Police, the County Roads Department and St. Marys".*

The enclosed report is the third annual examination following the opening of the Pit in 2016 and builds on the first and second annual traffic and safety reviews completed in 2017 and 2018 respectively by TMIG. We have also reviewed the approved Traffic Impact Study conducted by Grant A. Bacchus Ltd. (GAB Ltd.) dated June 2007 as well as a Road Safety Assessment conducted by GHD, dated March 2013, and have utilized the information contained in all prior submissions as the basis for the enclosed report and analyses.

1.3 Site Area

The study area includes the following unsignalized intersection:

- County Road 30 at Codrington Pit Access

1.4 Study Team

The TMIG team involved in the preparation of this study are:

- J.A. (Jim) Bacchus, B.A., MITE, Director of Transportation Services
- Michael Dowdall, C.E.T., Project Manager

2 BASELINE TRAFFIC

This section summarizes the proposed haul route, summarizes the data collection program, and presents the existing (2019) traffic volumes conditions at the study intersection (County Road 30 / Codrington Pit Access).

2.1 Haul Route

The 'haul route' for the purposes of this study remains unchanged and includes the Codrington Pit access to County Road 30.

County Road 30 is a north-south provincial highway with a posted speed limit of 80 km/h, a localized two-lane rural cross section, and is a designated haul route as per the Northumberland County Official Plan.

As part of the OMB Settlement for the Pit, as stipulated in the Development Agreement, CBM has constructed the Codrington Pit access to County Road 30 with a northbound auxiliary right turn deceleration and storage lane of approximately 120 metres plus a southbound acceleration lane of approximately 485 metres (excluding tapers). A section of the shoulder on both sides of County Road 30 has also been paved in proximity of the Pit access to facilitate active transportation (pedestrians and cyclists).

The auxiliary lanes were designed and constructed to facilitate safe and efficient access/egress of heavy trucks generated by the Pit in the primary direction of travel to/from the aggregate market (i.e., to/from the south). The original (as approved) traffic studies posited that local deliveries of material (either into or out of the Pit) could very well occur to/from the north, however the vast majority of truck traffic was forecasted to come from, and be destined to, point's south on County Road 30.

2.2 County Road 30 Traffic Growth Review

The 2019 traffic data was reviewed and compared with the historic traffic data collected and presented in the traffic study prepared for the original Pit application, and the two prior traffic and safety reviews in 2017 and 2018.

It is evident from a review of this data that volumes along County Road 30 have not increased materially since 2007; the p.m. flows have increased by about 19%, while the a.m. peak hour flows have actually *decreased* over the last 12 years (when compared to 2007 traffic volumes):

- Two-way traffic 2007 – 507 and 446 vehicles during the a.m. and p.m. peak hours respectively
- Two-way traffic 2017 – 368 and 440 vehicles during the a.m. and p.m. peak hours respectively
- Two-way traffic 2018 – 436 and 470 vehicles during the a.m. and p.m. peak hours respectively
- Two-way traffic 2019 – 464 and 532 vehicles during the a.m. and p.m. peak hours respectively

The original traffic study forecasted growth on County Road 30 at the rate of 2% per year (equating to a compounded 12-year growth of 27%), well in excess of what has actually transpired in the period subsequent to the tabling of the 2007 traffic study and the approval of the Pit. We would also note that the recommendations for the Pit access lane configurations and design were partially driven by predicted future County Road 30 traffic volumes. Since the predicted growth has not occurred at the rate predicted back in 2007, the Pit access turn lanes constructed to accommodate the future condition are still more than adequate to handle present day peaks. Furthermore, the as-constructed design elements of the site access continue to exceed the operational requirements of the Pit-related traffic volumes.

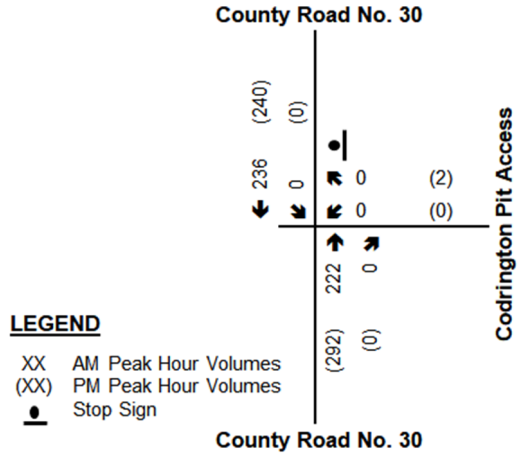
2.3 Traffic Data

A weekday turning movement count was conducted by TMIG in June 2019 at the intersection of County Road 30 and the Pit Access during the weekday a.m. (06:30-09:30) and p.m. (16:00-19:00) peak periods. Additional turning movements counts were conducted in August 2019 during the weekday mid-day (09:30-16:30) period to ensure the p.m. peak hour of truck activity was collected.

2.3.1 Adjacent Street Traffic

The weekday a.m. and p.m. peak hour existing *adjacent street* traffic volumes are shown in **Figure 2-1**. Please note that aggregate truck movements to/from the site have been removed from the adjacent street peak hour. However, staff passenger vehicles observed to/from the site during the peak hours remain. The complete traffic survey summary is provided in **Appendix A**.

Figure 2-1 2019 Existing Adjacent Street Traffic Volumes

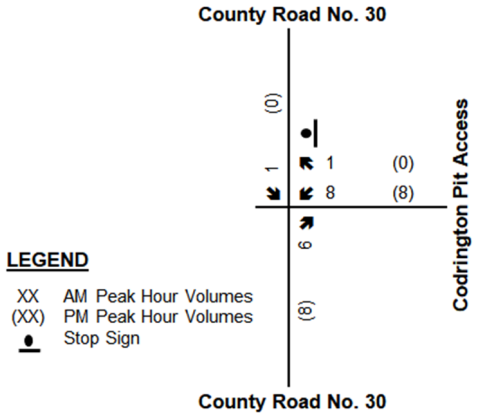


2.3.2 Peak Truck Activity

The peak hour of truck traffic entering and exiting from the site access was extracted from the June and August 2019 turning movement counts and was used to represent the highest level of subject site traffic. These truck traffic volumes were confirmed as representative of a typical shipping period, based on a review of the shipping activity records provided by CBM.

Accordingly, in the period of highest truck traffic as per the 2019 turning movement counts, there are 16 truck trips in/out of the site during both the a.m. and p.m. truck peak hour, as shown in **Figure 2-2**.

Figure 2-2 2019 Peak Truck Activity



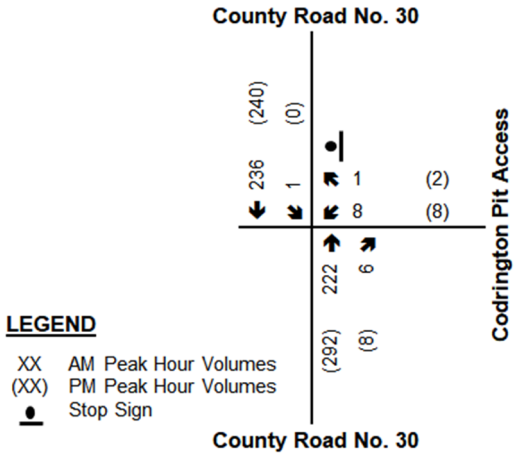
The inbound and outbound splits continue to be consistent with the forecasted haulage of material back in the 2007 Traffic Study, which predicted the vast majority of truck trips to be destined to, and originating from, the south along County Road 30. As can be seen from a review of the 2019 traffic data, the counts indicate some truck traffic to and from the north which can be attributed to some local delivery of material to destinations north of the site. As per the 2007 Traffic Study, we have been advised that the predominant market for the movement of aggregate material would be to the south along County Road No. 30 to its connections with Highway No. 401 as reflected in **Figure 2-2**.

2.4 Baseline Traffic Volumes

The baseline traffic conditions for the peak study hours in 2019 was derived by combining the existing adjacent street a.m. and p.m. peak hour traffic and the peak hour of truck traffic to represent a high demand traffic model. It is important to note that this 'hybrid' peak hour was not in evidence during the counts, but we have adopted it to represent a 'worse case' scenario of busiest combined corridor activity.

Figure 2-3 summarize the total 'hybridized' traffic volume condition during the weekday a.m. and p.m. peak hours.

Figure 2-3 2019 Baseline Traffic Volumes

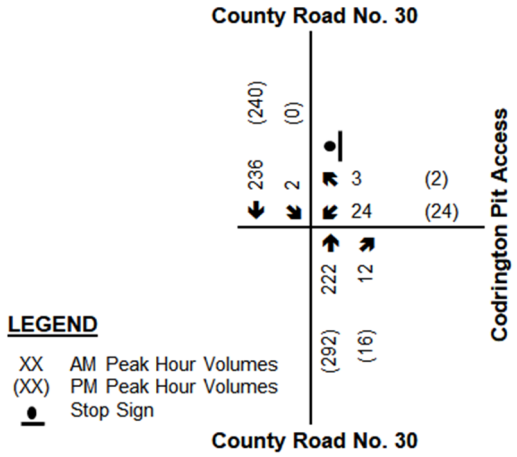


3 CAPACITY ANALYSIS

For the purpose of the traffic analysis, we have employed Passenger Car Equivalent (PCE) factors to account for the additional time it takes a heavy vehicle (in this case, different PCE's for each the loaded and empty gravel trucks) to travel through an intersection. Based on our experience, we have adopted a PCE of 3.0 for loaded trucks and a PCE of 2.0 for empty trucks. As a conservative measure, and to provide a consistent comparative analysis between all existing and future traffic scenarios, the PCE adjustment was applied to baseline turning movement volumes to/from the pit access.

The truck traffic volumes expressed as PCEs are shown in **Figure 3-1**.

Figure 3-1 2019 Baseline Traffic Volumes – PCE Adjusted



The capacity analysis identifies how well an intersection is operating. The analysis contained within this report utilized the Highway Capacity Manual (HCM) 2000 techniques within the Synchro Version 10 Software package. The reported intersection volume-to-capacity ratios (v/c) are a measure of the saturation volume for each turning movement, while the levels-of-service (LOS) are a measure of the average delay for each turning movement. Queuing characteristics are reported as the predicted 95th percentile queue for each turning movement. The existing heavy vehicle proportions are included in the intersection analyses. Detailed capacity sheets are attached in **Appendix B**.

The peak hour entrance operations are summarized in **Table 3-1**.

Table 3-1 Capacity Analysis of Codrington Pit Access and County Road 30

Traffic Condition	Movement v/c (LOS) 95th Percentile Queue, Delay in Seconds	
	AM Peak Hour	PM Peak Hour
Baseline 2019	WBLR: 0.05 (B) 1 veh. 12s SBLT: 0.00 (A) 0 veh. 1s	WBLR: 0.08 (C) 1 veh. 16s SBLT: 0.00 (A) 0 veh. 0s

Under 2019 baseline conditions, the intersection of County Road 30 and the Codrington Pit Access is operating with excellent operational characteristics and substantial reserve capacity during both a.m. and p.m. peak hours. There are no critical movements or queuing issues to report. The outbound (westbound) left and right turns from the Pit are operating at LOS 'B' and 'C' during weekday a.m. and p.m. peak hours respectively. These results indicate the site access design delivered as part of the Pit approval are easily accommodating even the combined 'hybrid' peak hour demands and that substantial excess capacity exists.

4 INCIDENT REPORTS

4.1 Collision Reports

TMIG have consulted with the three agencies responsible for collision reports within vicinity of site. The following summarizes the responses received:

- Ontario Provincial Police (OPP):
  - The Freedom of Information Coordinator advised that information can be obtained from the MTO, as OPP are not able to release this information due to privacy concerns.
- Ministry of Transportation of Ontario (MTO):
  - Confirmed that County Road 30 is under County of Northumberland jurisdiction, therefore MTO has no collision report records to share.
- County of Northumberland:
  - The County of Northumberland currently have access to MTO's collision database, unfortunately the information can only be used internally by the County. However, the County's road supervisors confirmed that they have not heard of any traffic concerns in the study area.
  - Notwithstanding the above, an ad-hoc request has been submitted to a special division of MTO to request any outstanding collision data that may have been missed. It is suggested that if the MTO provides any additional collision data, it be forwarded to CBM for review and inclusion in future annual reporting.

4.2 CBM Reported Incidents

A total of two incidents occurred near or at the site worth discussing:

- The first incident occurred on May 14, 2019. This complaint was lodged to CBM dispatch by an Old Wooler Road resident in regards to a truck travelling on their road. Based on the description of truck provided by the resident, CBM confirmed it was not on their trucks. CBM contacted the municipality to offer them proof that none of their trucks travelled on Old Wooler Road. Should the resident contact CBM again, the municipality agreed to speak to the resident to confirm the subject truck was not CBM' responsibility.
- The second incident occurred on June 3, 2019. An individual who works in the area alerted CBM staff that there was gravel on County Road 30 within proximity to the pit entrance. The message was forwarded to the site manager and the issue was resolved. The action taken to correct this concern was the immediate removal of gravel from County Road 30.

To conclude, occurrences described above did not result in a collision, and the reports made where filed by CBM Management.

5 CONCLUSION

The Pit access turn lanes constructed to accommodate the future condition are still more than adequate to handle present day peaks, and continue to exceed the operational requirements of the Pit-related traffic volumes.

County of Northumberland road supervisors confirmed that they have not heard of any traffic concerns in the study area. However, a request has been submitted to a special division of MTO to request any outstanding collision data that may have been missed. It is suggested that if the MTO provides any additional collision data, it be forwarded to CBM for review and inclusion in future annual reporting.

The reported incident occurrences did not result in collisions, and immediate action was taken by CBM Management to correct any concerns raised with reports filed by CBM.

APPENDIX A

Traffic Data

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Project #19269 - TMIG

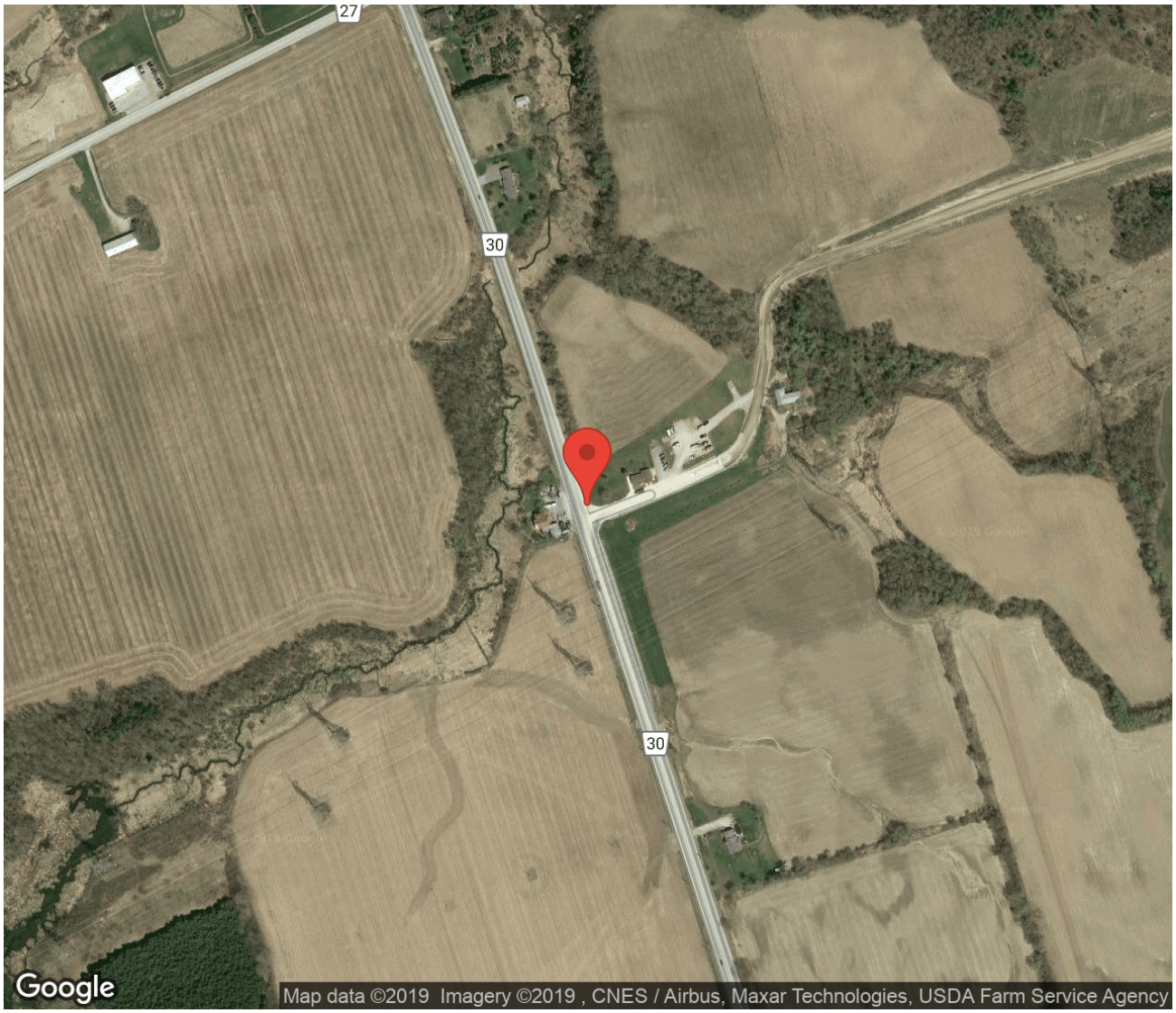
Intersection Count Report

Intersection:	CR 30 & Codrington Pit
Municipality:	Codrington
Count Date:	Aug 12, 2019
Site Code:	1926900001
Count Categories:	Cars, Trucks, Aggregate Trucks, Pedestrians
Count Period:	09:30-16:30
Weather:	Clear

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Map

Intersection:	CR 30 & Codrington Pit
Municipality:	Codrington
Count Date:	Aug 12, 2019



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Traffic Count Summary

Intersection: CR 30 & Codrington Pit
Municipality: Codrington
Count Date: Aug 12, 2019

CR 30 - Traffic Summary

Hour	North Approach Totals (Includes Cars, Trucks, Aggregate Trucks)						South Approach Totals (Includes Cars, Trucks, Aggregate Trucks)					
	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds
09:30 - 10:00	0	95	0	0	95	0	1	91	1	0	93	0
10:00 - 11:00	0	188	0	0	188	0	0	155	7	0	162	0
11:00 - 12:00	0	214	0	0	214	0	0	179	10	0	189	0
12:00 - 13:00	1	200	0	0	201	0	0	166	6	0	172	0
13:00 - 14:00	1	205	1	0	207	0	0	167	9	0	176	0
14:00 - 15:00	1	172	0	0	173	0	1	177	6	0	184	0
15:00 - 16:00	0	229	0	0	229	0	1	182	12	0	195	0
16:00 - 17:00	0	131	0	0	131	0	0	105	2	0	107	0
GRAND TOTAL	**3**	**1434**	**1**	**0**	**1438**	**0**	**3**	**1222**	**53**	**0**	**1278**	**0**

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Summary

Intersection: CR 30 & Codrington Pit
Municipality: Codrington
Count Date: Aug 12, 2019

Codrington Pit - Traffic Summary

	East Approach Totals						West Approach Totals					
	Includes Cars, Trucks, Aggregate Trucks						Includes Cars, Trucks, Aggregate Trucks					
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds
09:30 - 10:00	1	0	1	0	2	0	0	0	0	0	0	0
10:00 - 11:00	4	0	0	0	4	2	0	0	0	0	0	0
11:00 - 12:00	8	1	0	0	9	0	0	0	0	0	0	0
12:00 - 13:00	10	0	0	0	10	0	0	0	0	0	0	0
13:00 - 14:00	10	0	0	0	10	0	0	0	0	0	0	0
14:00 - 15:00	3	0	0	0	3	0	0	4	1	0	5	0
15:00 - 16:00	9	0	1	0	10	0	0	0	0	0	0	0
16:00 - 17:00	4	0	0	0	4	0	0	0	0	0	0	0
GRAND TOTAL	**49**	**1**	**2**	**0**	**52**	**2**	**0**	**4**	**1**	**0**	**5**	**0**

Ontario Traffic Inc.
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Traffic Count Data

Intersection: CR 30 & Codrington Pit
Municipality: Codrington
Count Date: Aug 12, 2019

North Approach - CR 30

Start Time	Cars					Trucks					Aggregate Trucks					Total Peds
					Total					Total					Total	
09:30	0	51	0	0	51	0	4	0	0	4	0	1	0	0	1	0
09:45	0	36	0	0	36	0	3	0	0	3	0	0	0	0	0	0
10:00	0	39	0	0	39	0	2	0	0	2	0	1	0	0	1	0
10:15	0	37	0	0	37	0	2	0	0	2	0	5	0	0	5	0
10:30	0	40	0	0	40	0	7	0	0	7	0	3	0	0	3	0
10:45	0	44	0	0	44	0	6	0	0	6	0	2	0	0	2	0
11:00	0	40	0	0	40	0	4	0	0	4	0	1	0	0	1	0
11:15	0	44	0	0	44	0	5	0	0	5	0	2	0	0	2	0
11:30	0	52	0	0	52	0	5	0	0	5	0	3	0	0	3	0
11:45	0	50	0	0	50	0	8	0	0	8	0	0	0	0	0	0
12:00	0	44	0	0	44	0	5	0	0	5	0	2	0	0	2	0
12:15	1	40	0	0	41	0	3	0	0	3	0	2	0	0	2	0
12:30	0	44	0	0	44	0	4	0	0	4	0	1	0	0	1	0
12:45	0	49	0	0	49	0	3	0	0	3	0	3	0	0	3	0
13:00	0	43	0	0	43	0	3	0	0	3	0	6	0	0	6	0
13:15	0	37	0	0	37	1	5	0	0	6	0	3	1	0	4	0
13:30	0	42	0	0	42	0	4	0	0	4	0	3	0	0	3	0
13:45	0	49	0	0	49	0	9	0	0	9	0	1	0	0	1	0
14:00	1	28	0	0	29	0	5	0	0	5	0	0	0	0	0	0
14:15	0	40	0	0	40	0	5	0	0	5	0	0	0	0	0	0
14:30	0	32	0	0	32	0	5	0	0	5	0	0	0	0	0	0

Ontario Traffic Inc.
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Traffic Count Data

Intersection: CR 30 & Codrington Pit
Municipality: Codrington
Count Date: Aug 12, 2019

North Approach - CR 30

Start Time	Cars					Trucks					Aggregate Trucks					Total Peds
					Total					Total					Total	
14:45	0	48	0	0	48	0	8	0	0	8	0	1	0	0	1	0
15:00	0	41	0	0	41	0	7	0	0	7	0	2	0	0	2	0
15:15	0	53	0	0	53	0	0	0	0	0	0	3	0	0	3	0
15:30	0	60	0	0	60	0	6	0	0	6	0	0	0	0	0	0
15:45	0	47	0	0	47	0	6	0	0	6	0	4	0	0	4	0
16:00	0	58	0	0	58	0	5	0	0	5	0	2	0	0	2	0
16:15	0	62	0	0	62	0	4	0	0	4	0	0	0	0	0	0
SUBTOTAL	2	1250	0	0	1252	1	133	0	0	134	0	51	1	0	52	0
GRAND TOTAL	2	1250	0	0	1252	1	133	0	0	134	0	51	1	0	52	0

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Data

Intersection: CR 30 & Codrington Pit
Municipality: Codrington
Count Date: Aug 12, 2019

South Approach - CR 30

Start Time	Cars					Trucks					Aggregate Trucks					Total Peds
					Total					Total					Total	
09:30	0	40	1	0	41	0	5	0	0	5	0	0	0	0	0	0
09:45	1	40	0	0	41	0	6	0	0	6	0	0	0	0	0	0
10:00	0	31	0	0	31	0	7	0	0	7	0	1	1	0	2	0
10:15	0	32	0	0	32	0	8	1	0	9	0	0	2	0	2	0
10:30	0	31	0	0	31	0	6	1	0	7	0	0	1	0	1	0
10:45	0	36	0	0	36	0	3	0	0	3	0	0	1	0	1	0
11:00	0	42	0	0	42	0	4	0	0	4	0	1	1	0	2	0
11:15	0	46	1	0	47	0	1	1	0	2	0	0	2	0	2	0
11:30	0	43	0	0	43	0	2	0	0	2	0	0	2	0	2	0
11:45	0	37	0	0	37	0	3	1	0	4	0	0	2	0	2	0
12:00	0	44	0	0	44	0	5	1	0	6	0	0	1	0	1	0
12:15	0	34	0	0	34	0	2	0	0	2	0	0	1	0	1	0
12:30	0	39	0	0	39	0	4	0	0	4	0	0	2	0	2	0
12:45	0	36	0	0	36	0	2	0	0	2	0	0	1	0	1	0
13:00	0	34	0	0	34	0	8	0	0	8	0	0	2	0	2	0
13:15	0	38	0	0	38	0	4	1	0	5	0	0	3	0	3	0
13:30	0	41	0	0	41	0	2	0	0	2	0	0	1	0	1	0
13:45	0	37	0	0	37	0	3	0	0	3	0	0	2	0	2	0
14:00	0	48	0	0	48	0	3	0	0	3	0	0	2	0	2	0
14:15	0	40	0	0	40	0	5	0	0	5	0	0	0	0	0	0
14:30	1	35	0	0	36	0	2	0	0	2	0	0	1	0	1	0

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Data

Intersection: CR 30 & Codrington Pit
Municipality: Codrington
Count Date: Aug 12, 2019

South Approach - CR 30

Start Time	Cars					Trucks					Aggregate Trucks					Total Peds
					Total					Total					Total	
14:45	0	43	0	0	43	0	1	1	0	2	0	0	2	0	2	0
15:00	1	29	0	0	30	0	4	1	0	5	0	0	1	0	1	0
15:15	0	45	1	0	46	0	4	0	0	4	0	0	2	0	2	0
15:30	0	42	0	0	42	0	2	1	0	3	0	0	2	0	2	0
15:45	0	54	0	0	54	0	2	1	0	3	0	0	3	0	3	0
16:00	0	38	0	0	38	0	3	0	0	3	0	0	1	0	1	0
16:15	0	58	0	0	58	0	3	0	0	3	0	3	1	0	4	0
SUBTOTAL	3	1113	3	0	1119	0	104	10	0	114	0	5	40	0	45	0
GRAND TOTAL	3	1113	3	0	1119	0	104	10	0	114	0	5	40	0	45	0

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Data

Intersection: CR 30 & Codrington Pit
Municipality: Codrington
Count Date: Aug 12, 2019

East Approach - Codrington Pit

Start Time	Cars					Trucks					Aggregate Trucks					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
09:30	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	1	0	0	0	1	3	0	0	0	3	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	1	0	0	1	1	0	0	0	1	2	0	0	0	2	0
11:15	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	1	0	0	0	1	3	0	0	0	3	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	1	0	0	0	1	3	0	0	0	3	0
12:15	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
12:30	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
12:45	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0
13:00	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0
13:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
13:30	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0
13:45	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1	0
14:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
14:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Data

Intersection: CR 30 & Codrington Pit
Municipality: Codrington
Count Date: Aug 12, 2019

East Approach - Codrington Pit

Start Time	Cars					Trucks					Aggregate Trucks					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
14:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
15:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
15:15	0	0	1	0	1	1	0	0	0	1	3	0	0	0	3	0
15:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
15:45	0	0	0	0	0	1	0	0	0	1	2	0	0	0	2	0
16:00	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0
16:15	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
SUBTOTAL	1	1	2	0	4	11	0	0	0	11	37	0	0	0	37	2
GRAND TOTAL	1	1	2	0	4	11	0	0	0	11	37	0	0	0	37	2

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Data

Intersection: CR 30 & Codrington Pit
Municipality: Codrington
Count Date: Aug 12, 2019

West Approach - Private Access

Start Time	Cars					Trucks					Aggregate Trucks					Total Peds
					Total					Total					Total	
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	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	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Data

Intersection: CR 30 & Codrington Pit
Municipality: Codrington
Count Date: Aug 12, 2019

West Approach - Private Access

Start Time	Cars					Trucks					Aggregate Trucks					Total Peds
					Total					Total					Total	
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	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	0

Peak Hour Diagram

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Specified Period		One Hour Peak	
From:	09:30:00	From:	11:00:00
To:	12:00:00	To:	12:00:00

Intersection: CR 30 & Codrington Pit
Site ID: 1926900001
Count Date: Aug 12, 2019

Weather conditions:

**** Unsignalized Intersection ****

Major Road: CR 30 runs N/S

North Approach

	Out	In	Total
Cars	186	168	354
T	22	10	32
AT	6	1	7
	214	**179**	**393**

CR 30

AT	0	6	0	0
T	0	22	0	0
Cars	0	186	0	0
Totals	**0**	**214**	**0**	**0**

East Approach

	Out	In	Total
Cars	2	1	3
T	2	2	4
AT	5	7	12
	9	**10**	**19**

Peds: 0

Private Access

AT	T	Cars	Totals
0	0	0	**0**
0	0	0	**0**
0	0	0	**0**
0	0	0	**0**

Peds: 0

Peds: 0

Codrington Pit

	Totals	Cars	T	AT
	0	0	0	0
	0	0	0	0
	1	1	0	0
	8	1	2	5

Peds: 0

West Approach

	Out	In	Total
Cars	0	1	1
T	0	0	0
AT	0	0	0
	0	**1**	**1**

Totals	**0**	**179**	**10**	**0**
Cars	0	168	1	0
T	0	10	2	0
AT	0	1	7	0

CR 30

South Approach

	Out	In	Total
Cars	169	187	356
T	12	24	36
AT	8	11	19
	189	**222**	**411**

Cars - Cars T - Trucks AT - Aggregate Trucks

Comments

Peak Hour Diagram

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Specified Period		One Hour Peak	
From:	12:00:00	From:	15:30:00
To:	16:30:00	To:	16:30:00

Intersection: CR 30 & Codrington Pit
Site ID: 1926900001
Count Date: Aug 12, 2019

Weather conditions:

**** Unsignalized Intersection ****

Major Road: CR 30 runs N/S

North Approach

	Out	In	Total
Cars	227	192	419
T	21	10	31
AT	6	3	9
	254	**205**	**459**

CR 30

AT	0	6	0	0
T	0	21	0	0
Cars	0	227	0	0
Totals	**0**	**254**	**0**	**0**

East Approach

	Out	In	Total
Cars	0	0	0
T	2	2	4
AT	6	7	13
	8	**9**	**17**

Peds: 0

Private Access

AT	T	Cars	Totals
0	0	0	**0**
0	0	0	**0**
0	0	0	**0**
0	0	0	**0**

Peds: 0

Peds: 0

Codrington Pit

Totals	Cars	T	AT
0	0	0	0
0	0	0	0
0	0	0	0
8	0	2	6

Peds: 0

West Approach

	Out	In	Total
Cars	0	0	0
T	0	0	0
AT	0	0	0
	0	**0**	**0**

Totals	**0**	**205**	**9**	**0**
Cars	0	192	0	0
T	0	10	2	0
AT	0	3	7	0

CR 30

South Approach

	Out	In	Total
Cars	192	227	419
T	12	23	35
AT	10	12	22
	214	**262**	**476**

Cars - Cars T - Trucks AT - Aggregate Trucks

Comments

Ontario Traffic Inc.

Morning Peak Diagram

Specified Period
From: 6:30:00
To: 9:30:00

One Hour Peak
From: 7:30:00
To: 8:30:00

Municipality: Cordington
Site #: 1922200001
Intersection: CR 30 & Codrington Pit
TFR File #: 1
Count date: 21-Jun-19

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: CR 30 runs N/S

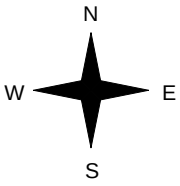
North Leg Total: 461
North Entering: 237
North Peds: 0
Peds Cross: ⋈

Heavys	0	0	0
Trucks	14	1	15
Cars	222	0	222
Totals	236	1	

Heavys	0
Trucks	21
Cars	203
Totals	224

East Leg Total: 13
East Entering: 7
East Peds: 0
Peds Cross: ⋈

	Cars	Trucks	Heavys	Totals
	0	2	0	2
	0	5	0	5
	0	7	0	



Codrington Pit

	Cars	Trucks	Heavys	Totals
	0	6	0	6

Cars	222		
Trucks	19		
Heavys	0		
Totals	241		

Cars	203	0	203
Trucks	19	5	24
Heavys	0	0	0
Totals	222	5	

Peds Cross: ⋈
South Peds: 0
South Entering: 227
South Leg Total: 468

Comments

Ontario Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 16:00:00
To: 19:00:00

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

Municipality: Cordington
Site #: 1922200001
Intersection: CR 30 & Codrington Pit
TFR File #: 1
Count date: 21-Jun-19

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: CR 30 runs N/S

North Leg Total: 534
North Entering: 240
North Peds: 1
Peds Cross: ⋈

Heavys	0	0	0
Trucks	16	0	16
Cars	224	0	224
Totals	240	0	

Heavys	0
Trucks	8
Cars	286
Totals	294

East Leg Total: 2
East Entering: 2
East Peds: 0
Peds Cross: ⋈

CR 30

Cars	Trucks	Heavys	Totals
2	0	0	2
0	0	0	0
2	0	0	

N
W E
S

Codrington Pit

Cars	Trucks	Heavys	Totals
0	0	0	0

CR 30

Cars	224		
Trucks	16		
Heavys	0		
Totals	240		

Cars	284	0	284
Trucks	8	0	8
Heavys	0	0	0
Totals	292	0	

Peds Cross: ⋈
South Peds: 0
South Entering: 292
South Leg Total: 532

Comments

Ontario Traffic Inc.

Total Count Diagram

Municipality: Cordington
Site #: 1922200001
Intersection: CR 30 & Codrington Pit
TFR File #: 1
Count date: 21-Jun-19

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: CR 30 runs N/S

North Leg Total: 2531
North Entering: 1193
North Peds: 1
Peds Cross: ⋈

Heavys	0	0	0
Trucks	67	4	71
Cars	1120	2	1122
Totals	1187	6	

Heavys	0
Trucks	78
Cars	1260
Totals	1338

East Leg Total: 45
East Entering: 21
East Peds: 0
Peds Cross: ⋈

CR 30

	Cars	Trucks	Heavys	Totals
	2	4	0	6
	0	15	0	15
	2	19	0	

N
W E
S

Codrington Pit

	Cars	Trucks	Heavys	Totals
	4	20	0	24

CR 30

Cars	1120		
Trucks	82		
Heavys	0		
Totals	1202		

Cars	1258	2	1260
Trucks	74	16	90
Heavys	0	0	0
Totals	1332	18	

Peds Cross: ⋈
South Peds: 0
South Entering: 1350
South Leg Total: 2552

Comments

Ontario Traffic Inc.
Traffic Count Summary

Intersection: CR 30 & Codrington Pit | **Count Date:** 21-Jun-19 | **Municipality:** Cordington

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds	North/South Total Approaches
7:00:00	1	74	0	75	0	163
8:00:00	2	235	0	237	0	428
9:00:00	1	190	0	191	0	384
16:00:00	2	82	0	84	0	162
17:00:00	0	240	0	240	1	532
18:00:00	0	212	0	212	0	504
19:00:00	0	154	0	154	0	368
Totals:	6	1187	0	1193	1	2541

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds
7:00:00	0	81	7	88	0
8:00:00	0	187	4	191	0
9:00:00	0	188	5	193	0
16:00:00	0	77	1	78	0
17:00:00	0	292	0	292	0
18:00:00	0	292	0	292	0
19:00:00	0	213	1	214	0
Totals:	0	1330	18	1348	0

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds	East/West Total Approaches
7:00:00	0	0	0	0	0	0
8:00:00	8	0	1	9	0	9
9:00:00	5	0	2	7	0	7
16:00:00	2	0	1	3	0	3
17:00:00	0	0	2	2	0	2
18:00:00	0	0	0	0	0	0
19:00:00	0	0	0	0	0	0
Totals:	15	0	6	21	0	21

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds
7:00:00	0	0	0	0	0
8:00:00	0	0	0	0	0
9:00:00	0	0	0	0	0
16:00:00	0	0	0	0	1
17:00:00	0	0	0	0	0
18:00:00	0	0	0	0	0
19:00:00	0	0	0	0	0
Totals:	0	0	0	0	1

Calculated Values for Traffic Crossing Major Street

Hours Ending:	7:00	8:00	9:00	16:00	17:00	18:00	19:00	19:00
Crossing Values:	0	8	5	2	1	0	0	0

Ontario Traffic Inc.

Count Date: 21-Jun-19 Site #: 1922200001

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Heavys - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
6:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45:00	1	1	38	38	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
7:00:00	1	0	69	31	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0	0
7:15:00	1	0	117	48	0	0	1	1	6	1	0	0	0	0	0	0	0	0	0	0
7:30:00	1	0	167	50	0	0	1	0	9	3	0	0	0	0	0	0	0	0	0	0
7:45:00	1	0	229	62	0	0	1	0	14	5	0	0	0	0	0	0	0	0	0	0
8:00:00	1	0	290	61	0	0	2	1	19	5	0	0	0	0	0	0	0	0	0	0
8:15:00	1	0	351	61	0	0	2	0	20	1	0	0	0	0	0	0	0	0	0	0
8:30:00	1	0	389	38	0	0	2	0	23	3	0	0	0	0	0	0	0	0	0	0
8:45:00	1	0	419	30	0	0	3	1	25	2	0	0	0	0	0	0	0	0	0	0
9:00:00	1	0	467	48	0	0	3	0	32	7	0	0	0	0	0	0	0	0	0	0
9:15:00	2	1	498	31	0	0	4	1	38	6	0	0	0	0	0	0	0	0	0	0
9:30:00	2	0	537	39	0	0	4	0	43	5	0	0	0	0	0	0	0	0	0	0
9:30:05	2	0	538	1	0	0	4	0	43	0	0	0	0	0	0	0	0	0	0	0
16:00:00	2	0	538	0	0	0	4	0	43	0	0	0	0	0	0	0	0	0	0	0
16:15:00	2	0	610	72	0	0	4	0	48	5	0	0	0	0	0	0	0	0	1	1
16:30:00	2	0	668	58	0	0	4	0	52	4	0	0	0	0	0	0	0	0	1	0
16:45:00	2	0	714	46	0	0	4	0	55	3	0	0	0	0	0	0	0	0	1	0
17:00:00	2	0	762	48	0	0	4	0	59	4	0	0	0	0	0	0	0	0	1	0
17:15:00	2	0	820	58	0	0	4	0	61	2	0	0	0	0	0	0	0	0	1	0
17:30:00	2	0	877	57	0	0	4	0	63	2	0	0	0	0	0	0	0	0	1	0
17:45:00	2	0	925	48	0	0	4	0	64	1	0	0	0	0	0	0	0	0	1	0
18:00:00	2	0	968	43	0	0	4	0	65	1	0	0	0	0	0	0	0	0	1	0
18:15:00	2	0	1005	37	0	0	4	0	66	1	0	0	0	0	0	0	0	0	1	0
18:30:00	2	0	1044	39	0	0	4	0	66	0	0	0	0	0	0	0	0	0	1	0
18:45:00	2	0	1080	36	0	0	4	0	67	1	0	0	0	0	0	0	0	0	1	0
19:00:00	2	0	1120	40	0	0	4	0	67	0	0	0	0	0	0	0	0	0	1	0
19:00:12	2	0	1120	0	0	0	4	0	67	0	0	0	0	0	0	0	0	0	1	0

Ontario Traffic Inc.

Count Date: 21-Jun-19 Site #: 1922200001

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Heavys - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
6:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	6	4	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	0	0	8	2	0	0	1	1	0	0	0	0	0	0	0	0
8:00:00	0	0	0	0	0	0	8	0	0	0	1	0	0	0	0	0	0	0	0	0
8:15:00	0	0	0	0	0	0	10	2	0	0	2	1	0	0	0	0	0	0	0	0
8:30:00	0	0	0	0	0	0	11	1	0	0	2	0	0	0	0	0	0	0	0	0
8:45:00	0	0	0	0	0	0	12	1	0	0	2	0	0	0	0	0	0	0	0	0
9:00:00	0	0	0	0	0	0	13	1	0	0	3	1	0	0	0	0	0	0	0	0
9:15:00	0	0	0	0	0	0	15	2	0	0	3	0	0	0	0	0	0	0	0	0
9:30:00	0	0	0	0	0	0	15	0	0	0	4	1	0	0	0	0	0	0	0	0
9:30:05	0	0	0	0	0	0	15	0	0	0	4	0	0	0	0	0	0	0	0	0
16:00:00	0	0	0	0	0	0	15	0	0	0	4	0	0	0	0	0	0	0	0	0
16:15:00	0	0	0	0	0	0	15	0	0	0	4	0	0	0	0	0	0	0	0	0
16:30:00	0	0	0	0	2	2	15	0	0	0	4	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	2	0	15	0	0	0	4	0	0	0	0	0	0	0	0	0
17:00:00	0	0	0	0	2	0	15	0	0	0	4	0	0	0	0	0	0	0	0	0
17:15:00	0	0	0	0	2	0	15	0	0	0	4	0	0	0	0	0	0	0	0	0
17:30:00	0	0	0	0	2	0	15	0	0	0	4	0	0	0	0	0	0	0	0	0
17:45:00	0	0	0	0	2	0	15	0	0	0	4	0	0	0	0	0	0	0	0	0
18:00:00	0	0	0	0	2	0	15	0	0	0	4	0	0	0	0	0	0	0	0	0
18:15:00	0	0	0	0	2	0	15	0	0	0	4	0	0	0	0	0	0	0	0	0
18:30:00	0	0	0	0	2	0	15	0	0	0	4	0	0	0	0	0	0	0	0	0
18:45:00	0	0	0	0	2	0	15	0	0	0	4	0	0	0	0	0	0	0	0	0
19:00:00	0	0	0	0	2	0	15	0	0	0	4	0	0	0	0	0	0	0	0	0
19:00:12	0	0	0	0	2	0	15	0	0	0	4	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.

Count Date: 21-Jun-19 Site #: 1922200001

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Heavys - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
6:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45:00	0	0	36	36	2	2	0	0	2	2	1	1	0	0	0	0	0	0	0	0
7:00:00	0	0	76	40	2	0	0	0	5	3	5	4	0	0	0	0	0	0	0	0
7:15:00	0	0	107	31	2	0	0	0	10	5	6	1	0	0	0	0	0	0	0	0
7:30:00	0	0	137	30	2	0	0	0	12	2	7	1	0	0	0	0	0	0	0	0
7:45:00	0	0	182	45	2	0	0	0	13	1	7	0	0	0	0	0	0	0	0	0
8:00:00	0	0	249	67	2	0	0	0	19	6	9	2	0	0	0	0	0	0	0	0
8:15:00	0	0	285	36	2	0	0	0	23	4	10	1	0	0	0	0	0	0	0	0
8:30:00	0	0	340	55	2	0	0	0	31	8	12	2	0	0	0	0	0	0	0	0
8:45:00	0	0	386	46	2	0	0	0	38	7	12	0	0	0	0	0	0	0	0	0
9:00:00	0	0	413	27	2	0	0	0	43	5	14	2	0	0	0	0	0	0	0	0
9:15:00	0	0	448	35	2	0	0	0	45	2	15	1	0	0	0	0	0	0	0	0
9:30:00	0	0	484	36	2	0	0	0	49	4	15	0	0	0	0	0	0	0	0	0
9:30:05	0	0	484	0	2	0	0	0	49	0	15	0	0	0	0	0	0	0	0	0
16:00:00	0	0	484	0	2	0	0	0	49	0	15	0	0	0	0	0	0	0	0	0
16:15:00	0	0	557	73	2	0	0	0	53	4	15	0	0	0	0	0	0	0	0	0
16:30:00	0	0	638	81	2	0	0	0	54	1	15	0	0	0	0	0	0	0	0	0
16:45:00	0	0	702	64	2	0	0	0	56	2	15	0	0	0	0	0	0	0	0	0
17:00:00	0	0	768	66	2	0	0	0	57	1	15	0	0	0	0	0	0	0	0	0
17:15:00	0	0	828	60	2	0	0	0	60	3	15	0	0	0	0	0	0	0	0	0
17:30:00	0	0	920	92	2	0	0	0	63	3	15	0	0	0	0	0	0	0	0	0
17:45:00	0	0	989	69	2	0	0	0	63	0	15	0	0	0	0	0	0	0	0	0
18:00:00	0	0	1053	64	2	0	0	0	64	1	15	0	0	0	0	0	0	0	0	0
18:15:00	0	0	1109	56	2	0	0	0	66	2	16	1	0	0	0	0	0	0	0	0
18:30:00	0	0	1163	54	2	0	0	0	70	4	16	0	0	0	0	0	0	0	0	0
18:45:00	0	0	1216	53	2	0	0	0	73	3	16	0	0	0	0	0	0	0	0	0
19:00:00	0	0	1256	40	2	0	0	0	74	1	16	0	0	0	0	0	0	0	0	0
19:00:12	0	0	1258	2	2	0	0	0	74	0	16	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.

Count Date: 21-Jun-19 Site #: 1922200001

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
6:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
9:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
9:30:05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
16:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
16:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
16:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
16:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
17:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
17:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
17:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
17:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
18:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
18:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
18:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
18:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
19:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
19:00:12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

APPENDIX B

Capacity Analysis

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	24	3	222	12	2	236
Future Volume (Veh/h)	24	3	222	12	2	236
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	26	3	239	13	2	254
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	497	239			252	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	497	239			252	
tC, single (s)	6.4	7.1			4.1	
tC, 2 stage (s)						
tF (s)	3.5	4.1			2.2	
p0 queue free %	95	100			100	
cM capacity (veh/h)	535	628			1325	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1
Volume Total	29	239	13	256
Volume Left	26	0	0	2
Volume Right	3	0	13	0
cSH	544	1700	1700	1325
Volume to Capacity	0.05	0.14	0.01	0.00
Queue Length 95th (m)	1.3	0.0	0.0	0.0
Control Delay (s)	12.0	0.0	0.0	0.1
Lane LOS	B			A
Approach Delay (s)	12.0	0.0		0.1
Approach LOS	B			

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	24.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	24	2	292	16	0	240
Future Volume (Veh/h)	24	2	292	16	0	240
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	27	2	328	18	0	270
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	598	328			346	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	598	328			346	
tC, single (s)	7.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	4.4	3.3			2.2	
p0 queue free %	92	100			100	
cM capacity (veh/h)	337	718			1224	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1
Volume Total	29	328	18	270
Volume Left	27	0	0	0
Volume Right	2	0	18	0
cSH	350	1700	1700	1224
Volume to Capacity	0.08	0.19	0.01	0.00
Queue Length 95th (m)	2.0	0.0	0.0	0.0
Control Delay (s)	16.2	0.0	0.0	0.0
Lane LOS	C			
Approach Delay (s)	16.2	0.0		0.0
Approach LOS	C			

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	25.4%	ICU Level of Service	A
Analysis Period (min)	15		