# Traffic Study FINAL - Rev.0

**WS Vidal Properties LP** 14937 Thrift Avenue Development

June 29, 2020

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## 1 INTRODUCTION

## 1.1 Background

R.F. Binnie & Associates Ltd. (Binnie) was retained by WestStone Group (the Developer) to prepare a traffic study for a proposed multi-family residential development in the City of White Rock (the City), BC. The proposed development is located at 14937 Thrift Avenue, as shown in **Figure 1-1**. The proposed site plan of the study development is provided in **Appendix A** and it is expected to provide a total of 129 residential units.

## 1.2 Study Objectives

The purpose of this study is to review the background conditions within the study area and analyze traffic and parking impacts generated by the proposed development. If any traffic issues are identified, this report will recommend improvements to mitigate them.

The objectives of this traffic study are to make considerations regarding the following items:

- Review the background information available for this study development and the surrounding area:
- Assess pedestrian, cyclist and transit connections and accessibility;
- Examine the City's parking requirements according to the Bylaw and review the on-site vehicle and bicycle parking supply;
- Estimate the site generated traffic volumes from the proposed development and the trip distribution;
- Analyze existing and forecast traffic operations on the study road network with and without site generated traffic volumes;
- Review existing development plan for pedestrian access, vehicle access, bicycle and storage access, and loading provisions;
- Assess the proposed access and internal traffic circulation within the proposed development;
   and
- Recommend necessary transportation improvements based on the traffic analysis findings.



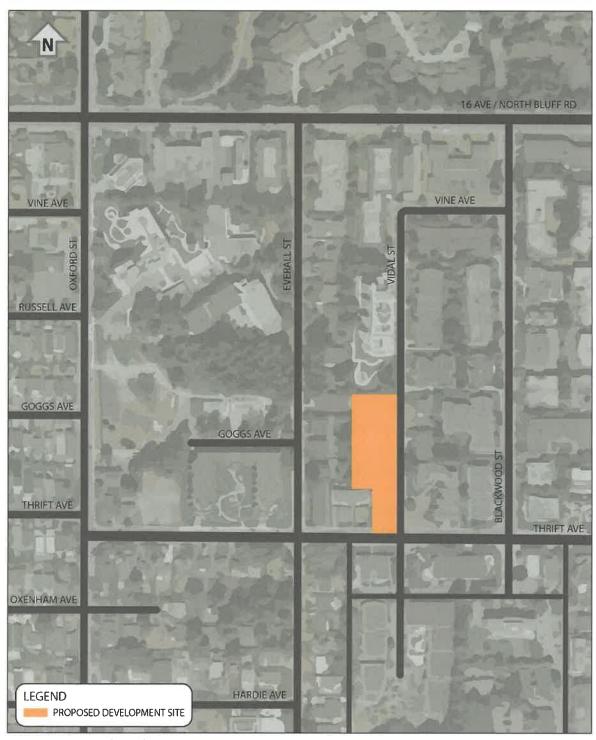


Figure 1-1: Proposed Development Location



## 2 EXISTING CONDITIONS

#### 2.1 Site Location

The proposed development is located in White Rock at the northwest corner of the intersection of Thrift Avenue and Vidal Street. The land-use surrounding the development is medium density multi-unit residential (RM-2) to the east, and single-unit residential to the southwest (RS-1 and RS-2). There are also several comprehensive district developments such as "Beverly" at 1501 Vidal Street directly to the north, and "Royce" located to the east at 14855 Thrift Avenue.

Adjacent to the proposed development, Thrift Avenue, Oxford Street, and Martin Street are classified as primary collectors with two lanes and on-street parking. Vidal Street, Vine Avenue, and Blackwood Street are classified as local roads with two lanes and on-street parking. North Bluff Road to the north is classified as an arterial road with four lanes and on-street parking along portions of the south side of the street.

The study development is also located at approximately 900 m to the southwest of Semiahmoo Shopping Centre and White Rock Centre Transit Exchange.

## 2.2 Adjacent Road Network

#### 2.2.1 Thrift Avenue

Thrift Avenue is a two-lane roadway classified as a primary collector that runs in the east-west direction within the study area. It begins just west of Oxford Street before becoming 14<sup>th</sup> Avenue at 160<sup>th</sup> Street. Within the study area, on-street parking is permitted on Thrift Avenue. Thrift Avenue also has a posted speed limit of 50 km/h.

#### 2.2.2 Oxford Street

Oxford Street is a two-lane roadway classified as a primary collector that runs in the north-south direction within the study area. Oxford Street travels from Marine Drive to North Bluff Road, where it becomes 148th Street north of North Bluff Road. Oxford street has a posted speed limit of 50km/h and within the study area, on-street parking is permitted on either side of the road.

#### 2.2.3 Everall Street

Everall Street is a two-lane roadway classified as a local road that runs in the north-south direction within the study area. Everall Street travels between North Bluff Road and Buena Vista Avenue. On-street parking is permitted on either side of the road.

#### 2.2.4 Vidal Street

Vidal Street is a two-lane roadway classified as a local road that runs in the north-south direction within the study area. Vidal Street begins at Vine Avenue and ends just south of Thrift Avenue. On-street parking is permitted on either side of the road.



#### 2.2.5 Blackwood Street

Blackwood Street is a two-lane roadway classified as a local road that runs in the north-south direction within the study area. Blackwood Street begins at North Bluff Road and ends just south of Thrift Avenue. On-street parking is permitted on either side of the road.

## 2.3 Study Intersections

## 2.3.1 Thrift Avenue and Oxford Street

The Thrift Avenue and Oxford Street intersection is currently an offset four-legged two-way stop-controlled intersection. The west approach is located slightly north of the east approach. Thrift Avenue is stop-controlled while traffic on Oxford Street is free-flowing. All approaches have a single lane with no dedicated lanes or storage lanes for vehicles turning left or right. Pedestrian crosswalks are currently provided on the north, east, and south approaches of this intersection.

#### 2.3.2 Thrift Avenue and Everall Street

The Thrift Avenue and Everall Street intersection is currently a four-legged two-way stop-controlled intersection. Everall Street is stop-controlled while traffic on Thrift Avenue is free-flowing. All approaches have a single lane with no dedicated lanes or storage lanes for vehicles turning left or right. There is a pedestrian crosswalk with overhead flashing lights on the west approach of this intersection, and a standard pedestrian crosswalk on the north approach.

#### 2.3.3 Thrift Avenue and Vidal Street

The Thrift Avenue and Vidal Street intersection is currently a four-legged two-way stop-controlled intersection. Vidal Street is stop-controlled while traffic on Thrift Avenue is free-flowing. All approaches have a single lane with no dedicated lanes or storage lanes for vehicles turning left or right.

#### 2.3.4 Thrift Avenue and Blackwood Street

The Thrift Avenue and Blackwood Street intersection is currently a four-legged two-way stop-controlled intersection. Blackwood Street is stop-controlled while traffic on Thrift Avenue is free-flowing. All approaches have a single lane with no dedicated lanes or storage lanes for vehicles turning left or right.

The existing laning configurations and traffic controls at the study intersections are shown in **Figure 2-1**.



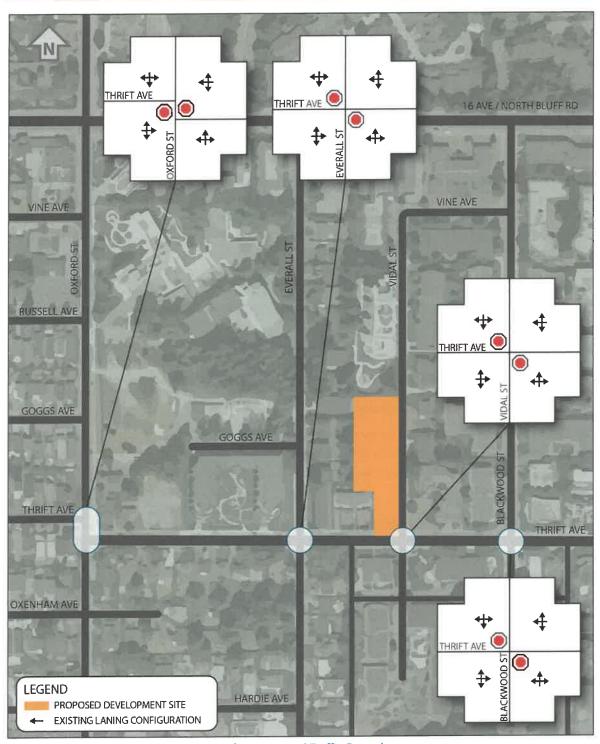


Figure 2-1: Existing Intersection Laning Configuration and Traffic Controls



## 2.4 Existing Traffic Volumes

Existing traffic volumes for the study intersections along Thrift Avenue were collected by Binnie on May 20, 2019. This included the intersections of Vidal Street at Thrift Avenue, Everall Street at Thrift Avenue, and Blackwood Street at Thrift Avenue. Traffic data for Oxford Street at Thrift Avenue was provided in the background documents from the City. The 2019 existing traffic volumes for the AM peak hour and PM peak hour are summarized in **Figure 2-2**.

#### 2.4.1 Thrift Avenue and Oxford Street

During the AM peak hour, 98 vehicles were observed to be travelling northbound on Oxford Street and 207 were observed to be travelling in the southbound direction. 212 vehicles were observed to be travelling westbound along Thrift Avenue and ten vehicles were observed to be travelling eastbound along Thrift Avenue.

During the PM peak hour, 69 vehicles were observed to be travelling northbound on Oxford Street and 271 were observed to be travelling in the southbound direction. 232 vehicles were observed to be travelling westbound along Thrift Avenue and 14 vehicles were observed to be travelling eastbound along Thrift Avenue.

The predominant turning movements at this intersection were observed to be the southbound left-turn movement and the westbound right-turn movement during both the AM peak hour and PM peak hour.

#### 2.4.2 Thrift Avenue and Everall Street

During the AM peak hour, nine vehicles were observed to be travelling northbound on Everall Street and 24 were observed to be travelling in the southbound direction. 226 vehicles were observed to be travelling westbound along Thrift Avenue and 174 vehicles were observed to be travelling eastbound along Thrift Avenue.

During the PM peak hour, six vehicles were observed to be travelling northbound on Everall Street and 16 were observed to be travelling in the southbound direction. 252 vehicles were observed to be travelling westbound along Thrift Avenue and 170 vehicles were observed to be travelling eastbound along Thrift Avenue.

#### 2.4.3 Thrift Avenue and Vidal Street

During the AM peak hour, 22 vehicles were observed to be travelling northbound on Vidal Street and 24 were observed to be travelling in the southbound direction. 226 vehicles were observed to be travelling westbound along Thrift Avenue and 174 vehicles were observed to be travelling eastbound along Thrift Avenue.

During the PM peak hour, 14 vehicles were observed to be travelling northbound on Vidal Street and 22 were observed to be travelling in the southbound direction. 250 vehicles were observed to be travelling westbound along Thrift Avenue and 178 vehicles were observed to be travelling eastbound along Thrift Avenue.



12 %

#### 2.4.4 Thrift Avenue and Blackwood Street

During the AM peak hour, 19 vehicles were observed to be travelling northbound on Blackwood Street and 21 were observed to be travelling in the southbound direction. 203 vehicles were observed to be travelling westbound along Thrift Avenue and 212 vehicles were observed to be travelling eastbound along Thrift Avenue.

During the PM peak hour, two vehicles were observed to be travelling northbound on Blackwood Street and 42 were observed to be travelling in the southbound direction. 252 vehicles were observed to be travelling westbound along Thrift Avenue and 182 vehicles were observed to be travelling eastbound along Thrift Avenue.



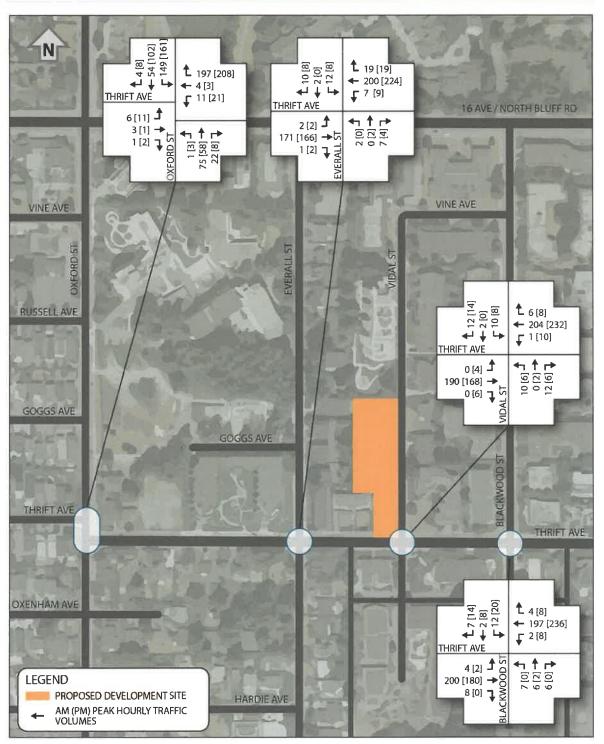


Figure 2-2: 2019 Existing Traffic Volumes



#### 2.5 Pedestrian Accommodations

As described in **Section 2.1**, pedestrian facilities are currently provided on both the north side and south side of Thrift Avenue, and the east side and west side of Vidal Street immediately adjacent to the development. There are pedestrian crosswalks that facilitate crossing Everall Street and Thrift Avenue located approximately 100 m to the west. There is a painted crosswalk on the north approach at the intersection of Vidal Street and Thrift Avenue.

## 2.6 Cyclist Accommodations

Within the study area, there are several cyclist facilities in close proximity to the proposed development, which are shown in **Figure 2-3**. Thrift Avenue is classified as a Major Street Shared Lane which provides an east-west cycling connection through White Rock and south Surrey. Nearby, Martin Street is also classified as a Major Street Shared Lane which provides cycling access to the north.

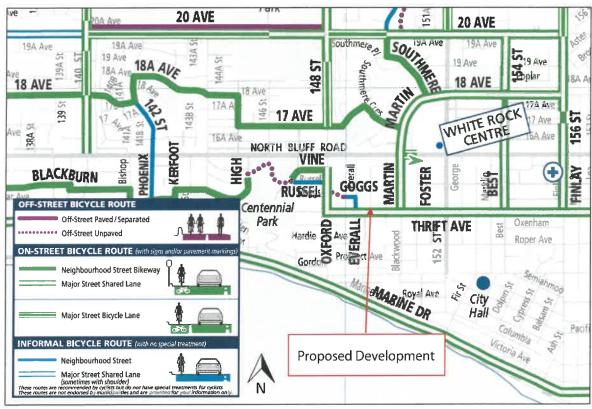


Figure 2-3: White Rock Cycling Map (TransLink, December 2016)

## 2.7 Transit Services

The public transit service within the City are currently provided by TransLink with three bus routes located along Thrift Avenue with stops within one block of the development:

Route #351 Bridgeport Station/Crescent Beach – This bus route operates between Bridgeport
 Station in Richmond and Crescent Beach in Surrey, travelling along Highway 99, King George



Highway and White Rock Centre. There is a westbound bus stop located one block east of the proposed development and an eastbound bus stop located directly across the street from the development.

- Route #345 King George Station/White Rock Centre This bus route operates between King George Station Surrey and White Rock Centre, travelling along 152 Street and Fraser Highway.
   There is a westbound bus stop located one block east of the proposed development.
- Route #321 Surrey Central Station/Newton Exchange / White Rock Centre This bus route operates between Surrey Centre Station, Newton Exchange, and White Rock Centre, travelling along King George Boulevard. There is a westbound bus stop located one block east of the proposed development.

The existing transit routes are shown in Figure 2-4.



Figure 2-4: Existing Transit Routes in White Rock (TransLink, 2018)



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# **3 FUTURE CONDITIONS**

## 3.1 Proposed Development Concept

The proposed development is located at the northwest corner of the intersection of Thrift Avenue and Vidal Street. Based on the information received from the Developer on May 1, 2019, the proposed development is expected to provide 129 rental residential units when it is completed.

The study development is proposing a two-way access on the east side of the property which will allow vehicles to enter and exit the underground parking levels from Vidal Street. This driveway will be located to the north of the intersection of Vidal Street and Thrift Avenue.

## 3.2 Phasing and Timing

The proposed opening day of the study development is expected to be in the 2022 horizon year. It is expected that all 129 rental residential units will be built out in one phase.

#### 3.3 Pedestrian Accommodations

The proposed entrance of the development is expected to be located on Vidal Street. Pedestrians will be able to access proposed development using the existing crosswalk at the north approach of the intersection of Vidal Street and Thrift Avenue. As previously mentioned in **Section 2.5**, there are also pedestrian facilities provided as part of the proposed development along the south and east sides of the property.

## 3.4 Cycling Accommodations

There are also a number of bicycle routes in the vicinity of the proposed development. As mentioned in **Section 2.5** and shown in **Figure 2-3**, Thrift Avenue is classified as a Major Street Shared Lane which provides an east-west cycling connection through White Rock and south Surrey. Nearby, Martin Street is also classified as a Major Street Shared Lane which provides cycling access to the north.

As part of the proposed development, a total of 129 Class 1 long-term secure bicycle parking spaces will be provided and they will be accessed from Vidal Street. A total of 27 Class 2 short-term bicycle parking spaces will be provided and they will be accessed at ground level from Vidal Street.

## 3.5 Transit Services

Based on the information provided by the TransLink website, there are currently no planned changes to the transit routes nearby to the development. The three bus routes summarized in **Section 2.7** are expected to continue operating on Thrift Avenue in front of the proposed development.

#### 3.6 Road Network Upgrades

It is assumed that there will be no major changes to the existing road network at the study intersections for the opening day or horizon year scenarios. According to the City's Strategic Transportation Plan, published 2014, Thrift Avenue is identified as a potential complete street. This would include the



possible installation of protected bicycle lanes along the corridor while the existing two travel lanes appear to be maintained for the foreseeable future.

## 3.7 Trip Generation and Distribution

The forecast trip generation for the proposed study and adjacent developments was estimated based on the rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation, 10<sup>th</sup> Edition.* The trip generation rates for the developments are assumed to be consistent with the following land use category outlined in the ITE guidelines:

Residential Mid-Rise Multifamily Housing (ITE Ref. 221)

This land use is for multi-unit residential buildings between three and ten floors, including rental and non-rental units with recent data collected from 35 locations across North America. The ITE parking rates include both resident and visitor parking demands. Further details on ITE Ref. 221 are provided in Appendix C.

The forecast site generated traffic volumes for the proposed study developments are summarized in **Table 3-1**.

Table 3-1: Forecast Study Development Site Generated Traffic

Description	Size	Unit	ITE Ref.	Avg. Trip Ends / Unit	Trip Gen.	% Entering	% Exiting	Vehicle Entering	Vehicle Exiting
AM Peak Hour				PRIORITION NO SELECTIVO DE LA CONTRACTIVO DELLA CONTRACTIVA DELLA CONTRACTIVA DELLA CONTRACTIVA DELLA CONTRACTIVA DELLA CONTRACTIVA DELLA		,			
Apartments	129	Units	221	0.36	47	26	74	12	35
						·······	Total:	12	35
PM Peak Hour	58 - 11 M - M - 13 - 2								
Apartments	129	Units	221	0.44	57	61	39	35	22
		***************************************					Total:	35	22

The forecast trip distribution for the site generated traffic volumes was estimated based on the existing travel patterns as identified by the turning movement counts. The forecast trip distribution and site generated traffic volumes are shown in **Figure 3-1** and **Figure 3-2**, respectively.



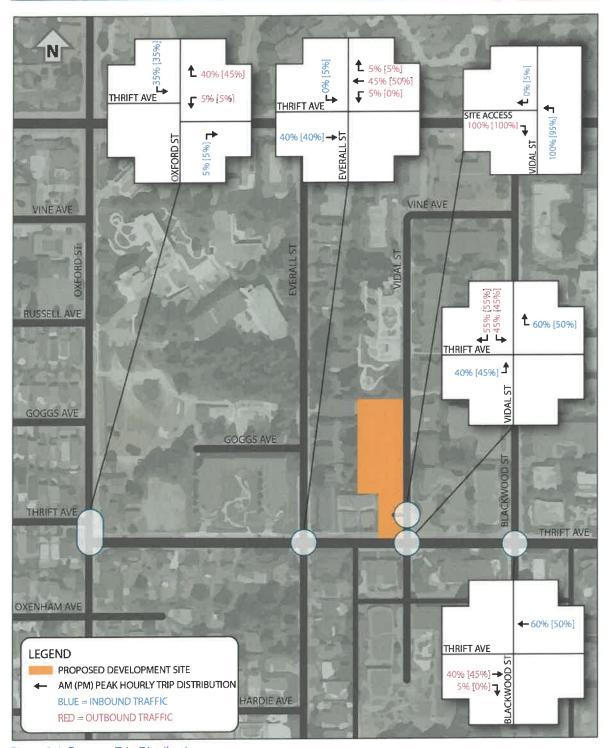


Figure 3-1: Forecast Trip Distribution



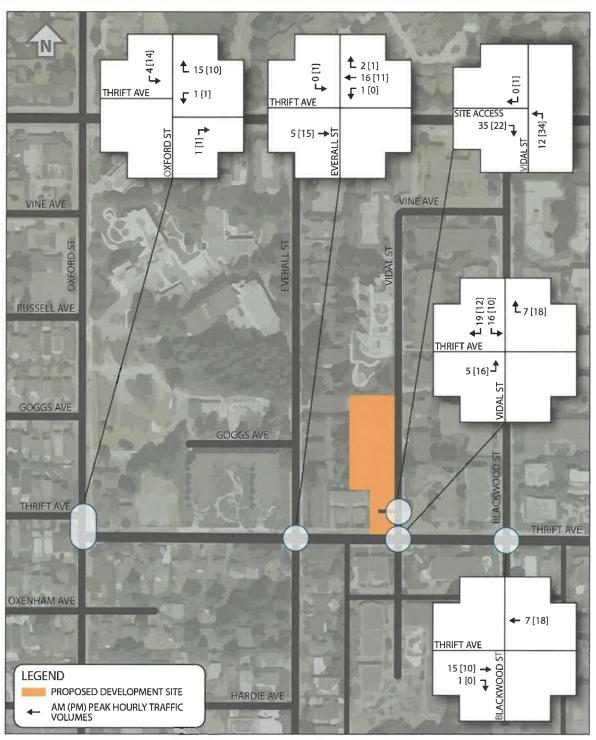


Figure 3-2: Forecast Site Generated Traffic Volumes



## **4 TRAFFIC OPERATIONS ANALYSIS**

## 4.1 Methodologies

The traffic operations analysis in this report was performed using the Synchro 10 software suite for unsignalized intersections, which is generally based on the Highway Capacity Manual (HCM) methodologies. The traffic operations for each scenario were evaluated to estimate the volume-to-capacity (v/c) ratio, delay, level-of-service (LOS), and 95<sup>th</sup> percentile queue length at the study intersections.

When reviewing the traffic analysis results, a v/c ratio at or above 1.0 typically indicates that traffic volumes exceed the intersection capacity. Delay, in terms of seconds, represents the average wait time experienced by a driver on the approach to the intersection. LOS is a grading system on intersection operation based on the calculated delay as shown in **Table 4-1** for a signalized intersection and **Table 4-2** for an unsignalized intersection. LOS A means that the intersection experiences little to no delay whereas a LOS F indicates significant delay is present.

Table 4-1: HCM LOS Criteria for Signalized Intersection

Level of Service	Average Control Delay (s/veh)
Α	0 - 10
В	> 10 - 20
C	> 20 - 35
D	> 35 - 55
E	> 55 - 80
F	> 80

Table 4-2: HCM LOS Criteria for Unsignalized Intersection

Level of Service	Average Control Delay (s/veh)
A	0 - 10
В	> 10 - 15
C	> 15 - 25
D	> 25 - 35
E	> 35 - 50
F	> 50

The traffic operation analysis is conducted based on the following study thresholds:

- Overall intersection and individual movement of LOS D or better
- Individual movement v/c ratio of 0.85 or less
- Delay less than 35 s (unsignalized)
- Delay less than 55 s (signalized)
- 95<sup>th</sup> percentile queue lengths impacting adjacent intersections or accesses

The detailed traffic analysis results from Synchro will be provided for the final report in **Appendix D**.



## 4.2 Existing Traffic Operations

The existing traffic operations analysis on the study road network was completed using the 2019 existing traffic volumes summarized in **Figure 2-2.** The analysis was performed based on the existing intersection configurations and controls shown in **Figure 2-1**.

#### 4.2.1 AM Peak Hour

During the AM peak hour, all the target intersections were found to be operating within the study thresholds. The maximum v/c ratio was found to be 0.25 for the westbound movements at the intersection of Thrift Avenue and Oxford Street.

#### 4.2.2 PM Peak Hour

During the PM peak hour, all the target intersections were found to be operating within the study thresholds. The maximum v/c ratio was found to be 0.28 for the westbound movements at the intersection of Thrift Avenue and Oxford Street.

The traffic operations analysis results based on the 2019 existing traffic volumes are summarized in **Table 4-3**.

Table 4-3: 2019 Existing Traffic Operations

Intersection	Turning		AM Pe	ak Hour			PM Pe	ak Hour		
mersection	Movement	LOS	Delay (s)	V/C Ratio	95% Q (m)	LOS	Delay (s)	V/C Ratio	95% Q (m)	
Theift Assessed	WBL/R	В	10.3	0.25	7.6	В	10.6	0.28	8.8	
Thrift Avenue at Oxford Street South	NBT/R	Α	-	0.06	7.52	Α	-	0.04	-	
(Unsignalized)	SBL/T	Α	5.9	0.11	2.8	Α	5.0	0.12	3.0	
(Orisignalized)	Int. LOS			A				A		
Thuist Avenue of	EBL/R	В	11.8	0.03	0.7	В	12.4	0.03	0.7	
Thrift Avenue at Oxford Street North	NBL/T	А	0.2	0.00	0.1	Α	0.2	0.01	0.1	
(Unsignalized)	SBT/R	Α		0.13		Α		0.17	-	
(Unsignalized)	Int LOS			A		A				
	EBL/T/R	Α	0.1	0.00	141	А	0.1	0.00	-	
Thrift Avenue at	WBL/T/R	Α	0.3	0.01	0.1	Α	0.3	0.01	0.2	
Everall Street	NBL/T/R	Α	9.8	0.01	0.3	В	10.3	0.01	0.2	
(TWSC)	SBL/T/R	В	11.2	0.04	1.0	В	11.1	0.03	0.7	
	Int LOS			A		A				
	EBL/T/R	Α	-	0.00	721	Α	0.2	0.00	0.1	
Thrift Avenue at Vidal	WBL/T/R	Α	_	0.00	-	Α	0.4	0.01	0.2	
Street	NBL/T/R	В	10.8	0.04	0.9	В	11.2	0.03	0.6	
(TWSC)	SBL/T/R	В	11.0	0.04	1.0	В	10.9	0.04	0.9	
	Int LOS			A		A				
	EBL/T/R	Α	0.2	0.00	0.1	Α	0.1	0.00	-	
Thrift Avenue at	WBL/T/R	Α	0.1	0.00	-	Α	0.3	0.01	0.2	
Blackwood Street	NBL/T/R	В	11.5	0.04	0.9	В	12.6	0.00	0.1	
(TWSC)	SBL/T/R	В	11.5	0.04	0.9	В	12.1	0.08	2.0	
	Int. LOS			Ą				A		

## 4.3 Background Traffic Operation Analysis

The forecast background traffic volumes were projected based on an annual growth rate of 2%. The background traffic analysis notes that the following developments are built-out as of the writing of this report. These include developments and facility improvements at the following locations:



- Evergreen Baptist of Care Facility Expansion;
- 14855 Thrift Avenue; and
- 1501 Vidal Street.

Additionally, several proposed developments were identified through documents provided by the City. These locations were noted yet to be completed and are assumed to be fully built out in the future background traffic volumes. The Institute of Transportation Engineers' (ITE) *Trip Generation*, 10<sup>th</sup> Edition trip generation rates were used when required and their site-generated traffic was assumed to be inclusive in the background traffic volumes without being subject to the annual growth:

- 1454 Oxford Street;
- 1434 Oxford Street, 14809 Thrift Avenue, 14815 Thrift Avenue; and
- 14825 Thrift Avenue, 14835 Thrift Avenue.

## 4.3.1 2022 Opening Day Background Traffic Operations

The 2022 opening day background traffic operations analysis assumes the existing intersection and laning configurations. The 2022 opening day background traffic volumes are shown in **Figure 4-1**.

#### **AM Peak Hour**

During the AM peak hour, all of the study intersections are expected to operate within the study thresholds. The maximum v/c ratio is expected to be 0.28 for the westbound movements at the intersection of Thrift Avenue and Oxford Street.

#### **PM Peak Hour**

During the PM peak hour, all of the study intersections are expected to operate within the study thresholds. The maximum v/c ratio is expected to be 0.31 for the westbound movements at the intersection of Thrift Avenue and Oxford Street.

The 2022 opening day background traffic analysis results are summarized in Table 4-4.



Table 4-4: 2022 Opening Day Background Traffic Operations

Intersection	Turning		AM Pe	ak Hour			PM Pe	ak Hour			
mersection	Movement	LOS	Delay (s)	V/C Ratio	95% Q (m)	LOS	Delay (s)	V/C Ratio	95% Q (m		
Thrift Avenue at	WBL/R	В	10.5	0.28	8.7	В	10.9	0.31	10.2		
Oxford Street South	NBT/R	Α	- 1	0.07	- 1	Α	-	0.05	-		
(Unsignalized)	SBL/T	Α	6.0	0.12	3.2	Α	5.2	0.13	3.4		
(Onsignanzeu)	Int. LOS			A				A			
T1 -10 4	EBL/R	В	11.6	0.02	0.5	В	12.9	0.03	0.8		
Thrift Avenue at	NBL/T	Α	0.2	0.00	0.1	Α	0.2	0.01	0.1		
Oxford Street North (Unsignalized)	SBT/R	Α	-	0.14		A	-	0.19	-		
(Orisignalizeu)	Int. LOS			A		A					
	EBL/T/R	Α	0.1	0.00	-	Α	0.1	0.00	-		
Thrift Avenue at	WBL/T/R	Α	0.3	0.01	0.1	Α	0.4	0.01	0.2		
Everall Street	NBL/T/R	В	10.0	0.01	0.3	В	10.5	0.01	0.2		
(TWSC)	SBL/T/R	В	11.5	0.05	1.1	В	11.4	0.03	0.7		
	Int. LOS		4	Ą		A					
	EBL/T/R	Α	-	0.00	- 1	А	0.2	0.00	0.1		
Thrift Avenue at Vidal	WBL/T/R	Α	-	0.00	- 1	А	0.4	0.01	0.2		
Street	NBL/T/R	В	11.1	0.04	1.0	В	11.6	0.03	0.7		
(TWSC)	SBL/T/R	В	11.3	0.05	1.1	В	11.2	0.04	1.0		
	Int. LOS			A		A					
	EBL/T/R	Α	0.1	0.00	0.1	Α	0.1	0.00	-		
Thrift Avenue at	WBL/T/R	Α	0.1	0.00	- 1	Α	0.3	0.01	0.2		
Blackwood Street	NBL/T/R	В	11.9	0.04	1.0	В	13.0	0.00	0.1		
(TWSC)	SBL/T/R	В	11.9	0.04	1.0	В	12.5	0.09	2.3		
	Int. LOS			A				A			



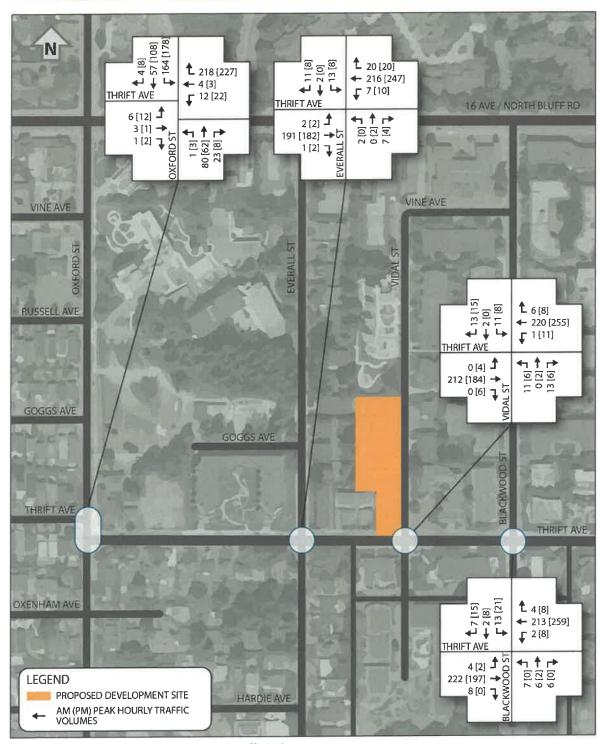


Figure 4-1: 2022 Opening Day Background Traffic Volumes



## 4.3.2 2032 Opening Day +10 Years Background Traffic Operations

The 2032 opening day plus 10 years background traffic operations analysis assumes the existing intersection and laning configurations. The 2032 background traffic volumes were determined by applying a growth factor of 2% per year to the existing traffic volumes. These are shown in **Figure 4-2**.

## **AM Peak Hour**

During the AM peak hour, all of the study intersections are expected to operate within the study thresholds. The maximum v/c ratio is expected to be 0.37 for the westbound movements at the intersection of Thrift Avenue and Oxford Street.

#### **PM Peak Hour**

During the PM peak hour, all of the study intersections are expected to operate within the study thresholds. The maximum v/c ratio is expected to be 0.40 for the westbound movements at the intersection of Thrift Avenue and Oxford Street.

The 2032 background traffic analysis results are summarized in **Table 4-5**.

Table 4-5: 2032 Opening Day +10 Years Background Traffic Operations

luta es etia e	Turning	1 -1	AM Pe	ak Hour		PM Peak Hour				
Intersection	Movement	LOS	Delay (s)	V/C Ratio	95% Q (m)	LOS	Delay (s)	V/C Ratio	95% Q (m)	
71.10.4	WBL/R	В	11.7	0.37	12.9	В	12.2	0.40	14.7	
Thrift Avenue at Oxford Street South	NBT/R	Α	-	0.08	- 1	Α	-	0.06	-	
(Unsignalized)	SBL/T	Α	6.2	0.15	4.1	А	5.4	0.16	4.2	
(Unsignalized)	Int. LOS			A				A		
Th. 160 A	EBL/R	В	11.6	0.03	0.6	В	14.5	0.05	1.1	
Thrift Avenue at Oxford Street North	NBL/T	Α	0.2	0.01	0.1	Α	0.3	0.01	0.2	
(Unsignalized)	SBT/R	Α	-	0.11	- 1	Α	-	0.23	-	
(Unsignalized)	Int LOS			A			70 12 1	A		
	EBL/T/R	Α	0.1	0.00	0.1	Α	0.1	0.00	0.1	
Thrift Avenue at	WBL/T/R	Α	0.3	0.01	0.2	Α	0.4	0.01	0.2	
Everall Street	NBL/T/R	В	10.7	0.02	0.5	В	11.3	0.01	0.3	
(TWSC)	SBL/T/R	В	12.6	0.07	1.6	В	12.5	0.04	1.0	
	Int LOS			A		Α				
	EBL/T/R	Α		0.00	- 1	Α	0.2	0.00	0.1	
Thrift Avenue at Vidal	WBL/T/R	Α	-	0.00		Α	0.4	0.01	0.2	
Street	NBL/T/R	В	12.0	0.06	1.4	В	12.8	0.04	1.0	
(TWSC)	SBL/T/R	В	12.3	0.06	1.6	В	12.1	0.06	1.4	
	Int LOS			A	1	A				
	EBL/T/R	Α	0.2	0.00	0.1	Α	0.1	0.00	0.1	
Thrift Avenue at	WBL/T/R	Α	0.1	0.00	0.1	Α	0.3	0.01	0.2	
Blackwood Street	NBL/T/R	В	13.1	0.06	1.4	В	14.3	0.01	0.2	
(TWSC)	SBL/T/R	В	13.2	0.06	1.6	В	14.1	0.13	3.4	
	Int. LOS			A				A		



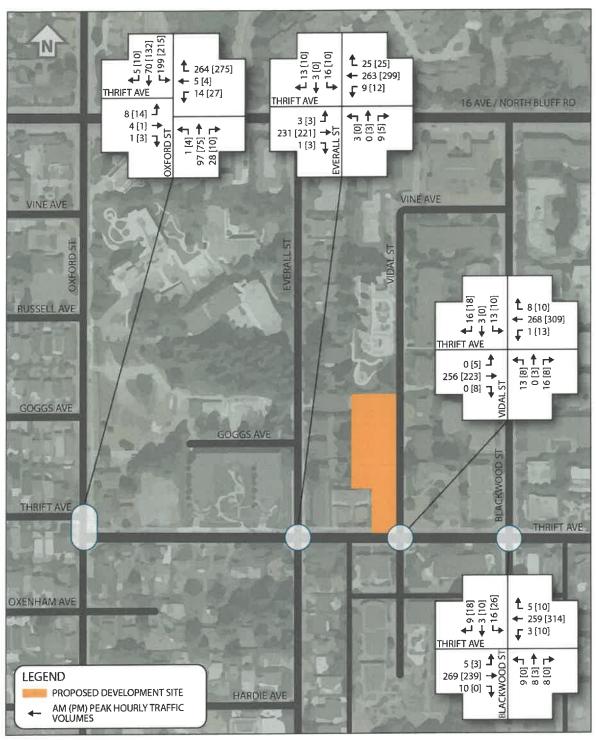


Figure 4-2: 2032 Opening Day +10 Years Background Traffic Volumes



## 4.3.3 2045 Horizon Year Background Traffic Operations

The 2045 horizon year background traffic operations analysis assumes the existing intersection and laning configurations. The 2045 horizon year background traffic volumes were determined by applying a growth factor of 2% per year to the existing traffic volumes. These are shown in **Figure 4-3**.

#### **AM Peak Hour**

During the AM peak hour, all of the study intersections are expected to operate within the study thresholds. The maximum v/c ratio is expected to be 0.50 for the westbound movements at the intersection of Thrift Avenue and Oxford Street.

#### PM Peak Hour

During the PM peak hour, all of the study intersections are expected to operate within the study thresholds. The maximum v/c ratio is expected to be 0.57 for the westbound movements at the intersection of Thrift Avenue and Oxford Street.

The 2045 horizon year background traffic analysis results are summarized in **Table 4-6**.

Table 4-6: 2045 Horizon Year Background Traffic Operations

Intersection	Turning		AM Pe	ak Hour		PM Peak Hour				
Intersection	Movement	LOS	Delay (s)	V/C Ratio	95% Q (m)	LOS	Delay (s)	V/C Ratio	95% Q (m)	
Thuift Assessed at	WBL/R	В	13.9	0.50	21.4	С	15.9	0.57	27.8	
Thrift Avenue at Oxford Street South	NBT/R	Α	-	0.11		Α	-	0.07	-	
(Unsignalized)	SBL/T	Α	6.6	0.20	5.8	Α	5.7	0.20	5.8	
(Orisignalized)	Int LOS			A				A		
Theist Avenue of	EBL/R	В	14.7	0.05	1.2	С	18.5	0.09	2.1	
Thrift Avenue at Oxford Street North	NBL/T	Α	0.3	0.01	0.2	Α	0.3	0.01	0.2	
(Unsignalized)	SBT/R	Α	-	0.23	- 1	Α	-	0.29	-	
(Orisignalized)	Int LOS			A	***************************************			Α	A	
	EBL/T/R	Α	0.1	0.00	0.1	Α	0.1	0.00	0.1	
Thrift Avenue at	WBL/T/R	Α	0.4	0.01	0.2	А	0.4	0.01	0.3	
Everall Street	NBL/T/R	В	11.4	0.03	0.7	В	13.2	0.03	0.7	
(TWSC)	SBL/T/R	В	14.9	0.11	2.7	В	14.6	0.07	1.7	
	Int. LOS			A		A				
	EBL/T/R	А	I -	0.00	- 1	Α	0.3	0.01	0.2	
Thrift Avenue at Vidal	WBL/T/R	Α	0.1	0.00	-	Α	0.5	0.01	0.3	
Street	NBL/T/R	В	14.0	0.09	2.3	С	15.1	0.07	1.6	
(TWSC)	SBL/T/R	В	14.3	0.10	2.5	В	14.1	0.09	2.2	
	Int. LOS			A		A				
	EBL/T/R	Α	0.2	0.01	0.2	Α	0.1	0.00	0.1	
Thrift Avenue at	WBL/T/R	Α	0.1	0.00	0.1	Α	0.4	0.01	0.3	
Blackwood Street	NBL/T/R	С	15.6	0.09	2.3	С	16.9	0.01	0.2	
(TWSC)	SBL/T/R	С	15.9	0.10	2.6	С	17.7	0.21	5,9	
	Int LOS	- AMMANIOC		A				4		



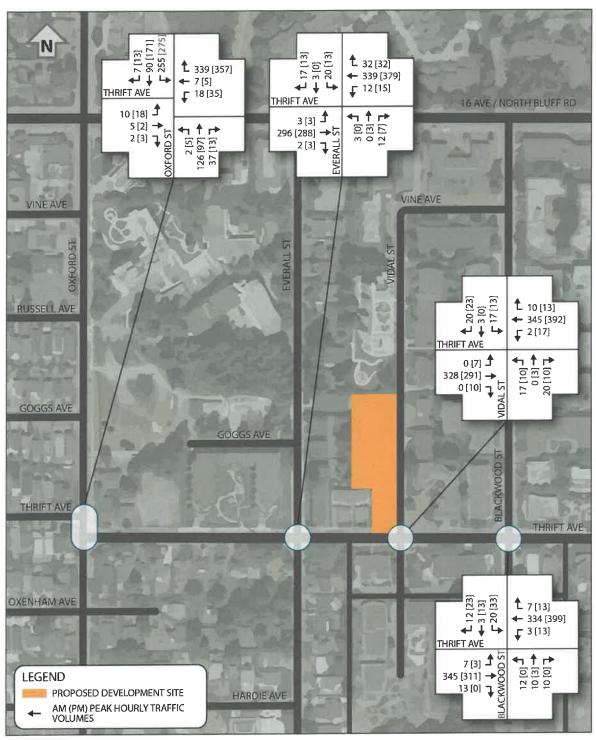


Figure 4-3: 2045 Horizon Year Background Traffic Volumes



## 4.4 Combined Traffic Operation Analysis

The combined traffic operation analysis considers both the background traffic growth as well as the site generated traffic volumes. The study development is expected to have one stop-controlled access on Vidal Street where free-flow traffic will be maintained on the local roadway. The proposed laning for the 2022 horizon year combined traffic operations analysis is shown in **Figure 4-4**.

## 4.4.1 2022 Opening Day Combined Traffic Conditions

The opening day 2022 horizon year combined traffic operation analysis is performed based on the forecast traffic volumes shown in **Figure 4-5**.

#### **AM Peak Hour**

During the AM peak hour, all of the study intersections are expected to operate within the study thresholds. The maximum v/c ratio is expected to be 0.30 for the westbound movements at the intersection of Thrift Avenue and Oxford Street.

#### **PM Peak Hour**

During the PM peak hour, all of the study intersections are expected to operate within the study thresholds. The maximum v/c ratio is expected to be 0.33 for the westbound movements at the intersection of Thrift Avenue and Oxford Street.

The combined traffic analysis for the 2022 horizon year is shown in **Table 4-7**.



Table 4-7: 2022 Opening Day Combined Traffic Operations

	Turning		AM Pe	ak Hour		PM Peak Hour				
Intersection	Movement	LOS	Delay (s)	V/C Ratio	95% Q (m)	LOS	Delay (s)	V/C Ratio	95% Q (m	
	WBL/R	В	10.7	0.30	9.7	В	11.2	0.33	11.0	
Thrift Avenue at	NBT/R	Α	-	0.07	-	Α	-	0.05	-	
Oxford Street South	SBL/T	Α	6.1	0.13	3.3	Α	5.4	0.14	3.7	
(Unsignalized)	Int. LOS	***************************************		4			1	4		
	EBL/R	В	11.7	0.02	0.5	В	13.2	0.04	0.8	
Thrift Avenue at	NBL/T	Α	0.1	0.00	0.1	Α	0.2	0.01	0.1	
Oxford Street North	SBT/R	Α		0.15	-	Α	I -	0.20		
(Unsignalized)	Int. LOS			4				1		
	EBL/T/R	Α	0.1	0.00	- [	Α	0.1	0.00	-	
Thrift Avenue at	WBL/T/R	Α	0.3	0.01	0.2	Α	0.3	0.01	0.2	
Everall Street	NBL/T/R	В	10.1	0.01	0.3	В	10.7	0.01	0.2	
(TWSC)	SBL/T/R	В	11.7	0.05	1.2	В	11.7	0.03	8.0	
	Int. LOS		damman da	4		*****		4		
	EBL/T/R	A	0.2	0.00	5.3	Α	0.9	0.02	0.4	
Thrift Avenue at	WBL/T/R	Α		0.00		Α	0.4	0.01	0.2	
Vidal Street	NBL/T/R	В	11.5	0.04	2.2	В	12.2	0.03	0.7	
(TWSC)	SBL/T/R	В	11.7	0.11	2.5	В	12.0	0.09	2.2	
	Int. LOS			4		À				
	EBL/T/R	Α	0.1	0.00	0.1	Α	0.1	0.00	_	
Thrift Avenue at	WBL/T/R	Α	0.1	0.00	<u>-</u>	Α	0.3	0.01	0.2	
Blackwood Street	NBL/T/R	В	12.1	0.04	1.0	В	13.3	0.00	0.1	
(TWSC)	SBL/T/R	В	12.1	0.05	1.1	В	12.8	0.09	2.4	
	Int. LOS	***************************************		٩				1		
Vidal Street at	EBL/R	Α	8.6	0.04	0.9	Α	8.5	0.02	0.5	
Development	NBL/T	Α	4.8	0.01	0.2	Α	5.3	0.02	0.5	
Access	SBT/R	Α		0.02	- 1	Α		0.02	-	
(Unsignalized)	Int. LOS			4				101111111111111111111111111111111111111	HISTHER STANOAL	



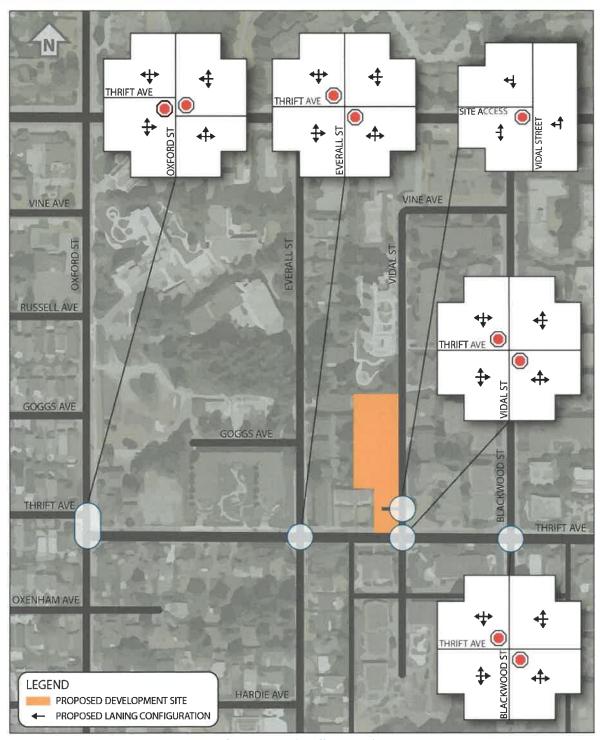


Figure 4-4: 2022 Opening Day Laning Configuration and Traffic Controls



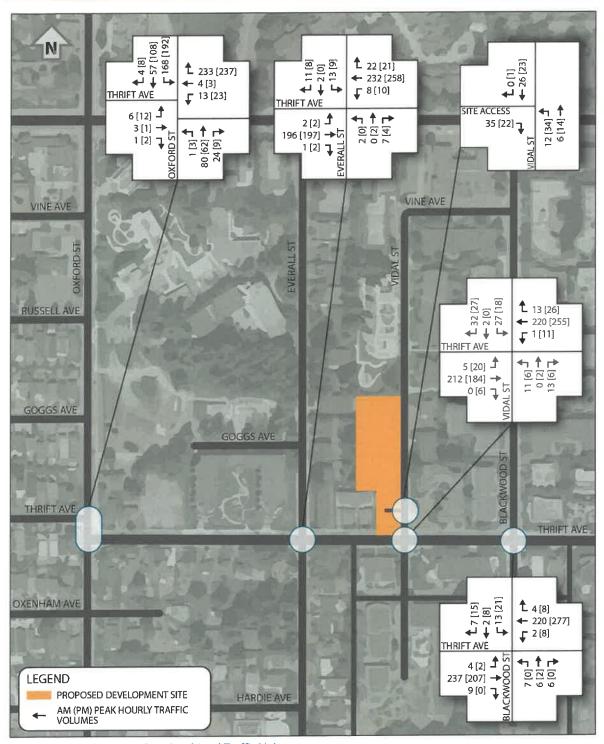


Figure 4-5: 2022 Opening Day Combined Traffic Volumes



## 4.4.2 2032 Opening Day +10 Years Combined Traffic Operations

The 2032 horizon year background traffic operations analysis assumes the existing intersection and laning configurations. The 2032 horizon year combined traffic volumes are shown in **Figure 4-6**.

#### **AM Peak Hour**

During the AM peak hour, all of the study intersections are expected to operate within the study thresholds. The maximum v/c ratio is expected to be 0.38 for the westbound movements at the intersection of Thrift Avenue and Oxford Street.

#### **PM Peak Hour**

During the PM peak hour, all of the study intersections are expected to operate within the study thresholds. The maximum v/c ratio is expected to be 0.48 for the westbound movements at the intersection of Thrift Avenue and Oxford Street.

The 2032 horizon year background traffic analysis results are summarized in **Table 4-8**.

Table 4-8: 2032 Opening Day +10 Years Combined Traffic Operations

Interposition	Turning		AM Pe	ak Hour		PM Peak Hour					
Intersection	Movement	LOS	Delay (s)	V/C Ratio	95% Q (m)	LOS	Delay (s)	V/C Ratio	95% Q (m		
Thuist Access as	WBL/R	В	11.7	0.38	13.4	В	12.9	0.48	20.4		
Thrift Avenue at Oxford Street South	NBT/R	Α	-	0.08	-	Α	-	0.06	-		
(Unsignalized)	SBL/T	Α	6.3	0.16	4.2	Α	5.5	0.17	4.6		
(Onsignanzeu)	Int. LOS	A					À				
Thuist Avenue of	EBL/R	В	13.0	0.03	0.7	В	14.8	0.05	1.2		
Thrift Avenue at Oxford Street North	NBL/T	Α	0.3	0.01	0.2	Α	0.3	0.01	0.2		
(Unsignalized)	SBT/R	Α		0.18		Α		0.24	***************************************		
(Onsignanzeu)	Int. LOS			A			4	Ą	A		
	EBL/T/R	Α	0.1	0.00	0.1	Α	0.1	0.00	0.1		
Thrift Avenue at	WBL/T/R	Α	0.3	0.01	0.2	Α	0.4	0.01	0.2		
Everall Street	NBL/T/R	В	11.2	0.02	0.5	В	11.5	0.01	0.3		
(TWSC)	SBL/T/R	В	14.4	0.08	2.0	В	12.9	0.05	1.1		
	Int. LOS	***************************************		A			77	Ą	<del>&gt;</del>		
	EBL/T/R	Α	0.2	0.00	0.1	Α	0.8	0.02	0.4		
Thrift Avenue at	WBL/T/R	Α	-	0.00	- 1	Α	0.4	0.01	0.2		
Vidal Street	NBL/T/R	В	12.4	0.06	1.5	В	13.5	0.05	1.1		
(TWSC)	SBL/T/R	В	12.9	0.14	3.6	В	13.1	0.11	2.8		
	Int. LOS			À		À					
	EBL/T/R	Α	0.2	0.00	0.1	Α	0.1	0.00	0.1		
Thrift Avenue at	WBL/T/R	Α	0.1	0.00	0.1	Α	0.3	0.01	0.2		
Blackwood Street	NBL/T/R	В	13.4	0.06	1.5	В	14.7	0.01	0.2		
(TWSC)	SBL/T/R	В	13.5	0.07	1.6	В	14.5	0.14	3.5		
	Int. LOS			A		500001-10000000000000000000000000000000	V800141000 U 4 10001 W0000000	A			
Vidal Street at	EBL/R	Α	8.6	0.04	0.9	Α	8.5	0.02	0.5		
Development	NBL/T	Α	4.3	0.01	0.2	Α	4.8	0.02	0.5		
Access	SBT/R	Α	j -	0.02	-	Α	-	0.02	-		
(Unsignalized)	Int. LOS			A				4			



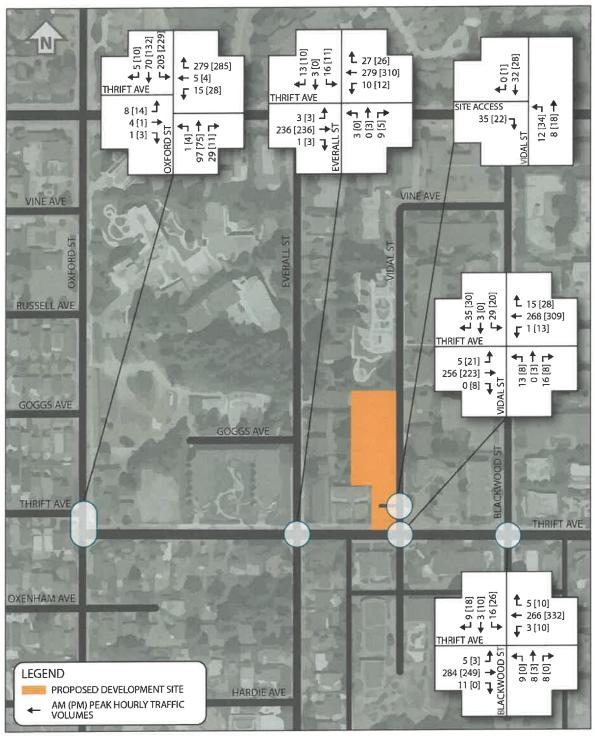


Figure 4-6: 2032 Opening Day +10 Years Combined Traffic Volumes



## 4.4.3 2045 Horizon Year Combined Traffic Operations

The 2045 horizon year background traffic operations analysis assumes the existing intersection and laning configurations. The 2045 horizon year combined traffic volumes are shown in **Figure 4-7**.

#### **AM Peak Hour**

During the AM peak hour, all of the study intersections are expected to operate within the study thresholds. The maximum v/c ratio is expected to be 0.52 for the westbound movements at the intersection of Thrift Avenue and Oxford Street.

#### PM Peak Hour

During the PM peak hour, all the target intersections are expected to operate within the study thresholds. The maximum v/c ratio is expected to be 0.52 for the westbound movements at the intersection of Thrift Avenue and Oxford Street.

The 2045 horizon year background traffic analysis results are summarized in **Table 4-9**.

Table 4-9: 2045 Horizon Year Combined Traffic Operations

100000000000000000000000000000000000000	Turning		AM Pe	ak Hour		PM Peak Hour				
Intersection	Movement	LOS	Delay (s)	V/C Ratio	95% Q (m)	LOS	Delay (s)	V/C Ratio	95% Q (m	
Thuift formun of	WBL/R	В	14.4	0.52	23.3	В	14.2	0.52	23.6	
Thrift Avenue at Oxford Street South	NBT/R	Α	-	0.11	- 1	Α	-	0.07	-	
(Unsignalized)	SBL/T	Α	6.6	0.21	5.9	Α	5.8	0.22	6.3	
(Grisighanzeu)	Int. LOS	Á						A	A	
Tt. 156 A	EBL/R	В	14.8	0.05	1.2	С	16.5	0.06	1.4	
Thrift Avenue at Oxford Street North	NBL/T	Α	0.3	0.01	0.2	Α	0.3	0.01	0.2	
(Unsignalized)	SBT/R	Α	-	0.23	-	Α	-	0.30	-	
(Onsignanzeu)	Int. LOS	A						Á	***************************************	
	EBL/T/R	Α	0.1	0.00	0.1	Α	0.1	0.00	0.1	
Thrift Avenue at	WBL/T/R	А	0.4	0.01	0.3	Α	0.4	0.01	0.3	
Everall Street	NBL/T/R	В	11.6	0.03	0.7	В	12.1	0.02	0.5	
(TWSC)	SBL/T/R	С	15.3	0.11	2.8	С	15.1	0.08	1.8	
	Int. LOS			A				A	3	
	EBL/T/R	Α	0.2	0.00	0.1	Α	0.8	0.02	0.5	
Thrift Avenue at	WBL/T/R	Α	0.1	0.00	- 1	Α	0.5	0.01	0.3	
Vidal Street	NBL/T/R	В	14.6	0.10	2.4	С	16.1	0.07	1.8	
(TWSC)	SBL/T/R	С	15.5	0.19	5.3	С	15.7	0.16	4.2	
	Int. LOS			A		Å				
	EBL/T/R	Α	0.2	0.01	0.2	Α	0.1	0.00	0.1	
Thrift Avenue at	WBL/T/R	Α	0.1	0.00	0.1	Α	0.4	0.01	0.3	
Blackwood Street	NBL/T/R	С	16.0	0.10	2.4	С	17.4	0.01	0.2	
(TWSC)	SBL/T/R	С	16.3	0.11	2.7	С	18.4	0.22	6.2	
	Int. LOS			A				4	***************************************	
Vidal Street at	EBL/R	Α	8.6	0.04	0.9	Α	8.6	0.02	0.5	
Development	NBL/T	Α	4.0	0.01	0.2	Α	4.5	0.02	0.6	
Access	SBT/R	Α	-	0.03	- 1	Α	-	0.02	-	
(Unsignalized)	Int. LOS			A				4		



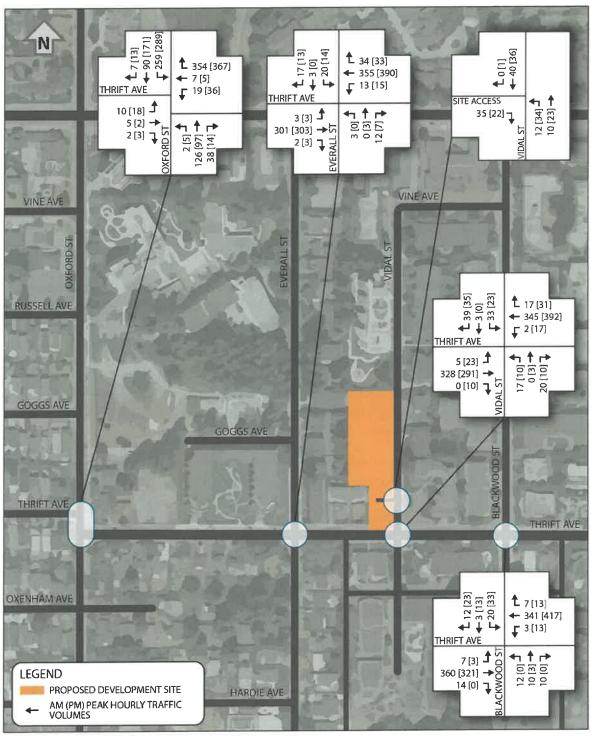


Figure 4-7: 2045 Horizon Year Combined Traffic Volumes



#### 5 TRAFFIC CIRCULATION AND OFF-STREET PARKING

#### 5.1 Site Access Review

The study development is expected to have one access on Vidal Street. All ingress and egress movements for the underground parkade are expected to be made from this single entrance.

The driveway spacing was reviewed according to the Transportation Association of Canada's (TAC) *Geometric Design Guide for Canadian Roads* Chapter 8 – Section 8.9.7. Within residential land uses adjacent to a minor intersection, a minimum distance of 2.0 m is suggested between the driveway and the back of the curb corner. The proposed driveway location for the study development is expected to exceed the minimum TAC guidelines. In order to provide adequate sightlines for the site traffic to safely enter Vidal Street, a no-stopping zone should be established on either side of the driveway.

#### 5.2 AutoTURN Review

An AutoTURN analysis was conducted for the ingress and egress movements of a standard passenger vehicle at each of the parkade levels based on design guidelines published by TAC. The AutoTURN analysis found that this design vehicle is able to perform the ingress and egress movements without issues at the proposed access. It is also expected to manoeuvre without issues within the study development's parkade as per the current site plan.

It is noted that solid waste collection bins are located near the parkade entrance within the building. It is anticipated these will be moved to Vidal Street for collection and that solid waste collection vehicles are not expected to enter the parkade.

The analysis also reviewed the critical parking manoeuvres within the parkade, typically parking spaces that are against walls, and found that they could be accessed by the design vehicle without issues.

The AutoTURN analysis for the study development is provided in **Appendix B**.

#### 5.3 Off-Street Parking

The off-street parking requirements for the proposed development were calculated based on the City's Bylaw No. 2000 (2019). Based on Section 4.14, a total of 194 parking spaces are required with 155 spaces for resident parking and 39 spaces for visitor parking, which is presented in **Table 5-1** below.

Table 5-1: Bylaw Parking Requirements

Description	Bylaw Ref.	Size	Unit	Demand Per Unit	Stalls Required
Required Parking Spaces - Apartment	2000 - 4.14	129	Units	1.20	155
Visitor Parking Spaces - Apartment	2000 - 4.14	129	Units	0.30	39
				Total:	194

Based on the January 9, 2020 site plan, there are 179 parking spaces for the proposed development with 39 spaces for visitor parking and 140 spaces for resident parking. As there is a 15 stall shortfall and that a variance from the Bylaw is required, the forecast parking demand for the proposed development was



reviewed based on the rate published in the Institute of Transportation Engineers' (ITE) *Parking Generation Manual, 5<sup>th</sup> Edition.* The parking generation rate for the development is assumed to be consistent with the following land use category outlined in the ITE guidelines:

Residential Mid-Rise Multifamily Housing (ITE Ref. 221)

The forecast site generated traffic volumes for the proposed study development are summarized in **Table 5-2**.

Table 5-2: Forecast Study Development Generated Parking Demand

Description	Size	Unit	ITE Ref.	Avg. Parking Gen Per Unit	Generated Parking Demand
Weekday Peak Period	129	Units	221	1.31	169

During the peak parking period, which is likely overnight within the development, there is an estimated parking demand for 169 parking spaces, inclusive of the visitor parking, which is less than the proposed 179 parking spaces in the proposed development. Although the proposed 179 parking spaces do not meet the Bylaw requirements, they were found to exceed the projected parking demand for similar residential sites based on ITE parking generation rates. The ITE parking demand rate is generally based on market residential developments; therefore, the study rental development is anticipated to generate less parking demand than the projection using ITE's parking generation rate. Further, with existing bus routes operating on Thrift Avenue that are directly adjacent to the proposed development, the dependency on using personal vehicles for local trips are expected to be reduced.

Based on the review performed in this section, the provided on-site parking supply would be sufficient for this proposed development.

#### 5.4 Bicycle Parking

Based on section 4.16 of the City's Bylaw No. 2000 (2019), a total of 155 bicycle parking spaces are required with 129 spaces for Class 1 secure long-term parking and 26 spaces for Class 2 short-term parking. Based on the January 9, 2020 site plan, there are 156 bicycle parking spaces provided in the proposed development, which meet the Bylaw requirements presented in **Table 5-3**.

Table 5-3: Bicycle Parking Requirements

Description	Bylaw Ref.	Size	Unit	Demand Per Unit	Stalls Required
Bicycle Parking Stall Class 1	2000 - 4.16	129	Units	1.00	129
Bicycle Parking Stall Class 2	2000 - 4.16	129	Units	0.20	26
				Total:	155

#### 5.5 Loading

According to section 4.15 of the City's Bylaw No. 2000 (2019), an off-street loading space is required if there are greater than ten units in an apartment complex. Based on the site plan, a single off-street loading space is located perpendicular to the parkade driveway on the east side of the building. An



AutoTURN analysis found that an MSU (medium single unit) truck design vehicle is able to reverse into this loading space from Vidal Street without issues. A Building Manager is expected to be on-site at all times to help plan and facilitate access to the loading bay to minimize impacts to on-street parking.

In order to accommodate the MSU turning movements into the loading bay, a variance will be required to permit the driveway to widen in excess of 7 metres at the new property line. This is considered to be acceptable as the widest point of the driveway is near the building where conflicts with pedestrians would be low.

To provide waste collection services on-site, the study development is expected to accommodate that completely on-site with low-profile compactors. Waste collection would then be performed by small trucks that could manoeuvre through the parkade.



### 6 CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study is to evaluate the transportation effects of the proposed multi-family residential development and its traffic impacts on the adjacent transportation network. The proposed development is expected to provide a total of 129 residential units at its full build-out.

A summary of the study findings are as follows:

- The study area is located in close proximity to existing transit routes and regional cycling routes. There are existing pedestrian facilities provided on the study roadways as well.
- A new pedestrian sidewalk is proposed along Vidal Street and Thrift Avenue adjacent to the proposed development.
- The development is expected to provide a total of 129 'Class 1' bicycle parking spaces and
   27 'Class 2' bicycle parking spaces which meet the City's Bylaw requirements.
- At full build-out, the proposed development is expected to generate 47 vehicle trips onto the study road network during the AM peak hour, with 12 inbound trips, and 35 outbound trips.
- The proposed development is expected to generate 57 vehicle trips onto the study road network during the PM peak hour, with 35 inbound trips and 22 outbound trips.
- The proposed development is expected to provide one access point on Vidal Street north of Thrift Avenue with free-flow traffic maintained on Vidal Street. The proposed driveway distance from Thrift Avenue is expected to meet and exceed the minimum TAC requirement.
- The existing study intersections along Thrift Avenue are currently operating within the study thresholds during both the AM and PM peak hours. During the 2022 opening day, 2032 horizon year, and 2045 horizon year scenarios, the existing intersections and the study development access are expected to continue operating within study thresholds.
- The study development is required to provide 155 residential parking spaces and 39 visitor parking spaces for a total of 194 parking spaces based on the City's Bylaw; however, the proposed parking supply is expected to be sufficient in accommodating the parking demand based on the ITE's parking generation rate.
- Solid waste collection will be performed fully within the site.
- A variance will be required to permit the driveway to widen in excess of 7 metres at the new property line in order to accommodate loading activities. The area where the driveway would exceed 7 metres is away from the pedestrian sidewalk so safety is not expected to be impacted.

Based on the study findings, all of the intersections within the study area are expected to operate acceptably; thus, no transportation improvements are expected to be required to accommodate the traffic demand generated by the proposed development.



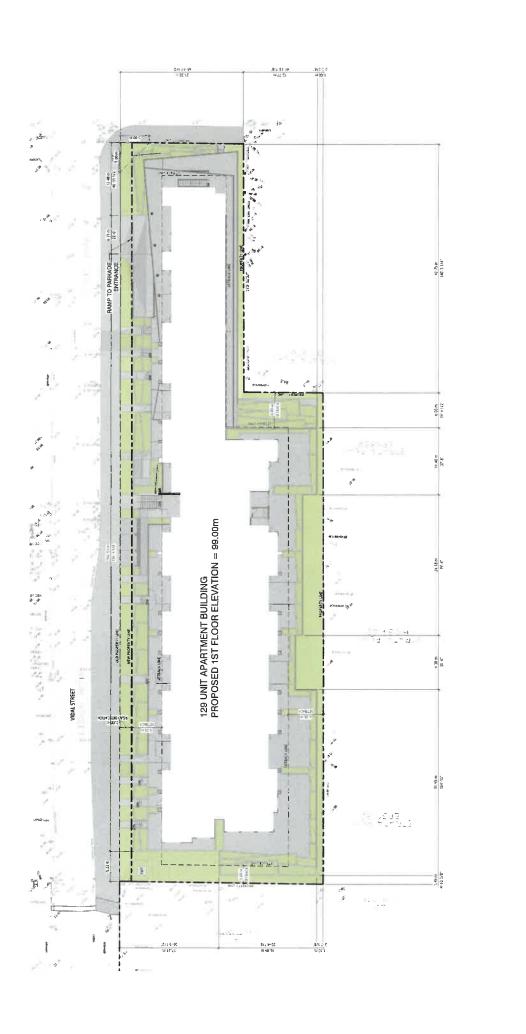
An on-site Building Manager is recommended to monitor and facilitate access to the loading bay in order to coordinate its used by future residents and to reduce impacts to on-street parking.



# **APPENDIX A**

**PROPOSED SITE PLAN** 





WESTSTONE

SD1.20

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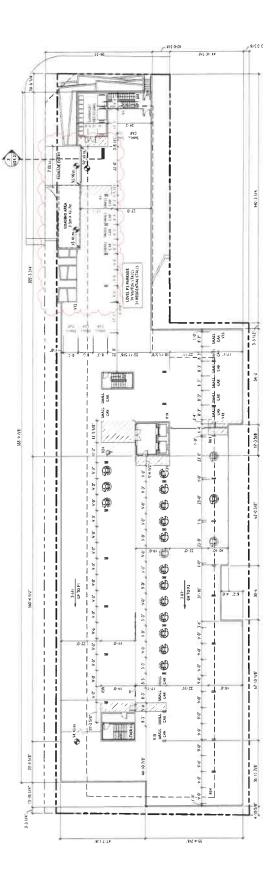




SITE PLAN



**ISSUED FOR DEVELOPMENT PERMIT** 







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P1 LEVEL PLAN

VIDAL STREET DEVELOPMENT



P3 LEVEL PLAN





FROJECT NUMBER: 13,175

ISSUED FOR DEVELOPMENT PERMIT





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P2 LEVEL PLAN



VIDAL STREET DEVELOPMENT



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UNIT BZ Page 1 UNIT BED

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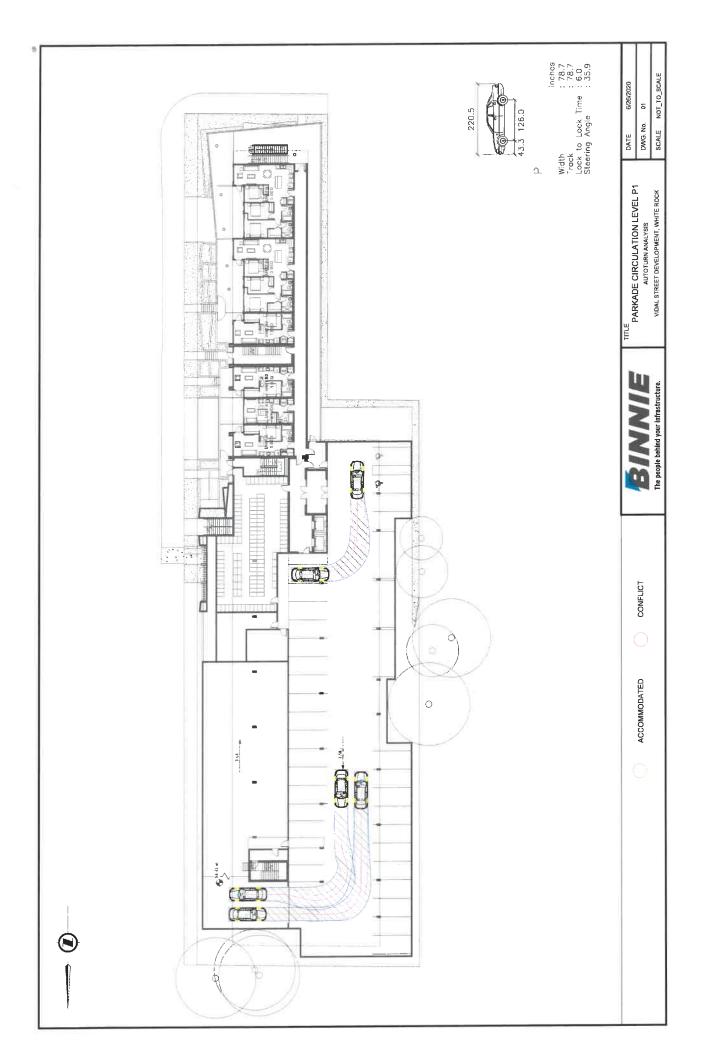
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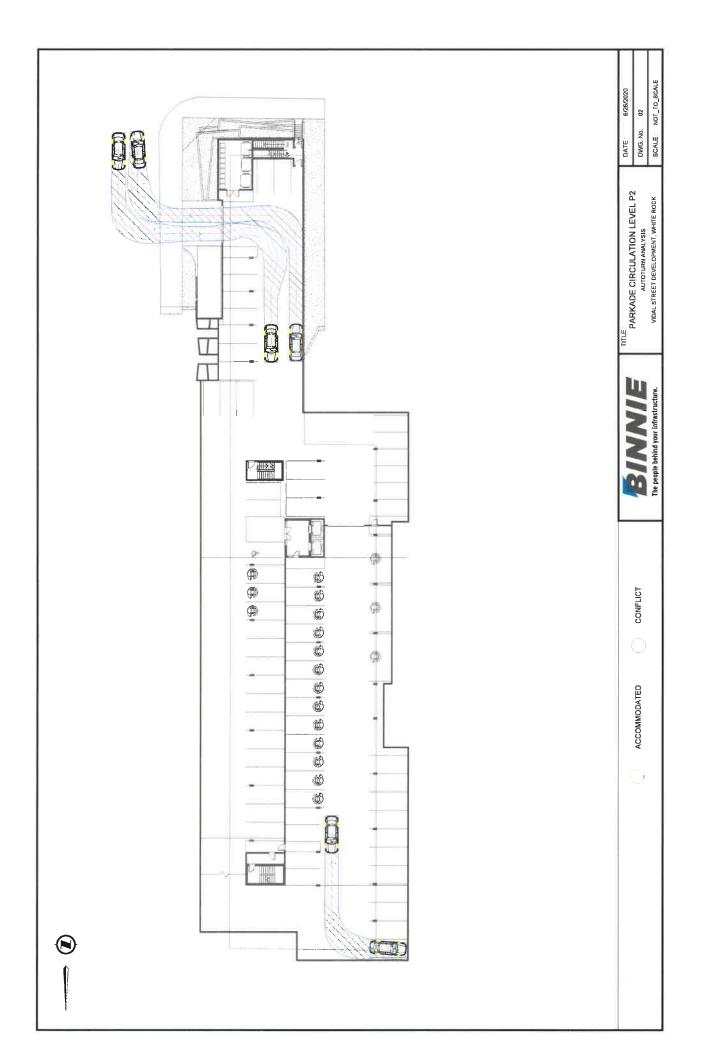
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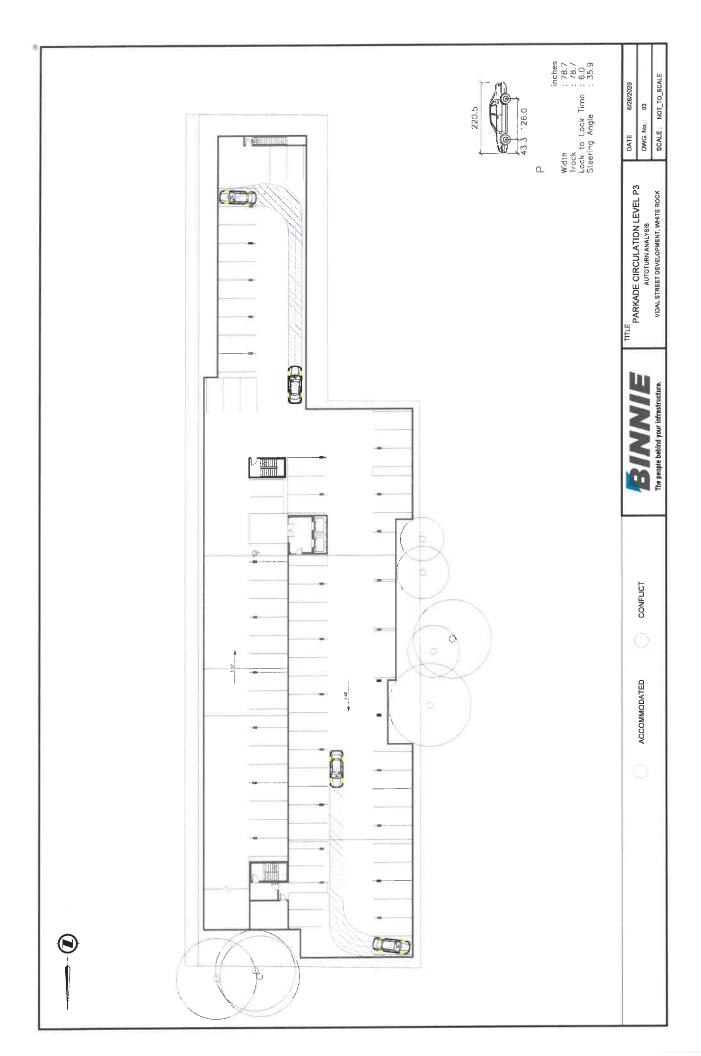
# **APPENDIX B**

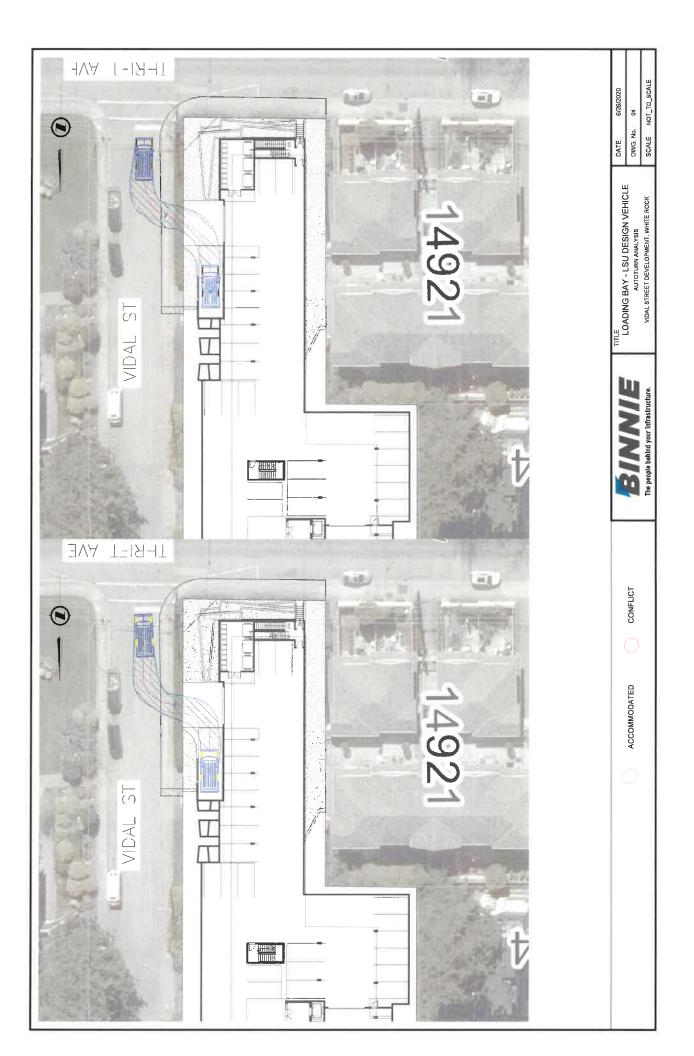
**AUTOTURN SITE CIRCULATION ANALYSIS** 

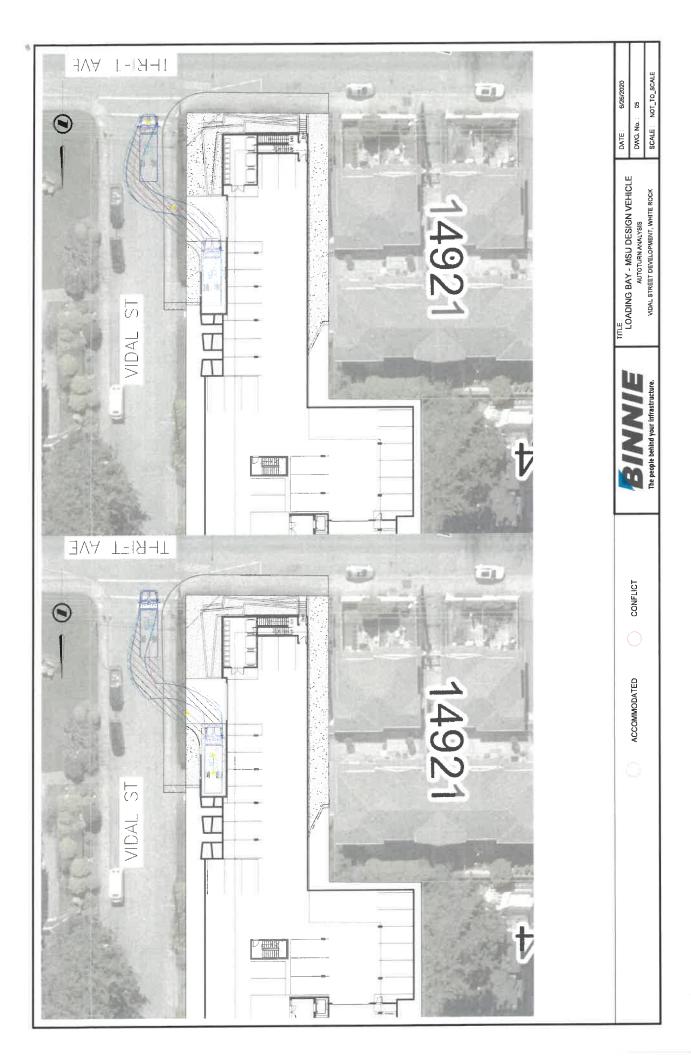












# **APPENDIX C**

**ITE TRIP GENERATION REFERENCE** 



# Land Use: 221 Multifamily Housing (Mid-Rise)

## **Description**

Mid-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have between three and 10 levels (floors). Multifamily housing (low-rise) (Land Use 220), multifamily housing (high-rise) (Land Use 222), off-campus student apartment (Land Use 225), and mid-rise residential with 1st-floor commercial (Land Use 231) are related land uses.

#### **Additional Data**

In prior editions of *Trip Generation Manual*, the mid-rise multifamily housing sites were further divided into rental and condominium categories. An investigation of vehicle trip data found no clear differences in trip making patterns between the rental and condominium sites within the ITE database. As more data are compiled for future editions, this land use classification can be reinvestigated.

For the six sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.46 residents per occupied dwelling unit.

For the five sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 95.7 percent of the total dwelling units were occupied.

Time-of-day distribution data for this land use are presented in Appendix A. For the eight general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 7:00 and 8:00 a.m. and 4:45 and 5:45 p.m., respectively.

For the four dense multi-use urban sites with 24-hour count data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 7:15 and 8:15 a.m. and 4:15 and 5:15 p.m., respectively. For the three center city core sites with 24-hour count data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 6:45 and 7:45 a.m. and 5:00 and 6:00 p.m., respectively.

For the six sites for which data were provided for both occupied dwelling units and residents, there was an average of 2.46 residents per occupied dwelling unit.

For the five sites for which data were provided for both occupied dwelling units and total dwelling units, an average of 95.7 percent of the units were occupied.

The average numbers of person trips per vehicle trip at the five center city core sites at which both person trip and vehicle trip data were collected were as follows:

- 1.84 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- · 1.94 during Weekday, AM Peak Hour of Generator
- 2.07 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 2.59 during Weekday, PM Peak Hour of Generator



The average numbers of person trips per vehicle trip at the 32 dense multi-use urban sites at which both person trip and vehicle trip data were collected were as follows:

- 1.90 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.90 during Weekday, AM Peak Hour of Generator
- 2.00 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 2.08 during Weekday, PM Peak Hour of Generator

The average numbers of person trips per vehicle trip at the 13 general urban/suburban sites at which both person trip and vehicle trip data were collected were as follows:

- 1.56 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.88 during Weekday, AM Peak Hour of Generator
- 1.70 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- · 2.07 during Weekday, PM Peak Hour of Generator

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), British Columbia (CAN), California, Delaware, District of Columbia, Florida, Georgia, Illinois, Maryland, Massachusetts, Minnesota, New Hampshire, New Jersey, Ontario, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Utah, Virginia, and Wisconsin.

#### **Source Numbers**

168, 188, 204, 305, 306, 321, 357, 390, 436, 525, 530, 579, 638, 818, 857, 866, 901, 904, 910, 912, 918, 934, 936, 939, 944, 947, 948, 949, 959, 963, 964, 966, 967, 969, 970



# Multifamily Housing (Mid-Rise)

(221)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 53

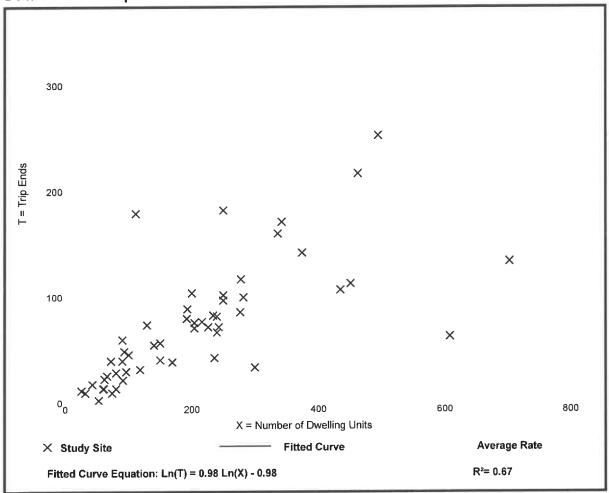
Avg. Num. of Dwelling Units: 207

Directional Distribution: 26% entering, 74% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation	
0.36	0.06 - 1.61	0.19	

## **Data Plot and Equation**



Trip Generation Manual, 10th Edition • Institute of Transportation Engineers

# Multifamily Housing (Mid-Rise)

(221)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 60

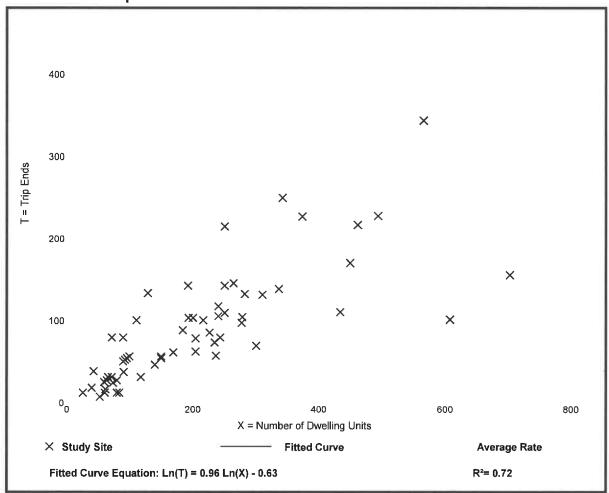
Avg. Num. of Dwelling Units: 208

Directional Distribution: 61% entering, 39% exiting

## **Vehicle Trip Generation per Dwelling Unit**

Average Rate	Range of Rates	Standard Deviation	
0.44	0.15 - 1.11	0.19	

## **Data Plot and Equation**



Trip Generation Manual, 10th Edition • Institute of Transportation Engineers

# **APPENDIX D**

**SYNCHRO ANALYSIS RESULTS** 



	•	*	†	1	1	<b>↓</b>
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	N/F		13∗			र्स
Traffic Volume (veh/h)	11	201	76	22	152	55
Future Volume (Veh/h)	11	201	76	22	152	55
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	218	83	24	165	60
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)			14			LIE, S
Upstream signal (m)						
pX. platoon unblocked						
vC, conflicting volume	485	95			107	
vC1, stage 1 conf vol	100				10,	
vC2, stage 2 conf vol						
vCu, unblocked vol	485	95			107	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	77			89	
cM capacity (veh/h)	481	962			1484	
					1101	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	230	107	225			
Volume Left	12	0	165			
Volume Right	218	24	0			
cSH	914	1700	1484			
Volume to Capacity	0.25	0.06	0.11			
Queue Length 95th (m)	7.6	0.0	2.8			
Control Delay (s)	10.3	0.0	5.9			
Lane LOS	В		A			
Approach Delay (s)	10.3	0.0	5.9			
Approach LOS	В					
Intersection Summary				- 2.1		
Average Delay			6.6			
Intersection Capacity Utiliza	tion		37.7%	IC	Hovolo	f Service
Analysis Period (min)	IIIOII		15	10	O LEVEL C	A OCIVICE
Analysis Period (min)			15			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	2	171	1	7	200	19	2	0	7	12	2	10
Future Volume (Veh/h)	2	171	1	7	200	19	2	0	7	12	2	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	186	1	8	217	21	2	0	8	13	2	11
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	238			187			446	444	186	442	434	228
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	238			187			446	444	186	442	434	228
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF(s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	99	97	100	99
cM capacity (veh/h)	1329			1387			511	504	856	518	511	812
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	189	246	10	26								
Volume Left	2	8	2	13								
Volume Right	1	21	8	11								
	1329	1387	754	611	_	- 1						
CSH Valume to Conneity	0.00	0.01	0.01	0.04								
Volume to Capacity			0.01	1.0				-				Name of Street
Queue Length 95th (m)	0.0	0.1	9.8	11.2	1 2 2							
Control Delay (s)	0.1		9.0 A	B B							3.0	
Lane LOS	A	0.3	9.8	11.2								
Approach Delay (s)	0.1	0.3	9.8 A					W W.	_			
Approach LOS			A	В		100						
Intersection Summary		N. Se	المحارث									
Average Delay			1.0									
Intersection Capacity Utiliza	ition		26.0%	IC	CU Level o	t Service			Α			
Analysis Period (min)			15	- v -								

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			4			4			43-	
Traffic Volume (veh/h)	0	190	0	1	204	6	10	0	12	10	2	12
Future Volume (Veh/h)	0	190	0	1	204	6	10	0	12	10	2	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	207	0	1	222	7	11	0	13	11	2	13
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	229			207			448	438	207	448	434	226
vC1. stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	229			207			448	438	207	448	434	226
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC. 2 stage (s)									1			
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	100	98	98	100	98
cM capacity (veh/h)	1339			1364			510	512	833	513	514	814
Direction, Lane #	EB 1	WB 1	NB 1	SB 1							TT W	
Volume Total	207	230	24	26								
Volume Left	0	1	11	11								
Volume Right	0	7	13	13								
cSH	1339	1364	646	629								
Volume to Capacity	0.00	0.00	0.04	0.04								
Queue Length 95th (m)	0.0	0.0	0.9	1.0				2000				
Control Delay (s)	0.0	0.0	10.8	11.0								
Lane LOS		A	В	В					100			
Approach Delay (s)	0.0	0.0	10.8	11.0								
Approach LOS	0.0	0.0	В	В								
Intersection Summary												
Average Delay			1.1						T TOTAL			
Intersection Capacity Utiliza	ation		21.9%	IC	U Level o	of Service			Α			
Analysis Period (min)			15									

# 4: Blackwood Street & Thrift Avenue

06/24/2020

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Movement	EBL	EBT	EBR	WBL	WBT V	NBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	4	200	8	2	197	4	7	6	6	12	2	7
Future Volume (Veh/h)	4	200	8	2	197	4	7	6	6	12	2	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92		0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	217	9	2	214	4	8	7	7	13	2	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	218			226			458	452	222	460	454	216
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	218			226			458	452	222	460	454	216
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	99	99	97	100	99
cM capacity (veh/h)	1352			1342			504	501	818	500	500	824
Direction, Lane #	EB 1	WB 1	NB 1	SB 1				-				-
Volume Total	230	220	22	23								
Volume Left	4	2	8	13	1.0			100			- 1	
Volume Right	9	4	7	8								
cSH	1352	1342	573	579								
Volume to Capacity	0.00	0.00	0.04	0.04								
	0.00	0.00	0.04	0.04								
Queue Length 95th (m)	0.1	0.0	11.5	11.5								
Control Delay (s)	0.2 A	Ο.1	11.5 B	11.5 B			-					No.
Lane LOS	0.2	0.1	11.5	11.5								
Approach Delay (s)	0.2	0.1	11.5 B	11.5 B								
Approach LOS			D	D	and the same							
Intersection Summary			RI L			-			PL		1 51	
Average Delay			1.2			اجلا						
Intersection Capacity Utiliza	ation		23.5%	IC	CU Level of S	service			Α			
Analysis Period (min)			15								State .	

15: Oxford Street 06/24/2020

	۶	*	4	†	<b></b>	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	14			सी	1>	
Traffic Volume (veh/h)	12	3	5	272	203	4
Future Volume (Veh/h)	12	3	5	272	203	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	3	5	296	221	4
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						100
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX. platoon unblocked						
vC, conflicting volume	529	223	225			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu. unblocked vol	529	223	225			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)		0.2				
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	100	100			
cM capacity (veh/h)	508	817	1344			
Direction, Lane #	EB 1	NB 1	SB 1			- 7
Volume Total	16	301	225			
Volume Left	13	5	0			
Volume Right	3	0	4			
cSH	547	1344	1700			
Volume to Capacity	0.03	0.00	0.13			
Queue Length 95th (m)	0.7	0.1	0.0			
Control Delay (s)	11.8	0.2	0.0			
Lane LOS	В	Α				
Approach Delay (s)	11.8	0.2	0.0			
Approach LOS	В					
Intersection Summary					V LI	
Average Delay			0.4			
Intersection Capacity Utiliza	ation		28.3%	IC	U Level o	f Service
Analysis Period (min)			15			. 55.7.65
range of chou (tilling			10			

## 1: Oxford Street & Thrift Avenue

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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		ĵ.			र्स
Traffic Volume (veh/h)	21	211	61	8	162	104
Future Volume (Veh/h)	21	211	61	8	162	104
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	229	66	9	176	113
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)		-				
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
		_	None	_		NOTIC
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked	536	70			75	
vC, conflicting volume	536	70			70	
vC1, stage 1 conf vol					1 1 2	
vC2, stage 2 conf vol	#0.G	70			75	
vCu. unblocked vol	536	70	- 41 -		75	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	95	77			88	
cM capacity (veh/h)	447	992			1524	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	252	75	289			
Volume Left	23	0	176			
Volume Right	229	9	0			
cSH	893	1700	1524			
Volume to Capacity	0.28	0.04	0.12			
Queue Length 95th (m)	8.8	0.0	3.0			
Control Delay (s)	10.6	0.0	5.0			
Lane LOS	В		A			
Approach Delay (s)	10.6	0.0	5.0			
Approach LOS	В					
Intersection Summary	11.					
Average Delay			6.7			
Intersection Capacity Utiliza	tion		42.0%	IC	U Level o	f Service
Analysis Period (min)			15			
Analysis i chou (min)			10			

	۶	-	•	•	<b>—</b>	4	1	†	<i>&gt;</i>	1	Ţ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			4			4	
Traffic Volume (veh/h)	2	166	2	9	224	19	0	2	4	8	0	8
Future Volume (Veh/h)	2	166	2	9	224	19	0	2	4	8	0	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	180	2	10	243	21	0	2	4	9	0	9
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX. platoon unblocked												
vC, conflicting volume	264			182			468	469	181	464	460	254
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	264			182	_		468	469	181	464	460	254
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)								0.0			0.0	0.2
tF(s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	98	100	99
cM capacity (veh/h)	1300			1393			497	488	862	501	494	785
Direction, Lane #	EB 1	WB 1	NB 1	SB 1			107	100	002	001	101	
Volume Total	184	274	6	18								
	2	10	0	9						_		
Volume Left	2		4	9								
Volume Right		21		-								
cSH	1300	1393	686	612								
Volume to Capacity	0.00	0.01	0.01	0.03								
Queue Length 95th (m)	0.0	0.2	0.2	0.7				-				
Control Delay (s)	0.1	0.3	10.3	11.1								
Lane LOS	A	Α	В	В								
Approach Delay (s)	0.1	0.3	10.3	11.1								
Approach LOS			В	В								
Intersection Summary		7	1 1.									
Average Delay			0.8									
Intersection Capacity Utiliza	tion		32.7%	IC	U Level o	of Service			Α			
Analysis Period (min)			15									100

Baseline R.F.Binnie & Associates

3. Vidai Street & 11	eet & Thint Avenue							00/2 1/2020						
	۶	<b>→</b>	•	•	<b>←</b>	4	4	†	1	-	1	1		
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		4			4			4			4			
Traffic Volume (veh/h)	4	168	6	10	232	8	6	2	6	8	0	14		
Future Volume (Veh/h)	4	168	6	10	232	8	6	2	6	8	0	14		
Sign Control		Free			Free			Stop			Stop			
Grade		0%			0%			0%			0%			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Hourly flow rate (vph)	4	183	7	11	252	9	7	2	7	9	0	15		
Pedestrians		11.3										17.7		
Lane Width (m)														
Walking Speed (m/s)														
Percent Blockage														
Right turn flare (veh)														
Median type		None			None									
Median storage veh)										1				
Upstream signal (m)														
pX, platoon unblocked														
vC, conflicting volume	261			190			488	478	186	481	476	256		
vC1, stage 1 conf vol														
vC2, stage 2 conf vol														
vCu, unblocked vol	261			190			488	478	186	481	476	256		
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2		
tC. 2 stage (s)														
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3		
p0 queue free %	100			99			99	100	99	98	100	98		
cM capacity (veh/h)	1303			1384			477	481	856	486	482	782		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	1 3 1									
Volume Total	194	272	16	24										
Volume Left	4	11	7	9						15.7		W		
Volume Right	7	9	7	15										
cSH	1303	1384	592	636					17.					
Volume to Capacity	0.00	0.01	0.03	0.04										
Queue Length 95th (m)	0.1	0.2	0.6	0.9	74.00		4, 1							
Control Delay (s)	0.2	0.4	11.2	10.9										
Lane LOS	A	A	В	В										
Approach Delay (s)	0.2	0.4	11.2	10.9										
Approach LOS			В	В										
Intersection Summary		Satt	JUNE 1	100	- 14 A		-15/5	A Sec. M						
Average Delay		111	1.1		أبسيي									
Intersection Capacity Utiliza	ation		27.6%	IC	U Level o	t Service			Α					
Analysis Period (min)			15											

	۶	-	*	1	4	4	1	†	<b>/</b>	1	↓	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			43-			4			4	
Traffic Volume (veh/h)	2	180	0	8	236	8	0	2	0	20	8	14
Future Volume (Veh/h)	2	180	0	8	236	8	0	2	0	20	8	14
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	196	0	9	257	9	0	2	0	22	9	15
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX. platoon unblocked												
vC, conflicting volume	266			196			499	484	196	480	480	262
vC1, stage 1 conf vol								مثاد				
vC2, stage 2 conf vol												
vCu, unblocked vol	266			196			499	484	196	480	480	262
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	96	98	98
cM capacity (veh/h)	1298			1377			463	479	845	491	482	777
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	198	275	2	46								
Volume Left	2	9	0	22								
Volume Right	0	9	0	15								
cSH	1298	1377	479	556			- 71					
Volume to Capacity	0.00	0.01	0.00	0.08								
Queue Length 95th (m)	0.0	0.2	0.1	2.0								
Control Delay (s)	0.1	0.3	12.6	12.1								
Lane LOS	A	A	В	В								
Approach Delay (s)	0.1	0.3	12.6	12.1								
Approach LOS			В	В								
Intersection Summary	100									1		
Average Delay			1.3			The state of the s			<u> </u>		. 1	
Intersection Capacity Utiliza	ation		33.5%	IC	U Level o	f Service			Α			
Analysis Period (min)			15									

15: Oxford Street 06/24/2020

15. Oxiora otrect	•		_	4	1	1
		*	7	1	+	*
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			ની	1>	
Traffic Volume (veh/h)	11	3	6	266	263	8
Future Volume (Veh/h)	11	3	6	266	263	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	3	7	289	286	9
Pedestrians					7	N 1146
Lane Width (m)						
Walking Speed (m/s)						1-11-1
Percent Blockage						
Right turn flare (veh)				8 III	T XO III	
Median type				None	None	
Median storage veh)	A No. of the			110110	, , , , , ,	
Upstream signal (m)						
pX, platoon unblocked		100		51		
vC, conflicting volume	594	290	295			
vC1. stage 1 conf vol	JJ4	230	200			
vC2, stage 2 conf vol						
vCu, unblocked vol	594	290	295			
	6.4	6.2	4.1			
tC, single (s)	0.4	0.2	4.1		-	
tC, 2 stage (s)	3.5	3.3	2.2			
tF (s)			99			
p0 queue free %	97	100				
cM capacity (veh/h)	465	749	1266			
Direction Lane #	EB 1	NB 1	SB 1			
Volume Total	15	296	295			
Volume Left	12	7	0			
Volume Right	3	0	9			
cSH	503	1266	1700			
Volume to Capacity	0.03	0.01	0.17			
Queue Length 95th (m)	0.7	0.1	0.0			
Control Delay (s)	12.4	0.2	0.0			
Lane LOS	В	Α				
Approach Delay (s)	12.4	0.2	0.0			
Approach LOS	В					
Intersection Summary	C 7.51 /H	F) E0	101 -	2 T. T	6. 11. 15	and the
Average Delay			0.4			11.
Intersection Capacity Utiliz	ation		28.8%	10	CU Level o	f Service
Analysis Period (min)	.G.IOH		15		, 5 E 6 4 6 1 0	, 00, 1100
Allalysis Pellou (IIIIII)			10			

## **EXISTING 2022 AM**

1: Oxford Street &	Thrift A\	enue/	†	<i>&gt;</i>	<b>/</b>	<b>+</b>	06/24/2020
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	W		þ			स	
Traffic Volume (veh/h)	18	269	98	28	203	71	
Future Volume (Veh/h)	18	269	98	28	203	71	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	20	292	107	30	221	77	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage veh)		-	110110			110110	
Upstream signal (m)							
pX, platoon unblocked							
vC, conflicting volume	641	122			137		
vC1, stage 1 conf vol	041	122			107		
vC2, stage 2 conf vol							
vCu, unblocked vol	641	122	- N E		137		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)	0.4	0.2			**. I		
tF (s)	3.5	3.3			2.2		
p0 queue free %	95	69			85		
cM capacity (veh/h)	372	929			1447		
					1447		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	312	137	298				
Volume Left	20	0	221				
Volume Right	292	30	0				
cSH	848	1700	1447				
Volume to Capacity	0.37	0.08	0.15				
Queue Length 95th (m)	12.9	0.0	4.1				
Control Delay (s)	11.7	0.0	6.2				
Lane LOS	В		Α				
Approach LOS	11.7 B	0.0	6.2				
Approach LOS	0					السيقال	
Intersection Summary		W	- 1				
Average Delay			7.4				
Intersection Capacity Utilization		49.5%	IC	U Level	of Service	Α	
Analysis Period (min)			15				

Synchro 10 Report Page 1 R.F.Binnie & Associates

## 2: Evrall Street & Thrift Avenue

Z. Eviali Gireet & T	٨				4	1	4	<b>†</b>	<i>/</i> >	1	1	1
Managan	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Movement	EDL	-	500	VVDL		WEN	INDIL		MDIX	000	4	ODI
Lane Configurations		4	- 4	0	263	25	3	4	9	16	3	13
Traffic Volume (veh/h)	3	231	4	9	263	25	3	0	9	16	3	13
Future Volume (Veh/h)	3	231	1	9		20	ა	Stop	9	10	Stop	13
Sign Control		Free 0%		1 = 1 1	Free 0%			0%			0%	
Grade	0.00		0.00	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Peak Hour Factor	0.92	0.92	0.92		286	27	3	0.92	10	17	3	14
Hourly flow rate (vph)	3	251	1	10	280	21	3	U	10	17	3	14
Pedestrians					_		-					
Lane Width (m)												
Walking Speed (m/s)							- 1					
Percent Blockage												-
Right turn flare (veh)				W L								
Median type		None			None							-
Median storage veh)												
Upstream signal (m)										_		
pX, platoon unblocked						7 1 7	500	500	050	E07	C70	200
vC, conflicting volume	313			252			592	590	252	587	578	300
vC1. stage 1 conf vol	100					4		2		V	- 4	
vC2, stage 2 conf vol								200	050	507	570	200
vCu, unblocked vol	313			252			592	590	252	587	578	300
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)		-									4.0	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	99	96	99	98
cM capacity (veh/h)	1247			1313			404	416	787	413	423	740
Direction Lane #	EB 1	WB1	NB 1	SB 1			W. Harris				111	
Volume Total	255	323	13	34								
Volume Left	3	10	3	17		111	200	1.5			117	- 35
Volume Right	1	27	10	14								
cSH	1247	1313	646	506						- 15		السواب
Volume to Capacity	0.00	0.01	0.02	0.07								
Queue Length 95th (m)	0.1	0.2	0.5	1.6								
Control Delay (s)	0.1	0.3	10.7	12.6								
Lane LOS	A	A	8	В								
Approach Delay (s)	0.1	0.3	10.7	12.6								
Approach LOS	100		В	В			1,,,, 5					
Intersection Summary	America I			4 7				1-1 (-	H.X			
Average Delay			1.1					7.7				7.1
Intersection Capacity Utiliza Analysis Period (min)	ition	11.55	30.8% 15	IC	CU Level o	of Service		177	Α		10	51 5

	۶	-	7	1	+	4	1	†	<i>&gt;</i>	-	+	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44>			4			4	
Traffic Volume (veh/h)	0	256	0	- 1	268	8	13	0	16	13	3	16
Future Volume (Veh/h)	0	256	0	1	268	8	13	0	16	13	3	16
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	278	0	1	291	9	14	0	17	14	3	17
Pedestrians			11-1-6									
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)		1 = 1,71										
Upstream signal (m)												
pX. platoon unblocked												
vC, conflicting volume	300			278			594	580	278	592	576	296
vC1. stage 1 conf vol							001	500	1	002	0.0	200
vC2, stage 2 conf vol												
vCu, unblocked vot	300			278			594	580	278	592	576	296
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)									V.E		0.0	<b>U.</b> Z
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			97	100	98	97	99	98
cM capacity (veh/h)	1261			1285			405	425	761	408	428	744
		1010-4	ND 4				700	720	701	400	720	
Direction Lane # Volume Total	EB 1 278	WB 1	NB 1	SB 1							-	
			14	14								
Volume Left	0	1										
Volume Right	0	1005	17	17								
cSH	1261	1285	544	530								
Volume to Capacity	0.00	0.00	0.06	0.06								
Queue Length 95th (m)	0.0	0.0	1.4	1.6								
Control Delay (s)	0.0	0.0	12.0	12.3								
Lane LOS	0.0	A	В	В								
Approach Delay (s)	0.0	0.0	12.0	12.3								
Approach LOS			В	В								
Intersection Summary						200						4
Average Delay			1.2									
Intersection Capacity Utiliza	ation		25.4%	IC	CU Level o	of Service			Α			
Analysis Period (min)			15									

### 4: Blackwood Street & Thrift Avenue

	•	<b>→</b>	*	1	4-	*	1	†	1	-	<b>↓</b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	- 5	269	10	3	259	5	9	8	8	16	3	9
Future Volume (Veh/h)	5	269	10	3	259	5	9	8	8	16	3	9
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	292	11	3	282	5	10	9	9	17	3	10
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)		L 1, 8										
Percent Blockage												
Right turn flare (veh)	1000											
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked			v ku									
vC, conflicting volume	287			303			610	600	298	612	604	284
vC1, stage 1 conf vol		- 1 1										1 4 N
vC2, stage 2 conf vol												
vCu, unblocked vol	287	101-1		303			610	600	298	612	604	284
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)						110						
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			97	98	99	96	99	99
cM capacity (veh/h)	1275			1258			397	412	742	392	410	754
Direction, Lane #	EB 1	WB 1	NB 1	SB 1					ALL			Q14
Volume Total	308	290	28	30								
Volume Left	5	3	10	17								
Volume Right	11	5	9	10								
cSH	1275	1258	473	469	- T							
Volume to Capacity	0.00	0.00	0.06	0.06								
Queue Length 95th (m)	0.1	0.1	1.4	1.6								V III
Control Delay (s)	0.2	0.1	13.1	13.2								
Lane LOS	A	A	В	В					100			
Approach Delay (s)	0.2	0.1	13.1	13.2								
Approach LOS			В	В	1000		100					
Intersection Summary	er right		TTO HE				H M		11915	. B., L		
Average Delay			1.3			السائير	- 19					
Intersection Capacity Utiliza	ation		27.8%	IC	U Level c	f Service			Α			
Analysis Period (min)			15									11-11

15: Oxford Street 06/24/2020

	۶	*	1	†	ţ	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	N/F			4	1>	
Traffic Volume (veh/h)	8	5	6	361	169	5
Future Volume (Veh/h)	8	5	6	361	169	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	5	7	392	184	5
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)		3 - 31				
Percent Blockage						
Right turn flare (veh)		4 - 11		0.71		
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	592	186	189			
vC1. stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	592	186	189			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	وأفلا					
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	99			
cM capacity (veh/h)	466	856	1385			
Direction, Lane # Volume Total	EB 1	NB 1	SB 1 189	1		
Volume Left	.9	7	109			
Volume Right cSH	5 557	0 1385	5 1700			
		0.01	0.11			
Volume to Capacity	0.03					
Queue Length 95th (m)		0.1	0.0			
Control Delay (s)	11.6	0.2	0.0			
Lane LOS	В	Α				
Approach Delay (s)	11.6	0.2	0.0			
Approach LOS	В					
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilizatio	in		33.8%	IC	U Level o	f Service
Analysis Period (min)			15			

### **EXISTING 2022 PM**

1: Oxford Street &	Thrift A	venue	†	<i>&gt;</i>	-	<b>1</b>	06/24/202
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	W	HE SHOT	Ţ»	10.75		र्स	
Traffic Volume (veh/h)	27	279	79	10	216	135	
Future Volume (Veh/h)	27	279	79	10	216	135	
Sign Control	Stop	2.0	Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	29	303	86	11	235	147	
Pedestrians	20	000					
Lane Width (m)							
Walking Speed (m/s)							The second secon
Percent Blockage							
Right turn flare (veh)	as a little	811					
Median type			None			None	
Median storage veh)			110110				
Upstream signal (m)							
pX. platoon unblocked			-200				NAME OF TAXABLE PARTY.
vC, conflicting volume	708	92			97		
vC1, stage 1 conf vol	100						THE RESIDENCE OF THE PARTY OF T
vC2, stage 2 conf vol							
vCu, unblocked vol	708	92			97		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	91	69			84		
cM capacity (veh/h)	338	966			1496		
			05.4				
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	332	97	382				
Volume Left	29	0	235				
Volume Right	303	11	0				
cSH	831	1700	1496				
Volume to Capacity	0.40	0.06	0.16				
Queue Length 95th (m)	14.7	0.0	4.2				
Control Delay (s)	12.2	0.0	5.4				
Lane LOS	В		Α		12-1		
Approach Delay (s)	12.2	0.0	5.4				
Approach LOS	В	A I	Light 1	271	HY F		
Intersection Summary							
Average Delay			7.5				
Intersection Capacity Utiliza	ation		51.1%	IC	U Level o	of Service	Α
Analysis Period (min)			15				

,	۶	-	*	•	<b>←</b>	•	1	†	<i>&gt;</i>	-	<b>↓</b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			4			4	
Traffic Volume (veh/h)	3	221	3	12	299	25	0	3	5	10	0	10
Future Volume (Veh/h)	3	221	3	12	299	25	0	3	5	10	0	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	240	3	13	325	27	0	3	5	11	0	11
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	352			243			623	626	242	618	614	338
vC1. stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	352			243	Sec. 17.		623	626	242	618	614	338
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100	-		99			100	99	99	97	100	98
cM capacity (veh/h)	1207			1323			389	396	797	393	402	704
Direction, Lane #	EB 1	WB 1	NB 1	SB 1						. S. T		
Volume Total	246	365	8	22								
Volume Left	3	13	0	11								
Volume Right	3	27	5	11								
cSH	1207	1323	578	504								
Volume to Capacity	0.00	0.01	0.01	0.04								
Queue Length 95th (m)	0.1	0.2	0.3	1.0								
Control Delay (s)	0.1	0.4	11.3	12.5								
Lane LOS	A	Α	В	В								
Approach Delay (s)	0.1	0.4	11.3	12.5								
Approach LOS			В	В								
Intersection Summary	1 2 -						HUN .					
Average Delay	Y. J.	LE B	0.8	N	E 3	11.11			f wmm			
Intersection Capacity Utiliza	ation		38.9%	IC	U Level o	of Service			Α			
Analysis Period (min)			15									Y

### 3: Vidal Street & Thrift Avenue

J. Vidai Street & 11	٦	<b>→</b>	`	6	+	A.	1	†	~	1	<del> </del>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			44			4	
Traffic Volume (veh/h)	5	223	8	13	309	10	8	3	8	10	0	18
Future Volume (Veh/h)	5	223	8	13	309	10	8	3	8	10	0	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	242	9	14	336	11	9	3	9	11	0	20
Pedestrians			THE									
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)			777									
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked	114	-										
vC, conflicting volume	347			251			646	632	246	636	630	342
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	347			251			646	632	246	636	630	342
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			98	99	99	97	100	97
cM capacity (veh/h)	1212			1314			369	392	792	379	392	701
Direction, Lane #	EB 1	WB 1	NB 1	SB 1		لتنك	H.Y	H. W.				
Volume Total	256	361	21	31								
Volume Left	5	14	9	11							100	
Volume Right	9	11	9	20								
cSH	1212	1314	484	539				-				
Volume to Capacity	0.00	0.01	0.04	0.06								
Queue Length 95th (m)	0.1	0.2	1.0	1.4								
Control Delay (s)	0.2	0.4	12.8	12.1								
Lane LOS	A	Å	В	В								
Approach Delay (s)	0.2	0.4	12.8	12.1								
Approach LOS	100		В	В		71						
Intersection Summary	8111			W L					-811 Y	9,52		
Average Delay			1.3			10.			^			
Intersection Capacity Utiliza Analysis Period (min)	ition		33.4% 15	IC	CU Level c	f Service			Α			144

11.	۶	<b>→</b>	*	•	+	4	1	†	<i>&gt;</i>	-	<del> </del>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	3	239	0	10	314	10	0	3	0	26	10	18
Future Volume (Veh/h)	3	239	0	10	314	10	0	3	0	26	10	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	260	0	11	341	11	0	3	0	28	11	20
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)							"					4
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX. platoon unblocked												
vC, conflicting volume	352			260			660	640	260	636	634	346
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu. unblocked vol	352			260			660	640	260	636	634	346
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	99	100	93	97	97
cM capacity (veh/h)	1207			1304			355	389	779	385	392	697
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	263	363	3	59								
Volume Left	3	11	0	28								
Volume Right	0	11	0	20								
cSH	1207	1304	389	456								
Volume to Capacity	0.00	0.01	0.01	0.13								
Queue Length 95th (m)	0.1	0.2	0.2	3.4								
Control Delay (s)	0.1	0.3	14.3	14.1								
Lane LOS	A	A	В	В								
Approach Delay (s)	0.1	0.3	14.3	14.1								
Approach LOS			В	В								
Intersection Summary												
Average Delay			1.5									
Intersection Capacity Utiliza	ation		39.5%	IC	CU Level of	of Service			Α			
Analysis Period (min)			15									

Synchro 10 Report Page 4 R.F.Binnie & Associates

15: Oxford Street 06/24/2020

To. Oxiora otrect						
	<b>*</b>	*	1	<b>†</b>	<b>↓</b>	1
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			न	7+	
Traffic Volume (veh/h)	14	4	8	350	347	10
Future Volume (Veh/h)	14	4	8	350	347	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	4	9	380	377	11
Pedestrians	10			000	0//	
Lane Width (m)					0-00-	
Walking Speed (m/s)		-				
		VI = = =	3-30			
Percent Blockage	12					
Right turn flare (veh)				Mess	Ness	
Median type				None	None	
Median storage veh)	The second					
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	780	382	388			
vC1, stage 1 conf vol						100
vC2, stage 2 conf vol						
vCu, unblocked vol	780	382	388			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF(s)	3.5	3.3	2.2			
p0 queue free %	96	99	99			
cM capacity (veh/h)	361	665	1170			
Direction, Lane #	EB 1	NB 1	SB 1			N. III
Volume Total	19	389	388			
Volume Left	15	9	0			
Volume Right	4	0	11			
cSH	399	1170	1700			
	0.05	0.01	0.23			
Volume to Capacity						
Queue Length 95th (m)	1.1	0.2	0.0			
Control Delay (s)	14.5	0.3	0.0			
Lane LOS	В	Α				
Approach Delay (s)	14.5	0.3	0.0			
Approach LOS	В		1 Fa			
Intersection Summary			j: "\)		16 "	HW no
Average Delay			0.5			
Intersection Capacity Utiliza	ation		34.8%	IC	CU Level o	of Service
Analysis Period (min)			15			
, maryone i onou (min)						

# 1: Oxford Street & Thrift Avenue

	•	*	<b>†</b>	1	-	ļ
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	N/F		13			स
Traffic Volume (veh/h)	12	220	81	23	167	58
Future Volume (Veh/h)	12	220	81	23	167	58
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	239	88	25	182	63
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	528	100			113	
vC1, stage 1 conf vol	020	100			110	
vC2, stage 2 conf vol						
vCu, unblocked vol	528	100			113	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	75			88	
cM capacity (veh/h)	448	955			1476	
			CB 4			
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	252	113	245			
Volume Left	13	0	182			
Volume Right	239	25	0			
cSH	902	1700	1476			
Volume to Capacity	0.28	0.07	0.12			
Queue Length 95th (m)	8.7	0.0	3.2			
Control Delay (s)	10.5	0.0	6.0			
Lane LOS	В		A			
Approach Delay (s)	10.5	0.0	6.0			
Approach LOS	В					
Intersection Summary						
Average Delay			6.8	11/2		
Intersection Capacity Utiliza	ation		39.9%	IC	U Level	of Service
Analysis Period (min)			15			
Analysis I offod (Ithiri)			10			

Baseline R.F.Binnie & Associates

### 2: Evrall Street & Thrift Avenue

Z. Eviali Street & T												
	<b>*</b>	<b>→</b>	*	1	-	*	1	<b>†</b>	1	1	ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations		4			€\$			4			4	
Traffic Volume (veh/h)	2	191	1	7	216	20	2	0	7	13	2	11
Future Volume (Veh/h)	2	191	1	7	216	20	2	0	7	13	2	11
Sign Control	1157	Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	208	1	8	235	22	2	0	8	14	2	12
Pedestrians							3					
Lane Width (m)												
Walking Speed (m/s)		-						-0.50				
Percent Blockage												
Right turn flare (veh)		-						-				
Median type		None			None							
Median storage veh)		NONE			IVOIC							
Upstream signal (m)												
									-		-	
pX, platoon unblocked	257			209			488	486	208	482	475	246
vC, conflicting volume	257			209			400	400	200	402	473	270
vC1, stage 1 conf vol					777							
vC2, stage 2 conf vol	0.55			000			400	400	208	482	475	246
vCu, unblocked vol	257			209			488	486			6.5	6.2
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	0.5	0.2
tC, 2 stage (s)										0.5	4.0	0.0
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	99	97	100	98
cM capacity (veh/h)	1308			1362			479	478	832	487	485	793
Direction. Lane #	EB 1	WB 1	NB 1	SB 1	diam'r.							
Volume Total	211	265	10	28								
Volume Left	2	8	2	14				171				
Volume Right	1	22	8	12								
cSH	1308	1362	725	583								
Volume to Capacity	0.00	0.01	0.01	0.05								
Queue Length 95th (m)	0.0	0.1	0.3	1.1								
Control Delay (s)	0.1	0.3	10.0	11.5								
Lane LOS	A	Α	В	В		THE						
Approach Delay (s)	0.1	0.3	10.0	11.5								
Approach LOS	200		В	В					171-71			
Intersection Summary	orine				Hilbs	le <sub>en</sub> i			(EF)			
Average Delay			1.0									
Intersection Capacity Utiliza	tion		27.0%	IC	U Level c	of Service			Α			
Analysis Period (min)			15									

	۶	-	•	•	<b>←</b>	4	4	<b>†</b>	1	-	<b></b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	0	212	0	- 1	220	6	11	0	13	11	2	13
Future Volume (Veh/h)	0	212	0	1	220	6	11	0	13	11	2	13
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	230	0	1	239	7	12	0	14	12	2	14
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												1.11
Median type		None			None							
Median storage veh)										2 n FE		
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	246			230			490	478	230	488	474	242
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	246		111	230			490	478	230	488	474	242
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)								طنعا		فأنت		
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			97	100	98	98	100	98
cM capacity (veh/h)	1320			1338			479	486	809	481	488	796
Direction, Lane #	EB 1	WB 1	NB 1	SB 1							4	
Volume Total	230	247	26	28								
Volume Left	0	1	12	12								
Volume Right	0	7	14	14								
cSH	1320	1338	614	601								
Volume to Capacity	0.00	0.00	0.04	0.05								
Queue Length 95th (m)	0.0	0.0	1.0	1.1								
Control Delay (s)	0.0	0.0	11.1	11.3								
Lane LOS		A	В	В								
Approach Delay (s)	0.0	0.0	11.1	11.3								
Approach LOS			В	В								
Intersection Summary				S. VIII.								
Average Delay			1.2			1011						
Intersection Capacity Utiliza	ation		22.7%	IC	U Level o	f Service			Α			
Analysis Period (min)			15									

	۶	-	*	1	-	4	4	<b>†</b>	1	1	<b>↓</b>	1
Movement :	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			<b>्र</b>			4	
Traffic Volume (veh/h)	4	222	8	2	213	-4	7	6	6	13	2	7
Future Volume (Veh/h)	4	222	8	2	213	4	7	6	6	13	2	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	241	9	2	232	4	8	7	7	14	2	8
Pedestrians	INI I											
Lane Width (m)												
Walking Speed (m/s)		1										
Percent Blockage												
Right turn flare (veh)			7700									
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked		1000		1 - 1		200						
vC, conflicting volume	236			250			500	494	246	502	496	234
vC1, stage 1 conf vol								115				
vC2, stage 2 conf vol												
vCu, unblocked vol	236			250		7 11	500	494	246	502	496	234
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC. 2 stage (s)	سنسب											
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	99	99	97	100	99
cM capacity (veh/h)	1331			1316			473	475	793	469	473	805
		WB 1	NB 1	SB 1		311 -	4 11			0 10		
Direction, Lane #	EB 1		22	24				45-4-				
Volume Total	254	238										
Volume Left	4	2	8	14								
Volume Right	9	4	7	8								_
cSH	1331	1316	543	545								
Volume to Capacity	0.00	0.00	0.04	0.04								
Queue Length 95th (m)	0.1	0.0	1.0	1.0								
Control Delay (s)	0.1	0.1	11.9	11.9						_		
Lane LOS	A	A	В	В						E ET	111	
Approach Delay (s)	0.1	0.1	11.9	11.9								
Approach LOS			В	В							- 1	
Intersection Summary	الوالالا		THE					119 1		التاريخ		
Average Delay			1.1									
Intersection Capacity Utiliza	ation		24.7%	IC	U Level c	t Service			Α			
Analysis Period (min)			15									

15: Oxford Street 06/24/2020

69	۶	•	•	†	<del> </del>	1
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			स	1>	
Traffic Volume (veh/h)	6	.4	5	298	221	4
Future Volume (Veh/h)	6	4	5	298	221	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	4	5	324	240	4
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	576	242	244			
vC1, stage 1 conf vol	0.0					
vC2, stage 2 conf vol						
vCu, unblocked vol	576	242	244			
tC, single (s)	6.4	6.2	4.1			
tC. 2 stage (s)		V.E				
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	99	100		1001	
cM capacity (veh/h)	477	797	1322			
Direction, Lane # Volume Total	EB 1	NB 1	SB 1 244			
	11	329				
Volume Left	7	5	0			
Volume Right	4	0	4700			
cSH	559	1322	1700			
Volume to Capacity	0.02	0.00	0.14			
Queue Length 95th (m)	0.5	0.1	0.0			
Control Delay (s)	11.6	0.2	0.0			
Lane LOS	В	Α				
Approach Delay (s)	11.6	0.2	0.0			
Approach LOS	В					
Intersection Summary					201 20-	
Average Delay			0.3	11.		
Intersection Capacity Utiliza	ation		29.7%	IC	U Level	of Service
Analysis Period (min)			15			
yolo i ollou (illin)			10			

#### **EXISTING 2032 PM**

Movement WBL WBR NBT NBR SBL SBT  Lane Configurations Traffic Volume (veh/h) 22 230 65 8 179 110  Future Volume (Veh/h) 22 230 65 8 179 110  Sign Control Stop Free Free Grade 0% 0% 0% 0% 0% Peak Hour Factor 0.92 0.92 0.92 0.92 0.92 0.92  Hourly flow rate (vph) 24 250 71 9 195 120  Pedestrians  Lane Width (m)  Walking Speed (m/s) Percent Blockage Right turn flare (veh) Median storage veh) Upstream signal (m) pX. platoon unblocked vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol vCu. unblocked vol tC, single (s) 6.4 6.2 4.1  tC, 2 stage (s) tF (s) 3.5 3.3 2.2 p0 queue free % 94 75 87 cM capacity (veh/h) 412 986 1518  Direction Lane # WB 1 NB 1 SB 1	
Lane Configurations Traffic Volume (veh/h)	
Traffic Volume (veh/h)	
Future Volume (Veh/h) 22 230 65 8 179 110  Sign Control Stop Free Free  Grade 0% 0% 0% 0%  Peak Hour Factor 0.92 0.92 0.92 0.92 0.92 0.92  Hourly flow rate (vph) 24 250 71 9 195 120  Pedestrians  Lane Width (m)  Walking Speed (m/s)  Percent Blockage  Right turn flare (veh)  Median type None None  Median storage veh)  Jpstream signal (m)  DX. platoon unblocked  VC, conflicting volume 586 76 80  VC1. stage 1 conf vol  VC2, stage 2 conf vol  VC2, stage 2 conf vol  VC2, stage (s)  F (s) 3.5 3.3 2.2  D0 queue free % 94 75 87  EM capacity (veh/h) 412 986 1518  Direction. Lane # WB 1 NB 1 SB 1	
Sign Control Stop Free Free Free Grade 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%	
Grade 0% 0% 0% 0%  Peak Hour Factor 0.92 0.92 0.92 0.92 0.92 0.92  Hourly flow rate (vph) 24 250 71 9 195 120  Pedestrians  Lane Width (m)  Walking Speed (m/s)  Percent Blockage  Right turn flare (veh)  Median type None None  Wedian storage veh)  Upstream signal (m)  DX. platoon unblocked  AC, conflicting volume 586 76 80  AC1, stage 1 conf vol  AC2, stage 2 conf vol  AC2, stage 2 conf vol  AC3, single (s) 6.4 6.2 4.1  C, 2 stage (s)  F (s) 3.5 3.3 2.2  D0 queue free % 94 75 87  EM capacity (veh/h) 412 986 1518  Direction. Lane # WB 1 NB 1 SB 1	
Peak Hour Factor 0.92 0.92 0.92 0.92 0.92 0.92 Hourly flow rate (vph) 24 250 71 9 195 120 Pedestrians Lane Width (m)  Walking Speed (m/s) Percent Blockage Right turn flare (veh) Median type None None  Median storage veh) Upstream signal (m)  IDENTIFY TO SERVICE (MESS)  IDENTIFY TO	
Hourly flow rate (vph) 24 250 71 9 195 120  Pedestrians Lane Width (m)  Walking Speed (m/s)  Percent Blockage Right turn flare (veh)  Median type None None  Median storage veh)  Upstream signal (m)  VX. platoon unblocked  VC., conflicting volume 586 76 80  CC2, stage 1 conf vol  CC2, stage 2 conf vol  CC2, stage 2 conf vol  CC3, stage 8 6.4 6.2 4.1  CC, 2 stage (s)  F (s) 3.5 3.3 2.2  Of queue free % 94 75 87  M capacity (veh/h) 412 986 1518  Direction. Lane # WB 1 NB 1 SB 1	
Pedestrians ane Width (m)  Valking Speed (m/s)  Percent Blockage Right turn flare (veh)  Median type  None	
Anne Width (m)  Valking Speed (m/s)  Percent Blockage Right turn flare (veh)  Median type  None  None  None  None  Median storage veh)  Upstream signal (m)  XX. platoon unblocked  CC, conflicting volume  586  76  80  CC1, stage 1 conf vol  CC2, stage 2 conf vol  CC4, single (s)  C, single (s)  C, 2 stage (s)  F (s)  3.5  3.3  2.2  00 queue free %  94  75  87  M capacity (veh/h)  None  No	
Valking Speed (m/s)         Percent Blockage         Right turn flare (veh)         Median type       None       None         Median storage veh)       Upstream signal (m)         VX. platoon unblocked       C. conflicting volume       586       76       80         C1, stage 1 conf vol       C2, stage 2 conf vol       Cu. unblocked vol       586       76       80         C2, stage 2 conf vol       C3, single (s)       6.4       6.2       4.1         C3, 2 stage (s)       56       75       87         M capacity (veh/h)       412       986       1518         Direction, Lane.#       WB 1       NB 1       SB 1	
Percent Blockage Right turn flare (veh)  Median type	
Right turn flare (veh)  Median type None None  Median storage veh)  Upstream signal (m)  XX. platoon unblocked CC, conflicting volume 586 76 80  CC1, stage 1 conf vol  CC2, stage 2 conf vol  CC4, unblocked vol 586 76 80  CC5, single (s) 6.4 6.2 4.1  CC7, 2 stage (s)  F (s) 3.5 3.3 2.2  CO queue free % 94 75 87  CM capacity (veh/h) 412 986 1518	
Median type None None  Median storage veh)  Upstream signal (m)  XX. platoon unblocked CC, conflicting volume 586 76 80  CC1, stage 1 conf vol  CC2, stage 2 conf vol  CC4. unblocked vol 586 76 80  CC5. single (s) 6.4 6.2 4.1  CC6. 2 stage (s)  F (s) 3.5 3.3 2.2  CO queue free % 94 75 87  CM capacity (veh/h) 412 986 1518	
Median storage veh)  Upstream signal (m)  XX. platoon unblocked  CC, conflicting volume  CC1, stage 1 conf vol  CC2, stage 2 conf vol  CC4. unblocked vol  CC5. single (s)  CC6. single (s)  CC7. stage (s)  CC8. stage (s)  CC9. stage (s)  C	
Upstream signal (m)       bX. platoon unblocked         VC, conflicting volume       586       76       80         VC1, stage 1 conf vol       vC2, stage 2 conf vol         VC2, stage 2 conf vol       vCu. unblocked vol       586       76       80         C, single (s)       6.4       6.2       4.1         C, 2 stage (s)       F (s)       3.5       3.3       2.2         50 queue free %       94       75       87         5M capacity (veh/h)       412       986       1518	
XX. platoon unblocked CC, conflicting volume 586 76 80 CC1, stage 1 conf vol CC2, stage 2 conf vol CC4. unblocked vol 586 76 80 CC5, single (s) 6.4 6.2 4.1 CC6, 2 stage (s) CC7, stage (s) 5.5 3.3 2.2 CC9 queue free % 94 75 87 CM capacity (veh/h) 412 986 1518  Sirection, Lane # WB 1 NB 1 SB 1	
C, conflicting volume 586 76 80  C1, stage 1 conf vol  C2, stage 2 conf vol  Cu. unblocked vol 586 76 80  C, single (s) 6.4 6.2 4.1  C, 2 stage (s)  F (s) 3.5 3.3 2.2  0 queue free % 94 75 87  M capacity (veh/h) 412 986 1518	11 11
C1, stage 1 conf vol  C2, stage 2 conf vol  Cu. unblocked vol 586 76 80  C, single (s) 6.4 6.2 4.1  C, 2 stage (s)  = (s) 3.5 3.3 2.2  0 queue free % 94 75 87  M capacity (veh/h) 412 986 1518	
C2, stage 2 conf vol  Cu. unblocked vol 586 76 80  C, single (s) 6.4 6.2 4.1  C, 2 stage (s)  F (s) 3.5 3.3 2.2  0 queue free % 94 75 87  M capacity (veh/h) 412 986 1518  Direction, Lane # WB 1 NB 1 SB 1	
Cu. unblocked vol 586 76 80 C, single (s) 6.4 6.2 4.1 C, 2 stage (s) F (s) 3.5 3.3 2.2 0 queue free % 94 75 87 M capacity (veh/h) 412 986 1518  Direction, Lane # WB 1 NB 1 SB 1	
C, single (s) 6.4 6.2 4.1 C, 2 stage (s) F (s) 3.5 3.3 2.2 0 queue free % 94 75 87 M capacity (veh/h) 412 986 1518  Direction, Lane # WB 1 NB 1 SB 1	
C, 2 stage (s)  = (s) 3.5 3.3 2.2  0 queue free % 94 75 87  M capacity (veh/h) 412 986 1518  Direction, Lane # WB 1 NB 1 SB 1	
F (s) 3.5 3.3 2.2 0 queue free % 94 75 87 M capacity (veh/h) 412 986 1518  Direction, Lane # WB 1 NB 1 SB 1	
of queue free % 94 75 87 M capacity (veh/h) 412 986 1518  Direction, Lane # WB 1 NB 1 SB 1	
M capacity (veh/h) 412 986 1518  Direction, Lane # WB 1 NB 1 SB 1	
Direction, Lane # WB 1 NB 1 SB 1	
	1 1 2 2 2
olume Total 274 80 315	
folume Left 24 0 195	
Volume Right 250 9 0	
SH 879 1700 1518	No. of the last
/olume to Capacity 0.31 0.05 0.13	
Queue Length 95th (m) 10.2 0.0 3.4	
Control Delay (s) 10.9 0.0 5.2	
ane LOS B A	
Approach Delay (s) 10.9 0.0 5.2	
Approach LOS B	
ntersection Summary eyerage Delay 6.9	
ntersection Capacity Utilization 44.5% ICU Level of Service A Analysis Period (min) 15	

	J		•	•	<b>—</b>	•	•	†	<i>&gt;</i>	<b>/</b>	<b>+</b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			4			4			4	
Traffic Volume (veh/h)	2	182	2	10	247	20	0	2	4	8	0	8
Future Volume (Veh/h)	2	182	2	10	247	20	0	2	4	8	0	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	198	2	11	268	22	0	2	4	9	0	9
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	290			200			513	515	199	509	505	279
vC1, stage 1 conf vol							, [					
vC2, stage 2 conf vol												
vCu, unblocked vol	290			200		77	513	515	199	509	505	279
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	98	100	99
cM capacity (veh/h)	1272			1372			463	459	842	467	465	760
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	-		-					
Volume Total	202	301	6	18								
Volume Left	2	11	0	9								
Volume Right	2	22	4	9								
cSH	1272	1372	659	579				Q.E.				
Volume to Capacity	0.00	0.01	0.01	0.03								
Queue Length 95th (m)	0.0	0.2	0.2	0.7	76.77					1 22 1		
Control Delay (s)	0.1	0.4	10.5	11.4								
Lane LOS	A	А	В	В								
Approach Delay (s)	0.1	0.4	10.5	11.4								
Approach LOS			В	В								100
Intersection Summary		N.T.										
Average Delay			0.7									
Intersection Capacity Utiliza	ation		34.7%	IC	U Level o	of Service			Α			
Analysis Period (min)			15									

# 3: Vidal Street & Thrift Avenue

J. Vidai Oticet & 1		iiuo										
	1	-	7	1	+	*	1	1	~	-	↓	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	4	184	6	11	255	8	6	2	6	8	0	15
Future Volume (Veh/h)	4	184	6	11	255	8	6	2	6	8	0	15
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	200	7	12	277	9	7	2	7	9	0	16
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	286			207			533	522	204	525	520	282
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu. unblocked vol	286			207			533	522	204	525	520	282
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC. 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			98	100	99	98	100	98
cM capacity (veh/h)	1276			1364			444	454	837	454	455	757
Direction, Lane #	EB 1	WB 1	NB 1	SB 1		111	-1-11				33.	
Volume Total	211	298	16	25								
Volume Left	4	12	7	9	93 10							
Volume Right	7	9	7	16								
cSH	1276	1364	561	610	71							11-11
Volume to Capacity	0.00	0.01	0.03	0.04								
Queue Length 95th (m)	0.1	0.2	0.7	1.0								
Control Delay (s)	0.2	0.4	11.6	11.2								
Lane LOS	A	Α	В	В			TO VI					
Approach Delay (s)	0.2	0.4	11.6	11.2								
Approach LOS	18.1.	nie P	В	В								
Intersection Summary						in Wildle	51.22	555	THE T		3.5	
Average Delay			1.1									1
Intersection Capacity Utiliza	ation		29.5%	IC	CU Level o	of Service			Α			
Analysis Period (min)			15	e gu bi								-235

	•	$\rightarrow$	7	1	<b>—</b>	*	1	<b>†</b>	1	1	<b>↓</b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44-			4			4	
Traffic Volume (veh/h)	2	197	0	8	259	8	0	2	0	21	8	15
Future Volume (Veh/h)	2	197	0	8	259	8	0	2	0	21	8	15
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	214	0	9	282	9	0	2	0	23	9	16
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												-
Upstream signal (m)												
pX. platoon unblocked												
vC, conflicting volume	291			214			543	527	214	524	522	286
vC1, stage 1 conf vol								DIES				
vC2, stage 2 conf vol												
vCu, unblocked vol	291			214			543	527	214	524	522	286
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	95	98	98
cM capacity (veh/h)	1271			1356			432	453	826	460	455	753
Direction, Lane #	EB 1	WB 1	NB 1	SB 1					, - ,			
Volume Total	216	300	2	48								
Volume Left	2	9	0	23								
Volume Right	0	9	0	16								
cSH	1271	1356	453	527								
Volume to Capacity	0.00	0.01	0.00	0.09								
Queue Length 95th (m)	0.00	0.01	0.00	2.3								
Control Delay (s)	0.0	0.2	13.0	12.5								
Lane LOS	Ο.1	0.3 A	13.0 B	12.3 B								
Approach Delay (s)	0.1	0.3	13.0	12.5								
Approach LOS	0.1	0.3	13.0 B	12.3 B								
			D	D								
Intersection Summary												
Average Delay			1.3		نج اللهاري							سبا
Intersection Capacity Utiliza	tion		35.0%	IC	U Level o	f Service			Α			
Analysis Period (min)			15									

Synchro 10 Report Page 4 R.F.Binnie & Associates

# 15: Oxford Street

	۶	•	4	†	<b>↓</b>	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	N/F			न		
Traffic Volume (veh/h)	12	3	6	289	286	8
Future Volume (Veh/h)	12	3	6	289	286	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	3	7	314	311	9
Pedestrians	2 1					18.
Lane Width (m)						
Walking Speed (m/s)		100				171
Percent Blockage						
Right turn flare (veh)		NE I				1561
Median type				None	None	
Median storage veh)	K UK					
Upstream signal (m)						
pX, platoon unblocked	1					
vC, conflicting volume	644	316	320			
vC1, stage 1 conf vol	<b>9</b> -1-1	310	520			
vC2, stage 2 conf vol	-10-0	100				
vCu, unblocked vol	644	316	320			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	0.⊣	0.2				4113
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	100	99			
cM capacity (veh/h)	435	725	1240			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	16	321	320			
Volume Left	13	7	0			
Volume Right	3	0	9			
cSH	470	1240	1700			
Volume to Capacity	0.03	0.01	0.19			
Queue Length 95th (m)	0.8	0.1	0.0			
Control Delay (s)	12.9	0.2	0.0			
Lane LOS	В	A				
Approach Delay (s)	12.9	0.2	0.0			
Approach LOS	В					
Intersection Summary		17173				
Average Delay			0.4			
Intersection Capacity Utilization	on		30.0%	IC	CU Level of	Service
Analysis Period (min)			15			
Allaysis i criou (min)			10			

## **EXISTING 2045 AM**

1: Oxford Street &	Thrift Av	/enue	†	1	-	<b>↓</b>	06/24/20
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	N/F		ĵ.			90	
Traffic Volume (veh/h)	18	346	128	37	260	90	
Future Volume (Veh/h)	18	346	128	37	260	90	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	20	376	139	40	283	98	
Pedestrians							
ane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage veh)			HONG	-		THORIC	
Jpstream signal (m)							
X, platoon unblocked							The second second second second second
C, conflicting volume	823	159			179		
C1, stage 1 conf vol	023	109			175		
C2, stage 2 conf vol							
Cu, unblocked vol	823	159			179		
C, single (s)	6.4	6.2			4.1		
	0.4	0.2			4.1		
C, 2 stage (s)	2.5	2.0			0.0		
F (s)	3.5	3.3			2.2		
00 queue free %	93	58			80		
cM capacity (veh/h)	274	886			1397		
Direction, Lane #	WB 1	NB 1	SB 1				
/olume Total	396	179	381				
/olume Left	20	0	283				
olume Right	376	40	0				
SH	796	1700	1397				
olume to Capacity	0.50	0.11	0.20				
Queue Length 95th (m)	21.4	0.0	5.8				
Control Delay (s)	13.9	0.0	6.6				
ane LOS	В		A				
Approach Delay (s)	13.9	0.0	6.6				
Approach LOS	В						Service Various and the last
ntersection Summary							
Average Delay			8.4				
ntersection Capacity Utiliza	ation		60.5%	IC	U Level	of Service	В
Analysis Period (min)			15	.0			

Synchro 10 Report Page 1 R.F.Binnie & Associates

Z. Eviali Street & T	TITLL /AV	STIGO										
0	۶	<b>→</b>	*	1	4-	4	4	†	1	-	<b>↓</b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			44			4			4	
Traffic Volume (veh/h)	3	296	2	12	339	32	3	0	12	20	3	17
Future Volume (Veh/h)	3	296	2	12	339	32	3	0	12	20	3	17
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	322	2	13	368	35	3	0	13	22	3	18
Pedestrians				- 14.			-11					
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)	Y - 1 - 1 - 1					N . W						
Median type		None			None							
Median storage veh)			-11-7	- 1-N								
Upstream signal (m)												
pX, platoon unblocked	- 10				100							
vC, conflicting volume	403			324			760	758	323	754	742	386
vC1. stage 1 conf vol			Harris		- III	700						
vC2, stage 2 conf vol												
vCu, unblocked vol	403	. 17	100	324			760	758	323	754	742	386
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC. 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99	300		99	100	98	93	99	97
cM capacity (veh/h)	1156			1236			309	332	718	317	339	662
Direction, Lane #	EB 1	WB 1	NB 1	SB 1					41.0			
Volume Total	327	416	16	43								
Volume Left	3	13	3	22								
Volume Right	2	35	13	18								
cSH	1156	1236	575	408								
Volume to Capacity	0.00	0.01	0.03	0.11								
Queue Length 95th (m)	0.1	0.2	0.7	2.7								
Control Delay (s)	0.1	0.4	11.4	14.9								
Lane LOS	A	A	В	В								
Approach Delay (s)	0.1	0.4	11.4	14.9								
Approach LOS			В	В	HV.						14 44	
Intersection Summary		315	THE STATE									
Average Delay			1.3			7						
Intersection Capacity Utiliza	ation		39.0%	IC	CU Level o	of Service			Α			
Analysis Period (min)			15	31.11		y				400		

	۶	<b>→</b>	*	•	+	4	4	†	<i>&gt;</i>	<b>/</b>	ţ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			4			क्	
Traffic Volume (veh/h)	0	328	0	2	345	10	17	0	20	17	3	20
Future Volume (Veh/h)	0	328	0	2	345	10	17	0	20	17	3	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	357	0	2	375	11	18	0	22	18	3	22
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)							4					
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX. platoon unblocked											-	
vC, conflicting volume	386			357			765	747	357	764	742	380
vC1, stage 1 conf vol				- 11								
vC2, stage 2 conf vol												
vCu. unblocked vol	386			357			765	747	357	764	742	380
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)				فأناس				0.0	0.2	18	0.0	0.2
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			94	100	97	94	99	97
cM capacity (veh/h)	1172			1202			307	341	687	310	343	667
		10000	AVP 4				307	J41	007	310	UTU	007
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	357	388	40	43								
Volume Left	0	2	18	18								
Volume Right	0	11	22	22								
	0.0											
	0.0	0.1										
Approach LOS			В	В								
Intersection Summary	124											
Average Delay			1.4									
Intersection Capacity Utiliza	tion		30.4%	IC	U Level o	of Service			Α			
Analysis Period (min)			15									إلحال
Average Delay Intersection Capacity Utiliza	1172 0.00 0.0 0.0 0.0	1202 0.00 0.0 0.1 A 0.1	30.4%	431 0.10 2.5 14.3 B 14.3 B	CU Level c	of Service			A			

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# 4: Blackwood Street & Thrift Avenue

T. Diackwood Otics			_		_	_	_	_		$\overline{}$	1	$\overline{}$
	۶	<b>→</b>	1	-			7	T		*	+	*
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4	Total Control		4	
Traffic Volume (veh/h)	7	345	13	3	334	7	12	10	10	20	3	12
Future Volume (Veh/h)	7	345	13	3	334	7	12	10	10	20	3	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	375	14	3	363	8	13	11	11	22	3	13
Pedestnans												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)		THE T										
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked	WILL DO	77.77	HILL									
vC, conflicting volume	371			389			786	775	382	788	778	367
vC1, stage 1 conf vol	4			7								
vC2, stage 2 conf vol												
vCu, unblocked vol	371			389		- 118	786	775	382	788	778	367
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)					-10-11	1000						
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 gueue free %	99			100			96	97	98	93	99	98
cM capacity (veh/h)	1188			1170			300	326	665	294	325	678
Direction, Lane #	EB 1	WB 1	NB 1	SB 1		100	414	-	-46-			
Volume Total	397	374	35	38								
Volume Left	8	3	13	22	-				-12			
Volume Right	14	8	11	13								
cSH	1188	1170	374	368			-	N 7 - 1		75.73	= 1, 3	
Volume to Capacity	0.01	0.00	0.09	0.10								
	0.01	0.00	2.3	2.6				III III				
Queue Length 95th (m)		0.1	15.6	15.9					_			
Control Delay (s)	0.2 A	0. I	13.0 C	15.9 C								
Lane LOS			15.6	15.9		_510						
Approach Delay (s)	0.2	0.1	13.0	15.9 C	_		W-20-11		-	_	11.77	
Approach LOS				U								
Intersection Summary												
Average Delay			1.5				U E, F			- 100		
Intersection Capacity Utiliza	ation		33.4%	IC	U Level o	f Service			Α			
Analysis Period (min)	4 , 5 5, 1	11111	15	194	515 7	THE W.						

15: Oxford Street 06/24/2020

	*	*	4	†	ļ	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			र्	_∱-	
Traffic Volume (veh/h)	10	7	9	474	345	7
Future Volume (Veh/h)	10	7	9	474	345	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	8	10	515	375	8
Pedestrians		- 1 1				11.
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)				110110	110110	
Upstream signal (m)						
pX. platoon unblocked						
vC, conflicting volume	914	379	383			
vC1, stage 1 conf vol	017	373	303			
vC2, stage 2 conf vol						
vCu, unblocked vol	914	379	383			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	0.4	0.2	7.1			
tF (s)	3.5	3.3	2.2			
p0 queue free %	96	99	99			
	301	668	1175			
cM capacity (veh/h)						
Direction, Lane #	EB1	NB 1	SB 1			
Volume Total	19	525	383			
Volume Left	11	10	0			
Volume Right	8	0	8			
cSH	391	1175	1700			
Volume to Capacity	0.05	0.01	0.23			
Queue Length 95th (m)	1.2	0.2	0.0			
Control Delay (s)	14.7	0.3	0.0			
Lane LOS	В	Α				
Approach Delay (s)	14.7	0.3	0.0			
Approach LOS	В					
Intersection Summary			7,5	4-17-		
Average Delay			0.4		U 3	
Intersection Capacity Utilizat	tion		42.2%	IC	U Level o	f Service
Analysis Period (min)	uon .		15	IC.	O LOVOI U	1 OCIVICE
Allaiyais Folivu (IIIIII)			10			

#### **EXISTING 2045 PM**

1: Oxford Street &	Thrift A	/enue	<u>†</u>	<i>&gt;</i>	<u></u>	1	06/24/2020
PATRICIA CONTRACTOR OF THE PATRICIA CONTRACTOR O	11000	14/00			OBI	OBT	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	M		Þ	4.5	075	र्भ	
Traffic Volume (veh/h)	35	362	97	13	275	171	
Future Volume (Veh/h)	35	362	97	13	275	171	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	38	393	105	14	299	186	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage veh)	mark and						
Upstream signal (m)							
pX. platoon unblocked							
vC, conflicting volume	896	112			119		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	896	112			119		
tC, single (s)	6.4	6.2			4.1		
tC. 2 stage (s)					W		
tF (s)	3.5	3.3			2.2		
p0 queue free %	85	58	11 11 11		80		
cM capacity (veh/h)	247	941			1469		
	WB 1	NB 1	SB 1				
Direction, Lane #	431	119	485				
Volume Total	38	0	299	SIL S		-	
Volume Left		14	299				
Volume Right	393						
cSH	755	1700	1469	44			
Volume to Capacity	0.57	0.07	0.20				
Queue Length 95th (m)	27.8	0.0	5.8				
Control Delay (s)	15.9	0.0	5.7				
Lane LOS	C		А				
Approach Delay (s)	15.9	0.0	5.7				
Approach LOS	C					Tree Tree	
Intersection Summary	والألي						
Average Delay			9.3				اراحه كالمراحلة والتناويات
Intersection Capacity Utiliza	ation		61.9%	IC	U Level of	of Service	В
Analysis Period (min)			15				

	۶	<b>→</b>	•	•	+	A.	<u> </u>	<b>†</b>	<i>&gt;</i>	<u> </u>	+	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			€\$			44			4	
Traffic Volume (veh/h)	3	288	3	15	379	32	3	3	7	13	0	13
Future Volume (Veh/h)	3	288	3	15	379	32	3	3	7	13	0	13
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	313	3	16	412	35	3	3	8	14	0	14
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												11.5
vC, conflicting volume	447			316			796	800	314	792	784	430
vC1, stage 1 conf vol												- III
vC2, stage 2 conf vol												
vCu, unblocked vol	447			316			796	800	314	792	784	430
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												. 1
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	99	99	95	100	98
cM capacity (veh/h)	1113			1244			295	313	726	298	320	626
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	319	463	14	28								
Volume Left	3	16	3	14								
Volume Right	3	35	8	14								
cSH	1113	1244	455	404								
Volume to Capacity	0.00	0.01	0.03	0.07								
Queue Length 95th (m)	0.1	0.3	0.7	1.7								
Control Delay (s)	0.1	0.4	13.2	14.6								
Lane LOS	A	A	В	В								
Approach Delay (s)	0.1	0.4	13.2	14.6								
Approach LOS			В	В								
Intersection Summary				11 5 8		4						
Average Delay			1.0									
Intersection Capacity Utiliza	ation		41.4%	IC	CU Level o	f Service			Α			
Analysis Period (min)			15									

# 3: Vidal Street & Thrift Avenue

					_					<u> </u>	1	-,
	*	<b>-</b>	*	1	_	-	1	1		*	+	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	7	291	10	17	392	13	10	3	10	13	0	23
Future Volume (Veh/h)	7	291	10	17	392	13	10	3	10	13	0	23
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	316	11	18	426	14	11	3	11	14	0	25
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												STORE .
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	440			327			832	814	322	819	812	433
vC1, stage 1 conf vol			TITL									
vC2, stage 2 conf vol												
vCu, unblocked vol	440			327			832	814	322	819	812	433
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC. 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			96	99	98	95	100	96
cM capacity (veh/h)	1120			1233			272	306	719	283	306	623
Direction, Lane #	EB 1	WB 1	NB 1	SB 1			511.5				a Francisco	411
Volume Total	335	458	25	39								
Volume Left	8	18	11	14								
Volume Right	11	14	11	25								
cSH	1120	1233	382	435								
Volume to Capacity	0.01	0.01	0.07	0.09								
Queue Length 95th (m)	0.2	0.3	1.6	2.2								
Control Delay (s)	0.3	0.5	15.1	14.1								
Lane LOS	A	A	C	В	-11	117-11						
Approach Delay (s)	0.3	0.5	15.1	14.1								
Approach LOS		107	C	В					4 1			
Intersection Summary						123	754		TO ALL	بقلي		L. 1
Average Delay			1.4	FT.								
Intersection Capacity Utilization	on		39.8%	IC	U Level o	f Service			Α			
Analysis Period (min)	-		15									

	•	-	*	€	<b>←</b>	•	4	<b>†</b>	1	-	<b>↓</b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			- 4⊅			4	
Traffic Volume (veh/h)	3	311	0	13	399	13	0	3	0	33	13	23
Future Volume (Veh/h)	3	311	0	13	399	13	0	3	0	33	13	23
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	338	0	14	434	14	0	3	0	36	14	25
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)	N		1139,13									
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	448			338			845	820	338	814	813	441
vC1, stage 1 conf vol				000			0.0	020				
vC2, stage 2 conf vol												
vCu, unblocked vol	448			338			845	820	338	814	813	441
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)				1.1				0.0	0.2	7.1	0.0	0.2
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	99	100	88	95	96
cM capacity (veh/h)	1112			1221			259	305	704	291	308	616
							209	300	704	291	300	010
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	341	462	3	75								
Volume Left	3	14	0	36								
Volume Right	0	14	0	25								
cSH	1112	1221	305	358								
Volume to Capacity	0.00	0.01	0.01	0.21								
Queue Length 95th (m)	0.1	0.3	0.2	5.9								
Control Delay (s)	0.1	0.4	16.9	17.7								
Lane LOS	A	Α	С	С								
Approach Delay (s)	0.1	0.4	16.9	17.7								
Approach LOS			С	Ċ		-			7 1			75
Intersection Summary	9					1						
Average Delay			1.8									
Intersection Capacity Utiliza	ation		47.3%	IC	U Level o	f Service			Α			
Analysis Period (min)			15									

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# 15: Oxford Street

	1	*	1	<b>†</b>	+	1
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W	Protect IV		4	Î	
Traffic Volume (veh/h)	18	5	10	467	446	13
Future Volume (Veh/h)	18	5	10	467	446	13
Sign Control	Stop	ŭ		Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	20	5	11	508	485	14
Pedestrians	20		- 4			
Lane Width (m)						
Walking Speed (m/s)				7 - 17	-	- 0
Percent Blockage						
Right turn flare (veh)		×		31.0		
Median type				None	None	
Median storage veh)				110110	110110	
Upstream signal (m)						
pX, platoon unblocked			11	-		
vC, conflicting volume	1022	492	499			
vC1, stage 1 conf vol	1022	732	400		= 1	
vC2, stage 2 conf vol						
vCu, unblocked vol	1022	492	499			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	0,4	0.2	7,1			
tF (s)	3.5	3.3	2.2			
p0 queue free %	92	99	99			
cM capacity (veh/h)	259	577	1065			
Direction, Lane #	EB.1	NB 1	SB 1			
Volume Total	25	519	499			
Volume Left	20	11	0			11.11
Volume Right	5	0	14			
cSH	291	1065	1700			
Volume to Capacity	0.09	0.01	0.29			
Queue Length 95th (m)	2.1	0.2	0.0	-		
Control Delay (s)	18.5	0.3	0.0			
Lane LOS	C	A	Al III			
Approach Delay (s)	18.5	0.3	0.0			
Approach LOS	C		W.			
Intersection Summary			N. V.	N 35	14.1	100
Average Delay			0.6	14.1		
Intersection Capacity Utiliza	ation		42.6%	IC	U Level o	f Service
Analysis Period (min)			15	N HIN	1	
ritary 315 r chod (min)			10			

### 2022 COMBINED AM

1: Oxford Street &	Thrift Av	enue	†	~	<b>/</b>	<b>+</b>	06/24/2020
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	N.W		19			4	
Traffic Volume (veh/h)	13	237	81	24	171	58	
Future Volume (Veh/h)	13	237	81	24	171	58	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	the Control of the Late of the Control of the Contr
Hourly flow rate (vph)	14	258	88	26	186	63	
Pedestrians							and the second second second second second
Lane Width (m)							
Walking Speed (m/s)						-	
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage veh)							
Upstream signal (m)							
pX, platoon unblocked							
vC, conflicting volume	536	101			114		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu. unblocked vol	536	101			114		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)		U.L					
tF (s)	3.5	3.3			2.2		
p0 queue free %	97	73			87		
cM capacity (veh/h)	442	954			1475		
			00.4		1410		
Direction, Lane #	W8 1	NB 1	SB 1				
Volume Total	272	114	249				
Volume Left	14	0	186				
Volume Right	258	26	0				
cSH	901	1700	1475				
Volume to Capacity	0.30	0.07	0.13				
Queue Length 95th (m)	9.7	0.0	3.3				
Control Delay (s)	10.7	0.0	6.1				
Lane LOS	В		A				
Approach Delay (s)	10.7	0.0	6.1				
Approach LOS	В						
Intersection Summary							
Average Delay			7.0				
Intersection Capacity Utiliza	ation		41.2%	IC	U Level of	of Service	Α
Analysis Period (min)			15				

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# 2: Evrall Street & Thrift Avenue

	*	<b>→</b>	*	•	<b>←</b>	*	1	<b>†</b>	1	-	<b>↓</b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		€₽-			44			4			4	
Traffic Volume (veh/h)	2	196	1	8	232	22	2	0	7	13	2	11
Future Volume (Veh/h)	2	196	1	8	232	22	2	0	7	13	2	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	213	1	9	252	24	2	0	8	14	2	12
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)											Mark.	
Upstream signal (m)												
X, platoon unblocked												
C, conflicting volume	276			214			512	512	214	508	500	264
vC1, stage 1 conf vol											-	
vC2, stage 2 conf vol												
vCu. unblocked vol	276			214			512	512	214	508	500	264
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF(s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	99	97	100	98
cM capacity (veh/h)	1287			1356			460	462	827	468	469	775
Direction, Lane #	EB 1	WB 1	NB 1	SB 1		100						
Volume Total	216	285	10	28								
Volume Left	2	9	2	14						31.1		
Volume Right	1	24	8	12								
cSH	1287	1356	713	564								
Volume to Capacity	0.00	0.01	0.01	0.05								
Queue Length 95th (m)	0.0	0.2	0.3	1.2								
Control Delay (s)	0.1	0.3	10.1	11.7								
Lane LOS	A	Α	В	В	1 1 1				1	v In -		
Approach Delay (s)	0.1	0.3	10.1	11.7								
Approach LOS			В	В		100		- 1 -,				
ntersection Summary			ALC: N				<u> </u>		1991 E.	3. Y		
Average Delay			1.0									
Intersection Capacity Utiliza Analysis Period (min)	ation		28.6% 15	IC	U Level o	of Service			A	- 14		

,	۶		•	•	<b>←</b>	4	1	<b>†</b>	<i>&gt;</i>	-	Ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44+			4			44	7.2
Traffic Volume (veh/h)	5	212	0	1	220	13	11	0	13	27	2	32
Future Volume (Veh/h)	5	212	0	1	220	13	11	0	13	27	2	32
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	230	0	1	239	14	12	0	14	29	2	35
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX. platoon unblocked												
vC, conflicting volume	253			230			524	495	230	502	488	246
vC1, stage 1 conf vol						100						
vC2, stage 2 conf vol												
vCu, unblocked vol	253			230			524	495	230	502	488	246
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF(s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			97	100	98	94	100	96
cM capacity (veh/h)	1312			1338			440	474	809	470	478	793
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	235	254	26	66								
Volume Left	5	4	12	29								
Volume Right	0	14	14	35								
cSH	1312	1338	584	600		11						100
Volume to Capacity	0.00	0.00	0.04	0.11								
Queue Length 95th (m)	0.1	0.0	1.1	2.8								
Control Delay (s)	0.2	0.0	11.5	11.7								
Lane LOS	A	A	В	В								
Approach Delay (s)	0.2	0.0	11.5	11.7								
Approach LOS	7 500		В	В								
Intersection Summary				1111	(H. )-	, il i i					ا " س	V 11
Average Delay		- 14	1.9									200
Intersection Capacity Utiliza	ation		25.9%	IC	CU Level o	of Service			Α			
Analysis Period (min)			15									

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4. Diackwood Stree	St Ot I III	IL AVC	Huc			_						
	1	-	*	1	•	*		<b>†</b>	1	-	<b>↓</b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	4	237	9	2	220	4	7	6	6	13	2	7
Future Volume (Veh/h)	4	237	9	2	220	4	7	6	6	13	2	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	258	10	2	239	4	8	7	7	14	2	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)						- 11-1						
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)		444				47.00						
Upstream signal (m)												
pX. platoon unblocked				100								
vC, conflicting volume	243			268			525	518	263	526	521	241
vC1, stage 1 conf vol						U 1 1						
vC2, stage 2 conf vol												
vCu, unblocked vol	243	- 7		268			525	518	263	526	521	241
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)								3111				
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	98	99	97	100	99
cM capacity (veh/h)	1323			1296			455	460	776	451	458	798
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	-1-161							TO BE
Volume Total	272	245	22	24								
Volume Left	4	2	8	14								
Volume Right	10	4	7	8								
cSH	1323	1296	526	528								
Volume to Capacity	0.00	0.00	0.04	0.05								
Queue Length 95th (m)	0.1	0.0	1.0	1.1								
Control Delay (s)	0.1	0.1	12.1	12.1								
Lane LOS	A	A	В	8								
Approach Delay (s)	0.1	0.1	12.1	12.1								
Approach LOS			В	В		7 4						
Intersection Summary	رابار المام		4017	100		718	a sil					
Average Delay			1.1						- 4		11 1	1,1
Intersection Capacity Utiliza	ition		25.6%	IC	U Level c	f Service			Α			
Analysis Period (min)	100		15						9, 1	1,19	8	

14: Vidal Street 06/24/2020

	•	*	4	†	<b></b>	1
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			स	₽	
Traffic Volume (veh/h)	0	35	12	6	26	0
Future Volume (Veh/h)	0	35	12	6	26	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	Ö	38	13	7	28	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)			. 201			
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	61	28	28			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu. unblocked vol	61	28	28			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	96	99			
cM capacity (veh/h)	938	1047	1585			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	38	20	28			
Volume Left	0	13	0		-	
Volume Right	38	0	0			
cSH	1047	1585	1700			
Volume to Capacity	0.04	0.01	0.02			
Queue Length 95th (m)	0.04	0.01	0.02			
Control Delay (s)	8.6	4.8	0.0			
Lane LOS	Α.	Α.	0.0			
Approach Delay (s)	8.6	4.8	0.0			
Approach LOS	0.0 A	4.0	0.0			
	A					
Intersection Summary						
Average Delay			4.9			
Intersection Capacity Utiliza	ation		17.6%	IC	U Level o	f Service
Analysis Period (min)			15			

# 15: Oxford Street

	J	_	•	†	<b>↓</b>	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	N/F		lises.	4	1>	
Traffic Volume (veh/h)	6	4	5	313	225	4
Future Volume (Veh/h)	6	4	5	313	225	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	4	5	340	245	4
Pedestrians		_	,	5-0	240	
Lane Width (m)						
Walking Speed (m/s)						
	-10-0					
Percent Blockage			- 2 3	11 2 2 1		
Right turn flare (veh)				None	None	
Median type				none	None	
Median storage veh)	4					
Upstream signal (m)						
pX, platoon unblocked	507	6.47	0.40			
vC, conflicting volume	597	247	249			
vC1, stage 1 conf vol						118
vC2, stage 2 conf vol						
vCu, unblocked vol	597	247	249			- 15
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)				- 311	18 10	SAME
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	100			Mary 1
cM capacity (veh/h)	464	792	1317			
Direction, Lane #	EB 1	NB 1	SB 1	-3 F		1-30
Volume Total	11	345	249			
Volume Left	7	5	0			
Volume Right	4	0	4			
cSH	546	1317	1700			
Volume to Capacity	0.02	0.00	0.15			
Queue Length 95th (m)	0.5	0.1	0.0			
Control Delay (s)	11.7	0.1	0.0			
Lane LOS	В	A		-0.00		
Approach Delay (s)	11.7	0.1	0.0			
Approach LOS	В					4
Intersection Summary						511
			0.3			
Average Delay				10	CU Level o	f Conden
Intersection Capacity Utilization	п		30.5%	IC	O Level 0	Service
Analysis Period (min)			15		E I V	No.

### 2022 COMBINED PM

1: Oxford Street &	Thrift Av	venue	†	<i>&gt;</i>	<b>/</b>	ţ	06/24/2020
Movement	WBL	WBR	NBT	NBR	SBL	SBT	البيد أحسان والأسماعا بمراجا والمراجع
Lane Configurations	N/		1			4	
Traffic Volume (veh/h)	19	372	479	11	230	135	
Future Volume (Veh/h)	19	372	479	11	230	135	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	21	404	521	12	250	147	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							The second secon
Median type			None			None	
Median storage veh)			110110				
Upstream signal (m)							
pX. platoon unblocked							
vC, conflicting volume	1174	527			533		
vC1, stage 1 conf vol					000		
vC2, stage 2 conf vol							
vCu, unblocked vol	1174	527			533		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)		-			M - H		
tF (s)	3.5	3.3			2.2		
p0 queue free %	87	27			76		
cM capacity (veh/h)	161	551			1035		
			20.4		1000		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	425	533	397				
Volume Left	21	0	250				
Volume Right	404	12	0				
cSH	492	1700	1035		-/11/1-		
Volume to Capacity	0.86	0.31	0.24				
Queue Length 95th (m)	69.2	0.0	7.2				
Control Delay (s)	43.2	0.0	7.0				
Lane LOS	E		A				
Approach Delay (s)	43.2	0.0	7.0				
Approach LOS	É						
Intersection Summary				ly de la			
Average Delay			15.6				
Intersection Capacity Utiliza	ation		79.8%	IC	U Level o	of Service	D
Analysis Period (min)			15				

Synchro 10 Report Page 1 R.F.Binnie & Associates

#### 06/24/2020

#### 2: Evrall Street & Thrift Avenue

Z. Eviali Street & I	TITLL AV	Blue										
	۶	-	*	1	<b>←</b>	*	4	†	1	-	ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	3	236	3	12	310	26	0	3	5	11	0	10
Future Volume (Veh/h)	3	236	3	12	310	26	0	3	5	11	0	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	257	3	13	337	28	0	3	5	12	0	11
Pedestrians			The state of									
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX. platoon unblocked												
vC, conflicting volume	365			260			652	656	258	648	643	351
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	365			260			652	656	258	648	643	351
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	99	99	97	100	98
cM capacity (veh/h)	1194			1304			371	381	780	375	387	692
Direction, Lane #	EB 1	WB 1	NB 1	SB 1		100	We B			Ne qu		
Volume Total	263	378	8	23								
Volume Left	3	13	0	12								
Volume Right	3	28	5	11								
cSH	1194	1304	560	480								
Volume to Capacity	0.00	0.01	0.01	0.05								
Queue Length 95th (m)	0.1	0.2	0.3	1.1								
Control Delay (s)	0.1	0.4	11.5	12.9								
Lane LOS	A	Α	В	В							فبيود	
Approach Delay (s)	0.1	0.4	11.5	12.9								
Approach LOS	14, 41	-1, -	В	В			1100					
Intersection Summary	4 10 3		718	: <u>UL .</u> E		Works.	511.5		A 10 118	1444		E 184
Average Delay			0.8						the part			
Intersection Capacity Utiliza	ation		39.7%	IC	U Level o	f Service			Α			
Analysis Period (min)			15									

	۶	-	7	6	+	4	1	†	1	-	<b>+</b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			44	_		4	
Traffic Volume (veh/h)	20	184	6	11	255	26	6	2	6	18	0	27
Future Volume (Veh/h)	20	184	6	11	255	26	6	2	6	18	0	27
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	200	7	12	277	28	7	2	7	20	0	29
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)						1 50						
Percent Blockage												
Right turn flare (veh)		771		1915								
Median type		None			None							
Median storage veh)					-717-1							-
Upstream signal (m)												
pX, platoon unblocked											131	
vC, conflicting volume	305			207			592	576	204	570	566	291
vC1, stage 1 conf vol								0.0				
vC2, stage 2 conf vol												
vCu, unblocked vol	305			207			592	576	204	570	566	291
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)	11.75.50							0.0	0.2		0.0	0.2
tF(s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			98	100	99	95	100	96
cM capacity (veh/h)	1256			1364			394	416	837	418	422	748
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	229	317	16	49								
Volume Left	22	12	7	20		-						
Volume Right	7	28	7	29								
cSH	1256	1364	517	566								11.00
Volume to Capacity	0.02	0.01	0.03	0.09					- 10 - 20 -			
Queue Length 95th (m)	0.02	0.01	0.03	2.2								
Control Delay (s)	0.9	0.4	12.2	12.0								
Lane LOS	0.9 A	Α.	12.2 B	12.0 B								_
Approach Delay (s)	0.9	0.4	12.2	12.0								
Approach LOS	0.5	0.4	12.2 B	12.0 B								
Intersection Summary	200				I AT			m Dal				
Average Delay			1.8									
Intersection Capacity Utiliza	ation		28.3%	10	U Level o	of Consider			Α			
Analysis Period (min)	zuOII		26.3% 15		O Level C	n Service			A			

	۶	<b>→</b>	*	•	<b>←</b>	*	1	†	1	-	ļ	1
Movement	EBL	EBT	EBR	WBL.	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	3	249	0	10	332	10	0	3	0	26	10	18
Future Volume (Veh/h)	3	249	0	10	332	10	0	3	0	26	10	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	271	0	11	361	11	0	3	0	28	11	20
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	372			271			691	671	271	667	666	366
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	372			271			691	671	271	667	666	366
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	99	100	92	97	97
cM capacity (veh/h)	1186			1292			338	373	768	367	376	679
Direction, Lane #	EB 1	WB 1	NB 1	SB 1		100						
Volume Total	274	383	3	59								
Volume Left	3	11	0	28								
Volume Right	0	11	0	20								
cSH	1186	1292	373	437								
Volume to Capacity	0.00	0.01	0.01	0.14								
Queue Length 95th (m)	0.1	0.2	0.2	3.5							ж.	
Control Delay (s)	0.1	0.3	14.7	14.5								
Lane LOS	A	Α	В	В						طاروه	ازيروالا	
Approach Delay (s)	0.1	0.3	14.7	14.5								
Approach LOS		Ville.	В	В								
Intersection Summary	4 n N° =	351										
Average Delay			1.5							- 1		
Intersection Capacity Utiliza	ation		40.5%	IC	U Level o	f Service			Α			
Analysis Period (min)			15									- 4

14: Vidal Street 06/24/2020

	۶	*	4	<b>†</b>	<b>↓</b>	1
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			4	23	
Traffic Volume (veh/h)	0	22	34	14		1
Future Volume (Veh/h)	0	22	34	14	23	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	24	37	15	25	1
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)					1000	
Median type				None	None	
Median storage veh)				110110	110110	
Upstream signal (m)						
pX. platoon unblocked						
vC, conflicting volume	114	26	26			
vC1, stage 1 conf vol	117	20	20			
vC2, stage 2 conf vol						
vCu, unblocked vol	114	26	26			
tC, single (s)	6.4	6.2	4.1			
tC. 2 stage (s)	U.T	0.2	7.1			
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	98			
cM capacity (veh/h)	861	1050	1588			
Direction: Lane #	EB 1	NB 1	SB 1			
Volume Total	24	52	26			
Volume Left	0	37	0			
Volume Right	24	0	1			
cSH	1050	1588	1700			
Volume to Capacity	0.02	0.02	0.02			
Queue Length 95th (m)	0.5	0.5	0.0			
Control Delay (s)	8.5	5.3	0.0			
Lane LOS	Α	Α				
Approach Delay (s)	8.5	5.3	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			4.7			
Intersection Capacity Utiliza	ation		19.3%	IC	U Level o	f Service
Analysis Period (min)			15			
			.0			

15: Oxford Street 06/24/2020

To: Oxiora otroot						
	۶	$\rightarrow$	1	<b>†</b>	<b>↓</b>	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			सी	1	
Traffic Volume (veh/h)	14	- 4	8	360	361	10
Future Volume (Veh/h)	14	4	8	360	361	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	4	9	391	392	11
Pedestrians	10	-	3	331	332	
Lane Width (m)						-
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)		11 1				100
Median type				None	None	
Median storage veh)				12.3		
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	806	398	403			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	806	398	403			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	96	99	99		1000	
cM capacity (veh/h)	348	652	1156			
Direction, Lane #	EB 1	NB 1	SB 1		151 1 -	HE S
Volume Total	19	400	403			
Volume Left	15	9	0	100		
Volume Right	4	0	11			
cSH	386	1156	1700			
Volume to Capacity	0.05	0.01	0.24			
Queue Length 95th (m)	1.2	0.2	0.0			
Control Delay (s)	14.8	0.3	0.0			
Lane LOS	В	A				
Approach Delay (s)	14.8	0.3	0.0			
Approach LOS	В	HI.				
Intersection Summary			, NULL	, Libe	se ildisi	7
Average Delay			0.5			
Intersection Capacity Utilizat	ion		35.4%	10	CU Level of S	Service
	1011		15	I C	O FEARIOL (	JUI VILLE
Analysis Period (min)			10			

# 2032 COMBINED AM

1: Oxford Street &	Thrift A\	/enue	<b>†</b>	-	1	ļ	06/26/2020
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	37.5		To			4	
Traffic Volume (veh/h)	15	284	98	29	207	71	
Future Volume (Veh/h)	15	284	98	29	207	71	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	16	309	107	32	225	77	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage veh)							
Upstream signal (m)							
pX, platoon unblocked							
vC, conflicting volume	650	123			139		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	650	123			139		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	96	67			84		
cM capacity (veh/h)	366	928			1445		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	325	139	302				
Volume Left	16	0	225				
Volume Right	309	32	0				
cSH	863	1700	1445				
Volume to Capacity	0.38	0.08	0.16				
Queue Length 95th (m)	13.4	0.0	4.2				
Control Delay (s)	11.7	0.0	6.3				
Lane LOS	В	0.0	A				the contract of the contract o
Approach Delay (s)	11.7	0.0	6.3				
Approach LOS	В	5.0	0.0				
Intersection Summary							
Average Delay			7.4				
Intersection Capacity Utiliza	ation		50.5%	IC	III evel	of Service	A
Analysis Period (min)	au Oli		15	10	O LEVEL	DI OCIVICE	^

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# 2: Evrall Street & Thrift Avenue

06/26/2020

	•	-	*	•	<b>←</b>	4	•	†	~	1	<b>↓</b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	3	236	1	10	379	27	3	0	9	16	3	13
Future Volume (Veh/h)	3	236	1	10	379	27	3	0	9	16	3	13
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	257	1	11	412	29	3	0	10	17	3	14
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	441			258			728	726	258	722	712	426
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	441	THE		258			728	726	258	722	712	426
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)		Total Vision		1								
tF(s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	99	95	99	98
cM capacity (veh/h)	1119			1307			327	347	781	335	353	628
Direction. Lane #	EB 1	WB 1	NB 1	SB 1					100			
Volume Total	261	452	13	34								
Volume Left	3	11	3	17				100	1.5	- 37		
Volume Right	1	29	10	14								
cSH	1119	1307	591	417						-1		
Volume to Capacity	0.00	0.01	0.02	0.08								
Queue Length 95th (m)	0.00	0.01	0.02	2.0	-							
Control Delay (s)	0.1	0.2	11.2	14.4				S 11				
Lane LOS	Α.1	Α.	B	В				-				
Approach Delay (s)	0.1	0.3	11.2	14.4								
Approach LOS	0.1	0.0	В	В	-	-		-				
Approach LOS		J. 58 H.		U								
Intersection Summary				سالة		111						
Average Delay			1.0	100					A			
Intersection Capacity Utiliza	ation		37.6%	IC	CU Level of	Service			Α			
Analysis Period (min)			15									

	*	<b>→</b>	*	•	<b>←</b>	*	1	<b>†</b>	1	-	<b></b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	5	256	0	1	268	15	13	0	16	29	3	35
Future Volume (Veh/h)	5	256	0	1	268	15	13	0	16	29	3	35
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	278	Ó	1	291	16	14	0	17	32	3	38
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)	1 1 1						1 7					124
Percent Blockage												
Right turn flare (veh)						7. F						
Median type		None			None							
Median storage veh)					- 110110							
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	307			278			628	597	278	606	589	299
vC1, stage 1 conf vol							020	-	2.0	-	000	200
vC2, stage 2 conf vol												
vCu, unblocked vol	307	111111		278			628	597	278	606	589	299
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							-					-
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			96	100	98	92	99	95
cM capacity (veh/h)	1254			1285			371	414	761	398	419	741
Direction, Lane #	EB 1	WB 1	NB 1	SB 1					-			
Volume Total	283	308	31	73								
Volume Left	5	1	14	32								
Volume Right	0	16	17	38								
cSH	1254	1285	516	526								
Volume to Capacity	0.00	0.00	0.06	0.14								
Queue Length 95th (m)	0.1	0.0	1.5	3.6					_			
Control Delay (s)	0.2	0.0	12.4	12.9								
Lane LOS	A A	A.	B	B							1-1	===1
Approach Delay (s)	0.2	0.0	12.4	12.9								
Approach LOS	0.2	U.0	В	В								
Intersection Summary						4						
Average Delay		1,201	2.0								14.00	
Intersection Capacity Utilizati	ion		28.7%	IC	U Level o	of Service			Α			
Analysis Period (min)			15		T X 5		0.11					

# 4: Blackwood Street & Thrift Avenue

06/26/2020

	*	<b>→</b>	*	1	<b>←</b>	•	1	†	1	-	Ţ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	5	284	11	3	266	5	9	8	8	16	3	9
Future Volume (Veh/h)	5	284	11	3	266	5	9	8	8	16	3	9
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	309	12	3	289	5	10	9	9	17	3	10
Pedestrians	4 3											T T
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												THE RES
Upstream signal (m)												
pX, platoon unblocked							No.					
vC, conflicting volume	294			321			634	625	315	636	628	292
vC1. stage 1 conf vol												-
vC2, stage 2 conf vol												
vCu, unblocked vol	294		كالأجمعية	321			634	625	315	636	628	292
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							1	714 N				
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			97	98	99	95	99	99
cM capacity (veh/h)	1268			1239			382	399	725	377	397	748
		in the second	NO.4									
Direction, Lane #	EB 1	WB 1	NB 1	SB 1		_						
Volume Total	326			17			_				-	DE H
Volume Left	5	3	10						-9-7			-
Volume Right	12	5	9	10						_		-
cSH	1268	1239	458	455	5							
Volume to Capacity	0.00	0.00	0.06	0.07								_
Queue Length 95th (m)	0.1	0.1	1.5	1.6	30 0	112				_	-	
Control Delay (s)	0.2	0.1	13.4	13.5								
Lane LOS	A	Α	В	В								
Approach Delay (s)	0.2	0.1	13.4	13.5								
Approach LOS			В	В	100							
Intersection Summary	ar Sar	1111		ul Uni		11.14				-14		
Average Delay			1.3					1 10	10-7			
Intersection Capacity Utiliza	tion		28.7%	IC	CU Level of	Service			Α			
Analysis Period (min)			15		, T	-	1 11		4 - 5	111		

14: Vidal Street 06/26/2020

v.	۶	*	1	†	+	1
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	NA.			4	1>	
Traffic Volume (veh/h)	0	35	12	8	32	0
Future Volume (Veh/h)	Ō	35	12	8	32	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	38	13	9	35	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)					عادري	
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	70	35	35			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	70	35	35			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	96	99			
cM capacity (veh/h)	927	1038	1576			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	38	22	35			
Volume Left	0	13	0			
Volume Right	38	0	0			
cSH	1038	1576	1700			
Volume to Capacity	0.04	0.01	0.02			
Queue Length 95th (m)	0.9	0.2	0.0			
Control Delay (s)	8.6	4.3	0.0			
Lane LOS	Α	Α				
Approach Delay (s)	8.6	4.3	0.0			
Approach LOS	Α					
Intersection Summary						
Average Delay			4.4		8-1 11	1-0 16-
Intersection Capacity Utiliz	ation		17.8%	IC	U Level o	f Service
Analysis Period (min)			15	-1_1		

15: Oxford Street 06/26/2020

13. Oxiora otrect				_		,
	<b>*</b>	*	1	<b>†</b>	↓	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	N/			ર્ન		
Traffic Volume (veh/h)	8	5	9	376	273	5
Future Volume (Veh/h)	8	5	9	376	273	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	5	10	409	297	5
Pedestrians			No.			
Lane Width (m)						
Walking Speed (m/s)		18 1		7-1		
Percent Blockage						
Right turn flare (veh)						,-111
Median type				None	None	
Median storage veh)				110110	110110	
Upstream signal (m)						
pX, platoon unblocked					-71 1 7 19	
vC, conflicting volume	728	300	302			
vC1. stage 1 conf vol	720	300	302			
vC2, stage 2 conf vol						
vCu, unblocked vol	728	300	302			
	6.4	6.2	4.1			
tC, single (s)	0.4	0.2	4.1			
tC, 2 stage (s)	2.5	3.3	2.2			
tF (s)	3.5					_
p0 queue free %	98	99	99		1 -1-	
cM capacity (veh/h)	387	740	1259			
Direction, Lane #	EB 1	NB 1	SB 1	4 8	- Marie	T LIKE
Volume Total	14	419	302			
Volume Left	9	10	0	50.50		
Volume Right	5	0	5			
cSH	467	1259	1700		-11	
Volume to Capacity	0.03	0.01	0.18			
Queue Length 95th (m)	0.7	0.2	0.0			
Control Delay (s)	13.0	0.3	0.0			
Lane LOS	В	Α				Jan 18
Approach Delay (s)	13.0	0.3	0.0			
Approach LOS	В					
Intersection Summary	اوراتيان					12 To 12
Average Delay			0.4			
Intersection Capacity Utiliza	ation		37.0%	IC	CU Level o	f Service
Analysis Period (min)			15			
r many dio r onou (min)			10			

# 2032 COMBINED PM

1: Oxford Street &	Thrift A\	/enue	†	1	-	<b>↓</b>	06/26/2020
Movement	WBL	WBR	NBT	NBR	SBL	SBT	والمرابطة والمناورة والمساورة والمراجع
Lane Configurations	W		<b>1</b> > 79			4	
Traffic Volume (veh/h)	19	372	79	11	230	135	
Future Volume (Veh/h)	19	372	79	11	230	135	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	21	404	86	12	250	147	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage veh)			NONC			TVOIC	
Upstream signal (m)							
pX, platoon unblocked							
vC, conflicting volume	739	92			98		
vC1, stage 1 conf vol	1 35	92			90		
vC2, stage 2 conf vol							
vCu, unblocked vol	739	92			98		
	6.4	6.2			4.1		
tC, single (s)	0.4	0.2			4.1		
tC, 2 stage (s)	2.5	3.3			2.2		
tF (s)	3.5						
p0 queue free %	93	58			83		
cM capacity (veh/h)	320	965			1495		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	425	98	397				
Volume Left	21	0	250				
Volume Right	404	12	0				
cSH	878	1700	1495				
Volume to Capacity	0.48	0.06	0.17				
Queue Length 95th (m)	20.4	0.0	4.6				
Control Delay (s)	12.9	0.0	5.5				
Lane LOS	В		A				
Approach Delay (s)	12.9	0.0	5.5				
Approach LOS	В			. 76.			
Intersection Summary					- 21		أأحار ووالساع الماسان
Average Delay			8.3				
Intersection Capacity Utiliza	ition		57.2%	IC	U Level o	of Service	В
Analysis Period (min)			15				

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### 2: Evrall Street & Thrift Avenue

Z. EVIAII SHEEL & I		Silue						4 .					
	*	-	*	•	<b>←</b>	*		1	1	-	<b>↓</b>	1	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			<b>-</b> ↔			4			4		
Traffic Volume (veh/h)	3	236	3	12	310	26	0	3	5	11	0	10	
Future Volume (Veh/h)	3	236	3	12	310	26	0	3	5	11	0	10	
Sign Control	314	Free			Free			Stop			Stop		
Grade		0%			0%			0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	3	257	3	13	337	28	0	3	5	12	0	11	
Pedestrians					-71								
Lane Width (m)													
Walking Speed (m/s)							441						
Percent Blockage													
Right turn flare (veh)					10.77		400						
Median type		None			None								
Median storage veh)		110110			110.10	-77							
Upstream signal (m)							-						
pX, platoon unblocked													
vC, conflicting volume	365			260			652	656	258	648	643	351	
	303			200			UUL	000	200	010	0.10		
vC1, stage 1 conf vol													
vC2, stage 2 conf vol	365			260			652	656	258	648	643	351	
vCu, unblocked vol	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2	
tC, single (s)	4.1			4.1	-		7,1	0.0	0.2	7.1	0.5	0.2	
tC, 2 stage (s)	0.0			0.0			3.5	4.0	3.3	3.5	4.0	3.3	
tF (s)	2.2			2.2				99	99	97	100	98	
p0 queue free %	100			99			100			375	387	692	
cM capacity (veh/h)	1194			1304			371	381	780	3/3	301	092	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	in alves	8							
Volume Total	263	378	8	23							= = =		
Volume Left	3	13	0	12		a bar							
Volume Right	3	28	5	11									
cSH	1194	1304	560	480							100		
Volume to Capacity	0.00	0.01	0.01	0.05									
Queue Length 95th (m)	0.1	0.2	0.3	1.1									
Control Delay (s)	0.1	0.4	11.5	12.9									
Lane LOS	A	Α	В	В									
Approach Delay (s)	0.1	0.4	11.5	12.9									
Approach LOS	ar Ti		В	В					10				
Intersection Summary			THEFT.	Mary Service		- 14				7 1			
Average Delay			8.0										
Intersection Capacity Utiliza	ation		39.7%	IC	CU Level o	f Service			Α				
Analysis Period (min)			15										
,, ,,													

	٦	<b>→</b>	*	1	+	1	1	†	~	1	+	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	21	223	8	13	309	28	8	3	8	20	Ö	30
Future Volume (Veh/h)	21	223	8	13	309	28	8	3	8	20	0	30
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	242	9	14	336	30	9	3	9	22	0	33
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												11.00
Upstream signal (m)												
pX. platoon unblocked												
vC, conflicting volume	366			251			704	686	246	682	676	351
vC1, stage 1 conf vol	a I ii ii											
vC2, stage 2 conf vol												_
vCu, unblocked vol	366			251			704	686	246	682	676	351
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)					-			0.0	0.2		0.0	Ų. <u>L</u>
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			97	99	99	94	100	95
cM capacity (veh/h)	1193			1314			327	359	792	349	364	692
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	274	380	21	55								
Volume Left	23	14	9	22								
Volume Right	9	30	9	33								
cSH	1193	1314	445	497						_		
Volume to Capacity	0.02	0.01	0.05	0.11								
Queue Length 95th (m)	0.4	0.2	1.1	2.8								
Control Delay (s)	0.8	0.4	13.5	13.1								
Lane LOS	A	A	В	В								
Approach Delay (s)	0.8	0.4	13.5	13.1								
Approach LOS	0.0	U.T	В	В								
Intersection Summary										- 7 11		
Average Delay			1.9		18.5					THE P	1 . 1 .	
Intersection Capacity Utiliza	ation		31.5%	IC	U Level o	f Service			Α			
Analysis Period (min)			15									

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06/26/2020

	*		*	•	←	*	4	<b>†</b>	1	1	<b>↓</b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	3	249	0	10	332	10	0	3	0	26	10	18
Future Volume (Veh/h)	3	249	0	10	332	10	0	3	0	26	10	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	271	0	11	361	11	0	3	0	28	11	20
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	372			271			691	671	271	667	666	366
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	372			271	5.1° -+		691	671	271	667	666	366
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							1 - 2 - 4					
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100		1 - 2 15	99			100	99	100	92	97	97
cM capacity (veh/h)	1186			1292			338	373	768	367	376	679
Direction, Lane #	EB 1	WB 1	NB 1	SB 1			-	4		J-14	0.5.1.	
	274	383	3	59								
Volume Total	3	11	0	28	-	-				-		
Volume Left	0	11	0	20						-		
Volume Right		1292	373	437								
cSH	1186			0.14								
Volume to Capacity	0.00	0.01	0.01			_						
Queue Length 95th (m)	0.1	0.2	0.2	3.5	- 1							
Control Delay (s)	0.1	0.3	14.7 B	14.5								
Lane LOS	A	A		8								
Approach Delay (s)	0.1	0.3	14.7	14.5								
Approach LOS			В	В				- 10			1,1=0	
Intersection Summary		114.5		بالسير								
Average Delay			1.5	F 1917		10	- 19					
Intersection Capacity Utiliza	ation		40.5%	IC	CU Level of	of Service			Α			
Analysis Period (min)			15									

14: Vidal Street 06/26/2020

	•	*	1	†	Ţ	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			4	1	
Traffic Volume (veh/h)	0	22	34	18	28	9
Future Volume (Veh/h)	0	22	34	18	28	1
Sign Control	Stop			Free	Free	4
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0.52	24	37	20	30	1
Pedestrians						عند
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)				140110	140110	
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	124	30	31			
vC1, stage 1 conf vol	ILT	00	01			
vC2, stage 2 conf vol						
vCu, unblocked vol	124	30	31	1100		
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	0.7	0.2	7.1			
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	98			
cM capacity (veh/h)	850	1044	1582			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	24	57	31			
Volume Left	0	37	0			
Volume Right	24	Ô	1			
cSH	1044	1582	1700			
Volume to Capacity	0.02	0.02	0.02			
Queue Length 95th (m)	0.5	0.5	0.0			
Control Delay (s)	8.5	4.8	0.0			
Lane LOS	A	A				
Approach Delay (s)	8.5	4.8	0.0			
Approach LOS	А					
Intersection Summary		- 1		-Fit-Al		
Average Delay			4.3			
Intersection Capacity Utiliza	ation		19.5%	IC	U Level o	f Service
Analysis Period (min)	4011		15.576		O LOVEI U	I OCI VICE
Analysis Fellou (IIIII)			IJ			

06/26/2020

# 15: Oxford Street

	۶	*	4	†	<b>↓</b>	1
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			4	ĵ»	
Traffic Volume (veh/h)	14	4	8	360	361	10
Future Volume (Veh/h)	14	4	8	360	361	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	4	9	391	392	11
Pedestrians		12				
Lane Width (m)						
Walking Speed (m/s)	- 111-1					
Percent Blockage						
Right turn flare (veh)						100
Median type				None	None	
Median storage veh)				110110		
Upstream signal (m)						
pX, platoon unblocked				-		
vC, conflicting volume	806	398	403			
vC1, stage 1 conf vol	000	330	700			
vC2, stage 2 conf vol						
vCu, unblocked vol	806	398	403			_
tC, single (s)	6.4	6.2	4.1			
tC. 2 stage (s)	0.7	0.2	7.1		N 7 5	
	3.5	3.3	2.2			
tF (s) p0 queue free %	96	99	99			
	348	652	1156			
cM capacity (veh/h)						
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	19	400	403			
Volume Left	15	9	0		V 4 -	
Volume Right	4	0	11			
cSH	386	1156	1700			I
Volume to Capacity	0.05	0.01	0.24			
Queue Length 95th (m)	1.2	0.2	0.0			
Control Delay (s)	14.8	0.3	0.0			
Lane LOS	В	A				
Approach Delay (s)	14.8	0.3	0.0			
Approach LOS	В		١,	8 15		
Intersection Summary		V. L			14 11 11	
Average Delay			0.5			
Intersection Capacity Utiliza	tion		35.4%	IC	CU Level o	of Service
Analysis Period (min)			15			
Analysis Fellou (IIIII)			10			

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	1	1	†	~	1	+
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		ĵ»			4
Traffic Volume (veh/h)	19	361	128	38	264	92
Future Volume (Veh/h)	19	361	128	38	264	92
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	21	392	139	41	287	100
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)	-01		,			
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked			1.8			
vC, conflicting volume	834	160			180	
vC1, stage 1 conf vol				11		
vC2, stage 2 conf vol						
vCu, unblocked vol	834	160			180	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	56			79	
cM capacity (veh/h)	269	886			1396	
Direction, Lane #	WB 1	NB 1	SB 1			-
Volume Total	413	180	387			
Volume Left	21	0	287			
Volume Right	392	41	0			
cSH	793	1700	1396			
Volume to Capacity	0.52	0.11	0.21			
Queue Length 95th (m)	23.3	0.0	5.9			
Control Delay (s)	14.4	0.0	6.6			
Lane LOS	В	1000	А			
Approach Delay (s)	14.4	0.0	6.6			
Approach LOS	В					
Intersection Summary						-
Average Delay		13 10	8.7	35.0		1 7 7
Intersection Capacity Utilization	On		61.9%	IC	U Level o	f Service
Analysis Period (min)			15			

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	1	<b>→</b>	*	1	<b>←</b>	4	4	<b>†</b>	1	-	ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	3	301	2	13	355	34	3	0	12	20	3	17
Future Volume (Veh/h)	3	301	2	13	355	34	3	0	12	20	3	17
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	327	2	14	386	37	3	0	13	22	3	18
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												-
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	423			329			786	785	328	780	768	404
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	423			329			786	785	328	780	768	404
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	98	93	99	97
cM capacity (veh/h)	1136			1231			296	320	713	304	328	646
Direction, Lane #	EB 1	WB 1	NB 1	SB 1		IWI T		T V				
Volume Total	332	437	16	43								
Volume Left	3	14	3	22						1111		
Volume Right	2	37	13	18								
cSH	1136	1231	564	393								
Volume to Capacity	0.00	0.01	0.03	0.11								
Queue Length 95th (m)	0.1	0.3	0.7	2.8								
Control Delay (s)	0.1	0.4	11.6	15.3								
Lane LOS	A	A	В	C								
Approach Delay (s)	0.1	0.4	11.6	15.3								
Approach LOS			В	C	315.							
Intersection Summary		T. C.	Ya Yi				136		714.1	# 19 1		
Average Delay			1.3									-47
Intersection Capacity Utiliza	ation		40.6%	IC	U Level o	of Service			Α			
Analysis Period (min)			15									-

	•	<b>→</b>	*	•	+	1	1	†	-	1	ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		43			4			4			4	
Traffic Volume (veh/h)	5	328	0	2	345	17	17	Ö	20	33	3	39
Future Volume (Veh/h)	5	328	0	2	345	17	17	0	20	33	3	39
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	357	0	2	375	18	18	0	22	36	3	42
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)	100		VI							- T. II.		-
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	393			357			798	764	357	777	755	384
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu. unblocked vol	393			357			798	764	357	777	755	384
tC, single (s)	4.1	_		4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			94	100	97	88	99	94
cM capacity (veh/h)	1166			1202			281	332	687	303	336	664
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	362	395	40	81								
Volume Left	5	2	18	36								
Volume Right	0	18	22	42								
cSH	1166	1202	417	424								
Volume to Capacity	0.00	0.00	0.10	0.19								
Queue Length 95th (m)	0.1	0.0	2.4	5.3								
Control Delay (s)	0.2	0.1	14.6	15.5								
Lane LOS	A	Α	В	C								1101
Approach Delay (s)	0.2	0.1	14.6	15.5								
Approach LOS	du		В	С								
Intersection Summary												
Average Delay		100	2.2	To be	with H	11 11	E E E					
Intersection Capacity Utiliza	ation		32.8%	IC	U Level o	f Service			Α			
Analysis Period (min)			15									

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# 4: Blackwood Street & Thrift Avenue

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4. Blackwood out	٠	<b>→</b>	*	•	+	•	•	†	~	1	<b>+</b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	7	360	14	3	341	7	12	10	10	20	3	12
Future Volume (Veh/h)	7	360	14	3	341	7	12	10	10	20	3	12
Sign Control	11 To 12	Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	391	15	3	371	8	13	11	11	22	3	13
Pedestrians			01 1								711 T X	
Lane Width (m)												
Walking Speed (m/s)						The			T-5: T			
Percent Blockage												
Right turn flare (veh)				-								4
Median type		None			None							
Median storage veh)		MOHE			NOTIC							
Upstream signal (m)					-							
pX, platoon unblocked	379			406			810	800	398	812	803	375
vC, conflicting volume	3/9			400			010	800	390	012	000	313
vC1, stage 1 conf vol								1				
vC2, stage 2 conf vol				100			040	000	398	812	803	375
vCu, unblocked vol	379			406			810	800				6.2
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	0.2
tC, 2 stage (s)									0.0	0.5	4.0	0.0
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			95	97	98	92	99	98
cM capacity (veh/h)	1179			1153			288	315	651	283	314	671
Direction, Lane #	EB 1	WB 1	NB 1	SB 1				2			Harri.	E - 1
Volume Total	414	382	35	38								
Volume Left	8	3	13	22								
Volume Right	15	8	11	13								
cSH	1179	1153	361	356								
Volume to Capacity	0.01	0.00	0.10	0.11								
Queue Length 95th (m)	0.2	0.1	2.4	2.7								
Control Delay (s)	0.2	0.1	16.0	16.3								
Lane LOS	A	A	С	C								
Approach Delay (s)	0.2	0.1	16.0	16.3								
Approach LOS	A 11	100	С	C	1 - <sub>111</sub> - 2							
Intersection Summary	rein:				11.7	ų Di						
Average Delay			1.5									
Intersection Capacity Utiliz	ation		34.3%	IC	U Level o	of Service			Α			
Analysis Period (min)			15							45.		- 5

14: Vidal Street 06/26/2020

· · · · · · · · · · · · · · · · · · ·	٦	•	4	†	Ţ	1
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	N/	-DIN	M. St.	4	1>	00!
Traffic Volume (veh/h)	0	35	12	10	40	0
Future Volume (Veh/h)	0	35	12	10	40	0
Sign Control	Stop	00	14	Free	Free	,
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0.92	38	13	11	43	0.92
Pedestrians	· ·	50	13		40	
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)	IS 11 IS					
Median type				None	None	
Median storage veh)				None	None	
Upstream signal (m)						
pX. platoon unblocked	80	43	43			
vC, conflicting volume	ου	43	43			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol	00	40	40			
vCu. unblocked vol	80	43	43			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	96	99			
cM capacity (veh/h)	915	1027	1566			
Direction, Lane #	EB1	NB 1	SB 1		1 400	-
Volume Total	38	24	43			
Volume Left	0	13	0			
Volume Right	38	0	0			
cSH	1027	1566	1700			
Volume to Capacity	0.04	0.01	0.03			
Queue Length 95th (m)	0.9	0.2	0.0			
Control Delay (s)	8.6	4.0	0.0			
Lane LOS	A	A				
Approach Delay (s)	8.6	4.0	0.0			
Approach LOS	A			1		
Intersection Summary						
Average Delay		THE ST	4.0		- 4 76.4	
Intersection Capacity Utiliza	tion		17.9%	IC	U Level o	f Service
Analysis Period (min)			15	10	,	OUTFILL
Andrysis Feriou (Milli)			13			

 $p_{X}=g^{-1}X\cdot X$ 

15: Oxford Street 06/26/2020

	•	•	4	†	<b>↓</b>	1
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W	EUR	NUC	4	7	Mela
Traffic Volume (veh/h)	10	7	9	480	349	7
	10	7	9	480	349	7
Future Volume (Veh/h)	Stop	- 1	9	Free	Free	
Sign Control	0%			0%	0%	
Grade	0.92	0.92	0.92	0.92	0.92	0.92
Peak Hour Factor			10	522	379	8
Hourly flow rate (vph)	11	8	10	522	3/9	0
Pedestrians						
Lane Width (m)					_	
Walking Speed (m/s)					1111	
Percent Blockage						
Right turn flare (veh)	112.13				44	
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	925	383	387			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	925	383	387			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)				1715		
tF (s)	3.5	3.3	2.2			
p0 queue free %	96	99	99			
cM capacity (veh/h)	296	664	1171			
		NB 1	SB 1	No.		
Direction, Lane #	EB 1	532	387			
Volume Total						3.1
Volume Left	11	10	0			
Volume Right	8	0	8			
cSH	386	1171	1700			
Volume to Capacity	0.05	0.01	0.23			
Queue Length 95th (m)	1.2	0.2	0.0	212		
Control Delay (s)	14.8	0.3	0.0			
Lane LOS	В	A	ارسك			
Approach Delay (s)	14.8	0.3	0.0			
Approach LOS	В	<b>1981.</b> E.	717		10.00	10161-1
Intersection Summary		Table				
Average Delay			0.4	17.		
Intersection Capacity Utiliz	zation		42.5%	IC	CU Level o	f Service
Analysis Period (min)			15			
Alialysis Feliou (IIIIII)			10			

# 2045 COMBINED PM

1: Oxford Street &	Thrift Av	/enue	†	~	<b>/</b>	<del> </del>		06/26/2020
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	Y/F		- ↑			€ि		
Traffic Volume (veh/h)	19	361	128	38	264	92		
Future Volume (Veh/h)	19	361	128	38	264	92		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Hourly flow rate (vph)	21	392	139	41	287	100		
Pedestrians								
Lane Width (m)								
Walking Speed (m/s)								
Percent Blockage								
Right turn flare (veh)								
Median type			None			None		
Median storage veh)								
Upstream signal (m)								
pX. platoon unblocked								
vC, conflicting volume	834	160			180			
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	834	160			180	11.70		
tC, single (s)	6.4	6.2			4.1			
tC, 2 stage (s)								
tF(s)	3.5	3.3			2.2			
p0 queue free %	92	56			79			
cM capacity (veh/h)	269	886			1396			
Direction, Lane #	WB 1	NB 1	SB 1					
Volume Total	413	180	387					
Volume Left	21	0	287					
Volume Right	392	41	0					
cSH	793	1700	1396					
Volume to Capacity	0.52	0.11	0.21					
Queue Length 95th (m)	23.3	0.0	5.9					
Control Delay (s)	14.4	0.0	6.6					
Lane LOS	В	3.0	A					
Approach Delay (s)	14.4	0.0	6.6					
Approach LOS	В							
Intersection Summary	-			1				
Average Delay			8.7					
Intersection Capacity Utiliza	ation		61.9%	IC	U Level o	of Service	В	
Analysis Period (min)			15				- NC	

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# 2: Evrall Street & Thrift Avenue

Z. Eviali Street &	THILL AV	riue										
	*	-	*	•	•	*		<b>†</b>		1	Ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	3	301	2	13	355	34	3	0	12	20	3	17
Future Volume (Veh/h)	3	301	2	13	355	34	3	0	12	20	3	17
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	327	2	14	386	37	3	0	13	22	3	18
Pedestrians								7.1				
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	423			329			786	785	328	780	768	404
vC1. stage 1 conf vol												-
vC2, stage 2 conf vol												
vCu, unblocked vol	423			329			786	785	328	780	768	404
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	98	93	99	97
cM capacity (veh/h)	1136			1231			296	320	713	304	328	646
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	-12	'In	Ч. н				8. Ja	
Volume Total	332	437	16	43								
Volume Left	3	14	3	22								
Volume Right	2	37	13	18								
cSH	1136	1231	564	393							14 500	
Volume to Capacity	0.00	0.01	0.03	0.11								
Queue Length 95th (m)	0.1	0.3	0.7	2.8					4 1	N.		
Control Delay (s)	0.1	0.4	11.6	15.3								
Lane LOS	A	Α	В	C							13-1	
Approach Delay (s)	0.1	0.4	11.6	15.3								
Approach LOS	1126 ( 7)	111-	В	С	WIL II			- "				7 - 7
Intersection Summary	إساليا		'n V' v				NV-		المعالا			
Average Delay			1.3					4511		J - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Intersection Capacity Utiliz	ation		40.6%	IC	CU Level	of Service			Α			
Analysis Period (min)			15									

	1	-	*	1	<b>—</b>	*	4	†	1	-	ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			4			43-	
Traffic Volume (veh/h)	23	291	10	17	392	31	10	3	10	23	0	35
Future Volume (Veh/h)	23	291	10	17	392	31	10	3	10	23	0	35
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	25	316	11	18	426	34	11	3	11	25	0	38
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)											11.55	
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	460			327			888	868	322	863	856	443
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	460	# = X		327			888	868	322	863	856	443
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC. 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			95	99	98	90	100	94
cM capacity (veh/h)	1101			1233			241	280	719	261	284	615
Direction, Lane #	EB 1	WB 1	NB 1	SB 1							4.1	
Volume Total	352	478	25	63								
Volume Left	25	18	11	25								
Volume Right	11	34	11	38								
cSH	1101	1233	349	400								
Volume to Capacity	0.02	0.01	0.07	0.16								
Queue Length 95th (m)	0.5	0.3	1.8	4.2								
Control Delay (s)	0.8	0.5	16.1	15.7								
Lane LOS	A	Α	Č	Č								
Approach Delay (s)	8.0	0.5	16.1	15.7								
Approach LOS			C	Ċ								
Intersection Summary											47	4
Average Delay			2.1									
Intersection Capacity Utiliza	ition		38.0%	IC	U Level	of Service			Α			
Analysis Period (min)			15								16.1	415

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06/26/2020

	<b>→</b>	<b>→</b>	*	1	<b>←</b>	*	•	<b>†</b>	1	-	<b>↓</b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	-
Traffic Volume (veh/h)	7	360	14	3	341	7	12	10	10	20	3	12
Future Volume (Veh/h)	7	360	14	3	341	7	12	10	10	20	3	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	391	15	3	371	8	13	11	11	22	3	13
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)				- 111	, <del></del>							
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	379			406			810	800	398	812	803	375
vC1, stage 1 conf vol		- 14	- 11									
vC2, stage 2 conf vol												
vCu, unblocked vol	379	-111	TELLS	406			810	800	398	812	803	375
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)						100.00		7111		4		LIX
tF(s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99		112	100			95	97	98	92	99	98
cM capacity (veh/h)	1179			1153			288	315	651	283	314	671
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	-				1177			
Volume Total	414	382	35	38								
Volume Left	8	3	13	22								
Volume Right	15	8	11	13								
cSH cSH	1179	1153	361	356								. 3
Volume to Capacity	0.01	0.00	0.10	0.11								
Queue Length 95th (m)	0.2	0.1	2.4	2.7								400
Control Delay (s)	0.2	0.1	16.0	16.3								
Lane LOS	A	A	C	C					-			
Approach Delay (s)	0.2	0.1	16.0	16.3								
Approach LOS	0.2		C	C	the.							
Intersection Summary	1-5 M-1	11.31	18.076	15. I-	-17			n cuit				nı, Di
Average Delay	1 191	an w	1.5		TREE T				11.			
Intersection Capacity Utiliza	tion		34.3%	IC	U Level o	f Service			Α			
Analysis Period (min)			15									

14: Vidal Street 06/26/2020

	*	*	1	<b>†</b>	<b>↓</b>	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		-	4	1→	
Traffic Volume (veh/h)	0	22	34	23	36	1
Future Volume (Veh/h)	0	22	34	23	36	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	24	37	25	39	1
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)				- 110110	110110	
Upstream signal (m)						
pX. platoon unblocked						
vC, conflicting volume	138	40	40			
vC1, stage 1 conf vol	-				10.00	
vC2, stage 2 conf vol						
vCu, unblocked vol	138	40	40			T-11-
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)		0.2				
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	98			
cM capacity (veh/h)	835	1032	1570			
Direction, Lane # Volume Total	EB 1	NB 1	SB 1			
	0	37				
Volume Left			0			
Volume Right	24	0	1			
cSH	1032	1570	1700			
Volume to Capacity	0.02	0.02	0.02			
Queue Length 95th (m)	0.5	0.6	0.0			
Control Delay (s)	8.6	4.5	0.0			
Lane LOS	A	Α				
Approach Delay (s)	8.6	4.5	0.0			
Approach LOS	A	V (0)				
Intersection Summary						
Average Delay			3.8			
Intersection Capacity Utiliz	ation		19.8%	IC	U Level o	of Service
Analysis Period (min)			15			

15: Oxford Street 06/26/2020

15. Oxiora Street						
	•	$\rightarrow$	4	<b>†</b>	<b>↓</b>	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	1µf			4	7>	
Traffic Volume (veh/h)	10	7	9	480	349	7
Future Volume (Veh/h)	10	7	9	480	349	7
Sign Control	Stop	U. I		Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	8	10	522	379	8
Pedestrians	شب			-		-
Lane Width (m)						
Walking Speed (m/s)					1000	
Percent Blockage	All Parks					
Right turn flare (veh)	1000					1 - 1 - 1
				None	None	
Median type				HOHE	140110	
Median storage veh)						
Upstream signal (m)			-			
pX, platoon unblocked	925	383	387	- 1		
vC, conflicting volume	920	303	301			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol	925	383	387			
vCu, unblocked vol	6.4	6.2	4.1			
tC, single (s)	0.4	0.2	4.1			
tC, 2 stage (s)	2.5	2.2	2.2			
tF(s)	3.5	3.3				
p0 queue free %	96	99	99			
cM capacity (veh/h)	296	664	1171			
Direction. Lane #	EB 1	NB 1	SB 1			24
Volume Total	19	532	387			
Volume Left	11	10	0			
Volume Right	8	0	8			
cSH	386	1171	1700			
Volume to Capacity	0.05	0.01	0.23			
Queue Length 95th (m)	1.2	0.2	0.0			
Control Delay (s)	14.8	0.3	0.0			
Lane LOS	В	A	الخوي			
Approach Delay (s)	14.8	0.3	0.0			
Approach LOS	В	0.0				
						-
Intersection Summary			البند			
Average Delay			0.4			
Intersection Capacity Utiliza	ation		42.5%	IC	CU Level o	Service
Analysis Period (min)			15		, a	