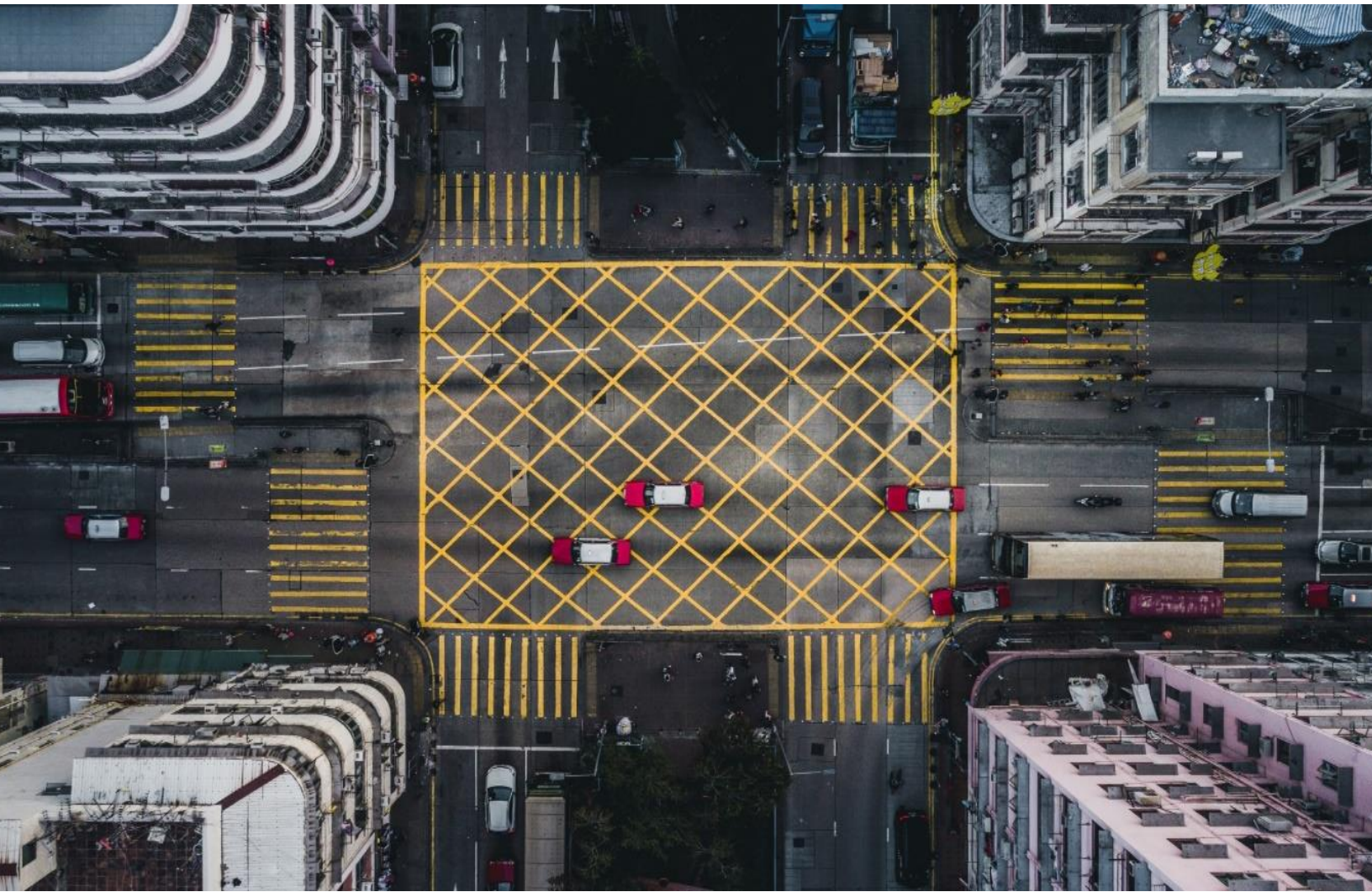
Traffic Impact Study

Green Ginger Phase 2

Green Ginger Developments Inc. & Clear Day Investments Ltd.

04 April 2022

→ **The Power of Commitment**



Executive summary

GHD Limited was retained by Green Ginger Developments Inc. Clear Day Investments Inc. to prepare a Traffic Impact Study in support of the Draft Plan of Subdivision and Zoning By-Law Amendment for the proposed residential development located west of Trafalgar Road in the North Oakville East Secondary Plan in the Town of Oakville.

This report determines the site related traffic and subsequent traffic related impacts on the adjacent road network during the weekday a.m. and p.m. peak hours. These impacts are based on the projected future background traffic and road network conditions derived for a 2027 and 2032 future planning horizon year.

The proposed draft plan of subdivision prepared by Malone Given Parsons, dated January 2022 consists of a series of townhouses and urban core blocks. The residential units and commercial retail space are broken down as follows:

- 539 townhouse units
- 8 mid-rise buildings with a total of 1,732 residential units
- 5 high-rise buildings with a total of 2,578 residential units and 55,145 square feet of retail GFA

Access to the proposed subdivision from the regional arterial roads is proposed via Threshing Mill Boulevard, Wheat Boom Drive and Ernest Appelbe Boulevard.

The proposed subdivision is expected to generate a total of 1,612 new two-way trips consisting of 501 inbound and 1,111 outbound trips during weekday a.m. peak hour and 1,817 new two-way trips consisting of 1,034 inbound and 783 outbound trips during the weekday p.m. peak hour.

Under the Future Total 2027 and 2032 scenarios, the intersection of Dundas Street East and Trafalgar Road is reported to operate near or above capacity during both peak hours. This is expected to improve as transit modal splits increase throughout the Town and once the construction of William Halton Parkway is completed providing an alternate east/west route to Dundas Street through the Town.

The intersections of Threshing Mill Boulevard at Trafalgar Road and Wheat Boom Drive at Trafalgar Road will have the west approaches in operation once the first sub-phases of the development are completed. These intersections are expected to operate with acceptable v/c ratios and delays under future traffic scenarios. A northbound left-turn auxiliary phase has been introduced at both intersections to reduce the overall and individual approach v/c ratios.

Under future total traffic conditions, the signal timings for all signalized intersections along Trafalgar Road and Dundas Street East were optimized to reduce v/c ratios and delays.

We trust that this satisfies your requirements, but do not hesitate to contact the undersigned if you have any questions.

Sincerely,

GHD

William Maria, P. Eng.

Transportation Planning Lead

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1. Introduction

1.1 Retainer and Objective

GHD Limited was retained by Green Ginger Developments Inc. Clear Day Investments Inc. to prepare a Transportation Impact Study in support of the Draft Plan of Subdivision and Zoning By-Law Amendment of a proposed subdivision located on part of Lots 13 and 14, Concession 1 within the North Oakville Secondary Plan Area in the Town of Oakville.

The site location is illustrated in **Figure 1**.

The purpose of this study is to:

- Establish baseline traffic conditions for the study area in 2022 and determine future background operating conditions for a future planning horizon in 2027 and 2032.
- Utilize Institute of Transportation Engineer's (ITE) Trip Generation data and first principles to estimate the site trips generated by the proposed development and distribute the traffic to the adjacent road network.
- Determine future operating traffic conditions during the weekday peek periods through intersection capacity analysis.
- Prepare a Transit Facilities Plan for the proposed subdivision.

1.2 Study Team

The GHD team involved in the preparation of the study are:

- William Maria, P. Eng., Transportation Planning Lead
- Rafael Andrenacci, B.Eng., Transportation Planner

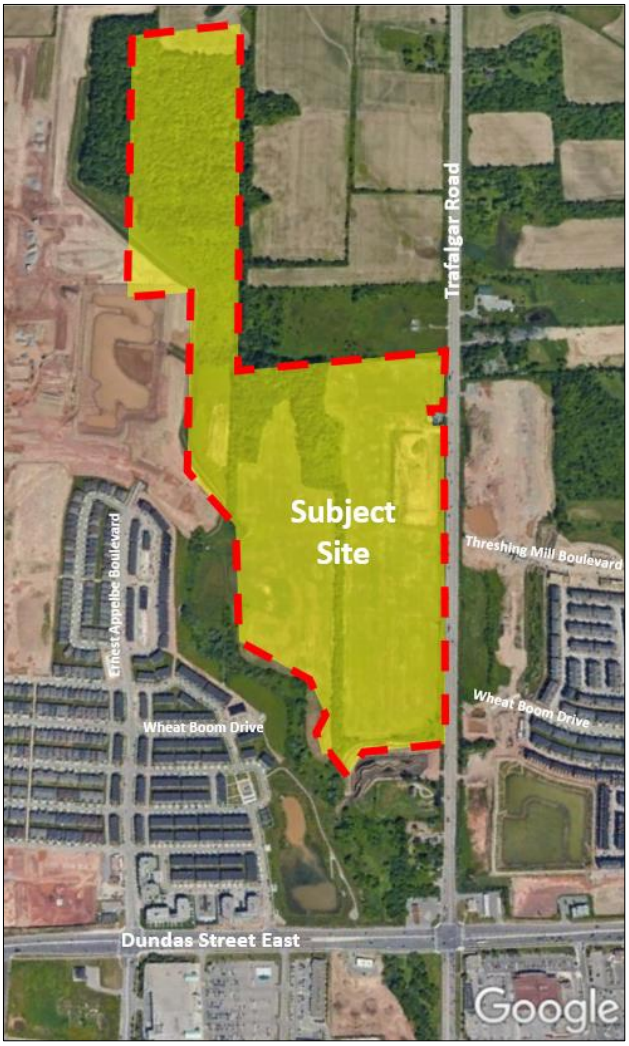

Figure 1 Site Location

2. Site Characteristics

2.1 Study Area

Based on the approved Terms of Reference for the study provided in **Appendix** A, the following intersections were included in the study area:

- Trafalgar Road and Dundas Street East
- Trafalgar Road and Wheat Boom Drive
- Trafalgar Road and Threshing Mill Boulevard
- Dundas Street East and Ernest Appelbe Boulevard
- Wheat Boom Drive and Ernest Appelbe Boulevard
- Threshing Mill Boulevard and Ernest Appelbe Boulevard

2.2 Proposed Development Content

A daft plan of subdivision was prepared by Malone Given Parsons, dated January 2022 and is shown in **Figure 2**. The proposed subdivision consists of the following characteristics:

- 539 townhouse units
- 8 mid-rise buildings with a total of 1,732 residential units
- 5 high-rise buildings with a total of 2,578 residential units and 55,145 square feet of retail GFA

Access to the proposed subdivision from the surrounding regional arterial roads is proposed via Threshing Mill Boulevard, Wheat Boom Drive and Ernest Appelbe Boulevard.

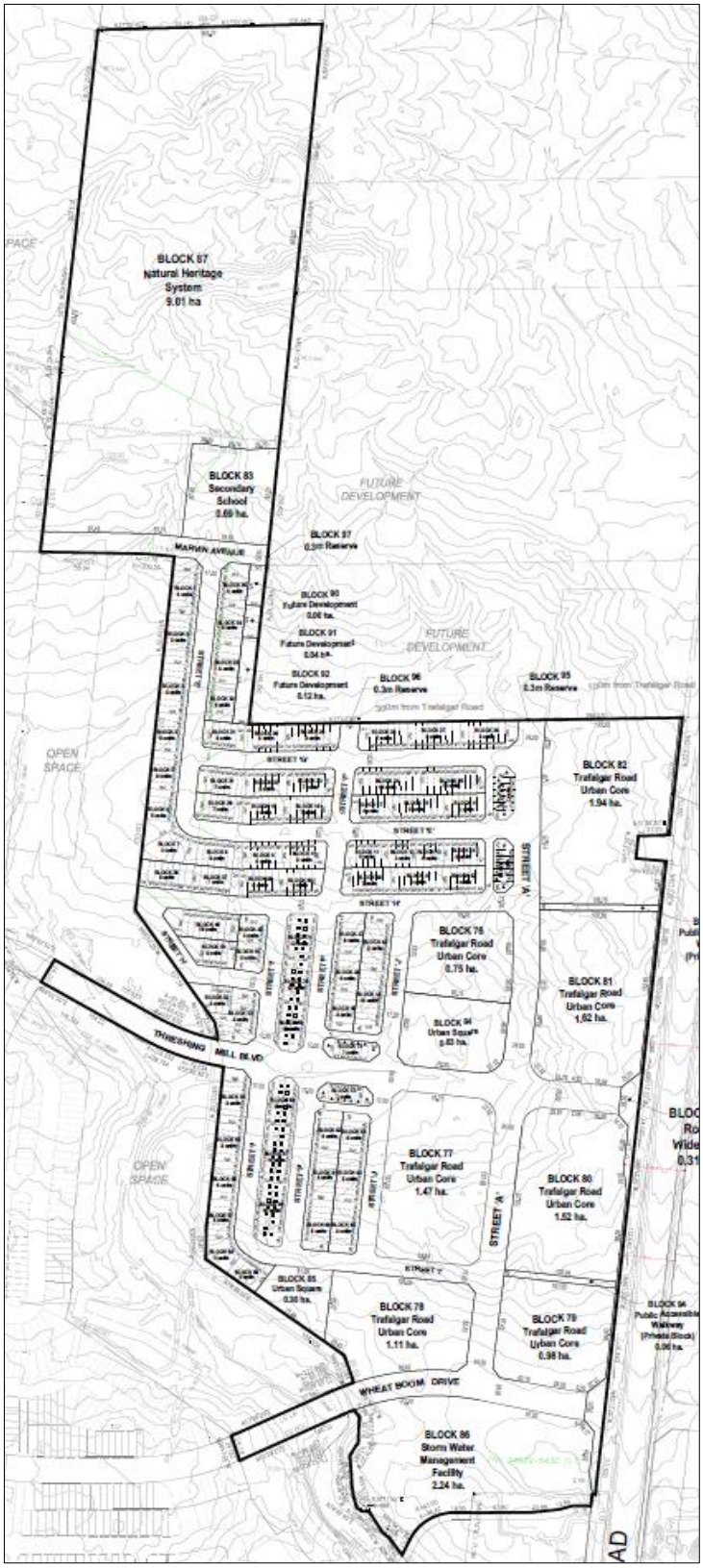

Figure 2 Draft Plan of Subdivision

3. Existing Conditions

3.1 Existing Road Network

Dundas Street East is an east-west major arterial road under the jurisdiction of the Region of Halton. In the study area it has a six-lane urban cross section. The intersection of Dundas Street East and Trafalgar Road is signalized, with an auxiliary right-turn lane in both the eastbound and westbound direction, one auxiliary left-turn lane in the westbound direction, and dual auxiliary left-turn lanes in the eastbound direction. The intersection of Dundas Street East and Ernest Appelbe Boulevard is also signalized, with an auxiliary left-turn and an auxiliary right-turn lane in both the eastbound and westbound directions. The posted speed limit on Dundas Street East is 70 km/h.

Trafalgar Road is a north-south major arterial road under the jurisdiction of the Region of Halton. In the study area it has a four-lane urban cross section. The intersections of Trafalgar Road and Threshing Mill Boulevard and Trafalgar Road and Wheat Boom Drive are both signalized, with no auxiliary turning lanes under the existing configuration. The posted speed limit on Trafalgar Road is 60 km/h.

Threshing Mill Boulevard is an east-west connector road under the jurisdiction of the Town of Oakville. Within the study area, it is only constructed east of Trafalgar Road and continues again west of Ernest Appelbe Boulevard. The intersection of Threshing Mill Boulevard and Trafalgar Road is signalized, while the intersection of Threshing Mill Boulevard and Ernest Appelbe Boulevard is unsignalized. The assumed posted speed limit on Threshing Mill Boulevard is 50 km/h.

Wheat Boom Drive is an east-west avenue road under the jurisdiction of the Town of Oakville. Within the study area, it is only constructed east of Trafalgar Road and continues once again just east of Ernest Appelbe Boulevard. The intersection of Wheat Boom Drive and Trafalgar Road is signalized, while the intersection of Wheat Boom Drive and Ernest Appelbe Boulevard is unsignalized. The assumed posted speed limit on Wheat Boom Drive is 50 km/h.

Ernest Appelbe Boulevard is a north-south avenue road under the jurisdiction of the Town of Oakville. Within the study area, it has a four-lane urban cross section. The intersection of Ernest Appelbe Boulevard and Dundas Street East is signalized, with an auxiliary left-turn lane in both the northbound and southbound directions. The intersections of Ernest Appelbe Boulevard at Wheat Boom Drive and Ernest Appelbe Boulevard at Threshing Mill Boulevard are both unsignalized. The assumed posted speed limit on Ernest Appelbe Boulevard is 50 km/h.

3.2 Pedestrian and Bicycle Routes

Pedestrian sidewalks are available on both sides of all roads within the existing roads throughout the study area with the exception Trafalgar Road.

Within the study area, Wheat Boom Drive has been designated as a Signed Bike Route under the Town of Oakville's Trails and Cycleways Map. East of the study area, Threshing Mill Boulevard and Wheat Boom Drive are also designated as Signed Bike Routes. South of the study area, Dundas Street East has a multi-use trail on the south side of the road, between Ernest Appelbe Boulevard and Ninth Line.

3.3 Transit Services

Oakville Transit currently offers the following routes within or near the study area:

Route 1 (Trafalgar) operates in the north/south direction along Trafalgar Road between the Oakville Go Station and the Trafalgar/407 GO Carpool Lot. It currently operates with an hour headway, and the nearest transit stop to the study area is located at Trafalgar Road and Dundas Street East.

Route 5 (Dundas) generally operates in the east/west direction along Dundas Street and in the north/south direction along Trafalgar Road, between Oakville GO Station and the Dundas/407 GO Carpool Lot. **Route 5A** follows a similar route, however it operates in the east/west direction along Sixteen Mile Drive/Wheat Boom Drive between Neyagawa

Boulevard and Ernest Appelbe Boulevard. Both routes 5 and 5A operate with 30 minute headways, with 15 minute headways between each other. The nearest bus stop to the study area is located at Ernest Appelbe Boulevard and Wheat Boom Drive, serviced by bus route 5A only

3.4 Existing Traffic Data

For the study, GHD utilized recent traffic counts for the intersection of Trafalgar Road and Wheat Boom Drive from 2020 and for the intersection of Trafalgar Road and Threshing Mill Boulevard in 2021.

Updated turning movement counts at the intersections of Trafalgar Road at Dundas Street East, Dundas Street East at Ernest Appelbe Boulevard, Ernest Appelbe Boulevard at Wheat Boom Drive, and Ernest Appelbe Boulevard at Threshing Mill Boulevard was undertaken by Ontario Traffic Inc. in January 2022. Due to COVID-19 pandemic and local and provincial restrictions, turning movement counts conducted on different dates and times of the year may differ significantly. As a result, GHD compared the link volumes between all study intersections along Trafalgar Road and Dundas Street and balanced the intersection counts by carrying the highest volumes through the study area.

The projected baseline 2022 traffic volumes for the a.m. and p.m. peak hours are summarized in **Figure 3**.

The historic and most recent turning movement count data from Ontario Traffic Inc. is provided in **Appendix B**.

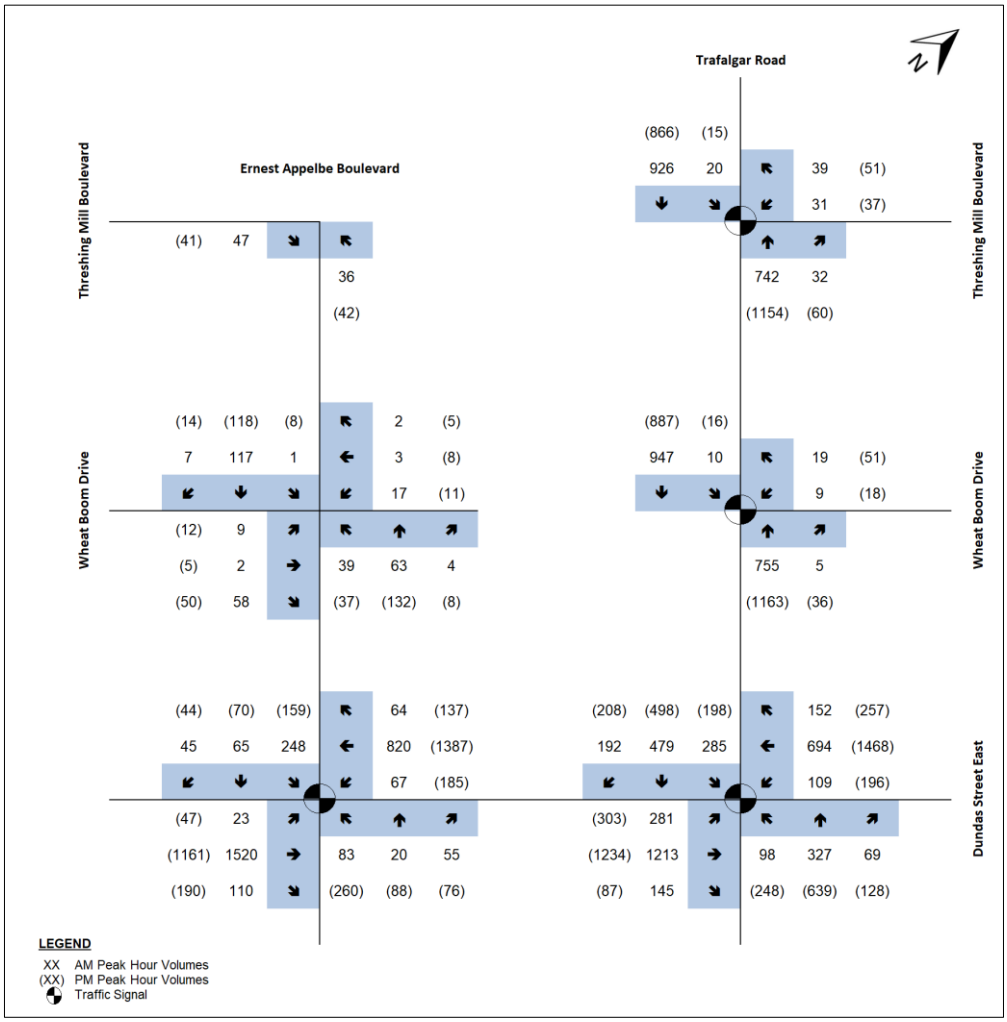

Figure 3 Projected 2022 Existing Traffic Volumes

4. Future Background Traffic

4.1 Study Horizon Year

As agreed with the Region of Halton and Town of Oakville Staff, the future horizon years selected for analysis includes the full build-out of Phase 1 (the townhouse component) in 2027, followed by the full build-out of Phase 2 (mid-rise and high-rise buildings) in 2032.

4.2 Future Road Network Improvements

The Trafalgar Road Improvements Phase 2 project (from Hays Boulevard to William Halton Parkway) is projected to be completed and operational in year 2026. With the completion of this project, Trafalgar Road will be widened from four lanes to six lanes, with the addition of an HOV lane in both directions within the six-lane configuration.

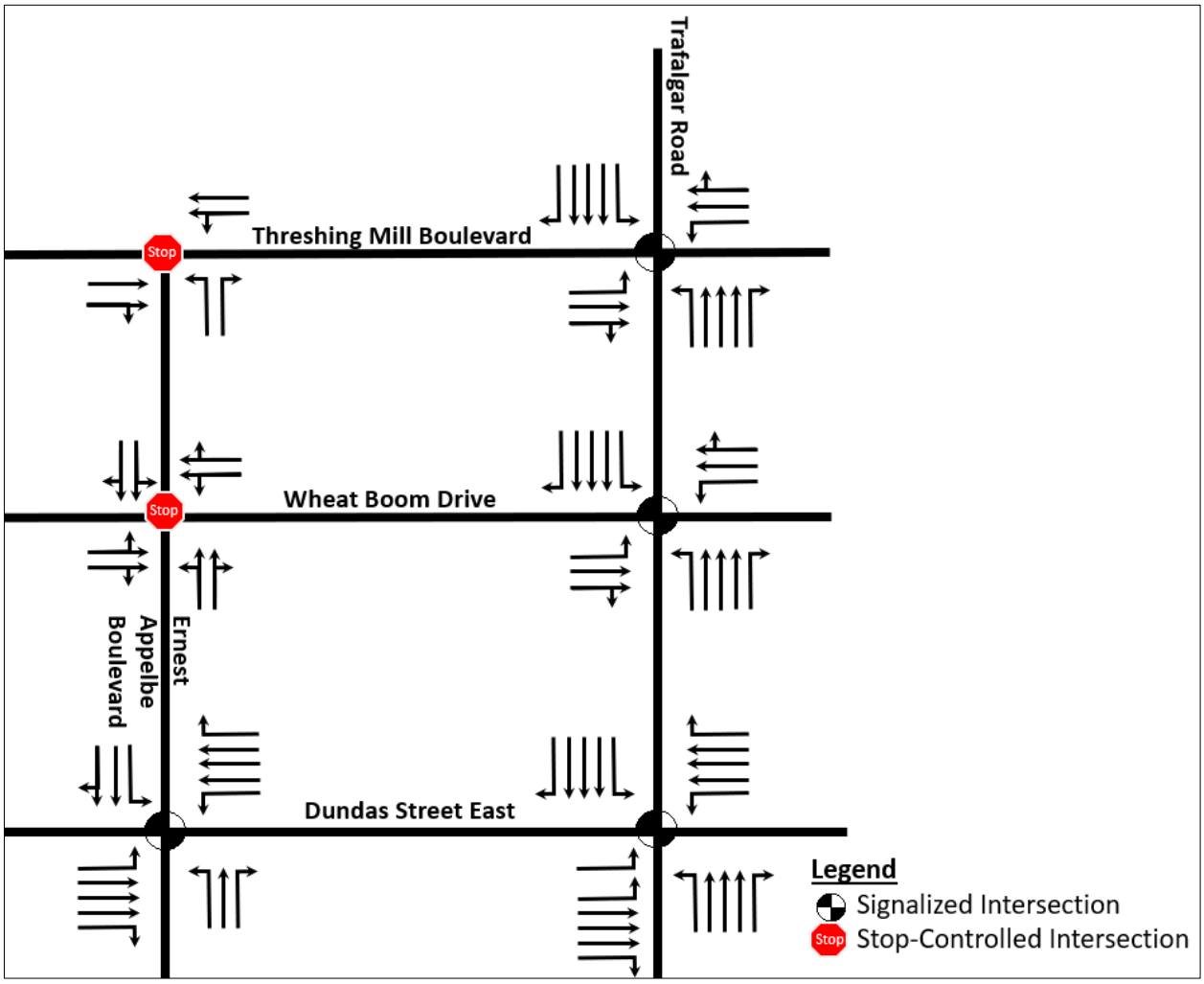

Figure 4 Future Lane Configuration

4.3 Corridor Growth

GHD applied a two percent compounded annually growth rate to all roads within the study area, as agreed to with Region and Town staff.

4.4 Background Development Traffic

GHD reviewed the Town's development application web portal to determine which planned or approved background developments located near the subject site would contribute to traffic volumes at the study intersections. As directed by Town staff, the following sites were included as background traffic:

- Oakvillage 3 - Tower B - BC Trafalgar Inc, 3220 William Coltson Avenue
- MC OakVillage GP Inc., 348 Wheat Boom Drive
- MC Oakvillage, 335, 345 and 349 Wheat Boom Drive
- Oakvillage Block 14 (Daniels Emshih), 377, 387 and 411 Dundas Street East
- Emshih Developments, 351 Dundas Street East
- 3064 Trafalgar Road Inc., 3064 Trafalgar Road
- MC OakVillage Phase 4A/B, 3075 Trafalgar Road
- MC Oakvillage Phase 4C, 3075 Trafalgar Road
- HCDSB North Oakville #4 Elementary School, 420 Threshing Mill Boulevard

The proposed trip generation from each background development is summarized in the table below, with the trip distribution for each site provided in **Appendix D** . The total site trips from all nine background developments are provided in **Figure 5.**

Table 1 Background Development Traffic

Background Development	Peak Hour Trips					
	Weekday AM			Weekday PM		
	In	Out	Total	In	Out	Total
Oakvillage 3 - Tower B	28	87	115	81	51	132
MC OakVillage GP Inc	4	12	16	13	8	21
MC Oakvillage	43	125	165	135	94	188
Oakvillage Block 14 & Emshih Developments	106	251	357	328	239	567
3064 Trafalgar Road Inc.	43	136	179	128	83	211
MC OakVillage Phase 4A/B	31	99	130	88	55	143
MC Oakvillage Phase 4C	17	53	70	48	30	78
HCDSB North Oakville #4 Elementary School	268	229	497	49	58	107

With no traffic impact study having been completed for the HCDSB North Oakville #4 Elementary School, GHD estimated the site traffic generated by the school using the expected student load. It was assumed that 30% of the traffic generated by the school would originate from this proposed subdivision (west of Trafalgar Road), with the site traffic being distributed equally between Threshing Mill Boulevard and Wheat Boom Drive.

However, under the 2027 future background scenario, with the west approaches of the intersections of Threshing Mill Boulevard at Trafalgar Road and Wheat Boom Drive at Trafalgar Road not being completed until the first phase of the subdivision, GHD assumed that only 10% of the school's traffic would be generated west of Trafalgar Road from existing residential areas. The 10% of traffic would travel to the school along Dundas Street East and Postridge Drive only during the Future Background 2027 traffic condition. For the Future Total 2027 scenario and onwards, the school generated traffic would now come along Threshing Mill Boulevard and Wheat Boom Drive, with most of the trips being generated within the proposed subdivision. The trip distribution towards the school is further explained in **Section 5.2**.

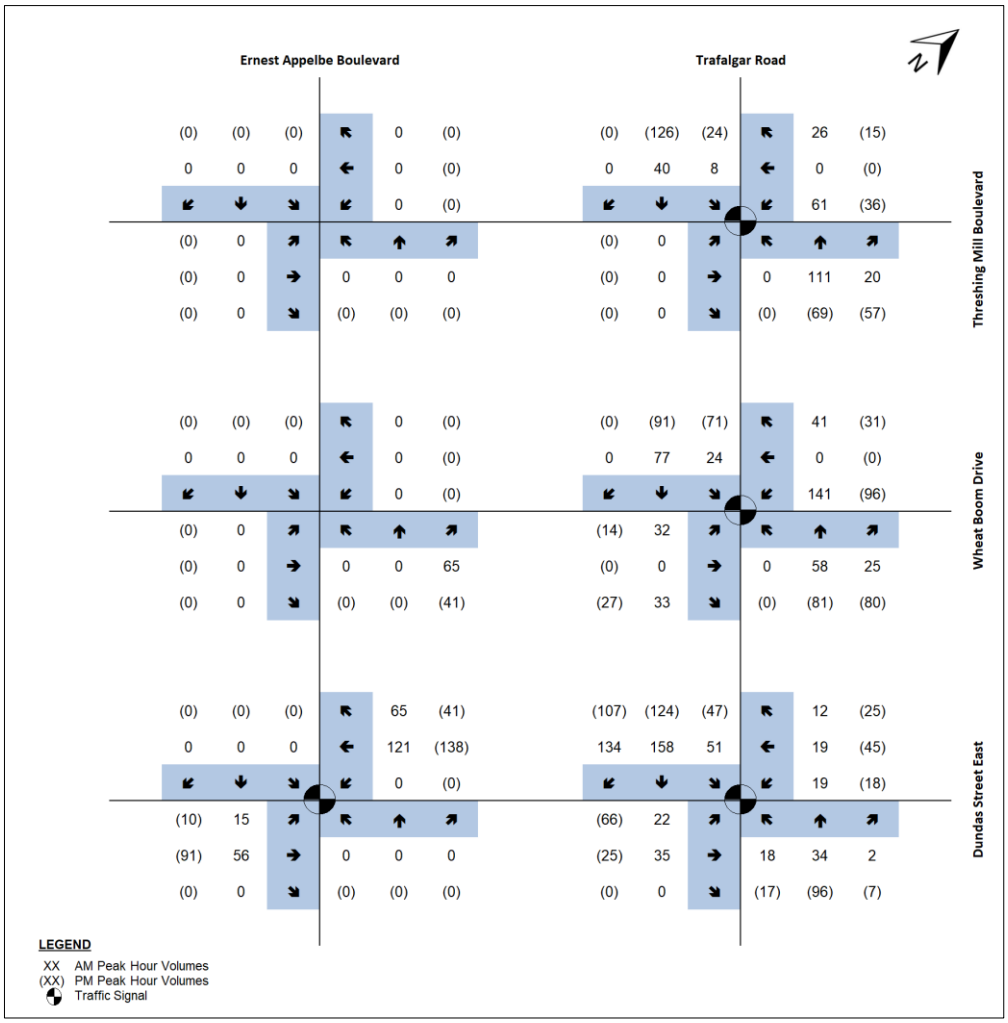

Figure 5 Total Background Development Site Traffic

4.5 Future Background Traffic Volumes

The background traffic volumes for the 2027 and 2032 horizon years were derived by applying a 2% per annum corridor growth rate to the projected 2022 traffic volumes and adding the total background development site traffic from **Figure 5**. The background traffic related to the HCDSB North Oakville #4 Elementary School was assigned to Dundas Street East for the Future Background 2027 scenario, before the extension of Threshing Mill Boulevard and Wheat Boom Drive is completed with the first phase of the proposed subdivision. Once the construction of the townhouses and the two roads are completed, this traffic was reassigned to Threshing Mill Boulevard and Wheat Boom Drive for the Future Total 2027 scenario and Future Background 2032 scenario.

The resulting 2027 and 2032 future background traffic volumes are summarized in **Figure 6** and **Figure 7**.

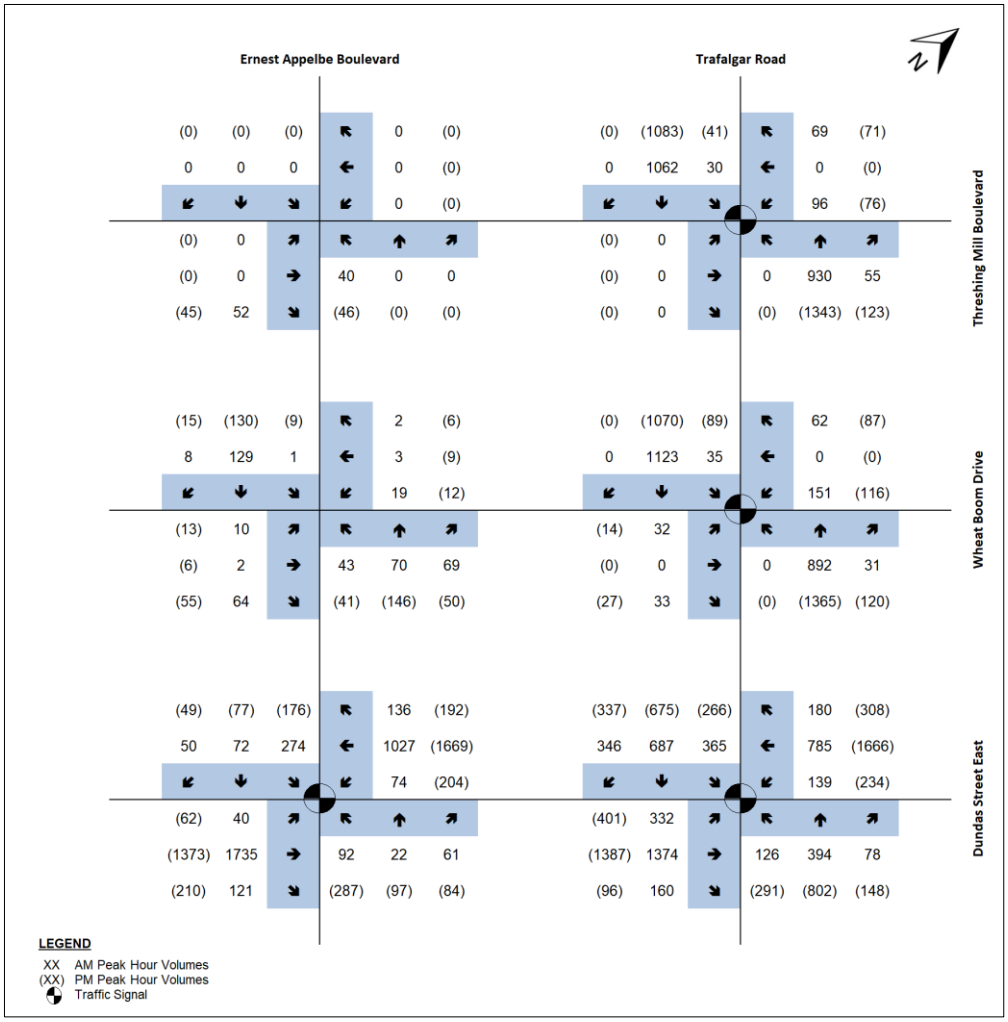

Figure 6 2027 Future Background Traffic Volumes

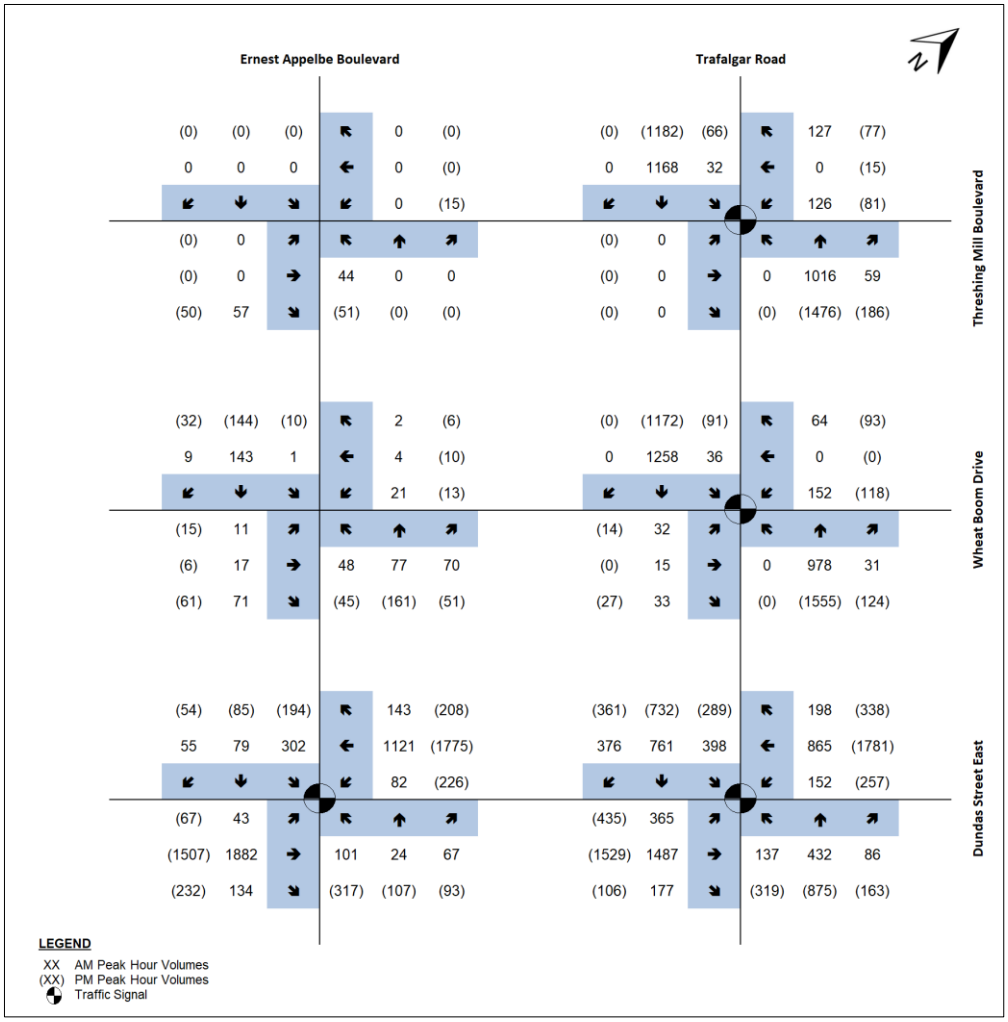

Figure 7 2032 Future Background Traffic Volumes

5. Site Generated Traffic

5.1 Site Traffic Generation

Phase 1 of the subject site consists of 538 townhouse units. An additional 1,732 mid-rise and 2,578 high-rise units have been estimated in Phase 2 within the Trafalgar Urban Core blocks, with approximately 55,145 ft^2 of ground floor retail space. Phase 2 of the subject site is conceptual at this time and the unit counts and retail GFA are subject to change.

The trip generation for the residential uses was calculated using rates provided in the Institute of Transportation Engineer's (ITE) Trip Generation Manual, 11th Edition using Land Use Code (LUC) 215 (Single-Family Attached Housing), LUC 221 (Multifamily Housing – Mid-Rise), LUC 222 (Multifamily Housing – High-Rise) and LUC 822 (Shopping Plaza - 40-150k).

Through communication with Region of Halton staff, it was confirmed that a 5% mode split should be assumed for active transportation and 3% for Transportation Demand Management (TDM) in the area. The transit modal split for 2027 and 2032 were derived from the 2016 Transportation Tomorrow Survey (TTS) data. The three zones used for analysis consisted of three zones south of the proposed subdivision (4034, 4035 and 4037) because the subdivision and two adjacent zones had very few residential units constructed when the survey was conducted. The transit modal split from the 2016 TTS data for both the a.m. and p.m. peak was 6%. When combined with the active transportation and TDM, the total mode split reduction applied to the ITE trip generation rates was 14%. The 2016 Transportation Tomorrow Survey is provided in **Appendix E**.

Table 2 below summarizes the estimated trip generation for the proposed subdivision.

Table 2 Estimated Site Trips

Land Uses	GFA (Dwelling Units)	Parameters	Peak Hour					
			Weekday AM			Weekday PM		
			In	Out	Total	In	Out	Total
Phase 1 Townhouses (LUC 215)	539 units	Trip Ratio	31%	69%	100%	57%	43%	100%
		Gross Trips	85	190	275	182	137	319
		Total Mode Split Reduction	12	26	38	26	19	45
		Total New Trips	**73**	**164**	**237**	**156**	**118**	**274**
Phase 2 Mid-rise Building (LUC 221)	1,732 units	Trip Ratio	23%	77%	100%	61%	39%	100%
		Gross Trips	172	578	750	412	264	676
		Total Mode Split Reduction	24	80	104	58	37	95
		Total New Trips	**148**	**498**	**646**	**354**	**227**	**581**
Phase 2 High-rise Building (LUC 222)	2,578 units	Trip Ratio	34%	66%	100%	56%	44%	100%
		Gross Trips	236	460	696	462	363	825
		Total Mode Split Reduction	33	64	97	64	51	115
		Total New Trips	**203**	**396**	**599**	**398**	**312**	**710**
Phase 2 Retail (LUC 822)	55,145 ft^2	Trip Ratio	60%	40%	100%	50%	50%	100%
		Gross Trips	77	53	130	181	181	362
		Pass By (30%)	NA	NA	NA	78	78	156

		Total New Trips	**77**	**53**	**130**	**126**	**126**	**352**
		Total Primary Trips	***501***	***1,111***	***1,612***	***1,034***	***783***	***1,817***

The proposed subdivision is expected to generate a total of 1,612 new two-way trips consisting of 501 inbound and 1,111 outbound trips during weekday a.m. peak hour and 1,817 new two-way trips consisting of 1,034 inbound and 783 outbound trips during the weekday p.m. peak hour.

5.2 Site Traffic Distribution and Assignment

Due to the large area covered by the proposed subdivision, GHD divided the subject into 7 zones based on the assumed route used along the study area roads. The 7 zones are shown in **Figure 8**, with the breakdown of each dwelling type per zone provided in **Table 3.**

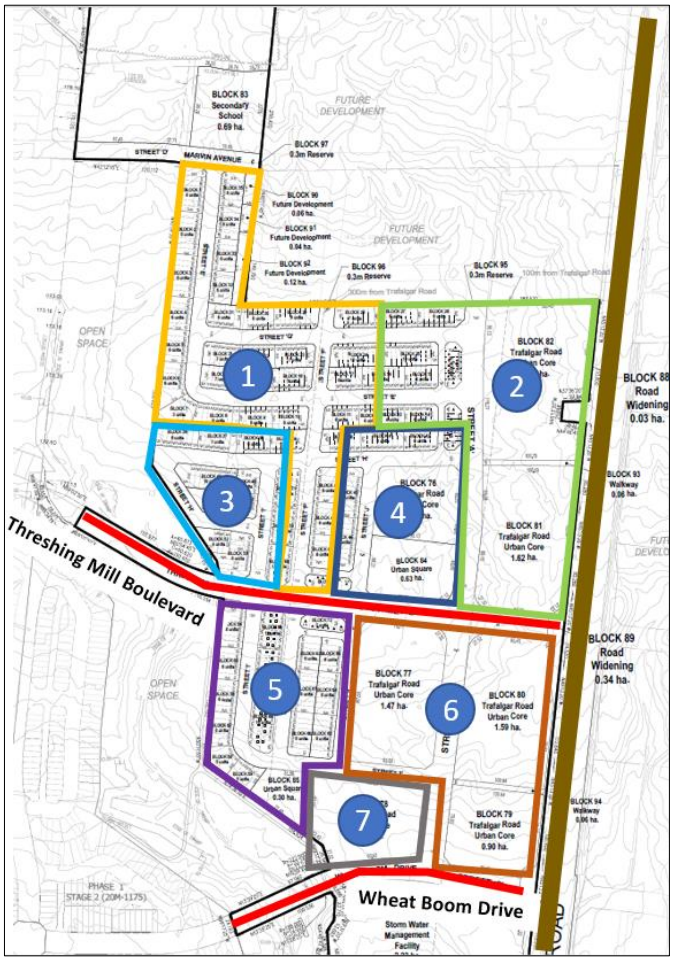

Figure 8 Zone Breakdown

Table 3 Dwelling Unit Count per Zone

Zone	Townhouses	Mid-rise Units	High-rise Units	Retail (GFA)
Zone 1	238 units	0 units	0 units	0 m^2
Zone 2	64 units	404 units	1,389 units	2,768 m^2
Zone 3	75 units	0 units	0 units	0 m^2
Zone 4	33 units	256 units	0 units	0 m^2
Zone 5	129 units	0 units	0 units	0 m^2
Zone 6	0 units	785 units	0 units	0 m^2
Zone 7	0 units	287 units	1,189 units	2,355 m^2
TOTAL	**539 units**	**1,732 units**	**2,578 units**	**5,123 m^2**

The distribution of the site-generated traffic was based on a review of the 2016 Transportation Tomorrow Survey (TTS) and the existing traffic patterns extracted from the 2020, 2021, and 2022 turning movement counts conducted at the study intersections.

To account for 30% of trips generated by the school originating from the proposed subdivision (approximately 80 trips), GHD assigned 5% of the overall trips from each zone eastbound towards the school along Threshing Mill Boulevard/Wheat Boom Drive. During the p.m. peak hour, 5% was also assigned to all inbound trips to the subdivision originating from the school. The 5% was assigned to the inbound trips from the east during the p.m. peak. The trip distribution is summarized in **Table 4** below.

Table 4 Trips Distribution

Origin/Destination	AM Peak Hour		PM Peak Hour	
	Percentage of Inbound Trips	Percentage of Outbound Trips	Percentage of Inbound Trips	Percentage of Outbound Trips
North on Trafalgar	18%	22%	22%	17%
South on Trafalgar	41%	38%	38%	42%
East on (Dundas, Threshing Mill, Wheat Boom)	7%	12%	19%	7%
West (Dundas and Ernest Appelbe)	34%	23%	21%	35%
School	NA	5%	NA	NA
Total	**100%**	**100%**	**100%**	**100%**

As discussed with Region and Town staff, the first phase of the traffic impact study (study horizon year 2027) includes site trips generated only by the 539 townhouse dwelling units. The second phase of the development includes the site trips generated by all townhouse, mid-rise and high-rise units, as well as the retail space located within the high-rise buildings. The estimated site trips generated by the subdivision and distributed to the study area road network for the weekday a.m. and p.m. peak hours are shown in **Figure 9** and **Figure 10**.

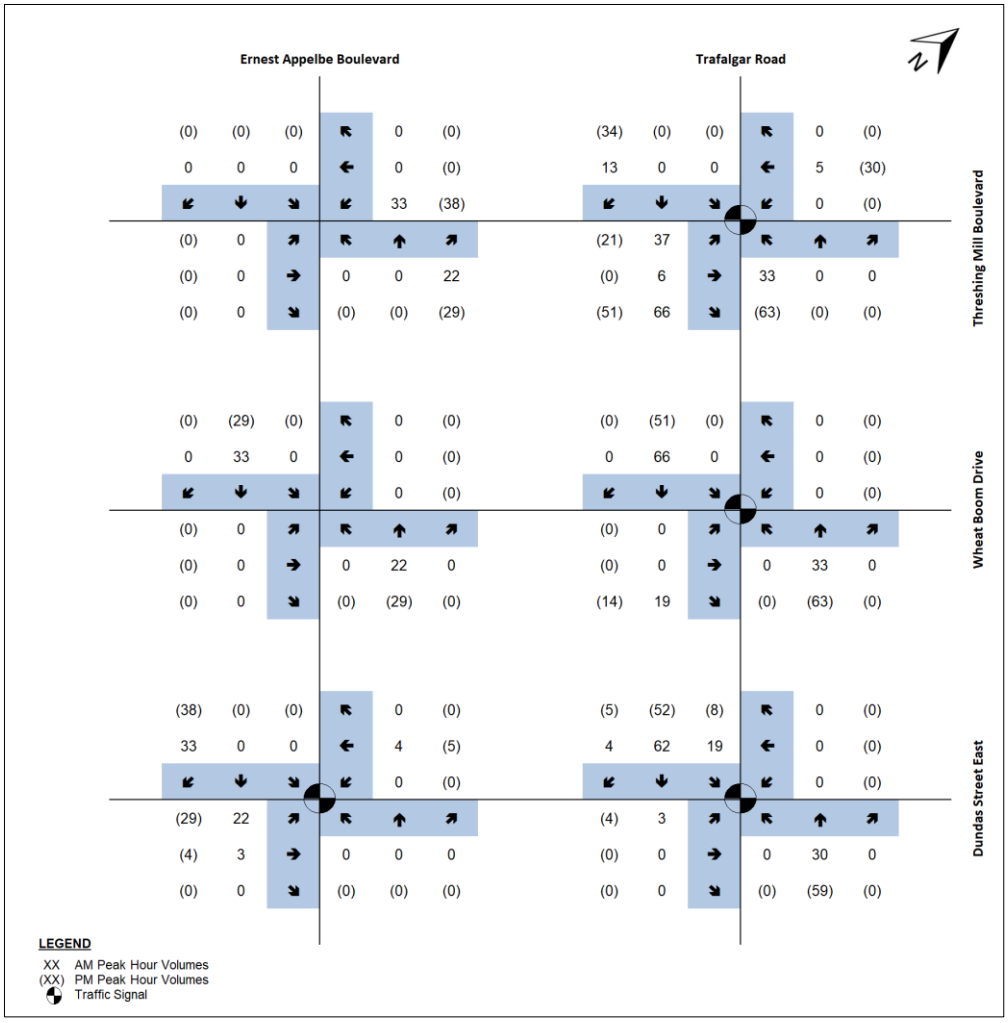

Figure 9 Total Phase 1 Site Trips – 2027

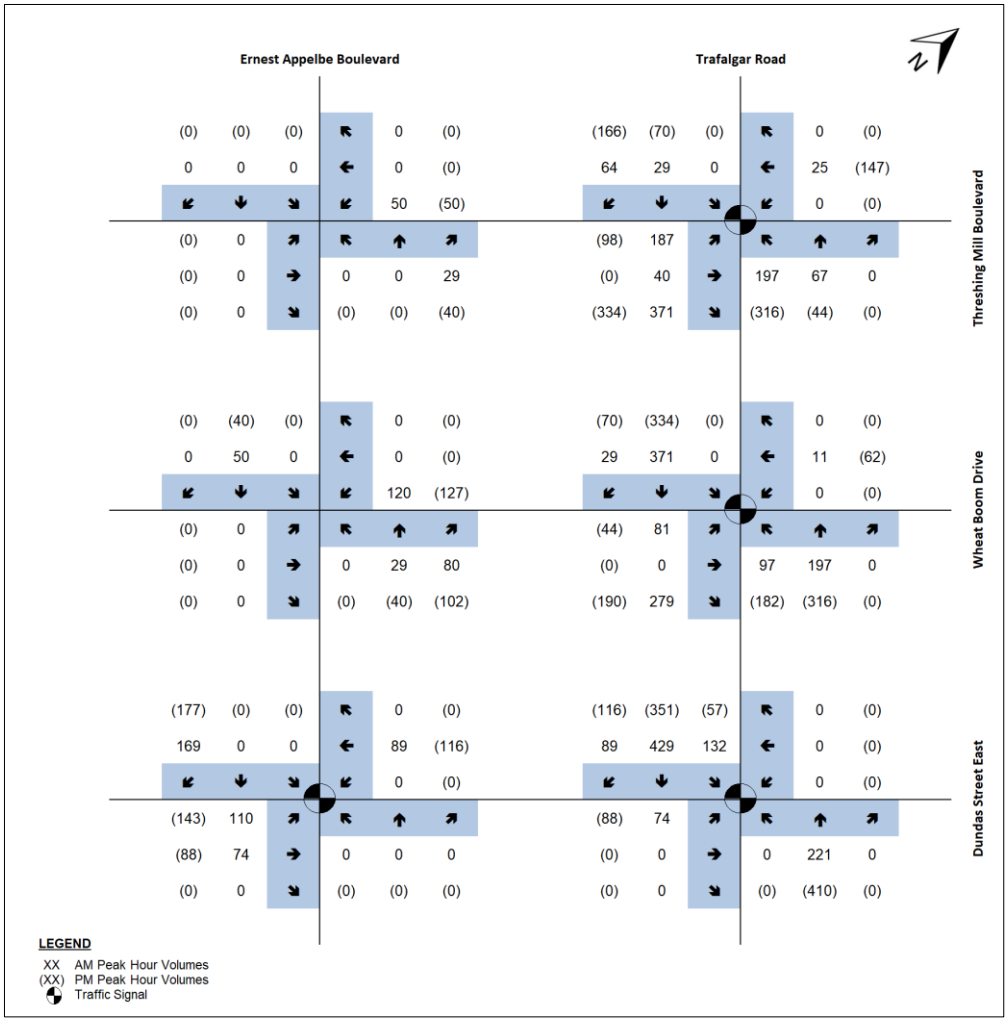

Figure 10 Total Phase 2 Site Trips - 2032

6. Future Total Traffic

The future total traffic conditions in the weekday a.m. and p.m. peak hours for the 2027 and 2032 planning horizons were derived by combining the projected future background traffic with the corresponding estimated site generated traffic. The resulting traffic volumes are presented in **Figure 11** and **Figure 12**.

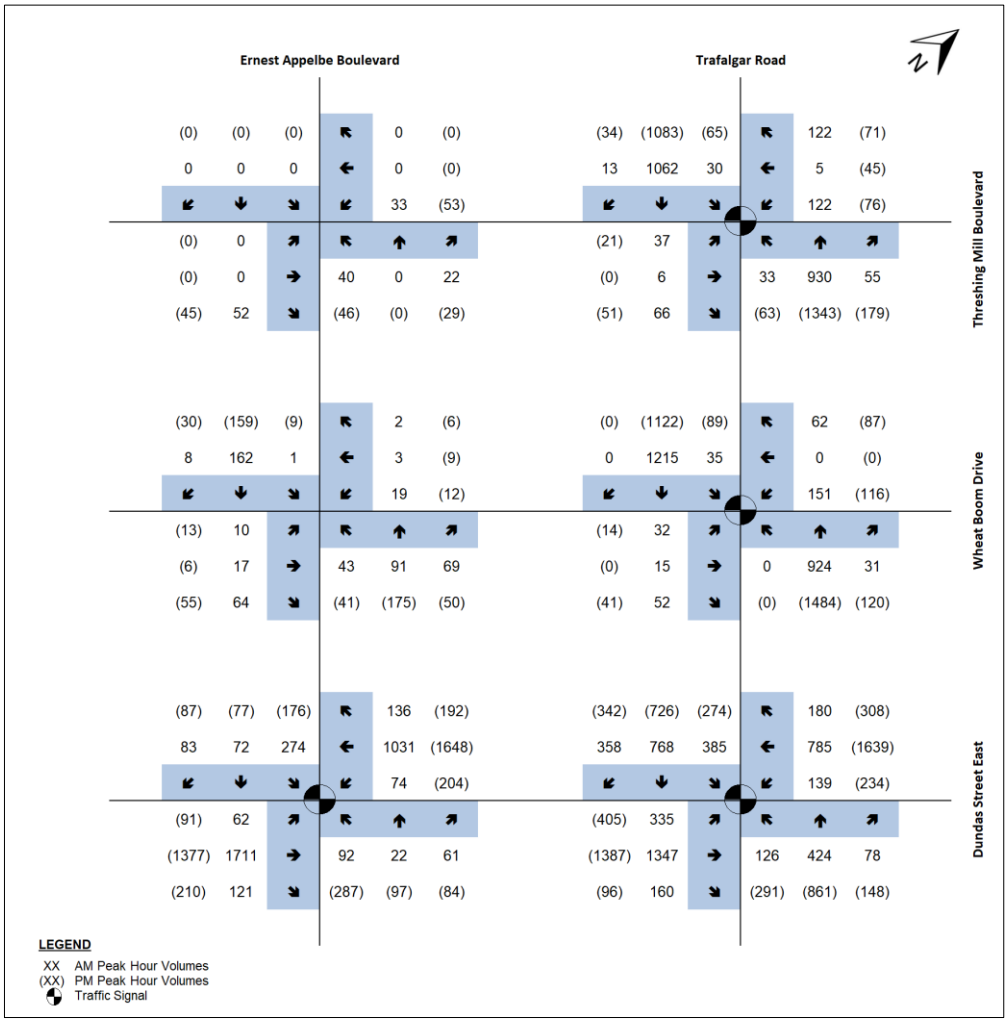

Figure 11 2027 Future Total Traffic Volumes

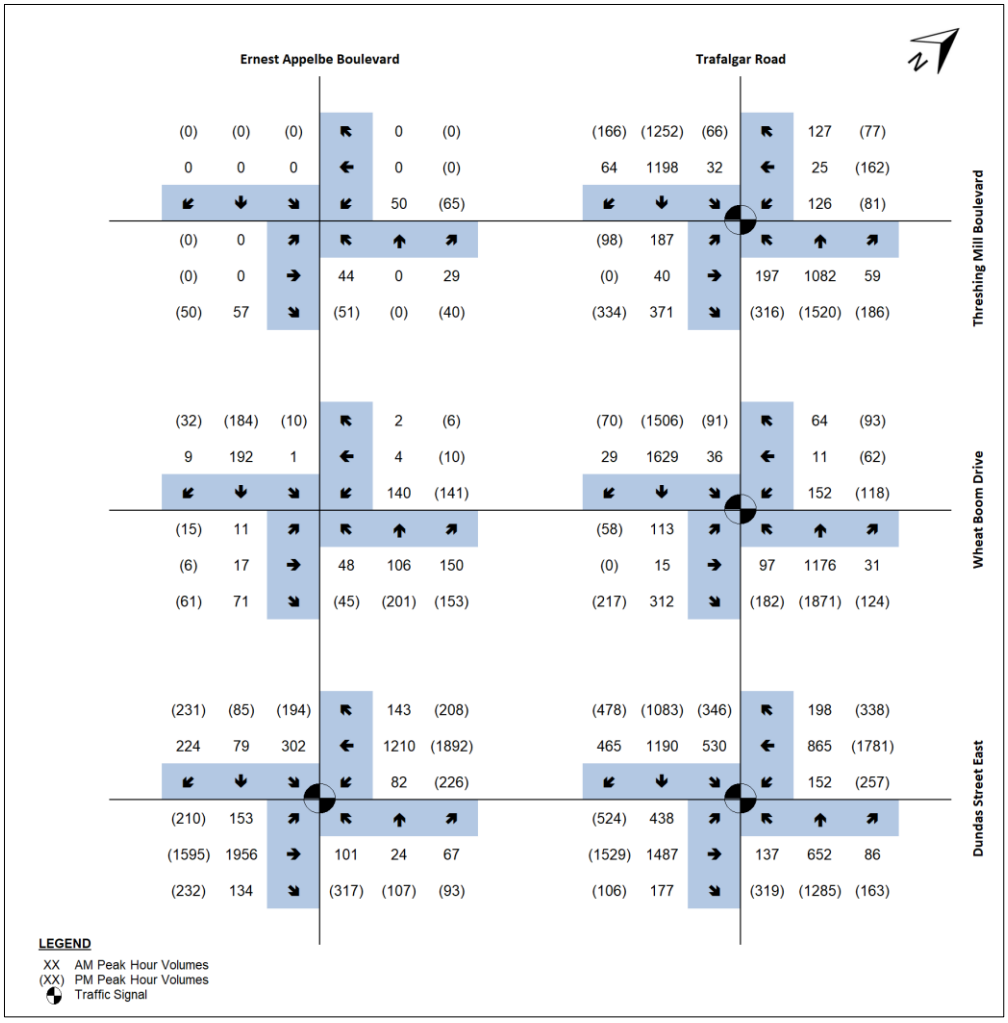

Figure 12 2032 Future Total Traffic Volumes

7. Capacity Analysis

The capacity analysis identifies how well the intersections and driveways are operating. The analysis contained within this report utilized the Highway Capacity Manual (HCM) 2000 procedure 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. Both pedestrian crossing volumes and heavy vehicle proportions are included in the analyses. The peak hour factors from the traffic counts were used to analyze existing and future traffic conditions.

To account for the road capacity effect of the proposed HOV lanes Trafalgar Road in the weekday a.m. and p.m. peak hours, we have adopted the established methodology of applying a 0.80 lane utilization factor as requested by the Region which takes into consideration of the estimated proportion of traffic anticipated to utilize the HOV lanes.

The analysis includes identification and required modifications and improvements (if any) at intersections where the addition of background growth or background growth plus site-generated traffic volumes causes the following:

'Critical' intersections and movements for a signalized intersection include:

- V/C ratios for overall intersections operations, through movements, or shared through/turning movements increase to 0.85 or above;
- V/C ratios for exclusive movements increase to 0.95 or above; or
- 95th percentile queue length for individual movements that are projected to, or exceed, the storage length.

'Critical' intersections and movements for an unsignalized intersection include:

- Level of Services (LOS), based on average delay per vehicle, on individual movements exceeds LOS "D",
- Queue length for individual movements that exceeds the lesser of 5 vehicles or the available queue storage.

The following tables summarize the HCM capacity results for the study intersections during the weekday a.m. and p.m. peak hours under existing (2021), future background (2023 & 2025) and future total (2023, 2025 & 2030) traffic conditions. The detailed calculation sheets are provided in **Appendix C**.

7.1 Trafalgar Road and Dundas Street East

Capacity analysis at this intersection during the weekday a.m. and p.m. peak hours for the existing, future background, and future total traffic condition are summarized in the following table.

Table 5 Capacity analysis of Trafalgar Road and Dundas Street East

Scenario	Am Peak Hour		PM Peak Hour	
	V/C (LOS) seconds	95th % Que.	V/C (LOS) seconds	95th % Que
Existing 2022	Overall: 0.83 (D) 48 EBL = 0.66 (D) 46 EBT = **0.85** (D) 54 EBR = 0.12 (F) 107 WBL = 0.63 (D) 46 WBT = 0.62 (D) 43 WBR = 0.11 (D) 35 NBL = 0.3 (C) 24 NBTR = 0.43 (C) 34 SBL = 0.88 (E) 61 SBT = 0.57 (D) 40 SBR = 0.15 (C) 33	 EBL = 55 m EBT = 160 m EBR = 30 m WBL = 35 m WBT = 85 m WBR = 15 m NBL = 25 m NBTR = 70 m SBL = **90** m SBT = 90 m SBR = 20 m	Overall: **0.85** (D) 47 EBL = 0.75 (E) 67 EBT = 0.8 (D) 46 EBR = 0.06 (C) 32 WBL = 0.7 (D) 42 WBT = **0.94** (E) 55 WBR = 0.25 (C) 35 NBL = 0.7 (D) 39 NBTR = 0.72 (D) 44 SBL = 0.82 (D) 54 SBT = 0.47 (D) 38 SBR = 0.14 (C) 33	 EBL = 60 m EBT = 130 m EBR = 10 m WBL = 60 m WBT = 170 m WBR = 35 m NBL = 65 m NBTR = 115 m SBL = **60** m SBT = 75 m SBR = 20 m
Future Background 2027	Overall: **0.95** (D) 47 EBL = 0.78 (D) 53 EBT = **0.93** (D) 54 EBR = 0.15 (E) 63 WBL = 0.87 (E) 76 WBT = 0.69 (D) 45 WBR = 0.13 (D) 36 NBL = 0.49 (D) 36 NBT = 0.36 (D) 38 NBR = 0.05 (C) 34 SBL = 0.91 (D) 54 SBT = 0.48 (C) 34 SBR = 0.32 (C) 32	 EBL = 65 m EBT = 190 m EBR = 40 m WBL = 60 m WBT = 100 m WBR = 20 m NBL = 35 m NBT = 50 m NBR = 0 m SBL = **120** m SBT = 75 m SBR = 35 m	Overall: **1.03** (E) 56 EBL = **0.97** (E) 74 EBT = 0.83 (D) 44 EBR = 0.07 (D) 42 WBL = 0.87 (E) 64 WBT = **1.00** (E) 66 WBR = 0.35 (C) 35 NBL = **1.05** (F) 104 NBT = 0.69 (D) 47 NBR = 0.14 (D) 37 SBL = **1.02** (F) 92 SBT = 0.53 (D) 40 SBR = 0.34 (D) 38	 EBL = 85 m EBT = 160 m EBR = 20 m WBL = 90 m WBT = 200 m WBR = 50 m NBL = 100 m NBT = 100 m NBR = 25 m SBL = **110** m SBT = 80 m SBR = 45 m

Scenario	Am Peak Hour		PM Peak Hour	
	V/C (LOS) seconds	95th % Que.	V/C (LOS) seconds	95th % Que
Future Total 2027	Overall: **0.98** (D) 47 EBL = 0.9 (E) 66 EBT = **0.93** (D) 54 EBR = 0.15 (E) 62 WBL = 0.87 (E) 76 WBT = 0.68 (D) 44 WBR = 0.13 (C) 35 NBL = 0.53 (D) 38 NBT = 0.39 (D) 40 NBR = 0.05 (D) 35 SBL = 0.94 (E) 59 SBT = 0.52 (C) 34 SBR = 0.38 (C) 33	 EBL = 75 m EBT = 185 m EBR = 40 m WBL = 60 m WBT = 95 m WBR = 20 m NBL = 35 m NBT = 50 m NBR = 0 m SBL = **130** m SBT = 85 m SBR = 50 m	Overall: **1.05** (E) 57 EBL = **0.98** (E) 76 EBT = 0.84 (D) 43 EBR = 0.07 (D) 40 WBL = 0.91 (E) 72 WBT = **1.02** (E) 71 WBR = 0.33 (D) 36 NBL = **1.02** (F) 93 NBT = 0.74 (D) 48 NBR = 0.15 (D) 37 SBL = **1.04** (F) 102 SBT = 0.58 (D) 41 SBR = 0.38 (D) 39	 EBL = 85 m EBT = 160 m EBR = 20 m WBL = 95 m WBT = 200 m WBR = 45 m NBL = 100 m NBT = 105 m NBR = 25 m SBL = **115** m SBT = 85 m SBR = 50 m
Future Background 2032	Overall: **1.05** (D) 52 EBL = 0.77 (D) 48 EBT = **0.98** (E) 59 EBR = 0.18 (D) 54 WBL = **0.96** (F) 95 WBT = 0.78 (D) 49 WBR = 0.14 (D) 36 NBL = 0.58 (D) 40 NBT = 0.4 (D) 40 NBR = 0.06 (D) 35 SBL = **1.04** (F) 88 SBT = 0.56 (D) 37 SBR = 0.37 (C) 35	 EBL = 60 m EBT = 210 m EBR = 35 m WBL = 70 m WBT = 110 m WBR = 20 m NBL = 35 m NBT = 55 m NBR = 0 m SBL = 155 m SBT = 85 m SBR = 40 m	Overall: **1.12** (E) 70 EBL = **1.06** (F) 98 EBT = **0.9** (D) 46 EBR = 0.09 (C) 29 WBL = **1.06** (F) 110 WBT = **1.1** (F) 101 WBR = 0.39 (D) 37 NBL = **1.13** (F) 128 NBT = 0.75 (D) 48 NBR = 0.17 (D) 38 SBL = **1.11** (F) 124 SBT = 0.58 (D) 42 SBR = 0.45 (D) 41	 EBL = 95 m EBT = 175 m EBR = 15 m WBL = 110 m WBT = 225 m WBR = 55 m NBL = 125 m NBT = 110 m NBR = 25 m SBL = **125 m** SBT = 85 m SBR = **60** m
Future Total 2032	Overall: **1.34** (F) 83 EBL = **1.26** (F) 176 EBT = **1.12** (F) 102 EBR = 0.2 (D) 47 WBL = **1.13** (F) 155 WBT = 0.82 (D) 52 WBR = 0.14 (D) 38 NBL = 0.83 (E) 66 NBT = 0.59 (D) 43 NBR = 0.06 (C) 35 SBL = **1.37** (F) 212 SBT = 0.74 (D) 37 SBR = 0.62 (D) 37	 EBL = 105 m EBT = 230 m EBR = 30 m WBL = 75 m WBT = 115 m WBR = 20 m NBL = 55 m NBT = 80 m NBR = 0 m SBL = **225 m** SBT = 135 m SBR = **100** m	Overall: **1.21**(F) 95 EBL = **1.2** (F) 148 EBT = **0.97** (D) 52 EBR = 0.09 (C) 28 WBL = **1.00** (F) 94 WBT = **1.19** (F) 138 WBR = 0.42 (D) 40 NBL = **1.13** (F) 130 NBT = **1.12** (F) 114 NBR = 0.23 (D) 39 SBL = **1.2** (F) 157 SBT = **0.91** (E) 58 SBR = 0.72 (D) 53	 EBL = **120** m EBT = 185 m EBR = 15 m WBL = 110 m WBT = 240 m WBR = 60 m NBL = 140 m NBT = 200 m NBR = 35 m SBL = **155 m** SBT = 145 m SBR = **110** m

Under existing conditions, the intersection of Dundas Street East and Trafalgar Road is operating at satisfactory levels with an overall v/c ratio of 0.83 LOS D and 0.85 LOS D during the a.m. and p.m. peak hours respectively. The only reported critical movement during the existing 2022 scenario occurs in the eastbound through approach during the a.m. peak (0.85 LOS D) and westbound through approach during the p.m. peak hour (0.94 LOS E).

With the addition of corridor growth and background traffic and the Trafalgar Road widening including HOV lanes under the future background 2027 scenario, the overall intersection has reached critical levels during both peak hours.

The reported v/c ratio for the intersection increased to 0.95 LOS D during the a.m. peak hour and 1.03 LOS D during the p.m. peak hour. During the a.m. peak hour, the eastbound through movement remains at a critical level (0.93 LOS D), but still below the theoretical capacity of 1.0. During the p.m. peak hour, the westbound through movement remains critical (1.0 LOS E), with the eastbound, northbound and southbound left turns reporting a v/c ratio of 0.97 LOS E, 1.05 LOS F and 1.02 LOS F respectively.

Under the 2027 future total traffic condition, with the addition of the site traffic generated by the development of Phase 1, the overall intersection continues to operate at critical levels, (0.98 LOS D during the a.m. peak hour and 1.05 LOS F during the p.m. peak hour). The same approaches remain critical during both the a.m. and p.m. peak hours. The a.m. peak hour eastbound through movement reports a v/c ratio of 0.93 LOS D, while the p.m. peak hour eastbound left reports a v/c ratio of 0.98 LOS E, westbound through 1.02 LOS E, northbound left 1.02 LOS F and southbound left 1.04 LOS F.

Under the 2032 future background scenario which includes corridor growth and background developments, the overall v/c ratio of the intersection increases to critical levels and over the theoretical capacity of 1.00. The overall v/c ratio of the intersection during the a.m. peak hour increases to 1.05 LOS D, and to 1.12 LOS E during the p.m. peak hour. During the a.m. peak hour, the eastbound through (0.98 LOS E), westbound left (0.96 LOS F), and southbound left (1.04 LOS F) are all critical approaches. During the p.m. peak hour, the eastbound left (1.06 LOS F), eastbound through (0.90 LOS D), westbound left (1.06 LOS F), westbound through (1.10 LOS F), northbound left (1.13 LOS F), and southbound left (1.11 LOS F) are all critical approaches.

Under the 2032 future total scenario including Phase 1 and 2 of the development, the overall v/c ratio of the intersection continues to increase and remain at a critical levels and over capacity. The overall v/c ratio of the intersection during the morning peak hour has increased to 1.34 LOS F, and to 1.21 LOS F during the afternoon peak hour. During the a.m. peak hour, the eastbound left (1.26 LOS F), eastbound through (1.12 LOS E), westbound left (1.13 LOS F), and southbound left (1.37 LOS F) are all critical approaches. During the p.m. peak hour, the eastbound left (1.20 LOS F), eastbound through (0.97 LOS D), westbound left (1.00 LOS F), westbound through (1.19 LOS F), northbound left (1.13 LOS F), northbound through (1.12 LOS E), and southbound left (1.20 LOS F) are all critical approaches.

The capacity issues at this intersection are prevalent under the 2027 and 2032 future background scenarios given the background development site trips and assumed growth along Dundas Street and along Trafalgar Road. It is expected that some of this growth along with existing traffic will redistribute to the future William Halton Parkway (a parallel route) once construction is completed and delays along Dundas Street become excessive for drivers. Therefore, there are no additional required geometric or intersection improvements recommended for this intersection.

7.2 Trafalgar Road and Wheat Boom Drive

Capacity analysis for this intersection during the weekday a.m. and p.m. peak hours for the existing, future background, and future total traffic conditions out are summarized in the following table.

Table 6 Capacity analysis of Trafalgar Road and Wheat Boom Drive

Scenario	Am Peak Hour		PM Peak Hour	
	V/C (LOS) seconds	95th % Que.	V/C (LOS) seconds	95th % Que
Existing 2022	Overall: 0.38 (A) 7 WBL = 0.04 (D) 38 WBR = 0.01 (D) 38 NBT = 0.37 (A) 8 SBT = 0.48 (A) 5	WBL = 10 m WBR = 10 m NBT = 50 m SBT = 30 m	Overall: 0.43 (A) 9 WBL = 0.05 (D) 39 WBR = 0.04 (D) 38 NBTR = 0.54 (A) 10 SBTL = 0.44 (A) 5	WBL = 10 m WBR = 10 m NBTR = 85 m SBTL = 25 m

Scenario	Am Peak Hour		PM Peak Hour	
	V/C (LOS) seconds	95th % Que.	V/C (LOS) seconds	95th % Que
Future Background 2027	Overall: 0.56 (C) 20 EBL = 0.09 (C) 31 EBTR = 0.01 (C) 30 WBL = 0.51 (D) 41 WBTR = 0.02 (C) 30 NBL = (A) 0 NBT = 0.39 (B) 13 NBR = 0.03 (A) 10 SBL = 0.26 (C) 22 SBT = 0.59 (C) 23 SBR = (A) 0	 EBL = 15 m EBTR = 0 m WBL = 55 m WBTR = 0 m NBL = 0 m NBT = 60 m NBR = 5 m SBL = 15 m SBT = 100 m SBR = 0 m	Overall: 0.51 (B) 18 EBL = 0.06 (D) 44 EBTR = 0.01 (D) 43 WBL = 0.46 (D) 52 WBTR = 0.03 (D) 43 NBL = (A) 0 NBT = 0.55 (B) 15 NBR = 0.08 (B) 10 SBL = 0.37 (B) 14 SBT = 0.46 (B) 17 SBR = (A) 0	 EBL = 10 m EBTR = 0 m WBL = 50 m WBTR = 0 m NBL = 0 m NBT = 95 m NBR = 10 m SBL = 10 m SBT = 80 m SBR = 0 m
Future Total 2027	Overall: 0.60 (C) 21 EBL = 0.09 (C) 31 EBTR = 0.03 (C) 30 WBL = 0.53 (D) 42 WBTR = 0.02 (C) 30 NBL = (A) 0 NBT = 0.41 (B) 13 NBR = 0.03 (A) 10 SBL = 0.27 (C) 22 SBT = 0.64 (C) 24 SBR = (A) 0	 EBL = 15 m EBTR = 10 m WBL = 55 m WBTR = 5 m NBL = 0 m NBT = 60 m NBR = 5 m SBL = 15 m SBT = 110 m SBR = 0 m	Overall: 0.55 (B) 19 EBL = 0.06 (D) 44 EBTR = 0.01 (D) 43 WBL = 0.46 (D) 52 WBTR = 0.03 (D) 43 NBL = (A) 0 NBT = 0.6 (B) 16 NBR = 0.08 (B) 10 SBL = 0.41 (B) 16 SBT = 0.48 (B) 17 SBR = (A) 0	 EBL = 10 m EBTR = 0 m WBL = 50 m WBTR = 0 m NBL = 0 m NBT = 110 m NBR = 10 m SBL = 15 m SBT = 85 m SBR = 0 m
Future Background 2032	Overall: 0.61 (C) 21 EBL = 0.09 (C) 31 EBTR = 0.03 (C) 30 WBL = 0.53 (D) 42 WBTR = 0.02 (C) 30 NBL = (A) 0 NBT = 0.43 (B) 13 NBR = 0.03 (A) 10 SBL = 0.3 (C) 24 SBT = 0.66 (C) 24 SBR = (A) 0	 EBL = 15 m EBTR = 10 m WBL = 55 m WBTR = 5 m NBL = 0 m NBT = 65 m NBR = 5 m SBL = 15 m SBT = 115 m SBR = 0 m	Overall: 0.57 (B) 19 EBL = 0.06 (D) 44 EBTR = 0.01 (D) 43 WBL = 0.47 (D) 52 WBTR = 0.03 (D) 43 NBL = (A) 0 NBT = 0.62 (B) 17 NBR = 0.09 (B) 10 SBL = 0.44 (B) 17 SBT = 0.51 (B) 18 SBR = (A) 0	 EBL = 10 m EBTR = 0 m WBL = 50 m WBTR = 5 m NBL = 0 m NBT = 115 m NBR = 10 m SBL = 15 m SBT = 90 m SBR = 0 m
Future Total 2032	Overall: 0.83 (C) 28 EBL = 0.31 (C) 35 EBTR = 0.29 (C) 33 WBL = 0.79 (E) 65 WBTR = 0.04 (C) 30 NBL = 0.59 (C) 34 NBT = 0.52 (B) 14 NBR = 0.03 (A) 10 SBL = 0.38 (C) 29 SBT = **0.86** (C) 32 SBR = 0.02 (B) 16	 EBL = 40 m EBTR = 35 m WBL = 75 m WBTR = 10 m NBL = 25 m NBT = 80 m NBR = 5 m SBL = 20 m SBT = 175 m SBR = 0 m	Overall: 0.72 (C) 24 EBL = 0.27 (D) 48 EBTR = 0.14 (D) 44 WBL = 0.61 (E) 61 WBTR = 0.14 (D) 44 NBL = 0.61 (C) 32 NBT = 0.75 (B) 20 NBR = 0.1 (B) 10 SBL = 0.52 (C) 27 SBT = 0.65 (C) 20 SBR = 0.04 (B) 12	 EBL = 30 m EBTR = 20 m WBL = 50 m WBTR = 20 m NBL = 45 m NBT = 160 m NBR = 10 m SBL = 25 m SBT = 125 m SBR = 5 m

Under existing conditions, the intersection of Trafalgar Road and Wheat Boom Drive is operating at satisfactory levels with an overall v/c ratio of 0.38 LOS A and 0.43 LOS A during the a.m. and p.m. peak hours respectively. There are no critical approaches reported.

Under the 2027 future background conditions including the west approach to the intersection, the overall intersection continues to operate satisfactory (0.56 LOS C and 0.51 LOS B during the a.m. and p.m. peak hours respectively). There are no critical approaches reported.

Under the 2027 future total traffic condition, with the addition of the site traffic generated by Phase 1 of the development, the overall intersection continues to operate at satisfactory levels (0.60 LOS C during the a.m. peak hour and 0.55 LOS B during the p.m. peak hour). There continues to be no critical approaches at this intersection.

Under the 2032 future background scenario, the overall v/c ratio of the intersection increases slightly to 0.61 LOS C during the a.m. peak hour and 0.57 LOS B during the p.m. peak hour. No individual approach is expected to reach critical levels at this intersection.

With the addition of all site trips generated by Phases 1 and 2 of the proposed subdivision under the 2032 future total traffic scenario, the intersection continues to operate at a satisfactory level with a v/c ratio of 0.83 LOS C during the a.m. peak hour and 0.72 LOS C during the p.m. peak hour. The only critical approach during the future total 2032 scenario occurs in the southbound through movement approach during the a.m. peak hour. The approach is reporting a v/c ratio of 0.86 LOS C, still below the theoretical capacity of 1.00.

There are no geometric improvements recommended for this intersection other than signal timing optimization, as well as the addition of a northbound left-turn auxiliary phase in response to the increased traffic volumes destined to the proposed subdivision.

7.3 Trafalgar Road and Threshing Mill Boulevard

Capacity analysis for this intersection during the weekday a.m. and p.m. peak hours for the existing, future background, and future total traffic conditions are summarized in the following table.

Table 7 Capacity analysis of Trafalgar Road and Threshing Mill Boulevard

Scenario	Am Peak Hour		PM Peak Hour	
	V/C (LOS) seconds	95th % Que.	V/C (LOS) seconds	95th % Que
Existing 2022	Overall: 0.39 (A) 8 WBL = 0.1 (D) 40 WBR = 0.03 (D) 38 NBT = 0.35 (A) 5 SBT = 0.47 (A) 9	 WBL = 15 m WBR = 10 m NBT = 20 m SBT = 65 m	Overall: 0.43 (A) 8 WBL = 0.12 (D) 40 WBR = 0.03 (D) 38 NBTR = 0.52 (A) 5 SBTL = 0.41 (A) 8	 WBL = 20 m WBR = 10 m NBTR = 35 m SBTL = 55 m
Future Background 2027	Overall: 0.47 (C) 26 EBL = (A) 0 EBTR = (A) 0 WBL = 0.23 (C) 31 WBTR = 0.02 (C) 27 NBL = (A) 0 NBT = 0.41 (B) 17 NBR = 0.04 (B) 13 SBL = 0.21 (C) 29 SBT = 0.68 (C) 35 SBR = (A) 0	 EBL = 0 m EBTR = 0 m WBL = 35 m WBTR = 5 m NBL = 0 m NBT = 70 m NBR = 10 m SBL = 15 m SBT = 120 m SBR = 0 m	Overall: 0.45 (B) 14 EBL = (A) 0 EBTR = (A) 0 WBL = 0.33 (D) 46 WBTR = 0.02 (D) 40 NBL = (A) 0 NBT = 0.44 (A) 8 NBR = 0.08 (A) 6 SBL = 0.29 (C) 22 SBT = 0.49 (B) 20 SBR = (A) 0	 EBL = 0 m EBTR = 0 m WBL = 35 m WBTR = 5 m NBL = 0 m NBT = 60 m NBR = 5 m SBL = 15 m SBT = 85 m SBR = 0 m

Scenario	Am Peak Hour		PM Peak Hour	
	V/C (LOS) seconds	95th % Que.	V/C (LOS) seconds	95th % Que
Future Total 2027	Overall: 0.51 (C) 27 EBL = 0.09 (C) 28 EBTR = 0.03 (C) 28 WBL = 0.32 (C) 33 WBTR = 0.07 (C) 28 NBL = 0.11 (B) 17 NBT = 0.41 (B) 17 NBR = 0.04 (B) 13 SBL = 0.21 (C) 29 SBT = 0.68 (C) 35 SBR = 0.01 (C) 24	 EBL = 15 m EBTR = 5 m WBL = 45 m WBTR = 10 m NBL = 10 m NBT = 70 m NBR = 10 m SBL = 15 m SBT = 120 m SBR = 0 m	Overall: 0.45 (B) 16 EBL = 0.09 (D) 41 EBTR = 0.02 (D) 40 WBL = 0.34 (D) 46 WBTR = 0.1 (D) 41 NBL = 0.15 (A) 8 NBT = 0.44 (A) 8 NBR = 0.12 (A) 6 SBL = 0.47 (C) 29 SBT = 0.49 (B) 20 SBR = 0.02 (B) 14	 EBL = 15 m EBTR = 0 m WBL = 35 m WBTR = 15 m NBL = 10 m NBT = 60 m NBR = 5 m SBL = 25 m SBT = 85 m SBR = 5 m
Future Background 2032	Overall: 0.54 (C) 28 EBL = (A) 0 EBTR = (A) 0 WBL = 0.31 (C) 32 WBTR = 0.08 (C) 28 NBL = (A) 0 NBT = 0.45 (B) 18 NBR = 0.04 (B) 13 SBL = 0.26 (C) 31 SBT = 0.75 (D) 37 SBR = (A) 0	 EBL = 0 m EBTR = 0 m WBL = 45 m WBTR = 15 m NBL = 0 m NBT = 80 m NBR = 10 m SBL = 15 m SBT = 135 m SBR = 0 m	Overall: 0.51 (B) 15 EBL = (A) 0 EBTR = (A) 0 WBL = 0.34 (D) 46 WBTR = 0.08 (D) 40 NBL = (A) 0 NBT = 0.49 (A) 8 NBR = 0.13 (A) 6 SBL = 0.57 (D) 38 SBT = 0.53 (C) 20 SBR = (A) 0	 EBL = 0 m EBTR = 0 m WBL = 35 m WBTR = 15 m NBL = 0 m NBT = 70 m NBR = 10 m SBL = 35 m SBT = 95 m SBR = 0 m
Future Total 2032	Overall: 0.7 (C) 30 EBL = 0.47 (D) 36 EBTR = 0.25 (C) 30 WBL = 0.55 (D) 42 WBTR = 0.11 (C) 28 NBL = 0.77 (D) 52 NBT = 0.48 (B) 18 NBR = 0.04 (B) 13 SBL = 0.28 (C) 32 SBT = 0.77 (D) 38 SBR = 0.05 (C) 24	 EBL = 65 m EBTR = 30 m WBL = 50 m WBTR = 20 m NBL = 75 m NBT = 85 m NBR = 10 m SBL = 15 m SBT = 140 m SBR = 10 m	Overall: 0.79 (C) 22 EBL = 0.53 (D) 54 EBTR = 0.19 (D) 42 WBL = 0.64 (E) 67 WBTR = 0.32 (D) 43 NBL = 0.81 (D) 42 NBT = 0.5 (A) 8 NBR = 0.13 (A) 6 SBL = 0.6 (D) 42 SBT = 0.56 (C) 21 SBR = 0.12 (B) 16	 EBL = 40 m EBTR = 20 m WBL = 45 m WBTR = 35 m NBL = 90 m NBT = 75 m NBR = 10 m SBL = 35 m SBT = 100 m SBR = 15 m

Under existing conditions, the overall intersection of Trafalgar Road and Threshing Mill Boulevard is operating at satisfactory levels with an overall v/c ratio of 0.39 LOS A and 0.43 LOS A during the a.m. and p.m. peak hours respectively. There are no critical approaches during the existing 2022 traffic condition.

Under the future background 2027 traffic scenario, the overall intersection continues to operate satisfactory (0.47 LOS C and 0.45 LOS B during the a.m. and p.m. peak hours respectively). There are no critical approaches reported in the analysis.

Under the 2027 future total traffic condition, with the addition of the Phase 1 site traffic, the overall intersection continues to operate at satisfactory levels (0.51 LOS C during the a.m. peak hour and 0.45 LOS B during the p.m. peak hour). There continues to be no critical approaches at this intersection.

Under the 2032 future background scenario, the overall v/c ratio of the intersection increases to 0.54 LOS C during the a.m. peak hour and 0.51 LOS B during the p.m. peak hour. No individual approach increases to critical levels at this intersection during the 2032 future background traffic condition.

With the addition of all site trips generated by Phases 1 and 2 of the subject site, the 2032 total traffic scenario is reporting the intersection operating at a satisfactory level with a v/c ratio of 0.70 LOS C during the a.m. peak hour and 0.79 LOS C during the p.m. peak hour. There are no critical approaches to report on during the future total 2032 scenario.

There are no geometric improvements recommended for this intersection with the exception of signal timings optimization and the addition of a northbound left-turn auxiliary phase in response to the increased traffic volumes destined to the proposed subdivision.

7.4 Dundas Street East and Ernest Appelbe Boulevard

Capacity analysis for this intersection during the weekday a.m. and p.m. peak hours for the existing, future background, and future total traffic conditions out are summarized in the following table.

Table 8 Capacity analysis of Dundas Street East and Ernest Appelbe Boulevard

Scenario	Am Peak Hour		PM Peak Hour	
	V/C (LOS) seconds	95th % Que.	V/C (LOS) seconds	95th % Que
Existing 2022	Overall: 0.69 (C) 26 EBL = 0.14 (C) 22 EBT = 0.78 (C) 33 EBR = 0.09 (C) 21 WBL = 0.43 (E) 60 WBT = 0.37 (A) 6 WBR = 0.04 (A) 1 NBL = 0.21 (C) 30 NBT = 0.03 (C) 27 NBR = 0.04 (C) 28 SBL = 0.66 (D) 50 SBTR = 0.09 (C) 35	 EBL = 10 m EBT = 165 m EBR = 15 m WBL = 20 m WBT = 20 m WBR = 5 m NBL = 25 m NBT = 10 m NBR = 10 m SBL = 90 m SBTR = 15 m	Overall: 0.62 (B) 20 EBL = 0.27 (C) 22 EBT = 0.46 (C) 20 EBR = 0.13 (B) 17 WBL = 0.58 (B) 15 WBT = 0.44 (B) 12 WBR = 0.08 (A) 10 NBL = 0.66 (D) 44 NBT = 0.15 (C) 30 NBR = 0.05 (C) 29 SBL = 0.39 (C) 35 SBTR = 0.09 (C) 29	 EBL = 20 m EBT = 80 m EBR = 15 m WBL = 30 m WBT = 70 m WBR = 10 m NBL = 85 m NBT = 30 m NBR = 10 m SBL = 50 m SBTR = 15 m
Future Background 2027	Overall: 0.74 (C) 22 EBL = 0.2 (A) 10 EBT = 0.68 (B) 20 EBR = 0.1 (B) 12 WBL = 0.52 (D) 43 WBT = 0.42 (A) 8 WBR = 0.09 (A) 2 NBL = 0.43 (D) 51 NBT = 0.2 (E) 59 NBR = 0.05 (E) 57 SBL = 0.87 (E) 67 SBTR = 0.23 (D) 53	 EBL = 10 m EBT = 165 m EBR = 15 m WBL = 15 m WBT = 95 m WBR = 5 m NBL = 35 m NBT = 15 m NBR = 0 m SBL = 95 m SBTR = 20 m	Overall: 0.71 (C) 29 EBL = 0.42 (C) 24 EBT = 0.65 (C) 32 EBR = 0.15 (C) 24 WBL = 0.75 (B) 18 WBT = 0.68 (C) 25 WBR = 0.14 (C) 29 NBL = 0.56 (C) 31 NBT = 0.14 (C) 26 NBR = 0.06 (C) 25 SBL = 0.63 (E) 56 SBTR = 0.13 (D) 41	 EBL = 15 m EBT = 125 m EBR = 20 m WBL = 25 m WBT = 155 m WBR = 20 m NBL = 80 m NBT = 30 m NBR = 10 m SBL = 70 m SBTR = 20 m

Scenario	Am Peak Hour		PM Peak Hour	
	V/C (LOS) seconds	95th % Que.	V/C (LOS) seconds	95th % Que
Future Total 2027	Overall: 0.74 (C) 23 EBL = 0.3 (B) 10 EBT = 0.68 (B) 20 EBR = 0.1 (B) 12 WBL = 0.51 (C) 34 WBT = 0.43 (A) 9 WBR = 0.09 (A) 6 NBL = 0.43 (D) 51 NBT = 0.2 (E) 59 NBR = 0.05 (E) 57 SBL = 0.87 (E) 67 SBTR = 0.25 (D) 54	 EBL = 10 m EBT = 165 m EBR = 15 m WBL = 10 m WBT = 105 m WBR = 10 m NBL = 35 m NBT = 15 m NBR = 0 m SBL = 90 m SBTR = 20 m	Overall: 0.72 (C) 30 EBL = 0.51 (C) 24 EBT = 0.65 (C) 32 EBR = 0.15 (C) 24 WBL = 0.75 (B) 17 WBT = 0.7 (C) 27 WBR = 0.14 (D) 35 NBL = 0.58 (C) 31 NBT = 0.14 (C) 26 NBR = 0.06 (C) 25 SBL = 0.63 (E) 56 SBTR = 0.15 (D) 42	 EBL = 25 m EBT = 125 m EBR = 20 m WBL = 25 m WBT = 150 m WBR = 25 m NBL = 80 m NBT = 30 m NBR = 10 m SBL = 70 m SBTR = 20 m
Future Background 2032	Overall: 0.82 (C) 26 EBL = 0.24 (B) 11 EBT = 0.76 (C) 23 EBR = 0.11 (B) 13 WBL = 0.5 (D) 48 WBT = 0.46 (A) 8 WBR = 0.1 (A) 1 NBL = 0.46 (D) 50 NBT = 0.22 (E) 59 NBR = 0.05 (E) 57 SBL = **0.95** (F) 85 SBTR = 0.26 (D) 54	 EBL = 10 m EBT = 195 m EBR = 15 m WBL = 15 m WBT = 105 m WBR = 5 m NBL = 40 m NBT = 15 m NBR = 0 m SBL = 110 m SBTR = 20 m	Overall: 0.79 (C) 30 EBL = 0.45 (C) 26 EBT = 0.73 (C) 35 EBR = 0.18 (C) 25 WBL = 0.83 (C) 21 WBT = 0.73 (C) 25 WBR = 0.16 (C) 28 NBL = 0.62 (C) 32 NBT = 0.15 (C) 26 NBR = 0.06 (C) 25 SBL = 0.71 (E) 62 SBTR = 0.15 (D) 42	 EBL = 15 m EBT = 140 m EBR = 20 m WBL = 30 m WBT = 150 m WBR = 25 m NBL = 90 m NBT = 30 m NBR = 10 m SBL = 80 m SBTR = 20 m
Future Total 2032	Overall: 0.86 (C) 30 EBL = 0.66 (C) 21 EBT = 0.8 (C) 25 EBR = 0.11 (B) 13 WBL = 0.5 (C) 34 WBT = 0.58 (B) 18 WBR = 0.11 (B) 14 NBL = 0.47 (D) 50 NBT = 0.2 (E) 58 NBR = 0.05 (E) 57 SBL = 0.93 (E) 79 SBTR = 0.33 (D) 54	 EBL = 40 m EBT = 220 m EBR = 20 m WBL = 10 m WBT = 140 m WBR = 20 m NBL = 35 m NBT = 15 m NBR = 0 m SBL = 95 m SBTR = 25 m	Overall: 0.85 (C) 36 EBL = 0.88 (E) 65 EBT = 0.77 (D) 36 EBR = 0.19 (C) 26 WBL = 0.83 (B) 19 WBT = **0.86** (C) 32 WBR = 0.17 (D) 35 NBL = 0.75 (D) 38 NBT = 0.15 (C) 26 NBR = 0.06 (C) 25 SBL = 0.71 (E) 62 SBTR = 0.24 (D) 43	 EBL = 80 m EBT = 155 m EBR = 25 m WBL = 25 m WBT = 155 m WBR = 25 m NBL = 90 m NBT = 30 m NBR = 10 m SBL = 80 m SBTR = 25 m

Under existing conditions, the intersection of Dundas Street East and Ernest Appelbe Boulevard is operating at satisfactory levels with an overall v/c ratio of 0.69 LOS C and 0.62 LOS B during the a.m. and p.m. peak hours respectively. There are no individual approaches operation at critical levels.

With the addition of corridor growth and background traffic under the future background 2027 scenario, the overall intersection v/c ratios increase to 0.74 LOS C during the a.m. peak hour and to 0.71 LOS C during the p.m. peak hour. There continues to be no reported critical approaches at this intersection.

Under the 2027 future total traffic condition, with the addition of Phase 1 site trips, the overall intersection continues to operate below critical levels, reporting a v/c ratio of 0.74 LOS C during the a.m. peak hour (unchanged from future background scenario) and 0.72 LOS C during the p.m. peak hour (an increase of 0.01).

Under the 2032 future background scenario, including corridor growth and background developments, the overall v/c ratio of the intersection remains below critical levels. The intersection reports an overall v/c ratio of 0.82 LOS C during the a.m. peak hour and 0.79 LOS C during the p.m. peak hour. Only the southbound left turn during the a.m. peak hour has reached a critical level (0.95 LOS F) but remains below the theoretical capacity of 1.00.

With the addition of Phase 1 and 2 site generated traffic under the 2032 future total scenario, the overall v/c ratio of the intersection increases, with the overall intersection reaching critical levels during the a.m. peak hour (0.86 LOS C) and p.m. peak hour (0.85 LOS C). With signal timing optimization, the southbound left turn approach can operate below critical levels during the a.m. peak hour (0.93 LOS E). However, the westbound through movement remains critical at a v/c ratio of 0.86 LOS C, but still remains below the theoretical capacity of this movement.

There are no geometric improvements recommended for this intersection with the exception of signal timing optimization in response to the addition of site generated traffic to this study intersection.

7.5 Ernest Appelbe Boulevard and Wheat Boom Drive

Table 9 Capacity analysis of Ernest Appelbe Boulevard and Wheat Boom Drive

Scenario	Am Peak Hour		PM Peak Hour	
	V/C (LOS) seconds	95th % Que.	V/C (LOS) seconds	95th % Que
Existing 2022	EBTLR = 0.1 (A) 8 WBTL = 0.03 (A) 8 WBTR = 0 (A) 7 NBTL = 0.12 (A) 8 NBTR = 0.05 (A) 7 SBTL = 0.09 (A) 7 SBTR = 0.1 (A) 7	EBTLR = 0 m WBTL = 0 m WBTR = 0 m NBTL = 0 m NBTR = 0 m SBTL = 0 m SBTR = 0 m	EBTLR = 0.11 (A) 9 WBTL = 0.03 (A) 8 WBTR = 0.01 (A) 7 NBTL = 0.17 (A) 8 NBTR = 0.11 (A) 7 SBT = 0.1 (A) 7 SBTR = 0.11 (A) 7	EBTLR = 0 m WBTL = 0 m WBTR = 0 m NBTL = 0 m NBTR = 0 m SBT = 0 m SBTR = 0 m
Future Background 2027	EBT = 0.12 (A) 9 WBTL = 0.04 (A) 8 WBTR = 0 (A) 7 NBTL = 0.13 (A) 8 NBTR = 0.15 (A) 7 SBTL = 0.1 (A) 7 SBTR = 0.11 (A) 7	EBT = 0 m WBTL = 0 m WBTR = 0 m NBTL = 0 m NBTR = 0 m SBTL = 0 m SBTR = 0 m	EBT = 0.12 (A) 9 WBTL = 0.03 (A) 8 WBTR = 0.01 (A) 7 NBTL = 0.18 (A) 8 NBTR = 0.17 (A) 8 SBTL = 0.11 (A) 8 SBTR = 0.12 (A) 8	EBT = 0 m WBTL = 0 m WBTR = 0 m NBTL = 0 m NBTR = 0 m SBTL = 0 m SBTR = 0 m
Future Total 2027	EBT = 0.15 (A) 9 WBTL = 0.04 (A) 8 WBTR = 0.01 (A) 7 NBTL = 0.15 (A) 8 NBTR = 0.17 (A) 7 SBTL = 0.13 (A) 8 SBTR = 0.14 (A) 8	EBT = 0 m WBTL = 0 m WBTR = 0 m NBTL = 0 m NBTR = 0 m SBTL = 0 m SBTR = 0 m	EBT = 0.13 (A) 10 WBTL = 0.03 (A) 8 WBTR = 0.01 (A) 7 NBTL = 0.21 (A) 8 NBTR = 0.2 (A) 8 SBTL = 0.14 (A) 8 SBTR = 0.17 (A) 8	EBT = 0 m WBTL = 0 m WBTR = 0 m NBTL = 0 m NBTR = 0 m SBTL = 0 m SBTR = 0 m
Future Background 2032	EBT = 0.16 (A) 9 WBTL = 0.04 (A) 8 WBTR = 0 (A) 7 NBTL = 0.15 (A) 8 NBTR = 0.15 (A) 7 SBTL = 0.12 (A) 8 SBTR = 0.13 (A) 8	EBT = 0 m WBTL = 0 m WBTR = 0 m NBTL = 0 m NBTR = 0 m SBTL = 0 m SBTR = 0 m	EBT = 0.14 (A) 10 WBTL = 0.03 (A) 8 WBTR = 0.02 (A) 7 NBTL = 0.2 (A) 9 NBTR = 0.19 (A) 8 SBTL = 0.13 (A) 8 SBTR = 0.16 (A) 8	EBT = 0 m WBTL = 0 m WBTR = 0 m NBTL = 0 m NBTR = 0 m SBTL = 0 m SBTR = 0 m

Scenario	Am Peak Hour		PM Peak Hour	
	V/C (LOS) seconds	95th % Que.	V/C (LOS) seconds	95th % Que
Future Total 2032	EBT = 0.18 (B) 10 WBTL = 0.29 (B) 11 WBTR = 0.01 (A) 8 NBTL = 0.19 (A) 9 NBTR = 0.33 (A) 10 SBTL = 0.18 (A) 9 SBTR = 0.19 (A) 9	EBT = 0 m WBTL = 0 m WBTR = 0 m NBTL = 0 m NBTR = 0 m SBTL = 0 m SBTR = 0 m	EBT = 0.16 (B) 11 WBTL = 0.3 (B) 12 WBTR = 0.02 (A) 8 NBTL = 0.27 (B) 10 NBTR = 0.41 (A) 11 SBTL = 0.19 (A) 9 SBTR = 0.22 (A) 9	EBT = 0 m WBTL = 0 m WBTR = 0 m NBTL = 0 m NBTR = 0 m SBTL = 0 m SBTR = 0 m

Under existing, future background and future total traffic conditions, the intersection of Ernest Appelbe Boulevard and Wheat Boom Drive is reported to operate satisfactorily with substantial reserve capacity, low levels of delay and negligible queueing. All approaches are operating with delays of 11 seconds or less.

There are no geometric improvement recommend for this study intersection.

7.6 Ernest Appelbe Boulevard and Threshing Mill Boulevard

Table 10 Capacity analysis of Ernest Appelbe Boulevard and Threshing Mill Boulevard

Scenario	Am Peak Hour		PM Peak Hour	
	V/C (LOS) seconds	95th % Que.	V/C (LOS) seconds	95th % Que
Existing 2022	EBR = (A) 7 NBL = (A) 7	EBR = 0 m NBL = 0 m	EBR = (A) 7 NBL = (A) 7	EBR = 0 m NBL = 0 m
Future Background 2027	EBT = (A) 6 EBTR = (A) 6 WBTL = (A) 6 WBT = (A) 6 NBL = (A) 7 NBR = (A) 6	EBT = 0 m EBTR = 0 m WBTL = 0 m WBT = 0 m NBL = 0 m NBR = 0 m	EBT = (A) 6 EBTR = (A) 6 WBTL = (A) 6 WBT = (A) 6 NBL = (A) 7 NBR = (A) 6	EBT = 0 m EBTR = 0 m WBTL = 0 m WBT = 0 m NBL = 0 m NBR = 0 m
Future Total 2027	EBT = (A) 6 EBTR = (A) 6 WBTL = (A) 7 WBT = (A) 6 NBL = (A) 8 NBR = (A) 6	EBT = 0 m EBTR = 0 m WBTL = 0 m WBT = 0 m NBL = 0 m NBR = 0 m	EBT = (A) 7 EBTR = (A) 6 WBTL = (A) 8 WBT = (A) 6 NBL = (A) 8 NBR = (A) 6	EBT = 0 m EBTR = 0 m WBTL = 0 m WBT = 0 m NBL = 0 m NBR = 0 m
Future Background 2032	EBT = (A) 6 EBTR = (A) 6 WBTL = (A) 6 WBT = (A) 6 NBL = (A) 8 NBR = (A) 6	EBT = 0 m EBTR = 0 m WBTL = 0 m WBT = 0 m NBL = 0 m NBR = 0 m	EBT = (A) 6 EBTR = (A) 6 WBTL = (A) 7 WBT = (A) 6 NBL = (A) 7 NBR = (A) 6	EBT = 0 m EBTR = 0 m WBTL = 0 m WBT = 0 m NBL = 0 m NBR = 0 m

Scenario	Am Peak Hour		PM Peak Hour	
	V/C (LOS) seconds	95th % Que.	V/C (LOS) seconds	95th % Que
Future Total 2032	EBT = (A) 7 EBTR = (A) 6 WBTL = (A) 8 WBT = (A) 7 NBL = (A) 8 NBR = (A) 6	EBT = 0 m EBTR = 0 m WBTL = 0 m WBT = 0 m NBL = 0 m NBR = 0 m	EBT = (A) 7 EBTR = (A) 6 WBTL = (A) 8 WBT = (A) 7 NBL = (A) 8 NBR = (A) 6	EBT = 0 m EBTR = 0 m WBTL = 0 m WBT = 0 m NBL = 0 m NBR = 0 m

Under existing, future background and future total traffic conditions, the intersection of Ernest Appelbe Boulevard and Threshing Mill Boulevard is reported to operate satisfactorily with substantial reserve capacity, low levels of delay and negligible queueing. The estimated volumes at this intersection as low and all approaches are reported delays of 10 seconds or less.

There are no geometric improvements recommend for this study intersection.

8. Roadway Elements

8.1 Traffic Calming Measures

GHD recommends placing Curb Extension/Bulb Out on Local and Collector Roads within the proposed subdivision. These curb extensions are described as horizontal intrusion of the curb into the roadway resulting in a narrower section of roadway. They are usually placed at intersections but may also be placed at mid-block locations if there is expected to be a significant volume of pedestrians crossing. Curb extensions and bulb outs are generally used to reduce vehicle speeds, reduce vehicle speeds when turning, reduce the crossing distance for pedestrians while also increasing their visibility, and prevents parking close to intersections. They can also be used to visually enhance the street if they are landscaped. Typically curb extensions where long, straight and uninterrupted sections of a roadway way or exceed 300 metres for roads with a posted speed limit of 50 kph. However, despite the proposed draft plan not containing such long sections of straight and uninterrupted sections of roadways, GHD is recommended some curb extensions and bulb outs as indicated in the figure below and includes the proposed roundabout at the intersection of Threshing Mill Boulevard and Street A.

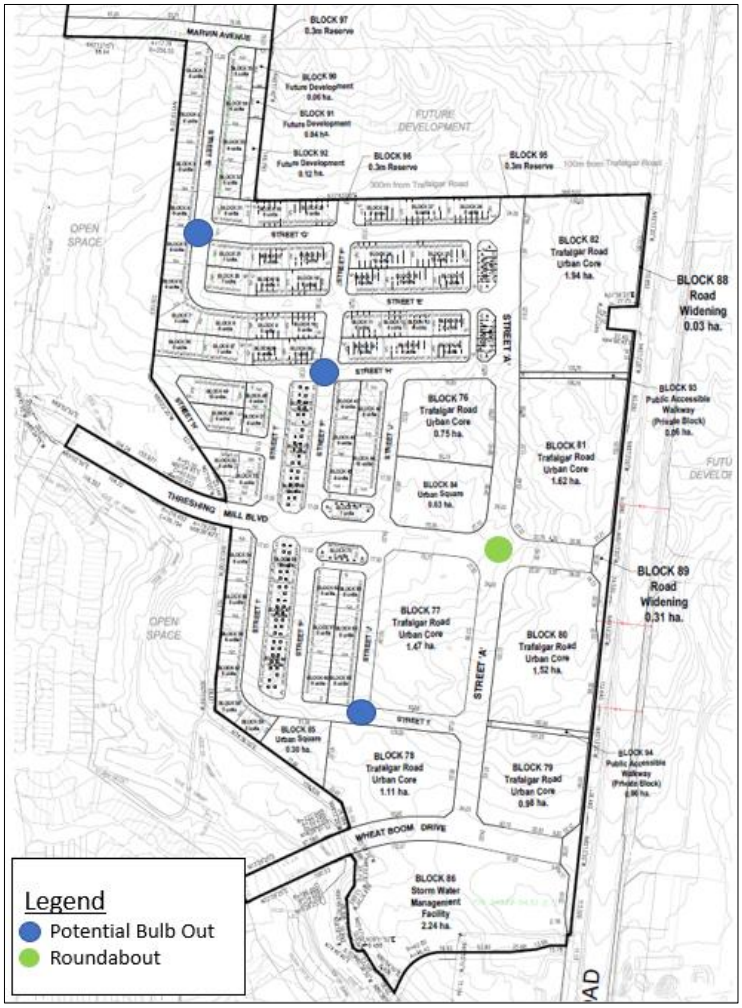

Figure 13 Proposed Traffic Calming Measure Locations

8.2 Active Transportation

Outside of the study area, signed bike routes are currently provided along Threshing Mill Boulevard and Wheat Boom Drive east of Trafalgar Road. These two routes connect the signed route along Eighth Line, which continues southbound towards Dundas Street. At Dundas Street and Eighth Line, a multi-use trail is provided on the south side of the road, as well as the transition of the signed route on Eighth Line into a bike lane south of Dundas Street.

West of Trafalgar Road, Wheat Boom Drive continues to have a signed bike route, as well as North Park Boulevard (the continuation of Threshing Mill Boulevard west of Sixth Line). These two routes continue west until they connect with the multi-use trail and bike lane provided at Neyagawa Boulevard.

With the series of cycling infrastructure provided outside of the study area and their connections to other cycling routes, it is recommended to connect the signed routes along Threshing Mill Boulevard and Wheat Boom Drive on both sides of Trafalgar Road along their respective future connections within the proposed subdivision.

The proposed pedestrian and cyclist facilites for the subdivision are provided in **Figure 14** below.

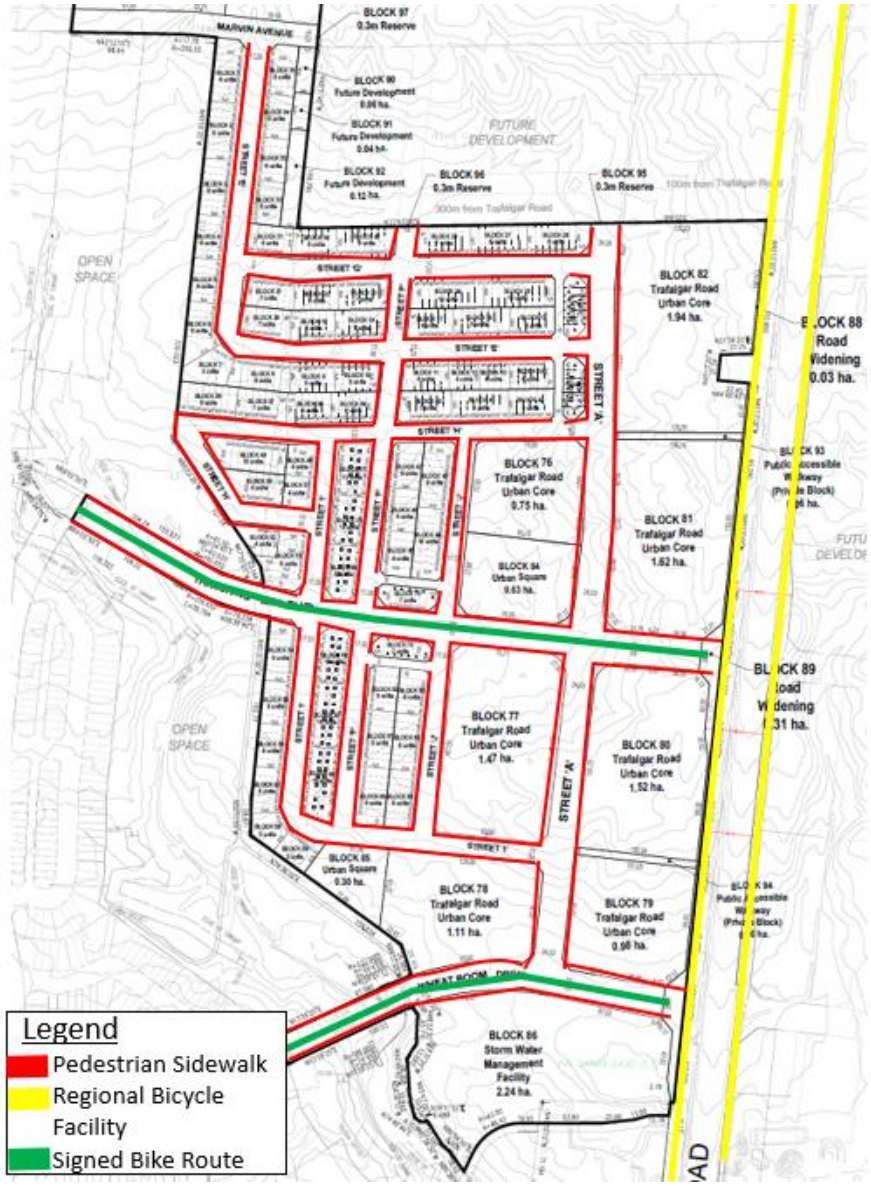

Figure 14 Proposed Pedestrian and Cycling Facilities

9. November 1st, 2021 Pre-Consultation Form Staff Comments

A Pre-Consultation meeting was held in November 2021, and Town staff provided the following comments and requested they be addressed within the Traffic Impact Study. GHD has reviewed the two comments and provided the following responses:

Comment #1: Have your transportation consultant look at all deviations from master plan and discuss/justify any new proposal.

The proposed draft plan for Green Ginger Phase 2 does not provide an extension of Ernest Appelbe Boulevard north of Threshing Mill Boulevard over the Natural Heritage System (NHS) as previously identified in the North Oakville East

Secondary Plan. Instead, it provides alternate connectivity via Threshing Mill Boulevard and a proposed new Street 'A', which runs north-south through the draft plan from Wheat Boom Drive north to the future William Halton Parkway.

The alternative road alignment reduces the number of NHS crossings and continues to achieve the required connectivity and transportation goals of the North Oakville East Secondary Plan. To accomplish this, the Town has requested that Threshing Mill Boulevard between Ernest Appelbe Boulevard & Trafalgar Road and the proposed Street 'A' be upgraded to an Avenue/Transit Corridor with a 24 metre right-of-way to provide the same functionality that the previously proposed Ernest Appelbe extension would have achieved.

The findings of the Traffic Study and subsequent capacity analysis confirms that the volumes along the proposed alternative road network are expected to be accommodated by the internal intersection geometry with no transportation issues.

Comment #2: Have consultants address northern block and Marvin/Trafalgar intersection build out?

The future Marvin Road extension from its current terminus just east of Bowbeer Drive to Trafalgar Road will be completed when the development block north of Green Ginger develops sometime in the future. As per the Terms of Reference agreed to with the Town and the Region for the Traffic Impact Study completed for Green Ginger Phase 2, the future development block to the north and the future intersection of Marvin Avenue and Trafalgar Road were not included in the analysis of future traffic scenarios. This extension and future intersection is not required for the development of Green Ginger Phase 2 and will be assessed when an application for the development block to the north is submitted to the Town.

10. Conclusion

The proposed draft plan of subdivision prepared by Malone Given Parsons, dated January 2022 consists of a series of townhouses and urban core blocks. The residential units and commercial retail space are broken down as follows:

- 539 townhouse units
- 8 mid-rise buildings with a total of 1,732 residential units
- 5 high-rise buildings with a total of 2,578 residential units and 55,145 square feet of retail GFA

Access to the proposed subdivision from the regional arterial roads is proposed via Threshing Mill Boulevard, Wheat Boom Drive and Ernest Appelbe Boulevard.

The proposed subdivision is expected to generate a total of 1,612 new two-way trips consisting of 501 inbound and 1,111 outbound trips during weekday a.m. peak hour and 1,817 new two-way trips consisting of 1,034 inbound and 783 outbound trips during the weekday p.m. peak hour.

The intersection of Dundas Street East and Trafalgar Road is reported to operate near or above capacity during both peak hours during the Future Total 2027 and 2032 scenarios. With the future completion of the William Halton Parkway, we can expect a decrease in the volume of through traffic along Dundas Street East in both the eastbound and westbound direction, therefore based on the timing of this development we do not anticipate any concerns presently or following the completion of William Halton Parkway.

The intersections of Threshing Mill Boulevard at Trafalgar Road and Wheat Boom Drive at Trafalgar Road will have the west approach of the intersection in operation once the first sub-phases of the development are completed. With the additional traffic that will access the subdivision from the south, a northbound left-turn phase has been added to reduce the overall and individual approach v/c ratios.

Under future total traffic conditions, the signal timings for all signalized intersections along Trafalgar Road and Dundas Street East were optimized as needed to reduce v/c ratios and delays.

Appendices

Appendix A

Terms of Reference

Raf Andrenacci

From: Aquisha Khan <aquisha.khan@oakville.ca>
Sent: Tuesday, January 4, 2022 11:34 AM
To: Will Maria
Cc: Matt Krusto (InTouch); Leigh Musson; Tricia Collingwood
Subject: RE: TOR for Green Ginger Phase 2

Good Morning Will;

Happy New Year! Please see my comments for the above mentioned TOR:

Study Intersections:

- The study intersections provided are acceptable

Background Development:

Please use the following developments for the Background development application:

- Oakvillage 3 - Tower B - BC Trafalgar Inc. 3220 William Coltson Avenue - 1312.010/02
- MC OakVillage GP Inc - 348 Wheat Boom Drive - 24CDM-21007/1312
- MC Oakvillage - 335, 345 and 349 Wheat Boom Drive - 1312.012/01
- Oakvillage Block 14 - Daniels Emshih - 377, 387 and 411 Dundas Street East - 1312.013/01
- Emshih Developments - 351 Dundas Street East - 1312.009/01
- 3064 Trafalgar Road Inc. - 3064 Trafalgar Road - 1313.006/01
- MC OakVillage Phase 4A/B - 3075 Trafalgar Road - 1312.012/02
- MC Oakvillage Phase 4C - 3075 Trafalgar Road - 1312.012/03
- HCDSB North Oakville #4 Elementary School - 420 Threshing Mill Boulevard - 1311.001/03

All of the above development applications can be found on Town of Oakville's website.

Figures/Tables:

Please provide figures for the following:

- Existing Road Network
- Proposed/Future Road Network
- All Trips along the road network identified within the study area (Existing, future background, site generated, trip distributions and future total(s))

Please provide tables for the following:

- All trips calculated (future background, site generated, future total(s))
- Tabulate the background development site generated traffic
- All intersection capacity analysis movements (LOS, v/c ratio, delays and queue)

Growth Rate/ Horizon:

- The proposed 2% growth rate is acceptable
- The study horizons are acceptable

Thanks for the opportunity to review the TOR. If you have any questions or concerns regarding the above requests, please feel free to contact me.

Regards;
Aquisha

Regards;
Aquisha Khan, P. Eng.
Transportation Engineer,
Transportation and Engineering Department,
Town of Oakville | P: 905-845-6601 | www.oakville.ca

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From: Krusto, Matt
Sent: December 20, 2021 6:30 PM
To: 'Will Maria' ; Aquisha Khan
Subject: RE: TOR for Green Ginger Phase 2

Hi Will,

I have the following comments on the terms of reference.

For the "*Transit mode splits, as well as TDM & Active Transportation assumptions*", please use:

Halton's Transportation Master Plan 2011 utilizes a transit mode split of 10% for 2021, 15% for 2026 and 20% for 2031. Assumption of travel via other modes (active transportation i.e.: walk, cycle) should utilize a 5% mode split for 2026. Transportation Demand Management (TDM) assumptions of 3% for 2026 would also be acceptable. **Transit mode splits will need to be adjusted from the 2011 TMP assumptions to reasonable percentages based on current year (2021) and 2026 planned and proposed mode splits (based on existing facilities and service in the area to date (planned &/or proposed). Reasonable assumptions and rationale must be clearly outlined in the Study.**

Any Regional information (traffic counts, signal timing) if needed, can be obtained from Halton through a request to our Road Operations staff at trafficdatarequets@halton.ca

The proposed use of a 2% growth rate is acceptable.

The planned construction start of the Trafalgar Road Improvements Phase 2 project (Hays Boulevard to William Halton Parkway), is scheduled for utility relocation to commence in early 2023 with construction start in late 2023 (scheduling is currently tentative and subject to change). Trafalgar Road should be assumed completed and operational in year 2026.

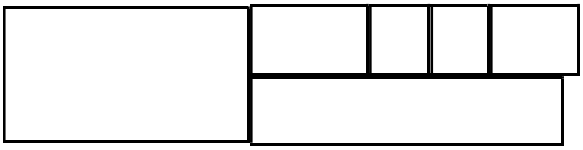
Study intersections are acceptable.

Town staff will provide all background developments to consider as part of the study.

Thanks again for circulating.

Matt

Matt Krusto
Supervisor, Transportation Development Review
Infrastructure Planning & Policy
Public Works
Halton Region
905-825-6000, ext. 7225 | 1-866-442-5866



From: Will Maria
Sent: December 16, 2021 9:34 AM
To: Krusto, Matt ; Aquisha Khan
Subject: TOR for Green Ginger Phase 2

Good morning Matt/Aquisha,

GHD Inc. has been retained to prepare a Transportation Impact Study for the Green Ginger Phase 2 Draft Plan located on the west side of Trafalgar Road north of Dundas Street in the Town of Oakville.
In order to properly scope this project we ask that the Region and Town provide comments on the following scope and confirm if there are any additional items required as part of the study.

The proposed draft plan is attached.

The proposed development consists of 539 townhouse units plus blocks within the Trafalgar Road Urban Core.
The site is accessed via the intersections of Trafalgar Road with Wheat Boom Drive and Threshing Mill Blvd and Ernest Appelbe with Dundas Street.
The main internal intersections will be the intersections of Ernest Appelbe with Wheat Boom and Threshing Mill.

A traffic assessment (horizon years) for existing 2022, five year horizon (2027) for the Townhouse units and 10 year horizon (2032) for the Trafalgar Urban Core blocks from the date of the report is proposed.

Terms of Reference

The following study intersections have been selected and are consistent with the previous study:

- Trafalgar and Dundas
- Trafalgar Road and Wheat Boom

- Trafalgar Road and Threshing Mill
- Dundas and Ernest Appelbe
- Ernest Appelbe and Wheat Boom
- Ernest Appelbe and Threshing Mill

Given the amount of development that has occurred since any traffic data has been collected in the area, GHD proposes to conducted updated traffic counts for the study intersections.

Signal timings will be obtained from the Region.

Traffic due to general background growth (non-specific development traffic) will be accounted for through a 2 percent per annum corridor growth rate (Region and Town roads) as per previous studies in the area.

Future background traffic within the selected planning horizon generated by other developments will be included (please identify if there are specific developments to include as background traffic in addition to general corridor growth estimated at 2% per annum on Town and Region Roads).

Trip generation estimates will be prepared for the weekday am and pm peak hours, for the proposed development using ITE trip generation data.

Transit mode split and non-auto trip rates methodologies will be clearly documented in the report based on TTS data.

The directional distribution of traffic approaching and departing the site (via the driveways) will be determined based upon a review of existing traffic patterns and the Toronto Tomorrow Survey 2016 (TTS).

The site traffic will be assigned to the study area roadway network in accordance with our interpretation of these various patterns.

Analysis to include HOV on Trafalgar for both the 2027 and 2032 horizon years.

Capacity analysis of the study intersections to be completed using Synchro Version 10.

Prepare a Transit Facilities Plan for the draft plan identifying possible transit routes, transit stops and amenities.

If the above scope is acceptable to the Region and Town then it will form the basis of our scope of work.

Sincerely,
Will

William C. Maria, P.Eng.
Transportation Planning Lead

GHD Ltd.
T: 905 814 4397 | C: 647 229 8541 | V: 881397 | F: 905 890 8499 | E: will.maria@ghd.com
6705 Millcreek Drive Unit 1 Mississauga ON L5N 5M4 | **www.ghd.com**

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Appendix B

Traffic Data

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #22-014 - GHD

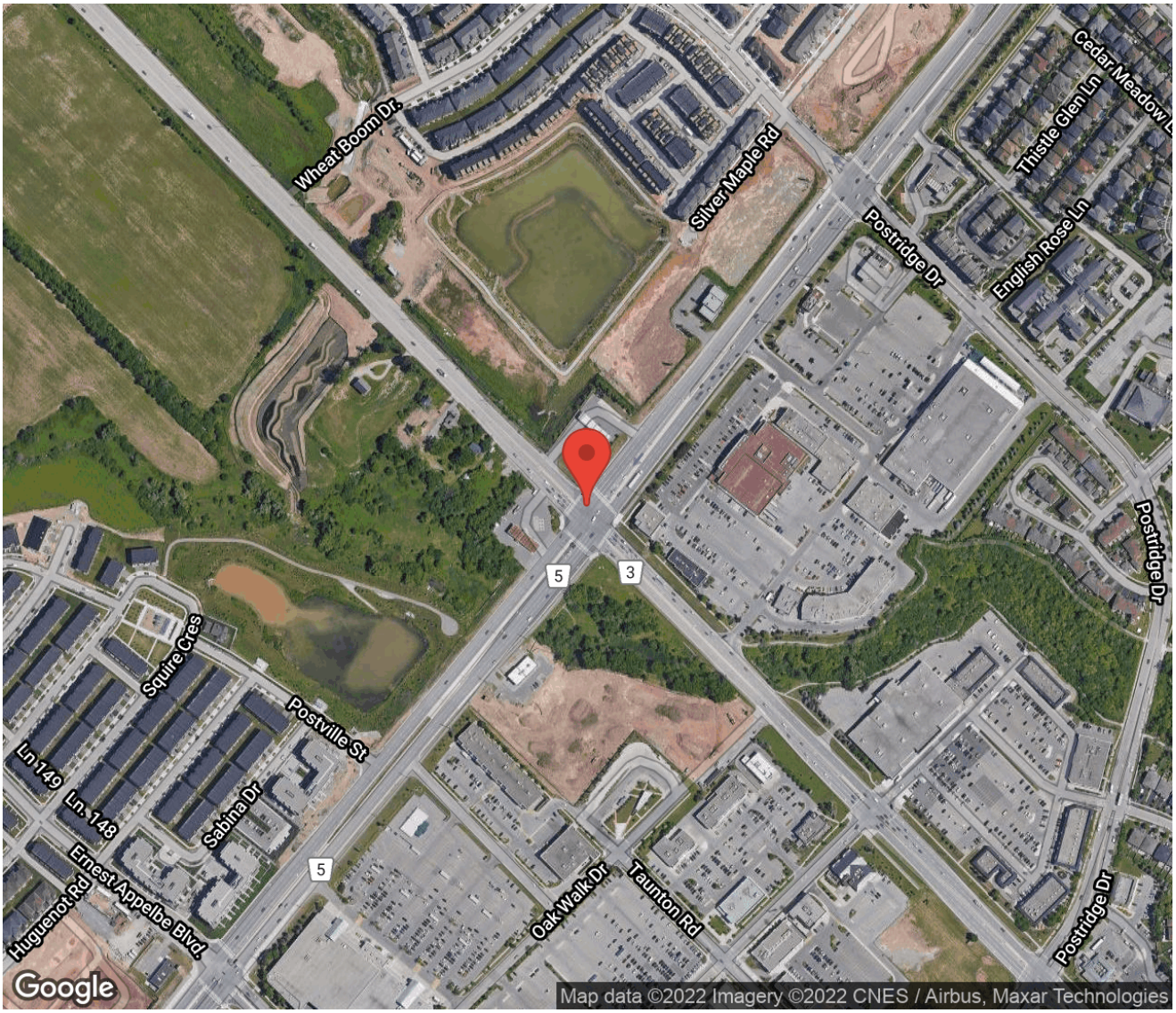
Intersection Count Report

Intersection:	Trafalgar Rd & Dundas St E
Municipality:	Oakville
Count Date:	Jan 25, 2022
Site Code:	2201400001
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-09:00, 16:00-19:00
Weather:	Clear

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Map

Intersection:	Trafalgar Rd & Dundas St E
Site Code:	2201400001
Municipality:	Oakville
Count Date:	Jan 25, 2022



Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Trafalgar Rd & Dundas St E
Site Code:	2201400001
Municipality:	Oakville
Count Date:	Jan 25, 2022

Trafalgar Rd - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	232	281	111	0	624	0	85	187	46	0	318	2	942
08:00 - 09:00	181	304	122	0	607	0	98	232	69	0	399	3	1006
BREAK													
16:00 - 17:00	182	312	153	0	647	1	229	426	109	0	764	1	1411
17:00 - 18:00	152	355	137	0	644	1	242	444	145	0	831	5	1475
18:00 - 19:00	114	260	126	0	500	0	189	428	99	0	716	0	1216
GRAND TOTAL	**861**	**1512**	**649**	**0**	**3022**	**2**	**843**	**1717**	**468**	**0**	**3028**	**11**	**6050**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Trafalgar Rd & Dundas St E
Site Code:	2201400001
Municipality:	Oakville
Count Date:	Jan 25, 2022

Dundas St E - 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	101	506	121	0	728	0	157	1091	48	0	1296	0	2024
08:00 - 09:00	109	694	108	0	911	1	200	1213	145	0	1558	1	2469
BREAK													
16:00 - 17:00	180	1320	172	0	1672	1	232	1152	85	0	1469	1	3141
17:00 - 18:00	225	1425	166	0	1816	0	196	1195	77	0	1468	2	3284
18:00 - 19:00	188	1062	111	0	1361	0	145	974	70	0	1189	1	2550
GRAND TOTAL	**803**	**5007**	**678**	**0**	**6488**	**2**	**930**	**5625**	**425**	**0**	**6980**	**5**	**13468**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Trafalgar Rd & Dundas St E
Site Code: 2201400001
Municipality: Oakville
Count Date: Jan 25, 2022

North Approach - Trafalgar Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	32	51	17	0	100	10	6	2	0	18	0	0	0	0	0	0
07:15	54	65	28	0	147	7	9	3	0	19	0	0	0	0	0	0
07:30	48	69	25	0	142	5	6	4	0	15	0	0	0	0	0	0
07:45	67	70	30	0	167	9	5	2	0	16	0	0	0	0	0	0
08:00	32	41	31	0	104	7	4	6	0	17	0	0	0	0	0	0
08:15	33	82	26	0	141	6	8	3	0	17	0	0	0	0	0	0
08:30	40	73	28	0	141	8	4	3	0	15	0	0	0	0	0	0
08:45	51	87	23	0	161	4	5	2	0	11	0	0	0	0	0	0
SUBTOTAL	357	538	208	0	1103	56	47	25	0	128	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Trafalgar Rd & Dundas St E
Site Code: 2201400001
Municipality: Oakville
Count Date: Jan 25, 2022

North Approach - Trafalgar Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	53	62	23	0	138	4	5	2	0	11	0	0	0	0	0	0
16:15	49	75	52	0	176	3	6	3	0	12	0	0	0	0	0	0
16:30	34	62	30	0	126	5	4	1	0	10	0	0	0	0	0	0
16:45	30	95	41	0	166	4	3	1	0	8	0	0	0	0	0	1
17:00	38	100	46	0	184	2	3	1	0	6	0	0	0	0	0	0
17:15	41	89	33	0	163	1	4	0	0	5	0	0	0	0	0	0
17:30	34	88	38	0	160	3	3	1	0	7	0	0	0	0	0	0
17:45	32	63	17	0	112	1	5	1	0	7	0	0	0	0	0	1
18:00	35	65	29	0	129	2	2	2	0	6	0	0	0	0	0	0
18:15	24	64	38	0	126	2	3	1	0	6	0	0	0	0	0	0
18:30	26	61	27	0	114	1	1	0	0	2	0	0	0	0	0	0
18:45	22	63	28	0	113	2	1	1	0	4	0	0	0	0	0	0
SUBTOTAL	418	887	402	0	1707	30	40	14	0	84	0	0	0	0	0	2
GRAND TOTAL	775	1425	610	0	2810	86	87	39	0	212	0	0	0	0	0	2

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Trafalgar Rd & Dundas St E
Site Code: 2201400001
Municipality: Oakville
Count Date: Jan 25, 2022

South Approach - Trafalgar Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	15	27	10	0	52	2	3	1	0	6	0	0	0	0	0	0
07:15	13	59	9	0	81	4	2	0	0	6	0	0	0	0	0	0
07:30	19	48	12	0	79	5	5	1	0	11	0	0	0	0	0	0
07:45	22	36	11	0	69	5	7	2	0	14	0	0	0	0	0	2
08:00	19	45	13	0	77	3	5	0	0	8	0	0	0	0	0	0
08:15	18	53	21	0	92	2	8	1	0	11	0	0	0	0	0	1
08:30	23	50	15	0	88	2	4	2	0	8	0	0	0	0	0	2
08:45	28	58	17	0	103	3	9	0	0	12	0	0	0	0	0	0
SUBTOTAL	157	376	108	0	641	26	43	7	0	76	0	0	0	0	0	5

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Trafalgar Rd & Dundas St E
Site Code: 2201400001
Municipality: Oakville
Count Date: Jan 25, 2022

South Approach - Trafalgar Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	51	121	23	0	195	5	4	1	0	10	0	0	0	0	0	0
16:15	63	92	38	0	193	3	6	1	0	10	0	0	0	0	0	0
16:30	48	99	30	0	177	1	5	2	0	8	0	0	0	0	0	0
16:45	56	96	14	0	166	2	3	0	0	5	0	0	0	0	0	1
17:00	51	125	38	0	214	1	4	1	0	6	0	0	0	0	0	2
17:15	55	134	48	0	237	0	1	0	0	1	0	0	0	0	0	2
17:30	81	108	27	0	216	2	2	0	0	4	0	0	0	0	0	1
17:45	51	67	30	0	148	1	3	1	0	5	0	0	0	0	0	0
18:00	56	100	31	0	187	0	1	0	0	1	0	0	0	0	0	0
18:15	47	115	23	0	185	2	1	1	0	4	0	0	0	0	0	0
18:30	41	106	24	0	171	1	2	0	0	3	0	0	0	0	0	0
18:45	42	102	20	0	164	0	1	0	0	1	0	0	0	0	0	0
SUBTOTAL	642	1265	346	0	2253	18	33	7	0	58	0	0	0	0	0	6
GRAND TOTAL	**799**	**1641**	**454**	**0**	**2894**	**44**	**76**	**14**	**0**	**134**	**0**	**0**	**0**	**0**	**0**	**11**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Trafalgar Rd & Dundas St E
Site Code: 2201400001
Municipality: Oakville
Count Date: Jan 25, 2022

East Approach - Dundas St E

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	18	99	23	0	140	3	12	5	0	20	0	0	0	0	0	0
07:15	17	95	30	0	142	4	19	7	0	30	0	2	0	0	2	0
07:30	20	124	19	0	163	6	11	9	0	26	0	0	0	0	0	0
07:45	30	133	18	0	181	3	11	10	0	24	0	0	0	0	0	0
08:00	29	145	27	0	201	2	16	5	0	23	0	0	0	0	0	1
08:15	27	154	20	0	201	3	9	3	0	15	0	0	0	0	0	0
08:30	14	164	22	0	200	4	18	2	0	24	0	0	0	0	0	0
08:45	27	171	24	0	222	3	17	5	0	25	0	0	0	0	0	0
SUBTOTAL	182	1085	183	0	1450	28	113	46	0	187	0	2	0	0	2	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Trafalgar Rd & Dundas St E
Site Code: 2201400001
Municipality: Oakville
Count Date: Jan 25, 2022

East Approach - Dundas St E

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	37	280	36	0	353	3	13	4	0	20	0	3	0	0	3	0
16:15	58	315	37	0	410	1	9	5	0	15	0	2	0	0	2	1
16:30	45	335	38	0	418	2	4	2	0	8	0	0	0	0	0	0
16:45	33	356	47	0	436	1	3	3	0	7	0	0	0	0	0	0
17:00	56	363	56	0	475	0	5	1	0	6	0	0	0	0	0	0
17:15	44	393	40	0	477	2	2	4	0	8	0	0	0	0	0	0
17:30	59	343	37	0	439	1	3	2	0	6	0	0	0	0	0	0
17:45	61	314	25	0	400	2	2	1	0	5	0	0	0	0	0	0
18:00	56	288	37	0	381	0	3	0	0	3	0	1	0	0	1	0
18:15	47	272	23	0	342	1	2	1	0	4	0	0	0	0	0	0
18:30	43	232	26	0	301	1	1	2	0	4	0	0	0	0	0	0
18:45	40	262	21	0	323	0	1	1	0	2	0	0	0	0	0	0
SUBTOTAL	579	3753	423	0	4755	14	48	26	0	88	0	6	0	0	6	1
GRAND TOTAL	**761**	**4838**	**606**	**0**	**6205**	**42**	**161**	**72**	**0**	**275**	**0**	**8**	**0**	**0**	**8**	**2**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Trafalgar Rd & Dundas St E
Site Code: 2201400001
Municipality: Oakville
Count Date: Jan 25, 2022

West Approach - Dundas St E

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	33	197	12	0	242	3	7	1	0	11	0	0	0	0	0	0
07:15	38	247	13	0	298	2	11	0	0	13	0	0	0	0	0	0
07:30	39	264	11	0	314	2	8	2	0	12	0	0	0	0	0	0
07:45	39	346	7	0	392	1	11	2	0	14	0	0	0	0	0	0
08:00	43	316	13	0	372	2	10	4	0	16	0	0	0	0	0	0
08:15	42	346	23	0	411	3	16	3	0	22	0	0	0	0	0	1
08:30	48	274	36	0	358	1	11	5	0	17	0	0	0	0	0	0
08:45	59	228	57	0	344	2	12	4	0	18	0	0	0	0	0	0
SUBTOTAL	341	2218	172	0	2731	16	86	21	0	123	0	0	0	0	0	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Trafalgar Rd & Dundas St E
Site Code: 2201400001
Municipality: Oakville
Count Date: Jan 25, 2022

West Approach - Dundas St E

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	59	264	13	0	336	2	15	0	0	17	0	1	0	0	1	0
16:15	56	228	13	0	297	4	14	2	0	20	0	0	0	0	0	0
16:30	42	320	21	0	383	1	8	1	0	10	0	0	0	0	0	0
16:45	66	294	32	0	392	2	8	3	0	13	0	0	0	0	0	1
17:00	57	302	17	0	376	2	9	1	0	12	0	0	0	0	0	0
17:15	49	286	18	0	353	1	10	1	0	12	0	0	0	0	0	1
17:30	46	318	15	0	379	1	7	0	0	8	0	0	0	0	0	1
17:45	38	258	24	0	320	2	5	1	0	8	0	0	0	0	0	0
18:00	37	261	13	0	311	0	4	1	0	5	0	0	0	0	0	0
18:15	42	233	21	0	296	1	6	0	0	7	0	0	0	0	0	0
18:30	33	236	18	0	287	1	6	1	0	8	0	0	0	0	0	1
18:45	31	220	16	0	267	0	8	0	0	8	0	0	0	0	0	0
SUBTOTAL	556	3220	221	0	3997	17	100	11	0	128	0	1	0	0	1	4
GRAND TOTAL	**897**	**5438**	**393**	**0**	**6728**	**33**	**186**	**32**	**0**	**251**	**0**	**1**	**0**	**0**	**1**	**5**

Peak Hour Diagram

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

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

Intersection: Trafalgar Rd & Dundas St E
Site Code: 2201400001
Count Date: Jan 25, 2022

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Dundas St E runs E/W

North Approach

	Out	In	Total
Cars	547	491	1038
Trucks	60	49	109
Bicycles	0	0	0
	607	**540**	**1147**

Trafalgar Rd

Bicycles	0	0	0	0
Trucks	14	21	25	0
Cars	108	283	156	0
Totals	**122**	**304**	**181**	**0**

East Approach

	Out	In	Total
Cars	824	1386	2210
Trucks	87	77	164
Bicycles	0	0	0
	911	**1463**	**2374**

Peds: 0

Dundas St E

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	8	192	**200**
0	49	1164	**1213**
0	16	129	**145**

Peds: 1

N
W E
S

Peds: 1

Dundas St E

Totals	Cars	Trucks	Bicycles
0	0	0	0
108	93	15	0
694	634	60	0
109	97	12	0

Peds: 3

West Approach

	Out	In	Total
Cars	1485	830	2315
Trucks	73	84	157
Bicycles	0	0	0
	1558	**914**	**2472**

Trafalgar Rd

Totals	**98**	**232**	**69**	**0**
Cars	88	206	66	0
Trucks	10	26	3	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	360	509	869
Trucks	39	49	88
Bicycles	0	0	0
	399	**558**	**957**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Trafalgar Rd & Dundas St E
Site Code: 2201400001
Count Date: Jan 25, 2022
Period: 07:00 - 09:00

Peak Hour Data (08:00 - 09:00)

Start Time	North Approach Trafalgar Rd						South Approach Trafalgar Rd						East Approach Dundas St E						West Approach Dundas St E						Total Vehicles
	↰	↑	↱	↩	Peds	Total	↰	↑	↱	↩	Peds	Total	↰	↑	↱	↩	Peds	Total	↰	↑	↱	↩	Peds	Total	
08:00	39	45	37	0	0	121	22	50	13	0	0	85	31	161	32	0	1	224	45	326	17	0	0	388	818
08:15	39	90	29	0	0	158	20	61	22	0	1	103	30	163	23	0	0	216	45	362	26	0	1	433	910
08:30	48	77	31	0	0	156	25	54	17	0	2	96	18	182	24	0	0	224	49	285	41	0	0	375	851
08:45	55	92	25	0	0	172	31	67	17	0	0	115	30	188	29	0	0	247	61	240	61	0	0	362	896
Grand Total	**181**	**304**	**122**	**0**	**0**	**607**	**98**	**232**	**69**	**0**	**3**	**399**	**109**	**694**	**108**	**0**	**1**	**911**	**200**	**1213**	**145**	**0**	**1**	**1558**	**3475**
Approach %	29.8	50.1	20.1	0		-	24.6	58.1	17.3	0		-	12	76.2	11.9	0		-	12.8	77.9	9.3	0		-	
Totals %	5.2	8.7	3.5	0		17.5	2.8	6.7	2	0		11.5	3.1	20	3.1	0		26.2	5.8	34.9	4.2	0		44.8	
PHF	**0.82**	**0.83**	**0.82**	**0**		**0.88**	**0.79**	**0.87**	**0.78**	**0**		**0.87**	**0.88**	**0.92**	**0.84**	**0**		**0.92**	**0.82**	**0.84**	**0.59**	**0**		**0.9**	**0.95**
Cars	156	283	108	0		547	88	206	66	0		360	97	634	93	0		824	192	1164	129	0		1485	3216
% Cars	86.2	93.1	88.5	0		90.1	89.8	88.8	95.7	0		90.2	89	91.4	86.1	0		90.5	96	96	89	0		95.3	92.5
Trucks	25	21	14	0		60	10	26	3	0		39	12	60	15	0		87	8	49	16	0		73	259
% Trucks	13.8	6.9	11.5	0		9.9	10.2	11.2	4.3	0		9.8	11	8.6	13.9	0		9.5	4	4	11	0		4.7	7.5
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	-					3	-					1	-					1	-	5
% Peds					0	-					60	-					20	-					20	-	

Peak Hour Diagram

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

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

Intersection: Trafalgar Rd & Dundas St E
Site Code: 2201400001
Count Date: Jan 25, 2022

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Dundas St E runs E/W

North Approach

	Out	In	Total
Cars	673	861	1534
Trucks	26	26	52
Bicycles	0	0	0
	699	**887**	**1586**

Trafalgar Rd

Bicycles	0	0	0	0
Trucks	3	13	10	0
Cars	158	372	143	0
Totals	**161**	**385**	**153**	**0**

East Approach

	Out	In	Total
Cars	1827	1470	3297
Trucks	27	45	72
Bicycles	0	0	0
	1854	**1515**	**3369**

Peds: 1

Dundas St E

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	6	218	**224**
0	34	1200	**1234**
0	5	82	**87**

Peds: 3

Peds: 0

Dundas St E

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	190	180	10	0
	1468	1455	13	0
	196	192	4	0

Peds: 6

West Approach

	Out	In	Total
Cars	1500	1856	3356
Trucks	45	21	66
Bicycles	0	0	0
	1545	**1877**	**3422**

Totals	**248**	**473**	**128**	**0**
Cars	243	463	127	0
Trucks	5	10	1	0
Bicycles	0	0	0	0

Trafalgar Rd

South Approach

	Out	In	Total
Cars	833	646	1479
Trucks	16	22	38
Bicycles	0	0	0
	849	**668**	**1517**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Trafalgar Rd & Dundas St E
Site Code: 2201400001
Count Date: Jan 25, 2022
Period: 16:00 - 19:00

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

Start Time	North Approach Trafalgar Rd						South Approach Trafalgar Rd						East Approach Dundas St E						West Approach Dundas St E						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:45	34	98	42	0	1	174	58	99	14	0	1	171	34	359	50	0	0	443	68	302	35	0	1	405	1193
17:00	40	103	47	0	0	190	52	129	39	0	2	220	56	368	57	0	0	481	59	311	18	0	0	388	1279
17:15	42	93	33	0	0	168	55	135	48	0	2	238	46	395	44	0	0	485	50	296	19	0	1	365	1256
17:30	37	91	39	0	0	167	83	110	27	0	1	220	60	346	39	0	0	445	47	325	15	0	1	387	1219
Grand Total	**153**	**385**	**161**	**0**	**1**	**699**	**248**	**473**	**128**	**0**	**6**	**849**	**196**	**1468**	**190**	**0**	**0**	**1854**	**224**	**1234**	**87**	**0**	**3**	**1545**	**4947**
Approach %	21.9	55.1	23	0		-	29.2	55.7	15.1	0		-	10.6	79.2	10.2	0		-	14.5	79.9	5.6	0		-	
Totals %	3.1	7.8	3.3	0		14.1	5	9.6	2.6	0		17.2	4	29.7	3.8	0		37.5	4.5	24.9	1.8	0		31.2	
PHF	**0.91**	**0.93**	**0.86**	**0**		**0.92**	**0.75**	**0.88**	**0.67**	**0**		**0.89**	**0.82**	**0.93**	**0.83**	**0**		**0.96**	**0.82**	**0.95**	**0.62**	**0**		**0.95**	**0.97**
Cars	143	372	158	0		673	243	463	127	0		833	192	1455	180	0		1827	218	1200	82	0		1500	4833
% Cars	93.5	96.6	98.1	0		96.3	98	97.9	99.2	0		98.1	98	99.1	94.7	0		98.5	97.3	97.2	94.3	0		97.1	97.7
Trucks	10	13	3	0		26	5	10	1	0		16	4	13	10	0		27	6	34	5	0		45	114
% Trucks	6.5	3.4	1.9	0		3.7	2	2.1	0.8	0		1.9	2	0.9	5.3	0		1.5	2.7	2.8	5.7	0		2.9	2.3
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					1	-					6	-					0	-					3	-	10
% Peds					10	-					60	-					0	-					30	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #21-258 - GHD

Intersection Count Report

Intersection:	Trafalgar Rd & Threshing Mill Blvd
Municipality:	Oakville
Count Date:	Nov 25, 2021
Site Code:	2125800001
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-09:00, 16:00-18:00
Weather:	Clear

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Map

Intersection:	Trafalgar Rd & Threshing Mill Blvd
Site Code:	2125800001
Municipality:	Oakville
Count Date:	Nov 25, 2021

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection: Trafalgar Rd & Threshing Mill Blvd
Site Code: 2125800001
Municipality: Oakville
Count Date: Nov 25, 2021

Trafalgar Rd - 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	10	569	0	0	579	0	0	448	15	0	463	0	1042
08:00 - 09:00	20	707	0	0	727	0	0	537	23	0	560	0	1287
BREAK													
16:00 - 17:00	15	569	0	0	584	0	0	769	40	0	809	0	1393
17:00 - 18:00	8	373	0	0	381	0	0	531	14	0	545	0	926
GRAND TOTAL	**53**	**2218**	**0**	**0**	**2271**	**0**	**0**	**2285**	**92**	**0**	**2377**	**0**	**4648**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection: Trafalgar Rd & Threshing Mill Blvd
Site Code: 2125800001
Municipality: Oakville
Count Date: Nov 25, 2021

Threshing Mill Blvd - 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	17	0	20	0	37	0	0	0	0	0	0	0	37
08:00 - 09:00	24	0	39	0	63	0	0	0	0	0	0	0	63
BREAK													
16:00 - 17:00	24	0	51	0	75	0	0	0	0	0	0	0	75
17:00 - 18:00	15	0	29	0	44	0	0	0	0	0	0	0	44
GRAND TOTAL	**80**	**0**	**139**	**0**	**219**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**219**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Trafalgar Rd & Threshing Mill Blvd
Site Code: 2125800001
Municipality: Oakville
Count Date: Nov 25, 2021

North Approach - Trafalgar Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	2	119	0	0	121	0	9	0	0	9	0	0	0	0	0	0
07:15	2	119	0	0	121	0	8	0	0	8	0	0	0	0	0	0
07:30	2	154	0	0	156	0	8	0	0	8	0	0	0	0	0	0
07:45	3	144	0	0	147	1	8	0	0	9	0	0	0	0	0	0
08:00	2	180	0	0	182	1	9	0	0	10	0	0	0	0	0	0
08:15	3	152	0	0	155	2	14	0	0	16	0	0	0	0	0	0
08:30	5	163	0	0	168	0	14	0	0	14	0	0	0	0	0	0
08:45	6	154	0	0	160	1	21	0	0	22	0	0	0	0	0	0
SUBTOTAL	25	1185	0	0	1210	5	91	0	0	96	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Trafalgar Rd & Threshing Mill Blvd
Site Code: 2125800001
Municipality: Oakville
Count Date: Nov 25, 2021

North Approach - Trafalgar Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
16:00	7	127	0	0	134	0	6	0	0	6	0	0	0	0	0	0
16:15	0	142	0	0	142	0	6	0	0	6	0	0	0	0	0	0
16:30	3	142	0	0	145	0	4	0	0	4	0	0	0	0	0	0
16:45	5	138	0	0	143	0	4	0	0	4	0	0	0	0	0	0
17:00	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0
17:15	2	126	0	0	128	0	7	0	0	7	0	0	0	0	0	0
17:30	0	114	0	0	114	0	4	0	0	4	0	0	0	0	0	0
17:45	0	118	0	0	118	0	4	0	0	4	0	0	0	0	0	0
SUBTOTAL	23	907	0	0	930	0	35	0	0	35	0	0	0	0	0	0
GRAND TOTAL	**48**	**2092**	**0**	**0**	**2140**	**5**	**126**	**0**	**0**	**131**	**0**	**0**	**0**	**0**	**0**	**0**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Trafalgar Rd & Threshing Mill Blvd
Site Code: 2125800001
Municipality: Oakville
Count Date: Nov 25, 2021

South Approach - Trafalgar Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	0	99	6	0	105	0	5	0	0	5	0	0	0	0	0	0
07:15	0	114	3	0	117	0	6	0	0	6	0	0	0	0	0	0
07:30	0	128	1	0	129	0	8	1	0	9	0	0	0	0	0	0
07:45	0	87	2	0	89	0	1	2	0	3	0	0	0	0	0	0
08:00	0	138	4	0	142	0	12	1	0	13	0	0	0	0	0	0
08:15	0	136	2	0	138	0	9	0	0	9	0	0	0	0	0	0
08:30	0	136	7	0	143	0	6	0	0	6	0	0	0	0	0	0
08:45	0	93	8	0	101	0	7	1	0	8	0	0	0	0	0	0
SUBTOTAL	0	931	33	0	964	0	54	5	0	59	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Trafalgar Rd & Threshing Mill Blvd
Site Code: 2125800001
Municipality: Oakville
Count Date: Nov 25, 2021

South Approach - Trafalgar Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
16:00	0	176	9	0	185	0	8	1	0	9	0	0	0	0	0	0
16:15	0	176	15	0	191	0	12	0	0	12	0	0	0	0	0	0
16:30	0	193	5	0	198	0	6	1	0	7	0	0	0	0	0	0
16:45	0	192	8	0	200	0	6	1	0	7	0	0	0	0	0	0
17:00	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0
17:15	0	187	3	0	190	0	7	0	0	7	0	0	0	0	0	0
17:30	0	167	4	0	171	0	5	0	0	5	0	0	0	0	0	0
17:45	0	162	2	0	164	0	3	0	0	3	0	0	0	0	0	0
SUBTOTAL	0	1253	51	0	1304	0	47	3	0	50	0	0	0	0	0	0
GRAND TOTAL	0	2184	84	0	2268	0	101	8	0	109	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Trafalgar Rd & Threshing Mill Blvd
Site Code: 2125800001
Municipality: Oakville
Count Date: Nov 25, 2021

East Approach - Threshing Mill Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	3	0	5	0	8	0	0	0	0	0	2	0	0	0	2	0
07:15	3	0	2	0	5	0	0	0	0	0	0	0	0	0	0	0
07:30	2	0	9	0	11	0	0	0	0	0	0	0	0	0	0	0
07:45	7	0	4	0	11	0	0	0	0	0	0	0	0	0	0	0
08:00	5	0	8	0	13	1	0	0	0	1	0	0	0	0	0	0
08:15	6	0	12	0	18	1	0	1	0	2	0	0	0	0	0	0
08:30	4	0	11	0	15	1	0	0	0	1	0	0	0	0	0	0
08:45	5	0	6	0	11	1	0	1	0	2	0	0	0	0	0	0
SUBTOTAL	35	0	57	0	92	4	0	2	0	6	2	0	0	0	2	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Trafalgar Rd & Threshing Mill Blvd
Site Code: 2125800001
Municipality: Oakville
Count Date: Nov 25, 2021

East Approach - Threshing Mill Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	6	0	12	0	18	0	0	1	0	1	0	0	0	0	0	0
16:15	3	0	9	0	12	0	0	0	0	0	0	0	0	0	0	0
16:30	9	0	16	0	25	2	0	0	0	2	0	0	0	0	0	0
16:45	3	0	13	0	16	1	0	0	0	1	0	0	0	0	0	0
17:00	4	0	14	0	18	0	0	0	0	0	0	0	0	0	0	0
17:15	2	0	8	0	10	0	0	0	0	0	0	0	0	0	0	0
17:30	5	0	3	0	8	0	0	1	0	1	0	0	0	0	0	0
17:45	4	0	3	0	7	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	36	0	78	0	114	3	0	2	0	5	0	0	0	0	0	0
GRAND TOTAL	71	0	135	0	206	7	0	4	0	11	2	0	0	0	2	0

Peak Hour Diagram

Specified Period
From: 07:00:00
To: 09:00:00

One Hour Peak
From: 08:00:00
To: 09:00:00

Intersection: Trafalgar Rd & Threshing Mill Blvd
Site Code: 2125800001
Count Date: Nov 25, 2021

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Trafalgar Rd runs N/S

North Approach

	Out	In	Total
Cars	665	540	1205
Trucks	62	36	98
Bicycles	0	0	0
	727	**576**	**1303**

Trafalgar Rd

Bicycles	0	0	0
Trucks	58	4	0
Cars	649	16	0
Totals	**707**	**20**	**0**

Peds: 0

Peds: 0

Peds: 0

Totals	**537**	**23**	**0**
Cars	503	21	0
Trucks	34	2	0
Bicycles	0	0	0

Trafalgar Rd

East Approach

	Out	In	Total
Cars	57	37	94
Trucks	6	6	12
Bicycles	0	0	0
	63	**43**	**106**

Threshing Mill Blvd

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	39	37	2	0
	24	20	4	0

South Approach

	Out	In	Total
Cars	524	669	1193
Trucks	36	62	98
Bicycles	0	0	0
	560	**731**	**1291**

- Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Trafalgar Rd & Threshing Mill Blvd
Site Code: 2125800001
Count Date: Nov 25, 2021
Period: 07:00 - 09:00

Peak Hour Data (08:00 - 09:00)

Start Time	North Approach Trafalgar Rd						South Approach Trafalgar Rd						East Approach Threshing Mill Blvd						West Approach						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
08:00	3	189		0	0	192		150	5	0	0	155	6		8	0	0	14					0		361
08:15	5	166		0	0	171		145	2	0	0	147	7		13	0	0	20					0		338
08:30	5	177		0	0	182		142	7	0	0	149	5		11	0	0	16					0		347
08:45	7	175		0	0	182		100	9	0	0	109	6		7	0	0	13					0		304
Grand Total	**20**	**707**		**0**	**0**	**727**		**537**	**23**	**0**	**0**	**560**	**24**		**39**	**0**	**0**	**63**					**0**	**0**	**1350**
Approach %	2.8	97.2		0		-		95.9	4.1	0		-	38.1		61.9	0		-						-	
Totals %	1.5	52.4		0		53.9		39.8	1.7	0		41.5	1.8		2.9	0		4.7						0	
PHF	**0.71**	**0.94**		**0**		**0.95**		**0.9**	**0.64**	**0**		**0.9**	**0.86**		**0.75**	**0**		**0.79**						**0**	**0.93**
Cars	16	649		0		665		503	21	0		524	20		37	0		57						0	1246
% Cars	80	91.8		0		91.5		93.7	91.3	0		93.6	83.3		94.9	0		90.5						0	92.3
Trucks	4	58		0		62		34	2	0		36	4		2	0		6						0	104
% Trucks	20	8.2		0		8.5		6.3	8.7	0		6.4	16.7		5.1	0		9.5						0	7.7
Bicycles	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
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	16:00:00	From:	16:00:00
To:	18:00:00	To:	17:00:00

Intersection: Trafalgar Rd & Threshing Mill Blvd
Site Code: 2125800001
Count Date: Nov 25, 2021

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Trafalgar Rd runs N/S

North Approach

	Out	In	Total
Cars	564	787	1351
Trucks	20	33	53
Bicycles	0	0	0
	584	**820**	**1404**

Trafalgar Rd

Bicycles	0	0	0
Trucks	20	0	0
Cars	549	15	0
Totals	**569**	**15**	**0**

Peds: 0

Peds: 0

Peds: 0

Totals	**769**	**40**	**0**
Cars	737	37	0
Trucks	32	3	0
Bicycles	0	0	0

Trafalgar Rd

East Approach

	Out	In	Total
Cars	71	52	123
Trucks	4	3	7
Bicycles	0	0	0
	75	**55**	**130**

Threshing Mill Blvd

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	51	50	1	0
	24	21	3	0

South Approach

	Out	In	Total
Cars	774	570	1344
Trucks	35	23	58
Bicycles	0	0	0
	809	**593**	**1402**

- Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Trafalgar Rd & Threshing Mill Blvd
Site Code: 2125800001
Count Date: Nov 25, 2021
Period: 16:00 - 18:00

Peak Hour Data (16:00 - 17:00)

Start Time	North Approach Trafalgar Rd						South Approach Trafalgar Rd						East Approach Threshing Mill Blvd						West Approach						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:00	7	133		0	0	140		184	10	0	0	194	6		13	0	0	19					0		353
16:15	0	148		0	0	148		188	15	0	0	203	3		9	0	0	12					0		363
16:30	3	146		0	0	149		199	6	0	0	205	11		16	0	0	27					0		381
16:45	5	142		0	0	147		198	9	0	0	207	4		13	0	0	17					0		371
Grand Total	**15**	**569**		**0**	**0**	**584**		**769**	**40**	**0**	**0**	**809**	**24**		**51**	**0**	**0**	**75**					**0**	**0**	**1468**
Approach %	2.6	97.4		0		-		95.1	4.9	0		-	32		68	0		-						-	
Totals %	1	38.8		0		39.8		52.4	2.7	0		55.1	1.6		3.5	0		5.1						0	
PHF	**0.54**	**0.96**		**0**		**0.98**		**0.97**	**0.67**	**0**		**0.98**	**0.55**		**0.8**	**0**		**0.69**						**0**	**0.96**
Cars	15	549		0		564		737	37	0		774	21		50	0		71						0	1409
% Cars	100	96.5		0		96.6		95.8	92.5	0		95.7	87.5		98	0		94.7						0	96
Trucks	0	20		0		20		32	3	0		35	3		1	0		4						0	59
% Trucks	0	3.5		0		3.4		4.2	7.5	0		4.3	12.5		2	0		5.3						0	4
Bicycles	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
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Project #20-158 - GHD

Intersection Count Report

Intersection:	Trafalgar Rd & Wheat Boom Dr
Municipality:	Oakville
Count Date:	Sep 29, 2020
Site Code:	2015800001
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-09:00, 16:00-18:00
Weather:	Clear

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Map

Intersection:	Trafalgar Rd & Wheat Boom Dr
Municipality:	Oakville
Count Date:	Sep 29, 2020

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Summary

Intersection: Trafalgar Rd & Wheat Boom Dr
Municipality: Oakville
Count Date: Sep 29, 2020

Trafalgar Rd - Traffic Summary

	North Approach Totals						South Approach Totals					
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles					
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds
07:00 - 08:00	6	866	0	0	872	0	0	733	4	0	737	0
08:00 - 09:00	9	852	0	0	861	0	0	740	17	0	757	0
BREAK												
16:00 - 17:00	17	843	0	0	860	0	0	1090	26	0	1116	0
17:00 - 18:00	12	919	0	0	931	0	0	1122	39	0	1161	0
GRAND TOTAL	**44**	**3480**	**0**	**0**	**3524**	**0**	**0**	**3685**	**86**	**0**	**3771**	**0**

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Summary

Intersection: Trafalgar Rd & Wheat Boom Dr
Municipality: Oakville
Count Date: Sep 29, 2020

Wheat Boom Dr - 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
07:00 - 08:00	7	0	19	0	26	0	0	0	0	0	0	0
08:00 - 09:00	13	0	22	0	35	0	0	0	0	0	0	0
BREAK												
16:00 - 17:00	11	0	39	0	50	0	0	0	0	0	0	0
17:00 - 18:00	16	0	44	0	60	0	0	0	0	0	0	0
GRAND TOTAL	**47**	**0**	**124**	**0**	**171**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Data

Intersection: Trafalgar Rd & Wheat Boom Dr
Municipality: Oakville
Count Date: Sep 29, 2020

North Approach - Trafalgar Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	0	134	0	0	134	1	22	0	0	23	0	0	0	0	0	0
07:15	0	198	0	0	198	1	23	0	0	24	0	0	0	0	0	0
07:30	1	219	0	0	220	1	27	0	0	28	0	0	0	0	0	0
07:45	1	214	0	0	215	1	29	0	0	30	0	0	0	0	0	0
08:00	2	202	0	0	204	3	35	0	0	38	0	0	0	0	0	0
08:15	1	188	0	0	189	0	25	0	0	25	0	0	0	0	0	0
08:30	0	182	0	0	182	2	18	0	0	20	0	0	0	0	0	0
08:45	1	179	0	0	180	0	23	0	0	23	0	0	0	0	0	0
SUBTOTAL	6	1516	0	0	1522	9	202	0	0	211	0	0	0	0	0	0

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Data

Intersection: Trafalgar Rd & Wheat Boom Dr
Municipality: Oakville
Count Date: Sep 29, 2020

North Approach - Trafalgar Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	3	177	0	0	180	0	17	0	0	17	0	0	0	0	0	0
16:15	3	192	0	0	195	0	19	0	0	19	0	0	0	0	0	0
16:30	2	199	0	0	201	1	24	0	0	25	0	0	0	0	0	0
16:45	7	197	0	0	204	1	18	0	0	19	0	0	0	0	0	0
17:00	3	186	0	0	189	1	14	0	0	15	0	0	0	0	0	0
17:15	3	202	0	0	205	0	17	0	0	17	0	0	0	0	0	0
17:30	1	227	0	0	228	0	26	0	0	26	0	0	0	0	0	0
17:45	4	226	0	0	230	0	21	0	0	21	0	0	0	0	0	0
SUBTOTAL	26	1606	0	0	1632	3	156	0	0	159	0	0	0	0	0	0
GRAND TOTAL	32	3122	0	0	3154	12	358	0	0	370	0	0	0	0	0	0

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Data

Intersection: Trafalgar Rd & Wheat Boom Dr
Municipality: Oakville
Count Date: Sep 29, 2020

South Approach - Trafalgar Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	0	139	0	0	139	0	19	2	0	21	0	0	0	0	0	0
07:15	0	152	0	0	152	0	23	0	0	23	0	0	0	0	0	0
07:30	0	186	0	0	186	0	28	0	0	28	0	0	0	0	0	0
07:45	0	160	1	0	161	0	26	1	0	27	0	0	0	0	0	0
08:00	0	153	2	0	155	0	27	1	0	28	0	0	0	0	0	0
08:15	0	138	4	0	142	0	25	0	0	25	0	0	0	0	0	0
08:30	0	165	2	0	167	0	19	0	0	19	0	0	0	0	0	0
08:45	0	192	7	0	199	0	21	1	0	22	0	0	0	0	0	0
SUBTOTAL	0	1285	16	0	1301	0	188	5	0	193	0	0	0	0	0	0

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Data

Intersection: Trafalgar Rd & Wheat Boom Dr
Municipality: Oakville
Count Date: Sep 29, 2020

South Approach - Trafalgar Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
16:00	0	202	4	0	206	0	30	1	0	31	0	0	0	0	0	0
16:15	0	242	8	0	250	0	25	0	0	25	0	0	0	0	0	0
16:30	0	250	4	0	254	0	31	0	0	31	0	0	0	0	0	0
16:45	0	278	8	0	286	0	32	1	0	33	0	0	0	0	0	0
17:00	0	266	11	0	277	0	26	0	0	26	0	0	0	0	0	0
17:15	0	259	7	0	266	0	28	0	0	28	0	0	0	0	0	0
17:30	0	247	7	0	254	0	27	2	0	29	0	0	0	0	0	0
17:45	0	243	11	0	254	0	26	1	0	27	0	0	0	0	0	0
SUBTOTAL	0	1987	60	0	2047	0	225	5	0	230	0	0	0	0	0	0
GRAND TOTAL	0	3272	76	0	3348	0	413	10	0	423	0	0	0	0	0	0

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Data

Intersection: Trafalgar Rd & Wheat Boom Dr
Municipality: Oakville
Count Date: Sep 29, 2020

East Approach - Wheat Boom Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	1	0	5	0	6	0	0	1	0	1	0	0	0	0	0	0
07:15	2	0	1	0	3	2	0	0	0	2	0	0	0	0	0	0
07:30	0	0	3	0	3	1	0	1	0	2	0	0	0	0	0	0
07:45	1	0	8	0	9	0	0	0	0	0	0	0	0	0	0	0
08:00	3	0	5	0	8	0	0	1	0	1	0	0	0	0	0	0
08:15	4	0	3	0	7	3	0	0	0	3	0	0	0	0	0	0
08:30	2	0	7	0	9	0	0	1	0	1	0	0	0	0	0	0
08:45	1	0	3	0	4	0	0	2	0	2	0	0	0	0	0	0
SUBTOTAL	14	0	35	0	49	6	0	6	0	12	0	0	0	0	0	0

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Data

Intersection: Trafalgar Rd & Wheat Boom Dr
Municipality: Oakville
Count Date: Sep 29, 2020

East Approach - Wheat Boom Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	4	0	2	0	6	0	0	1	0	1	0	0	0	0	0	0
16:15	1	0	8	0	9	0	0	4	0	4	0	0	0	0	0	0
16:30	2	0	10	0	12	0	0	2	0	2	0	0	0	0	0	0
16:45	4	0	11	0	15	0	0	1	0	1	0	0	0	0	0	0
17:00	4	0	10	0	14	0	0	3	0	3	0	0	0	0	0	0
17:15	3	0	15	0	18	0	0	1	0	1	0	0	0	0	0	0
17:30	7	0	10	0	17	0	0	0	0	0	0	0	0	0	0	0
17:45	2	0	5	0	7	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	27	0	71	0	98	0	0	12	0	12	0	0	0	0	0	0
GRAND TOTAL	**41**	**0**	**106**	**0**	**147**	**6**	**0**	**18**	**0**	**24**	**0**	**0**	**0**	**0**	**0**	**0**

Peak Hour Diagram

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Specified Period		One Hour Peak	
From:	07:00:00	From:	07:15:00
To:	09:00:00	To:	08:15:00

Intersection: Trafalgar Rd & Wheat Boom Dr
Site ID: 2015800001
Count Date: Sep 29, 2020

Weather conditions:

**** Signalized Intersection ****

Major Road: Trafalgar Rd runs N/S

North Approach

	Out	In	Total
Cars	837	668	1505
Trucks	120	106	226
Bicycles	0	0	0
	957	**774**	**1731**

Trafalgar Rd

Bicycles	0	0	0
Trucks	114	6	0
Cars	833	4	0
Totals	**947**	**10**	**0**

Peds: 0

Peds: 0

Peds: 0

Peds: 0

Totals	**755**	**5**	**0**
Cars	651	3	0
Trucks	104	2	0
Bicycles	0	0	0

Trafalgar Rd

East Approach

	Out	In	Total
Cars	23	7	30
Trucks	5	8	13
Bicycles	0	0	0
	28	**15**	**43**

Wheat Boom Dr

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	19	17	2	0
	9	6	3	0

South Approach

	Out	In	Total
Cars	654	839	1493
Trucks	106	117	223
Bicycles	0	0	0
	760	**956**	**1716**

- Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Peak Hour Summary

Intersection: Trafalgar Rd & Wheat Boom Dr
Count Date: Sep 29, 2020
Period: 07:00 - 09:00

Peak Hour Data (07:15 - 08:15)

Start Time	North Approach Trafalgar Rd						South Approach Trafalgar Rd						East Approach Wheat Boom Dr						West Approach						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
07:15	1	221		0	0	222		175	0	0	0	175	4		1	0	0	5					0		402
07:30	2	246		0	0	248		214	0	0	0	214	1		4	0	0	5					0		467
07:45	2	243		0	0	245		186	2	0	0	188	1		8	0	0	9					0		442
08:00	5	237		0	0	242		180	3	0	0	183	3		6	0	0	9					0		434
Grand Total	**10**	**947**		**0**	**0**	**957**		**755**	**5**	**0**	**0**	**760**	**9**		**19**	**0**	**0**	**28**					**0**	**0**	**1745**
Approach %	1	99		0		-		99.3	0.7	0		-	32.1		67.9	0		-						-	
Totals %	0.6	54.3		0		54.8		43.3	0.3	0		43.6	0.5		1.1	0		1.6						0	
PHF	**0.5**	**0.96**		**0**		**0.96**		**0.88**	**0.42**	**0**		**0.89**	**0.56**		**0.59**	**0**		**0.78**						**0**	**0.93**
Cars	4	833		0		837		651	3	0		654	6		17	0		23						0	1514
% Cars	40	88		0		87.5		86.2	60	0		86.1	66.7		89.5	0		82.1						0	86.8
Trucks	6	114		0		120		104	2	0		106	3		2	0		5						0	231
% Trucks	60	12		0		12.5		13.8	40	0		13.9	33.3		10.5	0		17.9						0	13.2
Bicycles	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
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Peak Hour Diagram

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Specified Period		One Hour Peak	
From:	16:00:00	From:	16:45:00
To:	18:00:00	To:	17:45:00

Intersection: Trafalgar Rd & Wheat Boom Dr
Site ID: 2015800001
Count Date: Sep 29, 2020

Weather conditions:

**** Signalized Intersection ****

Major Road: Trafalgar Rd runs N/S

North Approach

	Out	In	Total
Cars	826	1096	1922
Trucks	77	118	195
Bicycles	0	0	0
	903	**1214**	**2117**

Trafalgar Rd

Bicycles	0	0	0
Trucks	75	2	0
Cars	812	14	0
Totals	**887**	**16**	**0**

Peds: 0

Peds: 0

Peds: 0

Totals	**1163**	**36**	**0**
Cars	1050	33	0
Trucks	113	3	0
Bicycles	0	0	0

Trafalgar Rd

East Approach

	Out	In	Total
Cars	64	47	111
Trucks	5	5	10
Bicycles	0	0	0
	69	**52**	**121**

Wheat Boom Dr

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	51	46	5	0
	18	18	0	0

South Approach

	Out	In	Total
Cars	1083	830	1913
Trucks	116	75	191
Bicycles	0	0	0
	1199	**905**	**2104**

- Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Peak Hour Summary

Intersection: Trafalgar Rd & Wheat Boom Dr
Count Date: Sep 29, 2020
Period: 16:00 - 18:00

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

Start Time	North Approach Trafalgar Rd						South Approach Trafalgar Rd						East Approach Wheat Boom Dr						West Approach						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:45	8	215		0	0	223		310	9	0	0	319	4		12	0	0	16					0		558
17:00	4	200		0	0	204		292	11	0	0	303	4		13	0	0	17					0		524
17:15	3	219		0	0	222		287	7	0	0	294	3		16	0	0	19					0		535
17:30	1	253		0	0	254		274	9	0	0	283	7		10	0	0	17					0		554
Grand Total	**16**	**887**		**0**	**0**	**903**		**1163**	**36**	**0**	**0**	**1199**	**18**		**51**	**0**	**0**	**69**					**0**	**0**	**2171**
Approach %	1.8	98.2		0		-		97	3	0		-	26.1		73.9	0		-						-	
Totals %	0.7	40.9		0		41.6		53.6	1.7	0		55.2	0.8		2.3	0		3.2						0	
PHF	**0.5**	**0.88**		**0**		**0.89**		**0.94**	**0.82**	**0**		**0.94**	**0.64**		**0.8**	**0**		**0.91**						**0**	**0.97**
Cars	14	812		0		826		1050	33	0		1083	18		46	0		64						0	1973
% Cars	87.5	91.5		0		91.5		90.3	91.7	0		90.3	100		90.2	0		92.8						0	90.9
Trucks	2	75		0		77		113	3	0		116	0		5	0		5						0	198
% Trucks	12.5	8.5		0		8.5		9.7	8.3	0		9.7	0		9.8	0		7.2						0	9.1
Bicycles	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
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #22-014 - GHD

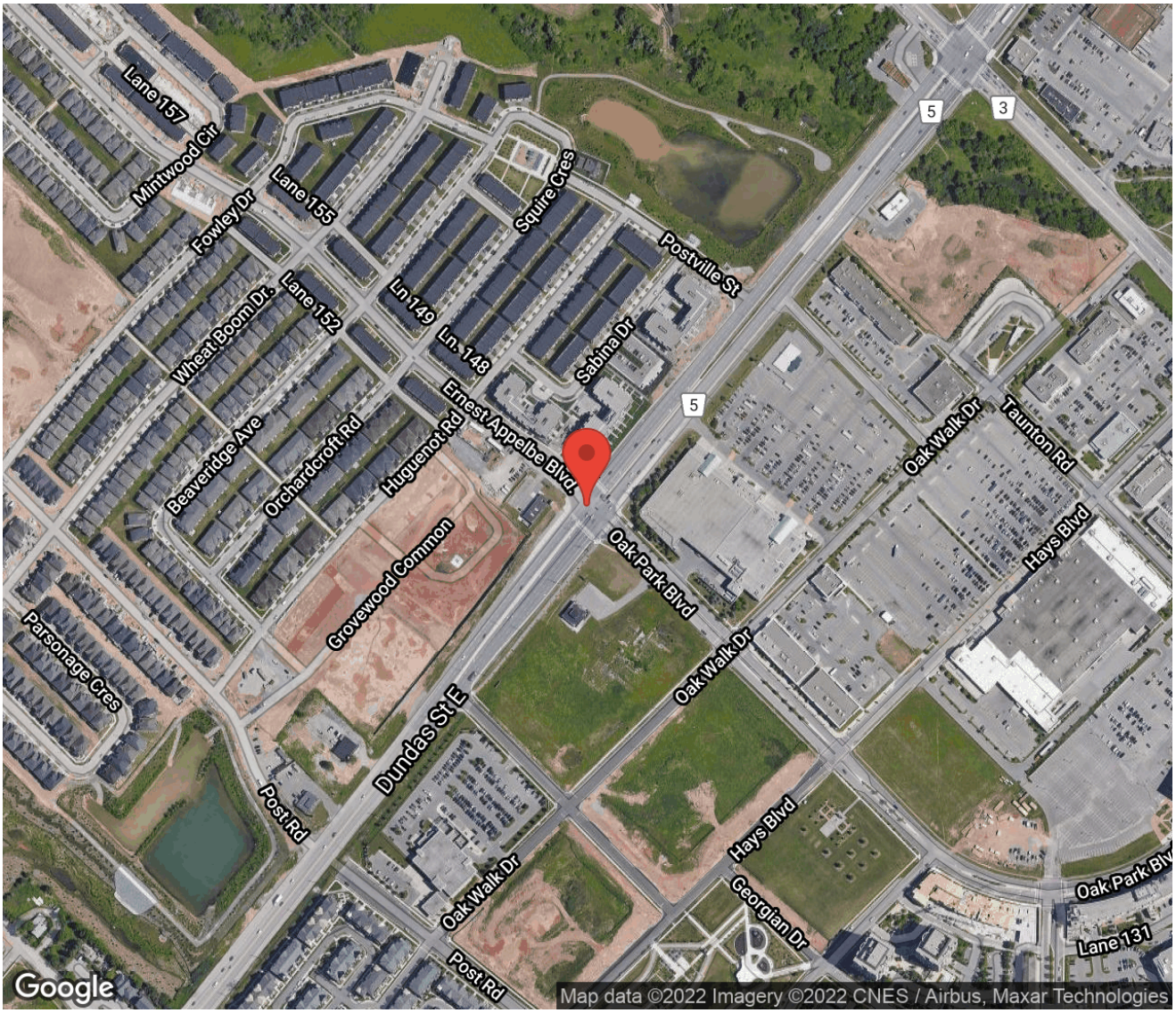
Intersection Count Report

Intersection:	Dundas St E & Ernest Applebe Blvd-Oak Park Blvd
Municipality:	Oakville
Count Date:	Jan 25, 2022
Site Code:	2201400002
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-09:00, 16:00-19:00
Weather:	Clear

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Map

Intersection:	Dundas St E & Ernest Applebe Blvd-Oak Park Blvd
Site Code:	2201400002
Municipality:	Oakville
Count Date:	Jan 25, 2022



Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Dundas St E & Ernest Applebe Blvd-Oak Park Blvd
Site Code:	2201400002
Municipality:	Oakville
Count Date:	Jan 25, 2022

Ernest Applebe Blvd - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	144	31	25	0	200	0	44	9	71	0	124	0	324
08:00 - 09:00	245	64	44	0	353	3	89	20	62	0	171	1	524
BREAK													
16:00 - 17:00	139	65	38	0	242	2	228	73	66	0	367	7	609
17:00 - 18:00	161	60	47	0	268	0	260	86	75	0	421	14	689
18:00 - 19:00	120	54	28	0	202	1	204	81	63	0	348	0	550
GRAND TOTAL	**809**	**274**	**182**	**0**	**1265**	**6**	**825**	**269**	**337**	**0**	**1431**	**22**	**2696**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Dundas St E & Ernest Applebe Blvd-Oak Park Blvd
Site Code:	2201400002
Municipality:	Oakville
Count Date:	Jan 25, 2022

Dundas St E - 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	50	678	26	0	754	3	22	1299	59	0	1380	0	2134
08:00 - 09:00	78	833	85	0	996	4	23	1451	109	0	1583	2	2579
BREAK													
16:00 - 17:00	182	1400	109	0	1691	8	32	1230	157	0	1419	5	3110
17:00 - 18:00	184	1322	148	0	1654	5	43	1079	183	0	1305	9	2959
18:00 - 19:00	146	989	144	0	1279	9	37	834	160	0	1031	0	2310
GRAND TOTAL	**640**	**5222**	**512**	**0**	**6374**	**29**	**157**	**5893**	**668**	**0**	**6718**	**16**	**13092**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Dundas St E & Ernest Applebe Blvd-Oak Park Blvd
Site Code: 2201400002
Municipality: Oakville
Count Date: Jan 25, 2022

North Approach - Ernest Applebe Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	18	5	1	0	24	0	1	0	0	1	0	0	0	0	0	0
07:15	29	2	6	0	37	0	0	1	0	1	0	0	0	0	0	0
07:30	44	7	9	0	60	1	2	0	0	3	0	0	0	0	0	0
07:45	50	14	7	0	71	2	0	1	0	3	0	0	0	0	0	0
08:00	70	15	14	0	99	0	1	0	0	1	0	0	0	0	0	0
08:15	64	16	9	0	89	2	0	1	0	3	0	0	0	0	0	1
08:30	60	16	11	0	87	0	3	2	0	5	0	0	0	0	0	2
08:45	49	12	5	0	66	0	1	2	0	3	0	0	0	0	0	0
SUBTOTAL	384	87	62	0	533	5	8	7	0	20	0	0	0	0	0	3

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Dundas St E & Ernest Applebe Blvd-Oak Park Blvd
Site Code: 2201400002
Municipality: Oakville
Count Date: Jan 25, 2022

North Approach - Ernest Applebe Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
16:00	38	8	11	0	57	1	1	0	0	2	1	0	0	0	1	2
16:15	34	20	13	0	67	1	0	0	0	1	0	0	0	0	0	0
16:30	26	9	4	0	39	1	1	2	0	4	0	0	0	0	0	0
16:45	36	24	7	0	67	1	1	1	0	3	0	1	0	0	1	0
17:00	36	14	9	0	59	0	0	2	0	2	0	0	0	0	0	0
17:15	45	16	9	0	70	0	3	2	0	5	0	0	0	0	0	0
17:30	41	10	14	0	65	0	1	0	0	1	0	0	0	0	0	0
17:45	39	15	11	0	65	0	1	0	0	1	0	0	0	0	0	0
18:00	28	11	8	0	47	0	0	0	0	0	0	0	0	0	0	1
18:15	35	18	6	0	59	0	1	0	0	1	0	0	0	0	0	0
18:30	35	7	7	0	49	0	0	0	0	0	0	0	0	0	0	0
18:45	22	16	7	0	45	0	1	0	0	1	0	0	0	0	0	0
SUBTOTAL	415	168	106	0	689	4	10	7	0	21	1	1	0	0	2	3
GRAND TOTAL	799	255	168	0	1222	9	18	14	0	41	1	1	0	0	2	6

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Dundas St E & Ernest Applebe Blvd-Oak Park Blvd
Site Code: 2201400002
Municipality: Oakville
Count Date: Jan 25, 2022

South Approach - Oak Park Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	8	0	18	0	26	3	0	3	0	6	0	0	0	0	0	0
07:15	2	2	21	0	25	1	2	3	0	6	0	0	0	0	0	0
07:30	14	2	11	0	27	1	0	1	0	2	0	0	0	0	0	0
07:45	15	2	12	0	29	0	1	2	0	3	0	0	0	0	0	0
08:00	16	1	9	0	26	1	0	2	0	3	0	0	0	0	0	0
08:15	22	4	14	0	40	5	1	4	0	10	0	0	0	0	0	0
08:30	21	11	10	0	42	3	0	2	0	5	0	0	0	0	0	1
08:45	21	2	18	0	41	0	1	3	0	4	0	0	0	0	0	0
SUBTOTAL	119	24	113	0	256	14	5	20	0	39	0	0	0	0	0	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Dundas St E & Ernest Applebe Blvd-Oak Park Blvd
Site Code: 2201400002
Municipality: Oakville
Count Date: Jan 25, 2022

South Approach - Oak Park Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	61	24	18	0	103	3	2	1	0	6	0	0	0	0	0	0
16:15	38	9	13	0	60	0	2	4	0	6	0	0	0	0	0	1
16:30	70	15	10	0	95	0	1	3	0	4	0	0	0	0	0	1
16:45	55	20	16	0	91	1	0	1	0	2	0	0	0	0	0	5
17:00	62	22	16	0	100	1	1	2	0	4	0	0	0	0	0	8
17:15	74	25	20	0	119	1	0	2	0	3	0	0	0	0	0	2
17:30	66	19	19	0	104	0	1	0	0	1	0	0	0	0	0	1
17:45	54	18	14	0	86	2	0	2	0	4	0	0	0	0	0	3
18:00	48	14	8	0	70	0	1	0	0	1	0	0	0	0	0	0
18:15	61	19	15	0	95	1	0	1	0	2	0	0	0	0	0	0
18:30	48	25	15	0	88	0	1	3	0	4	0	0	0	0	0	0
18:45	46	21	20	0	87	0	0	1	0	1	0	0	0	0	0	0
SUBTOTAL	683	231	184	0	1098	9	9	20	0	38	0	0	0	0	0	21
GRAND TOTAL	**802**	**255**	**297**	**0**	**1354**	**23**	**14**	**40**	**0**	**77**	**0**	**0**	**0**	**0**	**0**	**22**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Dundas St E & Ernest Applebe Blvd-Oak Park Blvd
Site Code: 2201400002
Municipality: Oakville
Count Date: Jan 25, 2022

East Approach - Dundas St E

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	7	135	3	0	145	1	13	1	0	15	0	0	0	0	0	0
07:15	7	136	5	0	148	1	25	1	0	27	0	2	0	0	2	2
07:30	14	165	6	0	185	3	13	2	0	18	0	0	0	0	0	0
07:45	16	174	7	0	197	1	15	1	0	17	0	0	0	0	0	1
08:00	15	186	11	0	212	2	20	2	0	24	0	0	0	0	0	0
08:15	18	182	20	0	220	0	12	0	0	12	0	0	0	0	0	2
08:30	15	208	23	0	246	0	23	0	0	23	0	0	0	0	0	1
08:45	28	181	27	0	236	0	21	2	0	23	0	0	0	0	0	1
SUBTOTAL	120	1367	102	0	1589	8	142	9	0	159	0	2	0	0	2	7

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Dundas St E & Ernest Applebe Blvd-Oak Park Blvd
Site Code: 2201400002
Municipality: Oakville
Count Date: Jan 25, 2022

East Approach - Dundas St E

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	41	305	25	0	371	1	17	2	0	20	1	3	0	0	4	4
16:15	50	387	29	0	466	0	14	0	0	14	0	2	0	0	2	1
16:30	45	316	29	0	390	0	3	2	0	5	0	0	0	0	0	0
16:45	44	349	22	0	415	0	4	0	0	4	0	0	0	0	0	3
17:00	53	332	23	0	408	0	7	0	0	7	0	0	0	0	0	0
17:15	44	351	44	0	439	0	3	0	0	3	0	0	0	0	0	0
17:30	44	335	48	0	427	0	6	0	0	6	0	0	0	0	0	3
17:45	43	284	33	0	360	0	4	0	0	4	0	0	0	0	0	2
18:00	36	280	31	0	347	3	3	1	0	7	0	0	0	0	0	4
18:15	43	244	36	0	323	0	1	1	0	2	0	1	0	0	1	2
18:30	36	205	38	0	279	0	2	0	0	2	0	0	0	0	0	1
18:45	28	250	37	0	315	0	3	0	0	3	0	0	0	0	0	2
SUBTOTAL	507	3638	395	0	4540	4	67	6	0	77	1	6	0	0	7	22
GRAND TOTAL	627	5005	497	0	6129	12	209	15	0	236	1	8	0	0	9	29

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Dundas St E & Ernest Applebe Blvd-Oak Park Blvd
Site Code: 2201400002
Municipality: Oakville
Count Date: Jan 25, 2022

West Approach - Dundas St E

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	2	232	7	0	241	0	5	1	0	6	0	0	0	0	0	0
07:15	3	306	10	0	319	6	7	2	0	15	0	0	0	0	0	0
07:30	4	336	9	0	349	0	6	0	0	6	0	0	0	0	0	0
07:45	4	396	27	0	427	3	11	3	0	17	0	0	0	0	0	0
08:00	2	350	24	0	376	1	13	0	0	14	0	0	0	0	0	0
08:15	5	393	26	0	424	4	11	3	0	18	0	0	0	0	0	0
08:30	3	334	27	0	364	1	12	0	0	13	0	0	0	0	0	2
08:45	4	324	28	0	356	3	14	1	0	18	0	0	0	0	0	0
SUBTOTAL	27	2671	158	0	2856	18	79	10	0	107	0	0	0	0	0	2

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Dundas St E & Ernest Applebe Blvd-Oak Park Blvd
Site Code: 2201400002
Municipality: Oakville
Count Date: Jan 25, 2022

West Approach - Dundas St E

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	5	296	35	0	336	0	14	0	0	14	0	0	0	0	0	0
16:15	3	316	34	0	353	0	14	1	0	15	0	0	0	0	0	1
16:30	11	286	35	0	332	1	3	1	0	5	0	0	0	0	0	0
16:45	12	294	48	0	354	0	7	3	0	10	0	0	0	0	0	4
17:00	5	293	40	0	338	0	8	3	0	11	0	0	0	0	0	6
17:15	10	260	48	0	318	0	8	0	0	8	0	0	0	0	0	1
17:30	20	286	47	0	353	0	5	1	0	6	0	0	0	0	0	2
17:45	8	215	44	0	267	0	4	0	0	4	0	0	0	0	0	0
18:00	5	250	43	0	298	0	2	0	0	2	0	0	0	0	0	0
18:15	12	201	38	0	251	0	5	1	0	6	0	0	0	0	0	0
18:30	7	187	26	0	220	0	3	2	0	5	0	0	0	0	0	0
18:45	10	178	50	0	238	3	8	0	0	11	0	0	0	0	0	0
SUBTOTAL	108	3062	488	0	3658	4	81	12	0	97	0	0	0	0	0	14
GRAND TOTAL	135	5733	646	0	6514	22	160	22	0	204	0	0	0	0	0	16

Peak Hour Diagram

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

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

Intersection: Dundas St E & Ernest Applebe Blvd-Oak Park Blvd
Site Code: 2201400002
Count Date: Jan 25, 2022

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Dundas St E runs E/W

North Approach

	Out	In	Total
Cars	346	93	439
Trucks	12	14	26
Bicycles	0	0	0
	358	**107**	**465**

Ernest Applebe Blvd

Bicycles	0	0	0	0
Trucks	4	4	4	0
Cars	41	61	244	0
Totals	**45**	**65**	**248**	**0**

Peds: 3

East Approach

	Out	In	Total
Cars	875	1762	2637
Trucks	76	61	137
Bicycles	0	0	0
	951	**1823**	**2774**

Dundas St E

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	9	14	**23**
0	47	1473	**1520**
0	6	104	**110**

Peds: 2

Peds: 4

Dundas St E

Totals	Cars	Trucks	Bicycles
0	0	0	0
64	61	3	0
820	750	70	0
67	64	3	0

Peds: 1

West Approach

	Out	In	Total
Cars	1591	865	2456
Trucks	62	83	145
Bicycles	0	0	0
	1653	**948**	**2601**

Totals	**83**	**20**	**55**	**0**
Cars	74	18	45	0
Trucks	9	2	10	0
Bicycles	0	0	0	0

Oak Park Blvd

South Approach

	Out	In	Total
Cars	137	229	366
Trucks	21	13	34
Bicycles	0	0	0
	158	**242**	**400**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Dundas St E & Ernest Applebe Blvd-Oak Park Blvd
Site Code: 2201400002
Count Date: Jan 25, 2022
Period: 07:00 - 09:00

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

Start Time	North Approach Ernest Applebe Blvd						South Approach Oak Park Blvd						East Approach Dundas St E						West Approach Dundas St E						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
07:45	52	14	8	0	0	74	15	3	14	0	0	32	17	189	8	0	1	214	7	407	30	0	0	444	764
08:00	70	16	14	0	0	100	17	1	11	0	0	29	17	206	13	0	0	236	3	363	24	0	0	390	755
08:15	66	16	10	0	1	92	27	5	18	0	0	50	18	194	20	0	2	232	9	404	29	0	0	442	816
08:30	60	19	13	0	2	92	24	11	12	0	1	47	15	231	23	0	1	269	4	346	27	0	2	377	785
Grand Total	**248**	**65**	**45**	**0**	**3**	**358**	**83**	**20**	**55**	**0**	**1**	**158**	**67**	**820**	**64**	**0**	**4**	**951**	**23**	**1520**	**110**	**0**	**2**	**1653**	**3120**
Approach %	69.3	18.2	12.6	0		-	52.5	12.7	34.8	0		-	7	86.2	6.7	0		-	1.4	92	6.7	0		-	
Totals %	7.9	2.1	1.4	0		11.5	2.7	0.6	1.8	0		5.1	2.1	26.3	2.1	0		30.5	0.7	48.7	3.5	0		53	
PHF	**0.89**	**0.86**	**0.8**	**0**		**0.9**	**0.77**	**0.45**	**0.76**	**0**		**0.79**	**0.93**	**0.89**	**0.7**	**0**		**0.88**	**0.64**	**0.93**	**0.92**	**0**		**0.93**	**0.96**
Cars	244	61	41	0		346	74	18	45	0		137	64	750	61	0		875	14	1473	104	0		1591	2949
% Cars	98.4	93.8	91.1	0		96.6	89.2	90	81.8	0		86.7	95.5	91.5	95.3	0		92	60.9	96.9	94.5	0		96.2	94.5
Trucks	4	4	4	0		12	9	2	10	0		21	3	70	3	0		76	9	47	6	0		62	171
% Trucks	1.6	6.2	8.9	0		3.4	10.8	10	18.2	0		13.3	4.5	8.5	4.7	0		8	39.1	3.1	5.5	0		3.8	5.5
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					3	-					1	-					4	-					2	-	10
% Peds					30	-					10	-					40	-					20	-	

Peak Hour Diagram

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

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

Intersection: Dundas St E & Ernest Applebe Blvd-Oak Park Blvd
Site Code: 2201400002
Count Date: Jan 25, 2022

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Dundas St E runs E/W

North Approach

	Out	In	Total
Cars	261	270	531
Trucks	11	2	13
Bicycles	1	0	1
	273	**272**	**545**

Ernest Applebe Blvd

Bicycles	0	1	0	0
Trucks	5	5	1	0
Cars	39	64	158	0
Totals	**44**	**70**	**159**	**0**

East Approach

	Out	In	Total
Cars	1689	1362	3051
Trucks	20	34	54
Bicycles	0	0	0
	1709	**1396**	**3105**

Dundas St E

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	
0	0	47	**47**	
0	28	1133	**1161**	
0	7	183	**190**	

Peds: 0

Peds: 13

Peds: 6

Peds: 16

Dundas St E

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	137	137	0	0
	1387	1367	20	0
	185	185	0	0

West Approach

	Out	In	Total
Cars	1363	1663	3026
Trucks	35	28	63
Bicycles	0	0	0
	1398	**1691**	**3089**

Oak Park Blvd

Totals	**260**	**88**	**76**	**0**
Cars	257	86	71	0
Trucks	3	2	5	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	414	432	846
Trucks	10	12	22
Bicycles	0	1	1
	424	**445**	**869**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Dundas St E & Ernest Applebe Blvd-Oak Park Blvd
Site Code: 2201400002
Count Date: Jan 25, 2022
Period: 16:00 - 19:00

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

Start Time	North Approach Ernest Applebe Blvd						South Approach Oak Park Blvd						East Approach Dundas St E						West Approach Dundas St E						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:45	37	26	8	0	0	71	56	20	17	0	5	93	44	353	22	0	3	419	12	301	51	0	4	364	947
17:00	36	14	11	0	0	61	63	23	18	0	8	104	53	339	23	0	0	415	5	301	43	0	6	349	929
17:15	45	19	11	0	0	75	75	25	22	0	2	122	44	354	44	0	0	442	10	268	48	0	1	326	965
17:30	41	11	14	0	0	66	66	20	19	0	1	105	44	341	48	0	3	433	20	291	48	0	2	359	963
Grand Total	**159**	**70**	**44**	**0**	**0**	**273**	**260**	**88**	**76**	**0**	**16**	**424**	**185**	**1387**	**137**	**0**	**6**	**1709**	**47**	**1161**	**190**	**0**	**13**	**1398**	**3804**
Approach %	58.2	25.6	16.1	0		-	61.3	20.8	17.9	0		-	10.8	81.2	8	0		-	3.4	83	13.6	0		-	
Totals %	4.2	1.8	1.2	0		7.2	6.8	2.3	2	0		11.1	4.9	36.5	3.6	0		44.9	1.2	30.5	5	0		36.8	
PHF	**0.88**	**0.67**	**0.79**	**0**		**0.91**	**0.87**	**0.88**	**0.86**	**0**		**0.87**	**0.87**	**0.98**	**0.71**	**0**		**0.97**	**0.59**	**0.96**	**0.93**	**0**		**0.96**	**0.99**
Cars	158	64	39	0		261	257	86	71	0		414	185	1367	137	0		1689	47	1133	183	0		1363	3727
% Cars	99.4	91.4	88.6	0		95.6	98.8	97.7	93.4	0		97.6	100	98.6	100	0		98.8	100	97.6	96.3	0		97.5	98
Trucks	1	5	5	0		11	3	2	5	0		10	0	20	0	0		20	0	28	7	0		35	76
% Trucks	0.6	7.1	11.4	0		4	1.2	2.3	6.6	0		2.4	0	1.4	0	0		1.2	0	2.4	3.7	0		2.5	2
Bicycles	0	1	0	0		1	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	1
% Bicycles	0	1.4	0	0		0.4	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
Peds					0	-					16	-					6	-					13	-	35
% Peds					0	-					45.7	-					17.1	-					37.1	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #22-014 - GHD

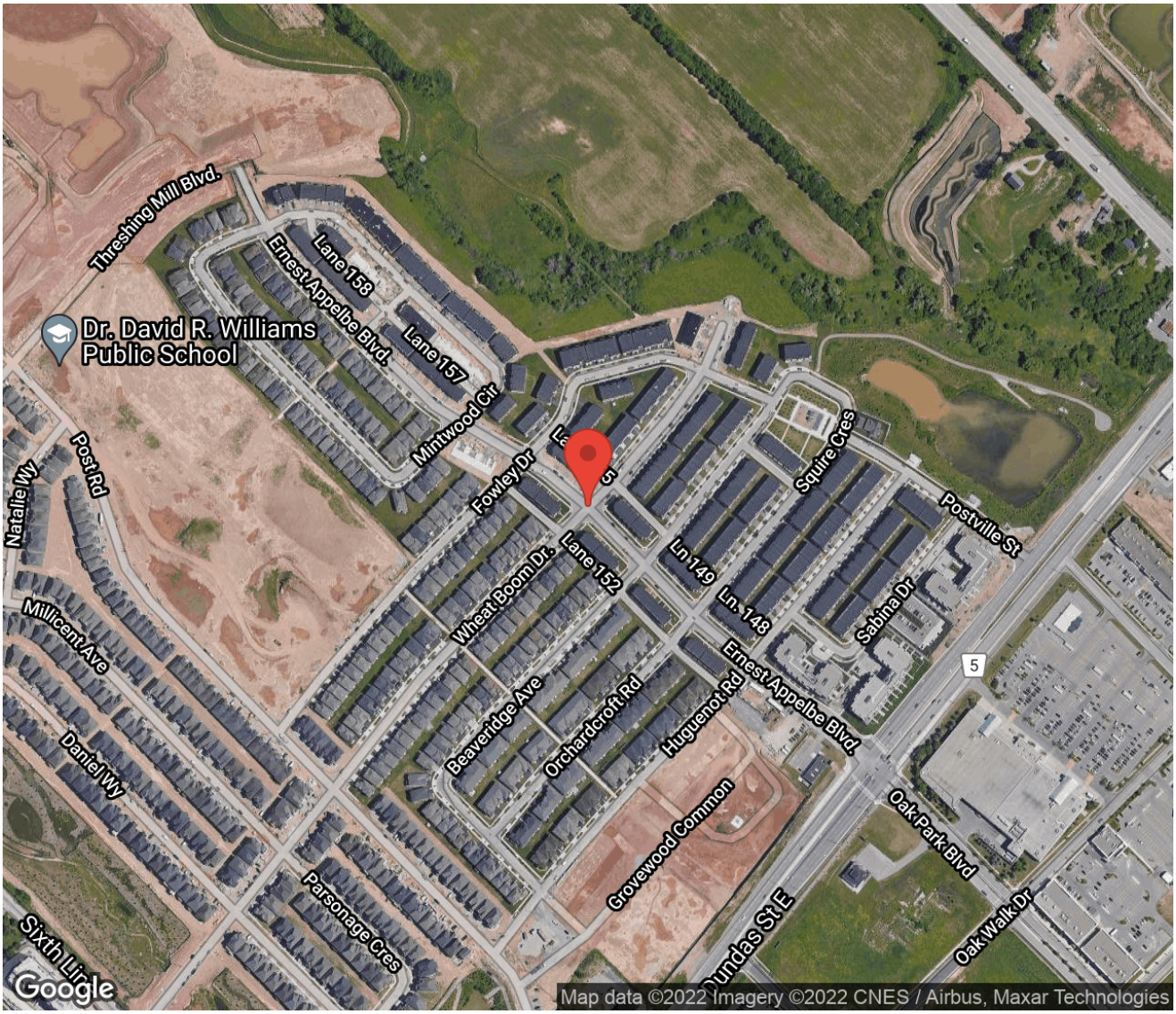
Intersection Count Report

Intersection:	Ernest Applebe Blvd & Wheat Boom Dr
Municipality:	Oakville
Count Date:	Jan 25, 2022
Site Code:	2201400003
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-09:00, 16:00-19:00
Weather:	Clear

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Map

Intersection:	Ernest Applebe Blvd & Wheat Boom Dr
Site Code:	2201400003
Municipality:	Oakville
Count Date:	Jan 25, 2022



Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection: Ernest Applebe Blvd & Wheat Boom Dr
Site Code: 2201400003
Municipality: Oakville
Count Date: Jan 25, 2022

Ernest Applebe Blvd - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	0	57	3	0	60	0	13	31	3	0	47	0	107
08:00 - 09:00	1	117	7	0	125	0	39	63	4	0	106	1	231
BREAK													
16:00 - 17:00	7	120	13	0	140	0	34	130	7	0	171	0	311
17:00 - 18:00	3	94	10	0	107	0	37	112	10	0	159	3	266
18:00 - 19:00	0	62	6	0	68	0	29	74	7	0	110	1	178
GRAND TOTAL	**11**	**450**	**39**	**0**	**500**	**0**	**152**	**410**	**31**	**0**	**593**	**5**	**1093**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Ernest Applebe Blvd & Wheat Boom Dr
Site Code:	2201400003
Municipality:	Oakville
Count Date:	Jan 25, 2022

Wheat Boom Dr - 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	1	0	0	7	3	1	1	30	0	32	3	39
08:00 - 09:00	17	3	2	0	22	1	9	2	58	0	69	5	91
BREAK													
16:00 - 17:00	10	8	5	0	23	8	12	3	52	0	67	8	90
17:00 - 18:00	10	4	5	0	19	7	8	3	35	0	46	8	65
18:00 - 19:00	7	1	3	0	11	1	2	5	22	0	29	4	40
GRAND TOTAL	**50**	**17**	**15**	**0**	**82**	**20**	**32**	**14**	**197**	**0**	**243**	**28**	**325**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Ernest Applebe Blvd & Wheat Boom Dr
Site Code: 2201400003
Municipality: Oakville
Count Date: Jan 25, 2022

North Approach - Ernest Applebe Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0
07:15	0	9	1	0	10	0	0	1	0	1	0	0	0	0	0	0
07:30	0	18	1	0	19	0	1	0	0	1	0	0	0	0	0	0
07:45	0	19	0	0	19	0	1	0	0	1	0	0	0	0	0	0
08:00	0	29	2	0	31	0	0	0	0	0	0	0	0	0	0	0
08:15	0	28	0	0	28	0	2	0	0	2	0	0	0	0	0	0
08:30	0	25	2	0	27	0	1	0	0	1	0	0	0	0	0	0
08:45	1	32	3	0	36	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	1	169	9	0	179	0	5	1	0	6	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Ernest Applebe Blvd & Wheat Boom Dr
Site Code: 2201400003
Municipality: Oakville
Count Date: Jan 25, 2022

North Approach - Ernest Applebe Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	0	27	1	0	28	0	1	1	0	2	0	0	0	0	0	0
16:15	0	28	4	0	32	0	0	2	0	2	0	0	0	0	0	0
16:30	2	30	3	0	35	0	1	0	0	1	0	0	0	0	0	0
16:45	5	33	2	0	40	0	0	0	0	0	0	0	0	0	0	0
17:00	1	25	3	0	29	0	1	0	0	1	0	0	0	0	0	0
17:15	2	25	3	0	30	0	0	0	0	0	0	0	0	0	0	0
17:30	0	24	1	0	25	0	2	0	0	2	0	0	0	0	0	0
17:45	0	16	3	0	19	0	1	0	0	1	0	0	0	0	0	0
18:00	0	16	1	0	17	0	2	0	0	2	0	0	0	0	0	0
18:15	0	17	1	0	18	0	2	0	0	2	0	0	0	0	0	0
18:30	0	13	2	0	15	0	1	0	0	1	0	0	0	0	0	0
18:45	0	11	2	0	13	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	10	265	26	0	301	0	11	3	0	14	0	0	0	0	0	0
GRAND TOTAL	11	434	35	0	480	0	16	4	0	20	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Ernest Applebe Blvd & Wheat Boom Dr
Site Code: 2201400003
Municipality: Oakville
Count Date: Jan 25, 2022

South Approach - Ernest Applebe Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0
07:15	2	6	1	0	9	2	1	0	0	3	0	0	0	0	0	0
07:30	1	8	0	0	9	0	0	0	0	0	0	0	0	0	0	0
07:45	4	13	2	0	19	3	1	0	0	4	0	0	0	0	0	0
08:00	4	11	1	0	16	0	1	0	0	1	0	0	0	0	0	0
08:15	9	16	1	0	26	4	0	0	0	4	0	0	0	0	0	0
08:30	10	15	1	0	26	1	0	0	0	1	0	0	0	0	0	0
08:45	8	20	1	0	29	3	0	0	0	3	0	0	0	0	0	1
SUBTOTAL	39	91	7	0	137	13	3	0	0	16	0	0	0	0	0	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Ernest Applebe Blvd & Wheat Boom Dr
Site Code: 2201400003
Municipality: Oakville
Count Date: Jan 25, 2022

South Approach - Ernest Applebe Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	7	27	3	0	37	1	2	0	0	3	0	0	0	0	0	0
16:15	7	35	2	0	44	1	2	0	0	3	0	0	0	0	0	0
16:30	6	33	2	0	41	2	1	0	0	3	0	0	0	0	0	0
16:45	6	30	0	0	36	4	0	0	0	4	0	0	0	0	0	0
17:00	10	30	4	0	44	1	1	0	0	2	0	0	0	0	0	1
17:15	9	25	1	0	35	2	1	0	0	3	0	0	0	0	0	1
17:30	5	28	3	0	36	1	1	0	0	2	0	0	0	0	0	0
17:45	8	24	2	0	34	1	2	0	0	3	0	0	0	0	0	1
18:00	9	24	2	0	35	0	0	0	0	0	0	0	0	0	0	1
18:15	7	18	1	0	26	1	0	0	0	1	0	0	0	0	0	0
18:30	5	16	2	0	23	1	1	0	0	2	0	0	0	0	0	0
18:45	5	15	2	0	22	1	0	0	0	1	0	0	0	0	0	0
SUBTOTAL	84	305	24	0	413	16	11	0	0	27	0	0	0	0	0	4
GRAND TOTAL	123	396	31	0	550	29	14	0	0	43	0	0	0	0	0	5

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Ernest Applebe Blvd & Wheat Boom Dr
Site Code: 2201400003
Municipality: Oakville
Count Date: Jan 25, 2022

East Approach - Wheat Boom Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↩	Total	↰	↑	↱	↩	Total	↰	↑	↱	↩	Total	
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0
07:30	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1
07:45	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	2
08:00	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
08:15	8	1	1	0	10	0	0	0	0	0	0	0	0	0	0	0
08:30	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0
08:45	4	1	1	0	6	0	0	0	0	0	0	0	0	0	0	1
SUBTOTAL	23	4	2	0	29	0	0	0	0	0	0	0	0	0	0	4

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Ernest Applebe Blvd & Wheat Boom Dr
Site Code: 2201400003
Municipality: Oakville
Count Date: Jan 25, 2022

East Approach - Wheat Boom Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
16:00	2	2	1	0	5	0	0	0	0	0	0	0	0	0	0	2
16:15	3	0	1	0	4	0	1	0	0	1	0	0	0	0	0	0
16:30	2	1	1	0	4	0	0	0	0	0	0	0	0	0	0	2
16:45	3	4	2	0	9	0	0	0	0	0	0	0	0	0	0	4
17:00	3	2	1	0	6	0	0	0	0	0	0	0	0	0	0	3
17:15	3	0	1	0	4	0	0	2	0	2	0	0	0	0	0	0
17:30	2	2	0	0	4	1	0	0	0	1	0	0	0	0	0	4
17:45	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
18:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
18:15	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1
18:30	2	1	1	0	4	1	0	0	0	1	0	0	0	0	0	0
18:45	1	0	1	0	2	0	0	1	0	1	0	0	0	0	0	0
SUBTOTAL	25	12	10	0	47	2	1	3	0	6	0	0	0	0	0	16
GRAND TOTAL	**48**	**16**	**12**	**0**	**76**	**2**	**1**	**3**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**20**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Ernest Applebe Blvd & Wheat Boom Dr
Site Code: 2201400003
Municipality: Oakville
Count Date: Jan 25, 2022

West Approach - Wheat Boom Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
07:15	0	0	3	0	3	0	1	1	0	2	0	0	0	0	0	2
07:30	0	0	9	0	9	0	0	3	0	3	0	0	0	0	0	1
07:45	1	0	11	0	12	0	0	2	0	2	0	0	0	0	0	0
08:00	5	1	11	0	17	0	0	1	0	1	0	0	0	0	0	0
08:15	1	0	20	0	21	0	0	0	0	0	0	0	0	0	0	1
08:30	1	1	14	0	16	0	0	2	0	2	0	0	0	0	0	2
08:45	2	0	9	0	11	0	0	1	0	1	0	0	0	0	0	2
SUBTOTAL	10	2	77	0	89	0	1	11	0	12	0	0	0	0	0	8

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Ernest Applebe Blvd & Wheat Boom Dr
Site Code: 2201400003
Municipality: Oakville
Count Date: Jan 25, 2022

West Approach - Wheat Boom Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	3	0	9	0	12	0	0	2	0	2	0	0	0	0	0	3
16:15	2	0	8	0	10	1	0	3	0	4	0	0	0	0	0	0
16:30	3	0	9	0	12	0	0	4	0	4	0	0	0	0	0	3
16:45	2	1	11	0	14	1	2	6	0	9	0	0	0	0	0	2
17:00	3	2	8	0	13	0	0	1	0	1	0	0	0	0	0	5
17:15	2	1	10	0	13	0	0	1	0	1	0	0	0	0	0	2
17:30	2	0	6	0	8	1	0	2	0	3	0	0	0	0	0	0
17:45	0	0	6	0	6	0	0	1	0	1	0	0	0	0	0	1
18:00	0	2	6	0	8	0	0	1	0	1	0	0	0	0	0	2
18:15	0	1	6	0	7	0	0	0	0	0	0	0	0	0	0	1
18:30	1	1	4	0	6	0	0	0	0	0	0	0	0	0	0	0
18:45	1	1	4	0	6	0	0	1	0	1	0	0	0	0	0	1
SUBTOTAL	19	9	87	0	115	3	2	22	0	27	0	0	0	0	0	20
GRAND TOTAL	**29**	**11**	**164**	**0**	**204**	**3**	**3**	**33**	**0**	**39**	**0**	**0**	**0**	**0**	**0**	**28**

Peak Hour Diagram

Specified Period
From: 07:00:00
To: 09:00:00

One Hour Peak
From: 08:00:00
To: 09:00:00

Intersection: Ernest Applebe Blvd & Wheat Boom Dr
Site Code: 2201400003
Count Date: Jan 25, 2022

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Ernest Applebe Blvd runs N/S

North Approach

	Out	In	Total
Cars	122	73	195
Trucks	3	1	4
Bicycles	0	0	0
	125	**74**	**199**

Ernest Applebe Blvd

Bicycles	0	0	0	0
Trucks	0	3	0	0
Cars	7	114	1	0
Totals	**7**	**117**	**1**	**0**

East Approach

	Out	In	Total
Cars	22	7	29
Trucks	0	0	0
Bicycles	0	0	0
	22	**7**	**29**

Wheat Boom Dr

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	0	9	**9**
0	0	2	**2**
0	4	54	**58**

Peds: 0

Peds: 5

N

W E

S

Peds: 1

Peds: 1

Wheat Boom Dr

Totals	Cars	Trucks	Bicycles
0	0	0	0
2	2	0	0
3	3	0	0
17	17	0	0

West Approach

	Out	In	Total
Cars	65	41	106
Trucks	4	8	12
Bicycles	0	0	0
	69	**49**	**118**

Totals	**39**	**63**	**4**	**0**
Cars	31	62	4	0
Trucks	8	1	0	0
Bicycles	0	0	0	0

Ernest Applebe Blvd

South Approach

	Out	In	Total
Cars	97	185	282
Trucks	9	7	16
Bicycles	0	0	0
	106	**192**	**298**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Ernest Applebe Blvd & Wheat Boom Dr
Site Code: 2201400003
Count Date: Jan 25, 2022
Period: 07:00 - 09:00

Peak Hour Data (08:00 - 09:00)

Start Time	North Approach Ernest Applebe Blvd						South Approach Ernest Applebe Blvd						East Approach Wheat Boom Dr						West Approach Wheat Boom Dr						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
08:00	0	29	2	0	0	31	4	12	1	0	0	17	3	0	0	0	0	3	5	1	12	0	0	18	69
08:15	0	30	0	0	0	30	13	16	1	0	0	30	8	1	1	0	0	10	1	0	20	0	1	21	91
08:30	0	26	2	0	0	28	11	15	1	0	0	27	2	1	0	0	0	3	1	1	16	0	2	18	76
08:45	1	32	3	0	0	36	11	20	1	0	1	32	4	1	1	0	1	6	2	0	10	0	2	12	86
Grand Total	**1**	**117**	**7**	**0**	**0**	**125**	**39**	**63**	**4**	**0**	**1**	**106**	**17**	**3**	**2**	**0**	**1**	**22**	**9**	**2**	**58**	**0**	**5**	**69**	**322**
Approach %	0.8	93.6	5.6	0		-	36.8	59.4	3.8	0		-	77.3	13.6	9.1	0		-	13	2.9	84.1	0		-	
Totals %	0.3	36.3	2.2	0		38.8	12.1	19.6	1.2	0		32.9	5.3	0.9	0.6	0		6.8	2.8	0.6	18	0		21.4	
PHF	**0.25**	**0.91**	**0.58**	**0**		**0.87**	**0.75**	**0.79**	**1**	**0**		**0.83**	**0.53**	**0.75**	**0.5**	**0**		**0.55**	**0.45**	**0.5**	**0.73**	**0**		**0.82**	**0.88**
Cars	1	114	7	0		122	31	62	4	0		97	17	3	2	0		22	9	2	54	0		65	306
% Cars	100	97.4	100	0		97.6	79.5	98.4	100	0		91.5	100	100	100	0		100	100	100	93.1	0		94.2	95
Trucks	0	3	0	0		3	8	1	0	0		9	0	0	0	0		0	0	0	4	0		4	16
% Trucks	0	2.6	0	0		2.4	20.5	1.6	0	0		8.5	0	0	0	0		0	0	0	6.9	0		5.8	5
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	-					1	-					1	-					5	-	7
% Peds					0	-					14.3	-					14.3	-					71.4	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	16:00:00	From:	16:15:00
To:	19:00:00	To:	17:15:00

Intersection: Ernest Applebe Blvd & Wheat Boom Dr
Site Code: 2201400003
Count Date: Jan 25, 2022

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Ernest Applebe Blvd runs N/S

North Approach

	Out	In	Total
Cars	136	143	279
Trucks	4	6	10
Bicycles	0	0	0
	140	**149**	**289**

Ernest Applebe Blvd

Bicycles	0	0	0	0
Trucks	2	2	0	0
Cars	12	116	8	0
Totals	**14**	**118**	**8**	**0**

East Approach

	Out	In	Total
Cars	23	19	42
Trucks	1	2	3
Bicycles	0	0	0
	24	**21**	**45**

Wheat Boom Dr

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	
0	2	10	**12**	
0	2	3	**5**	
0	14	36	**50**	

Peds: 0
Peds: 10
Peds: 9
Peds: 1

Wheat Boom Dr

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	5	5	0	0
	8	7	1	0
	11	11	0	0

West Approach

	Out	In	Total
Cars	49	48	97
Trucks	18	11	29
Bicycles	0	0	0
	67	**59**	**126**

Ernest Applebe Blvd

Totals	**37**	**132**	**8**	**0**
Cars	29	128	8	0
Trucks	8	4	0	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	165	163	328
Trucks	12	16	28
Bicycles	0	0	0
	177	**179**	**356**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Ernest Applebe Blvd & Wheat Boom Dr
Site Code: 2201400003
Count Date: Jan 25, 2022
Period: 16:00 - 19:00

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

Start Time	North Approach Ernest Applebe Blvd						South Approach Ernest Applebe Blvd						East Approach Wheat Boom Dr						West Approach Wheat Boom Dr						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:15	0	28	6	0	0	34	8	37	2	0	0	47	3	1	1	0	0	5	3	0	11	0	0	14	100
16:30	2	31	3	0	0	36	8	34	2	0	0	44	2	1	1	0	2	4	3	0	13	0	3	16	100
16:45	5	33	2	0	0	40	10	30	0	0	0	40	3	4	2	0	4	9	3	3	17	0	2	23	112
17:00	1	26	3	0	0	30	11	31	4	0	1	46	3	2	1	0	3	6	3	2	9	0	5	14	96
Grand Total	**8**	**118**	**14**	**0**	**0**	**140**	**37**	**132**	**8**	**0**	**1**	**177**	**11**	**8**	**5**	**0**	**9**	**24**	**12**	**5**	**50**	**0**	**10**	**67**	**408**
Approach %	5.7	84.3	10	0		-	20.9	74.6	4.5	0		-	45.8	33.3	20.8	0		-	17.9	7.5	74.6	0		-	
Totals %	2	28.9	3.4	0		34.3	9.1	32.4	2	0		43.4	2.7	2	1.2	0		5.9	2.9	1.2	12.3	0		16.4	
PHF	**0.4**	**0.89**	**0.58**	**0**		**0.88**	**0.84**	**0.89**	**0.5**	**0**		**0.94**	**0.92**	**0.5**	**0.63**	**0**		**0.67**	**1**	**0.42**	**0.74**	**0**		**0.73**	**0.91**
Cars	8	116	12	0		136	29	128	8	0		165	11	7	5	0		23	10	3	36	0		49	373
% Cars	100	98.3	85.7	0		97.1	78.4	97	100	0		93.2	100	87.5	100	0		95.8	83.3	60	72	0		73.1	91.4
Trucks	0	2	2	0		4	8	4	0	0		12	0	1	0	0		1	2	2	14	0		18	35
% Trucks	0	1.7	14.3	0		2.9	21.6	3	0	0		6.8	0	12.5	0	0		4.2	16.7	40	28	0		26.9	8.6
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	-					1	-					9	-					10	-	20
% Peds					0	-					5	-					45	-					50	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #22-014 - GHD

Intersection Count Report

Intersection:	Ernest Applebe Blvd & Threshing Mill Blvd
Municipality:	Oakville
Count Date:	Jan 25, 2022
Site Code:	2201400004
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-09:00, 16:00-19:00
Weather:	Clear

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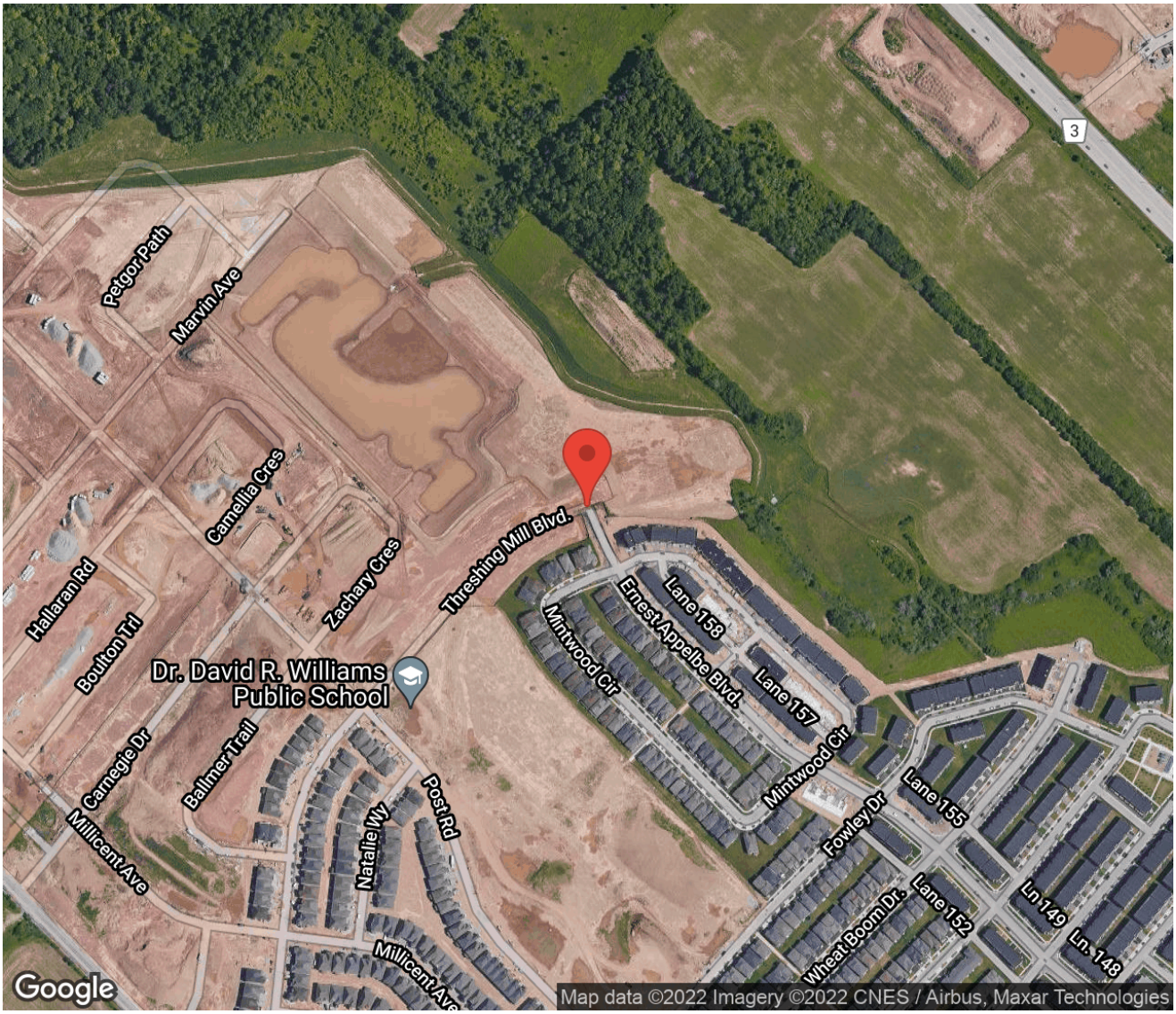
Traffic Count Map

Intersection:	Ernest Applebe Blvd & Threshing Mill Blvd
Site Code:	2201400004
Municipality:	Oakville
Count Date:	Jan 25, 2022



Ontario Traffic Inc.
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Traffic Count Summary

Intersection: Ernest Applebe Blvd & Threshing Mill Blvd
Site Code: 2201400004
Municipality: Oakville
Count Date: Jan 25, 2022

Ernest Applebe Blvd - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	0	0	0	0	0	0	16	0	0	0	16	1	16
08:00 - 09:00	0	0	0	0	0	0	36	0	0	0	36	0	36
BREAK													
16:00 - 17:00	0	0	0	0	0	0	28	0	0	0	28	0	28
17:00 - 18:00	0	0	0	0	0	0	42	0	0	0	42	1	42
18:00 - 19:00	0	0	0	0	0	0	26	0	0	0	26	1	26
GRAND TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**148**	**0**	**0**	**0**	**148**	**3**	**148**

Ontario Traffic Inc.
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Traffic Count Summary

Intersection: Ernest Applebe Blvd & Threshing Mill Blvd
Site Code: 2201400004
Municipality: Oakville
Count Date: Jan 25, 2022

Threshing Mill Blvd - 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	0	0	0	0	0	0	0	0	19	0	19	1	19
08:00 - 09:00	0	0	0	0	0	0	0	0	47	0	47	4	47
BREAK													
16:00 - 17:00	0	0	0	0	0	0	0	0	33	0	33	1	33
17:00 - 18:00	0	0	0	0	0	0	0	0	41	0	41	1	41
18:00 - 19:00	0	0	0	0	0	0	0	0	22	0	22	5	22
GRAND TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**162**	**0**	**162**	**12**	**162**

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Ernest Applebe Blvd & Threshing Mill Blvd
Site Code: 2201400004
Municipality: Oakville
Count Date: Jan 25, 2022

North Approach - Ernest Applebe Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Ernest Applebe Blvd & Threshing Mill Blvd
Site Code: 2201400004
Municipality: Oakville
Count Date: Jan 25, 2022

North Approach - Ernest Applebe Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
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
16:30	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Ernest Applebe Blvd & Threshing Mill Blvd
Site Code: 2201400004
Municipality: Oakville
Count Date: Jan 25, 2022

South Approach - Ernest Applebe Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
07:15	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
07:30	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
07:45	6	0	0	0	6	1	0	0	0	1	0	0	0	0	0	1
08:00	9	0	0	0	9	2	0	0	0	2	0	0	0	0	0	0
08:15	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0
08:30	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0
08:45	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	49	0	0	0	49	3	0	0	0	3	0	0	0	0	0	1

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Traffic Count Data

Intersection: Ernest Applebe Blvd & Threshing Mill Blvd
Site Code: 2201400004
Municipality: Oakville
Count Date: Jan 25, 2022

South Approach - Ernest Applebe Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
16:15	6	0	0	0	6	1	0	0	0	1	0	0	0	0	0	0
16:30	8	0	0	0	8	1	0	0	0	1	0	0	0	0	0	0
16:45	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0
17:00	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0
17:15	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	1
17:30	12	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0
17:45	13	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0
18:00	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	1
18:15	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0
18:30	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0
18:45	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	94	0	0	0	94	2	0	0	0	2	0	0	0	0	0	2
GRAND TOTAL	143	0	0	0	143	5	0	0	0	5	0	0	0	0	0	3

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Traffic Count Data

Intersection: Ernest Applebe Blvd & Threshing Mill Blvd
Site Code: 2201400004
Municipality: Oakville
Count Date: Jan 25, 2022

East Approach - Threshing Mill Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Traffic Count Data

Intersection: Ernest Applebe Blvd & Threshing Mill Blvd
Site Code: 2201400004
Municipality: Oakville
Count Date: Jan 25, 2022

East Approach - Threshing Mill Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
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
16:30	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Traffic Count Data

Intersection: Ernest Applebe Blvd & Threshing Mill Blvd
Site Code: 2201400004
Municipality: Oakville
Count Date: Jan 25, 2022

West Approach - Threshing Mill Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	3	0	3	0	0	1	0	1	0	0	0	0	0	0
07:30	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	6	0	6	0	0	1	0	1	0	0	0	0	0	1
08:00	0	0	14	0	14	0	0	0	0	0	0	0	0	0	0	2
08:15	0	0	14	0	14	0	0	1	0	1	0	0	0	0	0	0
08:30	0	0	10	0	10	0	0	1	0	1	0	0	0	0	0	2
08:45	0	0	6	0	6	0	0	1	0	1	0	0	0	0	0	0
SUBTOTAL	0	0	61	0	61	0	0	5	0	5	0	0	0	0	0	5

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Traffic Count Data

Intersection: Ernest Applebe Blvd & Threshing Mill Blvd
Site Code: 2201400004
Municipality: Oakville
Count Date: Jan 25, 2022

West Approach - Threshing Mill Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
16:00	0	0	5	0	5	0	0	1	0	1	0	0	0	0	0	0
16:15	0	0	7	0	7	0	0	1	0	1	0	0	0	0	0	1
16:30	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	8	0	8	0	0	1	0	1	0	0	0	0	0	0
17:00	0	0	9	0	9	0	0	1	0	1	0	0	0	0	0	0
17:15	0	0	12	0	12	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	9	0	9	0	0	0	0	0	0	0	0	0	0	1
17:45	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0	2
18:30	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	2
18:45	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	1
SUBTOTAL	0	0	92	0	92	0	0	4	0	4	0	0	0	0	0	7
GRAND TOTAL	0	0	153	0	153	0	0	9	0	9	0	0	0	0	0	12

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Peak Hour Diagram

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

Intersection: Ernest Applebe Blvd & Threshing Mill Blvd
Site Code: 2201400004
Count Date: Jan 25, 2022

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Ernest Applebe Blvd runs N/S

North Approach

	Out	In	Total
Cars	0	0	0
Trucks	0	0	0
Bicycles	0	0	0
	0	**0**	**0**

Ernest Applebe Blvd

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

East Approach

	Out	In	Total
Cars	0	0	0
Trucks	0	0	0
Bicycles	0	0	0
	0	**0**	**0**

Peds: 0

Threshing Mill Blvd

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	0	0	**0**
0	0	0	**0**
0	3	44	**47**

Peds: 4

Peds: 0

Threshing Mill Blvd

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0

Peds: 0

West Approach

	Out	In	Total
Cars	44	34	78
Trucks	3	2	5
Bicycles	0	0	0
	47	**36**	**83**

Totals	**36**	**0**	**0**	**0**
Cars	34	0	0	0
Trucks	2	0	0	0
Bicycles	0	0	0	0

Ernest Applebe Blvd

South Approach

	Out	In	Total
Cars	34	44	78
Trucks	2	3	5
Bicycles	0	0	0
	36	**47**	**83**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
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Peak Hour Summary

Intersection: Ernest Applebe Blvd & Threshing Mill Blvd
Site Code: 2201400004
Count Date: Jan 25, 2022
Period: 07:00 - 09:00

Peak Hour Data (08:00 - 09:00)

Start Time	North Approach Ernest Applebe Blvd						South Approach Ernest Applebe Blvd						East Approach Threshing Mill Blvd						West Approach Threshing Mill Blvd						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
08:00	0	0	0	0	0	0	11	0	0	0	0	11	0	0	0	0	0	0	0	0	14	0	2	14	25
08:15	0	0	0	0	0	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	15	0	0	15	22
08:30	0	0	0	0	0	0	10	0	0	0	0	10	0	0	0	0	0	0	0	0	11	0	2	11	21
08:45	0	0	0	0	0	0	8	0	0	0	0	8	0	0	0	0	0	0	0	0	7	0	0	7	15
Grand Total	**0**	**0**	**0**	**0**	**0**	**0**	**36**	**0**	**0**	**0**	**0**	**36**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**47**	**0**	**4**	**47**	**83**
Approach %	0	0	0	0		-	100	0	0	0		-	0	0	0	0		-	0	0	100	0		-	
Totals %	0	0	0	0		0	43.4	0	0	0		43.4	0	0	0	0		0	0	0	56.6	0		56.6	
PHF	**0**	**0**	**0**	**0**		**0**	**0.82**	**0**	**0**	**0**		**0.82**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0.78**	**0**		**0.78**	**0.83**
Cars	0	0	0	0		0	34	0	0	0		34	0	0	0	0		0	0	0	44	0		44	78
% Cars	0	0	0	0		0	94.4	0	0	0		94.4	0	0	0	0		0	0	0	93.6	0		93.6	94
Trucks	0	0	0	0		0	2	0	0	0		2	0	0	0	0		0	0	0	3	0		3	5
% Trucks	0	0	0	0		0	5.6	0	0	0		5.6	0	0	0	0		0	0	0	6.4	0		6.4	6
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	-					4	-	4
% Peds					0	-					0	-					0	-					100	-	

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Peak Hour Diagram

Specified Period		One Hour Peak	
From:	16:00:00	From:	17:00:00
To:	19:00:00	To:	18:00:00

Intersection: Ernest Applebe Blvd & Threshing Mill Blvd
Site Code: 2201400004
Count Date: Jan 25, 2022

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Ernest Applebe Blvd runs N/S

North Approach

	Out	In	Total
Cars	0	0	0
Trucks	0	0	0
Bicycles	0	0	0
	0	**0**	**0**

Ernest Applebe Blvd

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

East Approach

	Out	In	Total
Cars	0	0	0
Trucks	0	0	0
Bicycles	0	0	0
	0	**0**	**0**

Peds: 0

Threshing Mill Blvd

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	0	0	**0**
0	0	0	**0**
0	1	40	**41**

Peds: 1

Peds: 0

Threshing Mill Blvd

Totals	Cars	Trucks	Bicycles
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Peds: 1

West Approach

	Out	In	Total
Cars	40	42	82
Trucks	1	0	1
Bicycles	0	0	0
	41	**42**	**83**

Totals	**42**	**0**	**0**	**0**
Cars	42	0	0	0
Trucks	0	0	0	0
Bicycles	0	0	0	0

Ernest Applebe Blvd

South Approach

	Out	In	Total
Cars	42	40	82
Trucks	0	1	1
Bicycles	0	0	0
	42	**41**	**83**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Ernest Applebe Blvd & Threshing Mill Blvd
Site Code: 2201400004
Count Date: Jan 25, 2022
Period: 16:00 - 19:00

Peak Hour Data (17:00 - 18:00)

Start Time	North Approach Ernest Applebe Blvd						South Approach Ernest Applebe Blvd						East Approach Threshing Mill Blvd						West Approach Threshing Mill Blvd						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
17:00	0	0	0	0	0	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	10	0	0	10	17
17:15	0	0	0	0	0	0	10	0	0	0	1	10	0	0	0	0	0	0	0	0	12	0	0	12	22
17:30	0	0	0	0	0	0	12	0	0	0	0	12	0	0	0	0	0	0	0	0	9	0	1	9	21
17:45	0	0	0	0	0	0	13	0	0	0	0	13	0	0	0	0	0	0	0	0	10	0	0	10	23
Grand Total	**0**	**0**	**0**	**0**	**0**	**0**	**42**	**0**	**0**	**0**	**1**	**42**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**41**	**0**	**1**	**41**	**83**
Approach %	0	0	0	0		-	100	0	0	0		-	0	0	0	0		-	0	0	100	0		-	
Totals %	0	0	0	0		0	50.6	0	0	0		50.6	0	0	0	0		0	0	0	49.4	0		49.4	
PHF	**0**	**0**	**0**	**0**		**0**	**0.81**	**0**	**0**	**0**		**0.81**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0.85**	**0**		**0.85**	**0.9**
Cars	0	0	0	0		0	42	0	0	0		42	0	0	0	0		0	0	0	40	0		40	82
% Cars	0	0	0	0		0	100	0	0	0		100	0	0	0	0		0	0	0	97.6	0		97.6	98.8
Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	1	0		1	1
% Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	2.4	0		2.4	1.2
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	-					1	-					0	-					1	-	2
% Peds					0	-					50	-					0	-					50	-	

Town of Oakville, ON

ECONOLITE

MOVING TRAFFIC FORWARD

REG1106 - Dundas St @ Oak Park Blvd - Econolite Type - ASC/3

Configuration Controller Sequence

Phase Ring Sequence and Assignment (MM) 1-1-1

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B		B		B							
Sequence 1																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 4																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 5																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 6																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 7																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 8																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 9																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 10																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 11																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 12																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 13																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 14																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 15																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 16																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X		X		X	X	X								
Exclusive Ped																

Phase Compatibility (MM) 1-1-2

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Description																

Administration (MM) 1-7-1

Enable Controller/Cabinet Interlock CRC	No
CRC (16 bit)	B4E2
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing	**1**		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Phases	**2**	X		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Simultaneous Gap (MM) 1-1-4

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
Phase	**6**	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
Must	**7**	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
Gap	**8**	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
With	**9**	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
Phase	**10**	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	V				-	Auto	X		
2	2	V				-	Auto	X		X
3	3	V				-	Auto	X		
4	4	V				-	Auto	X		X
5	5	V				+	Auto	X		
6	6	V				+	Auto	X		X
7	7	V				+	Auto	X		
8	8	V				+	Auto	X		X
9	2	P				-	Auto			
10	4	P				-	Auto			
11	6	P				+	Auto			
12	8	P				+	Auto			
13	1	O				-	Auto	X		
14	2	O				+	Auto	X		X
15	3	O				-	Auto	X		
16	4	O				+	Auto	X		X

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REG1106 - Dundas St @ Oak Park Blvd - Econolite Type - ASC/3

Configuration Port 1 (SDLC)

Port 1 SDLC (MM) 1-4-1

BIU	1	2	3	4	5	6	7	8
Term & Facility	X	X						
Detector Rack	X							

Enable TS2/MMU Type Cabinet: No
Enable MMU Extended Status: Yes
Enable SDLC Stop Time: No
Enable 3 Critical RFE's Lockup: Yes

MMU Program (MM) 1-4-2

Channel Can Serve With Channel	
Channel 1	**Channel 2**
1	5
1	6
1	11
1	15
2	5
2	6
2	9
2	11
2	13
2	15
3	7
3	8
3	12
3	16
4	7
4	8
4	10
4	12
4	14
4	16
5	9
5	13
6	9
6	11
6	13
6	15
7	10
7	14
8	10
8	12
8	14
8	16
9	11
9	13
9	15
10	12
10	14
10	16
11	13
11	15

12	14
12	16
13	15
14	16

Color Check Enable (MM) 1-4-3
Enable Color Check: No

MMU/LS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Green																
Yellow																
Red	X		X		X		X									

Secondary Stations/Tests (MM) 1-4-4

ID	1	2	3	4	5	6	7	8	MMU
Term & Facility									

ID	1	2	3	4	5	6	7	8	Diag
Detector Rack									

Enable SDLC Diagnostic Test: No

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REG1106 - Dundas St @ Oak Park Blvd - Econolite Type - ASC/3

Configuration Communications 1 (SDLC)

Ethernet Port Configuration (MM) 1-5-1

DHCP Enable:	No
Controller IP:	172.16.2.113
Subnet Mask:	255.255.0.0
Default Gateway IP:	10.104.0.1
Server IP:	172.16.0.254

NTCIP (MM) 1-5-5

NTCIP Backup Time (Sec):	0
NTCIP UDP Port:	501
Ethernet Priority:	2
Port 2 Priority (Port C50S for 2070):	4
Port 3A Priority (Port C21S for 2070):	1
Port 3B Priority (Port C22S for 2070):	3

Port Configuration (MM) 1-5-2 to 1-5-4

Port	2 (C50S)	3A (C21S)	3B (C22S)
Protocol	GPS NMEA	ECPIP	AB3418
Enable	No	Yes	No
Data Rate (BPS)	4800	9600	1200
Data, Parity, Stop	8 N 1	8 N 1	8 O 1
Address	0	6	6
Telemetry Response Delay	0.0	10.0	1.0
Duplex - Half or Full	Half	Full	Full
Flow Control	No	Yes	Yes
Group Address	0	0	0
Single Flag Enable	Yes	Yes	Yes
RTS to CTS Delay	n/a	n/a	3.0
RTS Turn Off Delay	n/a	n/a	2.0
Dropout Time	10	0	300
Early RTS	n/a	n/a	No
Telemetry Mode	n/a	n/a	FSK
ATCS Railroad	0	n/a	n/a
ATCS Railroad Line	0	n/a	n/a
ATCS Group	0	n/a	n/a
Wayside Device	0	n/a	n/a
ATC Device	0	n/a	n/a
Wayside Subnode	0	n/a	n/a
ATC Subnode	0	n/a	n/a

ECPIP (MM) 1-5-6

Controller Address:	6
Expanded System Detector Address:	0

System Detector Assignment

System Detector	Local Detector

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Configuration Logging / Display

Event Logging (MM) 1-6-1

Critical RFE's (MMU/TF)	Yes	3 Critical Errors Within 24 Hours	Yes
MMU Flash Faults	Yes	Local Flash Fault	Yes
Non-Critical RFE's (Det/Test)	Yes	Detector Errors	Yes
Coordination Errors	No	Controller Download	Yes
Preemption Events	Yes	TSP Events	Yes
Power On/Off	Yes	Low Battery	Yes
Access	Yes	Data Change	Yes
Online / Offline	Yes		

Alarm Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable Logging	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Display Options (MM) 1-7-2

Key Click Enable:	No
Backlight Enable:	Yes
LED Mode:	Auto
Display Mode:	Basic
Screen Format:	Advanced
Trans Mode Pop-Up Disable:	No

Sign On (MM) 8-5

Sign On Message Line 1: Solutions that Move the World
Sign On Message Line 2:

Software Modules (MM) 8-7

Application Version: 02.66.10
OS (Boot) Version: 01.14.03

Town of Oakville, ON

ECONOLITE

MOVING TRAFFIC FORWARD

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Logic Processor Page 1
Logic Statement Control (MM) 1-8-1

Logic #	Statement Control

Town of Oakville, ON

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Logic Processor Page 2

Logic Statements (MM) 1-8-2

Town of Oakville, ON

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Controller Timing Plan (MM) 2-1

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction																
Min Green	7	20	0	10	0	20	6	10	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	7	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	25	0	27	0	25	0	27	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	3.0	5.5	5.0	5.0	5.0	5.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	3.5	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	7	55	0	22	0	55	0	22	35	35	35	35	35	35	35	35
Max2	0	0	0	0	0	0	0	0	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.7	3.0	3.3	3.0	3.7	3.0	3.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	2.6	1.0	3.3	1.0	2.6	1.0	3.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	4.0	2.0	4.0	2.0	4.0	2.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction																
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction																
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction																
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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ECONOLITE

MOVING TRAFFIC FORWARD

REG1106 - Dundas St @ Oak Park Blvd - Econolite Type - ASC/3

Controller Overlaps

Vehicle Overlaps (MM) 2-2

Overlap	Type	Lag Green	Yellow	Red	Adv. Green

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green
A	2	Yes	No	No	No		No	No	.
B	4	Yes	No	No	No		No	No	.
C	6	Yes	No	No	No		No	No	.
D	8	Yes	No	No	No		No	No	.

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	5
B02	5	0	7	3.0	0.0	5
C03	5	0	7	3.0	0.0	5
D04	5	0	7	3.0	0.0	5
E05	5	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	5	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5

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Controller Pedestrian Overlaps
Vehicle / Pedestrian Overlaps (MM) 2-3

Included	Pedestrian Overlaps

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Controller Start / Flash Data (MM) 2-5

Start Up

Phase	Phase Setting
1	.
2	Y
3	.
4	.
5	.
6	Y
7	.
8	.
9	.
10	.
11	.
12	.
13	.
14	.
15	.
16	.

Overlap
A
B
C
D

Flash Thru Mon: Yes
Flash Time: 0
All Red: 4
Power Start Seq: 1
MUTCD Enabled: No
Y->G: n/a

Automatic Flash

Entry
2
6

Exit
2
6

Overlap Exit
A
B
C
D

Flash Thru Mon: Yes
Exit Flash: W
Minimum Flash: 8
Mimimum Recall: No
Cycle Through Phase: Yes

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Controller Options

Controller Options (MM) 2-6-1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I																
Non-Act II																
Dual Entry		X		X		X		X								
Cond Service																
Cond Reservice																
Ped Re-Service		X				X										
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

Phase Recall Options (MM) 2-8

Plan # 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall		X				X										
Ped Recall																
Max Recall																
Soft Recall																
No Rest																
AI Calc																

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Coordination Options

Options (MM) 3-1

Manual Pattern	Auto	ECPI Coord	Yes
System Source	TBC	System Format	STD
Splits In	Percent	Offsets In	Percent
Transition	Smooth	Max Select	MAXINH
Dwell / Add Time	0		
Delay Coord Wk-LZ	No	Force Off	Float
Offset Reference	Lead	Use Ped Time	No
Ped Recall	No	Ped Reservice	Yes
Local Zero Override	Yes	FO Added Ini Green	No
Re-sync Count	0	Multisync	No

Auto Perm Minimum Green (Seconds) (MM) 3-4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Minimum Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Split Demand (MM) 3-5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Demand 1																
Demand 2																

Demand	1	2
Detector	0	0
Call Time (Sec)	0	0
Cycle Count	0	0

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Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2

Coordinator Pattern # 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Percent
Cycle	130	Std (COS)	9	Offsets In	Percent
Offset Value	65%	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Splits (Split Pat 1)	9	50	0	41	0	59	8	33	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Percent
Cycle	120	Std (COS)	17	Offsets In	Percent
Offset Value	69%	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Splits (Split Pat 2)	14	51	0	35	0	65	0	35	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Percent
Cycle	120	Std (COS)	25	Offsets In	Percent
Offset Value	88%	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Splits (Split Pat 3)	14	51	0	35	0	65	0	35	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 4

Split Pattern	4	TS2 (Pat-Off)	1-1	Splits In	Percent
Cycle	120	Std (COS)	33	Offsets In	Percent
Offset Value	69%	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Splits (Split Pat 4)	14	51	0	35	0	65	0	35	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

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REG1106 - Dundas St @ Oak Park Blvd - Econolite Type - ASC/3

Coordination Split Pattern
Split Pattern Data (MM) 3-3

Split Pattern # 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Split (percent)	9	50	0	41	0	59	8	33	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

Split Pattern # 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Split (percent)	14	51	0	35	0	65	0	35	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

Split Pattern # 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Split (percent)	14	51	0	35	0	65	0	35	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

Split Pattern # 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Split (percent)	14	51	0	35	0	65	0	35	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

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Preempt Plan

Preempt Plan (MM) 4-1

Preempt Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dwell Veh	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	No	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	Yes	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Grn	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	7	5	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	0	4.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dwell Veh	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																

Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	No	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	Yes	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Grn	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	**1**	**2**	**3**	**4**
Free During Pmt	No	No	No	No

Timing	**Walk**	**Ped Clr**	**Min Grn**	**Yellow**	**Red**
Entrance	0	7	5	4.0	1.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	4.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**
Dwell / Cycle-Exit	0	0.0	0	4.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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REG1106 - Dundas St @ Oak Park Blvd - Econolite Type - ASC/3

Preempt Preempt Filtering
Enable Preempt Filtering & TSP/SCP (MM) 4-2

Input	Solid	Pulsing
1	...BYPASSED...	...BYPASSED...
2	...BYPASSED...	...BYPASSED...
3	PREEMPTION 3	PREEMPTION 7
4	PREEMPTION 4	PREEMPTION 8
5	PREEMPTION 5	PREEMPTION 9
6	PREEMPTION 6	PREEMPTION 10
7	...BYPASSED...	...BYPASSED...
8	...BYPASSED...	...BYPASSED...
9	...BYPASSED...	...BYPASSED...
10	...BYPASSED...	...BYPASSED...

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MOVING TRAFFIC FORWARD

REG1106 - Dundas St @ Oak Park Blvd - Econolite Type - ASC/3

Preempt TSP/SCP Plan and Split

TSP / SCP Plan (MM) 4-3

TSP/SCP Plan	Enable Option	Signal Type	Det Lock	Delay Time	Max Presence	PMT Enables Reservice	No Delay in TSP	Action SF Inhibit	Reservice Cycles	Bus Heading
1	No	Solid	No	0	0	No	False	0	0	NB
2	No	Solid	No	0	0	No	False	0	0	SB
3	No	Solid	No	0	0	No	False	0	0	EB
4	No	Solid	No	0	0	No	False	0	0	WB
5	No	Solid	No	0	0	No	False	0	0	.
6	No	Solid	No	0	0	No	False	0	0	.

Mode: TSP
Free Default Pattern: 120
Headway Allowance: 0

TSP/SCP Plan	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

TSP / SCP Split Pattern (MM) 4-4

TSP/SCP Split Pattern	Max Type	Phase															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4	Max Reduction	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255

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REG1106 - Dundas St @ Oak Park Blvd - Econolite Type - ASC/3

Time Base Clock/Calendar
Clock/Calendar Data (MM) 5-1

Manual Action Plan:	0
SYNC Reference Time:	03:15
SYNC Reference:	Reference Time
Day Light Savings:	No
Time Reset Input Set Time:	3:30:00
Standard Time From GMT:	0

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REG1106 - Dundas St @ Oak Park Blvd - Econolite Type - ASC/3

Time Base Action Plan
Action Plan (MM) 5-2

Action Plan - 1

Pattern	1	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 2

Pattern	2	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 3

Pattern	3	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 4

Pattern	4	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 5

Pattern	5	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit							X									

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

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REG1106 - Dundas St @ Oak Park Blvd - Econolite Type - ASC/3

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Day Plan #1

Event	Action Plan	Start Time
1	1	06:00
2	2	10:00
3	3	15:15
4	4	19:00
5	5	22:00

Schedule (MM) 5-4

Schedule Number - 1

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X	X	X	X	X	X	X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

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Time Base Exceptions
Exception Day Program (MM) 5-5

Excep Day	Float/Fixed	Mon/Mon	DOW/DOM	WOM/Year	Day Plan

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Detectors

Detectors - Pg 1

Veh Det Phase Assignment (MM) 6-1

Vehicle Detector Plan Number - 1

Veh Detector	Assigned Phase	Called Phase	Type
1	1		N
3	3		N
4	4		N
5	5		N
7	7	4	N
8	8		N
9	9		N
10	2		N
11	11		N
12	12		N
13	13		N
14	6		N
15	15		N
16	16		N

Vehicle Detector Plan Number - 2

Veh Detector	Assigned Phase	Called Phase	Type
1	1		N
2	2		N
3	3		N
4	4		N
5	5		N
6	6		N
7	7		N
8	8		N
9	9		N
10	10		N
11	11		N
12	12		N
13	13		N
14	14		N
15	15		N
16	16		N

Vehicle Detector Plan Number - 3

Veh Detector	Assigned Phase	Called Phase	Type
1	1		N
2	2		N
3	3		N
4	4		N
5	5		N
6	6		N
7	7		N
8	8		N
9	9		N
10	10		N
11	11		N
12	12		N
13	13		N
14	14		N

15	15		N
16	16		N

Vehicle Detector Plan Number - 4

Veh Detector	Assigned Phase	Called Phase	Type
1	1		N
2	2		N
3	3		N
4	4		N
5	5		N
6	6		N
7	7		N
8	8		N
9	9		N
10	10		N
11	11		N
12	12		N
13	13		N
14	14		N
15	15		N
16	16		N

Vehicle Detector Setup (MM) 6-2

Veh Detector	Type	TS2 Detector	Description
1	N-NTCIP	Yes	
2	N-NTCIP	Yes	
3	N-NTCIP	Yes	
4	N-NTCIP	Yes	
5	N-NTCIP	Yes	
6	N-NTCIP	Yes	
7	N-NTCIP	Yes	
8	N-NTCIP	Yes	
9	N-NTCIP	Yes	
10	N-NTCIP	Yes	
11	N-NTCIP	Yes	
12	N-NTCIP	Yes	
13	N-NTCIP	Yes	
14	N-NTCIP	Yes	
15	N-NTCIP	Yes	
16	N-NTCIP	Yes	
17	N-NTCIP	Yes	
18	N-NTCIP	Yes	
19	N-NTCIP	Yes	
20	N-NTCIP	Yes	
21	N-NTCIP	Yes	
22	N-NTCIP	Yes	
23	N-NTCIP	Yes	
24	N-NTCIP	Yes	
25	N-NTCIP	Yes	
26	N-NTCIP	Yes	
27	N-NTCIP	Yes	
28	N-NTCIP	Yes	
29	N-NTCIP	Yes	
30	N-NTCIP	Yes	
31	N-NTCIP	Yes	
32	N-NTCIP	Yes	
33	N-NTCIP	Yes	
34	N-NTCIP	Yes	
35	N-NTCIP	Yes	
36	N-NTCIP	Yes	
37	N-NTCIP	Yes	
38	N-NTCIP	Yes	
39	N-NTCIP	Yes	
40	N-NTCIP	Yes	
41	N-NTCIP	Yes	

42	N-NTCIP	Yes	
43	N-NTCIP	Yes	
44	N-NTCIP	Yes	
45	N-NTCIP	Yes	
46	N-NTCIP	Yes	
47	N-NTCIP	Yes	
48	N-NTCIP	Yes	
49	N-NTCIP	Yes	
50	N-NTCIP	Yes	
51	N-NTCIP	Yes	
52	N-NTCIP	Yes	
53	N-NTCIP	Yes	
54	N-NTCIP	Yes	
55	N-NTCIP	Yes	
56	N-NTCIP	Yes	
57	N-NTCIP	Yes	
58	N-NTCIP	Yes	
59	N-NTCIP	Yes	
60	N-NTCIP	Yes	
61	N-NTCIP	Yes	
62	N-NTCIP	Yes	
63	N-NTCIP	Yes	
64	N-NTCIP	Yes	

Vehicle Detector Plan Number - 1

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	0	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	5.0	Passage	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	Yes	Yes	0.0	Passage	0.0	0	No	4	None	No	No	No
8	8	No	Yes	5.0	Passage	0.0	0	No	0	None	No	No	No
9	9	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	11	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	12	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	13	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	15	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	16	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 2

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	9	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	10	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	11	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	12	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	13	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	14	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

15	15	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	16	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 3

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	9	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	10	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	11	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	12	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	13	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	14	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	15	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	16	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 4

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	9	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	10	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	11	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	12	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	13	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	14	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	15	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	16	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Ped Detector Phase Assignment (MM) 6-3

Mode: NTCIP

Called Phase	Detector
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15

Called Phase	Detector
16	16

Town of Oakville, ON

ECONOLITE

MOVING TRAFFIC FORWARD

REG1106 - Dundas St @ Oak Park Blvd - Econolite Type - ASC/3

Detectors

Detectors - Pg 2

Log - Speed Detector Setup (MM) 6-4

NTCIP Log Period: 60 ECPI Log Period: 0 Length Unit: Inches

Speed Detector	Local Detector	One/Two Detector	Vehicle Length	Trap length	Enable Log
1	0	1	0	0	No
2	0	1	0	0	No
3	0	1	0	0	No
4	0	1	0	0	No
5	0	1	0	0	No
6	0	1	0	0	No
7	0	1	0	0	No
8	0	1	0	0	No
9	0	1	0	0	No
10	0	1	0	0	No
11	0	1	0	0	No
12	0	1	0	0	No
13	0	1	0	0	No
14	0	1	0	0	No
15	0	1	0	0	No
16	0	1	0	0	No

Vehicle Detector Diagnostics (MM) 6-5

Veh Diagnostic Plan Number - 1

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 2

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 3

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 4

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Pedestrian Detector Diagnostics (MM) 6-6

Ped Diagnostic Plan Number - 1

Det	Counts	Act	Pres	Multiplier

Ped Diagnostic Plan Number - 2

Det	Counts	Act	Pres	Multiplier

Ped Diagnostic Plan Number - 3

Det	Counts	Act	Pres	Multiplier

Ped Diagnostic Plan Number - 4

Det	Counts	Act	Pres	Multiplier

Date: 29-May-2020
Intersection: Dundas St @ Trafalgar Rd

8 Phase Basic Timing Sheet												
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**2 Ped**	**4 Ped**	**6 Ped**	**8 Ped**
Phases in use	x	x	x	x	x	x	x	x	x	x	x	x
Direction	WBLT	EB	NBLT	SB	EBLT	WB	SBLT	NB				
Min Green	7	20	7	10	7	20	7	10				
Veh Ext.	3.5	5.5	3.5	3.5	3.5	5.5	3.5	3.5				
Yellow	3.0	3.7	3.0	3.7	3.0	3.7	3.0	3.7				
Red	1	2.7	1	2.8	2	2.7	1	2.8				
Walk		7		7		7		7				
Don't Walk		27		27		27		27				
Max 1	20	55	20	35	20	55	20	35				
Max 2	20	60	20	40	20	60	20	40				
Max 3												
Veh Recall			x									
Ped Recall												
Notes:	Pedestrian Reservice Active Local Zero Override Active Sync Reference 3:15											

Pattern 1
Time: 6:00
Cycle Length: 130
Offset (%): 14%

Direction	WBLT	EB	NBLT	SB
Phase	*1*	*2*	*3*	*4*
%	11%	39%	14%	36%
Direction	**EBLT**	**WB**	**SBLT**	**NB**
Phase	*5*	*6*	*7*	*8*
%	17%	33%	10%	40%

Pattern 2
Time: 10:00
Cycle Length: 120
Offset (%): 6%

Direction	WBLT	EB	NBLT	SB
Phase	*1*	*2*	*3*	*4*
%	14%	36%	12%	38%
Direction	**EBLT**	**WB**	**SBLT**	**NB**
Phase	*5*	*6*	*7*	*8*
%	12%	38%	15%	35%

Pattern 3
Time: 15:15
Cycle Length: 130
Offset (%): 31%

Direction	WBLT	EB	NBLT	SB
Phase	*1*	*2*	*3*	*4*
%	16%	36%	12%	36%
Direction	**EBLT**	**WB**	**SBLT**	**NB**
Phase	*5*	*6*	*7*	*8*
%	16%	36%	12%	36%

Pattern 4
Time: 19:00
Cycle Length: 120
Offset (%): 14%

Direction	WBLT	EB	NBLT	SB
Phase	*1*	*2*	*3*	*4*
%	13%	38%	12%	37%
Direction	**EBLT**	**WB**	**SBLT**	**NB**
Phase	*5*	*6*	*7*	*8*
%	13%	38%	12%	37%

Pattern 5
Time: 22:00
Cycle Length: Local
Offset (%):

Direction	WBLT	EB	NBLT	SB
Phase	*1*	*2*	*3*	*4*
%				
Direction	**EBLT**	**WB**	**SBLT**	**NB**
Phase	5	6	7	8
%				

Pattern 6
Time:
Cycle Length:
Offset (%):

Direction				
Phase	*1*	*2*	*3*	*4*
%				
Direction				
Phase	5	6	7	8
%				

Date: 1-Jan-20
Intersection: Trafalgar Road & Threshing Mill

8 Phase Basic Timing Sheet

	1	2	3	4	5	6	7	8	2 Ped	4 Ped	6 Ped	8 Ped
Phases in use		x				x		x	X			
Direction	SBLT	NB	WBLT	EB	NBLT	SB	EBLT	WB				
Min Green		20				20		10				
Veh Ext.		5.0				5.0		3.0				
Yellow		4.6				4.6		3.3				
Red		2				2		2.2				
Walk		7										
Don't Walk		28										
Max 1		60				60		30				
Max 2												
Max 3												
Veh Recall		X				X						
Ped Recall		X										
Notes:	Set Sync Reference to 3:15											

Pattern 1
Time: 6:00
Cycle Length: 120
Offset (%): 11%

Direction	SBLT	NB	WBLT	EB
Phase	1	2	3	4
%		75		
Direction	NBLT	SB	EBLT	WB
Phase	5	6	7	8
%		75		25

Pattern 2
Time: 9:30, 19:00
Cycle Length: 100
Offset (%): 0%

Direction	SBLT	NB	WBLT	EB
Phase	1	2	3	4
%		70		
Direction	NBLT	SB	EBLT	WB
Phase	5	6	7	8
%		70		30

Pattern 3
Time: 15:15
Cycle Length: 120
Offset (%): 17%

Direction	SBLT	NB	WBLT	EB
Phase	1	2	3	4
%		75		
Direction	NBLT	SB	EBLT	WB
Phase	5	6	7	8
%		75		25

Pattern 4
Time:
Cycle Length:
Offset (%):

Direction				
Phase	1	2	3	4
%				
Direction				
Phase	5	6	7	8
%				

Pattern 5
Time: 21:00
Cycle Length: Local
Offset (%):

Direction				
Phase	1	2	3	4
%				
Direction				
Phase	5	6	7	8
%				

Pattern 6
Time:
Cycle Length:
Offset (%):

Direction				
Phase	1	2	3	4
%				
Direction				
Phase	5	6	7	8
%				

Date: 1-Jan-20
Intersection: Trafalgar Road & Wheat Boom

8 Phase Basic Timing Sheet

	1	2	3	4	5	6	7	8	2 Ped	4 Ped	6 Ped	8 Ped
Phases in use		x				x		x	X			
Direction	SBLT	NB	WBLT	EB	NBLT	SB	EBLT	WB				
Min Green		20				20		10				
Veh Ext.		5.0				5.0		3.0				
Yellow		4.6				4.6		3.3				
Red		2				2		2.2				
Walk		7										
Don't Walk		28										
Max 1		60				60		30				
Max 2												
Max 3												
Veh Recall		X				X						
Ped Recall		X										

Notes:

Set Sync Reference to 3:15

Pattern 1
Time: 6:00
Cycle Length: 120
Offset (%): 0%

Direction	SBLT	NB	WBLT	EB
Phase	1	2	3	4
%		75		
Direction	NBLT	SB	EBLT	WB
Phase	5	6	7	8
%		75		25

Pattern 2
Time: 9:30, 19:00
Cycle Length: 100
Offset (%): 11%

Direction	SBLT	NB	WBLT	EB
Phase	1	2	3	4
%		70		
Direction	NBLT	SB	EBLT	WB
Phase	5	6	7	8
%		70		23

Pattern 3
Time: 15:15
Cycle Length: 120
Offset (%): 11%

Direction	SBLT	NB	WBLT	EB
Phase	1	2	3	4
%		75		
Direction	NBLT	SB	EBLT	WB
Phase	5	6	7	8
%		75		25

Pattern 4
Time: 21:00
Cycle Length: Local
Offset (%):

Direction	SBLT	NB	WBLT	EB
Phase	1	2	3	4
%				
Direction	NBLT	SB	EBLT	WB
Phase	5	6	7	8
%				

Pattern 5
Time:
Cycle Length:
Offset (%):

Direction				
Phase	1	2	3	4
%				
Direction				
Phase	5	6	7	8
%				

Pattern 6
Time:
Cycle Length:
Offset (%):

Direction				
Phase	1	2	3	4
%				
Direction				
Phase	5	6	7	8
%				

Appendix C

Synchro Outputs

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	47	0	0	36	0
Future Volume (vph)	0	47	0	0	36	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	1.00
Ped Bike Factor						
Frt		0.865				
Flt Protected					0.950	
Satd. Flow (prot)	0	1568	0	0	3340	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1568	0	0	3340	0
Link Speed (k/h)	50			48	50	
Link Distance (m)	217.5			77.6	456.7	
Travel Time (s)	15.7			5.8	32.9	
Confl. Bikes (#/hr)		4				
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	6%	0%	0%	6%	0%
Adj. Flow (vph)	0	57	0	0	43	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	57	0	0	43	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Stop			Stop	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	6.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	0	47	0	0	36	0
Future Volume (vph)	0	47	0	0	36	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	0	57	0	0	43	0

Direction, Lane #	EB 1	NB 1	NB 2
Volume Total (vph)	57	22	22
Volume Left (vph)	0	22	22
Volume Right (vph)	57	0	0
Hadj (s)	-0.50	0.60	0.60
Departure Headway (s)	3.5	5.2	5.2
Degree Utilization, x	0.06	0.03	0.03
Capacity (veh/h)	1005	674	674
Control Delay (s)	6.7	7.2	7.2
Approach Delay (s)	6.7	7.2	
Approach LOS	A	A	

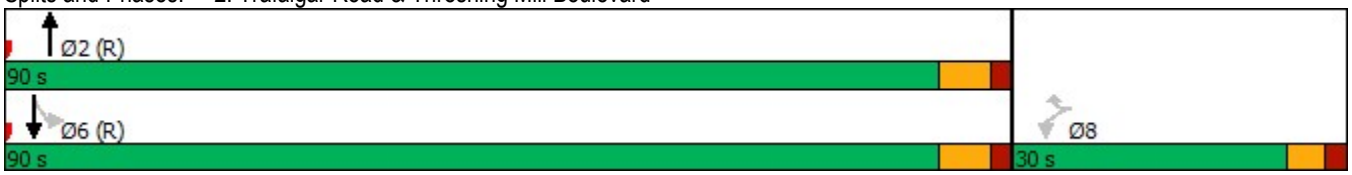
Intersection Summary			
Delay	6.9		
Level of Service	A		
Intersection Capacity Utilization	6.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	31	39	742	31	20	925
Future Volume (vph)	31	39	742	31	20	925
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0	0.0		55.0	55.0	
Storage Lanes	0	1		0	0	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.994			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1560	1555	3419	0	0	3368
Flt Permitted	0.950					0.922
Satd. Flow (perm)	1560	1555	3419	0	0	3109
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		42	8			
Link Speed (k/h)	50		60			60
Link Distance (m)	189.1		286.1			116.2
Travel Time (s)	13.6		17.2			7.0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	17%	5%	6%	9%	20%	8%
Adj. Flow (vph)	33	42	798	33	22	995
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	42	831	0	0	1017
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Turn Type	Perm	Perm	NA		Perm	NA
Protected Phases			2			6
Permitted Phases	8	8			6	
Minimum Split (s)	30.0	30.0	90.0		90.0	90.0
Total Split (s)	30.0	30.0	90.0		90.0	90.0
Total Split (%)	25.0%	25.0%	75.0%		75.0%	75.0%
Maximum Green (s)	24.5	24.5	83.4		83.4	83.4
Yellow Time (s)	3.3	3.3	4.6		4.6	4.6
All-Red Time (s)	2.2	2.2	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.5	5.5	6.6			6.6
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0	5.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0	28.0		28.0	28.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	24.5	24.5	83.4			83.4
Actuated g/C Ratio	0.20	0.20	0.70			0.70

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
v/c Ratio	0.10	0.12	0.35			0.47
Control Delay	40.0	12.5	4.7			9.2
Queue Delay	0.0	0.0	0.0			0.0
Total Delay	40.0	12.5	4.7			9.2
LOS	D	B	A			A
Approach Delay	24.6		4.7			9.2
Approach LOS	C		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 120			
Control Type: Pretimed			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 7.9		Intersection LOS: A	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Trafalgar Road & Threshing Mill Boulevard



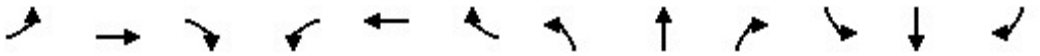
Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	33	42	831	1017
v/c Ratio	0.10	0.12	0.35	0.47
Control Delay	40.0	12.5	4.7	9.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	40.0	12.5	4.7	9.2
Queue Length 50th (m)	6.4	0.0	16.0	51.3
Queue Length 95th (m)	15.3	9.4	20.1	64.2
Internal Link Dist (m)	165.1		262.1	92.2
Turn Bay Length (m)	45.0			
Base Capacity (vph)	318	350	2378	2160
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.10	0.12	0.35	0.47

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	31	39	742	31	20	925
Future Volume (vph)	31	39	742	31	20	925
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	6.6			6.6
Lane Util. Factor	1.00	1.00	0.95			0.95
Frt	1.00	0.85	0.99			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1560	1555	3419			3368
Flt Permitted	0.95	1.00	1.00			0.92
Satd. Flow (perm)	1560	1555	3419			3108
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	33	42	798	33	22	995
RTOR Reduction (vph)	0	33	2	0	0	0
Lane Group Flow (vph)	33	9	829	0	0	1017
Heavy Vehicles (%)	17%	5%	6%	9%	20%	8%
Turn Type	Perm	Perm	NA		Perm	NA
Protected Phases			2			6
Permitted Phases	8	8			6	
Actuated Green, G (s)	24.5	24.5	83.4			83.4
Effective Green, g (s)	24.5	24.5	83.4			83.4
Actuated g/C Ratio	0.20	0.20	0.70			0.70
Clearance Time (s)	5.5	5.5	6.6			6.6
Lane Grp Cap (vph)	318	317	2376			2160
v/s Ratio Prot			0.24			
v/s Ratio Perm	c0.02	0.01				c0.33
v/c Ratio	0.10	0.03	0.35			0.47
Uniform Delay, d1	38.8	38.2	7.4			8.3
Progression Factor	1.00	1.00	0.59			1.00
Incremental Delay, d2	0.7	0.2	0.4			0.7
Delay (s)	39.5	38.4	4.7			9.0
Level of Service	D	D	A			A
Approach Delay (s)	38.9		4.7			9.0
Approach LOS	D		A			A

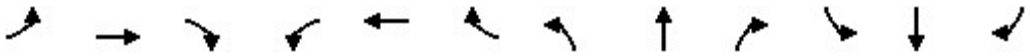
Intersection Summary			
HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	2	58	17	3	2	39	63	4	1	117	7
Future Volume (vph)	9	2	58	17	3	2	39	63	4	1	117	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.886			0.987			0.994			0.992	
Flt Protected		0.994			0.962			0.982				
Satd. Flow (prot)	0	1597	0	0	3466	0	0	3274	0	0	3522	0
Flt Permitted		0.994			0.962			0.982				
Satd. Flow (perm)	0	1597	0	0	3466	0	0	3274	0	0	3522	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		187.3			209.0			362.5			456.7	
Travel Time (s)		13.5			15.0			26.1			32.9	
Confl. Peds. (#/hr)			1	1			5		1	1		5
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	7%	0%	0%	0%	21%	2%	0%	0%	3%	0%
Adj. Flow (vph)	10	2	66	19	3	2	44	72	5	1	133	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	78	0	0	24	0	0	121	0	0	142	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.7%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	9	2	58	17	3	2	39	63	4	1	117	7
Future Volume (vph)	9	2	58	17	3	2	39	63	4	1	117	7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	10	2	66	19	3	2	44	72	5	1	133	8

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	78	21	4	80	41	68	75
Volume Left (vph)	10	19	0	44	0	1	0
Volume Right (vph)	66	0	2	0	5	0	8
Hadj (s)	-0.38	0.46	-0.40	0.49	-0.06	0.06	-0.03
Departure Headway (s)	4.8	5.7	4.8	5.4	4.8	4.9	4.8
Degree Utilization, x	0.10	0.03	0.00	0.12	0.05	0.09	0.10
Capacity (veh/h)	709	598	702	651	721	705	721
Control Delay (s)	8.3	7.7	6.6	7.9	6.9	7.2	7.2
Approach Delay (s)	8.3	7.5		7.6		7.2	
Approach LOS	A	A		A		A	

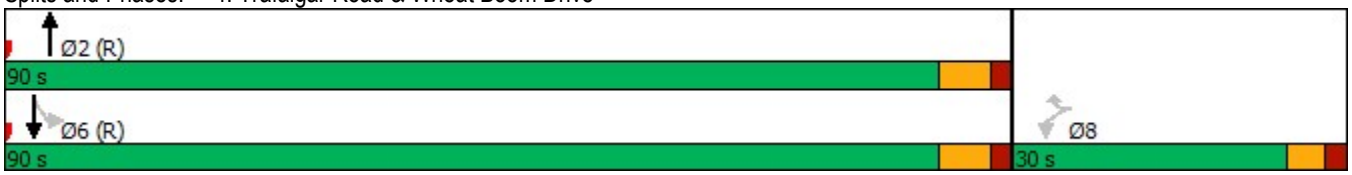
Intersection Summary				
Delay	7.6			
Level of Service	A			
Intersection Capacity Utilization	29.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	9	19	755	5	10	947
Future Volume (vph)	9	19	755	5	10	947
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0	0.0		55.0	55.0	
Storage Lanes	0	1		0	0	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.999			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1372	1484	3194	0	0	3241
Flt Permitted	0.950					0.944
Satd. Flow (perm)	1372	1484	3194	0	0	3062
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		20	1			
Link Speed (k/h)	50		60			60
Link Distance (m)	206.4		414.9			286.1
Travel Time (s)	14.9		24.9			17.2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	33%	10%	14%	40%	60%	12%
Adj. Flow (vph)	10	20	812	5	11	1018
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	20	817	0	0	1029
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		3.7			3.7
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Turn Type	Perm	Perm	NA		Perm	NA
Protected Phases			2			6
Permitted Phases	8	8			6	
Minimum Split (s)	30.0	30.0	90.0		90.0	90.0
Total Split (s)	30.0	30.0	90.0		90.0	90.0
Total Split (%)	25.0%	25.0%	75.0%		75.0%	75.0%
Maximum Green (s)	24.5	24.5	83.4		83.4	83.4
Yellow Time (s)	3.3	3.3	4.6		4.6	4.6
All-Red Time (s)	2.2	2.2	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.5	5.5	6.6			6.6
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0	5.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0	28.0		28.0	28.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	24.5	24.5	83.4			83.4
Actuated g/C Ratio	0.20	0.20	0.70			0.70

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
v/c Ratio	0.04	0.06	0.37			0.48
Control Delay	38.9	15.7	8.1			5.5
Queue Delay	0.0	0.0	0.0			0.0
Total Delay	38.9	15.7	8.1			5.5
LOS	D	B	A			A
Approach Delay	23.4		8.1			5.5
Approach LOS	C		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 120			
Control Type: Pretimed			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 6.9		Intersection LOS: A	
Intersection Capacity Utilization 51.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	10	20	817	1029
v/c Ratio	0.04	0.06	0.37	0.48
Control Delay	38.9	15.7	8.1	5.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	38.9	15.7	8.1	5.5
Queue Length 50th (m)	1.9	0.0	37.3	23.1
Queue Length 95th (m)	6.6	6.6	47.1	26.6
Internal Link Dist (m)	182.4		390.9	262.1
Turn Bay Length (m)	45.0			
Base Capacity (vph)	280	318	2220	2128
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.04	0.06	0.37	0.48

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	9	19	755	5	10	947
Future Volume (vph)	9	19	755	5	10	947
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	6.6			6.6
Lane Util. Factor	1.00	1.00	0.95			0.95
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1372	1484	3194			3242
Flt Permitted	0.95	1.00	1.00			0.94
Satd. Flow (perm)	1372	1484	3194			3061
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	10	20	812	5	11	1018
RTOR Reduction (vph)	0	16	0	0	0	0
Lane Group Flow (vph)	10	4	817	0	0	1029
Heavy Vehicles (%)	33%	10%	14%	40%	60%	12%
Turn Type	Perm	Perm	NA		Perm	NA
Protected Phases			2			6
Permitted Phases	8	8			6	
Actuated Green, G (s)	24.5	24.5	83.4			83.4
Effective Green, g (s)	24.5	24.5	83.4			83.4
Actuated g/C Ratio	0.20	0.20	0.70			0.70
Clearance Time (s)	5.5	5.5	6.6			6.6
Lane Grp Cap (vph)	280	302	2219			2127
v/s Ratio Prot			0.26			
v/s Ratio Perm	c0.01	0.00				c0.34
v/c Ratio	0.04	0.01	0.37			0.48
Uniform Delay, d1	38.3	38.1	7.5			8.4
Progression Factor	1.00	1.00	1.00			0.56
Incremental Delay, d2	0.2	0.1	0.5			0.7
Delay (s)	38.5	38.2	8.0			5.4
Level of Service	D	D	A			A
Approach Delay (s)	38.3		8.0			5.4
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	7.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	51.6%	ICU Level of Service	A
Analysis Period (min)	15		

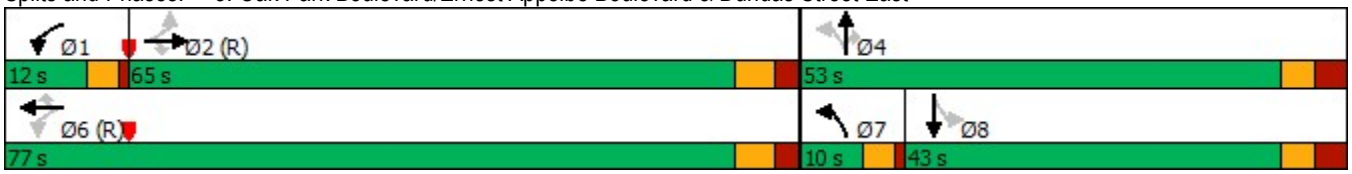
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	1520	110	67	820	64	83	20	55	248	65	45
Future Volume (vph)	23	1520	110	67	820	64	83	20	55	248	65	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		75.0	110.0		75.0	55.0		0.0	40.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00		0.99			0.98	1.00		0.98	1.00	0.99	
Frt			0.850			0.850			0.850		0.939	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1313	4476	1541	1738	4230	1555	1644	1746	1384	1789	3174	0
Flt Permitted	0.283			0.064			0.612			0.744		
Satd. Flow (perm)	391	4476	1520	117	4230	1531	1055	1746	1361	1395	3174	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			97			67			61		47	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		187.7			548.5			65.8			362.5	
Travel Time (s)		9.7			28.2			4.7			26.1	
Confl. Peds. (#/hr)	3		1	1		3	2		4	4		2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	39%	3%	6%	5%	9%	5%	11%	10%	18%	2%	6%	9%
Adj. Flow (vph)	24	1583	115	70	854	67	86	21	57	258	68	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	1583	115	70	854	67	86	21	57	258	115	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	
Protected Phases		2		1	6		7	4			8	
Permitted Phases	2		2	6		6	4		4	8		
Minimum Split (s)	38.3	38.3	38.3	12.0	38.3	38.3	10.0	40.6	40.6	24.6	24.6	
Total Split (s)	65.0	65.0	65.0	12.0	77.0	77.0	10.0	53.0	53.0	43.0	43.0	
Total Split (%)	50.0%	50.0%	50.0%	9.2%	59.2%	59.2%	7.7%	40.8%	40.8%	33.1%	33.1%	
Maximum Green (s)	58.7	58.7	58.7	8.0	70.7	70.7	6.0	46.4	46.4	36.4	36.4	
Yellow Time (s)	3.7	3.7	3.7	3.0	3.7	3.7	3.0	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.6	2.6	2.6	1.0	2.6	2.6	1.0	3.3	3.3	3.3	3.3	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3	6.3	4.0	6.3	6.3	4.0	6.6	6.6	6.6	6.6	
Lead/Lag	Lag	Lag	Lag	Lead			Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes			Yes	Yes	
Walk Time (s)	7.0	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	25.0	25.0	25.0		25.0	25.0		27.0	27.0	7.0	7.0	
Pedestrian Calls (#/hr)	0	0	0		0	0		0	0	0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)	58.7	58.7	58.7	73.0	70.7	70.7	49.0	46.4	46.4	36.4	36.4	
Actuated g/C Ratio	0.45	0.45	0.45	0.56	0.54	0.54	0.38	0.36	0.36	0.28	0.28	
v/c Ratio	0.14	0.78	0.16	0.42	0.37	0.08	0.20	0.03	0.11	0.66	0.12	
Control Delay	23.5	33.7	6.0	42.0	5.5	0.3	28.1	27.6	6.6	50.8	21.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	23.5	33.7	6.0	42.0	5.5	0.3	28.1	27.6	6.6	50.8	21.1	
LOS	C	C	A	D	A	A	C	C	A	D	C	
Approach Delay		31.7			7.7			20.6			41.7	
Approach LOS		C			A			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 28 (22%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 95			
Control Type: Pretimed			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 25.0		Intersection LOS: C	
Intersection Capacity Utilization 87.7%		ICU Level of Service E	
Analysis Period (min) 15			
* User Entered Value			

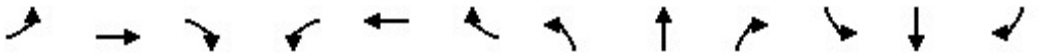
Splits and Phases: 5: Oak Park Boulevard/Ernest Appelbe Boulevard & Dundas Street East



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	24	1583	115	70	854	67	86	21	57	258	115
v/c Ratio	0.14	0.78	0.16	0.42	0.37	0.08	0.20	0.03	0.11	0.66	0.12
Control Delay	23.5	33.7	6.0	42.0	5.5	0.3	28.1	27.6	6.6	50.8	21.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	33.7	6.0	42.0	5.5	0.3	28.1	27.6	6.6	50.8	21.1
Queue Length 50th (m)	3.5	140.7	2.5	5.8	11.9	0.0	14.4	3.5	0.0	58.6	6.7
Queue Length 95th (m)	9.6	162.6	13.2	m16.6	18.0	m0.2	25.9	9.3	8.3	88.8	14.2
Internal Link Dist (m)		163.7			524.5			41.8			338.5
Turn Bay Length (m)	140.0		75.0	110.0		75.0	55.0			40.0	
Base Capacity (vph)	176	2021	739	165	2300	863	424	623	525	390	922
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.78	0.16	0.42	0.37	0.08	0.20	0.03	0.11	0.66	0.12

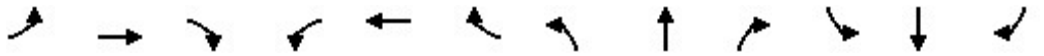
Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	1520	110	67	820	64	83	20	55	248	65	45
Future Volume (vph)	23	1520	110	67	820	64	83	20	55	248	65	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.3	6.3	4.0	6.3	6.3	4.0	6.6	6.6	6.6	6.6	
Lane Util. Factor	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	1.00	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.98	1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1312	4476	1520	1738	4230	1531	1640	1746	1361	1781	3173	
Flt Permitted	0.28	1.00	1.00	0.06	1.00	1.00	0.61	1.00	1.00	0.74	1.00	
Satd. Flow (perm)	390	4476	1520	117	4230	1531	1057	1746	1361	1394	3173	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	24	1583	115	70	854	67	86	21	57	258	68	47
RTOR Reduction (vph)	0	0	53	0	0	31	0	0	37	0	34	0
Lane Group Flow (vph)	24	1583	62	70	854	36	86	21	20	258	81	0
Confl. Peds. (#/hr)	3		1	1		3	2		4	4		2
Heavy Vehicles (%)	39%	3%	6%	5%	9%	5%	11%	10%	18%	2%	6%	9%
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	
Protected Phases		2		1	6		7	4			8	
Permitted Phases	2		2	6		6	4		4	8		
Actuated Green, G (s)	58.7	58.7	58.7	70.7	70.7	70.7	46.4	46.4	46.4	36.4	36.4	
Effective Green, g (s)	58.7	58.7	58.7	70.7	70.7	70.7	46.4	46.4	46.4	36.4	36.4	
Actuated g/C Ratio	0.45	0.45	0.45	0.54	0.54	0.54	0.36	0.36	0.36	0.28	0.28	
Clearance Time (s)	6.3	6.3	6.3	4.0	6.3	6.3	4.0	6.6	6.6	6.6	6.6	
Lane Grp Cap (vph)	176	2021	686	163	2300	832	404	623	485	390	888	
v/s Ratio Prot		c0.35		0.03	c0.20		c0.01	0.01			0.03	
v/s Ratio Perm	0.06		0.04	0.21		0.02	0.07		0.01	c0.19		
v/c Ratio	0.14	0.78	0.09	0.43	0.37	0.04	0.21	0.03	0.04	0.66	0.09	
Uniform Delay, d1	20.8	30.3	20.4	21.6	16.9	13.9	28.4	27.2	27.3	41.4	34.6	
Progression Factor	1.00	1.00	1.00	2.45	0.30	0.04	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.6	3.1	0.3	6.9	0.4	0.1	1.2	0.1	0.2	8.5	0.2	
Delay (s)	22.4	33.4	20.6	59.9	5.5	0.7	29.6	27.3	27.5	49.9	34.8	
Level of Service	C	C	C	E	A	A	C	C	C	D	C	
Approach Delay (s)		32.4			9.0			28.6			45.2	
Approach LOS		C			A			C			D	

Intersection Summary			
HCM 2000 Control Delay	26.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	20.9
Intersection Capacity Utilization	87.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

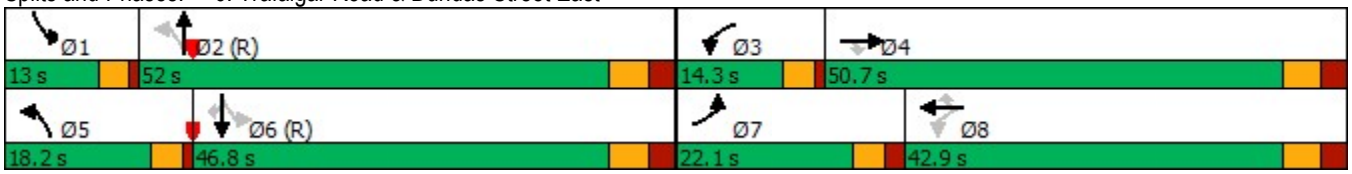


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	281	1213	145	109	694	152	98	326	69	285	478	192
Future Volume (vph)	281	1213	145	109	694	152	98	326	69	285	478	192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	110.0		83.0	160.0		75.0	120.0		0.0	40.0		50.0
Storage Lanes	2		1	1		1	1		0	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80	0.95	1.00	*0.80	1.00
Ped Bike Factor			0.98	1.00			1.00	1.00		1.00		0.99
Frt			0.850			0.850		0.974				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3404	4433	1471	1644	4230	1432	1659	2721	0	1601	2873	1458
Flt Permitted	0.950			0.110			0.268			0.441		
Satd. Flow (perm)	3404	4433	1449	190	4230	1432	468	2721	0	743	2873	1439
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			144			172		17				196
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		548.5			210.0			108.1			414.9	
Travel Time (s)		28.2			10.8			6.5			24.9	
Confl. Peds. (#/hr)			3	3			1		1	1		1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	4%	11%	11%	9%	14%	10%	11%	4%	14%	7%	12%
Adj. Flow (vph)	296	1277	153	115	731	160	103	343	73	300	503	202
Shared Lane Traffic (%)												
Lane Group Flow (vph)	296	1277	153	115	731	160	103	416	0	300	503	202
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2			6		6
Minimum Split (s)	12.0	40.4	40.4	11.0	40.4	40.4	11.0	40.5		11.0	40.5	40.5
Total Split (s)	22.1	50.7	50.7	14.3	42.9	42.9	18.2	52.0		13.0	46.8	46.8
Total Split (%)	17.0%	39.0%	39.0%	11.0%	33.0%	33.0%	14.0%	40.0%		10.0%	36.0%	36.0%
Maximum Green (s)	17.1	44.3	44.3	10.3	36.5	36.5	14.2	45.5		9.0	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7		3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8		1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5		4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0			27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0			0	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)	17.1	44.3	44.3	49.2	36.5	36.5	61.0	45.5		51.8	40.3	40.3
Actuated g/C Ratio	0.13	0.34	0.34	0.38	0.28	0.28	0.47	0.35		0.40	0.31	0.31
v/c Ratio	0.66	0.85	0.26	0.61	0.62	0.30	0.30	0.43		0.85	0.57	0.35
Control Delay	46.3	54.3	21.1	38.7	43.3	5.7	21.9	32.6		51.2	40.5	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	46.3	54.3	21.1	38.7	43.3	5.7	21.9	32.6		51.2	40.5	6.7
LOS	D	D	C	D	D	A	C	C		D	D	A
Approach Delay		50.0			36.8			30.5			36.9	
Approach LOS		D			D			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 59.7 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 105			
Control Type: Pretimed			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 41.4		Intersection LOS: D	
Intersection Capacity Utilization 95.9%		ICU Level of Service F	
Analysis Period (min) 15			
* User Entered Value			

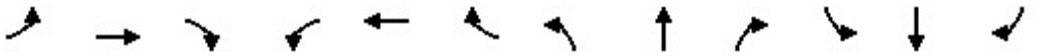
Splits and Phases: 6: Trafalgar Road & Dundas Street East



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	296	1277	153	115	731	160	103	416	300	503	202
v/c Ratio	0.66	0.85	0.26	0.61	0.62	0.30	0.30	0.43	0.85	0.57	0.35
Control Delay	46.3	54.3	21.1	38.7	43.3	5.7	21.9	32.6	51.2	40.5	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.3	54.3	21.1	38.7	43.3	5.7	21.9	32.6	51.2	40.5	6.7
Queue Length 50th (m)	40.8	142.8	18.3	16.4	68.0	0.0	14.6	48.6	49.1	67.3	1.1
Queue Length 95th (m)	m53.5	156.5	m28.6	32.6	84.2	13.6	25.5	66.5	#88.7	88.5	18.4
Internal Link Dist (m)		524.5			186.0			84.1		390.9	
Turn Bay Length (m)	110.0		83.0	160.0		75.0	120.0		40.0		50.0
Base Capacity (vph)	447	1510	588	187	1187	525	349	963	355	890	581
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.85	0.26	0.61	0.62	0.30	0.30	0.43	0.85	0.57	0.35

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	281	1213	145	109	694	152	98	326	69	285	478	192
Future Volume (vph)	281	1213	145	109	694	152	98	326	69	285	478	192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5		4.0	6.5	6.5
Lane Util. Factor	0.97	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80		1.00	*0.80	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3404	4433	1449	1644	4230	1432	1659	2720		1601	2873	1439
Flt Permitted	0.95	1.00	1.00	0.11	1.00	1.00	0.27	1.00		0.44	1.00	1.00
Satd. Flow (perm)	3404	4433	1449	190	4230	1432	467	2720		744	2873	1439
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	296	1277	153	115	731	160	103	343	73	300	503	202
RTOR Reduction (vph)	0	0	95	0	0	115	0	11	0	0	0	135
Lane Group Flow (vph)	296	1277	58	115	731	45	103	405	0	300	503	67
Confl. Peds. (#/hr)			3	3			1		1	1		1
Heavy Vehicles (%)	4%	4%	11%	11%	9%	14%	10%	11%	4%	14%	7%	12%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2			6		6
Actuated Green, G (s)	17.1	44.3	44.3	46.8	36.5	36.5	58.5	45.5		49.3	40.3	40.3
Effective Green, g (s)	17.1	44.3	44.3	46.8	36.5	36.5	58.5	45.5		49.3	40.3	40.3
Actuated g/C Ratio	0.13	0.34	0.34	0.36	0.28	0.28	0.45	0.35		0.38	0.31	0.31
Clearance Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5		4.0	6.5	6.5
Lane Grp Cap (vph)	447	1510	493	183	1187	402	340	952		341	890	446
v/s Ratio Prot	c0.09	c0.29		0.05	0.17		c0.03	0.15		c0.06	0.18	
v/s Ratio Perm			0.04	0.18		0.03	0.10			c0.27		0.05
v/c Ratio	0.66	0.85	0.12	0.63	0.62	0.11	0.30	0.43		0.88	0.57	0.15
Uniform Delay, d1	53.7	39.7	29.4	31.0	40.7	34.7	22.2	32.3		34.7	37.5	32.5
Progression Factor	0.77	1.26	3.62	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.9	4.0	0.3	15.2	2.4	0.6	2.3	1.4		26.1	2.6	0.7
Delay (s)	46.1	53.9	106.8	46.3	43.1	35.3	24.5	33.7		60.8	40.1	33.2
Level of Service	D	D	F	D	D	D	C	C		E	D	C
Approach Delay (s)		57.2			42.2			31.8			44.9	
Approach LOS		E			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	47.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	21.9
Intersection Capacity Utilization	95.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	41	0	0	42	0
Future Volume (vph)	0	41	0	0	42	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	1.00
Ped Bike Factor						
Frt		0.865				
Flt Protected					0.950	
Satd. Flow (prot)	0	1629	0	0	3541	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1629	0	0	3541	0
Link Speed (k/h)	50			48	50	
Link Distance (m)	217.5			78.9	456.7	
Travel Time (s)	15.7			5.9	32.9	
Confl. Peds. (#/hr)		1			1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	2%	0%	0%	0%	0%
Adj. Flow (vph)	0	46	0	0	47	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	46	0	0	47	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Stop			Stop	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	7.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	0	41	0	0	42	0
Future Volume (vph)	0	41	0	0	42	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	46	0	0	47	0

Direction, Lane #	EB 1	NB 1	NB 2
Volume Total (vph)	46	24	24
Volume Left (vph)	0	24	24
Volume Right (vph)	46	0	0
Hadj (s)	-0.57	0.50	0.50
Departure Headway (s)	3.5	5.1	5.1
Degree Utilization, x	0.04	0.03	0.03
Capacity (veh/h)	1022	692	692
Control Delay (s)	6.6	7.1	7.1
Approach Delay (s)	6.6	7.1	
Approach LOS	A	A	

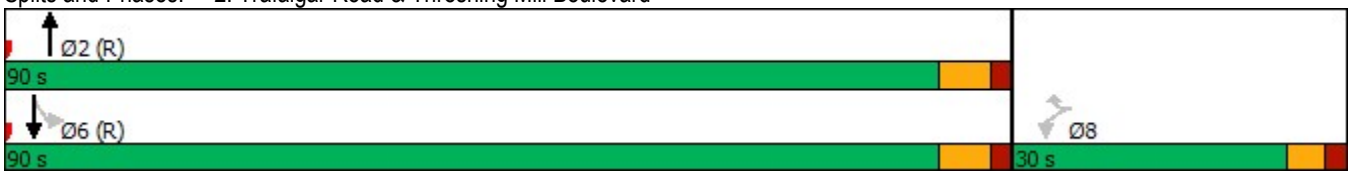
Intersection Summary			
Delay	6.8		
Level of Service	A		
Intersection Capacity Utilization	7.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	36	51	1153	60	15	866
Future Volume (vph)	36	51	1153	60	15	866
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0	0.0		55.0	55.0	
Storage Lanes	0	1		0	0	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.993			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1615	1601	3478	0	0	3509
Flt Permitted	0.950					0.916
Satd. Flow (perm)	1615	1601	3478	0	0	3217
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		53	10			
Link Speed (k/h)	50		60			60
Link Distance (m)	189.1		286.1			116.2
Travel Time (s)	13.6		17.2			7.0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	13%	2%	4%	8%	0%	4%
Adj. Flow (vph)	38	53	1201	63	16	902
Shared Lane Traffic (%)						
Lane Group Flow (vph)	38	53	1264	0	0	918
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Turn Type	Perm	Perm	NA		Perm	NA
Protected Phases			2			6
Permitted Phases	8	8			6	
Minimum Split (s)	30.0	30.0	90.0		90.0	90.0
Total Split (s)	30.0	30.0	90.0		90.0	90.0
Total Split (%)	25.0%	25.0%	75.0%		75.0%	75.0%
Maximum Green (s)	24.5	24.5	83.4		83.4	83.4
Yellow Time (s)	3.3	3.3	4.6		4.6	4.6
All-Red Time (s)	2.2	2.2	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.5	5.5	6.6			6.6
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0	5.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0	28.0		28.0	28.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	24.5	24.5	83.4			83.4
Actuated g/C Ratio	0.20	0.20	0.70			0.70

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
v/c Ratio	0.12	0.14	0.52			0.41
Control Delay	40.2	11.4	5.3			8.5
Queue Delay	0.0	0.0	0.0			0.0
Total Delay	40.2	11.4	5.3			8.5
LOS	D	B	A			A
Approach Delay	23.4		5.3			8.5
Approach LOS	C		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 120			
Control Type: Pretimed			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 7.3		Intersection LOS: A	
Intersection Capacity Utilization 53.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Trafalgar Road & Threshing Mill Boulevard



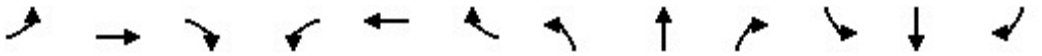
Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	38	53	1264	918
v/c Ratio	0.12	0.14	0.52	0.41
Control Delay	40.2	11.4	5.3	8.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	40.2	11.4	5.3	8.5
Queue Length 50th (m)	7.4	0.0	25.3	43.7
Queue Length 95th (m)	17.0	10.6	31.0	54.7
Internal Link Dist (m)	165.1		262.1	92.2
Turn Bay Length (m)	45.0			
Base Capacity (vph)	329	369	2420	2235
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.12	0.14	0.52	0.41

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	36	51	1153	60	15	866
Future Volume (vph)	36	51	1153	60	15	866
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	6.6			6.6
Lane Util. Factor	1.00	1.00	0.95			0.95
Frt	1.00	0.85	0.99			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1615	1601	3477			3509
Flt Permitted	0.95	1.00	1.00			0.92
Satd. Flow (perm)	1615	1601	3477			3216
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	38	53	1201	62	16	902
RTOR Reduction (vph)	0	42	3	0	0	0
Lane Group Flow (vph)	38	11	1261	0	0	918
Heavy Vehicles (%)	13%	2%	4%	8%	0%	4%
Turn Type	Perm	Perm	NA		Perm	NA
Protected Phases			2			6
Permitted Phases	8	8			6	
Actuated Green, G (s)	24.5	24.5	83.4			83.4
Effective Green, g (s)	24.5	24.5	83.4			83.4
Actuated g/C Ratio	0.20	0.20	0.70			0.70
Clearance Time (s)	5.5	5.5	6.6			6.6
Lane Grp Cap (vph)	329	326	2416			2235
v/s Ratio Prot			c0.36			
v/s Ratio Perm	c0.02	0.01				0.29
v/c Ratio	0.12	0.03	0.52			0.41
Uniform Delay, d1	38.9	38.3	8.8			7.8
Progression Factor	1.00	1.00	0.53			1.00
Incremental Delay, d2	0.7	0.2	0.7			0.6
Delay (s)	39.6	38.4	5.3			8.4
Level of Service	D	D	A			A
Approach Delay (s)	38.9		5.3			8.4
Approach LOS	D		A			A

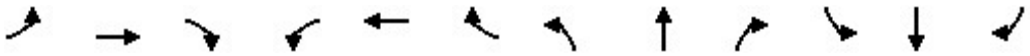
Intersection Summary			
HCM 2000 Control Delay	7.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	53.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	5	50	11	8	5	37	132	8	8	118	14
Future Volume (vph)	12	5	50	11	8	5	37	132	8	8	118	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.898			0.971			0.993			0.985	
Flt Protected		0.991			0.977			0.990			0.997	
Satd. Flow (prot)	0	1341	0	0	3314	0	0	3358	0	0	3478	0
Flt Permitted		0.991			0.977			0.990			0.997	
Satd. Flow (perm)	0	1341	0	0	3314	0	0	3358	0	0	3478	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		187.3			211.7			362.5			456.7	
Travel Time (s)		13.5			15.2			26.1			32.9	
Confl. Peds. (#/hr)			1	1			10		9	9		10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	17%	49%	28%	0%	13%	0%	22%	3%	0%	0%	2%	14%
Adj. Flow (vph)	13	5	55	12	9	5	41	145	9	9	130	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	73	0	0	26	0	0	195	0	0	154	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.7%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	12	5	50	11	8	5	37	132	8	8	118	14
Future Volume (vph)	12	5	50	11	8	5	37	132	8	8	118	14
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	13	5	55	12	9	5	41	145	9	9	130	15

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	73	17	10	114	82	74	80
Volume Left (vph)	13	12	0	41	0	9	0
Volume Right (vph)	55	0	5	0	9	0	15
Hadj (s)	0.05	0.42	-0.26	0.35	-0.03	0.09	-0.06
Departure Headway (s)	5.4	5.8	5.1	5.3	4.9	5.0	4.9
Degree Utilization, x	0.11	0.03	0.01	0.17	0.11	0.10	0.11
Capacity (veh/h)	626	575	650	665	715	688	711
Control Delay (s)	9.1	7.8	7.0	8.1	7.3	7.4	7.3
Approach Delay (s)	9.1	7.5		7.8		7.4	
Approach LOS	A	A		A		A	

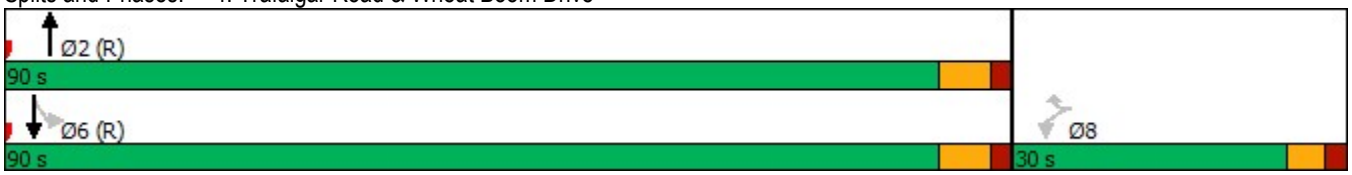
Intersection Summary				
Delay	7.8			
Level of Service	A			
Intersection Capacity Utilization	34.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	18	51	1163	36	16	887
Future Volume (vph)	18	51	1163	36	16	887
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0	0.0		55.0	55.0	
Storage Lanes	0	1		0	0	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.996			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1825	1484	3307	0	0	3343
Flt Permitted	0.950					0.917
Satd. Flow (perm)	1825	1484	3307	0	0	3069
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		53	6			
Link Speed (k/h)	50		60			60
Link Distance (m)	206.4		414.9			286.1
Travel Time (s)	14.9		24.9			17.2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	10%	10%	8%	13%	9%
Adj. Flow (vph)	19	53	1199	37	16	914
Shared Lane Traffic (%)						
Lane Group Flow (vph)	19	53	1236	0	0	930
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		3.7			3.7
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Turn Type	Perm	Perm	NA		Perm	NA
Protected Phases			2			6
Permitted Phases	8	8			6	
Minimum Split (s)	30.0	30.0	90.0		90.0	90.0
Total Split (s)	30.0	30.0	90.0		90.0	90.0
Total Split (%)	25.0%	25.0%	75.0%		75.0%	75.0%
Maximum Green (s)	24.5	24.5	83.4		83.4	83.4
Yellow Time (s)	3.3	3.3	4.6		4.6	4.6
All-Red Time (s)	2.2	2.2	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.5	5.5	6.6			6.6
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0	5.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0	28.0		28.0	28.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	24.5	24.5	83.4			83.4
Actuated g/C Ratio	0.20	0.20	0.70			0.70

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
v/c Ratio	0.05	0.15	0.54			0.44
Control Delay	39.1	11.6	9.9			5.5
Queue Delay	0.0	0.0	0.0			0.0
Total Delay	39.1	11.6	9.9			5.5
LOS	D	B	A			A
Approach Delay	18.8		9.9			5.5
Approach LOS	B		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 120			
Control Type: Pretimed			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 8.3		Intersection LOS: A	
Intersection Capacity Utilization 54.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	19	53	1236	930
v/c Ratio	0.05	0.15	0.54	0.44
Control Delay	39.1	11.6	9.9	5.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	39.1	11.6	9.9	5.5
Queue Length 50th (m)	3.6	0.0	66.6	21.7
Queue Length 95th (m)	10.1	10.6	82.0	25.2
Internal Link Dist (m)	182.4		390.9	262.1
Turn Bay Length (m)	45.0			
Base Capacity (vph)	372	345	2300	2132
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.05	0.15	0.54	0.44

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	18	51	1163	36	16	887
Future Volume (vph)	18	51	1163	36	16	887
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	6.6			6.6
Lane Util. Factor	1.00	1.00	0.95			0.95
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1825	1484	3305			3344
Flt Permitted	0.95	1.00	1.00			0.92
Satd. Flow (perm)	1825	1484	3305			3070
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	19	53	1199	37	16	914
RTOR Reduction (vph)	0	42	2	0	0	0
Lane Group Flow (vph)	19	11	1234	0	0	930
Heavy Vehicles (%)	0%	10%	10%	8%	13%	9%
Turn Type	Perm	Perm	NA		Perm	NA
Protected Phases			2			6
Permitted Phases	8	8			6	
Actuated Green, G (s)	24.5	24.5	83.4			83.4
Effective Green, g (s)	24.5	24.5	83.4			83.4
Actuated g/C Ratio	0.20	0.20	0.70			0.70
Clearance Time (s)	5.5	5.5	6.6			6.6
Lane Grp Cap (vph)	372	302	2296			2133
v/s Ratio Prot			c0.37			
v/s Ratio Perm	c0.01	0.01				0.30
v/c Ratio	0.05	0.04	0.54			0.44
Uniform Delay, d1	38.4	38.3	8.9			8.0
Progression Factor	1.00	1.00	1.00			0.60
Incremental Delay, d2	0.3	0.2	0.9			0.6
Delay (s)	38.7	38.5	9.8			5.4
Level of Service	D	D	A			A
Approach Delay (s)	38.5		9.8			5.4
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	8.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

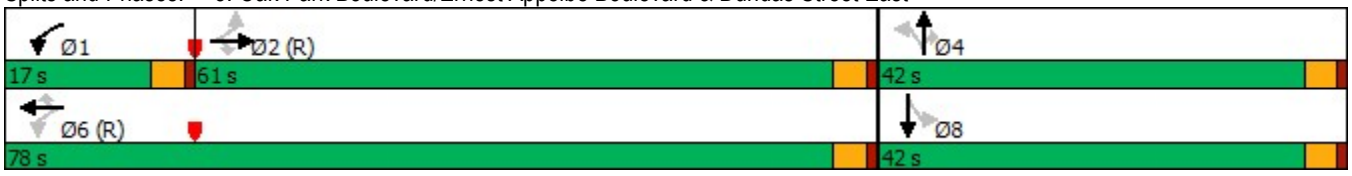
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	1161	190	185	1387	137	260	88	76	159	70	44
Future Volume (vph)	47	1161	190	185	1387	137	260	88	76	159	70	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		75.0	110.0		75.0	55.0		0.0	40.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor			0.95				0.98		0.97	0.99	0.98	
Frt			0.850			0.850			0.850		0.943	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	5142	1570	1825	5193	1633	1807	1883	1526	1807	3122	0
Flt Permitted	0.180			0.160			0.679			0.694		
Satd. Flow (perm)	346	5142	1496	307	5193	1633	1259	1883	1488	1304	3122	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			192			138			77		44	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		187.7			548.5			65.8			362.5	
Travel Time (s)		9.7			28.2			4.7			26.1	
Confl. Peds. (#/hr)			16	16			13		6	6		13
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	2%	4%	0%	1%	0%	1%	2%	7%	1%	7%	11%
Adj. Flow (vph)	47	1173	192	187	1401	138	263	89	77	161	71	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	1173	192	187	1401	138	263	89	77	161	115	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	2	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	20.0	20.0	20.0	9.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
Total Split (s)	61.0	61.0	61.0	17.0	78.0	78.0	42.0	42.0	42.0	42.0	42.0	
Total Split (%)	50.8%	50.8%	50.8%	14.2%	65.0%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%	
Maximum Green (s)	57.0	57.0	57.0	13.0	74.0	74.0	38.0	38.0	38.0	38.0	38.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	
Walk Time (s)	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	59.4	59.4	59.4	74.0	74.0	74.0	38.0	38.0	38.0	38.0	38.0	
Actuated g/C Ratio	0.50	0.50	0.50	0.62	0.62	0.62	0.32	0.32	0.32	0.32	0.32	
v/c Ratio	0.27	0.46	0.23	0.58	0.44	0.13	0.66	0.15	0.15	0.39	0.11	
Control Delay	24.1	20.8	3.1	17.3	12.6	1.8	44.8	30.3	7.2	35.4	18.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	24.1	20.8	3.1	17.3	12.6	1.8	44.8	30.3	7.2	35.4	18.3	
LOS	C	C	A	B	B	A	D	C	A	D	B	
Approach Delay		18.5			12.2			35.0			28.3	
Approach LOS		B			B			D			C	

Intersection Summary

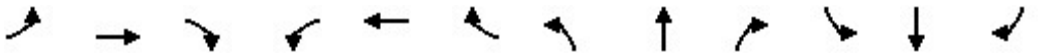
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 106 (88%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 18.2 Intersection LOS: B
Intersection Capacity Utilization 63.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 5: Oak Park Boulevard/Ernest Appelbe Boulevard & Dundas Street East



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	47	1173	192	187	1401	138	263	89	77	161	115
v/c Ratio	0.27	0.46	0.23	0.58	0.44	0.13	0.66	0.15	0.15	0.39	0.11
Control Delay	24.1	20.8	3.1	17.3	12.6	1.8	44.8	30.3	7.2	35.4	18.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.1	20.8	3.1	17.3	12.6	1.8	44.8	30.3	7.2	35.4	18.3
Queue Length 50th (m)	6.3	64.3	0.0	17.6	59.3	0.0	53.3	15.0	0.0	29.5	6.1
Queue Length 95th (m)	16.5	79.3	12.0	27.8	69.3	7.3	83.4	27.5	10.6	49.1	13.0
Internal Link Dist (m)		163.7			524.5			41.8			338.5
Turn Bay Length (m)	140.0		75.0	110.0		75.0	55.0			40.0	
Base Capacity (vph)	171	2544	837	353	3202	1059	398	596	523	412	1018
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.46	0.23	0.53	0.44	0.13	0.66	0.15	0.15	0.39	0.11

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	1161	190	185	1387	137	260	88	76	159	70	44
Future Volume (vph)	47	1161	190	185	1387	137	260	88	76	159	70	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.97	1.00	0.98	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	0.98	1.00	1.00	0.99	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1825	5142	1496	1825	5193	1633	1762	1883	1488	1786	3121	
Flt Permitted	0.18	1.00	1.00	0.16	1.00	1.00	0.68	1.00	1.00	0.69	1.00	
Satd. Flow (perm)	346	5142	1496	308	5193	1633	1260	1883	1488	1305	3121	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	47	1173	192	187	1401	138	263	89	77	161	71	44
RTOR Reduction (vph)	0	0	97	0	0	53	0	0	53	0	30	0
Lane Group Flow (vph)	47	1173	95	187	1401	85	263	89	24	161	85	0
Confl. Peds. (#/hr)			16	16			13		6	6		13
Heavy Vehicles (%)	0%	2%	4%	0%	1%	0%	1%	2%	7%	1%	7%	11%
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Actuated Green, G (s)	59.4	59.4	59.4	74.0	74.0	74.0	38.0	38.0	38.0	38.0	38.0	
Effective Green, g (s)	59.4	59.4	59.4	74.0	74.0	74.0	38.0	38.0	38.0	38.0	38.0	
Actuated g/C Ratio	0.49	0.49	0.49	0.62	0.62	0.62	0.32	0.32	0.32	0.32	0.32	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	171	2545	740	323	3202	1007	399	596	471	413	988	
v/s Ratio Prot		0.23		c0.05	0.27			0.05			0.03	
v/s Ratio Perm	0.14		0.06	c0.30		0.05	c0.21		0.02	0.12		
v/c Ratio	0.27	0.46	0.13	0.58	0.44	0.08	0.66	0.15	0.05	0.39	0.09	
Uniform Delay, d1	17.7	19.8	16.3	12.4	12.1	9.3	35.4	29.4	28.5	32.0	28.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.9	0.6	0.4	2.5	0.4	0.2	8.3	0.5	0.2	2.8	0.2	
Delay (s)	21.7	20.4	16.7	15.0	12.5	9.5	43.7	29.9	28.7	34.7	29.0	
Level of Service	C	C	B	B	B	A	D	C	C	C	C	
Approach Delay (s)		20.0			12.5			38.1			32.3	
Approach LOS		B			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	19.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.8%	ICU Level of Service	B
Analysis Period (min)	15		

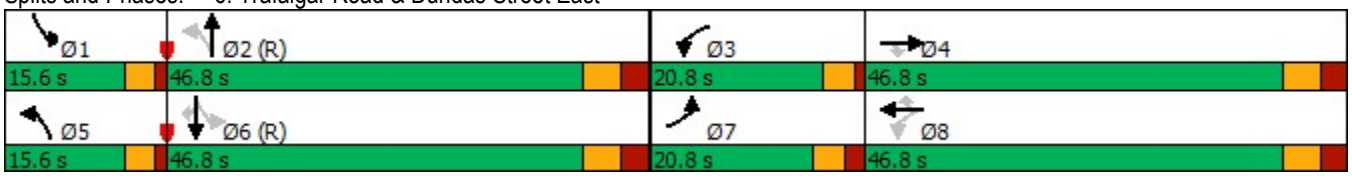
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	302	1234	87	196	1468	256	248	639	128	198	498	208
Future Volume (vph)	302	1234	87	196	1468	256	248	639	128	198	498	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	110.0		83.0	160.0		75.0	120.0		0.0	40.0		50.0
Storage Lanes	2		1	1		1	1		0	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00		0.98	1.00		0.99	1.00					0.98
Frt			0.850			0.850		0.975				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3437	5092	1541	1789	5193	1555	1789	3495	0	1706	3544	1601
Flt Permitted	0.950			0.099			0.356			0.173		
Satd. Flow (perm)	3437	5092	1512	186	5193	1535	670	3495	0	311	3544	1576
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			105			208		19				214
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		548.5			210.0			108.1			414.9	
Travel Time (s)		28.2			10.8			6.5			24.9	
Confl. Peds. (#/hr)	1		6	6		1	3					3
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	6%	2%	1%	5%	2%	2%	1%	7%	3%	2%
Adj. Flow (vph)	311	1272	90	202	1513	264	256	659	132	204	513	214
Shared Lane Traffic (%)												
Lane Group Flow (vph)	311	1272	90	202	1513	264	256	791	0	204	513	214
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2			6		6
Minimum Split (s)	20.8	46.8	46.8	20.8	46.8	46.8	15.6	46.8		15.6	46.8	46.8
Total Split (s)	20.8	46.8	46.8	20.8	46.8	46.8	15.6	46.8		15.6	46.8	46.8
Total Split (%)	16.0%	36.0%	36.0%	16.0%	36.0%	36.0%	12.0%	36.0%		12.0%	36.0%	36.0%
Maximum Green (s)	15.8	40.4	40.4	16.8	40.4	40.4	11.6	40.3		11.6	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7		3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8		1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5		4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0			27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0			0	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)	15.8	40.4	40.4	59.6	40.4	40.4	54.4	40.3		54.4	40.3	40.3
Actuated g/C Ratio	0.12	0.31	0.31	0.46	0.31	0.31	0.42	0.31		0.42	0.31	0.31
v/c Ratio	0.75	0.80	0.17	0.69	0.94	0.43	0.67	0.72		0.80	0.47	0.34
Control Delay	67.0	45.9	4.9	41.0	55.6	10.8	34.2	43.3		47.8	37.9	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	67.0	45.9	4.9	41.0	55.6	10.8	34.2	43.3		47.8	37.9	5.7
LOS	E	D	A	D	E	B	C	D		D	D	A
Approach Delay		47.6			48.1			41.1			32.7	
Approach LOS		D			D			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 59.7 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 130			
Control Type: Pretimed			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 44.1		Intersection LOS: D	
Intersection Capacity Utilization 98.7%		ICU Level of Service F	
Analysis Period (min) 15			

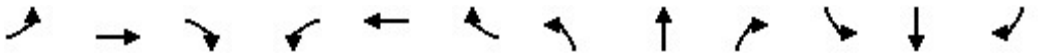
Splits and Phases: 6: Trafalgar Road & Dundas Street East



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	311	1272	90	202	1513	264	256	791	204	513	214
v/c Ratio	0.75	0.80	0.17	0.69	0.94	0.43	0.67	0.72	0.80	0.47	0.34
Control Delay	67.0	45.9	4.9	41.0	55.6	10.8	34.2	43.3	47.8	37.9	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.0	45.9	4.9	41.0	55.6	10.8	34.2	43.3	47.8	37.9	5.7
Queue Length 50th (m)	40.2	109.6	0.0	32.6	138.1	10.3	41.4	92.7	32.1	55.7	0.0
Queue Length 95th (m)	#56.0	127.6	9.1	#59.4	#167.2	32.9	61.6	115.5	#60.9	72.3	17.5
Internal Link Dist (m)		524.5			186.0			84.1		390.9	
Turn Bay Length (m)	110.0		83.0	160.0		75.0	120.0		40.0		50.0
Base Capacity (vph)	417	1582	542	292	1613	620	380	1096	254	1098	636
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.80	0.17	0.69	0.94	0.43	0.67	0.72	0.80	0.47	0.34

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	302	1234	87	196	1468	256	248	639	128	198	498	208
Future Volume (vph)	302	1234	87	196	1468	256	248	639	128	198	498	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5		4.0	6.5	6.5
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3437	5092	1512	1789	5193	1535	1788	3495		1706	3544	1576
Flt Permitted	0.95	1.00	1.00	0.10	1.00	1.00	0.36	1.00		0.17	1.00	1.00
Satd. Flow (perm)	3437	5092	1512	186	5193	1535	669	3495		311	3544	1576
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	311	1272	90	202	1513	264	256	659	132	204	513	214
RTOR Reduction (vph)	0	0	62	0	0	143	0	13	0	0	0	148
Lane Group Flow (vph)	311	1272	28	202	1513	121	256	778	0	204	513	66
Confl. Peds. (#/hr)	1		6	6		1	3					3
Heavy Vehicles (%)	3%	3%	6%	2%	1%	5%	2%	2%	1%	7%	3%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2			6		6
Actuated Green, G (s)	15.8	40.4	40.4	57.2	40.4	40.4	51.9	40.3		51.9	40.3	40.3
Effective Green, g (s)	15.8	40.4	40.4	57.2	40.4	40.4	51.9	40.3		51.9	40.3	40.3
Actuated g/C Ratio	0.12	0.31	0.31	0.44	0.31	0.31	0.40	0.31		0.40	0.31	0.31
Clearance Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5		4.0	6.5	6.5
Lane Grp Cap (vph)	417	1582	469	288	1613	477	366	1083		248	1098	488
v/s Ratio Prot	c0.09	0.25		0.09	c0.29		0.06	0.22		c0.07	0.14	
v/s Ratio Perm			0.02	0.22		0.08	0.22			c0.25		0.04
v/c Ratio	0.75	0.80	0.06	0.70	0.94	0.25	0.70	0.72		0.82	0.47	0.14
Uniform Delay, d1	55.2	41.2	31.5	29.0	43.6	33.5	28.8	39.8		29.0	36.2	32.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	11.5	4.4	0.2	13.4	11.9	1.3	10.6	4.1		25.5	1.4	0.6
Delay (s)	66.7	45.6	31.7	42.3	55.4	34.8	39.4	43.9		54.5	37.6	32.9
Level of Service	E	D	C	D	E	C	D	D		D	D	C
Approach Delay (s)		48.8			51.3			42.8			40.2	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	47.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	21.9
Intersection Capacity Utilization	98.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

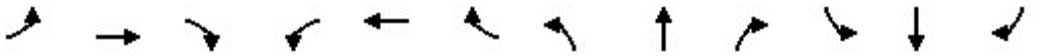
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	51	0	0	39	0
Future Volume (vph)	0	51	0	0	39	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.850					
Flt Protected					0.950	
Satd. Flow (prot)	2927	0	0	3650	1722	1921
Flt Permitted					0.950	
Satd. Flow (perm)	2927	0	0	3650	1722	1921
Link Speed (k/h)	50			50	50	
Link Distance (m)	217.5			582.1	462.5	
Travel Time (s)	15.7			41.9	33.3	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	6%	0%	0%	6%	0%
Adj. Flow (vph)	0	61	0	0	47	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	61	0	0	0	47	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Stop			Stop	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 13.3%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	0	51	0	0	39	0
Future Volume (vph)	0	51	0	0	39	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	0	61	0	0	47	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	0	61	0	0	47	0
Volume Left (vph)	0	0	0	0	47	0
Volume Right (vph)	0	61	0	0	0	0
Hadj (s)	0.00	-0.60	0.00	0.00	0.60	0.00
Departure Headway (s)	4.6	4.0	4.7	4.7	5.2	4.6
Degree Utilization, x	0.00	0.07	0.00	0.00	0.07	0.00
Capacity (veh/h)	778	870	770	770	671	776
Control Delay (s)	6.4	6.1	6.5	6.5	7.4	6.4
Approach Delay (s)	6.1		0.0		7.4	
Approach LOS	A		A		A	

Intersection Summary			
Delay	6.7		
Level of Service	A		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

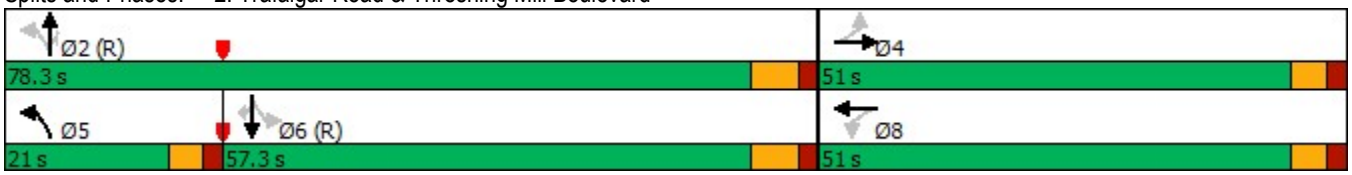


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	95	0	69	0	930	55	30	1061	0
Future Volume (vph)	0	0	0	95	0	69	0	930	55	30	1061	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0		0.0	45.0		0.0	55.0		55.0	55.0		55.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1883	3579	0	1560	3042	0	1883	4350	1498	1521	4269	1883
Flt Permitted				0.757						0.238		
Satd. Flow (perm)	1883	3579	0	1243	3042	0	1883	4350	1498	381	4269	1883
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					100				59			
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		582.1			189.1			286.1			116.2	
Travel Time (s)		41.9			13.6			17.2			7.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	17%	5%	2%	2%	6%	9%	20%	8%	2%
Adj. Flow (vph)	0	0	0	102	0	74	0	1000	59	32	1141	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	102	74	0	0	1000	59	32	1141	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm			Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	21.5	21.5		21.5	21.5		9.3	41.6	41.6	41.6	41.6	41.6
Total Split (s)	51.0	51.0		51.0	51.0		21.0	78.3	78.3	57.3	57.3	57.3
Total Split (%)	39.4%	39.4%		39.4%	39.4%		16.2%	60.6%	60.6%	44.3%	44.3%	44.3%
Maximum Green (s)	45.5	45.5		45.5	45.5		15.7	71.7	71.7	50.7	50.7	50.7
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		5.3	6.6	6.6	6.6	6.6	6.6
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	0
Act Effct Green (s)				45.5	45.5			71.7	71.7	50.7	50.7	
Actuated g/C Ratio				0.35	0.35			0.55	0.55	0.39	0.39	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio				0.23	0.07			0.41	0.07	0.21	0.68	
Control Delay				31.4	2.5			17.3	3.4	30.9	35.2	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				31.4	2.5			17.3	3.4	30.9	35.2	
LOS				C	A			B	A	C	D	
Approach Delay					19.2			16.5			35.0	
Approach LOS					B			B			D	

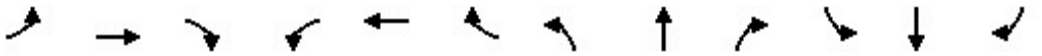
Intersection Summary			
Area Type:	Other		
Cycle Length: 129.3			
Actuated Cycle Length: 129.3			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 25.8		Intersection LOS: C	
Intersection Capacity Utilization 44.3%		ICU Level of Service A	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 2: Trafalgar Road & Threshing Mill Boulevard



Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	102	74	1000	59	32	1141
v/c Ratio	0.23	0.07	0.41	0.07	0.21	0.68
Control Delay	31.4	2.5	17.3	3.4	30.9	35.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.4	2.5	17.3	3.4	30.9	35.2
Queue Length 50th (m)	18.3	0.0	58.8	0.0	5.4	99.4
Queue Length 95th (m)	32.6	3.0	70.7	6.1	13.9	118.1
Internal Link Dist (m)		165.1	262.1			92.2
Turn Bay Length (m)	45.0			55.0	55.0	
Base Capacity (vph)	437	1135	2412	856	149	1673
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.07	0.41	0.07	0.21	0.68

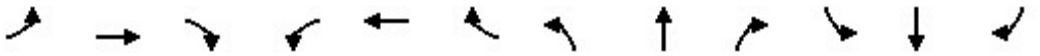
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	95	0	69	0	930	55	30	1061	0
Future Volume (vph)	0	0	0	95	0	69	0	930	55	30	1061	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.5	5.5			6.6	6.6	6.6	6.6	
Lane Util. Factor				1.00	0.95			*0.80	1.00	1.00	*0.80	
Frt				1.00	0.85			1.00	0.85	1.00	1.00	
Flt Protected				0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1560	3042			4350	1498	1521	4269	
Flt Permitted				0.76	1.00			1.00	1.00	0.24	1.00	
Satd. Flow (perm)				1243	3042			4350	1498	380	4269	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	0	102	0	74	0	1000	59	32	1141	0
RTOR Reduction (vph)	0	0	0	0	48	0	0	0	26	0	0	0
Lane Group Flow (vph)	0	0	0	102	26	0	0	1000	33	32	1141	0
Heavy Vehicles (%)	2%	2%	2%	17%	5%	2%	2%	6%	9%	20%	8%	2%
Turn Type	Perm			Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)				45.5	45.5			71.7	71.7	50.7	50.7	
Effective Green, g (s)				45.5	45.5			71.7	71.7	50.7	50.7	
Actuated g/C Ratio				0.35	0.35			0.55	0.55	0.39	0.39	
Clearance Time (s)				5.5	5.5			6.6	6.6	6.6	6.6	
Lane Grp Cap (vph)				437	1070			2412	830	149	1673	
v/s Ratio Prot					0.01			c0.23			c0.27	
v/s Ratio Perm				c0.08					0.02	0.08		
v/c Ratio				0.23	0.02			0.41	0.04	0.21	0.68	
Uniform Delay, d1				29.6	27.4			16.7	13.1	26.1	32.6	
Progression Factor				1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2				1.2	0.0			0.5	0.1	3.3	2.3	
Delay (s)				30.8	27.4			17.2	13.2	29.4	34.9	
Level of Service				C	C			B	B	C	C	
Approach Delay (s)		0.0			29.4			17.0			34.7	
Approach LOS		A			C			B			C	

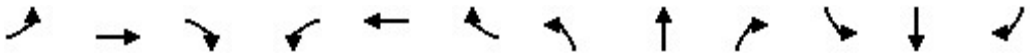
Intersection Summary			
HCM 2000 Control Delay	26.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	129.3	Sum of lost time (s)	17.4
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	2	64	18	3	2	43	69	69	1	129	7
Future Volume (vph)	9	2	64	18	3	2	43	69	69	1	129	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.884			0.988			0.943			0.992	
Flt Protected		0.994			0.962			0.988				
Satd. Flow (prot)	0	1592	0	0	3469	0	0	3215	0	0	3521	0
Flt Permitted		0.994			0.962			0.988				
Satd. Flow (perm)	0	1592	0	0	3469	0	0	3215	0	0	3521	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		187.3			580.1			363.3			462.5	
Travel Time (s)		13.5			41.8			26.2			33.3	
Confl. Peds. (#/hr)			1	1			5		1	1		5
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	7%	0%	0%	0%	21%	2%	0%	0%	3%	0%
Adj. Flow (vph)	10	2	73	20	3	2	49	78	78	1	147	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	85	0	0	25	0	0	205	0	0	156	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

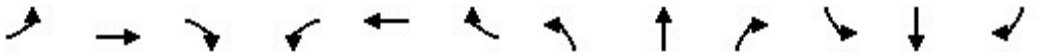
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.4%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	9	2	64	18	3	2	43	69	69	1	129	7
Future Volume (vph)	9	2	64	18	3	2	43	69	69	1	129	7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	10	2	73	20	3	2	49	78	78	1	147	8

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	85	22	4	88	117	75	82
Volume Left (vph)	10	20	0	49	0	1	0
Volume Right (vph)	73	0	2	0	78	0	8
Hadj (s)	-0.39	0.47	-0.40	0.49	-0.46	0.06	-0.02
Departure Headway (s)	5.0	5.9	5.0	5.4	4.5	5.0	4.9
Degree Utilization, x	0.12	0.04	0.00	0.13	0.15	0.10	0.11
Capacity (veh/h)	677	569	663	644	778	689	703
Control Delay (s)	8.6	7.9	6.9	8.1	7.0	7.4	7.4
Approach Delay (s)	8.6	7.8		7.5		7.4	
Approach LOS	A	A		A		A	

Intersection Summary				
Delay	7.7			
Level of Service	A			
Intersection Capacity Utilization	32.4%	ICU Level of Service	A	
Analysis Period (min)	15			

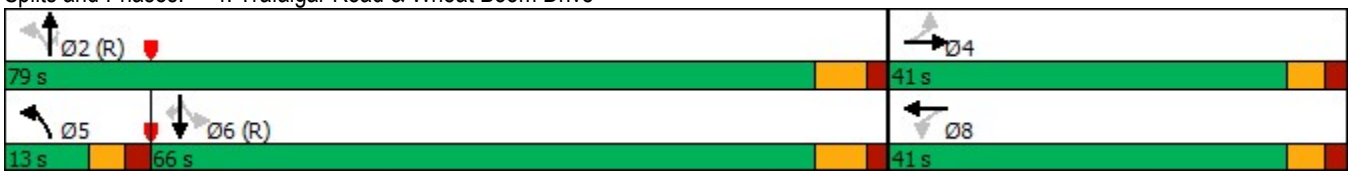


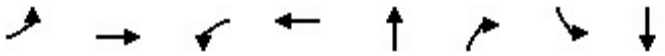
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	0	33	150	0	61	0	891	30	35	1122	0
Future Volume (vph)	32	0	33	150	0	61	0	891	30	35	1122	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0		0.0	45.0		0.0	55.0		55.0	55.0		55.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1789	3042	0	1372	2821	0	1883	4044	1166	1141	4117	1883
Flt Permitted	0.712			0.733						0.250		
Satd. Flow (perm)	1341	3042	0	1059	2821	0	1883	4044	1166	300	4117	1883
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		159			134				32			
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		580.1			206.4			414.9			286.1	
Travel Time (s)		41.8			14.9			24.9			17.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	33%	2%	10%	2%	14%	40%	60%	12%	2%
Adj. Flow (vph)	34	0	35	161	0	66	0	958	32	38	1206	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	35	0	161	66	0	0	958	32	38	1206	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	21.5	21.5		21.5	21.5		9.5	41.6	41.6	41.6	41.6	41.6
Total Split (s)	41.0	41.0		41.0	41.0		13.0	79.0	79.0	66.0	66.0	66.0
Total Split (%)	34.2%	34.2%		34.2%	34.2%		10.8%	65.8%	65.8%	55.0%	55.0%	55.0%
Maximum Green (s)	35.5	35.5		35.5	35.5		7.5	72.4	72.4	59.4	59.4	59.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.2	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		5.5	6.6	6.6	6.6	6.6	6.6
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	0
Act Effct Green (s)	35.5	35.5		35.5	35.5			72.4	72.4	59.4	59.4	
Actuated g/C Ratio	0.30	0.30		0.30	0.30			0.60	0.60	0.50	0.50	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.09	0.03		0.51	0.07			0.39	0.04	0.26	0.59	
Control Delay	31.4	0.1		42.1	0.1			13.0	3.4	23.3	23.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	31.4	0.1		42.1	0.1			13.0	3.4	23.3	23.1	
LOS	C	A		D	A			B	A	C	C	
Approach Delay		15.5			29.9			12.6			23.2	
Approach LOS		B			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 19.4		Intersection LOS: B	
Intersection Capacity Utilization 57.3%		ICU Level of Service B	
Analysis Period (min) 15			
* User Entered Value			

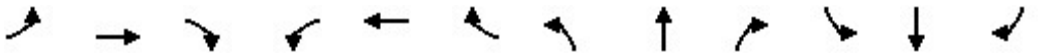
Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive





Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	34	35	161	66	958	32	38	1206
v/c Ratio	0.09	0.03	0.51	0.07	0.39	0.04	0.26	0.59
Control Delay	31.4	0.1	42.1	0.1	13.0	3.4	23.3	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.4	0.1	42.1	0.1	13.0	3.4	23.3	23.1
Queue Length 50th (m)	5.8	0.0	31.5	0.0	45.9	0.0	5.0	81.9
Queue Length 95th (m)	13.7	0.0	53.7	0.0	56.2	3.9	13.7	98.2
Internal Link Dist (m)		556.1		182.4	390.9			262.1
Turn Bay Length (m)	45.0		45.0			55.0	55.0	
Base Capacity (vph)	396	1011	313	928	2439	716	148	2037
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.03	0.51	0.07	0.39	0.04	0.26	0.59

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	0	33	150	0	61	0	891	30	35	1122	0
Future Volume (vph)	32	0	33	150	0	61	0	891	30	35	1122	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5			6.6	6.6	6.6	6.6	
Lane Util. Factor	1.00	0.95		1.00	0.95			*0.80	1.00	1.00	*0.80	
Frt	1.00	0.85		1.00	0.85			1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1789	3042		1372	2821			4044	1166	1141	4117	
Flt Permitted	0.71	1.00		0.73	1.00			1.00	1.00	0.25	1.00	
Satd. Flow (perm)	1341	3042		1059	2821			4044	1166	300	4117	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	34	0	35	161	0	66	0	958	32	38	1206	0
RTOR Reduction (vph)	0	25	0	0	46	0	0	0	13	0	0	0
Lane Group Flow (vph)	34	10	0	161	20	0	0	958	19	38	1206	0
Heavy Vehicles (%)	2%	2%	2%	33%	2%	10%	2%	14%	40%	60%	12%	2%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	35.5	35.5		35.5	35.5			72.4	72.4	59.4	59.4	
Effective Green, g (s)	35.5	35.5		35.5	35.5			72.4	72.4	59.4	59.4	
Actuated g/C Ratio	0.30	0.30		0.30	0.30			0.60	0.60	0.49	0.49	
Clearance Time (s)	5.5	5.5		5.5	5.5			6.6	6.6	6.6	6.6	
Lane Grp Cap (vph)	396	899		313	834			2439	703	148	2037	
v/s Ratio Prot		0.00			0.01			c0.24			c0.29	
v/s Ratio Perm	0.03			c0.15					0.02	0.13		
v/c Ratio	0.09	0.01		0.51	0.02			0.39	0.03	0.26	0.59	
Uniform Delay, d1	30.5	29.9		35.1	30.0			12.4	9.6	17.5	21.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.4	0.0		5.9	0.1			0.5	0.1	4.1	1.3	
Delay (s)	31.0	29.9		41.0	30.0			12.8	9.7	21.7	22.9	
Level of Service	C	C		D	C			B	A	C	C	
Approach Delay (s)		30.4			37.8			12.7			22.9	
Approach LOS		C			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	20.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.6
Intersection Capacity Utilization	57.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	1734	121	73	1026	135	91	22	60	273	71	49
Future Volume (vph)	40	1734	121	73	1026	135	91	22	60	273	71	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		75.0	110.0		75.0	55.0		0.0	40.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00		0.99			0.98	1.00		0.98	1.00	0.99	
Frt			0.850			0.850			0.850		0.939	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1313	4476	1541	1738	4230	1555	1644	1746	1384	1789	3174	0
Flt Permitted	0.190			0.052			0.673			0.505		
Satd. Flow (perm)	262	4476	1520	95	4230	1531	1160	1746	1361	947	3174	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			97			141			128		51	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		187.7			548.5			65.8			363.3	
Travel Time (s)		9.7			28.2			4.7			26.2	
Confl. Peds. (#/hr)	3		1	1		3	2		4	4		2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	39%	3%	6%	5%	9%	5%	11%	10%	18%	2%	6%	9%
Adj. Flow (vph)	42	1806	126	76	1069	141	95	23	63	284	74	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	1806	126	76	1069	141	95	23	63	284	125	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

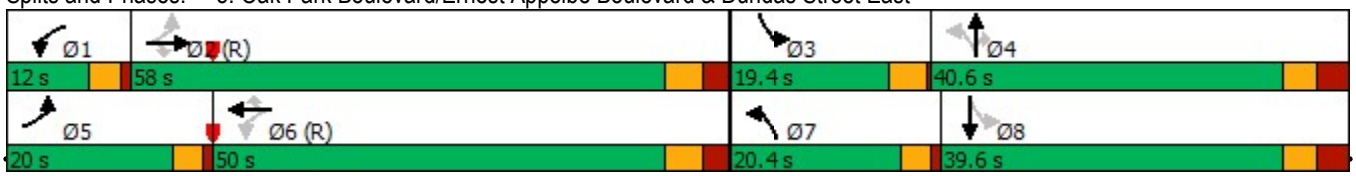
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	4.0	20.0	20.0	7.0	20.0	20.0	6.0	10.0	10.0	4.0	10.0	
Minimum Split (s)	8.0	38.3	38.3	12.0	38.3	38.3	10.0	40.6	40.6	8.0	24.6	
Total Split (s)	20.0	58.0	58.0	12.0	50.0	50.0	20.4	40.6	40.6	19.4	39.6	
Total Split (%)	15.4%	44.6%	44.6%	9.2%	38.5%	38.5%	15.7%	31.2%	31.2%	14.9%	30.5%	
Maximum Green (s)	16.0	51.7	51.7	8.0	43.7	43.7	16.4	34.0	34.0	15.4	33.0	
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.3	3.3	3.5	3.3	
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	1.0	3.3	3.3	0.5	3.3	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.3	6.3	4.0	6.3	6.3	4.0	6.6	6.6	4.0	6.6	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	5.5	5.5	3.0	5.5	5.5	3.0	5.0	5.0	3.0	3.5	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	
Flash Dont Walk (s)		25.0	25.0		25.0	25.0		27.0	27.0		7.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	
Act Effct Green (s)	86.9	78.8	78.8	88.8	79.8	79.8	22.2	10.5	10.5	29.7	12.7	
Actuated g/C Ratio	0.67	0.61	0.61	0.68	0.61	0.61	0.17	0.08	0.08	0.23	0.10	
v/c Ratio	0.18	0.67	0.13	0.46	0.41	0.14	0.39	0.16	0.28	0.87	0.35	
Control Delay	8.7	19.7	4.4	41.3	7.6	0.6	45.3	58.1	3.0	71.4	35.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	8.7	19.7	4.4	41.3	7.6	0.6	45.3	58.1	3.0	71.4	35.2	
LOS	A	B	A	D	A	A	D	E	A	E	D	
Approach Delay		18.5			8.8			32.2			60.3	
Approach LOS		B			A			C			E	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 20.3 Intersection LOS: C
Intersection Capacity Utilization 75.2% ICU Level of Service D
Analysis Period (min) 15

* User Entered Value

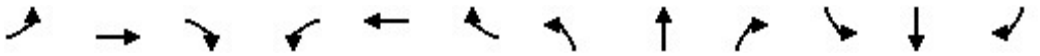
Splits and Phases: 5: Oak Park Boulevard/Ernest Appelbe Boulevard & Dundas Street East



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	42	1806	126	76	1069	141	95	23	63	284	125
v/c Ratio	0.18	0.67	0.13	0.46	0.41	0.14	0.39	0.16	0.28	0.87	0.35
Control Delay	8.7	19.7	4.4	41.3	7.6	0.6	45.3	58.1	3.0	71.4	35.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.7	19.7	4.4	41.3	7.6	0.6	45.3	58.1	3.0	71.4	35.2
Queue Length 50th (m)	3.1	126.8	3.0	7.2	48.8	0.0	19.6	5.6	0.0	65.6	9.2
Queue Length 95th (m)	7.3	164.3	12.7	m13.0	94.0	m2.3	33.7	14.4	0.0	#92.5	19.4
Internal Link Dist (m)		163.7			524.5			41.8			339.3
Turn Bay Length (m)	140.0		75.0	110.0		75.0	55.0			40.0	
Base Capacity (vph)	312	2714	960	174	2595	994	301	456	450	327	843
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.67	0.13	0.44	0.41	0.14	0.32	0.05	0.14	0.87	0.15

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	1734	121	73	1026	135	91	22	60	273	71	49
Future Volume (vph)	40	1734	121	73	1026	135	91	22	60	273	71	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.3	6.3	4.0	6.3	6.3	4.0	6.6	6.6	4.0	6.6	
Lane Util. Factor	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	1.00	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.98	1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1313	4476	1520	1738	4230	1531	1639	1746	1361	1786	3173	
Flt Permitted	0.19	1.00	1.00	0.05	1.00	1.00	0.67	1.00	1.00	0.50	1.00	
Satd. Flow (perm)	263	4476	1520	94	4230	1531	1161	1746	1361	949	3173	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	42	1806	126	76	1069	141	95	23	62	284	74	51
RTOR Reduction (vph)	0	0	40	0	0	57	0	0	59	0	45	0
Lane Group Flow (vph)	42	1806	86	76	1069	84	95	23	4	284	80	0
Confl. Peds. (#/hr)	3		1	1		3	2		4	4		2
Heavy Vehicles (%)	39%	3%	6%	5%	9%	5%	11%	10%	18%	2%	6%	9%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		
Actuated Green, G (s)	82.5	76.7	76.7	84.3	77.6	77.6	20.1	8.5	8.5	29.7	14.1	
Effective Green, g (s)	82.5	76.7	76.7	84.3	77.6	77.6	20.1	8.5	8.5	29.7	14.1	
Actuated g/C Ratio	0.63	0.59	0.59	0.65	0.60	0.60	0.15	0.07	0.07	0.23	0.11	
Clearance Time (s)	4.0	6.3	6.3	4.0	6.3	6.3	4.0	6.6	6.6	4.0	6.6	
Vehicle Extension (s)	3.0	5.5	5.5	3.0	5.5	5.5	3.0	5.0	5.0	3.0	3.5	
Lane Grp Cap (vph)	213	2640	896	145	2524	913	222	114	88	327	344	
v/s Ratio Prot	0.01	c0.40		c0.03	0.25		0.04	0.01		c0.11	0.03	
v/s Ratio Perm	0.12		0.06	0.31		0.05	0.03		0.00	c0.08		
v/c Ratio	0.20	0.68	0.10	0.52	0.42	0.09	0.43	0.20	0.05	0.87	0.23	
Uniform Delay, d1	9.4	18.3	11.6	16.2	14.1	11.2	49.3	57.5	57.0	46.5	53.0	
Progression Factor	1.00	1.00	1.00	2.49	0.51	0.16	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.5	1.5	0.2	2.7	0.4	0.2	1.3	1.8	0.5	20.9	0.4	
Delay (s)	9.9	19.8	11.8	42.9	7.7	2.0	50.6	59.4	57.4	67.3	53.4	
Level of Service	A	B	B	D	A	A	D	E	E	E	D	
Approach Delay (s)		19.1			9.1			54.1			63.1	
Approach LOS		B			A			D			E	

Intersection Summary			
HCM 2000 Control Delay	22.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	20.9
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		

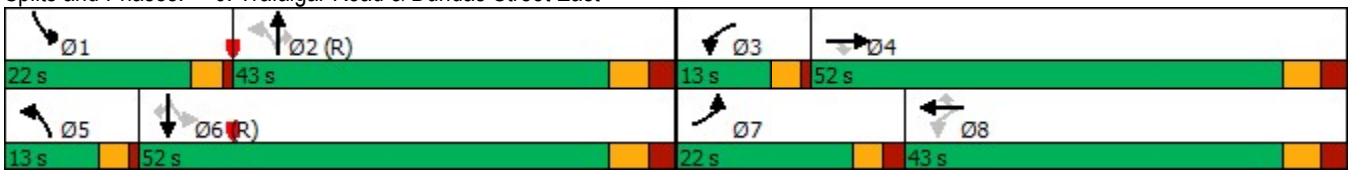
c Critical Lane Group

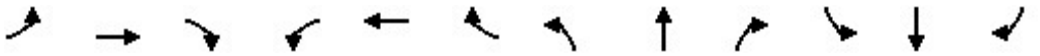
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	332	1374	160	139	785	180	126	394	78	365	686	346
Future Volume (vph)	332	1374	160	139	785	180	126	394	78	365	686	346
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	110.0		83.0	160.0		75.0	120.0		50.0	40.0		50.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98	1.00			1.00		0.99	1.00		0.99
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3404	4433	1471	1644	4230	1432	1659	4154	1570	1601	4309	1458
Flt Permitted	0.950			0.109			0.317			0.385		
Satd. Flow (perm)	3404	4433	1449	189	4230	1432	553	4154	1550	648	4309	1439
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			142			189			171			315
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		548.5			210.0			108.1			414.9	
Travel Time (s)		28.2			10.8			6.5			24.9	
Confl. Peds. (#/hr)			3	3			1		1	1		1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	4%	11%	11%	9%	14%	10%	11%	4%	14%	7%	12%
Adj. Flow (vph)	349	1446	168	146	826	189	133	415	82	384	722	364
Shared Lane Traffic (%)												
Lane Group Flow (vph)	349	1446	168	146	826	189	133	415	82	384	722	364
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Minimum Split (s)	12.0	40.4	40.4	11.0	40.4	40.4	11.0	40.5	40.5	11.0	40.5	40.5
Total Split (s)	22.0	52.0	52.0	13.0	43.0	43.0	13.0	43.0	43.0	22.0	52.0	52.0
Total Split (%)	16.9%	40.0%	40.0%	10.0%	33.1%	33.1%	10.0%	33.1%	33.1%	16.9%	40.0%	40.0%
Maximum Green (s)	17.0	45.6	45.6	9.0	36.6	36.6	9.0	36.5	36.5	18.0	45.5	45.5
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)	17.0	45.6	45.6	48.0	36.6	36.6	48.0	36.5	36.5	61.0	45.5	45.5
Actuated g/C Ratio	0.13	0.35	0.35	0.37	0.28	0.28	0.37	0.28	0.28	0.47	0.35	0.35
v/c Ratio	0.78	0.93	0.28	0.86	0.69	0.35	0.47	0.36	0.15	0.88	0.48	0.51
Control Delay	53.6	54.2	16.1	68.7	45.4	6.8	27.2	38.4	0.6	48.7	34.3	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.6	54.2	16.1	68.7	45.4	6.8	27.2	38.4	0.6	48.7	34.3	8.3
LOS	D	D	B	E	D	A	C	D	A	D	C	A
Approach Delay		50.9			42.0			31.1			31.6	
Approach LOS		D			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 105			
Control Type: Pretimed			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 41.1		Intersection LOS: D	
Intersection Capacity Utilization 102.0%		ICU Level of Service G	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 6: Trafalgar Road & Dundas Street East

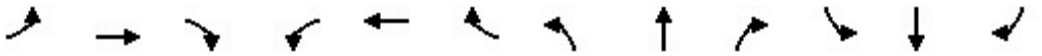




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	349	1446	168	146	826	189	133	415	82	384	722	364
v/c Ratio	0.78	0.93	0.28	0.86	0.69	0.35	0.47	0.36	0.15	0.88	0.48	0.51
Control Delay	53.6	54.2	16.1	68.7	45.4	6.8	27.2	38.4	0.6	48.7	34.3	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.6	54.2	16.1	68.7	45.4	6.8	27.2	38.4	0.6	48.7	34.3	8.3
Queue Length 50th (m)	45.8	157.7	16.5	21.8	78.9	0.0	19.3	35.4	0.0	67.3	59.9	8.4
Queue Length 95th (m)	m#63.2	#186.2	m36.5	#59.8	96.5	17.3	32.0	46.9	0.0	#119.4	74.1	34.0
Internal Link Dist (m)		524.5			186.0			84.1			390.9	
Turn Bay Length (m)	110.0		83.0	160.0		75.0	120.0		50.0	40.0		50.0
Base Capacity (vph)	445	1554	600	170	1190	538	280	1166	558	436	1508	708
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.93	0.28	0.86	0.69	0.35	0.47	0.36	0.15	0.88	0.48	0.51

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	332	1374	160	139	785	180	126	394	78	365	686	346
Future Volume (vph)	332	1374	160	139	785	180	126	394	78	365	686	346
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lane Util. Factor	0.97	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3404	4433	1449	1644	4230	1432	1659	4154	1550	1601	4309	1439
Flt Permitted	0.95	1.00	1.00	0.11	1.00	1.00	0.32	1.00	1.00	0.39	1.00	1.00
Satd. Flow (perm)	3404	4433	1449	189	4230	1432	553	4154	1550	649	4309	1439
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	349	1446	168	146	826	189	133	415	82	384	722	364
RTOR Reduction (vph)	0	0	92	0	0	136	0	0	59	0	0	205
Lane Group Flow (vph)	349	1446	76	146	826	53	133	415	23	384	722	159
Confl. Peds. (#/hr)			3	3			1		1	1		1
Heavy Vehicles (%)	4%	4%	11%	11%	9%	14%	10%	11%	4%	14%	7%	12%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Actuated Green, G (s)	17.0	45.6	45.6	45.6	36.6	36.6	45.5	36.5	36.5	58.5	45.5	45.5
Effective Green, g (s)	17.0	45.6	45.6	45.6	36.6	36.6	45.5	36.5	36.5	58.5	45.5	45.5
Actuated g/C Ratio	0.13	0.35	0.35	0.35	0.28	0.28	0.35	0.28	0.28	0.45	0.35	0.35
Clearance Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lane Grp Cap (vph)	445	1554	508	167	1190	403	270	1166	435	423	1508	503
v/s Ratio Prot	c0.10	c0.33		0.06	0.20		0.03	0.10		c0.13	0.17	
v/s Ratio Perm			0.05	0.25		0.04	0.14		0.01	c0.28		0.11
v/c Ratio	0.78	0.93	0.15	0.87	0.69	0.13	0.49	0.36	0.05	0.91	0.48	0.32
Uniform Delay, d1	54.7	40.7	28.9	33.6	41.7	34.8	29.9	37.4	34.1	28.4	33.0	30.9
Progression Factor	0.79	1.11	2.18	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.7	8.8	0.5	42.7	3.4	0.7	6.3	0.9	0.2	25.8	1.1	1.6
Delay (s)	53.2	54.1	63.4	76.3	45.1	35.5	36.2	38.2	34.4	54.2	34.1	32.5
Level of Service	D	D	E	E	D	D	D	D	C	D	C	C
Approach Delay (s)		54.7			47.4			37.3			39.0	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	46.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	21.9
Intersection Capacity Utilization	102.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

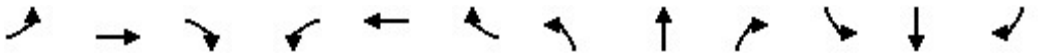
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	45	0	0	46	0
Future Volume (vph)	0	45	0	0	46	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.850					
Flt Protected					0.950	
Satd. Flow (prot)	3042	0	0	3579	1789	1883
Flt Permitted					0.950	
Satd. Flow (perm)	3042	0	0	3579	1789	1883
Link Speed (k/h)	50			50	50	
Link Distance (m)	217.5			582.1	462.5	
Travel Time (s)	15.7			41.9	33.3	
Confl. Peds. (#/hr)		1			1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	49	0	0	50	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	49	0	0	0	50	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Stop			Stop	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	13.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	0	45	0	0	46	0
Future Volume (vph)	0	45	0	0	46	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	49	0	0	50	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	0	49	0	0	50	0
Volume Left (vph)	0	0	0	0	50	0
Volume Right (vph)	0	49	0	0	0	0
Hadj (s)	0.00	-0.67	0.00	0.00	0.53	0.00
Departure Headway (s)	4.6	4.0	4.7	4.7	5.1	4.6
Degree Utilization, x	0.00	0.05	0.00	0.00	0.07	0.00
Capacity (veh/h)	776	883	770	770	685	782
Control Delay (s)	6.4	6.0	6.5	6.5	7.3	6.4
Approach Delay (s)	6.0		0.0		7.3	
Approach LOS	A		A		A	

Intersection Summary			
Delay	6.7		
Level of Service	A		
Intersection Capacity Utilization	13.7%	ICU Level of Service	A
Analysis Period (min)	15		

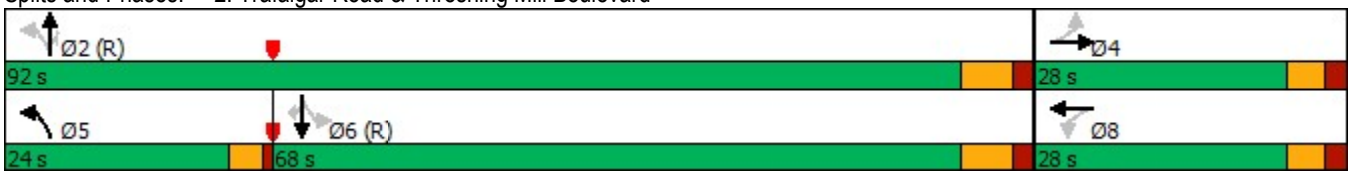


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	76	0	71	0	1343	123	40	1082	0
Future Volume (vph)	0	0	0	76	0	71	0	1343	123	40	1082	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0		0.0	45.0		0.0	55.0		55.0	55.0		55.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1883	3579	0	1615	3042	0	1883	4433	1512	1825	4520	1847
Flt Permitted				0.757						0.147		
Satd. Flow (perm)	1883	3579	0	1287	3042	0	1883	4433	1512	282	4520	1847
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					80				128			
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		582.1			189.1			286.1			116.2	
Travel Time (s)		41.9			13.6			17.2			7.0	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	13%	2%	2%	2%	4%	8%	0%	2%	4%
Adj. Flow (vph)	0	0	0	79	0	74	0	1399	128	42	1127	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	79	74	0	0	1399	128	42	1127	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm			Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	21.5	21.5		21.5	21.5		8.0	41.6	41.6	41.6	41.6	41.6
Total Split (s)	28.0	28.0		28.0	28.0		24.0	92.0	92.0	68.0	68.0	68.0
Total Split (%)	23.3%	23.3%		23.3%	23.3%		20.0%	76.7%	76.7%	56.7%	56.7%	56.7%
Maximum Green (s)	22.5	22.5		22.5	22.5		20.0	85.4	85.4	61.4	61.4	61.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.0	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		1.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		4.0	6.6	6.6	6.6	6.6	6.6
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	0
Act Effct Green (s)				22.5	22.5			85.4	85.4	61.4	61.4	
Actuated g/C Ratio				0.19	0.19			0.71	0.71	0.51	0.51	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio				0.33	0.12			0.44	0.12	0.29	0.49	
Control Delay				46.6	8.3			7.8	1.1	23.8	20.0	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				46.6	8.3			7.8	1.1	23.8	20.0	
LOS				D	A			A	A	C	B	
Approach Delay					28.1			7.3			20.1	
Approach LOS					C			A			C	

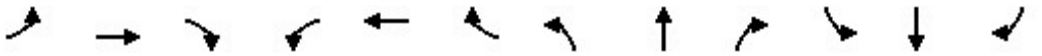
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 13.6		Intersection LOS: B	
Intersection Capacity Utilization 51.7%		ICU Level of Service A	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 2: Trafalgar Road & Threshing Mill Boulevard



Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	79	74	1399	128	42	1127
v/c Ratio	0.33	0.12	0.44	0.12	0.29	0.49
Control Delay	46.6	8.3	7.8	1.1	23.8	20.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.6	8.3	7.8	1.1	23.8	20.0
Queue Length 50th (m)	16.3	0.0	51.5	0.0	5.5	69.4
Queue Length 95th (m)	31.1	5.8	60.7	5.0	14.7	83.2
Internal Link Dist (m)		165.1	262.1			92.2
Turn Bay Length (m)	45.0			55.0	55.0	
Base Capacity (vph)	241	635	3154	1112	144	2312
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.12	0.44	0.12	0.29	0.49

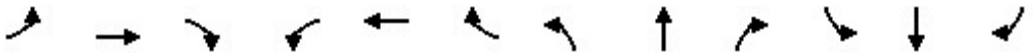
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	76	0	71	0	1343	123	40	1082	0
Future Volume (vph)	0	0	0	76	0	71	0	1343	123	40	1082	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.5	5.5			6.6	6.6	6.6	6.6	
Lane Util. Factor				1.00	0.95			*0.80	1.00	1.00	*0.80	
Frt				1.00	0.85			1.00	0.85	1.00	1.00	
Flt Protected				0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1615	3042			4433	1512	1825	4520	
Flt Permitted				0.76	1.00			1.00	1.00	0.15	1.00	
Satd. Flow (perm)				1287	3042			4433	1512	283	4520	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	79	0	74	0	1399	128	42	1127	0
RTOR Reduction (vph)	0	0	0	0	60	0	0	0	37	0	0	0
Lane Group Flow (vph)	0	0	0	79	14	0	0	1399	91	42	1127	0
Heavy Vehicles (%)	2%	2%	2%	13%	2%	2%	2%	4%	8%	0%	2%	4%
Turn Type	Perm			Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)				22.5	22.5			85.4	85.4	61.4	61.4	
Effective Green, g (s)				22.5	22.5			85.4	85.4	61.4	61.4	
Actuated g/C Ratio				0.19	0.19			0.71	0.71	0.51	0.51	
Clearance Time (s)				5.5	5.5			6.6	6.6	6.6	6.6	
Lane Grp Cap (vph)				241	570			3154	1076	144	2312	
v/s Ratio Prot					0.00			c0.32			c0.25	
v/s Ratio Perm				c0.06					0.06	0.15		
v/c Ratio				0.33	0.02			0.44	0.08	0.29	0.49	
Uniform Delay, d1				42.2	39.8			7.3	5.3	16.8	19.1	
Progression Factor				1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2				3.6	0.1			0.5	0.2	5.1	0.7	
Delay (s)				45.8	39.9			7.7	5.5	21.9	19.8	
Level of Service				D	D			A	A	C	B	
Approach Delay (s)		0.0			42.9			7.6			19.9	
Approach LOS		A			D			A			B	

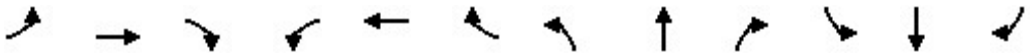
Intersection Summary			
HCM 2000 Control Delay	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.1
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	5	55	12	8	5	40	145	49	8	130	15
Future Volume (vph)	13	5	55	12	8	5	40	145	49	8	130	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.897			0.972			0.968			0.986	
Flt Protected		0.991			0.976			0.992			0.997	
Satd. Flow (prot)	0	1341	0	0	3319	0	0	3318	0	0	3482	0
Flt Permitted		0.991			0.976			0.992			0.997	
Satd. Flow (perm)	0	1341	0	0	3319	0	0	3318	0	0	3482	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		187.3			580.1			363.3			462.5	
Travel Time (s)		13.5			41.8			26.2			33.3	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	17%	49%	28%	0%	13%	0%	22%	3%	0%	0%	2%	14%
Adj. Flow (vph)	14	5	60	13	9	5	44	159	54	9	143	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	79	0	0	27	0	0	257	0	0	168	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

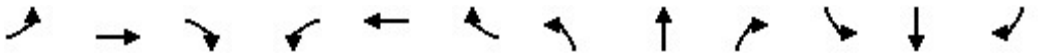
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.1%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	13	5	55	12	8	5	40	145	49	8	130	15
Future Volume (vph)	13	5	55	12	8	5	40	145	49	8	130	15
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	14	5	60	13	9	5	44	159	54	9	143	16

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	79	18	10	124	134	81	88
Volume Left (vph)	14	13	0	44	0	9	0
Volume Right (vph)	60	0	5	0	54	0	16
Hadj (s)	0.05	0.43	-0.26	0.34	-0.25	0.09	-0.06
Departure Headway (s)	5.5	6.0	5.3	5.3	4.7	5.1	5.0
Degree Utilization, x	0.12	0.03	0.01	0.18	0.17	0.11	0.12
Capacity (veh/h)	607	554	624	660	742	676	698
Control Delay (s)	9.3	8.0	7.2	8.3	7.5	7.6	7.5
Approach Delay (s)	9.3	7.7		7.9		7.5	
Approach LOS	A	A		A		A	

Intersection Summary				
Delay	8.0			
Level of Service	A			
Intersection Capacity Utilization	32.1%	ICU Level of Service	A	
Analysis Period (min)	15			

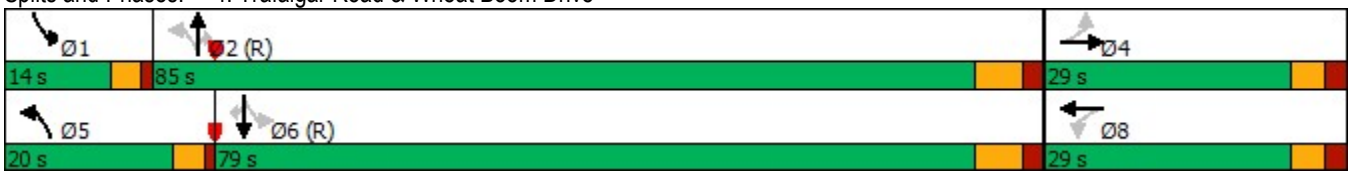


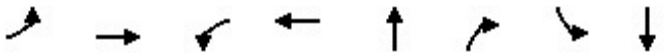
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	0	27	115	0	87	0	1365	119	88	1070	0
Future Volume (vph)	14	0	27	115	0	87	0	1365	119	88	1070	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0		0.0	45.0		0.0	55.0		55.0	55.0		55.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1789	3042	0	1825	2821	0	1883	4192	1512	1615	4230	1883
Flt Permitted	0.696			0.738						0.123		
Satd. Flow (perm)	1311	3042	0	1418	2821	0	1883	4192	1512	209	4230	1883
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		225			173				123			
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		580.1			206.4			414.9			286.1	
Travel Time (s)		41.8			14.9			24.9			17.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	0%	2%	10%	2%	10%	8%	13%	9%	2%
Adj. Flow (vph)	14	0	28	119	0	90	0	1407	123	91	1103	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	28	0	119	90	0	0	1407	123	91	1103	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	21.5	21.5		21.5	21.5		8.0	41.6	41.6	8.0	41.6	41.6
Total Split (s)	29.0	29.0		29.0	29.0		20.0	85.0	85.0	14.0	79.0	79.0
Total Split (%)	22.7%	22.7%		22.7%	22.7%		15.6%	66.4%	66.4%	10.9%	61.7%	61.7%
Maximum Green (s)	23.5	23.5		23.5	23.5		16.0	78.4	78.4	10.0	72.4	72.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		1.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		4.0	6.6	6.6	4.0	6.6	6.6
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			28.0	28.0		28.0	28.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)	23.5	23.5		23.5	23.5			78.4	78.4	85.0	72.4	
Actuated g/C Ratio	0.18	0.18		0.18	0.18			0.61	0.61	0.66	0.57	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.06	0.04		0.46	0.14			0.55	0.13	0.37	0.46	
Control Delay	44.1	0.1		53.1	0.4			15.5	2.0	9.7	17.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	44.1	0.1		53.1	0.4			15.5	2.0	9.7	17.1	
LOS	D	A		D	A			B	A	A	B	
Approach Delay		14.8			30.4			14.4			16.6	
Approach LOS		B			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 128			
Actuated Cycle Length: 128			
Offset: 111 (87%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay: 16.4		Intersection LOS: B	
Intersection Capacity Utilization 57.7%		ICU Level of Service B	
Analysis Period (min) 15			
* User Entered Value			

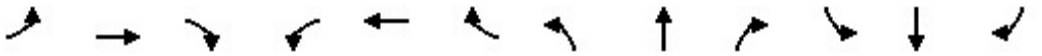
Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive





Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	14	28	119	90	1407	123	91	1103
v/c Ratio	0.06	0.04	0.46	0.14	0.55	0.13	0.37	0.46
Control Delay	44.1	0.1	53.1	0.4	15.5	2.0	9.7	17.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.1	0.1	53.1	0.4	15.5	2.0	9.7	17.1
Queue Length 50th (m)	3.0	0.0	27.0	0.0	81.2	0.0	5.5	65.1
Queue Length 95th (m)	9.0	0.0	46.5	0.0	95.5	7.3	9.9	77.8
Internal Link Dist (m)		556.1		182.4	390.9			262.1
Turn Bay Length (m)	45.0		45.0			55.0	55.0	
Base Capacity (vph)	240	742	260	659	2567	973	248	2392
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.04	0.46	0.14	0.55	0.13	0.37	0.46

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	0	27	115	0	87	0	1365	119	88	1070	0
Future Volume (vph)	14	0	27	115	0	87	0	1365	119	88	1070	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5			6.6	6.6	4.0	6.6	
Lane Util. Factor	1.00	0.95		1.00	0.95			*0.80	1.00	1.00	*0.80	
Frt	1.00	0.85		1.00	0.85			1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1789	3042		1825	2821			4192	1512	1615	4230	
Flt Permitted	0.70	1.00		0.74	1.00			1.00	1.00	0.12	1.00	
Satd. Flow (perm)	1310	3042		1418	2821			4192	1512	209	4230	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	14	0	28	119	0	90	0	1407	123	91	1103	0
RTOR Reduction (vph)	0	23	0	0	73	0	0	0	48	0	0	0
Lane Group Flow (vph)	14	5	0	119	17	0	0	1407	75	91	1103	0
Heavy Vehicles (%)	2%	2%	2%	0%	2%	10%	2%	10%	8%	13%	9%	2%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	23.5	23.5		23.5	23.5			78.4	78.4	82.4	72.4	
Effective Green, g (s)	23.5	23.5		23.5	23.5			78.4	78.4	82.4	72.4	
Actuated g/C Ratio	0.18	0.18		0.18	0.18			0.61	0.61	0.64	0.57	
Clearance Time (s)	5.5	5.5		5.5	5.5			6.6	6.6	4.0	6.6	
Lane Grp Cap (vph)	240	558		260	517			2567	926	244	2392	
v/s Ratio Prot		0.00			0.01			c0.34		c0.03	0.26	
v/s Ratio Perm	0.01			c0.08					0.05	0.21		
v/c Ratio	0.06	0.01		0.46	0.03			0.55	0.08	0.37	0.46	
Uniform Delay, d1	43.1	42.7		46.6	42.9			14.5	10.1	9.4	16.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.5	0.0		5.7	0.1			0.8	0.2	4.3	0.6	
Delay (s)	43.6	42.8		52.3	43.0			15.3	10.3	13.7	17.0	
Level of Service	D	D		D	D			B	B	B	B	
Approach Delay (s)		43.0			48.3			14.9			16.7	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	128.0	Sum of lost time (s)	16.1
Intersection Capacity Utilization	57.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

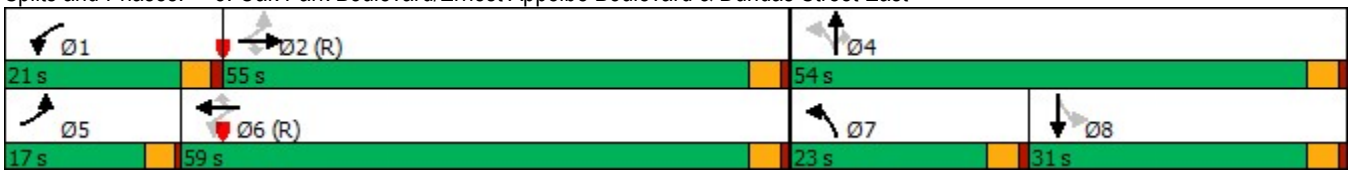
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	1373	209	204	1669	192	287	97	83	175	77	48
Future Volume (vph)	61	1373	209	204	1669	192	287	97	83	175	77	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		75.0	110.0		75.0	55.0		0.0	40.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor			0.95				0.98		0.97	0.99	0.98	
Frt			0.850			0.850			0.850		0.943	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	5142	1570	1825	5193	1633	1807	1883	1526	1807	3120	0
Flt Permitted	0.076			0.088			0.589			0.694		
Satd. Flow (perm)	146	5142	1491	169	5193	1633	1094	1883	1486	1303	3120	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			206			164			84		48	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		187.7			548.5			65.8			363.3	
Travel Time (s)		9.7			28.2			4.7			26.2	
Confl. Peds. (#/hr)			16	16			13		6	6		13
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	2%	4%	0%	1%	0%	1%	2%	7%	1%	7%	11%
Adj. Flow (vph)	62	1387	211	206	1686	194	290	98	84	177	78	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	62	1387	211	206	1686	194	290	98	84	177	126	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	7	4	4	8	8	
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	8.0	20.0	20.0	9.0	20.0	20.0	8.0	20.0	20.0	20.0	20.0	
Total Split (s)	17.0	55.0	55.0	21.0	59.0	59.0	23.0	54.0	54.0	31.0	31.0	
Total Split (%)	13.1%	42.3%	42.3%	16.2%	45.4%	45.4%	17.7%	41.5%	41.5%	23.8%	23.8%	
Maximum Green (s)	13.5	51.0	51.0	17.0	55.0	55.0	19.0	50.0	50.0	27.0	27.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	Max	Max	
Walk Time (s)		5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0	0	0	
Act Effct Green (s)	61.8	53.9	53.9	72.0	62.9	62.9	50.0	50.0	50.0	28.2	28.2	
Actuated g/C Ratio	0.48	0.41	0.41	0.55	0.48	0.48	0.38	0.38	0.38	0.22	0.22	
v/c Ratio	0.37	0.65	0.29	0.75	0.67	0.22	0.56	0.14	0.13	0.63	0.18	
Control Delay	21.2	32.8	4.7	18.9	25.0	7.4	34.2	26.7	5.7	57.8	26.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	21.2	32.8	4.7	18.9	25.0	7.4	34.2	26.7	5.7	57.8	26.7	
LOS	C	C	A	B	C	A	C	C	A	E	C	
Approach Delay		28.8			22.8			27.6			44.9	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 27.0 Intersection LOS: C
Intersection Capacity Utilization 80.4% ICU Level of Service D
Analysis Period (min) 15

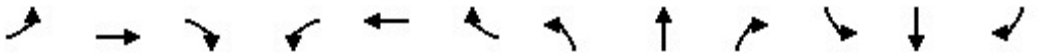
Splits and Phases: 5: Oak Park Boulevard/Ernest Appelbe Boulevard & Dundas Street East



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	62	1387	211	206	1686	194	290	98	84	177	126
v/c Ratio	0.37	0.65	0.29	0.75	0.67	0.22	0.56	0.14	0.13	0.63	0.18
Control Delay	21.2	32.8	4.7	18.9	25.0	7.4	34.2	26.7	5.7	57.8	26.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	32.8	4.7	18.9	25.0	7.4	34.2	26.7	5.7	57.8	26.7
Queue Length 50th (m)	7.0	104.6	0.8	22.5	153.5	17.6	54.0	16.2	0.0	41.9	8.6
Queue Length 95th (m)	13.6	123.9	16.0	m23.6	m151.7	m20.9	78.5	28.5	10.3	67.5	17.3
Internal Link Dist (m)		163.7			524.5			41.8			339.3
Turn Bay Length (m)	140.0		75.0	110.0		75.0	55.0			40.0	
Base Capacity (vph)	250	2130	738	310	2510	874	524	724	623	282	715
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.65	0.29	0.66	0.67	0.22	0.55	0.14	0.13	0.63	0.18

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	1373	209	204	1669	192	287	97	83	175	77	48
Future Volume (vph)	61	1373	209	204	1669	192	287	97	83	175	77	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.97	1.00	0.98	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1825	5142	1491	1825	5193	1633	1783	1883	1486	1784	3119	
Flt Permitted	0.08	1.00	1.00	0.09	1.00	1.00	0.59	1.00	1.00	0.69	1.00	
Satd. Flow (perm)	146	5142	1491	170	5193	1633	1105	1883	1486	1302	3119	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	62	1387	211	206	1686	194	290	98	84	177	78	48
RTOR Reduction (vph)	0	0	121	0	0	86	0	0	52	0	38	0
Lane Group Flow (vph)	62	1387	90	206	1686	108	290	98	32	177	88	0
Confl. Peds. (#/hr)			16	16			13		6	6		13
Heavy Vehicles (%)	0%	2%	4%	0%	1%	0%	1%	2%	7%	1%	7%	11%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	2		2	6		6	4		4	8		
Actuated Green, G (s)	60.2	53.9	53.9	72.0	62.2	62.2	50.0	50.0	50.0	28.2	28.2	
Effective Green, g (s)	60.2	53.9	53.9	72.0	62.2	62.2	50.0	50.0	50.0	28.2	28.2	
Actuated g/C Ratio	0.46	0.41	0.41	0.55	0.48	0.48	0.38	0.38	0.38	0.22	0.22	
Clearance Time (s)	3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	148	2131	618	273	2484	781	517	724	571	282	676	
v/s Ratio Prot	0.02	0.27		c0.08	0.32		c0.08	0.05			0.03	
v/s Ratio Perm	0.17		0.06	c0.34		0.07	0.14		0.02	c0.14		
v/c Ratio	0.42	0.65	0.15	0.75	0.68	0.14	0.56	0.14	0.06	0.63	0.13	
Uniform Delay, d1	22.1	30.5	23.7	27.5	26.2	18.9	29.5	26.0	25.2	46.1	41.0	
Progression Factor	1.00	1.00	1.00	0.49	0.93	1.54	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.9	1.6	0.5	4.2	0.5	0.1	1.4	0.4	0.2	10.1	0.4	
Delay (s)	24.0	32.1	24.2	17.8	24.8	29.4	30.9	26.4	25.4	56.3	41.4	
Level of Service	C	C	C	B	C	C	C	C	C	E	D	
Approach Delay (s)		30.8			24.5			29.0			50.1	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	29.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	80.4%	ICU Level of Service	D
Analysis Period (min)	15		

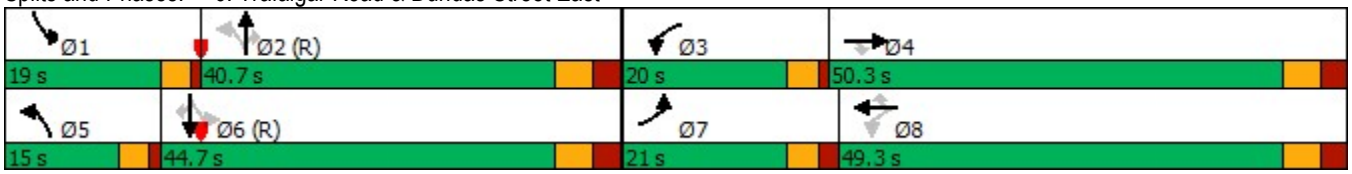
c Critical Lane Group

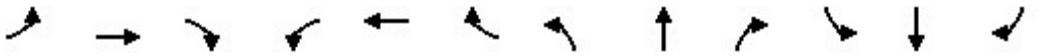
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	400	1387	96	234	1665	308	290	801	148	266	674	337
Future Volume (vph)	400	1387	96	234	1665	308	290	801	148	266	674	337
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	110.0		83.0	160.0		75.0	120.0		50.0	40.0		50.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor	1.00		0.98	1.00		0.99	1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3437	5092	1541	1789	5193	1555	1789	4520	1617	1706	4476	1601
Flt Permitted	0.950			0.093			0.270			0.138		
Satd. Flow (perm)	3437	5092	1512	175	5193	1535	508	4520	1617	248	4476	1576
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			97			207			127			266
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		548.5			210.0			108.1			414.9	
Travel Time (s)		28.2			10.8			6.5			24.9	
Confl. Peds. (#/hr)	1		6	6		1	3					3
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	6%	2%	1%	5%	2%	2%	1%	7%	3%	2%
Adj. Flow (vph)	412	1430	99	241	1716	318	299	826	153	274	695	347
Shared Lane Traffic (%)												
Lane Group Flow (vph)	412	1430	99	241	1716	318	299	826	153	274	695	347
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Minimum Split (s)	12.0	40.4	40.4	11.0	40.4	40.4	11.0	40.5	40.5	11.0	40.5	40.5
Total Split (s)	21.0	50.3	50.3	20.0	49.3	49.3	15.0	40.7	40.7	19.0	44.7	44.7
Total Split (%)	16.2%	38.7%	38.7%	15.4%	37.9%	37.9%	11.5%	31.3%	31.3%	14.6%	34.4%	34.4%
Maximum Green (s)	16.0	43.9	43.9	16.0	42.9	42.9	11.0	34.2	34.2	15.0	38.2	38.2
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)	16.0	43.9	43.9	61.3	42.9	42.9	47.7	34.2	34.2	55.7	38.2	38.2
Actuated g/C Ratio	0.12	0.34	0.34	0.47	0.33	0.33	0.37	0.26	0.26	0.43	0.29	0.29
v/c Ratio	0.97	0.83	0.17	0.86	1.00	0.49	1.02	0.69	0.30	1.00	0.53	0.53
Control Delay	75.5	43.9	9.1	60.2	65.6	14.6	88.7	46.8	11.0	85.3	40.1	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.5	43.9	9.1	60.2	65.6	14.6	88.7	46.8	11.0	85.3	40.1	12.6
LOS	E	D	A	E	E	B	F	D	B	F	D	B
Approach Delay		48.9			57.9			52.3			42.3	
Approach LOS		D			E			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 125			
Control Type: Pretimed			
Maximum v/c Ratio: 1.02			
Intersection Signal Delay: 51.3		Intersection LOS: D	
Intersection Capacity Utilization 106.2%		ICU Level of Service G	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 6: Trafalgar Road & Dundas Street East





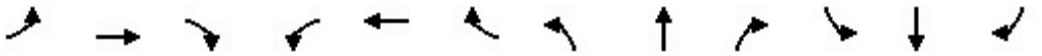
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	412	1430	99	241	1716	318	299	826	153	274	695	347
v/c Ratio	0.97	0.83	0.17	0.86	1.00	0.49	1.02	0.69	0.30	1.00	0.53	0.53
Control Delay	75.5	43.9	9.1	60.2	65.6	14.6	88.7	46.8	11.0	85.3	40.1	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.5	43.9	9.1	60.2	65.6	14.6	88.7	46.8	11.0	85.3	40.1	12.6
Queue Length 50th (m)	48.3	140.8	10.0	44.2	~161.0	20.6	~53.0	79.8	5.0	49.8	62.0	15.5
Queue Length 95th (m)	#84.3	156.6	m19.1	#88.8	#197.1	48.0	#96.8	97.3	21.9	#106.1	77.0	44.0
Internal Link Dist (m)		524.5			186.0			84.1			390.9	
Turn Bay Length (m)	110.0		83.0	160.0		75.0	120.0		50.0	40.0		50.0
Base Capacity (vph)	423	1719	574	281	1713	645	294	1189	518	274	1315	650
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.83	0.17	0.86	1.00	0.49	1.02	0.69	0.30	1.00	0.53	0.53

Intersection Summary

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

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

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	400	1387	96	234	1665	308	290	801	148	266	674	337
Future Volume (vph)	400	1387	96	234	1665	308	290	801	148	266	674	337
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3437	5092	1512	1789	5193	1535	1789	4520	1617	1706	4476	1576
Flt Permitted	0.95	1.00	1.00	0.09	1.00	1.00	0.27	1.00	1.00	0.14	1.00	1.00
Satd. Flow (perm)	3437	5092	1512	176	5193	1535	508	4520	1617	248	4476	1576
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	412	1430	99	241	1716	318	299	826	153	274	695	347
RTOR Reduction (vph)	0	0	64	0	0	139	0	0	94	0	0	188
Lane Group Flow (vph)	412	1430	35	241	1716	179	299	826	59	274	695	159
Confl. Peds. (#/hr)	1		6	6		1	3					3
Heavy Vehicles (%)	3%	3%	6%	2%	1%	5%	2%	2%	1%	7%	3%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Actuated Green, G (s)	16.0	43.9	43.9	58.9	42.9	42.9	45.2	34.2	34.2	53.2	38.2	38.2
Effective Green, g (s)	16.0	43.9	43.9	58.9	42.9	42.9	45.2	34.2	34.2	53.2	38.2	38.2
Actuated g/C Ratio	0.12	0.34	0.34	0.45	0.33	0.33	0.35	0.26	0.26	0.41	0.29	0.29
Clearance Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lane Grp Cap (vph)	423	1719	510	278	1713	506	285	1189	425	269	1315	463
v/s Ratio Prot	c0.12	0.28		0.11	c0.33		0.09	0.18		c0.12	0.16	
v/s Ratio Perm			0.02	0.29		0.12	0.28		0.04	c0.30		0.10
v/c Ratio	0.97	0.83	0.07	0.87	1.00	0.35	1.05	0.69	0.14	1.02	0.53	0.34
Uniform Delay, d1	56.8	39.7	29.2	35.2	43.5	33.0	37.6	43.2	36.6	32.2	38.4	36.1
Progression Factor	0.70	0.99	1.42	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	34.6	4.2	0.2	28.6	22.2	1.9	66.8	3.4	0.7	59.7	1.5	2.0
Delay (s)	74.1	43.6	41.7	63.7	65.7	35.0	104.3	46.6	37.3	91.9	39.9	38.1
Level of Service	E	D	D	E	E	C	F	D	D	F	D	D
Approach Delay (s)		50.0			61.2			59.0			50.3	
Approach LOS		D			E			E			D	

Intersection Summary			
HCM 2000 Control Delay	55.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	21.9
Intersection Capacity Utilization	106.2%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	51	32	0	39	21
Future Volume (vph)	0	51	32	0	39	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.850					0.850
Flt Protected				0.950	0.950	
Satd. Flow (prot)	2927	0	0	3468	1722	1633
Flt Permitted				0.950	0.950	
Satd. Flow (perm)	2927	0	0	3468	1722	1633
Link Speed (k/h)	50			50	50	
Link Distance (m)	217.5			582.1	462.5	
Travel Time (s)	15.7			41.9	33.3	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	6%	0%	0%	6%	0%
Adj. Flow (vph)	0	61	39	0	47	25
Shared Lane Traffic (%)						
Lane Group Flow (vph)	61	0	0	39	47	25
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Stop			Stop	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 18.4%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	0	51	32	0	39	21
Future Volume (vph)	0	51	32	0	39	21
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	0	61	39	0	47	25

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	0	61	39	0	47	25
Volume Left (vph)	0	0	39	0	47	0
Volume Right (vph)	0	61	0	0	0	25
Hadj (s)	0.00	-0.60	0.50	0.00	0.60	-0.70
Departure Headway (s)	4.7	4.1	5.2	4.7	5.3	4.0
Degree Utilization, x	0.00	0.07	0.06	0.00	0.07	0.03
Capacity (veh/h)	761	848	667	760	654	860
Control Delay (s)	6.5	6.2	7.3	6.5	7.5	6.0
Approach Delay (s)	6.2		7.3		7.0	
Approach LOS	A		A		A	

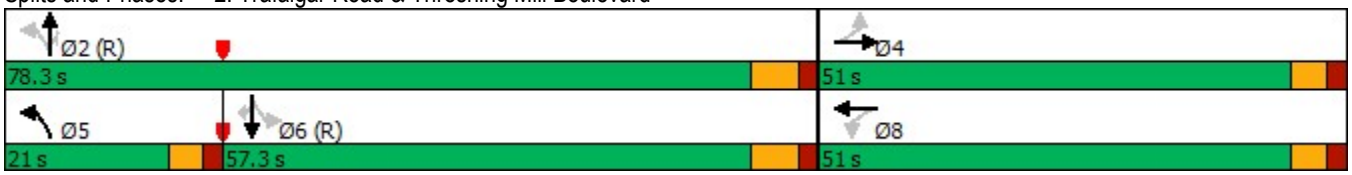
Intersection Summary			
Delay	6.8		
Level of Service	A		
Intersection Capacity Utilization	18.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	6	65	122	4	122	32	930	55	30	1061	12
Future Volume (vph)	36	6	65	122	4	122	32	930	55	30	1061	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0		0.0	45.0		0.0	55.0		55.0	55.0		55.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.862			0.854				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3085	0	1560	3053	0	1789	4350	1498	1521	4269	1601
Flt Permitted	0.666			0.705			0.104			0.238		
Satd. Flow (perm)	1254	3085	0	1158	3053	0	196	4350	1498	381	4269	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		70			100				59			66
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		582.1			189.1			286.1			116.2	
Travel Time (s)		41.9			13.6			17.2			7.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	17%	5%	2%	2%	6%	9%	20%	8%	2%
Adj. Flow (vph)	39	6	70	131	4	131	34	1000	59	32	1141	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	76	0	131	135	0	34	1000	59	32	1141	13
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	21.5	21.5		21.5	21.5		9.3	41.6	41.6	41.6	41.6	41.6
Total Split (s)	51.0	51.0		51.0	51.0		21.0	78.3	78.3	57.3	57.3	57.3
Total Split (%)	39.4%	39.4%		39.4%	39.4%		16.2%	60.6%	60.6%	44.3%	44.3%	44.3%
Maximum Green (s)	45.5	45.5		45.5	45.5		15.7	71.7	71.7	50.7	50.7	50.7
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		5.3	6.6	6.6	6.6	6.6	6.6
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	0
Act Effct Green (s)	45.5	45.5		45.5	45.5		73.0	71.7	71.7	50.7	50.7	50.7
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.56	0.55	0.55	0.39	0.39	0.39

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.09	0.07		0.32	0.12		0.11	0.41	0.07	0.21	0.68	0.02
Control Delay	28.9	7.5		33.4	9.3		13.4	17.3	3.4	30.9	35.2	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.9	7.5		33.4	9.3		13.4	17.3	3.4	30.9	35.2	0.1
LOS	C	A		C	A		B	B	A	C	D	A
Approach Delay		14.7			21.2			16.4			34.7	
Approach LOS		B			C			B			C	

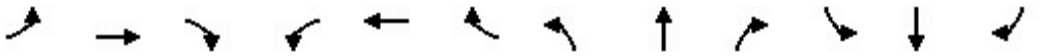
Intersection Summary			
Area Type:	Other		
Cycle Length: 129.3			
Actuated Cycle Length: 129.3			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 25.0		Intersection LOS: C	
Intersection Capacity Utilization 57.9%		ICU Level of Service B	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 2: Trafalgar Road & Threshing Mill Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	39	76	131	135	34	1000	59	32	1141	13
v/c Ratio	0.09	0.07	0.32	0.12	0.11	0.41	0.07	0.21	0.68	0.02
Control Delay	28.9	7.5	33.4	9.3	13.4	17.3	3.4	30.9	35.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.9	7.5	33.4	9.3	13.4	17.3	3.4	30.9	35.2	0.1
Queue Length 50th (m)	6.6	0.5	24.2	3.0	3.7	58.8	0.0	5.4	99.4	0.0
Queue Length 95th (m)	14.8	5.9	41.4	10.0	8.5	70.7	6.1	13.9	118.1	0.0
Internal Link Dist (m)		558.1		165.1		262.1			92.2	
Turn Bay Length (m)	45.0		45.0		55.0		55.0	55.0		55.0
Base Capacity (vph)	441	1130	407	1139	304	2412	856	149	1673	667
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.07	0.32	0.12	0.11	0.41	0.07	0.21	0.68	0.02

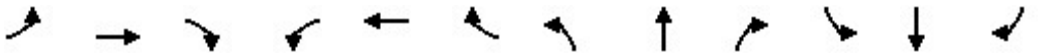
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	6	65	122	4	122	32	930	55	30	1061	12
Future Volume (vph)	36	6	65	122	4	122	32	930	55	30	1061	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.3	6.6	6.6	6.6	6.6	6.6
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	*0.80	1.00	1.00	*0.80	1.00
Frt	1.00	0.86		1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1789	3084		1560	3055		1789	4350	1498	1521	4269	1601
Flt Permitted	0.67	1.00		0.70	1.00		0.10	1.00	1.00	0.24	1.00	1.00
Satd. Flow (perm)	1255	3084		1158	3055		196	4350	1498	380	4269	1601
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	39	6	70	131	4	131	34	1000	59	32	1141	13
RTOR Reduction (vph)	0	45	0	0	65	0	0	0	26	0	0	8
Lane Group Flow (vph)	39	31	0	131	70	0	34	1000	33	32	1141	5
Heavy Vehicles (%)	2%	2%	2%	17%	5%	2%	2%	6%	9%	20%	8%	2%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	45.5	45.5		45.5	45.5		71.7	71.7	71.7	50.7	50.7	50.7
Effective Green, g (s)	45.5	45.5		45.5	45.5		71.7	71.7	71.7	50.7	50.7	50.7
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.55	0.55	0.55	0.39	0.39	0.39
Clearance Time (s)	5.5	5.5		5.5	5.5		5.3	6.6	6.6	6.6	6.6	6.6
Lane Grp Cap (vph)	441	1085		407	1075		302	2412	830	149	1673	627
v/s Ratio Prot		0.01			0.02		0.01	c0.23			c0.27	
v/s Ratio Perm	0.03			c0.11			0.05		0.02	0.08		0.00
v/c Ratio	0.09	0.03		0.32	0.07		0.11	0.41	0.04	0.21	0.68	0.01
Uniform Delay, d1	28.0	27.4		30.6	27.8		16.2	16.7	13.1	26.1	32.6	24.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0		2.1	0.1		0.8	0.5	0.1	3.3	2.3	0.0
Delay (s)	28.4	27.5		32.7	27.9		16.9	17.2	13.2	29.4	34.9	24.0
Level of Service	C	C		C	C		B	B	B	C	C	C
Approach Delay (s)		27.8			30.3			17.0			34.6	
Approach LOS		C			C			B			C	

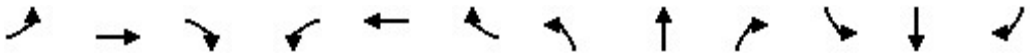
Intersection Summary			
HCM 2000 Control Delay	26.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	129.3	Sum of lost time (s)	17.4
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	17	64	18	3	2	43	91	69	1	162	7
Future Volume (vph)	9	17	64	18	3	2	43	91	69	1	162	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.903			0.988			0.949			0.994	
Flt Protected		0.995			0.962			0.989				
Satd. Flow (prot)	0	1644	0	0	3469	0	0	3251	0	0	3527	0
Flt Permitted		0.995			0.962			0.989				
Satd. Flow (perm)	0	1644	0	0	3469	0	0	3251	0	0	3527	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		187.3			580.1			363.3			462.5	
Travel Time (s)		13.5			41.8			26.2			33.3	
Confl. Peds. (#/hr)			1	1			5		1	1		5
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	7%	0%	0%	0%	21%	2%	0%	0%	3%	0%
Adj. Flow (vph)	10	19	73	20	3	2	49	103	78	1	184	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	102	0	0	25	0	0	230	0	0	193	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.4%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	9	17	64	18	3	2	43	91	69	1	162	7
Future Volume (vph)	9	17	64	18	3	2	43	91	69	1	162	7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	10	19	73	20	3	2	49	103	78	1	184	8

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	102	22	4	101	130	93	100
Volume Left (vph)	10	20	0	49	0	1	0
Volume Right (vph)	73	0	2	0	78	0	8
Hadj (s)	-0.32	0.47	-0.40	0.44	-0.41	0.06	-0.01
Departure Headway (s)	5.2	6.1	5.2	5.5	4.6	5.1	5.1
Degree Utilization, x	0.15	0.04	0.01	0.15	0.17	0.13	0.14
Capacity (veh/h)	649	549	635	638	752	676	687
Control Delay (s)	9.1	8.1	7.0	8.2	7.3	7.7	7.7
Approach Delay (s)	9.1	8.0		7.7		7.7	
Approach LOS	A	A		A		A	

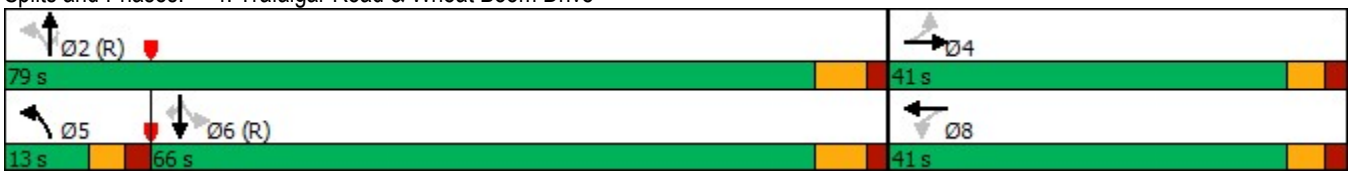
Intersection Summary				
Delay	8.0			
Level of Service	A			
Intersection Capacity Utilization	34.4%	ICU Level of Service	A	
Analysis Period (min)	15			

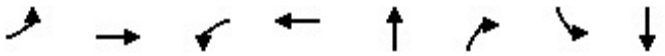
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	15	52	150	0	61	0	924	30	35	1215	0
Future Volume (vph)	32	15	52	150	0	61	0	924	30	35	1215	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0		0.0	45.0		0.0	55.0		55.0	55.0		55.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.883			0.850				0.850			
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1789	3160	0	1372	2821	0	1883	4044	1166	1141	4117	1883
Flt Permitted	0.712			0.708						0.239		
Satd. Flow (perm)	1341	3160	0	1023	2821	0	1883	4044	1166	287	4117	1883
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		56			124				32			
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		580.1			206.4			414.9			286.1	
Travel Time (s)		41.8			14.9			24.9			17.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	33%	2%	10%	2%	14%	40%	60%	12%	2%
Adj. Flow (vph)	34	16	56	161	0	66	0	994	32	38	1306	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	72	0	161	66	0	0	994	32	38	1306	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	21.5	21.5		21.5	21.5		9.5	41.6	41.6	41.6	41.6	41.6
Total Split (s)	41.0	41.0		41.0	41.0		13.0	79.0	79.0	66.0	66.0	66.0
Total Split (%)	34.2%	34.2%		34.2%	34.2%		10.8%	65.8%	65.8%	55.0%	55.0%	55.0%
Maximum Green (s)	35.5	35.5		35.5	35.5		7.5	72.4	72.4	59.4	59.4	59.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.2	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		5.5	6.6	6.6	6.6	6.6	6.6
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	0
Act Effct Green (s)	35.5	35.5		35.5	35.5			72.4	72.4	59.4	59.4	
Actuated g/C Ratio	0.30	0.30		0.30	0.30			0.60	0.60	0.50	0.50	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.09	0.07		0.53	0.07			0.41	0.04	0.27	0.64	
Control Delay	31.4	11.3		43.0	0.1			13.1	3.4	24.0	24.2	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	31.4	11.3		43.0	0.1			13.1	3.4	24.0	24.2	
LOS	C	B		D	A			B	A	C	C	
Approach Delay		17.7			30.6			12.8			24.2	
Approach LOS		B			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 20.2		Intersection LOS: C	
Intersection Capacity Utilization 57.3%		ICU Level of Service B	
Analysis Period (min) 15			
* User Entered Value			

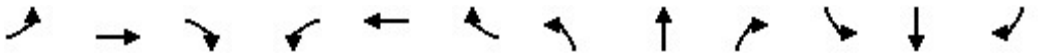
Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive





Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	34	72	161	66	994	32	38	1306
v/c Ratio	0.09	0.07	0.53	0.07	0.41	0.04	0.27	0.64
Control Delay	31.4	11.3	43.0	0.1	13.1	3.4	24.0	24.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.4	11.3	43.0	0.1	13.1	3.4	24.0	24.2
Queue Length 50th (m)	5.8	1.4	31.7	0.0	48.2	0.0	5.0	91.8
Queue Length 95th (m)	13.7	6.8	54.3	0.1	58.8	3.9	14.0	109.7
Internal Link Dist (m)		556.1		182.4	390.9			262.1
Turn Bay Length (m)	45.0		45.0			55.0	55.0	
Base Capacity (vph)	396	974	302	921	2439	716	142	2037
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.07	0.53	0.07	0.41	0.04	0.27	0.64

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	15	52	150	0	61	0	924	30	35	1215	0
Future Volume (vph)	32	15	52	150	0	61	0	924	30	35	1215	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5			6.6	6.6	6.6	6.6	
Lane Util. Factor	1.00	0.95		1.00	0.95			*0.80	1.00	1.00	*0.80	
Frt	1.00	0.88		1.00	0.85			1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1789	3161		1372	2821			4044	1166	1141	4117	
Flt Permitted	0.71	1.00		0.71	1.00			1.00	1.00	0.24	1.00	
Satd. Flow (perm)	1341	3161		1022	2821			4044	1166	287	4117	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	34	16	56	161	0	66	0	994	32	38	1306	0
RTOR Reduction (vph)	0	39	0	0	46	0	0	0	13	0	0	0
Lane Group Flow (vph)	34	33	0	161	20	0	0	994	19	38	1306	0
Heavy Vehicles (%)	2%	2%	2%	33%	2%	10%	2%	14%	40%	60%	12%	2%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	35.5	35.5		35.5	35.5			72.4	72.4	59.4	59.4	
Effective Green, g (s)	35.5	35.5		35.5	35.5			72.4	72.4	59.4	59.4	
Actuated g/C Ratio	0.30	0.30		0.30	0.30			0.60	0.60	0.49	0.49	
Clearance Time (s)	5.5	5.5		5.5	5.5			6.6	6.6	6.6	6.6	
Lane Grp Cap (vph)	396	935		302	834			2439	703	142	2037	
v/s Ratio Prot		0.01			0.01			c0.25			c0.32	
v/s Ratio Perm	0.03			c0.16					0.02	0.13		
v/c Ratio	0.09	0.03		0.53	0.02			0.41	0.03	0.27	0.64	
Uniform Delay, d1	30.5	30.1		35.3	30.0			12.5	9.6	17.6	22.4	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.4	0.1		6.6	0.1			0.5	0.1	4.6	1.6	
Delay (s)	31.0	30.1		41.9	30.0			13.0	9.7	22.2	24.0	
Level of Service	C	C		D	C			B	A	C	C	
Approach Delay (s)		30.4			38.5			12.9			23.9	
Approach LOS		C			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.6
Intersection Capacity Utilization	57.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

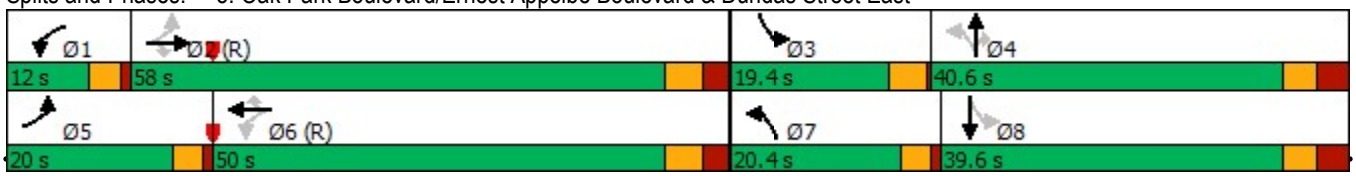
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	1710	121	73	1030	135	91	22	60	273	71	82
Future Volume (vph)	62	1710	121	73	1030	135	91	22	60	273	71	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		75.0	110.0		75.0	55.0		0.0	40.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00		0.99			0.98	1.00		0.98	1.00	0.99	
Frt			0.850			0.850			0.850		0.920	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1313	4476	1541	1738	4230	1555	1644	1746	1384	1789	3092	0
Flt Permitted	0.186			0.055			0.651			0.507		
Satd. Flow (perm)	257	4476	1520	101	4230	1531	1122	1746	1361	951	3092	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			97			141			128		85	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		187.7			548.5			65.8			363.3	
Travel Time (s)		9.7			28.2			4.7			26.2	
Confl. Peds. (#/hr)	3		1	1		3	2		4	4		2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	39%	3%	6%	5%	9%	5%	11%	10%	18%	2%	6%	9%
Adj. Flow (vph)	65	1781	126	76	1073	141	95	23	63	284	74	85
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	1781	126	76	1073	141	95	23	63	284	159	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	4.0	20.0	20.0	7.0	20.0	20.0	6.0	10.0	10.0	4.0	10.0	
Minimum Split (s)	8.0	38.3	38.3	12.0	38.3	38.3	10.0	40.6	40.6	8.0	24.6	
Total Split (s)	20.0	58.0	58.0	12.0	50.0	50.0	20.4	40.6	40.6	19.4	39.6	
Total Split (%)	15.4%	44.6%	44.6%	9.2%	38.5%	38.5%	15.7%	31.2%	31.2%	14.9%	30.5%	
Maximum Green (s)	16.0	51.7	51.7	8.0	43.7	43.7	16.4	34.0	34.0	15.4	33.0	
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.3	3.3	3.5	3.3	
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	1.0	3.3	3.3	0.5	3.3	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.3	6.3	4.0	6.3	6.3	4.0	6.6	6.6	4.0	6.6	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	5.5	5.5	3.0	5.5	5.5	3.0	5.0	5.0	3.0	3.5	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	
Flash Dont Walk (s)		25.0	25.0		25.0	25.0		27.0	27.0		7.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	
Act Effct Green (s)	87.5	78.7	78.7	88.0	79.0	79.0	22.3	10.6	10.6	29.8	12.9	
Actuated g/C Ratio	0.67	0.61	0.61	0.68	0.61	0.61	0.17	0.08	0.08	0.23	0.10	
v/c Ratio	0.28	0.66	0.13	0.45	0.42	0.14	0.40	0.16	0.28	0.87	0.42	
Control Delay	10.0	19.6	4.5	33.1	9.4	1.2	45.2	57.8	3.0	70.8	29.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	10.0	19.6	4.5	33.1	9.4	1.2	45.2	57.8	3.0	70.8	29.6	
LOS	A	B	A	C	A	A	D	E	A	E	C	
Approach Delay		18.3			9.9			32.1			56.0	
Approach LOS		B			A			C			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 20.5		Intersection LOS: C	
Intersection Capacity Utilization 82.2%		ICU Level of Service E	
Analysis Period (min) 15			

* User Entered Value

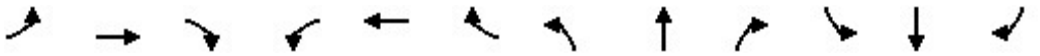
Splits and Phases: 5: Oak Park Boulevard/Ernest Appelbe Boulevard & Dundas Street East



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	65	1781	126	76	1073	141	95	23	63	284	159
v/c Ratio	0.28	0.66	0.13	0.45	0.42	0.14	0.40	0.16	0.28	0.87	0.42
Control Delay	10.0	19.6	4.5	33.1	9.4	1.2	45.2	57.8	3.0	70.8	29.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	19.6	4.5	33.1	9.4	1.2	45.2	57.8	3.0	70.8	29.6
Queue Length 50th (m)	4.9	124.0	3.0	5.8	85.7	1.2	19.6	5.6	0.0	65.6	9.2
Queue Length 95th (m)	10.6	162.2	12.8	m10.8	102.9	m8.7	33.5	14.3	0.0	#89.9	20.3
Internal Link Dist (m)		163.7			524.5			41.8			339.3
Turn Bay Length (m)	140.0		75.0	110.0		75.0	55.0			40.0	
Base Capacity (vph)	309	2710	958	177	2569	985	299	456	450	328	848
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.66	0.13	0.43	0.42	0.14	0.32	0.05	0.14	0.87	0.19

Intersection Summary

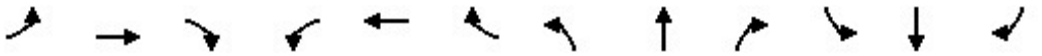
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	1710	121	73	1030	135	91	22	60	273	71	82
Future Volume (vph)	62	1710	121	73	1030	135	91	22	60	273	71	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.3	6.3	4.0	6.3	6.3	4.0	6.6	6.6	4.0	6.6	
Lane Util. Factor	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	1.00	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.98	1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1313	4476	1520	1738	4230	1531	1640	1746	1361	1786	3091	
Flt Permitted	0.19	1.00	1.00	0.05	1.00	1.00	0.65	1.00	1.00	0.51	1.00	
Satd. Flow (perm)	258	4476	1520	100	4230	1531	1124	1746	1361	952	3091	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	65	1781	126	76	1073	141	95	23	62	284	74	85
RTOR Reduction (vph)	0	0	40	0	0	58	0	0	59	0	76	0
Lane Group Flow (vph)	65	1781	86	76	1073	83	95	23	4	284	83	0
Confl. Peds. (#/hr)	3		1	1		3	2		4	4		2
Heavy Vehicles (%)	39%	3%	6%	5%	9%	5%	11%	10%	18%	2%	6%	9%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		
Actuated Green, G (s)	83.1	76.6	76.6	83.5	76.8	76.8	20.2	8.6	8.6	29.8	14.2	
Effective Green, g (s)	83.1	76.6	76.6	83.5	76.8	76.8	20.2	8.6	8.6	29.8	14.2	
Actuated g/C Ratio	0.64	0.59	0.59	0.64	0.59	0.59	0.16	0.07	0.07	0.23	0.11	
Clearance Time (s)	4.0	6.3	6.3	4.0	6.3	6.3	4.0	6.6	6.6	4.0	6.6	
Vehicle Extension (s)	3.0	5.5	5.5	3.0	5.5	5.5	3.0	5.0	5.0	3.0	3.5	
Lane Grp Cap (vph)	217	2637	895	148	2498	904	220	115	90	328	337	
v/s Ratio Prot	0.01	c0.40		c0.03	0.25		0.04	0.01		c0.11	0.03	
v/s Ratio Perm	0.18		0.06	0.30		0.05	0.03		0.00	c0.08		
v/c Ratio	0.30	0.68	0.10	0.51	0.43	0.09	0.43	0.20	0.05	0.87	0.25	
Uniform Delay, d1	9.5	18.2	11.6	15.6	14.6	11.5	49.2	57.4	56.9	46.4	53.0	
Progression Factor	1.00	1.00	1.00	2.06	0.62	0.46	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.8	1.4	0.2	2.3	0.4	0.2	1.4	1.8	0.4	20.5	0.5	
Delay (s)	10.3	19.6	11.8	34.4	9.4	5.5	50.6	59.2	57.3	66.9	53.5	
Level of Service	B	B	B	C	A	A	D	E	E	E	D	
Approach Delay (s)		18.8			10.5			54.0			62.1	
Approach LOS		B			B			D			E	

Intersection Summary			
HCM 2000 Control Delay	22.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	20.9
Intersection Capacity Utilization	82.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

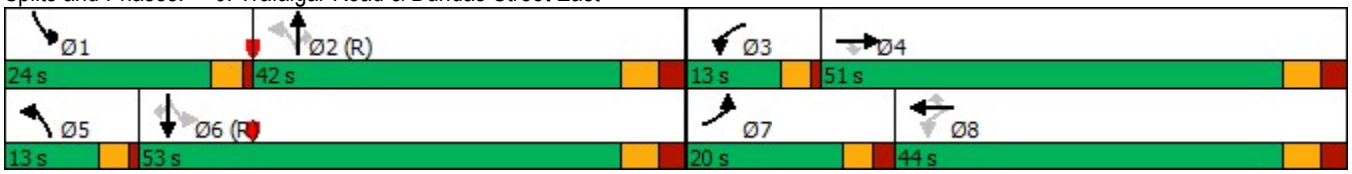


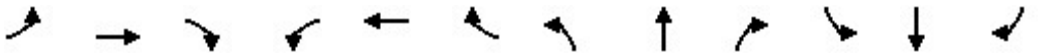
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	335	1347	160	139	785	180	126	423	78	384	767	358
Future Volume (vph)	335	1347	160	139	785	180	126	423	78	384	767	358
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	110.0		83.0	160.0		75.0	120.0		50.0	40.0		50.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98	1.00			1.00		0.99	1.00		0.99
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3404	4433	1471	1644	4230	1432	1659	4154	1570	1601	4309	1458
Flt Permitted	0.950			0.106			0.285			0.359		
Satd. Flow (perm)	3404	4433	1449	183	4230	1432	498	4154	1550	605	4309	1439
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			143			189			171			280
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		548.5			210.0			108.1			414.9	
Travel Time (s)		28.2			10.8			6.5			24.9	
Confl. Peds. (#/hr)			3	3			1		1	1		1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	4%	11%	11%	9%	14%	10%	11%	4%	14%	7%	12%
Adj. Flow (vph)	353	1418	168	146	826	189	133	445	82	404	807	377
Shared Lane Traffic (%)												
Lane Group Flow (vph)	353	1418	168	146	826	189	133	445	82	404	807	377
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Minimum Split (s)	12.0	40.4	40.4	11.0	40.4	40.4	11.0	40.5	40.5	11.0	40.5	40.5
Total Split (s)	20.0	51.0	51.0	13.0	44.0	44.0	13.0	42.0	42.0	24.0	53.0	53.0
Total Split (%)	15.4%	39.2%	39.2%	10.0%	33.8%	33.8%	10.0%	32.3%	32.3%	18.5%	40.8%	40.8%
Maximum Green (s)	15.0	44.6	44.6	9.0	37.6	37.6	9.0	35.5	35.5	20.0	46.5	46.5
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)	15.0	44.6	44.6	49.0	37.6	37.6	47.0	35.5	35.5	62.0	46.5	46.5
Actuated g/C Ratio	0.12	0.34	0.34	0.38	0.29	0.29	0.36	0.27	0.27	0.48	0.36	0.36
v/c Ratio	0.90	0.93	0.28	0.86	0.68	0.34	0.51	0.39	0.15	0.92	0.52	0.54
Control Delay	66.9	53.9	15.7	68.5	44.1	6.6	28.4	39.7	0.6	53.0	34.5	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.9	53.9	15.7	68.5	44.1	6.6	28.4	39.7	0.6	53.0	34.5	11.7
LOS	E	D	B	E	D	A	C	D	A	D	C	B
Approach Delay		53.0			41.1			32.6			33.8	
Approach LOS		D			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 115			
Control Type: Pretimed			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 42.2		Intersection LOS: D	
Intersection Capacity Utilization 103.1%		ICU Level of Service G	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 6: Trafalgar Road & Dundas Street East

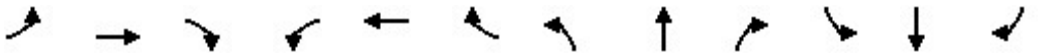




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	353	1418	168	146	826	189	133	445	82	404	807	377
v/c Ratio	0.90	0.93	0.28	0.86	0.68	0.34	0.51	0.39	0.15	0.92	0.52	0.54
Control Delay	66.9	53.9	15.7	68.5	44.1	6.6	28.4	39.7	0.6	53.0	34.5	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.9	53.9	15.7	68.5	44.1	6.6	28.4	39.7	0.6	53.0	34.5	11.7
Queue Length 50th (m)	47.1	153.0	16.3	21.9	78.0	0.0	19.0	38.8	0.0	70.7	67.6	17.0
Queue Length 95th (m)	m#72.2	#184.8	m36.2	#60.0	95.4	17.1	31.5	50.9	0.0	#129.9	82.8	47.1
Internal Link Dist (m)		524.5			186.0			84.1			390.9	
Turn Bay Length (m)	110.0		83.0	160.0		75.0	120.0		50.0	40.0		50.0
Base Capacity (vph)	392	1520	591	170	1223	548	260	1134	547	441	1541	694
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.93	0.28	0.86	0.68	0.34	0.51	0.39	0.15	0.92	0.52	0.54

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	335	1347	160	139	785	180	126	423	78	384	767	358
Future Volume (vph)	335	1347	160	139	785	180	126	423	78	384	767	358
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lane Util. Factor	0.97	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3404	4433	1449	1644	4230	1432	1659	4154	1550	1601	4309	1439
Flt Permitted	0.95	1.00	1.00	0.11	1.00	1.00	0.28	1.00	1.00	0.36	1.00	1.00
Satd. Flow (perm)	3404	4433	1449	184	4230	1432	497	4154	1550	606	4309	1439
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	353	1418	168	146	826	189	133	445	82	404	807	377
RTOR Reduction (vph)	0	0	94	0	0	134	0	0	60	0	0	180
Lane Group Flow (vph)	353	1418	74	146	826	55	133	445	22	404	807	197
Confl. Peds. (#/hr)			3	3			1		1	1		1
Heavy Vehicles (%)	4%	4%	11%	11%	9%	14%	10%	11%	4%	14%	7%	12%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Actuated Green, G (s)	15.0	44.6	44.6	46.6	37.6	37.6	44.5	35.5	35.5	59.5	46.5	46.5
Effective Green, g (s)	15.0	44.6	44.6	46.6	37.6	37.6	44.5	35.5	35.5	59.5	46.5	46.5
Actuated g/C Ratio	0.12	0.34	0.34	0.36	0.29	0.29	0.34	0.27	0.27	0.46	0.36	0.36
Clearance Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lane Grp Cap (vph)	392	1520	497	167	1223	414	250	1134	423	430	1541	514
v/s Ratio Prot	c0.10	c0.32		0.06	0.20		0.04	0.11		c0.14	0.19	
v/s Ratio Perm			0.05	0.25		0.04	0.14		0.01	c0.29		0.14
v/c Ratio	0.90	0.93	0.15	0.87	0.68	0.13	0.53	0.39	0.05	0.94	0.52	0.38
Uniform Delay, d1	56.8	41.3	29.6	33.2	40.8	34.1	30.6	38.5	34.9	28.0	33.0	31.1
Progression Factor	0.80	1.08	2.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	20.8	9.3	0.5	42.7	3.0	0.7	7.9	1.0	0.2	30.6	1.3	2.2
Delay (s)	66.2	53.8	62.4	75.9	43.8	34.8	38.5	39.5	35.1	58.6	34.3	33.2
Level of Service	E	D	E	E	D	C	D	D	D	E	C	C
Approach Delay (s)		56.8			46.4			38.7			40.2	
Approach LOS		E			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	47.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	21.9
Intersection Capacity Utilization	103.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	45	53	0	46	29
Future Volume (vph)	0	45	53	0	46	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.850					0.850
Flt Protected				0.950	0.950	
Satd. Flow (prot)	3042	0	0	3400	1789	1601
Flt Permitted				0.950	0.950	
Satd. Flow (perm)	3042	0	0	3400	1789	1601
Link Speed (k/h)	50			50	50	
Link Distance (m)	217.5			582.1	462.5	
Travel Time (s)	15.7			41.9	33.3	
Confl. Peds. (#/hr)		1			1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	49	58	0	50	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	49	0	0	58	50	32
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Stop			Stop	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.6%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	0	45	53	0	46	29
Future Volume (vph)	0	45	53	0	46	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	49	58	0	50	32

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	0	49	58	0	50	32
Volume Left (vph)	0	0	58	0	50	0
Volume Right (vph)	0	49	0	0	0	32
Hadj (s)	0.00	-0.67	0.53	0.00	0.53	-0.67
Departure Headway (s)	4.8	4.1	5.3	4.7	5.3	4.1
Degree Utilization, x	0.00	0.06	0.08	0.00	0.07	0.04
Capacity (veh/h)	754	852	661	756	659	846
Control Delay (s)	6.6	6.1	7.6	6.5	7.5	6.1
Approach Delay (s)	6.1		7.6		6.9	
Approach LOS	A		A		A	

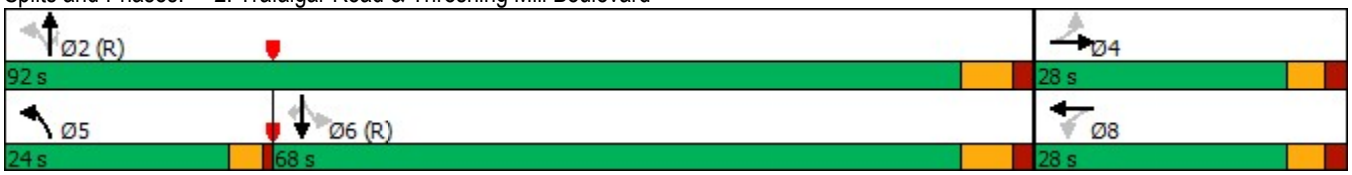
Intersection Summary			
Delay	6.9		
Level of Service	A		
Intersection Capacity Utilization	19.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	0	51	76	45	71	63	1343	179	64	1082	34
Future Volume (vph)	20	0	51	76	45	71	63	1343	179	64	1082	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0		0.0	45.0		0.0	55.0		55.0	55.0		55.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.908				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3042	0	1615	3249	0	1789	4433	1512	1825	4520	1570
Flt Permitted	0.675			0.721			0.148			0.147		
Satd. Flow (perm)	1271	3042	0	1226	3249	0	279	4433	1512	282	4520	1570
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		311			74				186			59
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		582.1			189.1			286.1			116.2	
Travel Time (s)		41.9			13.6			17.2			7.0	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	13%	2%	2%	2%	4%	8%	0%	2%	4%
Adj. Flow (vph)	21	0	53	79	47	74	66	1399	186	67	1127	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	53	0	79	121	0	66	1399	186	67	1127	35
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	21.5	21.5		21.5	21.5		8.0	41.6	41.6	41.6	41.6	41.6
Total Split (s)	28.0	28.0		28.0	28.0		24.0	92.0	92.0	68.0	68.0	68.0
Total Split (%)	23.3%	23.3%		23.3%	23.3%		20.0%	76.7%	76.7%	56.7%	56.7%	56.7%
Maximum Green (s)	22.5	22.5		22.5	22.5		20.0	85.4	85.4	61.4	61.4	61.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.0	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		1.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		4.0	6.6	6.6	6.6	6.6	6.6
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	0
Act Effct Green (s)	22.5	22.5		22.5	22.5		88.0	85.4	85.4	61.4	61.4	61.4
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.73	0.71	0.71	0.51	0.51	0.51

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.09	0.06		0.34	0.18		0.14	0.44	0.16	0.47	0.49	0.04
Control Delay	41.5	0.2		47.3	18.4		5.2	7.8	1.1	32.0	20.0	1.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.5	0.2		47.3	18.4		5.2	7.8	1.1	32.0	20.0	1.5
LOS	D	A		D	B		A	A	A	C	B	A
Approach Delay		11.9			29.8			7.0			20.1	
Approach LOS		B			C			A			C	

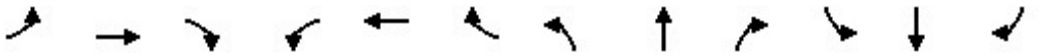
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 13.6		Intersection LOS: B	
Intersection Capacity Utilization 69.1%		ICU Level of Service C	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 2: Trafalgar Road & Threshing Mill Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	21	53	79	121	66	1399	186	67	1127	35
v/c Ratio	0.09	0.06	0.34	0.18	0.14	0.44	0.16	0.47	0.49	0.04
Control Delay	41.5	0.2	47.3	18.4	5.2	7.8	1.1	32.0	20.0	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.5	0.2	47.3	18.4	5.2	7.8	1.1	32.0	20.0	1.5
Queue Length 50th (m)	4.1	0.0	16.3	4.8	3.8	51.5	0.0	9.8	69.4	0.0
Queue Length 95th (m)	11.3	0.0	31.3	13.1	7.4	60.7	5.9	25.7	83.2	2.3
Internal Link Dist (m)		558.1		165.1		262.1			92.2	
Turn Bay Length (m)	45.0		45.0		55.0		55.0	55.0		55.0
Base Capacity (vph)	238	823	229	669	456	3154	1129	144	2312	832
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.06	0.34	0.18	0.14	0.44	0.16	0.47	0.49	0.04

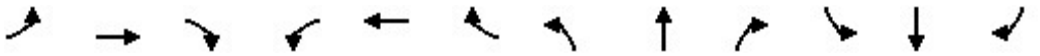
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	0	51	76	45	71	63	1343	179	64	1082	34
Future Volume (vph)	20	0	51	76	45	71	63	1343	179	64	1082	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		4.0	6.6	6.6	6.6	6.6	6.6
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	*0.80	1.00	1.00	*0.80	1.00
Frt	1.00	0.85		1.00	0.91		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1789	3042		1615	3250		1789	4433	1512	1825	4520	1570
Flt Permitted	0.68	1.00		0.72	1.00		0.15	1.00	1.00	0.15	1.00	1.00
Satd. Flow (perm)	1272	3042		1225	3250		278	4433	1512	283	4520	1570
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	21	0	53	79	47	74	66	1399	186	67	1127	35
RTOR Reduction (vph)	0	43	0	0	60	0	0	0	54	0	0	17
Lane Group Flow (vph)	21	10	0	79	61	0	66	1399	132	67	1127	18
Heavy Vehicles (%)	2%	2%	2%	13%	2%	2%	2%	4%	8%	0%	2%	4%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	22.5	22.5		22.5	22.5		85.4	85.4	85.4	61.4	61.4	61.4
Effective Green, g (s)	22.5	22.5		22.5	22.5		85.4	85.4	85.4	61.4	61.4	61.4
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.71	0.71	0.71	0.51	0.51	0.51
Clearance Time (s)	5.5	5.5		5.5	5.5		4.0	6.6	6.6	6.6	6.6	6.6
Lane Grp Cap (vph)	238	570		229	609		449	3154	1076	144	2312	803
v/s Ratio Prot		0.00			0.02		0.02	c0.32			c0.25	
v/s Ratio Perm	0.02			c0.06			0.08		0.09	0.24		0.01
v/c Ratio	0.09	0.02		0.34	0.10		0.15	0.44	0.12	0.47	0.49	0.02
Uniform Delay, d1	40.3	39.7		42.3	40.4		6.8	7.3	5.5	18.8	19.1	14.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1		4.1	0.3		0.7	0.5	0.2	10.4	0.7	0.1
Delay (s)	41.0	39.8		46.4	40.7		7.5	7.7	5.7	29.2	19.8	14.5
Level of Service	D	D		D	D		A	A	A	C	B	B
Approach Delay (s)		40.1			43.0			7.5			20.2	
Approach LOS		D			D			A			C	

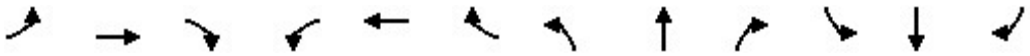
Intersection Summary			
HCM 2000 Control Delay	15.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.1
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	5	55	12	8	5	40	175	49	8	158	30
Future Volume (vph)	13	5	55	12	8	5	40	175	49	8	158	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.897			0.972			0.972			0.977	
Flt Protected		0.991			0.976			0.992			0.998	
Satd. Flow (prot)	0	1341	0	0	3319	0	0	3342	0	0	3430	0
Flt Permitted		0.991			0.976			0.992			0.998	
Satd. Flow (perm)	0	1341	0	0	3319	0	0	3342	0	0	3430	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		187.3			580.1			363.3			462.5	
Travel Time (s)		13.5			41.8			26.2			33.3	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	17%	49%	28%	0%	13%	0%	22%	3%	0%	0%	2%	14%
Adj. Flow (vph)	14	5	60	13	9	5	44	192	54	9	174	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	79	0	0	27	0	0	290	0	0	216	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.2%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	13	5	55	12	8	5	40	175	49	8	158	30
Future Volume (vph)	13	5	55	12	8	5	40	175	49	8	158	30
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	14	5	60	13	9	5	44	192	54	9	174	33

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	79	18	10	140	150	96	120
Volume Left (vph)	14	13	0	44	0	9	0
Volume Right (vph)	60	0	5	0	54	0	33
Hadj (s)	0.05	0.43	-0.26	0.31	-0.22	0.08	-0.10
Departure Headway (s)	5.7	6.2	5.5	5.3	4.8	5.2	5.0
Degree Utilization, x	0.13	0.03	0.01	0.21	0.20	0.14	0.17
Capacity (veh/h)	587	533	597	657	728	672	698
Control Delay (s)	9.5	8.2	7.4	8.5	7.8	7.8	7.8
Approach Delay (s)	9.5	7.9		8.1		7.8	
Approach LOS	A	A		A		A	

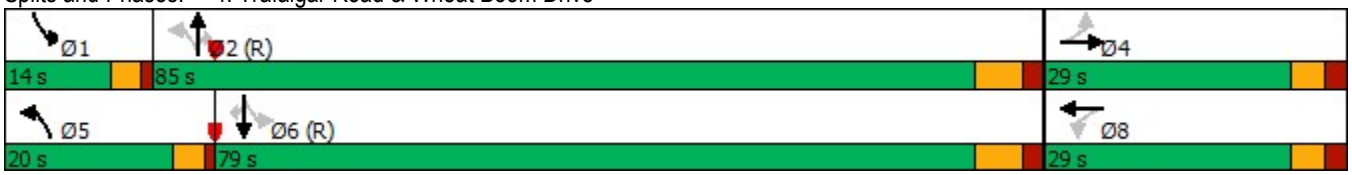
Intersection Summary				
Delay	8.2			
Level of Service	A			
Intersection Capacity Utilization	34.2%	ICU Level of Service	A	
Analysis Period (min)	15			

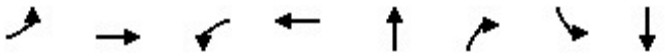
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	0	40	115	0	87	0	1484	119	88	1121	0
Future Volume (vph)	14	0	40	115	0	87	0	1484	119	88	1121	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0		0.0	45.0		0.0	55.0		55.0	55.0		55.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1789	3042	0	1825	2821	0	1883	4192	1512	1615	4230	1883
Flt Permitted	0.696			0.729						0.100		
Satd. Flow (perm)	1311	3042	0	1400	2821	0	1883	4192	1512	170	4230	1883
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		216			162				115			
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		580.1			206.4			414.9			286.1	
Travel Time (s)		41.8			14.9			24.9			17.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	0%	2%	10%	2%	10%	8%	13%	9%	2%
Adj. Flow (vph)	14	0	41	119	0	90	0	1530	123	91	1156	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	41	0	119	90	0	0	1530	123	91	1156	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	21.5	21.5		21.5	21.5		8.0	41.6	41.6	8.0	41.6	41.6
Total Split (s)	29.0	29.0		29.0	29.0		20.0	85.0	85.0	14.0	79.0	79.0
Total Split (%)	22.7%	22.7%		22.7%	22.7%		15.6%	66.4%	66.4%	10.9%	61.7%	61.7%
Maximum Green (s)	23.5	23.5		23.5	23.5		16.0	78.4	78.4	10.0	72.4	72.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		1.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		4.0	6.6	6.6	4.0	6.6	6.6
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			28.0	28.0		28.0	28.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)	23.5	23.5		23.5	23.5			78.4	78.4	85.0	72.4	
Actuated g/C Ratio	0.18	0.18		0.18	0.18			0.61	0.61	0.66	0.57	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.06	0.06		0.46	0.14			0.60	0.13	0.40	0.48	
Control Delay	44.1	0.1		53.4	0.4			16.3	2.4	12.3	17.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	44.1	0.1		53.4	0.4			16.3	2.4	12.3	17.5	
LOS	D	A		D	A			B	A	B	B	
Approach Delay		11.3			30.6			15.3			17.1	
Approach LOS		B			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 128			
Actuated Cycle Length: 128			
Offset: 111 (87%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 17.0		Intersection LOS: B	
Intersection Capacity Utilization 60.0%		ICU Level of Service B	
Analysis Period (min) 15			
* User Entered Value			

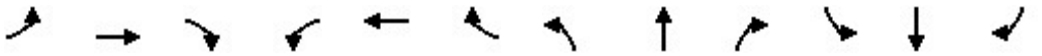
Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive





Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	14	41	119	90	1530	123	91	1156
v/c Ratio	0.06	0.06	0.46	0.14	0.60	0.13	0.40	0.48
Control Delay	44.1	0.1	53.4	0.4	16.3	2.4	12.3	17.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.1	0.1	53.4	0.4	16.3	2.4	12.3	17.5
Queue Length 50th (m)	3.0	0.0	27.1	0.0	92.5	0.8	5.5	69.5
Queue Length 95th (m)	9.0	0.0	46.6	0.0	108.0	8.1	11.1	82.6
Internal Link Dist (m)		556.1		182.4	390.9			262.1
Turn Bay Length (m)	45.0		45.0			55.0	55.0	
Base Capacity (vph)	240	734	257	650	2567	970	225	2392
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.06	0.46	0.14	0.60	0.13	0.40	0.48

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	0	40	115	0	87	0	1484	119	88	1121	0
Future Volume (vph)	14	0	40	115	0	87	0	1484	119	88	1121	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5			6.6	6.6	4.0	6.6	
Lane Util. Factor	1.00	0.95		1.00	0.95			*0.80	1.00	1.00	*0.80	
Frt	1.00	0.85		1.00	0.85			1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1789	3042		1825	2821			4192	1512	1615	4230	
Flt Permitted	0.70	1.00		0.73	1.00			1.00	1.00	0.10	1.00	
Satd. Flow (perm)	1310	3042		1400	2821			4192	1512	170	4230	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	14	0	41	119	0	90	0	1530	123	91	1156	0
RTOR Reduction (vph)	0	33	0	0	73	0	0	0	45	0	0	0
Lane Group Flow (vph)	14	8	0	119	17	0	0	1530	78	91	1156	0
Heavy Vehicles (%)	2%	2%	2%	0%	2%	10%	2%	10%	8%	13%	9%	2%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	23.5	23.5		23.5	23.5			78.4	78.4	82.4	72.4	
Effective Green, g (s)	23.5	23.5		23.5	23.5			78.4	78.4	82.4	72.4	
Actuated g/C Ratio	0.18	0.18		0.18	0.18			0.61	0.61	0.64	0.57	
Clearance Time (s)	5.5	5.5		5.5	5.5			6.6	6.6	4.0	6.6	
Lane Grp Cap (vph)	240	558		257	517			2567	926	222	2392	
v/s Ratio Prot		0.00			0.01			c0.37		c0.03	0.27	
v/s Ratio Perm	0.01			c0.08					0.05	0.23		
v/c Ratio	0.06	0.01		0.46	0.03			0.60	0.08	0.41	0.48	
Uniform Delay, d1	43.1	42.8		46.6	42.9			15.1	10.1	10.1	16.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.5	0.0		5.9	0.1			1.0	0.2	5.5	0.7	
Delay (s)	43.6	42.8		52.5	43.0			16.2	10.3	15.6	17.3	
Level of Service	D	D		D	D			B	B	B	B	
Approach Delay (s)		43.0			48.4			15.7			17.2	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	128.0	Sum of lost time (s)	16.1
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		

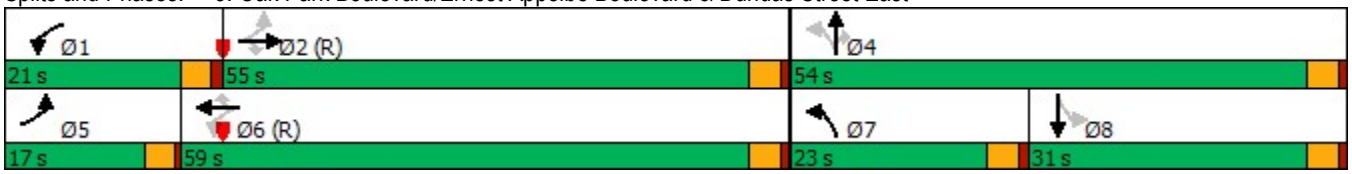
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	1377	209	204	1647	192	287	97	83	175	77	86
Future Volume (vph)	91	1377	209	204	1647	192	287	97	83	175	77	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		75.0	110.0		75.0	55.0		0.0	40.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor			0.95				0.98		0.97	0.99	0.98	
Frt			0.850			0.850			0.850		0.921	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	5142	1570	1825	5193	1633	1807	1883	1526	1807	3011	0
Flt Permitted	0.074			0.087			0.544			0.694		
Satd. Flow (perm)	142	5142	1491	167	5193	1633	1013	1883	1486	1303	3011	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			205			166			84		87	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		187.7			548.5			65.8			363.3	
Travel Time (s)		9.7			28.2			4.7			26.2	
Confl. Peds. (#/hr)			16	16			13		6	6		13
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	2%	4%	0%	1%	0%	1%	2%	7%	1%	7%	11%
Adj. Flow (vph)	92	1391	211	206	1664	194	290	98	84	177	78	87
Shared Lane Traffic (%)												
Lane Group Flow (vph)	92	1391	211	206	1664	194	290	98	84	177	165	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	7	4	4	8	8	
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	8.0	20.0	20.0	9.0	20.0	20.0	8.0	20.0	20.0	20.0	20.0	
Total Split (s)	17.0	55.0	55.0	21.0	59.0	59.0	23.0	54.0	54.0	31.0	31.0	
Total Split (%)	13.1%	42.3%	42.3%	16.2%	45.4%	45.4%	17.7%	41.5%	41.5%	23.8%	23.8%	
Maximum Green (s)	13.5	51.0	51.0	17.0	55.0	55.0	19.0	50.0	50.0	27.0	27.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	Max	Max	
Walk Time (s)		5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0	0	0	
Act Effct Green (s)	63.1	53.8	53.8	71.9	59.7	59.7	50.0	50.0	50.0	28.2	28.2	
Actuated g/C Ratio	0.49	0.41	0.41	0.55	0.46	0.46	0.38	0.38	0.38	0.22	0.22	
v/c Ratio	0.51	0.65	0.29	0.75	0.70	0.23	0.58	0.14	0.13	0.63	0.23	
Control Delay	28.4	32.8	4.8	18.2	27.4	8.4	34.8	26.7	5.7	57.8	21.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	28.4	32.8	4.8	18.2	27.4	8.4	34.8	26.7	5.7	57.8	21.3	
LOS	C	C	A	B	C	A	C	C	A	E	C	
Approach Delay		29.1			24.7			27.9			40.2	
Approach LOS		C			C			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 27.8		Intersection LOS: C	
Intersection Capacity Utilization 80.5%		ICU Level of Service D	
Analysis Period (min) 15			

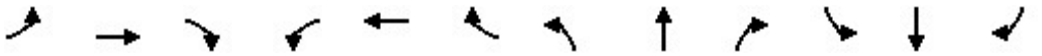
Splits and Phases: 5: Oak Park Boulevard/Ernest Appelbe Boulevard & Dundas Street East



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	92	1391	211	206	1664	194	290	98	84	177	165
v/c Ratio	0.51	0.65	0.29	0.75	0.70	0.23	0.58	0.14	0.13	0.63	0.23
Control Delay	28.4	32.8	4.8	18.2	27.4	8.4	34.8	26.7	5.7	57.8	21.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.4	32.8	4.8	18.2	27.4	8.4	34.8	26.7	5.7	57.8	21.3
Queue Length 50th (m)	10.5	105.1	0.9	22.4	151.7	18.7	54.0	16.2	0.0	41.9	8.6
Queue Length 95th (m)	23.9	124.5	16.2	m23.4	m149.7	m24.0	78.5	28.5	10.3	67.5	18.3
Internal Link Dist (m)		163.7			524.5			41.8			339.3
Turn Bay Length (m)	140.0		75.0	110.0		75.0	55.0			40.0	
Base Capacity (vph)	248	2128	737	309	2384	839	505	724	623	282	721
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.65	0.29	0.67	0.70	0.23	0.57	0.14	0.13	0.63	0.23

Intersection Summary

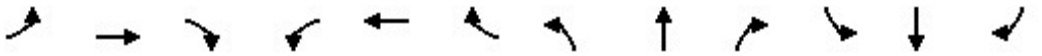
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	1377	209	204	1647	192	287	97	83	175	77	86
Future Volume (vph)	91	1377	209	204	1647	192	287	97	83	175	77	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.97	1.00	0.98	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1825	5142	1491	1825	5193	1633	1787	1883	1486	1784	3011	
Flt Permitted	0.07	1.00	1.00	0.09	1.00	1.00	0.54	1.00	1.00	0.69	1.00	
Satd. Flow (perm)	143	5142	1491	168	5193	1633	1023	1883	1486	1302	3011	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	92	1391	211	206	1664	194	290	98	84	177	78	87
RTOR Reduction (vph)	0	0	120	0	0	90	0	0	52	0	68	0
Lane Group Flow (vph)	92	1391	91	206	1664	104	290	98	32	177	97	0
Confl. Peds. (#/hr)			16	16			13		6	6		13
Heavy Vehicles (%)	0%	2%	4%	0%	1%	0%	1%	2%	7%	1%	7%	11%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	2		2	6		6	4		4	8		
Actuated Green, G (s)	62.6	53.8	53.8	72.0	59.7	59.7	50.0	50.0	50.0	28.2	28.2	
Effective Green, g (s)	62.6	53.8	53.8	72.0	59.7	59.7	50.0	50.0	50.0	28.2	28.2	
Actuated g/C Ratio	0.48	0.41	0.41	0.55	0.46	0.46	0.38	0.38	0.38	0.22	0.22	
Clearance Time (s)	3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	182	2127	617	274	2384	749	498	724	571	282	653	
v/s Ratio Prot	0.03	0.27		c0.08	0.32		c0.08	0.05			0.03	
v/s Ratio Perm	0.21		0.06	c0.33		0.06	c0.14		0.02	0.14		
v/c Ratio	0.51	0.65	0.15	0.75	0.70	0.14	0.58	0.14	0.06	0.63	0.15	
Uniform Delay, d1	22.3	30.6	23.8	27.9	28.0	20.3	29.5	26.0	25.2	46.1	41.2	
Progression Factor	1.00	1.00	1.00	0.47	0.94	1.72	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.2	1.6	0.5	3.9	0.6	0.1	1.7	0.4	0.2	10.1	0.5	
Delay (s)	24.5	32.2	24.3	17.1	26.9	35.0	31.3	26.4	25.4	56.3	41.7	
Level of Service	C	C	C	B	C	D	C	C	C	E	D	
Approach Delay (s)		30.8			26.7			29.2			49.2	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	30.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	80.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

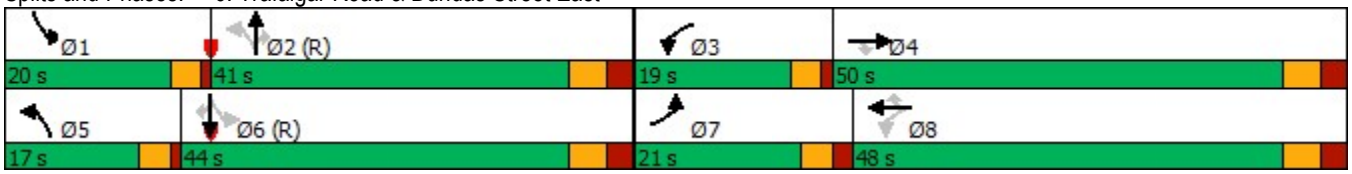


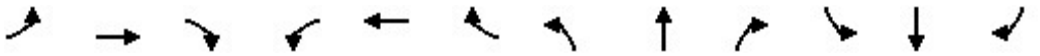
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	404	1387	96	234	1638	308	290	860	148	274	726	342
Future Volume (vph)	404	1387	96	234	1638	308	290	860	148	274	726	342
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	110.0		83.0	160.0		75.0	120.0		50.0	40.0		50.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor	1.00		0.98	1.00		0.99	1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3437	5092	1541	1789	5193	1555	1789	4520	1617	1706	4476	1601
Flt Permitted	0.950			0.096			0.229			0.118		
Satd. Flow (perm)	3437	5092	1512	181	5193	1535	431	4520	1617	212	4476	1576
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			97			227			118			255
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		548.5			210.0			108.1			414.9	
Travel Time (s)		28.2			10.8			6.5			24.9	
Confl. Peds. (#/hr)	1		6	6		1	3					3
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	6%	2%	1%	5%	2%	2%	1%	7%	3%	2%
Adj. Flow (vph)	416	1430	99	241	1689	318	299	887	153	282	748	353
Shared Lane Traffic (%)												
Lane Group Flow (vph)	416	1430	99	241	1689	318	299	887	153	282	748	353
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Minimum Split (s)	12.0	40.4	40.4	11.0	40.4	40.4	11.0	40.5	40.5	11.0	40.5	40.5
Total Split (s)	21.0	50.0	50.0	19.0	48.0	48.0	17.0	41.0	41.0	20.0	44.0	44.0
Total Split (%)	16.2%	38.5%	38.5%	14.6%	36.9%	36.9%	13.1%	31.5%	31.5%	15.4%	33.8%	33.8%
Maximum Green (s)	16.0	43.6	43.6	15.0	41.6	41.6	13.0	34.5	34.5	16.0	37.5	37.5
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)	16.0	43.6	43.6	59.0	41.6	41.6	50.0	34.5	34.5	56.0	37.5	37.5
Actuated g/C Ratio	0.12	0.34	0.34	0.45	0.32	0.32	0.38	0.27	0.27	0.43	0.29	0.29
v/c Ratio	0.98	0.84	0.17	0.90	1.02	0.49	0.99	0.74	0.30	1.03	0.58	0.56
Control Delay	77.5	43.7	8.8	68.4	70.0	13.1	80.1	48.1	12.3	94.5	41.7	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.5	43.7	8.8	68.4	70.0	13.1	80.1	48.1	12.3	94.5	41.7	14.5
LOS	E	D	A	E	E	B	F	D	B	F	D	B
Approach Delay		49.2			61.8			51.1			45.5	
Approach LOS		D			E			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 125			
Control Type: Pretimed			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay: 52.9		Intersection LOS: D	
Intersection Capacity Utilization 105.8%		ICU Level of Service G	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 6: Trafalgar Road & Dundas Street East





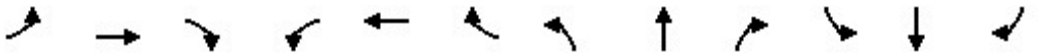
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	416	1430	99	241	1689	318	299	887	153	282	748	353
v/c Ratio	0.98	0.84	0.17	0.90	1.02	0.49	0.99	0.74	0.30	1.03	0.58	0.56
Control Delay	77.5	43.7	8.8	68.4	70.0	13.1	80.1	48.1	12.3	94.5	41.7	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.5	43.7	8.8	68.4	70.0	13.1	80.1	48.1	12.3	94.5	41.7	14.5
Queue Length 50th (m)	49.1	140.8	10.0	44.7	~167.2	16.9	50.8	86.8	6.8	~59.0	68.3	19.1
Queue Length 95th (m)	#85.5	156.7	m18.3	#92.4	#196.9	43.6	#100.5	105.2	23.9	#114.2	84.1	49.5
Internal Link Dist (m)		524.5			186.0			84.1			390.9	
Turn Bay Length (m)	110.0		83.0	160.0		75.0	120.0		50.0	40.0		50.0
Base Capacity (vph)	423	1707	571	267	1661	645	301	1199	515	275	1291	636
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.84	0.17	0.90	1.02	0.49	0.99	0.74	0.30	1.03	0.58	0.56

Intersection Summary

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

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

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	404	1387	96	234	1638	308	290	860	148	274	726	342
Future Volume (vph)	404	1387	96	234	1638	308	290	860	148	274	726	342
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3437	5092	1512	1789	5193	1535	1789	4520	1617	1706	4476	1576
Flt Permitted	0.95	1.00	1.00	0.10	1.00	1.00	0.23	1.00	1.00	0.12	1.00	1.00
Satd. Flow (perm)	3437	5092	1512	181	5193	1535	430	4520	1617	212	4476	1576
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	416	1430	99	241	1689	318	299	887	153	282	748	353
RTOR Reduction (vph)	0	0	64	0	0	154	0	0	87	0	0	181
Lane Group Flow (vph)	416	1430	35	241	1689	164	299	887	66	282	748	172
Confl. Peds. (#/hr)	1		6	6		1	3					3
Heavy Vehicles (%)	3%	3%	6%	2%	1%	5%	2%	2%	1%	7%	3%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Actuated Green, G (s)	16.0	43.6	43.6	56.6	41.6	41.6	47.5	34.5	34.5	53.5	37.5	37.5
Effective Green, g (s)	16.0	43.6	43.6	56.6	41.6	41.6	47.5	34.5	34.5	53.5	37.5	37.5
Actuated g/C Ratio	0.12	0.34	0.34	0.44	0.32	0.32	0.37	0.27	0.27	0.41	0.29	0.29
Clearance Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lane Grp Cap (vph)	423	1707	507	264	1661	491	293	1199	429	271	1291	454
v/s Ratio Prot	c0.12	0.28		0.11	c0.33		0.10	0.20		c0.13	0.17	
v/s Ratio Perm			0.02	0.29		0.11	0.27		0.04	c0.30		0.11
v/c Ratio	0.98	0.84	0.07	0.91	1.02	0.33	1.02	0.74	0.15	1.04	0.58	0.38
Uniform Delay, d1	56.9	39.9	29.4	35.7	44.2	33.6	35.2	43.6	36.6	36.0	39.5	36.9
Progression Factor	0.69	0.98	1.36	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	36.6	4.4	0.2	36.8	26.4	1.8	57.9	4.1	0.8	65.6	1.9	2.4
Delay (s)	76.0	43.4	40.3	72.5	70.6	35.5	93.1	47.8	37.3	101.7	41.4	39.3
Level of Service	E	D	D	E	E	D	F	D	D	F	D	D
Approach Delay (s)		50.2			65.8			56.7			53.2	
Approach LOS		D			E			E			D	

Intersection Summary			
HCM 2000 Control Delay	57.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	21.9
Intersection Capacity Utilization	105.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

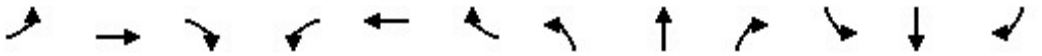
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	57	0	0	43	0
Future Volume (vph)	0	57	0	0	43	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.850					
Flt Protected					0.950	
Satd. Flow (prot)	2927	0	0	3650	1722	1921
Flt Permitted					0.950	
Satd. Flow (perm)	2927	0	0	3650	1722	1921
Link Speed (k/h)	50			50	50	
Link Distance (m)	217.5			582.1	462.5	
Travel Time (s)	15.7			41.9	33.3	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	6%	0%	0%	6%	0%
Adj. Flow (vph)	0	69	0	0	52	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	69	0	0	0	52	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Stop			Stop	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 13.3%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	0	57	0	0	43	0
Future Volume (vph)	0	57	0	0	43	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	0	69	0	0	52	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	0	69	0	0	52	0
Volume Left (vph)	0	0	0	0	52	0
Volume Right (vph)	0	69	0	0	0	0
Hadj (s)	0.00	-0.60	0.00	0.00	0.60	0.00
Departure Headway (s)	4.6	4.0	4.7	4.7	5.3	4.6
Degree Utilization, x	0.00	0.08	0.00	0.00	0.08	0.00
Capacity (veh/h)	775	866	766	766	668	772
Control Delay (s)	6.4	6.2	6.5	6.5	7.5	6.4
Approach Delay (s)	6.2		0.0		7.5	
Approach LOS	A		A		A	

Intersection Summary			
Delay	6.7		
Level of Service	A		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

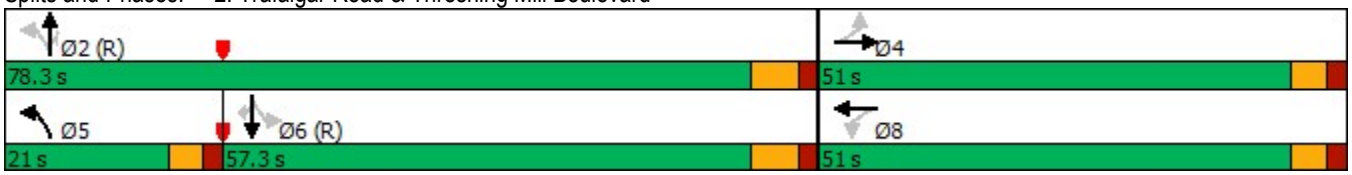


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	125	0	126	0	1015	58	32	1168	0
Future Volume (vph)	0	0	0	125	0	126	0	1015	58	32	1168	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0		0.0	45.0		0.0	55.0		55.0	55.0		55.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1883	3579	0	1560	3042	0	1883	4350	1498	1521	4269	1883
Flt Permitted				0.757						0.213		
Satd. Flow (perm)	1883	3579	0	1243	3042	0	1883	4350	1498	341	4269	1883
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					79				62			
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		582.1			189.1			286.1			116.2	
Travel Time (s)		41.9			13.6			17.2			7.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	17%	5%	2%	2%	6%	9%	20%	8%	2%
Adj. Flow (vph)	0	0	0	134	0	135	0	1091	62	34	1256	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	134	135	0	0	1091	62	34	1256	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm			Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	21.5	21.5		21.5	21.5		9.3	41.6	41.6	41.6	41.6	41.6
Total Split (s)	51.0	51.0		51.0	51.0		21.0	78.3	78.3	57.3	57.3	57.3
Total Split (%)	39.4%	39.4%		39.4%	39.4%		16.2%	60.6%	60.6%	44.3%	44.3%	44.3%
Maximum Green (s)	45.5	45.5		45.5	45.5		15.7	71.7	71.7	50.7	50.7	50.7
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		5.3	6.6	6.6	6.6	6.6	6.6
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	0
Act Effct Green (s)				45.5	45.5			71.7	71.7	50.7	50.7	
Actuated g/C Ratio				0.35	0.35			0.55	0.55	0.39	0.39	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio				0.31	0.12			0.45	0.07	0.26	0.75	
Control Delay				32.9	12.8			17.9	3.4	33.0	37.3	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				32.9	12.8			17.9	3.4	33.0	37.3	
LOS				C	B			B	A	C	D	
Approach Delay					22.8			17.1			37.2	
Approach LOS					C			B			D	

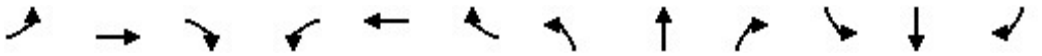
Intersection Summary			
Area Type:	Other		
Cycle Length: 129.3			
Actuated Cycle Length: 129.3			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 27.2		Intersection LOS: C	
Intersection Capacity Utilization 45.0%		ICU Level of Service A	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 2: Trafalgar Road & Threshing Mill Boulevard



Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	134	135	1091	62	34	1256
v/c Ratio	0.31	0.12	0.45	0.07	0.26	0.75
Control Delay	32.9	12.8	17.9	3.4	33.0	37.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.9	12.8	17.9	3.4	33.0	37.3
Queue Length 50th (m)	24.7	4.9	66.0	0.0	5.8	113.6
Queue Length 95th (m)	41.8	12.0	78.7	6.2	15.3	134.2
Internal Link Dist (m)		165.1	262.1			92.2
Turn Bay Length (m)	45.0			55.0	55.0	
Base Capacity (vph)	437	1121	2412	858	133	1673
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.12	0.45	0.07	0.26	0.75

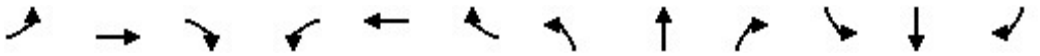
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	125	0	126	0	1015	58	32	1168	0
Future Volume (vph)	0	0	0	125	0	126	0	1015	58	32	1168	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.5	5.5			6.6	6.6	6.6	6.6	
Lane Util. Factor				1.00	0.95			*0.80	1.00	1.00	*0.80	
Frt				1.00	0.85			1.00	0.85	1.00	1.00	
Flt Protected				0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1560	3042			4350	1498	1521	4269	
Flt Permitted				0.76	1.00			1.00	1.00	0.21	1.00	
Satd. Flow (perm)				1243	3042			4350	1498	341	4269	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	0	134	0	135	0	1091	62	34	1256	0
RTOR Reduction (vph)	0	0	0	0	51	0	0	0	28	0	0	0
Lane Group Flow (vph)	0	0	0	134	84	0	0	1091	34	34	1256	0
Heavy Vehicles (%)	2%	2%	2%	17%	5%	2%	2%	6%	9%	20%	8%	2%
Turn Type	Perm			Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)				45.5	45.5			71.7	71.7	50.7	50.7	
Effective Green, g (s)				45.5	45.5			71.7	71.7	50.7	50.7	
Actuated g/C Ratio				0.35	0.35			0.55	0.55	0.39	0.39	
Clearance Time (s)				5.5	5.5			6.6	6.6	6.6	6.6	
Lane Grp Cap (vph)				437	1070			2412	830	133	1673	
v/s Ratio Prot					0.03			c0.25			c0.29	
v/s Ratio Perm				c0.11					0.02	0.10		
v/c Ratio				0.31	0.08			0.45	0.04	0.26	0.75	
Uniform Delay, d1				30.4	27.9			17.1	13.1	26.6	33.9	
Progression Factor				1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2				1.8	0.1			0.6	0.1	4.6	3.2	
Delay (s)				32.3	28.1			17.7	13.2	31.1	37.0	
Level of Service				C	C			B	B	C	D	
Approach Delay (s)		0.0			30.2			17.5			36.9	
Approach LOS		A			C			B			D	

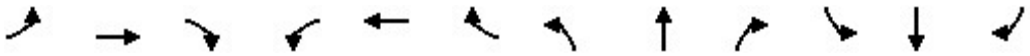
Intersection Summary			
HCM 2000 Control Delay	28.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	129.3	Sum of lost time (s)	17.4
Intersection Capacity Utilization	45.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	17	70	20	3	2	47	76	69	1	142	8
Future Volume (vph)	10	17	70	20	3	2	47	76	69	1	142	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.902			0.989			0.946			0.992	
Flt Protected		0.995			0.961			0.988				
Satd. Flow (prot)	0	1641	0	0	3469	0	0	3221	0	0	3521	0
Flt Permitted		0.995			0.961			0.988				
Satd. Flow (perm)	0	1641	0	0	3469	0	0	3221	0	0	3521	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		187.3			580.1			363.3			462.5	
Travel Time (s)		13.5			41.8			26.2			33.3	
Confl. Peds. (#/hr)			1	1			5		1	1		5
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	7%	0%	0%	0%	21%	2%	0%	0%	3%	0%
Adj. Flow (vph)	11	19	80	23	3	2	53	86	78	1	161	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	110	0	0	28	0	0	217	0	0	171	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.1%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	10	17	70	20	3	2	47	76	69	1	142	8
Future Volume (vph)	10	17	70	20	3	2	47	76	69	1	142	8
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	11	19	80	23	3	2	53	86	78	1	161	9

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	110	25	4	96	121	82	90
Volume Left (vph)	11	23	0	53	0	1	0
Volume Right (vph)	80	0	2	0	78	0	9
Hadj (s)	-0.33	0.47	-0.40	0.49	-0.44	0.06	-0.02
Departure Headway (s)	5.1	6.0	5.1	5.5	4.6	5.1	5.1
Degree Utilization, x	0.16	0.04	0.00	0.15	0.15	0.12	0.13
Capacity (veh/h)	660	556	646	630	754	672	685
Control Delay (s)	9.0	8.1	7.0	8.3	7.2	7.6	7.6
Approach Delay (s)	9.0	7.9		7.7		7.6	
Approach LOS	A	A		A		A	

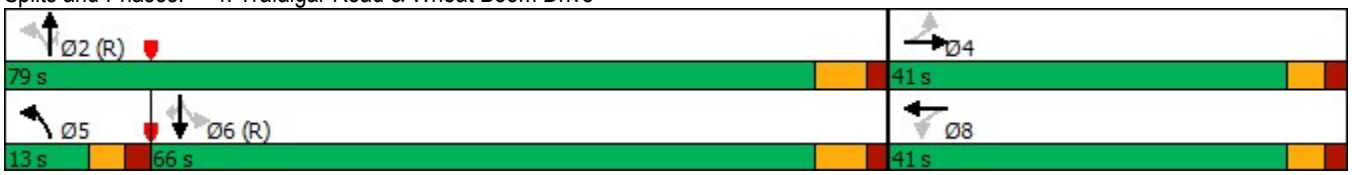
Intersection Summary				
Delay	8.0			
Level of Service	A			
Intersection Capacity Utilization	34.1%	ICU Level of Service	A	
Analysis Period (min)	15			

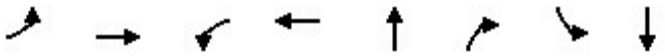
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	15	33	151	0	64	0	978	31	36	1258	0
Future Volume (vph)	32	15	33	151	0	64	0	978	31	36	1258	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0		0.0	45.0		0.0	55.0		55.0	55.0		55.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.897			0.850				0.850			
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1789	3210	0	1372	2821	0	1883	4044	1166	1141	4117	1883
Flt Permitted	0.710			0.722						0.223		
Satd. Flow (perm)	1337	3210	0	1043	2821	0	1883	4044	1166	268	4117	1883
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35			108				33			
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		580.1			206.4			414.9			286.1	
Travel Time (s)		41.8			14.9			24.9			17.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	33%	2%	10%	2%	14%	40%	60%	12%	2%
Adj. Flow (vph)	34	16	35	162	0	69	0	1052	33	39	1353	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	51	0	162	69	0	0	1052	33	39	1353	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	21.5	21.5		21.5	21.5		9.5	41.6	41.6	41.6	41.6	41.6
Total Split (s)	41.0	41.0		41.0	41.0		13.0	79.0	79.0	66.0	66.0	66.0
Total Split (%)	34.2%	34.2%		34.2%	34.2%		10.8%	65.8%	65.8%	55.0%	55.0%	55.0%
Maximum Green (s)	35.5	35.5		35.5	35.5		7.5	72.4	72.4	59.4	59.4	59.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.2	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		5.5	6.6	6.6	6.6	6.6	6.6
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	0
Act Effct Green (s)	35.5	35.5		35.5	35.5			72.4	72.4	59.4	59.4	
Actuated g/C Ratio	0.30	0.30		0.30	0.30			0.60	0.60	0.50	0.50	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.09	0.05		0.53	0.08			0.43	0.05	0.30	0.66	
Control Delay	31.4	14.2		42.6	1.8			13.4	3.4	25.6	24.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	31.4	14.2		42.6	1.8			13.4	3.4	25.6	24.8	
LOS	C	B		D	A			B	A	C	C	
Approach Delay		21.1			30.4			13.1			24.8	
Approach LOS		C			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 20.6		Intersection LOS: C	
Intersection Capacity Utilization 57.3%		ICU Level of Service B	
Analysis Period (min) 15			
* User Entered Value			

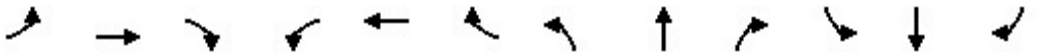
Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive





Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	34	51	162	69	1052	33	39	1353
v/c Ratio	0.09	0.05	0.53	0.08	0.43	0.05	0.30	0.66
Control Delay	31.4	14.2	42.6	1.8	13.4	3.4	25.6	24.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.4	14.2	42.6	1.8	13.4	3.4	25.6	24.8
Queue Length 50th (m)	5.8	1.4	31.8	0.0	52.0	0.0	5.3	96.8
Queue Length 95th (m)	13.7	6.1	54.2	1.9	63.2	4.0	14.6	115.4
Internal Link Dist (m)		556.1		182.4	390.9			262.1
Turn Bay Length (m)	45.0		45.0			55.0	55.0	
Base Capacity (vph)	395	974	308	910	2439	716	132	2037
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.05	0.53	0.08	0.43	0.05	0.30	0.66

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	15	33	151	0	64	0	978	31	36	1258	0
Future Volume (vph)	32	15	33	151	0	64	0	978	31	36	1258	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5			6.6	6.6	6.6	6.6	
Lane Util. Factor	1.00	0.95		1.00	0.95			*0.80	1.00	1.00	*0.80	
Frt	1.00	0.90		1.00	0.85			1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1789	3210		1372	2821			4044	1166	1141	4117	
Flt Permitted	0.71	1.00		0.72	1.00			1.00	1.00	0.22	1.00	
Satd. Flow (perm)	1337	3210		1043	2821			4044	1166	268	4117	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	34	16	35	162	0	69	0	1052	33	39	1353	0
RTOR Reduction (vph)	0	25	0	0	49	0	0	0	13	0	0	0
Lane Group Flow (vph)	34	26	0	162	20	0	0	1052	20	39	1353	0
Heavy Vehicles (%)	2%	2%	2%	33%	2%	10%	2%	14%	40%	60%	12%	2%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	35.5	35.5		35.5	35.5			72.4	72.4	59.4	59.4	
Effective Green, g (s)	35.5	35.5		35.5	35.5			72.4	72.4	59.4	59.4	
Actuated g/C Ratio	0.30	0.30		0.30	0.30			0.60	0.60	0.49	0.49	
Clearance Time (s)	5.5	5.5		5.5	5.5			6.6	6.6	6.6	6.6	
Lane Grp Cap (vph)	395	949		308	834			2439	703	132	2037	
v/s Ratio Prot		0.01			0.01			c0.26			c0.33	
v/s Ratio Perm	0.03			c0.16					0.02	0.15		
v/c Ratio	0.09	0.03		0.53	0.02			0.43	0.03	0.30	0.66	
Uniform Delay, d1	30.5	30.0		35.2	30.0			12.8	9.6	17.9	22.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.4	0.1		6.3	0.1			0.6	0.1	5.6	1.7	
Delay (s)	31.0	30.1		41.5	30.0			13.3	9.7	23.5	24.5	
Level of Service	C	C		D	C			B	A	C	C	
Approach Delay (s)		30.4			38.1			13.2			24.5	
Approach LOS		C			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.6
Intersection Capacity Utilization	57.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

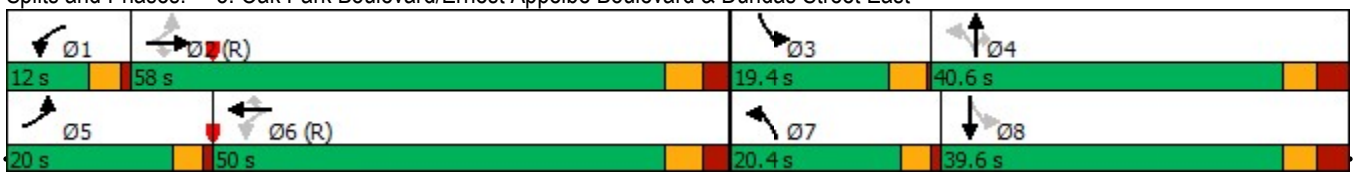
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	1882	134	81	1120	143	101	24	67	302	79	54
Future Volume (vph)	43	1882	134	81	1120	143	101	24	67	302	79	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		75.0	110.0		75.0	55.0		0.0	40.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00		0.99			0.98	1.00		0.98	1.00	0.99	
Frt			0.850			0.850			0.850		0.939	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1313	4476	1541	1738	4230	1555	1644	1746	1384	1789	3174	0
Flt Permitted	0.167			0.052			0.664			0.508		
Satd. Flow (perm)	231	4476	1520	95	4230	1531	1144	1746	1361	953	3174	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			97			139			128		56	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		187.7			548.5			65.8			363.3	
Travel Time (s)		9.7			28.2			4.7			26.2	
Confl. Peds. (#/hr)	3		1	1		3	2		4	4		2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	39%	3%	6%	5%	9%	5%	11%	10%	18%	2%	6%	9%
Adj. Flow (vph)	45	1960	140	84	1167	149	105	25	70	315	82	56
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	1960	140	84	1167	149	105	25	70	315	138	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	4.0	20.0	20.0	7.0	20.0	20.0	6.0	10.0	10.0	4.0	10.0	
Minimum Split (s)	8.0	38.3	38.3	12.0	38.3	38.3	10.0	40.6	40.6	8.0	24.6	
Total Split (s)	20.0	58.0	58.0	12.0	50.0	50.0	20.4	40.6	40.6	19.4	39.6	
Total Split (%)	15.4%	44.6%	44.6%	9.2%	38.5%	38.5%	15.7%	31.2%	31.2%	14.9%	30.5%	
Maximum Green (s)	16.0	51.7	51.7	8.0	43.7	43.7	16.4	34.0	34.0	15.4	33.0	
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.3	3.3	3.5	3.3	
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	1.0	3.3	3.3	0.5	3.3	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.3	6.3	4.0	6.3	6.3	4.0	6.6	6.6	4.0	6.6	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	5.5	5.5	3.0	5.5	5.5	3.0	5.0	5.0	3.0	3.5	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	
Flash Dont Walk (s)		25.0	25.0		25.0	25.0		27.0	27.0		7.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	
Act Effct Green (s)	85.2	76.0	76.0	88.6	79.3	79.3	23.1	10.7	10.7	29.6	12.5	
Actuated g/C Ratio	0.66	0.58	0.58	0.68	0.61	0.61	0.18	0.08	0.08	0.23	0.10	
v/c Ratio	0.22	0.75	0.15	0.49	0.45	0.15	0.42	0.17	0.31	0.96	0.39	
Control Delay	9.5	23.1	5.4	44.0	7.5	0.5	45.7	57.9	3.4	87.4	35.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	9.5	23.1	5.4	44.0	7.5	0.5	45.7	57.9	3.4	87.4	35.9	
LOS	A	C	A	D	A	A	D	E	A	F	D	
Approach Delay		21.7			8.9			32.4			71.7	
Approach LOS		C			A			C			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 23.3		Intersection LOS: C	
Intersection Capacity Utilization 87.2%		ICU Level of Service E	
Analysis Period (min) 15			

* User Entered Value

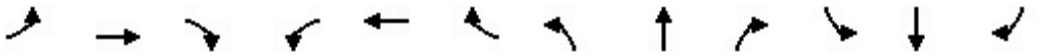
Splits and Phases: 5: Oak Park Boulevard/Ernest Appelbe Boulevard & Dundas Street East



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	45	1960	140	84	1167	149	105	25	70	315	138
v/c Ratio	0.22	0.75	0.15	0.49	0.45	0.15	0.42	0.17	0.31	0.96	0.39
Control Delay	9.5	23.1	5.4	44.0	7.5	0.5	45.7	57.9	3.4	87.4	35.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	23.1	5.4	44.0	7.5	0.5	45.7	57.9	3.4	87.4	35.9
Queue Length 50th (m)	3.4	146.7	4.5	8.4	35.6	0.0	21.8	6.1	0.0	74.3	10.3
Queue Length 95th (m)	7.9	194.5	15.4	m13.9	105.3	m2.2	36.6	14.8	0.0	#108.7	20.8
Internal Link Dist (m)		163.7			524.5			41.8			339.3
Turn Bay Length (m)	140.0		75.0	110.0		75.0	55.0			40.0	
Base Capacity (vph)	294	2615	928	177	2580	988	302	456	450	328	847
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.75	0.15	0.47	0.45	0.15	0.35	0.05	0.16	0.96	0.16

Intersection Summary

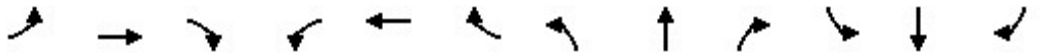
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	1882	134	81	1120	143	101	24	67	302	79	54
Future Volume (vph)	43	1882	134	81	1120	143	101	24	67	302	79	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.3	6.3	4.0	6.3	6.3	4.0	6.6	6.6	4.0	6.6	
Lane Util. Factor	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	1.00	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.98	1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1313	4476	1520	1738	4230	1531	1639	1746	1361	1786	3175	
Flt Permitted	0.17	1.00	1.00	0.05	1.00	1.00	0.66	1.00	1.00	0.51	1.00	
Satd. Flow (perm)	230	4476	1520	95	4230	1531	1147	1746	1361	954	3175	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	45	1960	140	84	1167	149	105	25	70	315	82	56
RTOR Reduction (vph)	0	0	41	0	0	56	0	0	65	0	50	0
Lane Group Flow (vph)	45	1960	99	84	1167	93	105	25	5	315	88	0
Confl. Peds. (#/hr)	3		1	1		3	2		4	4		2
Heavy Vehicles (%)	39%	3%	6%	5%	9%	5%	11%	10%	18%	2%	6%	9%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		
Actuated Green, G (s)	80.6	74.7	74.7	85.6	77.2	77.2	20.9	8.7	8.7	30.0	13.8	
Effective Green, g (s)	80.6	74.7	74.7	85.6	77.2	77.2	20.9	8.7	8.7	30.0	13.8	
Actuated g/C Ratio	0.62	0.57	0.57	0.66	0.59	0.59	0.16	0.07	0.07	0.23	0.11	
Clearance Time (s)	4.0	6.3	6.3	4.0	6.3	6.3	4.0	6.6	6.6	4.0	6.6	
Vehicle Extension (s)	3.0	5.5	5.5	3.0	5.5	5.5	3.0	5.0	5.0	3.0	3.5	
Lane Grp Cap (vph)	191	2571	873	168	2511	909	230	116	91	330	337	
v/s Ratio Prot	0.01	c0.44		c0.03	0.28		0.04	0.01		c0.13	0.03	
v/s Ratio Perm	0.13		0.06	0.30		0.06	0.03		0.00	c0.09		
v/c Ratio	0.24	0.76	0.11	0.50	0.46	0.10	0.46	0.22	0.05	0.95	0.26	
Uniform Delay, d1	10.3	20.9	12.6	19.4	14.8	11.4	48.9	57.4	56.8	47.7	53.4	
Progression Factor	1.00	1.00	1.00	2.39	0.48	0.11	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.6	2.2	0.3	1.6	0.4	0.2	1.4	2.0	0.5	37.3	0.5	
Delay (s)	10.9	23.1	12.8	47.9	7.5	1.4	50.4	59.4	57.3	85.0	53.9	
Level of Service	B	C	B	D	A	A	D	E	E	F	D	
Approach Delay (s)		22.2			9.3			53.9			75.5	
Approach LOS		C			A			D			E	

Intersection Summary			
HCM 2000 Control Delay	25.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	20.9
Intersection Capacity Utilization	87.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

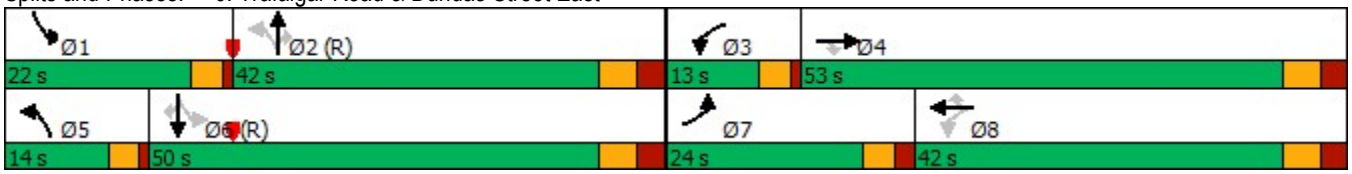


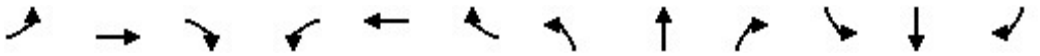
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	364	1486	176	151	864	197	137	431	86	398	760	376
Future Volume (vph)	364	1486	176	151	864	197	137	431	86	398	760	376
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	110.0		83.0	160.0		75.0	120.0		50.0	40.0		50.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98	1.00			1.00		0.99	1.00		0.99
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3404	4433	1471	1644	4230	1432	1659	4154	1570	1601	4309	1458
Flt Permitted	0.950			0.112			0.257			0.353		
Satd. Flow (perm)	3404	4433	1449	194	4230	1432	449	4154	1550	595	4309	1439
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			146			207			171			331
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		548.5			210.0			108.1			414.9	
Travel Time (s)		28.2			10.8			6.5			24.9	
Confl. Peds. (#/hr)			3	3			1		1	1		1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	4%	11%	11%	9%	14%	10%	11%	4%	14%	7%	12%
Adj. Flow (vph)	383	1564	185	159	909	207	144	454	91	419	800	396
Shared Lane Traffic (%)												
Lane Group Flow (vph)	383	1564	185	159	909	207	144	454	91	419	800	396
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Minimum Split (s)	12.0	40.4	40.4	11.0	40.4	40.4	11.0	40.5	40.5	11.0	40.5	40.5
Total Split (s)	24.0	53.0	53.0	13.0	42.0	42.0	14.0	42.0	42.0	22.0	50.0	50.0
Total Split (%)	18.5%	40.8%	40.8%	10.0%	32.3%	32.3%	10.8%	32.3%	32.3%	16.9%	38.5%	38.5%
Maximum Green (s)	19.0	46.6	46.6	9.0	35.6	35.6	10.0	35.5	35.5	18.0	43.5	43.5
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)	19.0	46.6	46.6	47.0	35.6	35.6	48.0	35.5	35.5	60.0	43.5	43.5
Actuated g/C Ratio	0.15	0.36	0.36	0.36	0.27	0.27	0.37	0.27	0.27	0.46	0.33	0.33
v/c Ratio	0.77	0.98	0.30	0.94	0.78	0.38	0.56	0.40	0.17	1.01	0.56	0.56
Control Delay	48.7	58.6	15.2	84.7	49.4	6.9	30.7	39.8	0.7	77.5	37.1	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.7	58.6	15.2	84.7	49.4	6.9	30.7	39.8	0.7	77.5	37.1	9.9
LOS	D	E	B	F	D	A	C	D	A	E	D	A
Approach Delay		53.0			46.9			32.8			40.9	
Approach LOS		D			D			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 115			
Control Type: Pretimed			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 45.8		Intersection LOS: D	
Intersection Capacity Utilization 104.9%		ICU Level of Service G	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 6: Trafalgar Road & Dundas Street East





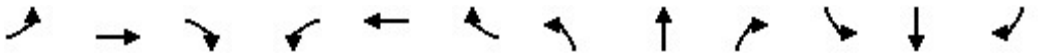
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	383	1564	185	159	909	207	144	454	91	419	800	396
v/c Ratio	0.77	0.98	0.30	0.94	0.78	0.38	0.56	0.40	0.17	1.01	0.56	0.56
Control Delay	48.7	58.6	15.2	84.7	49.4	6.9	30.7	39.8	0.7	77.5	37.1	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.7	58.6	15.2	84.7	49.4	6.9	30.7	39.8	0.7	77.5	37.1	9.9
Queue Length 50th (m)	50.0	174.5	19.5	25.3	90.0	0.0	21.3	39.6	0.0	~78.5	69.5	11.6
Queue Length 95th (m)	m60.8	m#206.2	m32.2	#67.9	108.9	18.4	34.9	51.8	0.0	#155.1	85.2	40.9
Internal Link Dist (m)		524.5			186.0			84.1			390.9	
Turn Bay Length (m)	110.0		83.0	160.0		75.0	120.0		50.0	40.0		50.0
Base Capacity (vph)	497	1589	613	170	1158	542	258	1134	547	413	1441	701
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.98	0.30	0.94	0.78	0.38	0.56	0.40	0.17	1.01	0.56	0.56

Intersection Summary

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

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

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	364	1486	176	151	864	197	137	431	86	398	760	376
Future Volume (vph)	364	1486	176	151	864	197	137	431	86	398	760	376
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lane Util. Factor	0.97	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3404	4433	1449	1644	4230	1432	1659	4154	1550	1601	4309	1439
Flt Permitted	0.95	1.00	1.00	0.11	1.00	1.00	0.26	1.00	1.00	0.35	1.00	1.00
Satd. Flow (perm)	3404	4433	1449	194	4230	1432	450	4154	1550	595	4309	1439
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	383	1564	185	159	909	207	144	454	91	419	800	396
RTOR Reduction (vph)	0	0	94	0	0	150	0	0	66	0	0	220
Lane Group Flow (vph)	383	1564	91	159	909	57	144	454	25	419	800	176
Confl. Peds. (#/hr)			3	3			1		1	1		1
Heavy Vehicles (%)	4%	4%	11%	11%	9%	14%	10%	11%	4%	14%	7%	12%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Actuated Green, G (s)	19.0	46.6	46.6	44.6	35.6	35.6	45.5	35.5	35.5	57.5	43.5	43.5
Effective Green, g (s)	19.0	46.6	46.6	44.6	35.6	35.6	45.5	35.5	35.5	57.5	43.5	43.5
Actuated g/C Ratio	0.15	0.36	0.36	0.34	0.27	0.27	0.35	0.27	0.27	0.44	0.33	0.33
Clearance Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lane Grp Cap (vph)	497	1589	519	166	1158	392	250	1134	423	402	1441	481
v/s Ratio Prot	0.11	c0.35		c0.07	0.21		0.04	0.11		c0.14	0.19	
v/s Ratio Perm			0.06	0.26		0.04	0.16		0.02	c0.32		0.12
v/c Ratio	0.77	0.98	0.18	0.96	0.78	0.14	0.58	0.40	0.06	1.04	0.56	0.37
Uniform Delay, d1	53.4	41.3	28.6	35.4	43.7	35.7	30.2	38.6	34.9	31.3	35.3	32.8
Progression Factor	0.77	1.07	1.86	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.1	14.6	0.5	59.5	5.4	0.8	9.3	1.1	0.3	56.3	1.5	2.1
Delay (s)	48.3	58.7	53.5	94.9	49.0	36.5	39.5	39.6	35.2	87.6	36.9	34.9
Level of Service	D	E	D	F	D	D	D	D	D	F	D	C
Approach Delay (s)		56.4			52.7			39.0			49.6	
Approach LOS		E			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	51.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	21.9
Intersection Capacity Utilization	104.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

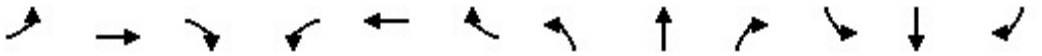
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	49	15	0	51	0
Future Volume (vph)	0	49	15	0	51	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.850					
Flt Protected				0.950	0.950	
Satd. Flow (prot)	3042	0	0	3400	1789	1883
Flt Permitted				0.950	0.950	
Satd. Flow (perm)	3042	0	0	3400	1789	1883
Link Speed (k/h)	50			50	50	
Link Distance (m)	217.5			582.1	462.5	
Travel Time (s)	15.7			41.9	33.3	
Confl. Peds. (#/hr)		1			1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	53	16	0	55	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	0	0	16	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Stop			Stop	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	17.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	0	49	15	0	51	0
Future Volume (vph)	0	49	15	0	51	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	53	16	0	55	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	0	53	16	0	55	0
Volume Left (vph)	0	0	16	0	55	0
Volume Right (vph)	0	53	0	0	0	0
Hadj (s)	0.00	-0.67	0.53	0.00	0.53	0.00
Departure Headway (s)	4.7	4.0	5.2	4.7	5.2	4.7
Degree Utilization, x	0.00	0.06	0.02	0.00	0.08	0.00
Capacity (veh/h)	771	875	668	767	676	771
Control Delay (s)	6.5	6.1	7.1	6.5	7.4	6.5
Approach Delay (s)	6.1		7.1		7.4	
Approach LOS	A		A		A	

Intersection Summary				
Delay	6.8			
Level of Service	A			
Intersection Capacity Utilization	17.5%	ICU Level of Service		A
Analysis Period (min)	15			

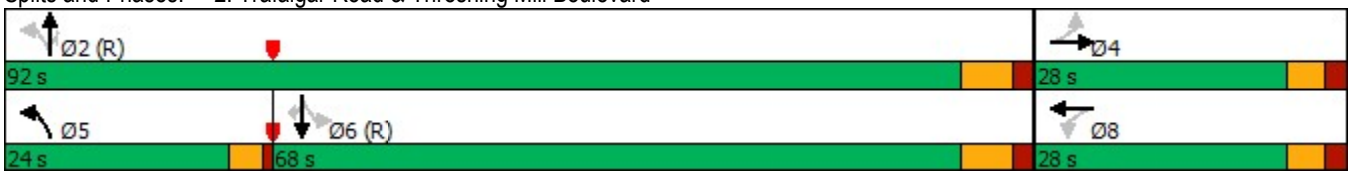


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	80	15	77	0	1475	186	66	1182	0
Future Volume (vph)	0	0	0	80	15	77	0	1475	186	66	1182	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0		0.0	45.0		0.0	55.0		55.0	55.0		55.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.875				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1883	3579	0	1615	3131	0	1883	4433	1512	1825	4520	1847
Flt Permitted				0.757						0.124		
Satd. Flow (perm)	1883	3579	0	1287	3131	0	1883	4433	1512	238	4520	1847
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					61				194			
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		582.1			189.1			286.1			116.2	
Travel Time (s)		41.9			13.6			17.2			7.0	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	13%	2%	2%	2%	4%	8%	0%	2%	4%
Adj. Flow (vph)	0	0	0	83	16	80	0	1536	194	69	1231	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	83	96	0	0	1536	194	69	1231	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm			Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	21.5	21.5		21.5	21.5		8.0	41.6	41.6	41.6	41.6	41.6
Total Split (s)	28.0	28.0		28.0	28.0		24.0	92.0	92.0	68.0	68.0	68.0
Total Split (%)	23.3%	23.3%		23.3%	23.3%		20.0%	76.7%	76.7%	56.7%	56.7%	56.7%
Maximum Green (s)	22.5	22.5		22.5	22.5		20.0	85.4	85.4	61.4	61.4	61.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.0	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		1.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		4.0	6.6	6.6	6.6	6.6	6.6
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	0
Act Effct Green (s)				22.5	22.5			85.4	85.4	61.4	61.4	
Actuated g/C Ratio				0.19	0.19			0.71	0.71	0.51	0.51	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio				0.34	0.15			0.49	0.17	0.57	0.53	
Control Delay				47.1	18.2			8.3	1.1	42.4	20.7	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				47.1	18.2			8.3	1.1	42.4	20.7	
LOS				D	B			A	A	D	C	
Approach Delay					31.6			7.5			21.9	
Approach LOS					C			A			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 14.6		Intersection LOS: B	
Intersection Capacity Utilization 69.1%		ICU Level of Service C	
Analysis Period (min) 15			
* User Entered Value			

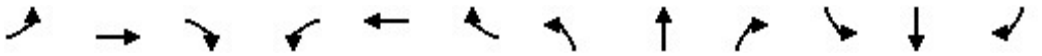
Splits and Phases: 2: Trafalgar Road & Threshing Mill Boulevard



Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	83	96	1536	194	69	1231
v/c Ratio	0.34	0.15	0.49	0.17	0.57	0.53
Control Delay	47.1	18.2	8.3	1.1	42.4	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.1	18.2	8.3	1.1	42.4	20.7
Queue Length 50th (m)	17.2	3.6	59.1	0.0	10.8	78.3
Queue Length 95th (m)	32.6	11.0	69.4	6.0	#33.9	93.1
Internal Link Dist (m)		165.1	262.1			92.2
Turn Bay Length (m)	45.0			55.0	55.0	
Base Capacity (vph)	241	636	3154	1131	121	2312
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.15	0.49	0.17	0.57	0.53

Intersection Summary

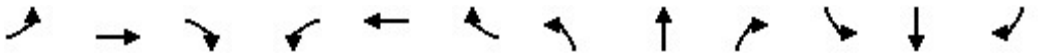
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	80	15	77	0	1475	186	66	1182	0
Future Volume (vph)	0	0	0	80	15	77	0	1475	186	66	1182	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.5	5.5			6.6	6.6	6.6	6.6	
Lane Util. Factor				1.00	0.95			*0.80	1.00	1.00	*0.80	
Frt				1.00	0.88			1.00	0.85	1.00	1.00	
Flt Protected				0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1615	3131			4433	1512	1825	4520	
Flt Permitted				0.76	1.00			1.00	1.00	0.12	1.00	
Satd. Flow (perm)				1287	3131			4433	1512	239	4520	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	83	16	80	0	1536	194	69	1231	0
RTOR Reduction (vph)	0	0	0	0	50	0	0	0	56	0	0	0
Lane Group Flow (vph)	0	0	0	83	46	0	0	1536	138	69	1231	0
Heavy Vehicles (%)	2%	2%	2%	13%	2%	2%	2%	4%	8%	0%	2%	4%
Turn Type	Perm			Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)				22.5	22.5			85.4	85.4	61.4	61.4	
Effective Green, g (s)				22.5	22.5			85.4	85.4	61.4	61.4	
Actuated g/C Ratio				0.19	0.19			0.71	0.71	0.51	0.51	
Clearance Time (s)				5.5	5.5			6.6	6.6	6.6	6.6	
Lane Grp Cap (vph)				241	587			3154	1076	122	2312	
v/s Ratio Prot					0.01			c0.35			0.27	
v/s Ratio Perm				c0.06					0.09	c0.29		
v/c Ratio				0.34	0.08			0.49	0.13	0.57	0.53	
Uniform Delay, d1				42.3	40.2			7.6	5.5	20.1	19.7	
Progression Factor				1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2				3.9	0.3			0.5	0.2	17.6	0.9	
Delay (s)				46.2	40.5			8.2	5.7	37.8	20.5	
Level of Service				D	D			A	A	D	C	
Approach Delay (s)		0.0			43.1			7.9			21.5	
Approach LOS		A			D			A			C	

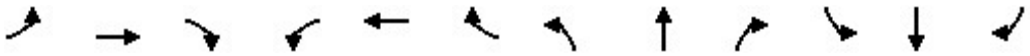
Intersection Summary			
HCM 2000 Control Delay	15.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.1
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	6	60	13	9	6	45	160	50	9	143	32
Future Volume (vph)	14	6	60	13	9	6	45	160	50	9	143	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.899			0.966			0.971			0.974	
Flt Protected		0.992			0.978			0.991			0.998	
Satd. Flow (prot)	0	1341	0	0	3310	0	0	3322	0	0	3412	0
Flt Permitted		0.992			0.978			0.991			0.998	
Satd. Flow (perm)	0	1341	0	0	3310	0	0	3322	0	0	3412	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		187.3			580.1			363.3			462.5	
Travel Time (s)		13.5			41.8			26.2			33.3	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	17%	49%	28%	0%	13%	0%	22%	3%	0%	0%	2%	14%
Adj. Flow (vph)	15	7	66	14	10	7	49	176	55	10	157	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	88	0	0	31	0	0	280	0	0	202	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.0%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	14	6	60	13	9	6	45	160	50	9	143	32
Future Volume (vph)	14	6	60	13	9	6	45	160	50	9	143	32
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	15	7	66	14	10	7	49	176	55	10	157	35

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	88	19	12	137	143	89	114
Volume Left (vph)	15	14	0	49	0	10	0
Volume Right (vph)	66	0	7	0	55	0	35
Hadj (s)	0.06	0.43	-0.32	0.35	-0.24	0.09	-0.12
Departure Headway (s)	5.7	6.2	5.4	5.4	4.8	5.2	5.0
Degree Utilization, x	0.14	0.03	0.02	0.20	0.19	0.13	0.16
Capacity (veh/h)	591	538	607	649	726	665	695
Control Delay (s)	9.6	8.2	7.3	8.6	7.7	7.8	7.7
Approach Delay (s)	9.6	7.8		8.1		7.7	
Approach LOS	A	A		A		A	

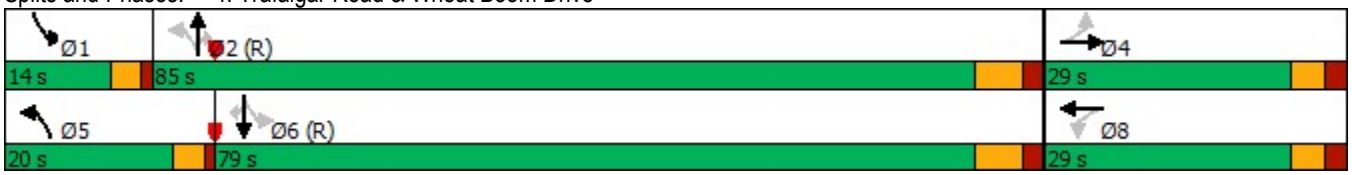
Intersection Summary				
Delay	8.2			
Level of Service	A			
Intersection Capacity Utilization	34.0%	ICU Level of Service	A	
Analysis Period (min)	15			

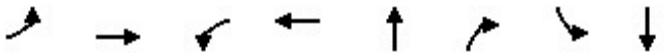
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	0	27	117	0	93	0	1554	123	90	1172	0
Future Volume (vph)	14	0	27	117	0	93	0	1554	123	90	1172	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0		0.0	45.0		0.0	55.0		55.0	55.0		55.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1789	3042	0	1825	2821	0	1883	4192	1512	1615	4230	1883
Flt Permitted	0.692			0.738						0.088		
Satd. Flow (perm)	1303	3042	0	1418	2821	0	1883	4192	1512	150	4230	1883
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		209			157				114			
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		580.1			206.4			414.9			286.1	
Travel Time (s)		41.8			14.9			24.9			17.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	0%	2%	10%	2%	10%	8%	13%	9%	2%
Adj. Flow (vph)	14	0	28	121	0	96	0	1602	127	93	1208	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	28	0	121	96	0	0	1602	127	93	1208	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	21.5	21.5		21.5	21.5		8.0	41.6	41.6	8.0	41.6	41.6
Total Split (s)	29.0	29.0		29.0	29.0		20.0	85.0	85.0	14.0	79.0	79.0
Total Split (%)	22.7%	22.7%		22.7%	22.7%		15.6%	66.4%	66.4%	10.9%	61.7%	61.7%
Maximum Green (s)	23.5	23.5		23.5	23.5		16.0	78.4	78.4	10.0	72.4	72.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		1.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		4.0	6.6	6.6	4.0	6.6	6.6
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			28.0	28.0		28.0	28.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)	23.5	23.5		23.5	23.5			78.4	78.4	85.0	72.4	
Actuated g/C Ratio	0.18	0.18		0.18	0.18			0.61	0.61	0.66	0.57	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.06	0.04		0.47	0.15			0.62	0.13	0.43	0.51	
Control Delay	44.1	0.1		53.4	1.0			16.9	2.6	15.7	17.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	44.1	0.1		53.4	1.0			16.9	2.6	15.7	17.8	
LOS	D	A		D	A			B	A	B	B	
Approach Delay		14.8			30.2			15.9			17.7	
Approach LOS		B			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 128			
Actuated Cycle Length: 128			
Offset: 111 (87%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 17.5		Intersection LOS: B	
Intersection Capacity Utilization 61.6%		ICU Level of Service B	
Analysis Period (min) 15			
* User Entered Value			

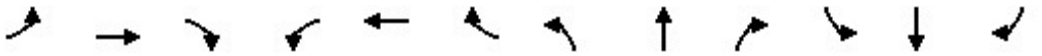
Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive





Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	14	28	121	96	1602	127	93	1208
v/c Ratio	0.06	0.04	0.47	0.15	0.62	0.13	0.43	0.51
Control Delay	44.1	0.1	53.4	1.0	16.9	2.6	15.7	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.1	0.1	53.4	1.0	16.9	2.6	15.7	17.8
Queue Length 50th (m)	3.0	0.0	27.5	0.0	99.4	1.2	5.6	73.7
Queue Length 95th (m)	9.0	0.0	47.0	0.6	115.9	8.7	15.4	87.5
Internal Link Dist (m)		556.1		182.4	390.9			262.1
Turn Bay Length (m)	45.0		45.0			55.0	55.0	
Base Capacity (vph)	239	729	260	646	2567	970	214	2392
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.04	0.47	0.15	0.62	0.13	0.43	0.51

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	0	27	117	0	93	0	1554	123	90	1172	0
Future Volume (vph)	14	0	27	117	0	93	0	1554	123	90	1172	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5			6.6	6.6	4.0	6.6	
Lane Util. Factor	1.00	0.95		1.00	0.95			*0.80	1.00	1.00	*0.80	
Frt	1.00	0.85		1.00	0.85			1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1789	3042		1825	2821			4192	1512	1615	4230	
Flt Permitted	0.69	1.00		0.74	1.00			1.00	1.00	0.09	1.00	
Satd. Flow (perm)	1303	3042		1418	2821			4192	1512	150	4230	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	14	0	28	121	0	96	0	1602	127	93	1208	0
RTOR Reduction (vph)	0	23	0	0	78	0	0	0	44	0	0	0
Lane Group Flow (vph)	14	5	0	121	18	0	0	1602	83	93	1208	0
Heavy Vehicles (%)	2%	2%	2%	0%	2%	10%	2%	10%	8%	13%	9%	2%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	23.5	23.5		23.5	23.5			78.4	78.4	82.4	72.4	
Effective Green, g (s)	23.5	23.5		23.5	23.5			78.4	78.4	82.4	72.4	
Actuated g/C Ratio	0.18	0.18		0.18	0.18			0.61	0.61	0.64	0.57	
Clearance Time (s)	5.5	5.5		5.5	5.5			6.6	6.6	4.0	6.6	
Lane Grp Cap (vph)	239	558		260	517			2567	926	211	2392	
v/s Ratio Prot		0.00			0.01			c0.38		c0.03	0.29	
v/s Ratio Perm	0.01			c0.09					0.05	0.25		
v/c Ratio	0.06	0.01		0.47	0.03			0.62	0.09	0.44	0.51	
Uniform Delay, d1	43.1	42.7		46.6	42.9			15.6	10.2	10.7	16.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.5	0.0		5.9	0.1			1.2	0.2	6.6	0.8	
Delay (s)	43.6	42.8		52.5	43.0			16.7	10.4	17.2	17.7	
Level of Service	D	D		D	D			B	B	B	B	
Approach Delay (s)		43.0			48.3			16.2			17.6	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	19.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	128.0	Sum of lost time (s)	16.1
Intersection Capacity Utilization	61.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

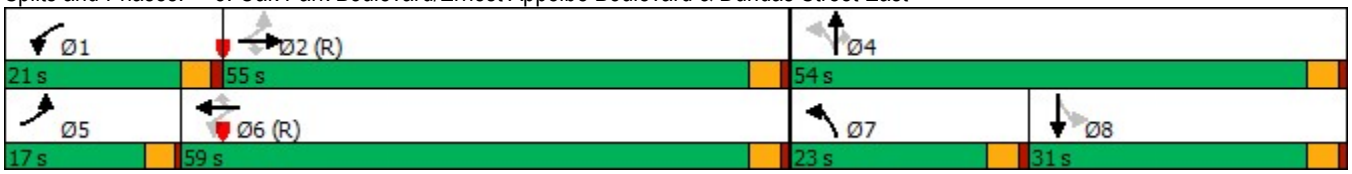
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	1506	231	225	1775	208	316	107	92	193	85	53
Future Volume (vph)	67	1506	231	225	1775	208	316	107	92	193	85	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		75.0	110.0		75.0	55.0		0.0	40.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor			0.95				0.98		0.97	0.99	0.98	
Frt			0.850			0.850			0.850		0.942	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	5142	1570	1825	5193	1633	1807	1883	1526	1807	3115	0
Flt Permitted	0.076			0.070			0.572			0.687		
Satd. Flow (perm)	146	5142	1491	134	5193	1633	1064	1883	1486	1290	3115	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			207			167			93		54	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		187.7			548.5			65.8			363.3	
Travel Time (s)		9.7			28.2			4.7			26.2	
Confl. Peds. (#/hr)			16	16			13		6	6		13
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	2%	4%	0%	1%	0%	1%	2%	7%	1%	7%	11%
Adj. Flow (vph)	68	1521	233	227	1793	210	319	108	93	195	86	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	1521	233	227	1793	210	319	108	93	195	140	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	7	4	4	8	8	
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	8.0	20.0	20.0	9.0	20.0	20.0	8.0	20.0	20.0	20.0	20.0	
Total Split (s)	17.0	55.0	55.0	21.0	59.0	59.0	23.0	54.0	54.0	31.0	31.0	
Total Split (%)	13.1%	42.3%	42.3%	16.2%	45.4%	45.4%	17.7%	41.5%	41.5%	23.8%	23.8%	
Maximum Green (s)	13.5	51.0	51.0	17.0	55.0	55.0	19.0	50.0	50.0	27.0	27.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	Max	Max	
Walk Time (s)		5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0	0	0	
Act Effct Green (s)	61.0	52.8	52.8	72.0	62.6	62.6	50.0	50.0	50.0	27.7	27.7	
Actuated g/C Ratio	0.47	0.41	0.41	0.55	0.48	0.48	0.38	0.38	0.38	0.21	0.21	
v/c Ratio	0.40	0.73	0.32	0.83	0.72	0.24	0.62	0.15	0.15	0.71	0.20	
Control Delay	22.7	35.4	6.1	20.5	25.2	7.8	36.2	26.9	5.6	63.2	26.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	22.7	35.4	6.1	20.5	25.2	7.8	36.2	26.9	5.6	63.2	26.7	
LOS	C	D	A	C	C	A	D	C	A	E	C	
Approach Delay		31.2			23.1			28.8			48.0	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 28.4 Intersection LOS: C
Intersection Capacity Utilization 85.7% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 5: Oak Park Boulevard/Ernest Appelbe Boulevard & Dundas Street East



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	68	1521	233	227	1793	210	319	108	93	195	140
v/c Ratio	0.40	0.73	0.32	0.83	0.72	0.24	0.62	0.15	0.15	0.71	0.20
Control Delay	22.7	35.4	6.1	20.5	25.2	7.8	36.2	26.9	5.6	63.2	26.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.7	35.4	6.1	20.5	25.2	7.8	36.2	26.9	5.6	63.2	26.7
Queue Length 50th (m)	7.7	121.9	4.1	29.4	162.5	20.8	60.5	17.9	0.0	47.0	9.5
Queue Length 95th (m)	15.2	139.9	20.7	m28.8	m148.3	m21.8	87.4	30.7	10.6	#79.9	18.6
Internal Link Dist (m)		163.7			524.5			41.8			339.3
Turn Bay Length (m)	140.0		75.0	110.0		75.0	55.0			40.0	
Base Capacity (vph)	249	2087	727	295	2500	872	517	724	628	274	706
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.73	0.32	0.77	0.72	0.24	0.62	0.15	0.15	0.71	0.20

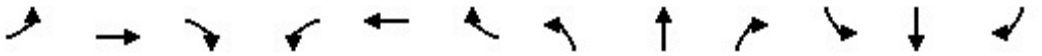
Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	1506	231	225	1775	208	316	107	92	193	85	53
Future Volume (vph)	67	1506	231	225	1775	208	316	107	92	193	85	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.97	1.00	0.98	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1825	5142	1491	1825	5193	1633	1785	1883	1486	1784	3116	
Flt Permitted	0.08	1.00	1.00	0.07	1.00	1.00	0.57	1.00	1.00	0.69	1.00	
Satd. Flow (perm)	146	5142	1491	135	5193	1633	1074	1883	1486	1291	3116	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	68	1521	233	227	1793	210	319	108	93	195	86	54
RTOR Reduction (vph)	0	0	123	0	0	87	0	0	57	0	42	0
Lane Group Flow (vph)	68	1521	110	227	1793	123	319	108	36	195	98	0
Confl. Peds. (#/hr)			16	16			13		6	6		13
Heavy Vehicles (%)	0%	2%	4%	0%	1%	0%	1%	2%	7%	1%	7%	11%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	2		2	6		6	4		4	8		
Actuated Green, G (s)	59.4	52.8	52.8	72.0	61.9	61.9	50.0	50.0	50.0	27.7	27.7	
Effective Green, g (s)	59.4	52.8	52.8	72.0	61.9	61.9	50.0	50.0	50.0	27.7	27.7	
Actuated g/C Ratio	0.46	0.41	0.41	0.55	0.48	0.48	0.38	0.38	0.38	0.21	0.21	
Clearance Time (s)	3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	151	2088	605	272	2472	777	513	724	571	275	663	
v/s Ratio Prot	0.02	0.30		c0.10	0.35		c0.09	0.06			0.03	
v/s Ratio Perm	0.18		0.07	c0.36		0.08	0.15		0.02	c0.15		
v/c Ratio	0.45	0.73	0.18	0.83	0.73	0.16	0.62	0.15	0.06	0.71	0.15	
Uniform Delay, d1	23.3	32.6	24.8	36.3	27.2	19.3	30.1	26.1	25.2	47.4	41.6	
Progression Factor	1.00	1.00	1.00	0.52	0.91	1.45	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.1	2.3	0.7	2.1	0.2	0.0	2.3	0.4	0.2	14.4	0.5	
Delay (s)	25.5	34.8	25.4	21.0	24.9	28.0	32.4	26.5	25.4	61.8	42.0	
Level of Service	C	C	C	C	C	C	C	C	C	E	D	
Approach Delay (s)		33.3			24.8			29.9			53.5	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	30.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	85.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

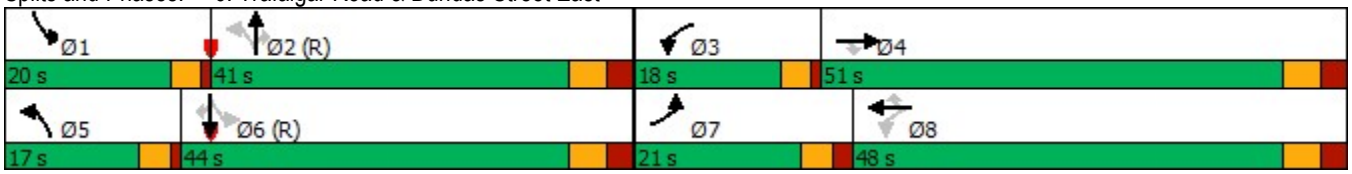


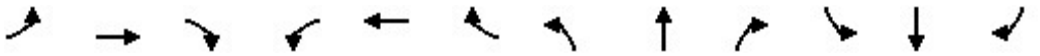
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	435	1529	106	256	1780	337	319	875	163	288	731	361
Future Volume (vph)	435	1529	106	256	1780	337	319	875	163	288	731	361
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	110.0		83.0	160.0		75.0	120.0		50.0	40.0		50.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor	1.00		0.98	1.00		0.99	1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3437	5092	1541	1789	5193	1555	1789	4520	1617	1706	4476	1601
Flt Permitted	0.950			0.096			0.225			0.112		
Satd. Flow (perm)	3437	5092	1512	181	5193	1535	423	4520	1617	201	4476	1576
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			97			229			128			238
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		548.5			210.0			108.1			414.9	
Travel Time (s)		28.2			10.8			6.5			24.9	
Confl. Peds. (#/hr)	1		6	6		1	3					3
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	6%	2%	1%	5%	2%	2%	1%	7%	3%	2%
Adj. Flow (vph)	448	1576	109	264	1835	347	329	902	168	297	754	372
Shared Lane Traffic (%)												
Lane Group Flow (vph)	448	1576	109	264	1835	347	329	902	168	297	754	372
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Minimum Split (s)	12.0	40.4	40.4	11.0	40.4	40.4	11.0	40.5	40.5	11.0	40.5	40.5
Total Split (s)	21.0	51.0	51.0	18.0	48.0	48.0	17.0	41.0	41.0	20.0	44.0	44.0
Total Split (%)	16.2%	39.2%	39.2%	13.8%	36.9%	36.9%	13.1%	31.5%	31.5%	15.4%	33.8%	33.8%
Maximum Green (s)	16.0	44.6	44.6	14.0	41.6	41.6	13.0	34.5	34.5	16.0	37.5	37.5
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)	16.0	44.6	44.6	58.0	41.6	41.6	50.0	34.5	34.5	56.0	37.5	37.5
Actuated g/C Ratio	0.12	0.34	0.34	0.45	0.32	0.32	0.38	0.27	0.27	0.43	0.29	0.29
v/c Ratio	1.06	0.90	0.19	1.04	1.10	0.54	1.10	0.75	0.32	1.10	0.58	0.60
Control Delay	97.4	45.8	7.8	103.0	98.0	15.2	110.5	48.5	12.6	116.0	41.8	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.4	45.8	7.8	103.0	98.0	15.2	110.5	48.5	12.6	116.0	41.8	18.1
LOS	F	D	A	F	F	B	F	D	B	F	D	B
Approach Delay		54.7			86.8			58.8			51.1	
Approach LOS		D			F			E			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 145			
Control Type: Pretimed			
Maximum v/c Ratio: 1.10			
Intersection Signal Delay: 65.4		Intersection LOS: E	
Intersection Capacity Utilization 111.1%		ICU Level of Service H	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 6: Trafalgar Road & Dundas Street East





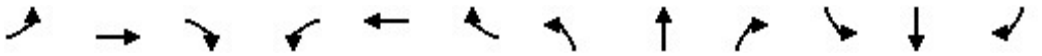
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	448	1576	109	264	1835	347	329	902	168	297	754	372
v/c Ratio	1.06	0.90	0.19	1.04	1.10	0.54	1.10	0.75	0.32	1.10	0.58	0.60
Control Delay	97.4	45.8	7.8	103.0	98.0	15.2	110.5	48.5	12.6	116.0	41.8	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.4	45.8	7.8	103.0	98.0	15.2	110.5	48.5	12.6	116.0	41.8	18.1
Queue Length 50th (m)	~62.0	155.8	11.3	~56.2	~195.7	22.8	~62.4	88.7	7.8	~69.0	69.0	28.1
Queue Length 95th (m)	#95.5	171.9	m15.8	#110.8	#225.0	52.3	#121.1	107.1	25.8	#125.2	84.8	60.9
Internal Link Dist (m)		524.5			186.0			84.1			390.9	
Turn Bay Length (m)	110.0		83.0	160.0		75.0	120.0		50.0	40.0		50.0
Base Capacity (vph)	423	1746	582	253	1661	646	299	1199	523	271	1291	623
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.06	0.90	0.19	1.04	1.10	0.54	1.10	0.75	0.32	1.10	0.58	0.60

Intersection Summary

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

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

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	435	1529	106	256	1780	337	319	875	163	288	731	361
Future Volume (vph)	435	1529	106	256	1780	337	319	875	163	288	731	361
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3437	5092	1512	1789	5193	1535	1789	4520	1617	1706	4476	1576
Flt Permitted	0.95	1.00	1.00	0.10	1.00	1.00	0.23	1.00	1.00	0.11	1.00	1.00
Satd. Flow (perm)	3437	5092	1512	181	5193	1535	424	4520	1617	202	4476	1576
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	448	1576	109	264	1835	347	329	902	168	297	754	372
RTOR Reduction (vph)	0	0	64	0	0	156	0	0	94	0	0	169
Lane Group Flow (vph)	448	1576	45	264	1835	191	329	902	74	297	754	203
Confl. Peds. (#/hr)	1		6	6		1	3					3
Heavy Vehicles (%)	3%	3%	6%	2%	1%	5%	2%	2%	1%	7%	3%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Actuated Green, G (s)	16.0	44.6	44.6	55.6	41.6	41.6	47.5	34.5	34.5	53.5	37.5	37.5
Effective Green, g (s)	16.0	44.6	44.6	55.6	41.6	41.6	47.5	34.5	34.5	53.5	37.5	37.5
Actuated g/C Ratio	0.12	0.34	0.34	0.43	0.32	0.32	0.37	0.27	0.27	0.41	0.29	0.29
Clearance Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lane Grp Cap (vph)	423	1746	518	250	1661	491	291	1199	429	268	1291	454
v/s Ratio Prot	c0.13	c0.31		0.11	c0.35		0.11	0.20		c0.14	0.17	
v/s Ratio Perm			0.03	0.34		0.12	0.30		0.05	c0.32		0.13
v/c Ratio	1.06	0.90	0.09	1.06	1.10	0.39	1.13	0.75	0.17	1.11	0.58	0.45
Uniform Delay, d1	57.0	40.6	28.9	37.9	44.2	34.3	35.1	43.8	36.8	36.9	39.6	37.8
Progression Factor	0.74	0.95	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	56.0	6.7	0.3	72.4	56.7	2.3	92.7	4.4	0.9	87.1	1.9	3.2
Delay (s)	98.0	45.5	29.0	110.3	100.9	36.7	127.8	48.2	37.6	124.0	41.5	40.9
Level of Service	F	D	C	F	F	D	F	D	D	F	D	D
Approach Delay (s)		55.7			92.8			65.7			58.6	
Approach LOS		E			F			E			E	

Intersection Summary			
HCM 2000 Control Delay	70.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	21.9
Intersection Capacity Utilization	111.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	57	49	0	43	29
Future Volume (vph)	0	57	49	0	43	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.850					0.850
Flt Protected				0.950	0.950	
Satd. Flow (prot)	2927	0	0	3468	1722	1633
Flt Permitted				0.950	0.950	
Satd. Flow (perm)	2927	0	0	3468	1722	1633
Link Speed (k/h)	50			50	50	
Link Distance (m)	217.5			582.1	462.5	
Travel Time (s)	15.7			41.9	33.3	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	6%	0%	0%	6%	0%
Adj. Flow (vph)	0	69	59	0	52	35
Shared Lane Traffic (%)						
Lane Group Flow (vph)	69	0	0	59	52	35
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Stop			Stop	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.4%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	0	57	49	0	43	29
Future Volume (vph)	0	57	49	0	43	29
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	0	69	59	0	52	35

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	0	69	59	0	52	35
Volume Left (vph)	0	0	59	0	52	0
Volume Right (vph)	0	69	0	0	0	35
Hadj (s)	0.00	-0.60	0.50	0.00	0.60	-0.70
Departure Headway (s)	4.8	4.2	5.3	4.8	5.4	4.1
Degree Utilization, x	0.00	0.08	0.09	0.00	0.08	0.04
Capacity (veh/h)	751	835	661	751	643	840
Control Delay (s)	6.6	6.3	7.6	6.6	7.7	6.1
Approach Delay (s)	6.3		7.6		7.0	
Approach LOS	A		A		A	

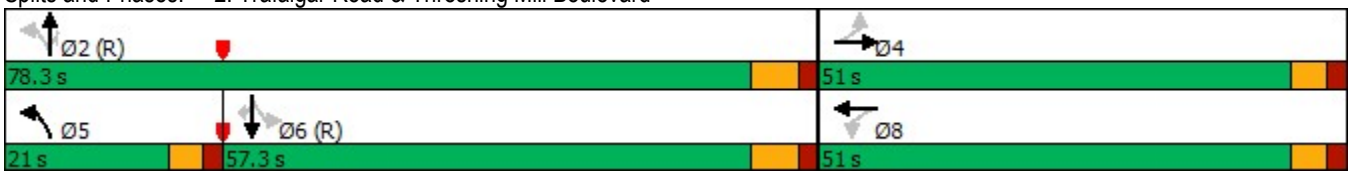
Intersection Summary				
Delay	7.0			
Level of Service	A			
Intersection Capacity Utilization	19.4%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	186	39	370	125	24	126	197	1082	58	32	1197	64
Future Volume (vph)	186	39	370	125	24	126	197	1082	58	32	1197	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0		0.0	45.0		0.0	55.0		55.0	55.0		55.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.864			0.874				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3092	0	1560	3113	0	1789	4350	1498	1521	4269	1601
Flt Permitted	0.650			0.422			0.072			0.196		
Satd. Flow (perm)	1224	3092	0	693	3113	0	136	4350	1498	314	4269	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		267			66				62			66
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		582.1			189.1			286.1			116.2	
Travel Time (s)		41.9			13.6			17.2			7.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	17%	5%	2%	2%	6%	9%	20%	8%	2%
Adj. Flow (vph)	200	42	398	134	26	135	212	1163	62	34	1287	69
Shared Lane Traffic (%)												
Lane Group Flow (vph)	200	440	0	134	161	0	212	1163	62	34	1287	69
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	21.5	21.5		21.5	21.5		9.3	41.6	41.6	41.6	41.6	41.6
Total Split (s)	51.0	51.0		51.0	51.0		21.0	78.3	78.3	57.3	57.3	57.3
Total Split (%)	39.4%	39.4%		39.4%	39.4%		16.2%	60.6%	60.6%	44.3%	44.3%	44.3%
Maximum Green (s)	45.5	45.5		45.5	45.5		15.7	71.7	71.7	50.7	50.7	50.7
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		5.3	6.6	6.6	6.6	6.6	6.6
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	0
Act Effct Green (s)	45.5	45.5		45.5	45.5		73.0	71.7	71.7	50.7	50.7	50.7
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.56	0.55	0.55	0.39	0.39	0.39

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.47	0.35		0.55	0.14		0.77	0.48	0.07	0.28	0.77	0.10
Control Delay	36.8	12.4		44.0	17.0		48.3	18.4	3.4	34.4	38.0	6.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.8	12.4		44.0	17.0		48.3	18.4	3.4	34.4	38.0	6.6
LOS	D	B		D	B		D	B	A	C	D	A
Approach Delay		20.0			29.3			22.1			36.4	
Approach LOS		C			C			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 129.3			
Actuated Cycle Length: 129.3			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Pretimed			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 27.6		Intersection LOS: C	
Intersection Capacity Utilization 79.2%		ICU Level of Service D	
Analysis Period (min) 15			
* User Entered Value			

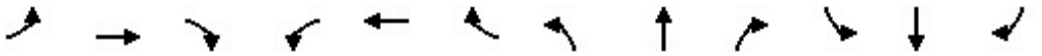
Splits and Phases: 2: Trafalgar Road & Threshing Mill Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	200	440	134	161	212	1163	62	34	1287	69
v/c Ratio	0.47	0.35	0.55	0.14	0.77	0.48	0.07	0.28	0.77	0.10
Control Delay	36.8	12.4	44.0	17.0	48.3	18.4	3.4	34.4	38.0	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.8	12.4	44.0	17.0	48.3	18.4	3.4	34.4	38.0	6.6
Queue Length 50th (m)	39.2	15.8	27.3	8.4	36.0	72.0	0.0	5.9	117.6	0.5
Queue Length 95th (m)	62.8	28.7	49.8	16.3	#71.2	85.4	6.2	15.7	138.5	9.7
Internal Link Dist (m)		558.1		165.1		262.1			92.2	
Turn Bay Length (m)	45.0		45.0		55.0		55.0	55.0		55.0
Base Capacity (vph)	430	1261	243	1138	277	2412	858	123	1673	667
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.35	0.55	0.14	0.77	0.48	0.07	0.28	0.77	0.10

Intersection Summary

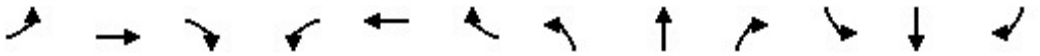
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	186	39	370	125	24	126	197	1082	58	32	1197	64
Future Volume (vph)	186	39	370	125	24	126	197	1082	58	32	1197	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.3	6.6	6.6	6.6	6.6	6.6
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	*0.80	1.00	1.00	*0.80	1.00
Frt	1.00	0.86		1.00	0.87		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1789	3093		1560	3114		1789	4350	1498	1521	4269	1601
Flt Permitted	0.65	1.00		0.42	1.00		0.07	1.00	1.00	0.20	1.00	1.00
Satd. Flow (perm)	1224	3093		692	3114		136	4350	1498	313	4269	1601
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	200	42	398	134	26	135	212	1163	62	34	1287	69
RTOR Reduction (vph)	0	173	0	0	43	0	0	0	28	0	0	40
Lane Group Flow (vph)	200	267	0	134	118	0	212	1163	34	34	1287	29
Heavy Vehicles (%)	2%	2%	2%	17%	5%	2%	2%	6%	9%	20%	8%	2%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	45.5	45.5		45.5	45.5		71.7	71.7	71.7	50.7	50.7	50.7
Effective Green, g (s)	45.5	45.5		45.5	45.5		71.7	71.7	71.7	50.7	50.7	50.7
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.55	0.55	0.55	0.39	0.39	0.39
Clearance Time (s)	5.5	5.5		5.5	5.5		5.3	6.6	6.6	6.6	6.6	6.6
Lane Grp Cap (vph)	430	1088		243	1095		276	2412	830	122	1673	627
v/s Ratio Prot		0.09			0.04		c0.09	0.27			0.30	
v/s Ratio Perm	0.16			c0.19			c0.33		0.02	0.11		0.02
v/c Ratio	0.47	0.25		0.55	0.11		0.77	0.48	0.04	0.28	0.77	0.05
Uniform Delay, d1	32.5	29.7		33.7	28.2		33.8	17.5	13.1	26.8	34.2	24.3
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.6	0.5		8.7	0.2		18.4	0.7	0.1	5.6	3.5	0.1
Delay (s)	36.1	30.3		42.4	28.4		52.1	18.2	13.2	32.4	37.7	24.5
Level of Service	D	C		D	C		D	B	B	C	D	C
Approach Delay (s)		32.1			34.8			23.0			36.9	
Approach LOS		C			C			C			D	

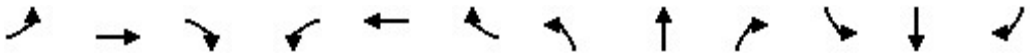
Intersection Summary			
HCM 2000 Control Delay	30.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	129.3	Sum of lost time (s)	17.4
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	17	70	140	3	2	47	106	150	1	192	8
Future Volume (vph)	10	17	70	140	3	2	47	106	150	1	192	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.902			0.998			0.926			0.994	
Flt Protected		0.995			0.954			0.992				
Satd. Flow (prot)	0	1641	0	0	3475	0	0	3226	0	0	3527	0
Flt Permitted		0.995			0.954			0.992				
Satd. Flow (perm)	0	1641	0	0	3475	0	0	3226	0	0	3527	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		187.3			580.1			363.3			462.5	
Travel Time (s)		13.5			41.8			26.2			33.3	
Confl. Peds. (#/hr)			1	1			5		1	1		5
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	7%	0%	0%	0%	21%	2%	0%	0%	3%	0%
Adj. Flow (vph)	11	19	80	159	3	2	53	120	170	1	218	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	110	0	0	164	0	0	343	0	0	228	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

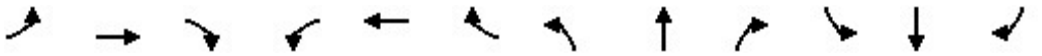
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	10	17	70	140	3	2	47	106	150	1	192	8
Future Volume (vph)	10	17	70	140	3	2	47	106	150	1	192	8
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	11	19	80	159	3	2	53	120	170	1	218	9

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	110	161	4	113	230	110	118
Volume Left (vph)	11	159	0	53	0	1	0
Volume Right (vph)	80	0	2	0	170	0	9
Hadj (s)	-0.33	0.50	-0.40	0.42	-0.51	0.06	-0.01
Departure Headway (s)	5.9	6.6	5.7	6.1	5.2	5.9	5.8
Degree Utilization, x	0.18	0.29	0.01	0.19	0.33	0.18	0.19
Capacity (veh/h)	564	510	581	565	666	581	588
Control Delay (s)	10.1	11.1	7.5	9.3	9.5	8.9	9.0
Approach Delay (s)	10.1	11.0		9.4		8.9	
Approach LOS	B	B		A		A	

Intersection Summary				
Delay	9.7			
Level of Service	A			
Intersection Capacity Utilization	40.5%	ICU Level of Service	A	
Analysis Period (min)	15			

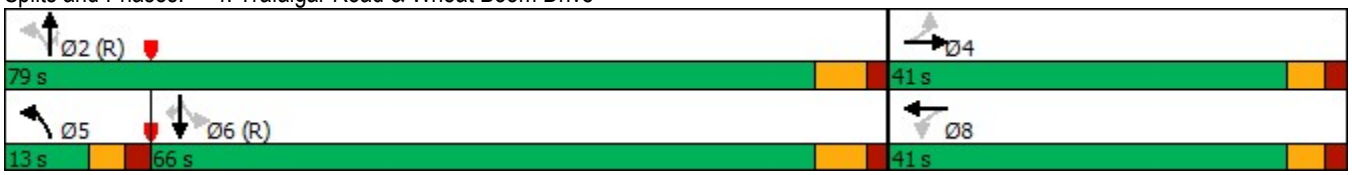


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	15	312	151	11	64	96	1175	31	36	1628	29
Future Volume (vph)	113	15	312	151	11	64	96	1175	31	36	1628	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0		0.0	45.0		0.0	55.0		55.0	55.0		55.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.857			0.872				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3067	0	1372	2925	0	1789	4044	1166	1141	4117	1601
Flt Permitted	0.702			0.478			0.062			0.173		
Satd. Flow (perm)	1322	3067	0	690	2925	0	117	4044	1166	208	4117	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		130			67				33			73
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		580.1			206.4			414.9			286.1	
Travel Time (s)		41.8			14.9			24.9			17.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	33%	2%	10%	2%	14%	40%	60%	12%	2%
Adj. Flow (vph)	122	16	335	162	12	69	103	1263	33	39	1751	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	122	351	0	162	81	0	103	1263	33	39	1751	31
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	21.5	21.5		21.5	21.5		9.5	41.6	41.6	41.6	41.6	41.6
Total Split (s)	41.0	41.0		41.0	41.0		13.0	79.0	79.0	66.0	66.0	66.0
Total Split (%)	34.2%	34.2%		34.2%	34.2%		10.8%	65.8%	65.8%	55.0%	55.0%	55.0%
Maximum Green (s)	35.5	35.5		35.5	35.5		7.5	72.4	72.4	59.4	59.4	59.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.2	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		5.5	6.6	6.6	6.6	6.6	6.6
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	0
Act Effct Green (s)	35.5	35.5		35.5	35.5		73.5	72.4	72.4	59.4	59.4	59.4
Actuated g/C Ratio	0.30	0.30		0.30	0.30		0.61	0.60	0.60	0.50	0.50	0.50

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.31	0.35		0.79	0.09		0.59	0.52	0.05	0.38	0.86	0.04
Control Delay	35.5	21.5		67.2	10.0		29.7	14.7	3.4	32.6	32.1	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.5	21.5		67.2	10.0		29.7	14.7	3.4	32.6	32.1	0.1
LOS	D	C		E	B		C	B	A	C	C	A
Approach Delay		25.1			48.2			15.5			31.5	
Approach LOS		C			D			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 26.1		Intersection LOS: C	
Intersection Capacity Utilization 78.5%		ICU Level of Service D	
Analysis Period (min) 15			
* User Entered Value			

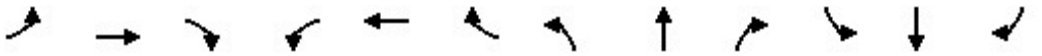
Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	122	351	162	81	103	1263	33	39	1751	31
v/c Ratio	0.31	0.35	0.79	0.09	0.59	0.52	0.05	0.38	0.86	0.04
Control Delay	35.5	21.5	67.2	10.0	29.7	14.7	3.4	32.6	32.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.5	21.5	67.2	10.0	29.7	14.7	3.4	32.6	32.1	0.1
Queue Length 50th (m)	22.3	20.7	35.1	1.2	9.3	67.2	0.0	5.5	146.4	0.0
Queue Length 95th (m)	39.0	33.7	#72.0	7.1	25.6	80.5	4.0	16.9	172.2	0.0
Internal Link Dist (m)		556.1		182.4		390.9			262.1	
Turn Bay Length (m)	45.0		45.0		55.0		55.0	55.0		55.0
Base Capacity (vph)	391	998	204	912	176	2439	716	102	2037	829
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.35	0.79	0.09	0.59	0.52	0.05	0.38	0.86	0.04

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	15	312	151	11	64	96	1175	31	36	1628	29
Future Volume (vph)	113	15	312	151	11	64	96	1175	31	36	1628	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	6.6	6.6	6.6	6.6	6.6
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	*0.80	1.00	1.00	*0.80	1.00
Frt	1.00	0.86		1.00	0.87		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1789	3066		1372	2926		1789	4044	1166	1141	4117	1601
Flt Permitted	0.70	1.00		0.48	1.00		0.06	1.00	1.00	0.17	1.00	1.00
Satd. Flow (perm)	1322	3066		690	2926		116	4044	1166	208	4117	1601
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	122	16	335	162	12	69	103	1263	33	39	1751	31
RTOR Reduction (vph)	0	92	0	0	47	0	0	0	13	0	0	16
Lane Group Flow (vph)	122	259	0	162	34	0	103	1263	20	39	1751	15
Heavy Vehicles (%)	2%	2%	2%	33%	2%	10%	2%	14%	40%	60%	12%	2%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	35.5	35.5		35.5	35.5		72.4	72.4	72.4	59.4	59.4	59.4
Effective Green, g (s)	35.5	35.5		35.5	35.5		72.4	72.4	72.4	59.4	59.4	59.4
Actuated g/C Ratio	0.30	0.30		0.30	0.30		0.60	0.60	0.60	0.49	0.49	0.49
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	6.6	6.6	6.6	6.6	6.6
Lane Grp Cap (vph)	391	907		204	865		174	2439	703	102	2037	792
v/s Ratio Prot		0.08			0.01		0.04	c0.31			c0.43	
v/s Ratio Perm	0.09			c0.23			0.32		0.02	0.19		0.01
v/c Ratio	0.31	0.29		0.79	0.04		0.59	0.52	0.03	0.38	0.86	0.02
Uniform Delay, d1	32.8	32.5		38.9	30.1		20.2	13.7	9.6	18.9	26.6	15.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.1	0.8		26.5	0.1		13.9	0.8	0.1	10.5	5.0	0.0
Delay (s)	34.9	33.3		65.4	30.2		34.1	14.5	9.7	29.4	31.6	15.5
Level of Service	C	C		E	C		C	B	A	C	C	B
Approach Delay (s)		33.7			53.6			15.8			31.3	
Approach LOS		C			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	27.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.6
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

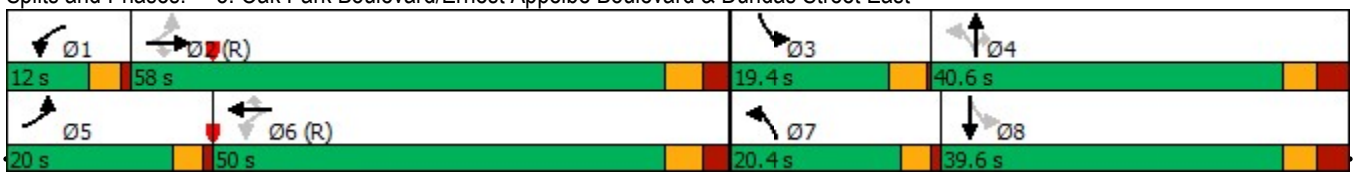
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	152	1955	134	81	1209	143	101	24	67	302	79	224
Future Volume (vph)	152	1955	134	81	1209	143	101	24	67	302	79	224
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		75.0	110.0		75.0	55.0		0.0	40.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor			0.99			0.98	1.00		0.98	1.00	0.99	
Frt			0.850			0.850			0.850		0.889	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1313	4476	1541	1738	4230	1555	1644	1746	1384	1789	2960	0
Flt Permitted	0.117			0.059			0.560			0.520		
Satd. Flow (perm)	162	4476	1520	108	4230	1531	966	1746	1361	975	2960	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			97			131			128		233	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		187.7			548.5			65.8			363.3	
Travel Time (s)		9.7			28.2			4.7			26.2	
Confl. Peds. (#/hr)	3		1	1		3	2		4	4		2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	39%	3%	6%	5%	9%	5%	11%	10%	18%	2%	6%	9%
Adj. Flow (vph)	158	2036	140	84	1259	149	105	25	70	315	82	233
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	2036	140	84	1259	149	105	25	70	315	315	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	4.0	20.0	20.0	7.0	20.0	20.0	6.0	10.0	10.0	4.0	10.0	
Minimum Split (s)	8.0	38.3	38.3	12.0	38.3	38.3	10.0	40.6	40.6	8.0	24.6	
Total Split (s)	20.0	58.0	58.0	12.0	50.0	50.0	20.4	40.6	40.6	19.4	39.6	
Total Split (%)	15.4%	44.6%	44.6%	9.2%	38.5%	38.5%	15.7%	31.2%	31.2%	14.9%	30.5%	
Maximum Green (s)	16.0	51.7	51.7	8.0	43.7	43.7	16.4	34.0	34.0	15.4	33.0	
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.3	3.3	3.5	3.3	
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	1.0	3.3	3.3	0.5	3.3	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.3	6.3	4.0	6.3	6.3	4.0	6.6	6.6	4.0	6.6	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	5.5	5.5	3.0	5.5	5.5	3.0	5.0	5.0	3.0	3.5	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	
Flash Dont Walk (s)		25.0	25.0		25.0	25.0		27.0	27.0		7.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	
Act Effct Green (s)	89.5	75.3	75.3	79.3	68.6	68.6	23.7	11.4	11.4	30.3	13.2	
Actuated g/C Ratio	0.69	0.58	0.58	0.61	0.53	0.53	0.18	0.09	0.09	0.23	0.10	
v/c Ratio	0.64	0.79	0.15	0.49	0.56	0.17	0.44	0.16	0.30	0.94	0.62	
Control Delay	26.2	25.0	5.6	36.9	18.2	4.5	45.4	56.2	3.2	82.2	21.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	26.2	25.0	5.6	36.9	18.2	4.5	45.4	56.2	3.2	82.2	21.1	
LOS	C	C	A	D	B	A	D	E	A	F	C	
Approach Delay		23.9			17.9			32.0			51.6	
Approach LOS		C			B			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 120			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 26.1		Intersection LOS: C	
Intersection Capacity Utilization 88.6%		ICU Level of Service E	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 5: Oak Park Boulevard/Ernest Appelbe Boulevard & Dundas Street East



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	158	2036	140	84	1259	149	105	25	70	315	315
v/c Ratio	0.64	0.79	0.15	0.49	0.56	0.17	0.44	0.16	0.30	0.94	0.62
Control Delay	26.2	25.0	5.6	36.9	18.2	4.5	45.4	56.2	3.2	82.2	21.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	25.0	5.6	36.9	18.2	4.5	45.4	56.2	3.2	82.2	21.1
Queue Length 50th (m)	12.9	156.9	4.5	7.9	106.0	7.1	21.8	6.1	0.0	74.3	10.3
Queue Length 95th (m)	37.2	218.7	16.2	m9.0	138.7	m20.9	35.4	14.4	0.0	#95.7	24.7
Internal Link Dist (m)		163.7			524.5			41.8			339.3
Turn Bay Length (m)	140.0		75.0	110.0		75.0	55.0			40.0	
Base Capacity (vph)	270	2591	921	178	2230	869	293	456	450	335	925
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.79	0.15	0.47	0.56	0.17	0.36	0.05	0.16	0.94	0.34

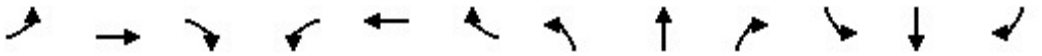
Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	152	1955	134	81	1209	143	101	24	67	302	79	224
Future Volume (vph)	152	1955	134	81	1209	143	101	24	67	302	79	224
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.3	6.3	4.0	6.3	6.3	4.0	6.6	6.6	4.0	6.6	
Lane Util. Factor	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	1.00	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.98	1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1313	4476	1520	1738	4230	1531	1641	1746	1361	1786	2960	
Flt Permitted	0.12	1.00	1.00	0.06	1.00	1.00	0.56	1.00	1.00	0.52	1.00	
Satd. Flow (perm)	161	4476	1520	109	4230	1531	967	1746	1361	977	2960	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	158	2036	140	84	1259	149	105	25	70	315	82	233
RTOR Reduction (vph)	0	0	42	0	0	63	0	0	65	0	207	0
Lane Group Flow (vph)	158	2036	98	84	1259	86	105	25	5	315	108	0
Confl. Peds. (#/hr)	3		1	1		3	2		4	4		2
Heavy Vehicles (%)	39%	3%	6%	5%	9%	5%	11%	10%	18%	2%	6%	9%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		
Actuated Green, G (s)	86.4	74.0	74.0	75.7	67.3	67.3	21.6	9.4	9.4	30.7	14.5	
Effective Green, g (s)	86.4	74.0	74.0	75.7	67.3	67.3	21.6	9.4	9.4	30.7	14.5	
Actuated g/C Ratio	0.66	0.57	0.57	0.58	0.52	0.52	0.17	0.07	0.07	0.24	0.11	
Clearance Time (s)	4.0	6.3	6.3	4.0	6.3	6.3	4.0	6.6	6.6	4.0	6.6	
Vehicle Extension (s)	3.0	5.5	5.5	3.0	5.5	5.5	3.0	5.0	5.0	3.0	3.5	
Lane Grp Cap (vph)	240	2547	865	168	2189	792	223	126	98	338	330	
v/s Ratio Prot	c0.08	c0.45		0.03	0.30		0.04	0.01		c0.12	0.04	
v/s Ratio Perm	0.36		0.06	0.26		0.06	0.03		0.00	c0.10		
v/c Ratio	0.66	0.80	0.11	0.50	0.58	0.11	0.47	0.20	0.05	0.93	0.33	
Uniform Delay, d1	14.5	22.1	12.9	20.0	21.5	16.0	48.3	56.8	56.1	47.0	53.3	
Progression Factor	1.00	1.00	1.00	1.62	0.78	0.89	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	6.4	2.7	0.3	1.4	0.7	0.2	1.6	1.6	0.5	31.8	0.7	
Delay (s)	20.9	24.9	13.2	33.8	17.5	14.4	49.9	58.4	56.6	78.7	53.9	
Level of Service	C	C	B	C	B	B	D	E	E	E	D	
Approach Delay (s)		23.9			18.1			53.3			66.3	
Approach LOS		C			B			D			E	

Intersection Summary			
HCM 2000 Control Delay	29.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	20.9
Intersection Capacity Utilization	88.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

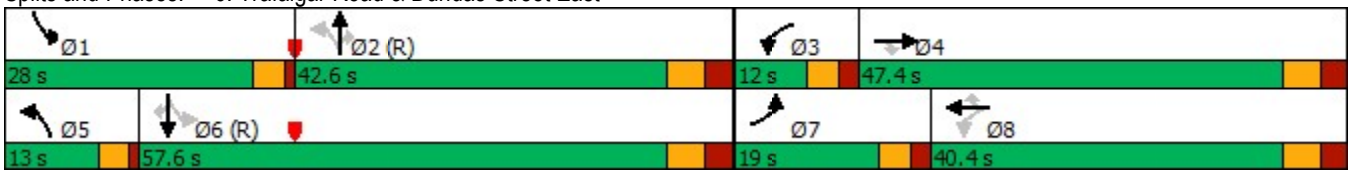


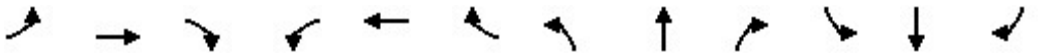
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	438	1486	176	151	864	197	137	652	86	530	1189	464
Future Volume (vph)	438	1486	176	151	864	197	137	652	86	530	1189	464
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	110.0		83.0	160.0		75.0	120.0		50.0	40.0		50.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98	1.00			1.00		0.99	1.00		0.99
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3404	4433	1471	1644	4230	1432	1659	4154	1570	1601	4309	1458
Flt Permitted	0.950			0.118			0.124			0.214		
Satd. Flow (perm)	3404	4433	1449	204	4230	1432	217	4154	1550	361	4309	1439
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			138			207			180			228
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		548.5			210.0			108.1			414.9	
Travel Time (s)		28.2			10.8			6.5			24.9	
Confl. Peds. (#/hr)			3	3			1		1	1		1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	4%	11%	11%	9%	14%	10%	11%	4%	14%	7%	12%
Adj. Flow (vph)	461	1564	185	159	909	207	144	686	91	558	1252	488
Shared Lane Traffic (%)												
Lane Group Flow (vph)	461	1564	185	159	909	207	144	686	91	558	1252	488
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Minimum Split (s)	12.0	40.4	40.4	12.0	40.4	40.4	11.0	40.5	40.5	11.0	40.5	40.5
Total Split (s)	19.0	47.4	47.4	12.0	40.4	40.4	13.0	42.6	42.6	28.0	57.6	57.6
Total Split (%)	14.6%	36.5%	36.5%	9.2%	31.1%	31.1%	10.0%	32.8%	32.8%	21.5%	44.3%	44.3%
Maximum Green (s)	14.0	41.0	41.0	7.0	34.0	34.0	9.0	36.1	36.1	24.0	51.1	51.1
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	2.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	5.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)	14.0	41.0	41.0	42.4	34.0	34.0	47.6	36.1	36.1	66.6	51.1	51.1
Actuated g/C Ratio	0.11	0.32	0.32	0.33	0.26	0.26	0.37	0.28	0.28	0.51	0.39	0.39
v/c Ratio	1.26	1.12	0.34	1.10	0.82	0.39	0.80	0.59	0.16	1.35	0.74	0.69
Control Delay	168.6	99.5	15.2	135.7	52.4	7.2	57.6	43.2	0.6	198.7	37.0	22.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	168.6	99.5	15.2	135.7	52.4	7.2	57.6	43.2	0.6	198.7	37.0	22.7
LOS	F	F	B	F	D	A	E	D	A	F	D	C
Approach Delay		106.9			55.5			41.2			73.2	
Approach LOS		F			E			D			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 145			
Control Type: Pretimed			
Maximum v/c Ratio: 1.35			
Intersection Signal Delay: 76.5		Intersection LOS: E	
Intersection Capacity Utilization 113.0%		ICU Level of Service H	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 6: Trafalgar Road & Dundas Street East





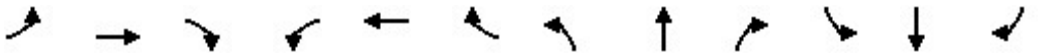
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	461	1564	185	159	909	207	144	686	91	558	1252	488
v/c Ratio	1.26	1.12	0.34	1.10	0.82	0.39	0.80	0.59	0.16	1.35	0.74	0.69
Control Delay	168.6	99.5	15.2	135.7	52.4	7.2	57.6	43.2	0.6	198.7	37.0	22.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	168.6	99.5	15.2	135.7	52.4	7.2	57.6	43.2	0.6	198.7	37.0	22.7
Queue Length 50th (m)	~76.8	~195.0	20.7	~30.9	91.6	0.0	19.1	63.5	0.0	~155.6	113.2	56.1
Queue Length 95th (m)	m#105.1	m#229.0	m28.9	#75.5	111.0	18.8	#53.7	79.2	0.0	#224.8	133.2	97.4
Internal Link Dist (m)		524.5			186.0			84.1			390.9	
Turn Bay Length (m)	110.0		83.0	160.0		75.0	120.0		50.0	40.0		50.0
Base Capacity (vph)	366	1398	551	144	1106	527	179	1153	560	413	1693	704
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.26	1.12	0.34	1.10	0.82	0.39	0.80	0.59	0.16	1.35	0.74	0.69

Intersection Summary

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

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

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	438	1486	176	151	864	197	137	652	86	530	1189	464
Future Volume (vph)	438	1486	176	151	864	197	137	652	86	530	1189	464
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	6.4	6.4	5.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lane Util. Factor	0.97	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3404	4433	1449	1644	4230	1432	1659	4154	1550	1601	4309	1439
Flt Permitted	0.95	1.00	1.00	0.12	1.00	1.00	0.12	1.00	1.00	0.21	1.00	1.00
Satd. Flow (perm)	3404	4433	1449	204	4230	1432	216	4154	1550	360	4309	1439
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	461	1564	185	159	909	207	144	686	91	558	1252	488
RTOR Reduction (vph)	0	0	94	0	0	153	0	0	66	0	0	138
Lane Group Flow (vph)	461	1564	91	159	909	54	144	686	25	558	1252	350
Confl. Peds. (#/hr)			3	3			1		1	1		1
Heavy Vehicles (%)	4%	4%	11%	11%	9%	14%	10%	11%	4%	14%	7%	12%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Actuated Green, G (s)	14.0	41.0	41.0	41.0	34.0	34.0	45.1	36.1	36.1	64.1	51.1	51.1
Effective Green, g (s)	14.0	41.0	41.0	41.0	34.0	34.0	45.1	36.1	36.1	64.1	51.1	51.1
Actuated g/C Ratio	0.11	0.32	0.32	0.32	0.26	0.26	0.35	0.28	0.28	0.49	0.39	0.39
Clearance Time (s)	5.0	6.4	6.4	5.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lane Grp Cap (vph)	366	1398	456	141	1106	374	174	1153	430	406	1693	565
v/s Ratio Prot	c0.14	c0.35		0.06	0.21		0.06	0.17		c0.25	0.29	
v/s Ratio Perm			0.06	0.29		0.04	0.23		0.02	c0.42		0.24
v/c Ratio	1.26	1.12	0.20	1.13	0.82	0.14	0.83	0.59	0.06	1.37	0.74	0.62
Uniform Delay, d1	58.0	44.5	32.5	40.7	45.2	36.8	31.2	40.6	34.5	28.3	33.8	31.6
Progression Factor	0.80	0.96	1.42	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	129.5	59.8	0.6	114.2	6.9	0.8	34.4	2.3	0.3	183.4	2.9	5.0
Delay (s)	175.8	102.4	46.7	154.9	52.1	37.7	65.6	42.9	34.7	211.7	36.7	36.7
Level of Service	F	F	D	F	D	D	E	D	C	F	D	D
Approach Delay (s)		113.0			62.5			45.6			79.2	
Approach LOS		F			E			D			E	

Intersection Summary			
HCM 2000 Control Delay	82.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.34		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	21.9
Intersection Capacity Utilization	113.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	49	65	0	51	40
Future Volume (vph)	0	49	65	0	51	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.850					0.850
Flt Protected				0.950	0.950	
Satd. Flow (prot)	3042	0	0	3400	1789	1601
Flt Permitted				0.950	0.950	
Satd. Flow (perm)	3042	0	0	3400	1789	1601
Link Speed (k/h)	50			50	50	
Link Distance (m)	217.5			582.1	462.5	
Travel Time (s)	15.7			41.9	33.3	
Confl. Peds. (#/hr)		1			1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	53	71	0	55	43
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	0	0	71	55	43
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Stop			Stop	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.3%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	0	49	65	0	51	40
Future Volume (vph)	0	49	65	0	51	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	53	71	0	55	43

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	0	53	71	0	55	43
Volume Left (vph)	0	0	71	0	55	0
Volume Right (vph)	0	53	0	0	0	43
Hadj (s)	0.00	-0.67	0.53	0.00	0.53	-0.67
Departure Headway (s)	4.8	4.1	5.3	4.8	5.4	4.1
Degree Utilization, x	0.00	0.06	0.10	0.00	0.08	0.05
Capacity (veh/h)	744	839	655	748	652	835
Control Delay (s)	6.6	6.2	7.7	6.6	7.6	6.2
Approach Delay (s)	6.2		7.7		7.0	
Approach LOS	A		A		A	

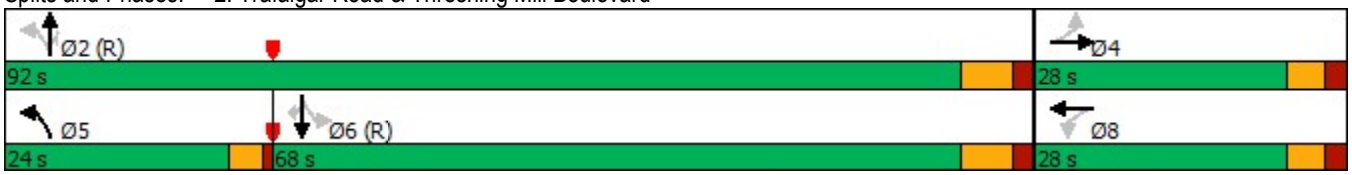
Intersection Summary			
Delay	7.0		
Level of Service	A		
Intersection Capacity Utilization	20.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	0	333	80	161	77	316	1519	186	66	1251	165
Future Volume (vph)	97	0	333	80	161	77	316	1519	186	66	1251	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0		0.0	45.0		0.0	55.0		55.0	55.0		55.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.952				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3042	0	1615	3407	0	1789	4433	1512	1825	4520	1570
Flt Permitted	0.542			0.410			0.108			0.118		
Satd. Flow (perm)	1021	3042	0	697	3407	0	203	4433	1512	227	4520	1570
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		295			55				194			160
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		582.1			189.1			286.1			116.2	
Travel Time (s)		41.9			13.6			17.2			7.0	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	13%	2%	2%	2%	4%	8%	0%	2%	4%
Adj. Flow (vph)	101	0	347	83	168	80	329	1582	194	69	1303	172
Shared Lane Traffic (%)												
Lane Group Flow (vph)	101	347	0	83	248	0	329	1582	194	69	1303	172
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	21.5	21.5		21.5	21.5		8.0	41.6	41.6	41.6	41.6	41.6
Total Split (s)	28.0	28.0		28.0	28.0		24.0	92.0	92.0	68.0	68.0	68.0
Total Split (%)	23.3%	23.3%		23.3%	23.3%		20.0%	76.7%	76.7%	56.7%	56.7%	56.7%
Maximum Green (s)	22.5	22.5		22.5	22.5		20.0	85.4	85.4	61.4	61.4	61.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.0	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		1.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		4.0	6.6	6.6	6.6	6.6	6.6
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	0
Act Effct Green (s)	22.5	22.5		22.5	22.5		88.0	85.4	85.4	61.4	61.4	61.4
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.73	0.71	0.71	0.51	0.51	0.51

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.53	0.43		0.64	0.36		0.80	0.50	0.17	0.59	0.56	0.20
Control Delay	55.3	9.9		68.4	34.5		37.3	8.4	1.1	45.7	21.3	3.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.3	9.9		68.4	34.5		37.3	8.4	1.1	45.7	21.3	3.4
LOS	E	A		E	C		D	A	A	D	C	A
Approach Delay		20.1			43.0			12.3			20.4	
Approach LOS		C			D			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Pretimed			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 18.2		Intersection LOS: B	
Intersection Capacity Utilization 85.3%		ICU Level of Service E	
Analysis Period (min) 15			
* User Entered Value			

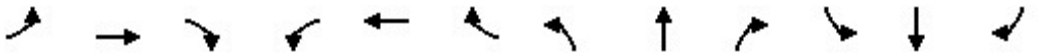
Splits and Phases: 2: Trafalgar Road & Threshing Mill Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	101	347	83	248	329	1582	194	69	1303	172
v/c Ratio	0.53	0.43	0.64	0.36	0.80	0.50	0.17	0.59	0.56	0.20
Control Delay	55.3	9.9	68.4	34.5	37.3	8.4	1.1	45.7	21.3	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.3	9.9	68.4	34.5	37.3	8.4	1.1	45.7	21.3	3.4
Queue Length 50th (m)	21.7	5.3	18.2	20.7	44.3	61.8	0.0	11.0	84.7	1.3
Queue Length 95th (m)	40.2	18.2	#41.0	33.1	#87.0	72.5	6.0	#35.3	100.4	12.0
Internal Link Dist (m)		558.1		165.1		262.1			92.2	
Turn Bay Length (m)	45.0		45.0		55.0		55.0	55.0		55.0
Base Capacity (vph)	191	810	130	683	413	3154	1131	116	2312	881
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.43	0.64	0.36	0.80	0.50	0.17	0.59	0.56	0.20

Intersection Summary

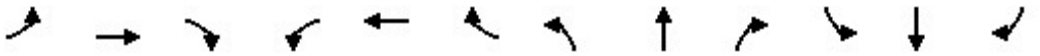
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	0	333	80	161	77	316	1519	186	66	1251	165
Future Volume (vph)	97	0	333	80	161	77	316	1519	186	66	1251	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		4.0	6.6	6.6	6.6	6.6	6.6
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	*0.80	1.00	1.00	*0.80	1.00
Frt	1.00	0.85		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1789	3042		1615	3405		1789	4433	1512	1825	4520	1570
Flt Permitted	0.54	1.00		0.41	1.00		0.11	1.00	1.00	0.12	1.00	1.00
Satd. Flow (perm)	1020	3042		698	3405		203	4433	1512	226	4520	1570
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	101	0	347	83	168	80	329	1582	194	69	1303	172
RTOR Reduction (vph)	0	240	0	0	45	0	0	0	56	0	0	78
Lane Group Flow (vph)	101	107	0	83	203	0	329	1582	138	69	1303	94
Heavy Vehicles (%)	2%	2%	2%	13%	2%	2%	2%	4%	8%	0%	2%	4%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	22.5	22.5		22.5	22.5		85.4	85.4	85.4	61.4	61.4	61.4
Effective Green, g (s)	22.5	22.5		22.5	22.5		85.4	85.4	85.4	61.4	61.4	61.4
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.71	0.71	0.71	0.51	0.51	0.51
Clearance Time (s)	5.5	5.5		5.5	5.5		4.0	6.6	6.6	6.6	6.6	6.6
Lane Grp Cap (vph)	191	570		130	638		408	3154	1076	115	2312	803
v/s Ratio Prot		0.04			0.06		c0.13	0.36			0.29	
v/s Ratio Perm	0.10			c0.12			c0.44		0.09	0.31		0.06
v/c Ratio	0.53	0.19		0.64	0.32		0.81	0.50	0.13	0.60	0.56	0.12
Uniform Delay, d1	44.0	41.1		45.0	42.1		26.2	7.8	5.5	20.6	20.1	15.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.1	0.7		21.6	1.3		15.6	0.6	0.2	21.0	1.0	0.3
Delay (s)	54.1	41.8		66.6	43.4		41.8	8.3	5.7	41.7	21.1	15.5
Level of Service	D	D		E	D		D	A	A	D	C	B
Approach Delay (s)		44.6			49.2			13.3			21.4	
Approach LOS		D			D			B			C	

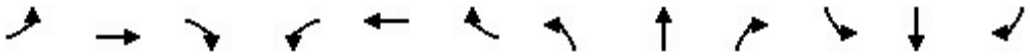
Intersection Summary			
HCM 2000 Control Delay	22.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.1
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	6	60	140	9	6	45	201	153	9	184	32
Future Volume (vph)	14	6	60	140	9	6	45	201	153	9	184	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.899			0.994			0.942			0.979	
Flt Protected		0.992			0.957			0.994			0.998	
Satd. Flow (prot)	0	1341	0	0	3446	0	0	3287	0	0	3442	0
Flt Permitted		0.992			0.957			0.994			0.998	
Satd. Flow (perm)	0	1341	0	0	3446	0	0	3287	0	0	3442	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		187.3			580.1			363.3			462.5	
Travel Time (s)		13.5			41.8			26.2			33.3	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	17%	49%	28%	0%	13%	0%	22%	3%	0%	0%	2%	14%
Adj. Flow (vph)	15	7	66	154	10	7	49	221	168	10	202	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	88	0	0	171	0	0	438	0	0	247	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Stop			Stop	

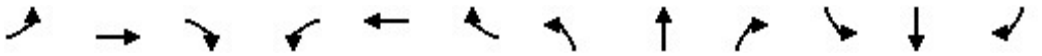
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	14	6	60	140	9	6	45	201	153	9	184	32
Future Volume (vph)	14	6	60	140	9	6	45	201	153	9	184	32
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	15	7	66	154	10	7	49	221	168	10	202	35

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	88	159	12	160	279	111	136
Volume Left (vph)	15	154	0	49	0	10	0
Volume Right (vph)	66	0	7	0	168	0	35
Hadj (s)	0.06	0.49	-0.32	0.30	-0.40	0.08	-0.09
Departure Headway (s)	6.5	6.8	6.0	6.0	5.3	6.0	5.8
Degree Utilization, x	0.16	0.30	0.02	0.27	0.41	0.19	0.22
Capacity (veh/h)	506	491	549	577	655	567	584
Control Delay (s)	10.7	11.6	7.9	10.0	10.7	9.2	9.3
Approach Delay (s)	10.7	11.3		10.5		9.2	
Approach LOS	B	B		B		A	

Intersection Summary				
Delay	10.3			
Level of Service	B			
Intersection Capacity Utilization	42.6%	ICU Level of Service	A	
Analysis Period (min)	15			

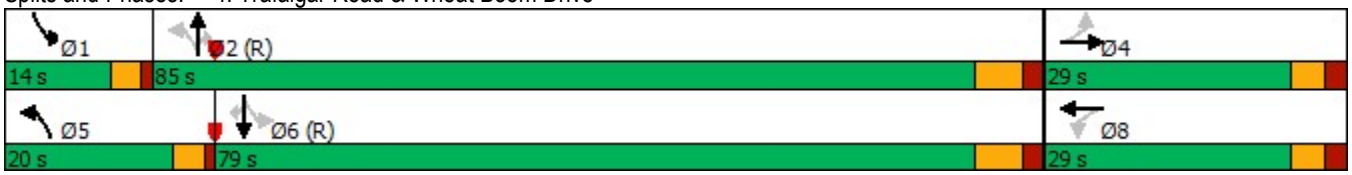


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	0	216	117	61	93	181	1871	123	90	1506	69
Future Volume (vph)	58	0	216	117	61	93	181	1871	123	90	1506	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	45.0		0.0	45.0		0.0	55.0		55.0	55.0		55.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.909				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3042	0	1825	3106	0	1789	4192	1512	1615	4230	1601
Flt Permitted	0.651			0.566			0.076			0.055		
Satd. Flow (perm)	1226	3042	0	1087	3106	0	143	4192	1512	94	4230	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		178			96				94			89
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		580.1			206.4			414.9			286.1	
Travel Time (s)		41.8			14.9			24.9			17.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	0%	2%	10%	2%	10%	8%	13%	9%	2%
Adj. Flow (vph)	60	0	223	121	63	96	187	1929	127	93	1553	71
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	223	0	121	159	0	187	1929	127	93	1553	71
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	21.5	21.5		21.5	21.5		8.0	41.6	41.6	8.0	41.6	41.6
Total Split (s)	29.0	29.0		29.0	29.0		20.0	85.0	85.0	14.0	79.0	79.0
Total Split (%)	22.7%	22.7%		22.7%	22.7%		15.6%	66.4%	66.4%	10.9%	61.7%	61.7%
Maximum Green (s)	23.5	23.5		23.5	23.5		16.0	78.4	78.4	10.0	72.4	72.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		1.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		4.0	6.6	6.6	4.0	6.6	6.6
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			28.0	28.0		28.0	28.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)	23.5	23.5		23.5	23.5		95.0	78.4	78.4	85.0	72.4	72.4
Actuated g/C Ratio	0.18	0.18		0.18	0.18		0.74	0.61	0.61	0.66	0.57	0.57

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.27	0.32		0.61	0.25		0.60	0.75	0.13	0.51	0.65	0.08
Control Delay	48.6	12.4		62.3	19.7		27.4	20.2	3.6	30.8	20.7	1.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.6	12.4		62.3	19.7		27.4	20.2	3.6	30.8	20.7	1.7
LOS	D	B		E	B		C	C	A	C	C	A
Approach Delay		20.1			38.1			19.9			20.5	
Approach LOS		C			D			B			C	

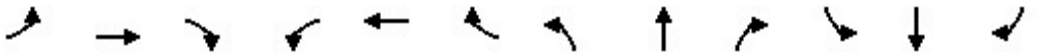
Intersection Summary			
Area Type:	Other		
Cycle Length: 128			
Actuated Cycle Length: 128			
Offset: 111 (87%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 21.2		Intersection LOS: C	
Intersection Capacity Utilization 75.8%		ICU Level of Service D	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	60	223	121	159	187	1929	127	93	1553	71
v/c Ratio	0.27	0.32	0.61	0.25	0.60	0.75	0.13	0.51	0.65	0.08
Control Delay	48.6	12.4	62.3	19.7	27.4	20.2	3.6	30.8	20.7	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.6	12.4	62.3	19.7	27.4	20.2	3.6	30.8	20.7	1.7
Queue Length 50th (m)	13.1	5.0	28.3	7.0	20.1	137.0	3.1	7.2	107.1	0.0
Queue Length 95th (m)	26.4	16.0	49.4	16.7	44.5	158.4	10.8	25.2	125.0	4.5
Internal Link Dist (m)		556.1		182.4		390.9			262.1	
Turn Bay Length (m)	45.0		45.0		55.0		55.0	55.0		55.0
Base Capacity (vph)	225	703	199	648	311	2567	962	181	2392	944
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.32	0.61	0.25	0.60	0.75	0.13	0.51	0.65	0.08

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	0	216	117	61	93	181	1871	123	90	1506	69
Future Volume (vph)	58	0	216	117	61	93	181	1871	123	90	1506	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		4.0	6.6	6.6	4.0	6.6	6.6
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	*0.80	1.00	1.00	*0.80	1.00
Frt	1.00	0.85		1.00	0.91		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1789	3042		1825	3107		1789	4192	1512	1615	4230	1601
Flt Permitted	0.65	1.00		0.57	1.00		0.08	1.00	1.00	0.06	1.00	1.00
Satd. Flow (perm)	1227	3042		1087	3107		144	4192	1512	94	4230	1601
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	60	0	223	121	63	96	187	1929	127	93	1553	71
RTOR Reduction (vph)	0	145	0	0	78	0	0	0	36	0	0	31
Lane Group Flow (vph)	60	78	0	121	81	0	187	1929	91	93	1553	40
Heavy Vehicles (%)	2%	2%	2%	0%	2%	10%	2%	10%	8%	13%	9%	2%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	23.5	23.5		23.5	23.5		92.4	78.4	78.4	82.4	72.4	72.4
Effective Green, g (s)	23.5	23.5		23.5	23.5		92.4	78.4	78.4	82.4	72.4	72.4
Actuated g/C Ratio	0.18	0.18		0.18	0.18		0.72	0.61	0.61	0.64	0.57	0.57
Clearance Time (s)	5.5	5.5		5.5	5.5		4.0	6.6	6.6	4.0	6.6	6.6
Lane Grp Cap (vph)	225	558		199	570		309	2567	926	179	2392	905
v/s Ratio Prot		0.03			0.03		c0.08	c0.46		0.04	0.37	
v/s Ratio Perm	0.05			c0.11			0.36		0.06	0.29		0.03
v/c Ratio	0.27	0.14		0.61	0.14		0.61	0.75	0.10	0.52	0.65	0.04
Uniform Delay, d1	44.9	43.8		48.0	43.8		23.0	17.8	10.2	16.2	19.1	12.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.9	0.5		13.1	0.5		8.5	2.1	0.2	10.4	1.4	0.1
Delay (s)	47.7	44.3		61.1	44.3		31.5	19.9	10.4	26.6	20.5	12.5
Level of Service	D	D		E	D		C	B	B	C	C	B
Approach Delay (s)		45.0			51.6			20.3			20.5	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	23.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	128.0	Sum of lost time (s)	16.1
Intersection Capacity Utilization	75.8%	ICU Level of Service	D
Analysis Period (min)	15		

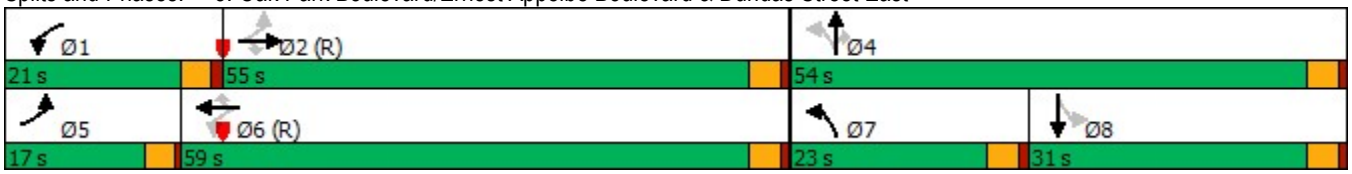
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	210	1594	231	225	1891	208	316	107	92	193	85	231
Future Volume (vph)	210	1594	231	225	1891	208	316	107	92	193	85	231
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		75.0	110.0		75.0	55.0		0.0	40.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor			0.95				0.99		0.97	0.99	0.97	
Frt			0.850			0.850			0.850		0.890	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	5142	1570	1825	5193	1633	1807	1883	1526	1807	2862	0
Flt Permitted	0.076			0.072			0.373			0.687		
Satd. Flow (perm)	146	5142	1491	138	5193	1633	700	1883	1486	1290	2862	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			196			157			93		221	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		187.7			548.5			65.8			363.3	
Travel Time (s)		9.7			28.2			4.7			26.2	
Confl. Peds. (#/hr)			16	16			13		6	6		13
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	2%	4%	0%	1%	0%	1%	2%	7%	1%	7%	11%
Adj. Flow (vph)	212	1610	233	227	1910	210	319	108	93	195	86	233
Shared Lane Traffic (%)												
Lane Group Flow (vph)	212	1610	233	227	1910	210	319	108	93	195	319	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	7	4	4	8	8	
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	8.0	20.0	20.0	9.0	20.0	20.0	8.0	20.0	20.0	20.0	20.0	
Total Split (s)	17.0	55.0	55.0	21.0	59.0	59.0	23.0	54.0	54.0	31.0	31.0	
Total Split (%)	13.1%	42.3%	42.3%	16.2%	45.4%	45.4%	17.7%	41.5%	41.5%	23.8%	23.8%	
Maximum Green (s)	13.5	51.0	51.0	17.0	55.0	55.0	19.0	50.0	50.0	27.0	27.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	Max	Max	
Walk Time (s)		5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0	0	0	
Act Effct Green (s)	66.3	52.8	52.8	70.7	55.5	55.5	50.0	50.0	50.0	27.7	27.7	
Actuated g/C Ratio	0.51	0.41	0.41	0.54	0.43	0.43	0.38	0.38	0.38	0.21	0.21	
v/c Ratio	0.88	0.77	0.32	0.83	0.86	0.27	0.75	0.15	0.15	0.71	0.41	
Control Delay	66.3	36.9	6.9	18.4	32.7	10.6	42.5	26.9	5.6	63.3	15.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	66.3	36.9	6.9	18.4	32.7	10.6	42.5	26.9	5.6	63.3	15.5	
LOS	E	D	A	B	C	B	D	C	A	E	B	
Approach Delay		36.5			29.4			32.7			33.7	
Approach LOS		D			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 32.8		Intersection LOS: C	
Intersection Capacity Utilization 92.3%		ICU Level of Service F	
Analysis Period (min) 15			

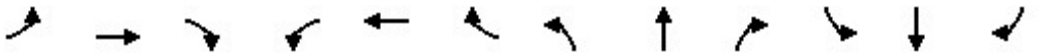
Splits and Phases: 5: Oak Park Boulevard/Ernest Appelbe Boulevard & Dundas Street East



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	212	1610	233	227	1910	210	319	108	93	195	319
v/c Ratio	0.88	0.77	0.32	0.83	0.86	0.27	0.75	0.15	0.15	0.71	0.41
Control Delay	66.3	36.9	6.9	18.4	32.7	10.6	42.5	26.9	5.6	63.3	15.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.3	36.9	6.9	18.4	32.7	10.6	42.5	26.9	5.6	63.3	15.5
Queue Length 50th (m)	38.0	132.4	5.9	28.1	176.8	28.9	60.5	17.9	0.0	47.0	10.9
Queue Length 95th (m)	#80.6	151.2	23.1	m23.5	m154.3	m23.8	87.4	30.7	10.6	#79.9	24.4
Internal Link Dist (m)		163.7			524.5			41.8			339.3
Turn Bay Length (m)	140.0		75.0	110.0		75.0	55.0			40.0	
Base Capacity (vph)	249	2087	721	297	2217	787	431	724	628	274	783
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.77	0.32	0.76	0.86	0.27	0.74	0.15	0.15	0.71	0.41

Intersection Summary

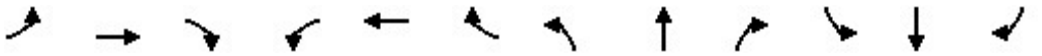
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	210	1594	231	225	1891	208	316	107	92	193	85	231
Future Volume (vph)	210	1594	231	225	1891	208	316	107	92	193	85	231
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.97	1.00	0.97	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1825	5142	1491	1825	5193	1633	1799	1883	1486	1784	2864	
Flt Permitted	0.08	1.00	1.00	0.07	1.00	1.00	0.37	1.00	1.00	0.69	1.00	
Satd. Flow (perm)	146	5142	1491	138	5193	1633	706	1883	1486	1291	2864	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	212	1610	233	227	1910	210	319	108	93	195	86	233
RTOR Reduction (vph)	0	0	116	0	0	90	0	0	57	0	174	0
Lane Group Flow (vph)	212	1610	117	227	1910	120	319	108	36	195	145	0
Confl. Peds. (#/hr)			16	16			13		6	6		13
Heavy Vehicles (%)	0%	2%	4%	0%	1%	0%	1%	2%	7%	1%	7%	11%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	2		2	6		6	4		4	8		
Actuated Green, G (s)	65.8	52.8	52.8	70.7	55.5	55.5	50.0	50.0	50.0	27.7	27.7	
Effective Green, g (s)	65.8	52.8	52.8	70.7	55.5	55.5	50.0	50.0	50.0	27.7	27.7	
Actuated g/C Ratio	0.51	0.41	0.41	0.54	0.43	0.43	0.38	0.38	0.38	0.21	0.21	
Clearance Time (s)	3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	241	2088	605	272	2217	697	425	724	571	275	610	
v/s Ratio Prot	0.09	0.31		c0.10	c0.37		c0.11	0.06			0.05	
v/s Ratio Perm	0.36		0.08	0.35		0.07	c0.18		0.02	0.15		
v/c Ratio	0.88	0.77	0.19	0.83	0.86	0.17	0.75	0.15	0.06	0.71	0.24	
Uniform Delay, d1	36.4	33.4	24.9	36.3	33.8	23.0	30.5	26.1	25.2	47.4	42.4	
Progression Factor	1.00	1.00	1.00	0.46	0.94	1.53	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	28.4	2.8	0.7	2.1	0.5	0.0	7.3	0.4	0.2	14.4	0.9	
Delay (s)	64.7	36.2	25.6	18.8	32.3	35.2	37.8	26.5	25.4	61.8	43.3	
Level of Service	E	D	C	B	C	D	D	C	C	E	D	
Approach Delay (s)		37.9			31.3			33.3			50.3	
Approach LOS		D			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	35.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	92.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

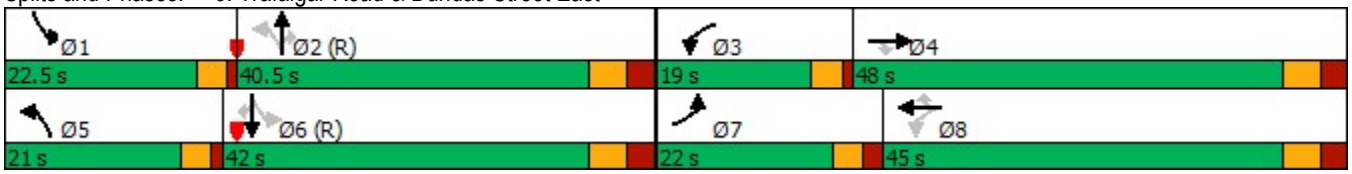


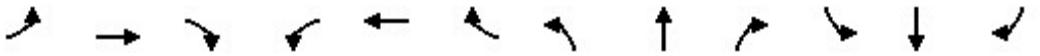
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	523	1529	106	256	1780	337	319	1285	163	345	1082	477
Future Volume (vph)	523	1529	106	256	1780	337	319	1285	163	345	1082	477
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	110.0		83.0	160.0		75.0	120.0		50.0	40.0		50.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor	1.00		0.98	1.00		0.99	1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3437	5092	1541	1789	5193	1555	1789	4520	1617	1706	4476	1601
Flt Permitted	0.950			0.104			0.118			0.113		
Satd. Flow (perm)	3437	5092	1512	196	5193	1535	222	4520	1617	203	4476	1576
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			97			221			96			250
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		548.5			210.0			108.1			414.9	
Travel Time (s)		28.2			10.8			6.5			24.9	
Confl. Peds. (#/hr)	1		6	6		1	3					3
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	6%	2%	1%	5%	2%	2%	1%	7%	3%	2%
Adj. Flow (vph)	539	1576	109	264	1835	347	329	1325	168	356	1115	492
Shared Lane Traffic (%)												
Lane Group Flow (vph)	539	1576	109	264	1835	347	329	1325	168	356	1115	492
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Minimum Split (s)	12.0	40.4	40.4	11.0	40.4	40.4	11.0	40.5	40.5	11.0	40.5	40.5
Total Split (s)	22.0	48.0	48.0	19.0	45.0	45.0	21.0	40.5	40.5	22.5	42.0	42.0
Total Split (%)	16.9%	36.9%	36.9%	14.6%	34.6%	34.6%	16.2%	31.2%	31.2%	17.3%	32.3%	32.3%
Maximum Green (s)	17.0	41.6	41.6	15.0	38.6	38.6	17.0	34.0	34.0	18.5	35.5	35.5
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)	17.0	41.6	41.6	56.0	38.6	38.6	53.5	34.0	34.0	56.5	35.5	35.5
Actuated g/C Ratio	0.13	0.32	0.32	0.43	0.30	0.30	0.41	0.26	0.26	0.43	0.27	0.27
v/c Ratio	1.20	0.97	0.20	0.99	1.19	0.57	1.11	1.12	0.34	1.18	0.91	0.80
Control Delay	144.0	52.6	7.6	86.6	132.9	17.4	120.0	110.0	19.0	143.1	57.8	32.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	144.0	52.6	7.6	86.6	132.9	17.4	120.0	110.0	19.0	143.1	57.8	32.3
LOS	F	D	A	F	F	B	F	F	B	F	E	C
Approach Delay		72.6			111.5			103.4			66.9	
Approach LOS		E			F			F			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 145			
Control Type: Pretimed			
Maximum v/c Ratio: 1.20			
Intersection Signal Delay: 89.2		Intersection LOS: F	
Intersection Capacity Utilization 113.6%		ICU Level of Service H	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 6: Trafalgar Road & Dundas Street East





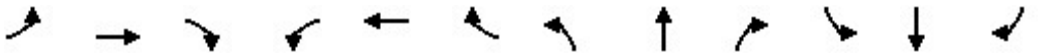
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	539	1576	109	264	1835	347	329	1325	168	356	1115	492
v/c Ratio	1.20	0.97	0.20	0.99	1.19	0.57	1.11	1.12	0.34	1.18	0.91	0.80
Control Delay	144.0	52.6	7.6	86.6	132.9	17.4	120.0	110.0	19.0	143.1	57.8	32.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	144.0	52.6	7.6	86.6	132.9	17.4	120.0	110.0	19.0	143.1	57.8	32.3
Queue Length 50th (m)	~83.3	156.7	10.7	51.4	~207.4	25.7	~79.4	~162.7	14.3	~93.2	115.5	61.1
Queue Length 95th (m)	#118.7	#182.8	m13.9	#106.7	#236.6	56.7	#137.8	#196.2	33.7	#153.2	#144.7	#108.9
Internal Link Dist (m)		524.5			186.0			84.1			390.9	
Turn Bay Length (m)	110.0		83.0	160.0		75.0	120.0		50.0	40.0		50.0
Base Capacity (vph)	449	1629	549	268	1541	611	296	1182	493	302	1222	612
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.20	0.97	0.20	0.99	1.19	0.57	1.11	1.12	0.34	1.18	0.91	0.80

Intersection Summary

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

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

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	523	1529	106	256	1780	337	319	1285	163	345	1082	477
Future Volume (vph)	523	1529	106	256	1780	337	319	1285	163	345	1082	477
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3437	5092	1512	1789	5193	1535	1789	4520	1617	1706	4476	1576
Flt Permitted	0.95	1.00	1.00	0.10	1.00	1.00	0.12	1.00	1.00	0.11	1.00	1.00
Satd. Flow (perm)	3437	5092	1512	195	5193	1535	222	4520	1617	202	4476	1576
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	539	1576	109	264	1835	347	329	1325	168	356	1115	492
RTOR Reduction (vph)	0	0	66	0	0	155	0	0	71	0	0	182
Lane Group Flow (vph)	539	1576	43	264	1835	192	329	1325	97	356	1115	310
Confl. Peds. (#/hr)	1		6	6		1	3					3
Heavy Vehicles (%)	3%	3%	6%	2%	1%	5%	2%	2%	1%	7%	3%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Actuated Green, G (s)	17.0	41.6	41.6	53.6	38.6	38.6	51.0	34.0	34.0	54.0	35.5	35.5
Effective Green, g (s)	17.0	41.6	41.6	53.6	38.6	38.6	51.0	34.0	34.0	54.0	35.5	35.5
Actuated g/C Ratio	0.13	0.32	0.32	0.41	0.30	0.30	0.39	0.26	0.26	0.42	0.27	0.27
Clearance Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lane Grp Cap (vph)	449	1629	483	264	1541	455	292	1182	422	297	1222	430
v/s Ratio Prot	c0.16	c0.31		0.12	c0.35		0.15	0.29		c0.17	0.25	
v/s Ratio Perm			0.03	0.30		0.12	0.30		0.06	c0.33		0.20
v/c Ratio	1.20	0.97	0.09	1.00	1.19	0.42	1.13	1.12	0.23	1.20	0.91	0.72
Uniform Delay, d1	56.5	43.5	30.9	38.4	45.7	36.7	38.2	48.0	37.7	39.5	45.7	42.8
Progression Factor	0.75	0.90	0.89	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	106.1	13.4	0.3	55.4	92.6	2.8	91.3	66.1	1.3	117.3	11.8	10.0
Delay (s)	148.3	52.4	27.9	93.8	138.3	39.6	129.5	114.1	39.0	156.8	57.6	52.8
Level of Service	F	D	C	F	F	D	F	F	D	F	E	D
Approach Delay (s)		74.4			119.5			109.9			74.4	
Approach LOS		E			F			F			E	

Intersection Summary			
HCM 2000 Control Delay	95.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	21.9
Intersection Capacity Utilization	113.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Appendix D

Background Developments

Table 1 Background Development Traffic

Background Development	Peak Hour Trips					
	Weekday AM			Weekday PM		
	In	Out	Total	In	Out	Total
Oakvillage 3 - Tower B	28	87	115	81	51	132
MC OakVillage GP Inc	4	12	16	13	8	21
MC Oakvillage	43	125	165	135	94	188
Oakvillage Block 14 & Emshih Developments	106	251	357	328	239	567
3064 Trafalgar Road Inc.	43	136	179	128	83	211
MC OakVillage Phase 4A/B	31	99	130	88	55	143
MC Oakvillage Phase 4C	17	53	70	48	30	78
HCDSB North Oakville #4 Elementary School	268*	229*	497*	49*	58*	107*

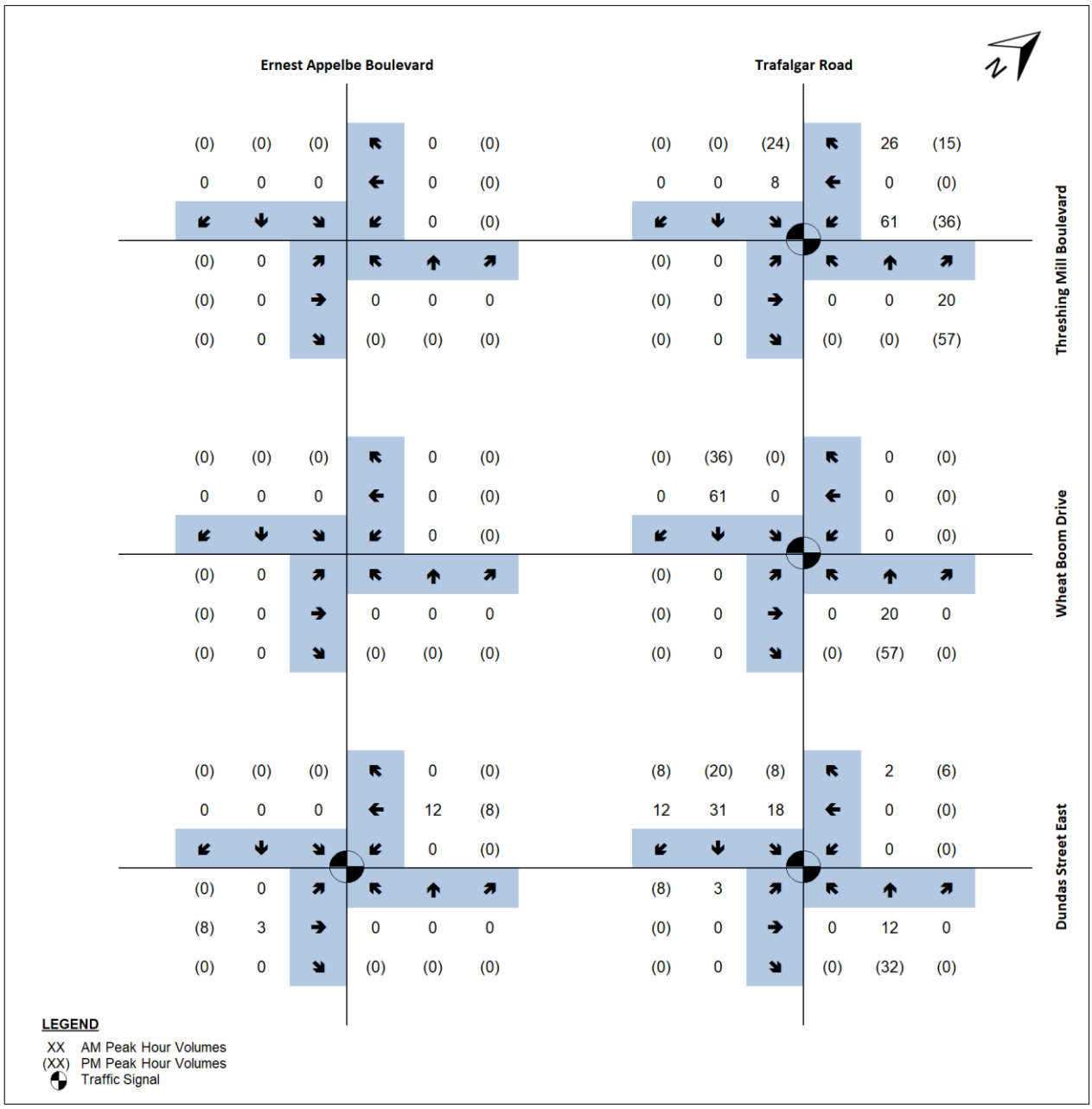


Figure 1 Oakvillage 3 – Tower B

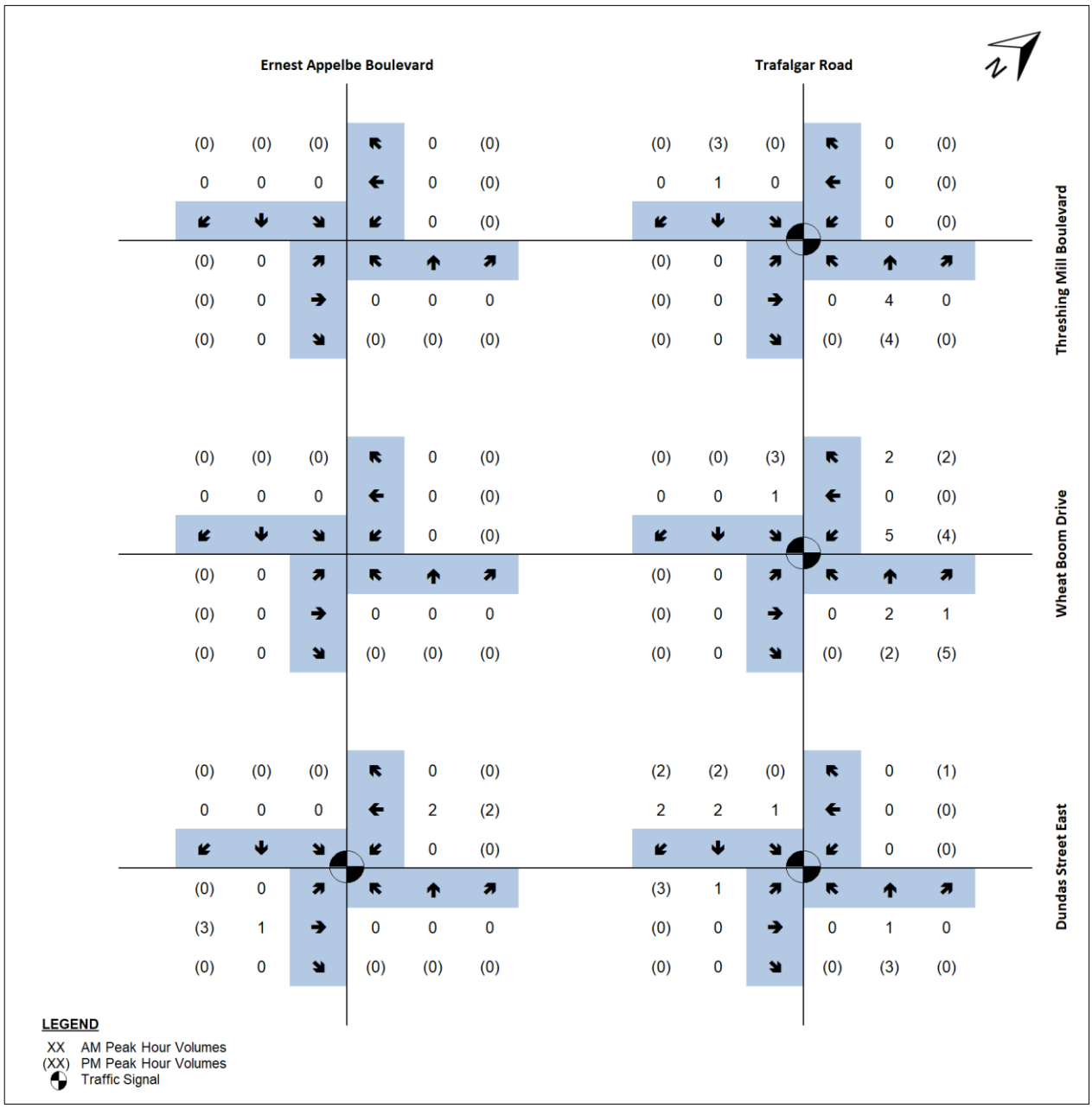


Figure 2 **MC Oakvillage GP Inc**

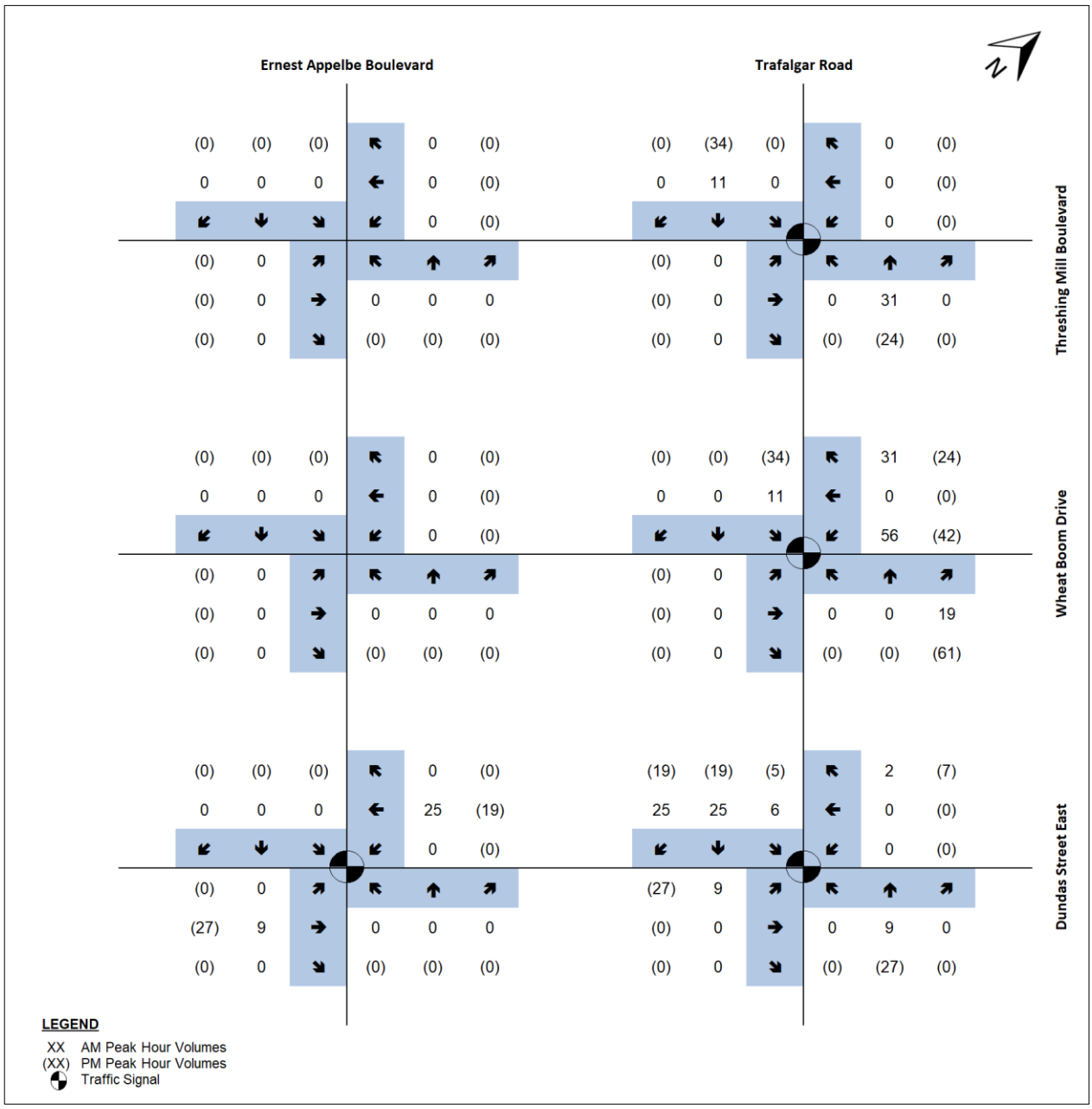


Figure 3 MC Oakvillage

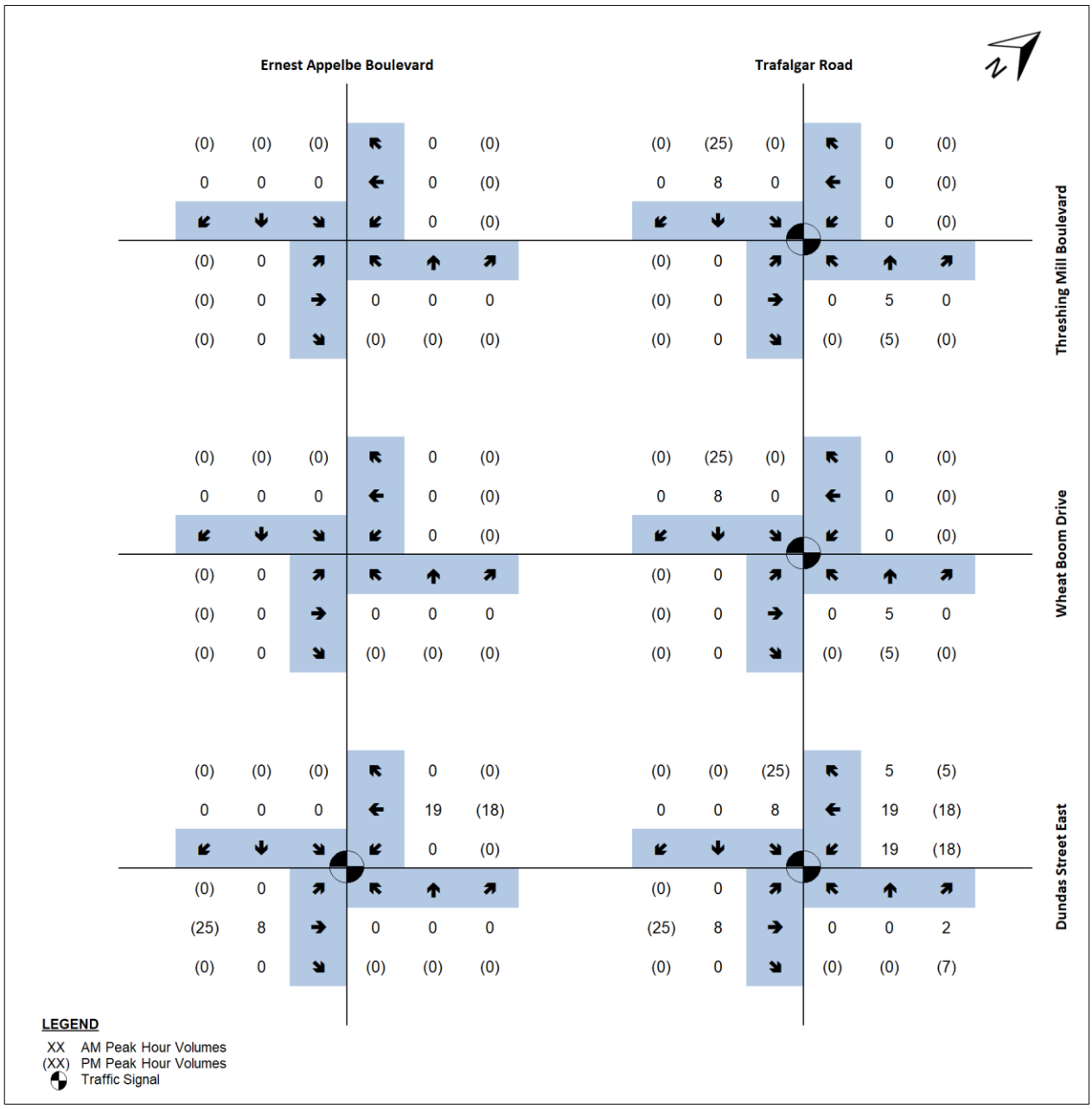


Figure 4 Oakvillage Block 14 & Emshih Developments

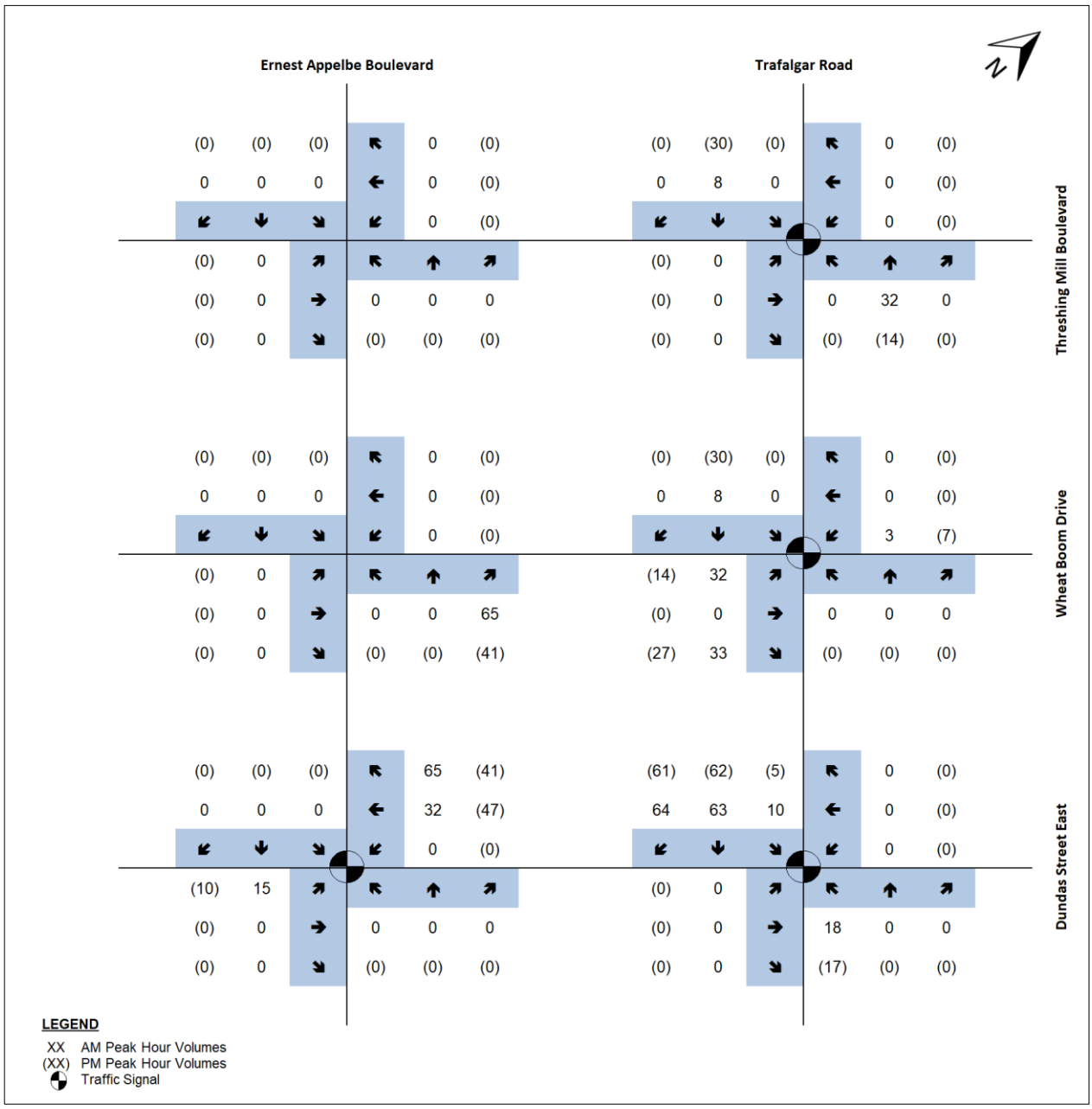


Figure 5 3064 Trafalgar Road Inc.

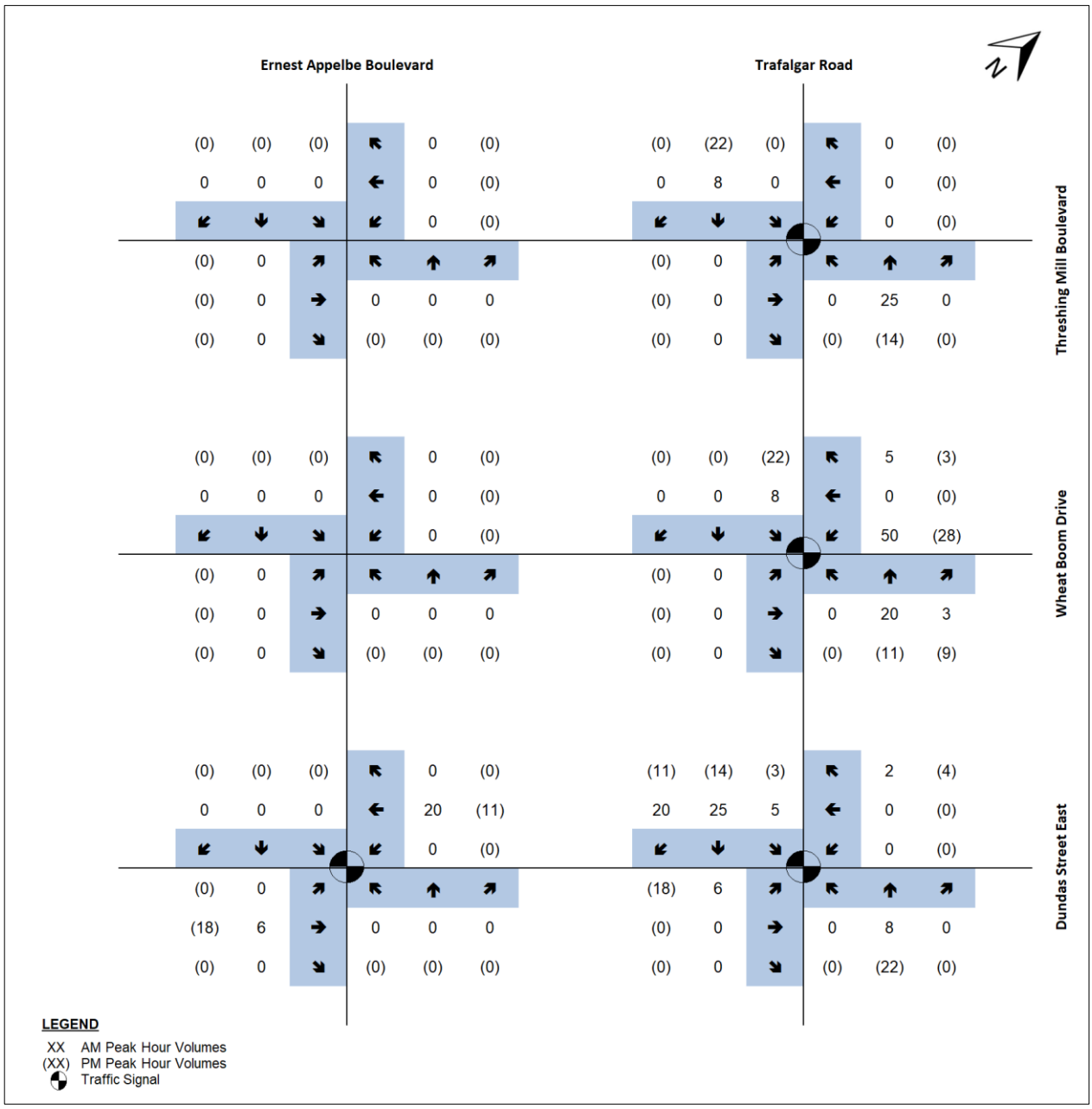


Figure 6 MC Oakvillage Phase 4A/B

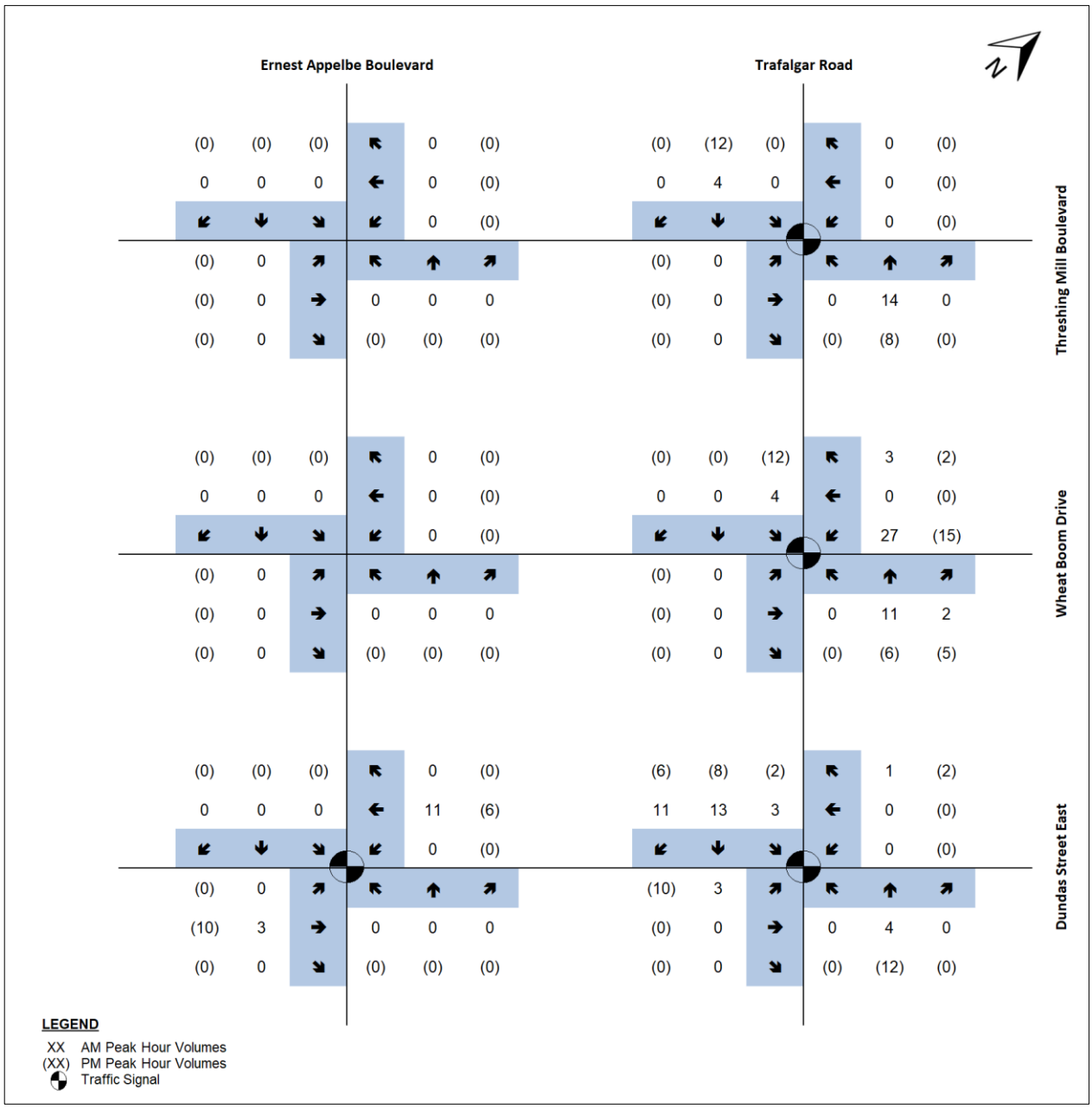


Figure 7 MC Oakvillage Phase 4 C

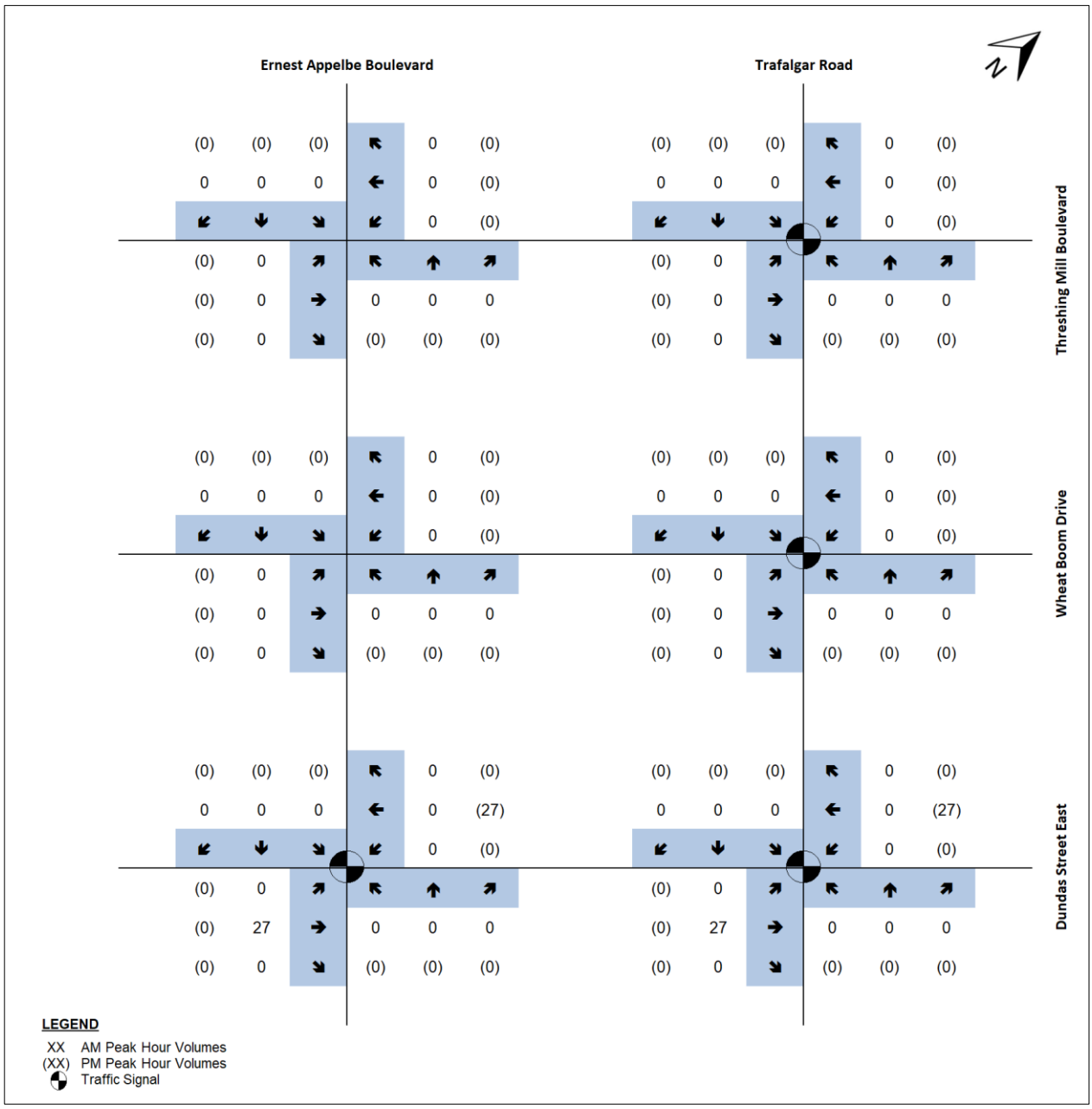


Figure 8 HCDSB North Oakville #4 Elementary School

Appendix E

Transportation Tomorrow Survey 2016

AM Outbound

Tue Jan 18 2022 16:18:39 GMT-0500 (Eastern Standard Time) - Run Time: 2688ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: Planning district of destination - pd_dest

Column: 2006 GTA zone of origin - gta06_orig

RowG:

ColG:(4181,4182,4183)

TblG:

Filters:

Start time of trip - start_time In 600-900

Trip 2016

Table:

,1		N	S	E	W	N Trips	S Trips	E Trips	W Trips
PD 1 of Toronto	502	0.333333	0.333333	0.333333		167.3333	167.3333	167.3333	0
PD 3 of Toronto	37	0.333333	0.333333	0.333333		12.33333	12.33333	12.33333	0
PD 4 of Toronto	27	0.333333	0.333333	0.333333		9	9	9	0
PD 5 of Toronto	21	0.333333	0.333333	0.333333		7	7	7	0
PD 7 of Toronto	18	0.333333	0.333333	0.333333		6	6	6	0
PD 8 of Toronto	60	0.333333	0.333333	0.333333		20	20	20	0
PD 10 of Toron	27	1				27	0	0	0
PD 11 of Toron	58	0.333333	0.333333	0.333333		19.33333	19.33333	19.33333	0
PD 12 of Toron	33	1				33	0	0	0
PD 13 of Toron	22	0.333333	0.333333	0.333333		7.333333	7.333333	7.333333	0
PD 16 of Toron	65	0.333333	0.333333	0.333333		21.66667	21.66667	21.66667	0
Oshawa		0.5	0.5			0	0	0	0
Vaughan	96	1				96	0	0	0
Caledon		1				0	0	0	0
Brampton	129	1				129	0	0	0
Mississauga	1112	0.333333	0.333333	0.333333		370.6667	370.6667	370.6667	0
Halton Hills		1				0	0	0	0
Milton	20	1				20	0	0	0
Oakville	1979		0.5		0.5	0	989.5	0	989.5
Burlington	128		0.5		0.5	0	64	0	64
Flamborough		0.333333	0.333333		0.333333	0	0	0	0
Hamilton	185	0.333333	0.333333		0.333333	61.66667	61.66667	0	61.66667
Lincoln	14	0.5	0.5			7	7	0	0
Niagara-on-the-	16		1			0	16	0	0
St. Catharines	42	0.5	0.5			21	21	0	0
Waterloo	36	1				36	0	0	0
Brantford	46	0.5	0.5			23	23	0	0
Erin		1				0	0	0	0

4673

North	South	East	West
1094.333	1822.833	640.6667	1115.167
23%	39%	14%	24%

AM Inbound

Tue Jan 18 2022 16:21:44 GMT-0500 (Eastern Standard Time) - Run Time: 2459ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: Planning district of origin - pd_orig

Column: 2006 GTA zone of destination - gta06_dest

RowG:

ColG:(4181,4182,4183)

TblG:

Filters:

Start time of trip - start_time In 600-900

Trip 2016

Ontario

,1		N	S	E	W	N Trips	S Trips	E Trips	W Trips
PD 1 of Toronto		0.333333	0.333333	0.333333		0	0	0	0
PD 3 of Toronto		0.333333	0.333333	0.333333		0	0	0	0
PD 4 of Toronto	15	0.333333	0.333333	0.333333		5	5	5	0
PD 5 of Toronto	29	0.333333	0.333333	0.333333		9.666667	9.666667	9.666667	0
PD 7 of Toronto		0.333333	0.333333	0.333333		0	0	0	0
PD 8 of Toronto	10	0.333333	0.333333	0.333333		3.333333	3.333333	3.333333	0
PD 10 of Toron	13	1				13	0	0	0
PD 11 of Toronto		0.333333	0.333333	0.333333		0	0	0	0
PD 12 of Toronto		1				0	0	0	0
PD 13 of Toron	19	0.333333	0.333333	0.333333		6.333333	6.333333	6.333333	0
PD 16 of Toronto		0.333333	0.333333	0.333333		0	0	0	0
Oshawa		0.5	0.5			0	0	0	0
Vaughan	14	1				14	0	0	0
Caledon	14	1				14	0	0	0
Brampton		1				0	0	0	0
Mississauga	405	0.333333	0.333333	0.333333		135	135	135	0
Halton Hills	52	1				52	0	0	0
Milton	51	1				51	0	0	0
Oakville	1143		0.5		0.5	0	571.5	0	571.5
Burlington	389		0.5		0.5	0	194.5	0	194.5
Flamborough	35	0.333333	0.333333		0.333333	11.66667	11.66667	0	11.66667
Hamilton	107	0.333333	0.333333		0.333333	35.66667	35.66667	0	35.66667
Lincoln	14	0.5	0.5			7	7	0	0
Niagara-on-the-Lake			1			0	0	0	0
St. Catharines		0.5	0.5			0	0	0	0
Waterloo		1				0	0	0	0
Brantford		0.5	0.5			0	0	0	0
Erin	57	1				57	0	0	0

2367

North	South	East	West
414.6667	979.6667	159.3333	813.3333
18%	41%	7%	34%

TOTAL

		North	South	East	West	
AM	Outbound	23%	39%	14%	24%	100%
	Inbound	18%	41%	7%	34%	100%
PM	Outbound	17%	42%	7%	35%	100%
	Inbound	24%	39%	15%	22%	100%

PM Outbound

Tue Jan 18 2022 16:20:42 GMT-0500 (Eastern Standard Time) - Run Time: 2574ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: Planning district of destination - pd_dest

Column: 2006 GTA zone of origin - gta06_orig

RowG:

ColG:(4181,4182,4183)

TblG:

Filters:

Start time of trip - start_time In 1600-1900

Trip 2016

Table:

,1		N	S	E	W	N Trips	S Trips	E Trips	W Trips
PD 1 of Toronto	18	0.333333	0.333333	0.333333		6	6	6	0
PD 3 of Toronto		0.333333	0.333333	0.333333		0	0	0	0
PD 4 of Toronto		0.333333	0.333333	0.333333		0	0	0	0
PD 5 of Toronto		0.333333	0.333333	0.333333		0	0	0	0
PD 7 of Toronto		0.333333	0.333333	0.333333		0	0	0	0
PD 8 of Toronto	10	0.333333	0.333333	0.333333		3.333333	3.333333	3.333333	0
PD 10 of Toronto		1				0	0	0	0
PD 11 of Toronto		0.333333	0.333333	0.333333		0	0	0	0
PD 12 of Toronto		1				0	0	0	0
PD 13 of Toron	19	0.333333	0.333333	0.333333		6.333333	6.333333	6.333333	0
PD 16 of Toronto		0.333333	0.333333	0.333333		0	0	0	0
Oshawa		0.5	0.5			0	0	0	0
Vaughan		1				0	0	0	0
Caledon		1				0	0	0	0
Brampton	63	1				63	0	0	0
Mississauga	472	0.333333	0.333333	0.333333		157.3333	157.3333	157.3333	0
Halton Hills	41	1				41	0	0	0
Milton	56	1				56	0	0	0
Oakville	1507		0.5		0.5	0	753.5	0	753.5
Burlington	201		0.5		0.5	0	100.5	0	100.5
Flamborough	18	0.333333	0.333333		0.333333	6	6	0	6
Hamilton	107	0.333333	0.333333		0.333333	35.66667	35.66667	0	35.66667
Lincoln		0.5	0.5			0	0	0	0
Niagara-on-the-Lake			1			0	0	0	0
St. Catharines		0.5	0.5			0	0	0	0
Waterloo		1				0	0	0	0
Brantford		0.5	0.5			0	0	0	0
Erin	57	1				57	0	0	0

2569

North	South	East	West
431.6667	1068.667	173	895.6667
17%	42%	7%	35%

PM Inbound

Tue Jan 18 2022 16:21:25 GMT-0500 (Eastern Standard Time) - Run Time: 3021ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: Planning district of origin - pd_orig

Column: 2006 GTA zone of destination - gta06_dest

RowG:

ColG:(4181,4182,4183)

TblG:

Filters:

Start time of trip - start_time In 1600-1900

Trip 2016

Table:

,1		N	S	E	W	N Trips	S Trips	E Trips	W Trips
PD 1 of Toronto	539	0.333333	0.333333	0.333333		179.6667	179.6667	179.6667	0
PD 3 of Toronto	89	0.333333	0.333333	0.333333		29.66667	29.66667	29.66667	0
PD 4 of Toronto	27	0.333333	0.333333	0.333333		9	9	9	0
PD 5 of Toronto	21	0.333333	0.333333	0.333333		7	7	7	0
PD 7 of Toronto	18	0.333333	0.333333	0.333333		6	6	6	0
PD 8 of Toronto	78	0.333333	0.333333	0.333333		26	26	26	0
PD 10 of Toron	27	1				27	0	0	0
PD 11 of Toron	37	0.333333	0.333333	0.333333		12.33333	12.33333	12.33333	0
PD 12 of Toron	11	1				11	0	0	0
PD 13 of Toron	22	0.333333	0.333333	0.333333		7.333333	7.333333	7.333333	0
PD 16 of Toron	45	0.333333	0.333333	0.333333		15	15	15	0
Oshawa	19	0.5	0.5			9.5	9.5	0	0
Vaughan	76	1				76	0	0	0
Caledon		1				0	0	0	0
Brampton	87	1				87	0	0	0
Mississauga	1165	0.333333	0.333333	0.333333		388.3333	388.3333	388.3333	0
Halton Hills		1				0	0	0	0
Milton	16	1				16	0	0	0
Oakville	1800		0.5		0.5	0	900	0	900
Burlington	82		0.5		0.5	0	41	0	41
Flamborough		0.333333	0.333333		0.333333	0	0	0	0
Hamilton	171	0.333333	0.333333		0.333333	57	57	0	57
Lincoln		0.5	0.5			0	0	0	0
Niagara-on-the-	16		1			0	16	0	0
St. Catharines	27	0.5	0.5			13.5	13.5	0	0
Waterloo	66	1				66	0	0	0
Brantford	35	0.5	0.5			17.5	17.5	0	0
Erin		1				0	0	0	0

4474

North	South	East	West
1060.833	1734.833	680.3333	998
24%	39%	15%	22%

outbound am

Wed Jan 26 2022 14:36:00 GMT-0500 (Eastern Standard Time) - Run Time: 3216ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: Primary travel mode of trip - mode_prime

Column: 2006 GTA zone of origin - gta06_orig

RowG:

ColG:(4034,4035,4037)

TblG:

Filters:

Start time of trip - start_time In 600-900

Trip 2016

Table:

,1		
Transit excludir	75	1%
Cycle	66	1%
Auto driver	5564	66%
GO rail only	461	5%
Joint GO rail ar	213	3%
Auto passenge	1132	13%
School bus	445	5%
Taxi passenger		0%
Paid rideshare		0%
Walk	431	5%
	8387	

inbound am

Wed Jan 26 2022 14:37:20 GMT-0500 (Eastern Standard Time) - Run Time: 2719ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: Primary travel mode of trip - mode_prime

Column: 2006 GTA zone of destination - gta06_dest

RowG:

ColG:(4034,4035,4037)

TblG:

Filters:

Start time of trip - start_time In 600-900

Trip 2016

Table:

,1		
Transit excludir	86	1%
Cycle	217	4%
Auto driver	3880	66%
GO rail only		0%
Joint GO rail and local transit		0%
Auto passenge	782	13%
School bus	101	2%
Taxi passenger		0%
Paid rideshare		0%
Walk	781	13%
	5847	

outbound pm

Wed Jan 26 2022 14:36:37 GMT-0500 (Eastern Standard Time) - Run Time: 2709ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: Primary travel mode of trip - mode_prime

Column: 2006 GTA zone of origin - gta06_orig

RowG:

ColG:(4034,4035,4037)

TblG:

Filters:

Start time of trip - start_time In 1600-1900

Trip 2016

Table:

,1		
Transit excludir	150	2%
Cycle	76	1%
Auto driver	5235	74%
GO rail only		0%
Joint GO rail ar	79	1%
Auto passenge	1234	18%
School bus		0%
Taxi passenger	14	0%
Paid rideshare		0%
Walk	251	4%
	7039	

inbound pm

Wed Jan 26 2022 14:37:06 GMT-0500 (Eastern Standard Time) - Run Time: 2662ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: Primary travel mode of trip - mode_prime

Column: 2006 GTA zone of destination - gta06_dest

RowG:

ColG:(4034,4035,4037)

TblG:

Filters:

Start time of trip - start_time In 1600-1900

Trip 2016

Table:

,1		
Transit excludir	155	2%
Cycle	141	1%
Auto driver	7077	73%
GO rail only	409	4%
Joint GO rail ar	189	2%
Auto passenge	1614	17%
School bus	16	0%
Taxi passenger		0%
Paid rideshare	23	0%
Walk	44	0%
	9668	

AM TOTAL

Transit excluding GO rail	161	1%
Cycle	283	2%
Auto driver	9444	66%
GO rail only	461	3%
Joint GO rail and local transit	213	1%
Auto passenger	1914	13%
School bus	546	4%
Taxi passenger	0	0%
Paid rideshare	0	0%
Walk	1212	9%
	14234	

PM TOTAL

Transit excludir	305	2%
Cycle	217	1%
Auto driver	12312	74%
GO rail only	409	2%
Joint GO rail ar	268	2%
Auto passenge	2848	17%
School bus	16	0%
Taxi passenger	14	0%
Paid rideshare	23	0%
Walk	295	2%
	16707	**100%**

	Percentage Split	
portation	AM	PM
Transit	6%	6%
Auto driver	66%	74%
Auto passer	17%	17%
Active Tra	11%	3%
TOTAL	100%	100%


GHD