

**CARON STREET SUBDIVISION, CITY OF
CLARENCE-ROCKLAND
TRAFFIC IMPACT ASSESSMENT
FINAL REPORT**

Presented to:

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July 9, 2025




Project No. 7361

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EXECUTIVE SUMMARY

A. Study Objective

Castleglenn Consultants were retained to evaluate the traffic and transportation impacts of the proposed Caron Subdivision in the City of Clarence-Rockland, Ontario. The site is currently subject to the Expansion Lands Secondary Plan within the Official Plan of the City of Clarence-Rockland, which the applicant is seeking to get amended, permitting a more diverse mix of residential and commercial densities, and establishing new proposed roadway network.

B. Study Area and Existing Conditions

The proposed Caron subdivision is bound by David Street to the north, Clarence Creek to the east, the urban boundary to the south and Caron Street to the west.

This traffic study analyzed 10 existing intersections inclusive to the existing active transportation infrastructure (sidewalks, bike paths) within the study area. Traffic counts were conducted in October, 2024. Analysis indicates that the existing intersections currently operate at an acceptable level of service "C-or-better" during the peak hours of travel demand.

C. Proposed Subdivision

The proposed Caron subdivision when completed would represent a new south-easter community for Clarence-Rockland that would provide 2,840 dwellings, 235,000 ft² of commercial/retail space, a community facility (assumed to be a high school), parkland and stormwater management facilities.

The subdivision is currently envisioned to be completed over 8 separate phases of development, at an average rate of 2 years-per-phase, and be fully built-out and occupied within the next two decades (2043). A total of 6 future intersections would serve to connect the Caron subdivision to the rest of Clarence-Rockland.

D. Development Phasing and Horizon Years

This study has conducted a review of traffic operations in the following three horizon years:

- Five-Year (2031) Time Horizon (Completion of Phase 1 & 2):
 - The first two phases of the subdivision would see 588 dwellings (developed at a rate of roughly 118 units/year) and 25,830 SF of mixed residential/commercial/retail space. A single access to David Street would be provided in the north-east quadrant of the community. No infrastructure modifications were found to be warranted at this time.

- Ten-Year (2037) Time Horizon (Completion of Phase 1-thru-5):
 - This phase of the development envisions a total of 1,350 dwellings being completed (developed at a rate of roughly 135 units/year) and 38,750 SF of mixed commercial/retail space. The community at this time horizon would be accessed by two intersections. [David Street /Street “E” and Caron Street/Bronze Avenue].
- Twenty-Year (2043) Time Horizon (Completion of Phase 1-thru-8 Full-Build-out):
 - The development is anticipated to be completed over the next two decades and would provide for 2,840 dwellings (developed at a rate of roughly 167 units/year), community and institutional facilities and 235,000 SF of commercial/retail space. The development is proposed to be accessed by a total of six accesses.
 - 2 accesses to/from David Street:
 - Street “E”
 - Club House Drive
 - 4 accesses to from Caron Street:
 - Bronze Avenue,
 - Commercial/ Community Facility Access,
 - Street “B” (Major Collector), and Street “C”

E. Background Traffic

In addition to the development-generated travel demands, this study considered the impacts of three adjacent development initiatives (Masicotte subdivision, David St. North subdivision, Morris Village Stage 6 subdivision). In addition, an annual 2 percent traffic growth rate was applied to the collector roadways within the study area.

F. Site-Generated Travel Demands

The site is forecast to generate the following levels of traffic for each horizon year considered:

- At the Five-Year (2031) time horizon:
 - approximately 300 vehicle trips are forecast during the morning peak hour, and
 - just over 400 vehicle trips are forecast during the afternoon peak hour.
- At the Ten-Year (2037) time horizon:
 - approximately 750 vehicle trips are forecast during the morning peak hour; and
 - just under 1,000 vehicle trips are forecast during the afternoon peak hour.
- At the Twenty-Year (2043) time horizon:
 - approximately 1,850 vehicle trips are forecast during the morning peak hour; and
 - just over 2,500 vehicle trips are forecast during the afternoon peak hour.

G. Infrastructure Requirements

- At the 5-year (2031) time horizon there were no roadway infrastructure improvements found to be necessary other than:
 - the new David Street/Street “E” intersection that would be required to access the proposed Caron development; and

- monitoring of the traffic conditions at the Baseline Road /St. Jean Street-Filion Road intersection which is likely to be impacted by the planned Brigil and Spacebuilders developments to the north.
- During the 5-to-10-year (2031-to-2037) time horizon when Phase 1-through 5 of the development is completed the following 3 intersections along the Caron Street corridor will require traffic signals:
 - Caron Street / Docteur Corbeil Blvd:
 - Caron Street / David Street,
 - Caron Street / Bronze Avenue were determined to require traffic signals. Consideration should be given to provide signalized bicycle crossings on the north and south legs of the Caron Street / Docteur Corbeil Blvd intersection to connect the MUP on the east side of Caron Street to the dedicated bike lanes along Docteur Corbeil.
- *Baseline Road (CR35)/ St. Jean Street-Filion Road Intersection:* Although not associated with the proposed Caron development, this intersection was found to require traffic signals with auxiliary eastbound and southbound left turn lanes, or a single-lane roundabout, to achieve a satisfactory level of service during the afternoon peak hour od operation. The existing stop-controlled intersection was found to operate at capacity even without the proposed Caron Subdivision in place.
- At the 20-year (2043) time horizon when all 8 phases of the proposed Caron development have been completed, the following improvements were found to be necessary to improve operations.
 - *New: David Street / Club House Drive Intersection:* Conversion of “T” intersection to “4-Leg” configuration 2-Way STOP Control
 - *Caron Street / Docteur Corbeil Blvd. Intersection:* Add auxiliary EB-RT & EB-LT lanes.
 - *Caron Street / David Street Intersection:* WB-LT, WB-RT and NB-RT auxiliary lanes
Upgrades to traffic signals.
 - *Caron Street / Bronze Avenue Intersection:* Upgrades to traffic signals.
 - *New: Caron Street / Commercial-Community Access:* Traffic signals, auxiliary SB-LT, NB-RT & WB-LT lanes.

It is recommended that the signal timings of the above four Caron Street signalized intersections be coordinated to ensure optimal progression of traffic flow.

Assuming that there is no development on the west side of Caron Street in the 20-year (2043) time horizon the following new intersections would be required:

- *New: Caron Street / Street “B” Intersection:* “T”-Intersection, auxiliary SB-LT & WB-LT lanes, STOP Control
- *New: Caron Street / Street “C” Intersection:* “T”-Intersection, STOP Control.
- *Caron Street / Baseline Road Intersection:* Traffic signals, auxiliary SB-LT & EB-LT lanes or ultimate single lane roundabout.

H. Roadway Classifications

The full build-out of Caron Subdivision will drive the need for re-classification of:

- the Caron Street corridor south of Bronze Street from “rural arterial” to “major collector”, and
- the David Street corridor between Caron Street and Club House Drive from “local” to “minor collector”.

It is recommended that the following new roadways be classified as follows:

- Street “B” is envisioned to be classified as a “major collector” assuming potential future extensions to the west and east of the subdivision.
- Street “C”, Street “F”, Street “A” (Bronze Avenue East Extension), and Club House Drive South are all envisioned as “minor collector” roadways.

I. Caron Street Corridor

The municipality is recommended to conduct a functional planning study of the Caron Street corridor [between Bronze Avenue and Baseline Road (CR-35)] to determine the right-of-way protection requirements to accommodate the required widenings particularly in the vicinity of future intersections.

J. Active Transportation

Pedestrian and cycling infrastructure (bike lanes and sidewalks, or multi-use paths) should be integrated into the future designs of Caron Street, and internal sub-division roadways inclusive of Streets "A" (Bronze Ave. East), "B," "C," "F," and Club House Drive.

K. Post-Development Planning Considerations

This study indicates that the capacity of the east-west Bronze Avenue corridor will be near exhausted by the 2043 timeframe. Should further development occur on the lands west of Caron Street, there will be a need for an additional east-west major collector roadway, which could take form of westerly extension of Street “B”.

The Caron Street corridor south of Street “B” should be considered for a future 4-laning beyond the ultimate timeframe of this study. Requirements for the 4-laning should be identified within a functional planning study that indicates future right-of-way requirements.

The City of Clarence-Rockland is recommended to conduct a long-range planning study at the time of the next transportation master plan update that would quantify the effects of all planned developments (inclusive of the Caron Subdivision) upon the regional travel demands and investigate mitigation strategies aimed at addressing forecast constraints internal to the municipality’s roadway network.

1.0 BACKGROUND

Castleglenn Consultants Inc. was retained by SACA Homes to conduct a traffic impact study (TIS) related to the City of Clarence-Rockland’s official plan amendment (OPA) of lands known as “Expansion Lands A”. The envisioned development would provide for a residential/commercial subdivision that would provide for approximately 2,840 residential units, community facilities (assumed for the purposes of this TIA to be a high school), parkland/greenspace and approximately 235,000 ft² gross floor area (GFA) of commercial/retail space.

1.1 BACKGROUND

The proposed subdivision was originally part of the “Expansion Lands A” annex to the Official Plan of the City of Clarence-Rockland. The proposed subdivision would have accesses to the David Street and Caron Street corridors.

1.2 STUDY OBJECTIVES

The objectives of this traffic and transportation feasibility study were to ...:

- determine the existing traffic operational performance characteristics associated with base-year (2024) conditions assuming the existing roadway infrastructure,
- assume construction would commence in 2026. The TIA was then to analyse the traffic impact associated with the proposed development in two interim periods [5-year and 10-year phases (2031 and 2037)], along with the ultimate/full-build-out of the community which was assumed to be completed within a 17-year (2043) horizon,
- provide a list of infrastructure improvements required to accommodate each of the development phases analyzed within this report, and
- provide additional recommendations to ensure the sustainability of this development from a traffic and transportation perspective.

1.3 STUDY CONTENTS

This study provides ...:

- a summary of the existing transportation infrastructure within the study area,
- analysis of existing (2024) traffic operational characteristics,
- analysis of future background traffic not attributed to the proposed development for each horizon-year,
- a summary of traffic analysis results with the subdivision in place for each horizon-year,
- identification of the net-traffic impacts associated with each development phase,
- the required roadway infrastructure improvements necessary at each horizon year,
- proposed traffic control solutions for each of the subdivision accesses,
- additional recommendations regarding transit, active transportation, and network capacity.

2.0 EXISTING CONDITIONS

2.1 SITE LOCATION

Exhibit 2-1 illustrates the location of the proposed Caron Street subdivision within the City of Clarence-Rockland, Ontario and the United Counties of Prescott and Russell.

The proposed community is situated south of David Street and east of Caron Street (indicated in red on the exhibit).

The overall study area includes the following roadways:

- Caron Street
- Docteur Corbeil Blvd
- David Street
- Tucker Road
- St Jean Street
- Poupart Road
- Club House Drive
- Baseline Road (CR-35)
- Bouvier Road
- Lacasse Road
- Filion Road



Exhibit 2-1: Study Area Location within the City of Clarence-Rockland

Exhibit 2-2 illustrates the intersections and accesses adjacent to the Caron subdivision study area. The study area is comprised of 10 existing intersections (outlined in black font on the exhibit) and 8 future intersections (outlined in red font on the exhibit).

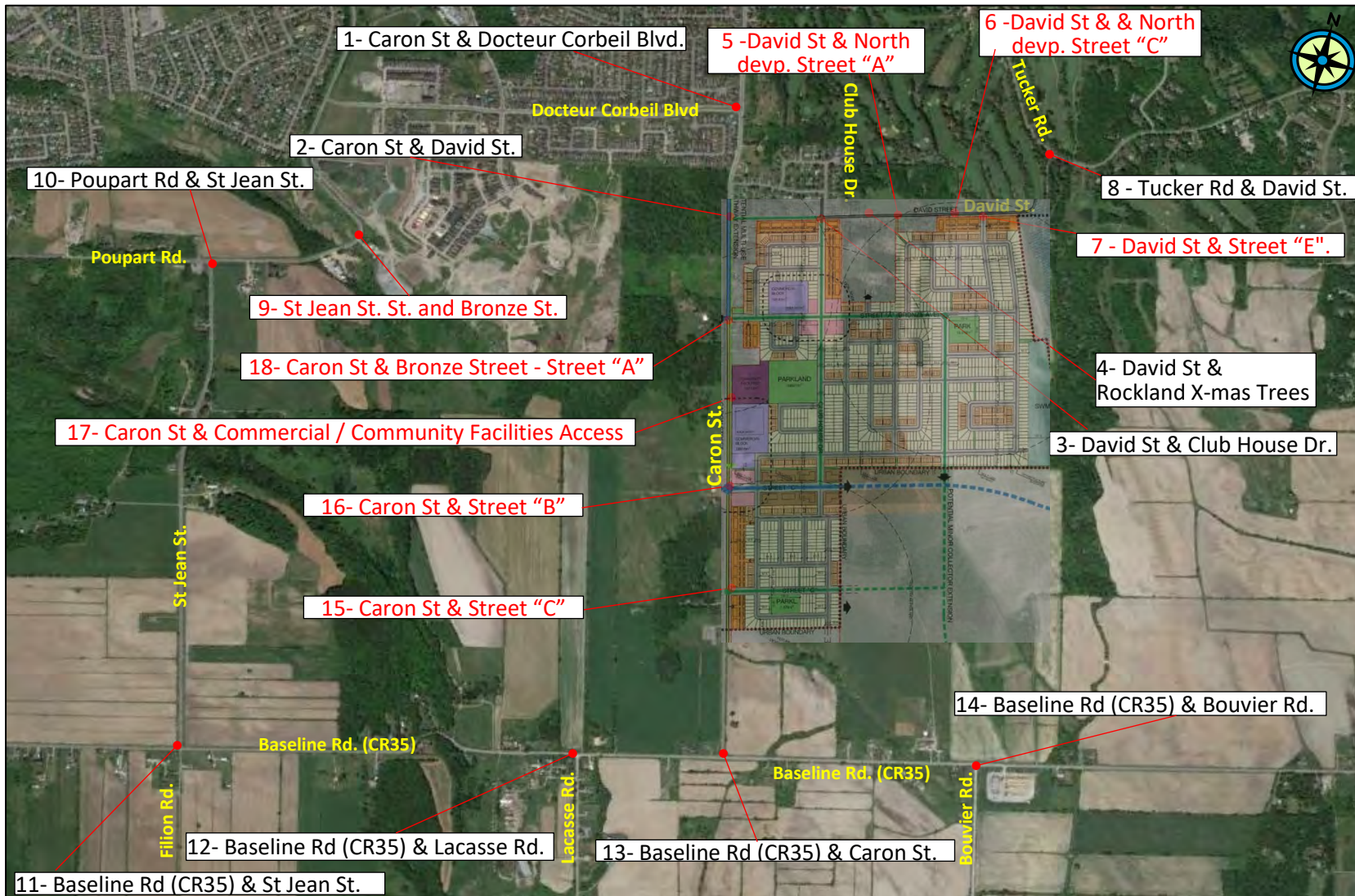


Exhibit 2-2:
Study Area

2.2 EXISTING TRANSPORTATION INFRASTRUCTURE

The following sections serve to describe within the study area:

- each of the existing roadways, (Section 2.2.1)
- each of the exiting intersections, (Section 2.2.2)
- the existing “active transportation” provisions (sidewalks, MUP and cycling), (Section 0)
- the existing transit provisions (Section 2.4), and
- The existing (2024) traffic volumes and traffic operations (Section 2.5),

2.2.1 Study Area Roadways

Table 2-1 serves to document, the classification, directional orientation, number of lanes, presence of sidewalks, posted speed limit and intersecting roadways for the critical roadways within the study area.

Table 2-1: Configuration of Area Roadway Segments

Roadway	Caron Street		David Street	Baseline Road (CR35)			Club House Drive
From:	Docteur Corbeil Blvd	David Street	Caron Street	Bouvier Road	Caron Street	Lacasse Road	David Street
To:	David Street	Baseline Road	Tucker Road	Caron Street	Lacasse Road	St Jean Street	Eagle Street
Length:	400 m	1,900 m	1,200 m	800 m	500 m	1,400 m	200 m
Classification¹:	Major Collector	Major Collector	Local	Rural Arterial (County Road)			Local
Orientation:	North-south	North-south	North-South East-west	East-west	East-west	East-west	North-south
No. of Lanes: (Excludes auxiliary lanes at intersections)	1 NB Lane 2 SB Lanes	1 lane-per-direction	1 lane-per-direction	1 lane-per-direction	1 lane-per-direction	1 lane-per-direction	1 lane=per- direction
Sidewalks & MUP's	Sidewalk on west side only	N/A	N/A	N/A	N/A	N/A	N/A
On-Street Parking	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Speed Limit	50 km/hr	50 km/hr	50 km/hr	80 km/hr	60 km/hr	60 km/hr 40 km/hr at curve	40 km/hr
Connects to:	• Fairway Dr.	• Baseline Road • Docteur Corbeil Blvd • CR17	• Club House Dr. • Rockland X-mas Trees • Tucker Road	• N/A	• N/A	• Filion Rd.	• Fairway Dr.

1. Adopted from City of Clarence Rockland Official Plan, Schedule B1

2.2.2 Baseline Road (CR35) Vertical and Horizontal Curves

Exhibit 2-4 illustrates an existing curve along Baseline Road (CR35) between St. Jean Street and Lacasse Road requiring motorists to slow down to 40 km/hr (posted speed). These existing conditions may present a safety concern should the volumes along Baseline Road (CR35) increase. The United counties of Prescott and Russell are recommended to investigate potential alternative alignments that would allow for the speed along Baseline Road corridor to be maintained at 60 km/hr or 80 km/hr.



Exhibit 2-3
Baseline Road
Curve

2.2.3 Study Area Intersections

The following presents a summary of the 18 key intersections and their configuration that are adjacent to proposed development. (See Exhibit 2-2). This section depicts and describes the existing intersection configurations at the time of writing this report (spring 2025).

Section 7.0 provides a description of the required future intersection and access configurations required to accommodate the proposed Caron subdivision and the surrounding land uses.

A. Caron street and Docteur Corbeil Boulevard

Exhibit 2-4 illustrates this T-intersection, which is configured as a one-way STOP-controlled intersection.

- Caron street operates as a free-flow roadway.
- The south leg of the intersection provides a NB-Th and an auxiliary NB-LT taper with ~40 meters of vehicle storage.
- The north leg of the intersection consists of a single southbound lane with a shared through/right-turn lane.
- The north leg of the intersection is characterized by a single egress lane.
- The north leg of the intersection includes a centre flush painted median that is 90 meters long and 3 meters wide.
- a 3.5-meter-wide two-way bike path on the east side parallel to Caron Street.
- The west leg of the intersection consists of a single eastbound lane with a shared through/right-turn lane.
- The west leg of the intersection features 2-meter-wide curbside cycling path on both sides of Docteur Corbeil Boulevard.
- The west leg of the intersection includes 1.5-meter-wide sidewalks on both sides of Docteur Corbeil Boulevard.
- The west leg of the intersection consists of a central raised median that is 130 meters long and 4 meters wide.
- A 3-meter-wide multi-use pathway runs along the east side of Caron Street, and 2-meter-wide sidewalks are provided on the west side.

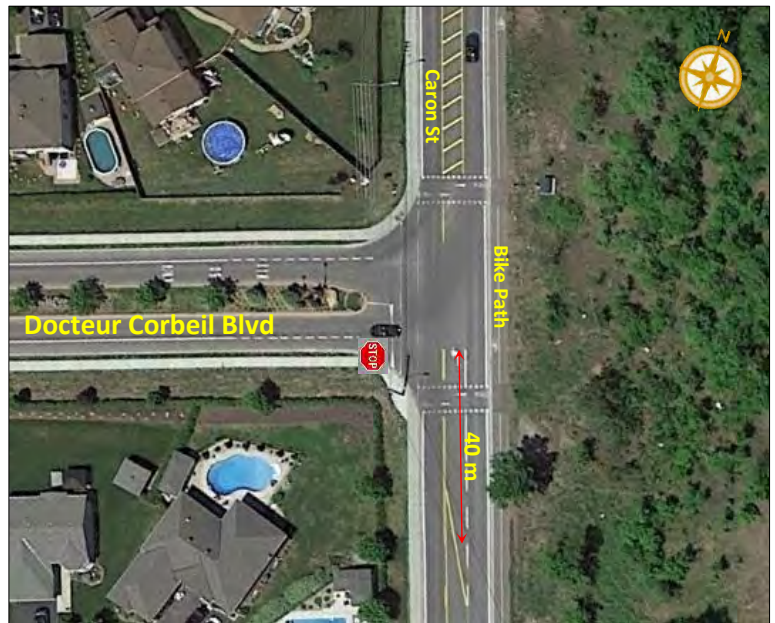


Exhibit 2-4: Caron St/ Docteur Corbeil Blvd Intersection

B. Caron Street and David Street

Exhibit 2-5 illustrates this 3-way STOP-controlled “T” intersection.

- Caron Street runs on the north-south major legs of the intersection;
- The north leg of the intersection provides for a single through lane, an auxiliary left turn lane with about 40 metres of storage length, and a single receiving lane;
- The south leg of the intersection provides for a single through-right turn lane, a 2.5 metre raised median, and a single receiving lane;
- David Street is on the minor east leg of the intersection providing for a single left-right turn approach and once receiving lane
- Caron Street is characterized by an urban cross section north of the intersection, and a rural cross-section south of the intersection.
 - A sidewalk is provided on the west side of Caron Street, north of the intersection, and
 - A two-way bike path is provided on the east side of Caron Street, north of the intersection.

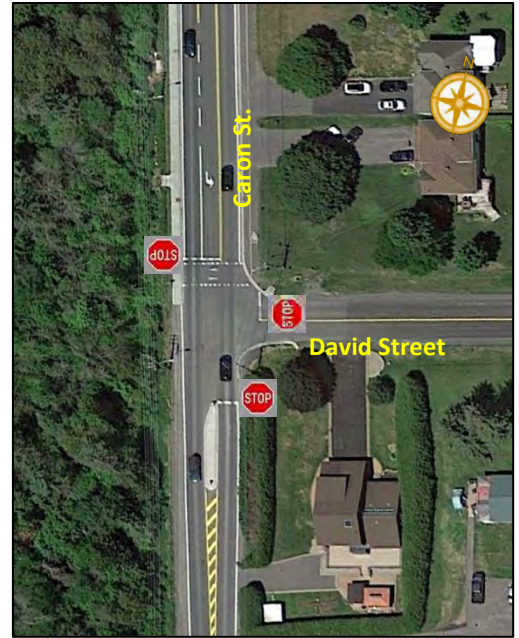


Exhibit 2-5: David St. / Caron St.

C. Club House Dr. and David Street

Exhibit 2-6 illustrates this minor-leg STOP-controlled “T” intersection.

- David Street runs east-west under free flow conditions,
- All approaches to this intersection have a single shared through/turning lane,
- NEW: A future subdivision access is proposed that would form the south leg of this intersection that would convert the existing “T” configuration to a 4-leg intersection,
- Sidewalks are not provided along the existing sections of David Street or Club House Drive.



Exhibit 2-6: David St/ Club House Dr.

D. David Street and Rockland X-mas Trees

Exhibit 2-7 illustrates this minor-leg T-intersection.

- David Street operates as a free flow roadway in the east-west direction.
- The south leg of the intersection provides access to the “Rockland X-mas Trees” tree farm.
- The south leg of the intersection features a single shared NB-RT/LT lane.
- A driveway serving a single residential unit is located on the opposite side of Rockland X-mas’ Trees, on the north side of the intersection.
- Sidewalks are not provided along David Street.



Exhibit 2-7: David St/ Rockland X-mas Trees

E. NEW David Street and North Development Street “A”

Exhibit 2-8 illustrates this future “T” intersection.

- David Street runs east-west under free-flow condition.
- A driveway serving a single residential unit is located on the south side of intersection.
- A new municipal roadway referred to within the report as “North Development Street A” is proposed on the north leg of the intersection. This roadway would be serving the adjacent proposed subdivision located north of David Street.
- Sidewalks are currently not indicated as being provided in plans along David Street.



Exhibit 2-8: David Street and North Devp. Street “A”

F. NEW David Street and North Development Street “C”

This future T-intersection, illustrated in Exhibit 2-9, includes the following:

- David Street operates as a free flow roadway.
- “North Development Street C” 2 is a future proposed municipal roadway which will serve the proposed subdivision located north of David Street. This new street would effectively form a “T” intersection at this location.
- The proposed “North development Street C” is proposed to be inbound-only;
- A driveway serving a single residential unit is located on the south side of the future intersection.
- Sidewalks are not provided at this intersection at this time.



Exhibit 2-9: David Street and North Devp. Street “C”

G. NEW David Street and Street “E”

Exhibit 2-10 illustrates a future 3-leg T-intersection, that would connect to David Street known as Future Street “E”. The exhibit conceptually illustrates the approximate location of the intersection that would be intended to provide access to the first phase of the proposed subdivision.



Exhibit 2-10: David Street and Street “E”

H. Tucker Road and David Street

Exhibit 2-11 illustrates this T-intersection, which is configured as a minor leg STOP-controlled intersection.

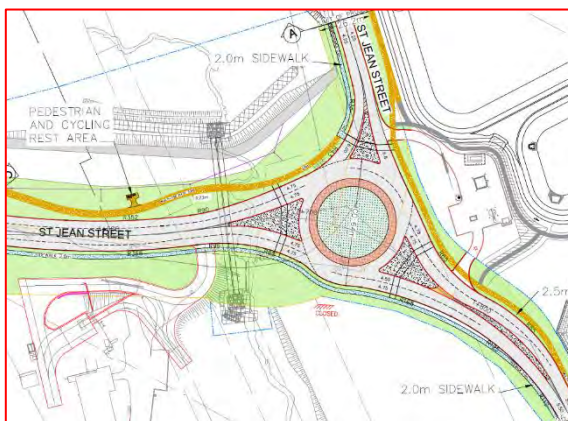
- Tucker Road operates as the free-flow east-west roadway.
- The east leg of the intersection (Tucker Rd) provides a single shared WB-TH/LT lane.
- The west leg of the intersection comprises a single shared EB-TH/RT lane.
- The south leg of the intersection is STOP-controlled and features a single shared NB-RT/LT lane.
- Pedestrian crosswalks are not provided at this intersection, however a sidewalk is provided along the south side of Tucker Road, east of the intersection.
- Signage prohibiting heavy vehicle traffic is in place along Tucker Road.



Exhibit 2-11: Tucker Rd/ David St Intersection

I. St Jean Street and Bronze Street

Exhibit 2-12 depicts the existing St Jean Street corridor in the vicinity of the future Bronze Avenue corridor. A review of the City of Clarence-Rockland’s plans of the St. Jean Street corridor² indicate that this future intersection is envisioned to function as a 3-leg roundabout.



Planned Upgrade to Intersection



Exhibit 2-12: St. Jean St. & Bronze Avenue Intersection: Existing

² St. Jean Street – Montee Poupart Municipal Class EA. DRAFT report, Castleglenn Consultants. October 2024

J. Poupart Road and St Jean Street

Exhibit 2-13 depicts the existing 3-leg All-Way STOP-controlled T-intersection configuration at this location.

- All approaches to this intersection are configured as a single shared through/turning lane.
- There are currently no sidewalks, or pathways provided at this intersection.
- A review of the City of Clarence-Rockland’s plans for this intersection³ indicate a complete redesign that envisions an ultimate 4-leg multi-lane roundabout.

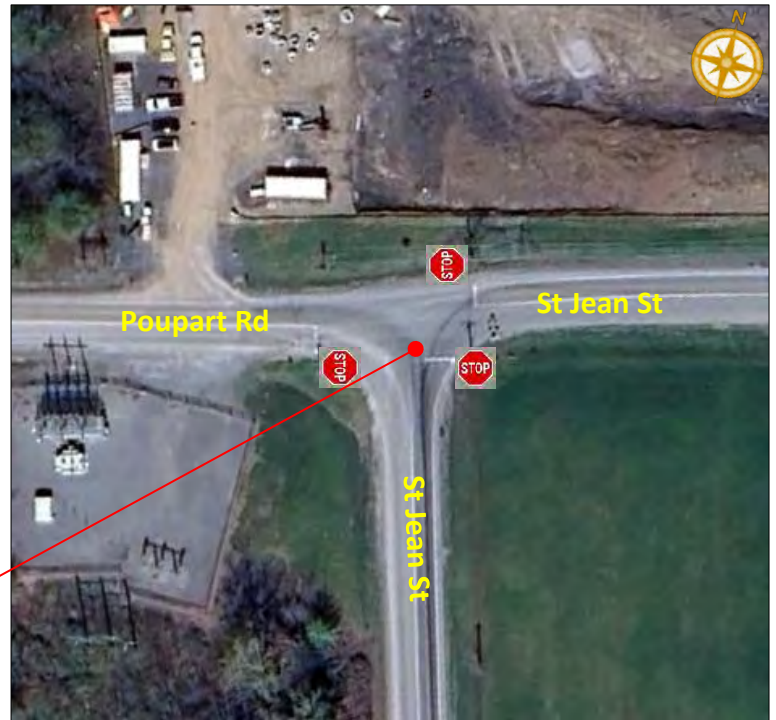
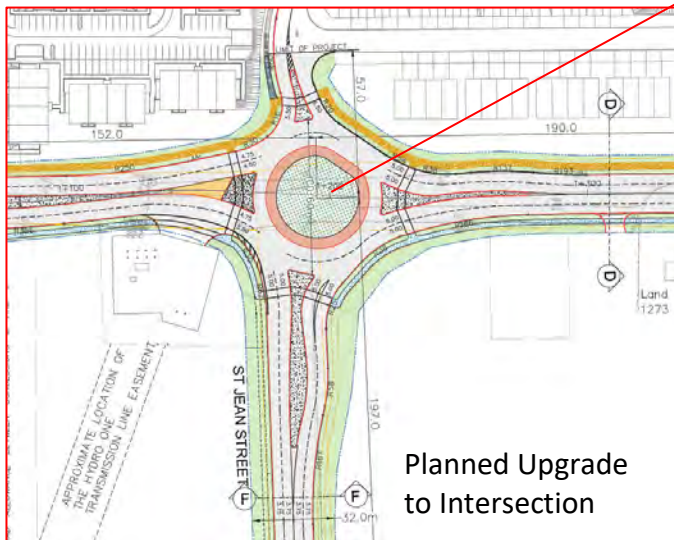


Exhibit 2-13: Poupart Rd/ St Jean St Intersection



Planned Upgrade to Intersection

K. Baseline Road (CR35) and St Jean St.

Exhibit 2-14 illustrates this 4-leg intersection, which is currently configured as a 4-leg all-way STOP-controlled intersection.

- All approaches to this intersection possess a single shared through/turning lane.
- All legs of the intersection currently provide for a single shared all movement approach lane.
- Sidewalks are not provided along any of the connecting road segments.



Exhibit 2-14: Baseline Rd (CR35) / St Jean St

³ St. Jean Street – Montee Poupart Municipal Class EA. DRAFT report, Castleglenn Consultants. October 2024

L. Baseline Rd (CR35) and Lacasse Road

Exhibit 2-15 depicts this minor-leg STOP-controlled “T” intersection that connects Lacasse Road to Baseline Road.

- The east-west major legs (Baseline Rd) operate under free-flow conditions and feature a single shared lane.
- The minor leg of the intersection (Lacasse Rd) is STOP-controlled and includes a single left-and-right turn lane.
- Each approach to the intersection features a single receiving lane.
- Sidewalks are not provided along any of the connecting road segments.

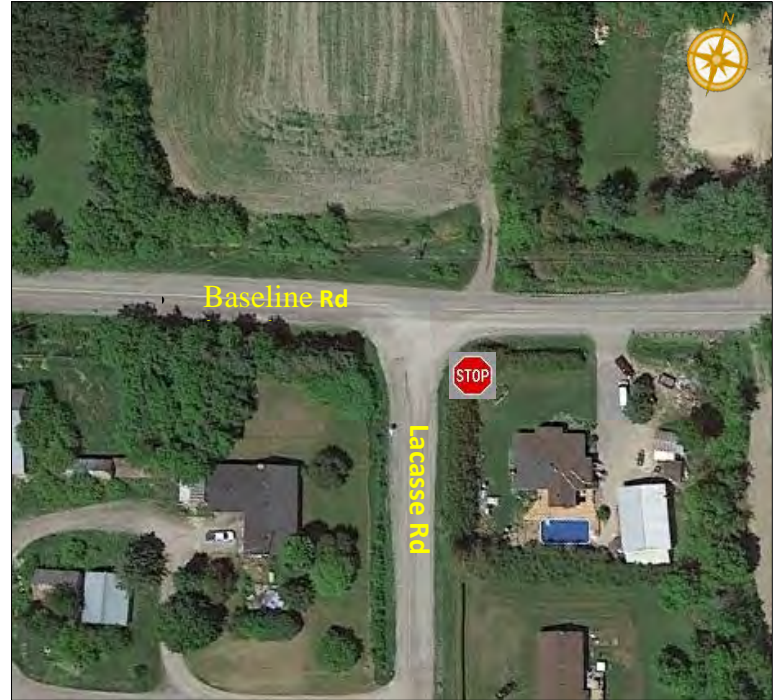


Exhibit 2-15: Baseline Rd (CR35) / Lacasse Rd

M. Baseline Road (CR35) and Caron Street

Exhibit 2-16 illustrates this minor-leg STOP-controlled “T” intersection.

- Baseline Road runs east-west under free flow condition.
- The minor leg of the intersection (Caron Street) is Stop-controlled and features a single left-and-right turn lane.
- Each approach to this intersection includes a single receiving lane.
- Sidewalks are not provided along any of the connecting road segments.

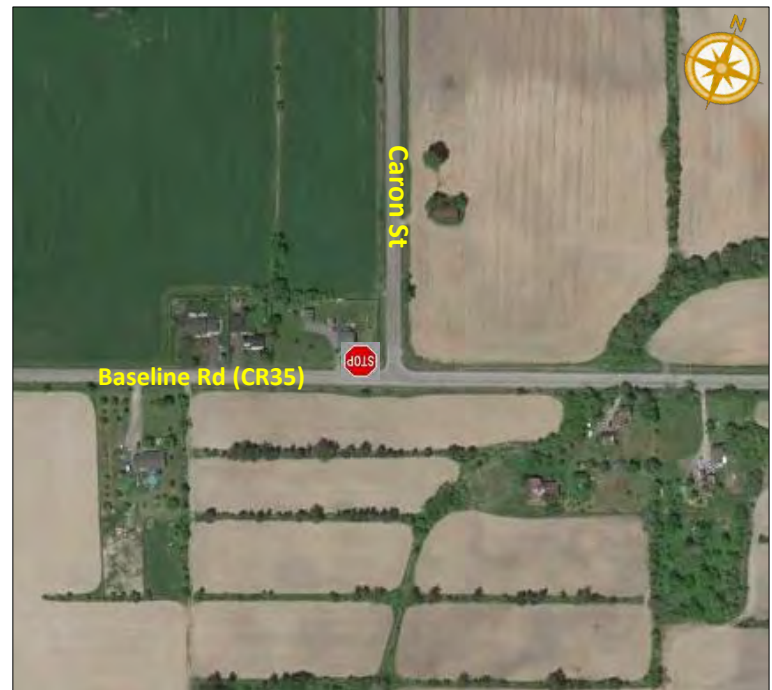


Exhibit 2-16: Baseline Rd (CR35) / Caron St

N. Baseline Rd. (CR-35) and Bouvier Rd.

Exhibit 2-17 depicts this minor-leg STOP-controlled “T” intersections of Baseline Road and Bouvier Road.

- Baseline Road (CR-35) runs east-west under free-flow conditions.
- All approaches to this intersection possess a single shared through/turning lane.
- Sidewalks are not provided at this intersection.



Exhibit 2-17: Baseline Rd (CR35)/ Bouvier Rd

O. Caron Street and Street “C”.

Exhibit 2-19 illustrates the approximate location of this future intersection which will provide access to the southern part of the proposed Caron Subdivision. A future connection to development on the west side of Caron Street is envisioned beyond the ultimate build-out horizon.

P. Caron Street and Street “B”.

Exhibit 2-19 illustrates the approximate location of this future intersection which will provide access to the southern part of the proposed Caron Subdivision. A future connection to the west to the St. Jean Street corridor is envisioned beyond the ultimate build-out horizon.

Q. Caron Street and Commercial / Community Facility Access

Exhibit 2-19 illustrates the approximate location of this future intersection which will provide access to the commercial and community facility development within the subdivision

R. Caron Street and Bronze Avenue

Exhibit 2-19 illustrates the approximate location of this future intersection which will provide access to the Caron Subdivision on the east side and connect to the Morris Village development and the St. Jean Street corridor on the west side.

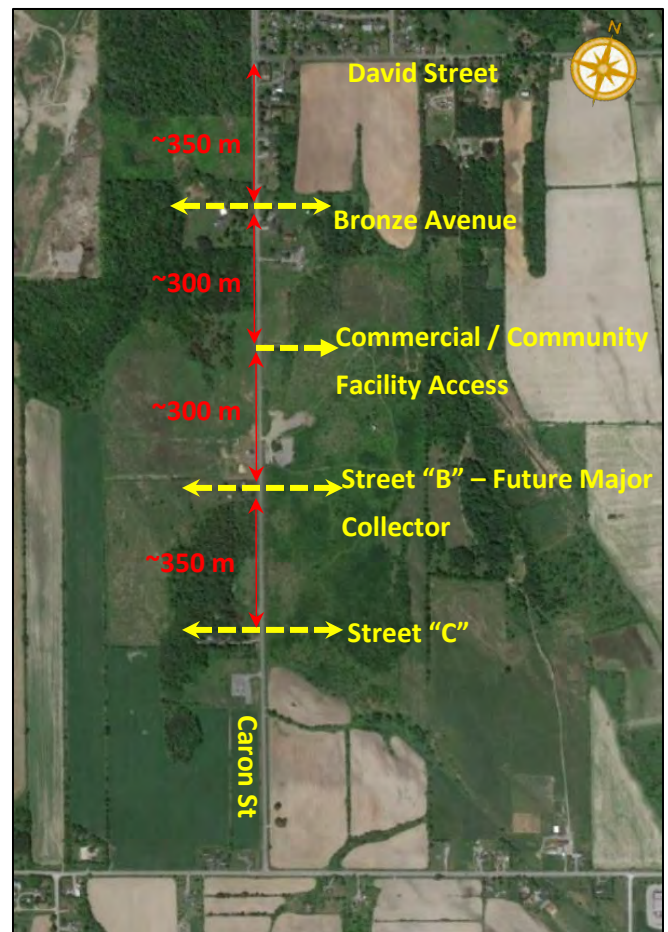


Exhibit 2-18: Baseline Rd (CR35)/ Bouvier Rd

2.3 EXISTING ACTIVE TRANSPORTATION PROVISIONS

Within urban areas, sidewalks, paths, multi-use pathways (MUP's) and cycling infrastructure form the supporting network intended to encourage a non-motorized active lifestyle. The following sections provide a summary of the active transportation provisions within the study area at the present time.

2.3.1 Sidewalks

Sidewalks exist along both sides of Docteur Corbeil Boulevard and the west side of Caron Street north of David Street.

2.3.2 Cycling

A 2-way cycling track is provided along the east side of Caron Street, north of David Street. Curbside cycling lanes are provided along Docteur Corbeil Boulevard.

2.4 TRANSIT

There are currently no regularly scheduled transit routes in the vicinity of the study area. It is understood that Leduc Bus Lines at one time operated Route 530 out of Rockland to the City of Ottawa, which was suspended indefinitely following the Covid-19 pandemic, citing “low ridership and safety concerns”⁴.

2.5 EXISTING (2024) TRAFFIC CONDITIONS

The following section provides a summary of the existing traffic volumes and traffic operational conditions derived from analysis of the 10 existing study area intersections and observations undertaken during the conduct of the traffic counts.

2.5.1 Summary of Data Sources

Table 2-2 provides a summary of the location and dates of the traffic counts that were undertaken by Castleglenn at each of the study area intersections. The counts were conducted during the 3-hour morning peak period of 6:30-to-9:30 AM and 3-hour afternoon peak period of 3:30-to-6:30 PM on the local area intersecting roadways.

⁴ <https://www.leducbus.com/commuter-buses/route-520>

Table 2-2: Summary of Surveyed Intersections

Int. Wed#	Intersection	Intersection Control	Date of Traffic Count
1.	Caron Street and Docteur Corbeil Boulevard	Minor Leg STOP-control	Thursday, Oct. 17 th , 2024
2.	Caron Street and David Street	All Way STOP-control	Thursday, Oct. 17 th , 2024
3.	David Street and Club House Drive	Minor Leg STOP-control	Tuesday, Oct. 22 nd , 2024
4.	David Street and Rockland X-Mas Trees	Minor Leg STOP-control	Tuesday, Oct. 22 nd , 2024
8.	David Street and Tucker Rd / Outaouais Sideroad	Minor Leg STOP-control	Tuesday, Oct. 22 nd , 2024
10.	St. Jean Street and Poupart Road	All Way STOP-control	Wednesday, Oct. 16 th , 2024
11.	Baseline Road and St. Jean Street – Filion Road	All Way STOP-control	Wednesday, Oct. 16 th , 2024
12.	Baseline Road and Lacasse Road	Minor Leg STOP-control	Wednesday, Oct. 16 th , 2024
13.	Baseline Road and Caron Street	Minor Leg STOP-control	Thursday, Oct. 17 th , 2024
14.	Baseline Road and Bouvier Road	Minor Leg STOP-control	Thursday, Oct. 17 th , 2024

2.5.2 Existing (2024) Traffic Volumes

Exhibit 2-19 illustrates the existing 2024 balanced peak hour traffic volumes within the study area (See Appendix “A”).

2.5.3 Existing (2024) Traffic Operational Analysis

Intersection capacity analysis was conducted for the existing (2024) horizon year using Synchro™ 11 software, which incorporates Highway Capacity Manual (HCM) 6th edition methodologies to determine level-of-service (based upon delay) and volume-to-capacity (v/c) performance metrics. The analyses assumed a peak hour factor of 0.92 which simulates the busiest 15-minute-period of the overall peak hour. [Appendix “B-1” provides analysis output sheets for the existing conditions.]

Table 2-3 provides a summary of the intersection capacity analysis results and indicates that all study area intersections were found to operate at an acceptable level of service “C”-or-better assuming the existing (2024) traffic volumes (See Exhibit 2-19) and the existing intersection configuration as illustrated and described within Section 2.2.2

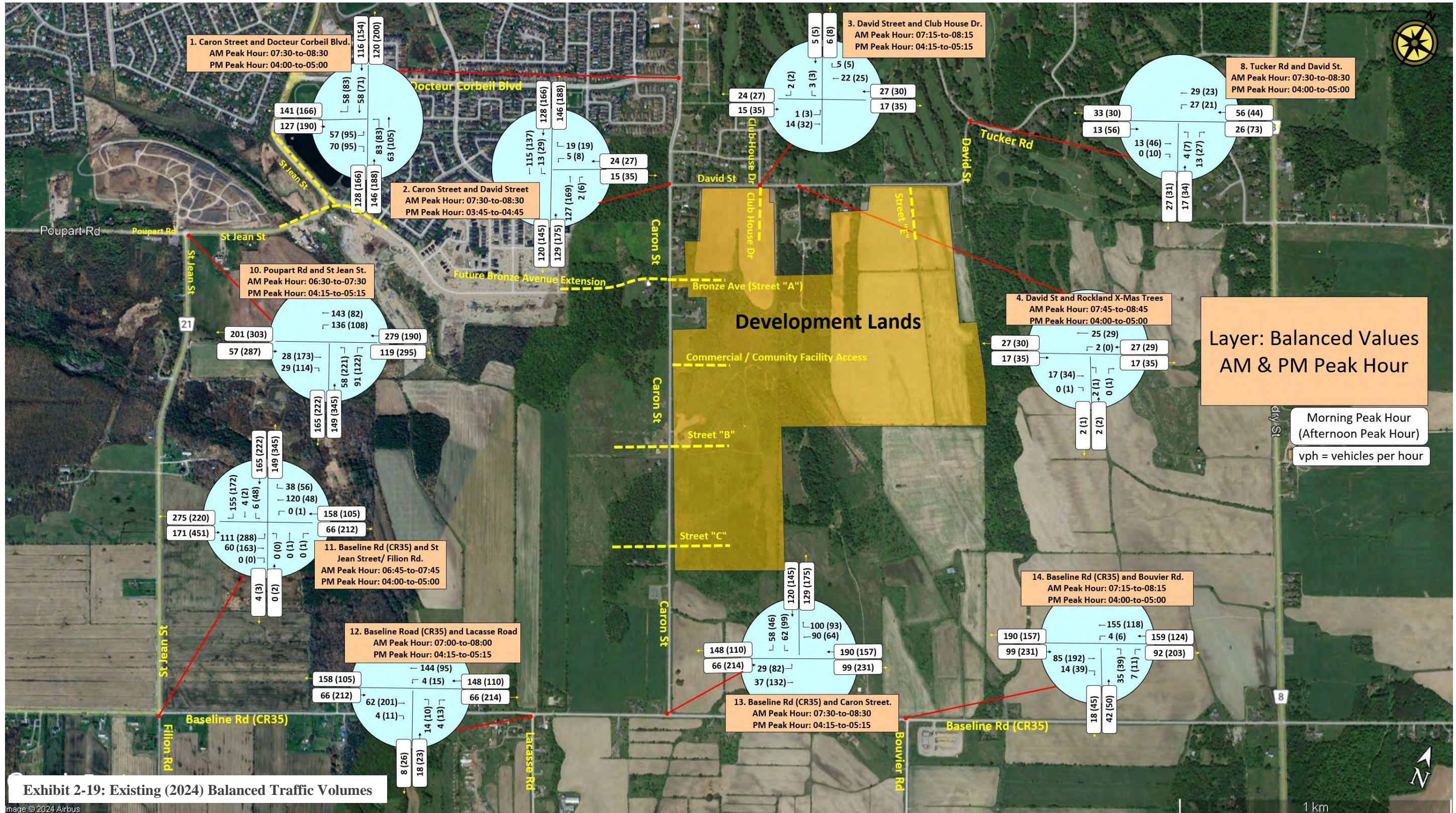


Exhibit 2-19: Existing (2024) Balanced Traffic Volumes

Table 2-3: Existing 2024 Intersection Capacity Analysis

Intersection	Control Type	Critical Approach/ Movement	Volumes (vph)	Weekday				
				Morning Peak Hour		Afternoon Peak Hour		
				Average Delay per Vehicle (seconds)	Level of Service	95 th Percentile Queue (m)	Volume-to- Capacity Ratio (v/c)	
1	Caron Street and Docteur Corbeil Boulevard	Traffic Signal Control	Eastbound	127 (190)	10.8 (12.5)	B (B)	5 (10)	0.18 (0.3)
2	Caron Street and David Street	All Way STOP-control	Northbound	129 (192)	8.3 (8.2)	A (A)	5 (7)	0.17 (0.23)
			Southbound	24 (27)	7.3 (8.5)	A (A)	1 (1)	0.03 (0.04)
			Southbound-LT	13 (29)	8.1 (8.2)	A (A)	1 (1)	0.02 (0.05)
			Southbound-TH	115 (137)	8.4 (8.8)	A (A)	5 (5)	0.17 (0.2)
3	David Street and Club House Drive	Minor Leg STOP-control	Southbound	5 (5)	8.8 (8.9)	A (A)	0 (0)	0.01 (0.01)
4	David Street and Rockland X-Mas Trees	Minor Leg STOP-control	Northbound	2 (2)	8.8 (8.7)	A (A)	0 (0)	0.01 (0.01)
8	David Street and Tucker Road / Otaouais Sideroad	Minor Leg STOP-control	Northbound	17 (34)	8.6 (8.8)	A (A)	1 (1)	0.02 (0.04)
10	Poupart Road and St. Jean Street	All Way STOP-control	Westbound	149 (343)	8.6 (14.2)	A (B)	6 (24)	0.2 (0.54)
			Eastbound	57 (287)	7.7 (12)	A (B)	2 (17)	0.08 (0.44)
			Southbound	279 (190)	10.2 (11.2)	B (B)	14 (11)	0.38 (0.32)
11	Baseline Road (CR35) and St Jean Street - Filion Road	All Way STOP-control	Northbound	3 (2)	8 (8.6)	A (A)	0 (0)	0.01 (0.01)
			Eastbound	171 (451)	9.3 (16.6)	A (C)	8 (37)	0.25 (0.66)
			Westbound	158 (105)	8.8 (8.8)	A (A)	6 (4)	0.22 (0.16)
			Southbound	165 (222)	8.4 (10.5)	A (B)	6 (11)	0.21 (0.33)
12	Baseline Road (CR35) and Lacasse Road	Minor Leg STOP-control	Northbound	18 (23)	9.7 (10.4)	A (B)	1 (1)	0.03 (0.04)
13	Baseline Road (CR35) and Caron Street	Minor Leg STOP-control	Southbound	120 (145)	10.6 (12.9)	B (B)	5 (8)	0.17 (0.26)
14	Baseline Road (CR35) and Bouvier Street	Minor Leg STOP-control	Northbound	42 (50)	10.2 (11)	B (B)	2 (2)	0.06 (0.08)

Values outside of brackets represent morning peak hour results.

Values in brackets represent afternoon peak hour results.

3.0 FUTURE BACKGROUND CONDITIONS

This section describes the assumptions related to the future background growth within the study area that could be attributed to adjacent developments.

3.1 GROWTH

A 2022 growth study⁵ indicated that the average annual growth in housing in Clarence-Rockland (See Exhibit 3-1) between 2016 and 2021 was 2.1 percent and an average 1.3% annual housing growth rate was forecast to occur between the 2021-to-2046 time horizon. For the purposes of this traffic impact study, and to remain conservative in terms of traffic growth, an average annual traffic growth rate of 2.0 percent growth was adopted.

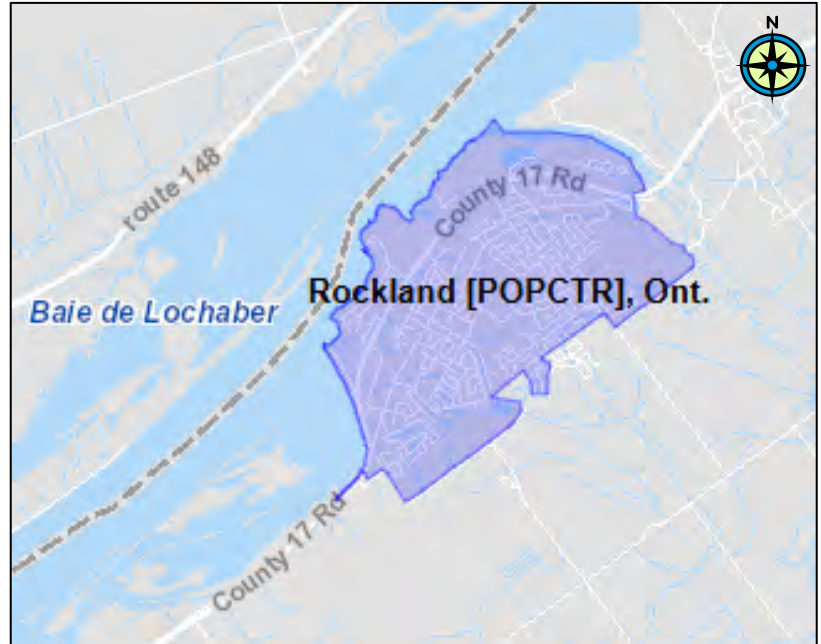


Exhibit 3-1 Rockland, Population Centre Boundaries

3.2 ADJACENT DEVELOPMENTS

Exhibit 3-2 illustrates other proposed developments in the vicinity of the Caron subdivision.

The following three adjacent developments were accounted for within this study, given that the focus area is limited to the Caron Street corridor:

- Masicotte Subdivision (See Exhibit 3-3),
- David Street North Development (See Exhibit 3-4),
- Morris Village Phase 5 Development (See Exhibit 3-5).

Additional traffic impacts attributed to other developments (red areas on Exhibit 3-2), were accounted for through application of the 2% background growth rate (See Section 3.3). Future expansions to the urban boundary (purple on Exhibit 3-2) were assumed **not** to occur prior to the 2043 horizon year.

3.3 BACKGROUND GROWTH RATE

An annual non-compounded background growth rate of 2% was adopted for all arterial and collector roadways in the study area. This growth rate is over-and-above the traffic attributed to the three adjacent developments noted in the above bullets and illustrated in yellow shading within Exhibit 3-2.

⁵ "Growth Management Study Update" March 30th, 2022, Hemson Report prepared for United Counties of Prescott Russell, Table 6 & 7 Pg. 35

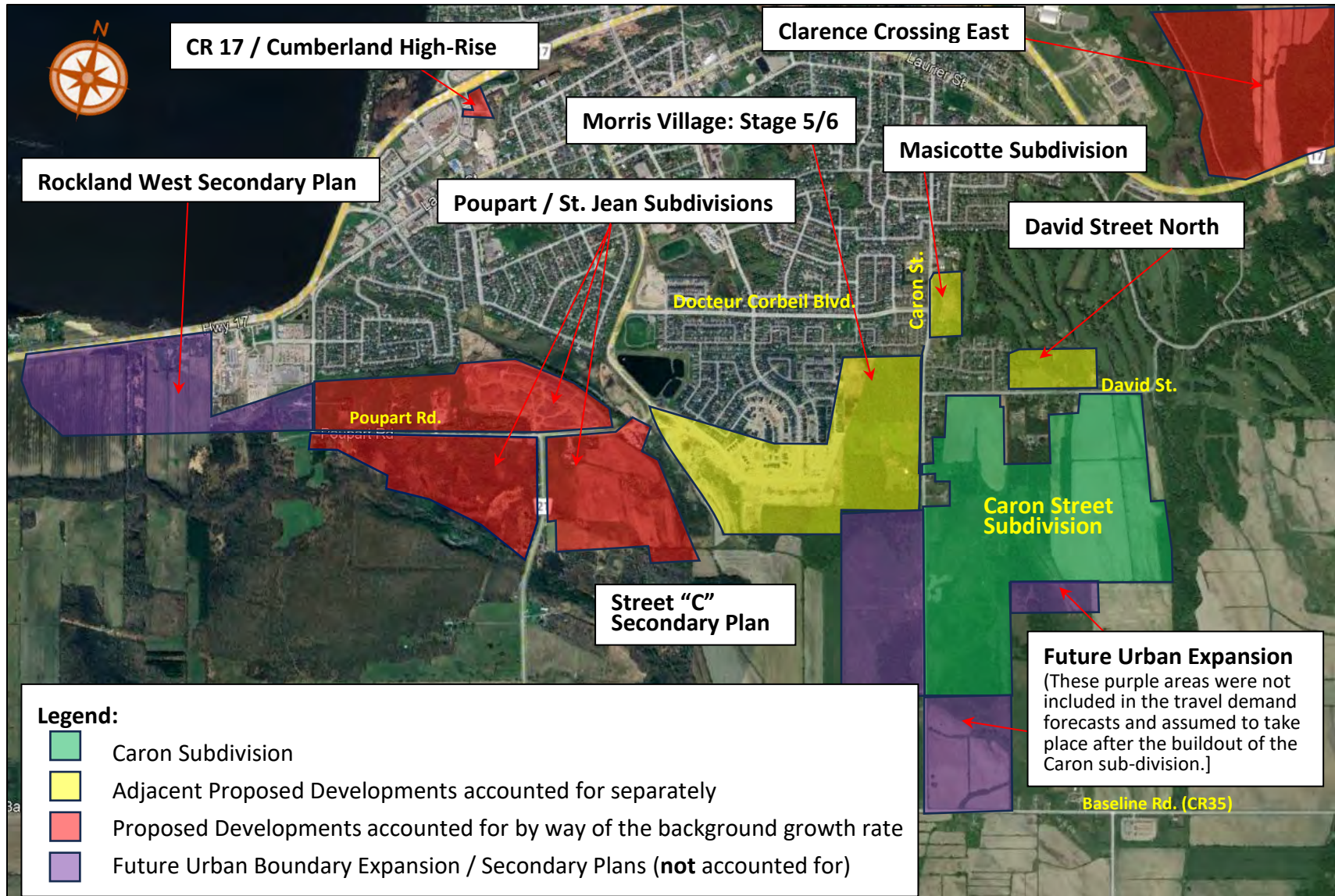
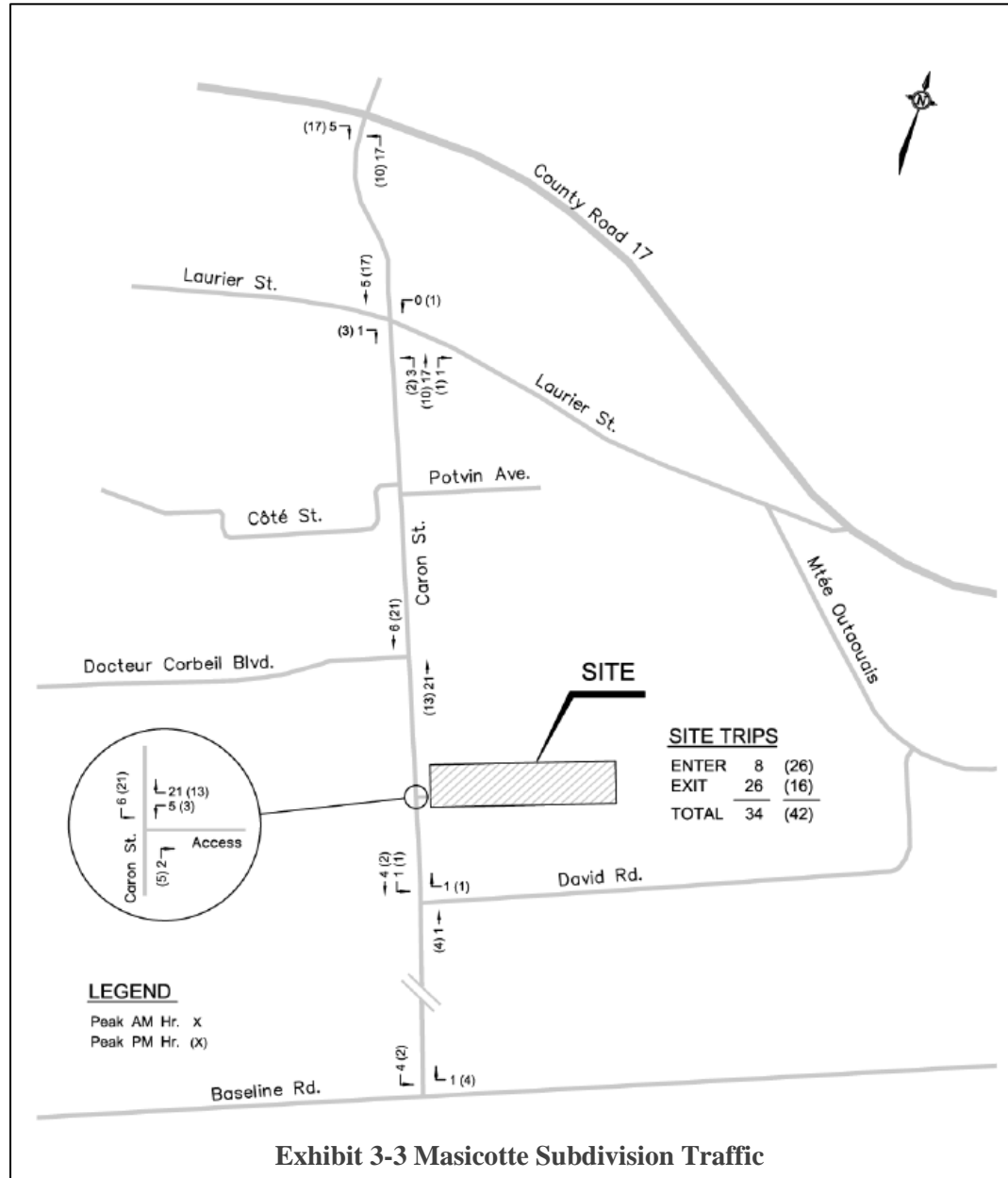


Exhibit 3-2 Proposed Developments in the City of Clarence-Rockland



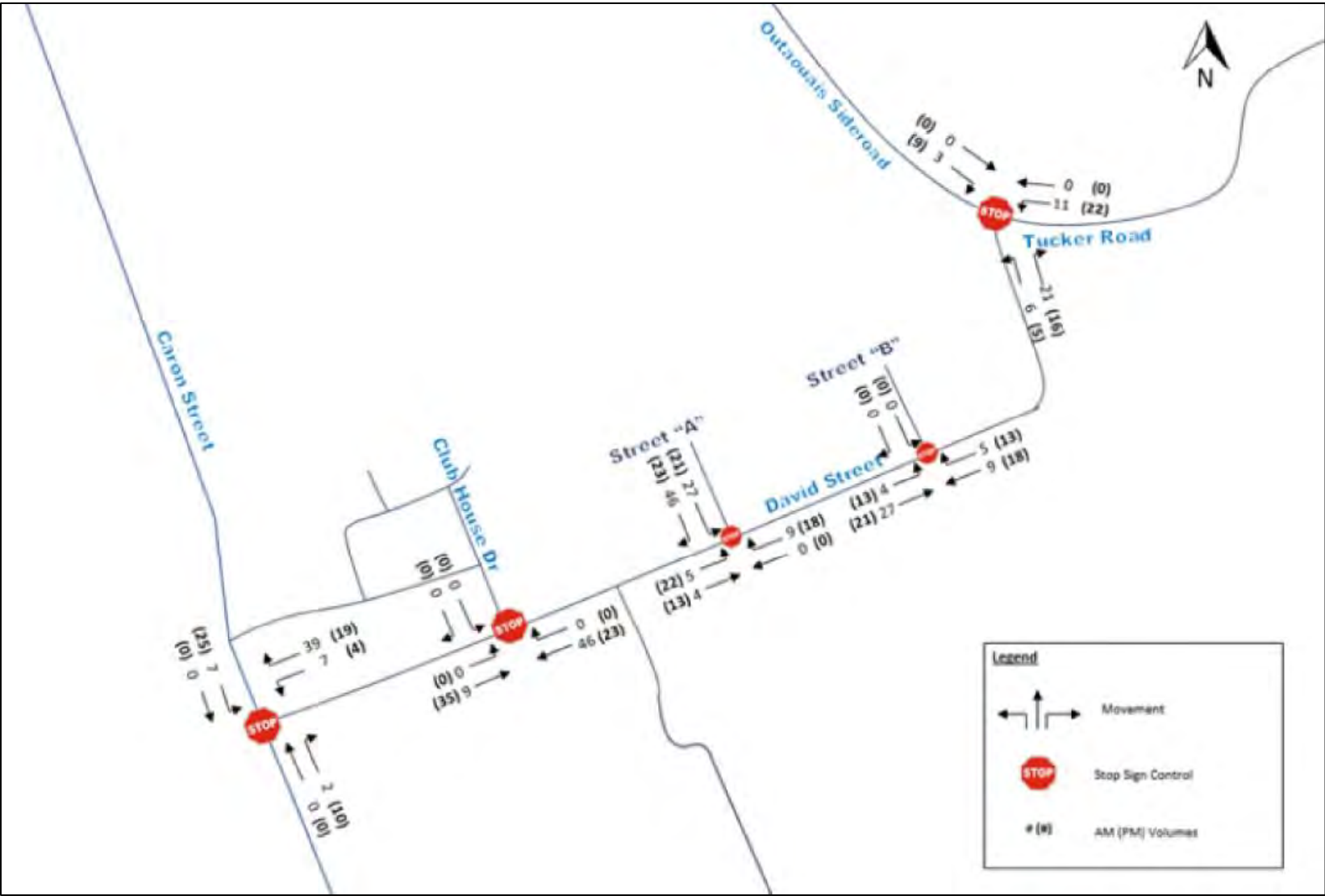


Exhibit 3-4 David Street North Subdivision Traffic

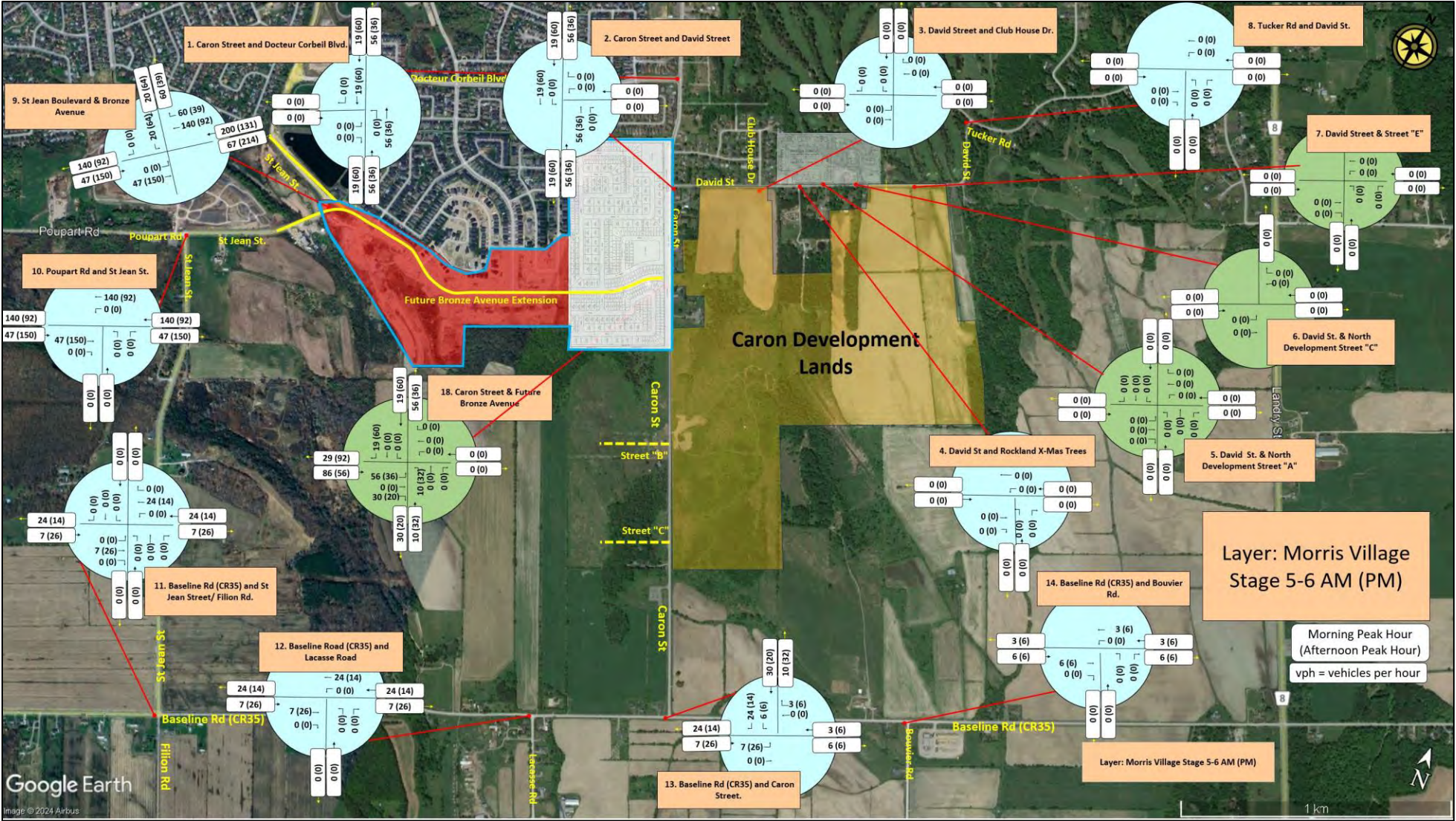


Exhibit 3-5 Morris Village Stage 5-6 Subdivision Traffic

4.0 THE PROPOSED DEVELOPMENT

The following serve to characterize the proposed Caron Street development in terms of the number and type of proposed residential dwellings, the amount of commercial/retail space, the prospective community/institutional areas and the greenspace land uses.

4.1 PLAN OF SUBDIVISION

Exhibit 4-1 provides the April 2025 subdivision plan. The concept, at the time of full build-out, is envisioned to accommodate the following land uses:

- A total of 2,840 residential dwellings, in the following forms:
 - 580 single-family units;
 - 530 traditional townhomes;
 - 310 residential apartments within 4-storey residential buildings;
 - 580 semi-detached units;
 - 650 stacked townhouses;
 - 190 residential apartments within 4-storey mixed-use buildings (3 residential storeys on top of ground floor commercial pedestal).
- A total of approximately 235,000 ft² GFA (Gross Floor Area) of commercial space:
 - ~101,000 ft² of commercial space within a retail plaza fronting Caron Street, assumed to be anchored by a large supermarket/grocery store,
 - ~60,800 ft² of commercial space within a retail plaza fronting Street “A” (Bronze Avenue), assumed to be anchored by a small supermarket/grocery store, and
 - ~73,200 ft² of commercial space within the ground floor of 4-storey mixed-use apartment buildings.
- A 195,600 ft² parcel dedicated to housing community facilities adjacent to proposed parkland. For the purposes of this TIA the community facility was assumed to be a high school with capacity of 800 students which would represent the “worst-case” community facility in terms of traffic generation, and
- Public parkland (traffic generated by the public parkland was assumed to be negligible).

The full build-out of the proposed subdivision, (which excludes consideration of any expansion beyond the existing urban boundary), was assumed to occur by the end of a 2043-horizon year or within 17 years from a late-2026 start of construction.

4.2 PROPOSED SUBDIVISION PLANNED ACCESSES

A total of 6 intersections will serve to access the development, as follows (counterclockwise, starting from the northeast. See red dashed lines on Exhibit 4-1):

- David Street / Street “E”.
- David Street / Club House Drive.
- Caron Street / Bronze Avenue (Street “A”).
- Caron Street / Street “B” (Major Collector).
- Caron Street / Street “C”.
- Caron Street / Commercial and Community Facilities access.

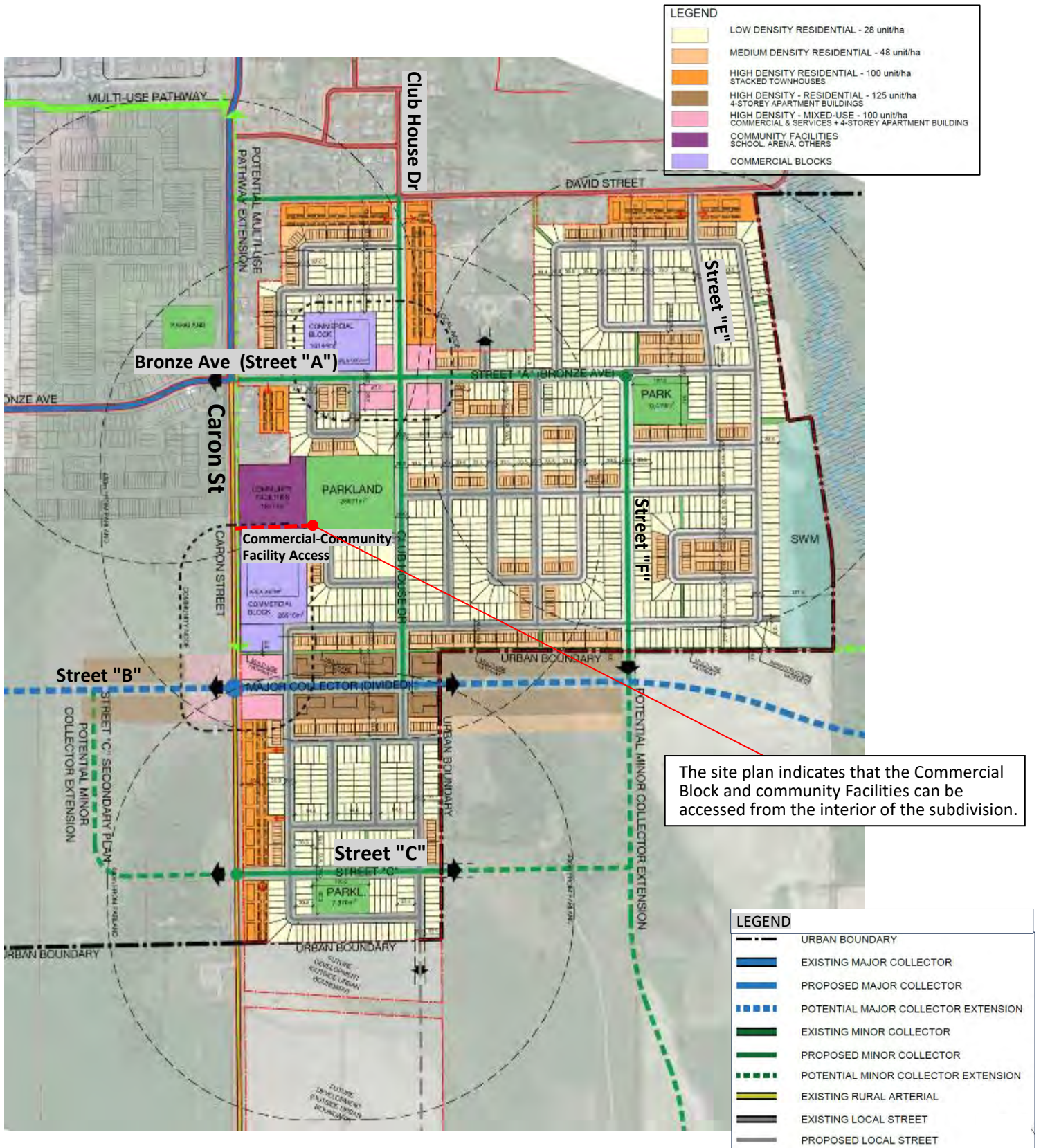


Exhibit 4-1 Concept Plan of Subdivision (April, 2025)

4.3 THE PROPOSED SUBDIVISION NETWORK

Exhibit 4-1 illustrates the roadway network intended to support the proposed Caron subdivision. Table 4-1 indicates the envisioned roadway network classifications and through lane requirements necessary to satisfy the forecast traffic operations to the 20-year (2043) time horizon.

The proposed roadway classifications for the proposed Caron Subdivision do not correspond to the recent (May 2025) updates of the City’s transportation master plan⁶. The new community plan differs in roadway alignments depicted in the master plan as well as recent recommended revisions to the 2019 road classification system.

Table 4-1: Roadway Network: Time Frame of Official Plan (2043)

Road Segment	From	To	Road Classification	No of Lanes
Caron Street	S of David St.	N of Bronze Ave.	Major Collector	2+Centre Turning Lane
	S of Bronze Ave.	N of Street “B”	Major Collector	4+Aux Lanes
	Street “B”	EW Urban Boundary	Existing Rural Arterial	2 Lanes+Aux Lanes
Bronze Ave. Street “A”	Caron Street	Club House Drive	Minor Collector	2 Lanes+Aux Lanes
	Club House Drive	Street “E”	Minor Collector	2 Lanes+Aux Lanes
Street “B”	Caron Street	NS Urban Boundary	Major Collector (Divided)	2+Aux Lanes
Street “C”	Caron Street	NS Urban Boundary	Minor Collector	2 Lanes+Aux Lanes
Club House Drive	David Street	Bronze Ave.	Minor Collector	2 Lanes+Aux Lanes
	Bronze Ave.	Street “B”		
David St.	Caron Street	Club House Dr.	Minor Collector	2+WB LT Turn Aux Lane
Street “F”	Street “A”	EW Urban Boundary	Minor Collector	2+ Aux Lane

MUP - Multi-Use Path SW – Sidewalk E=East Side W=West Side N-North Side S=South Side n/a not applicable TBD To-be-determined
 Aux Lanes – Auxiliary Turning Lanes at intersections

All other roadways within the planned Caron subdivision are local roadways intended to provide access the various designated land uses.

Table 4-2 provides an outlook beyond the time frame of the current official plan when lands adjacent to the proposed Caron sub-division (but not currently within the existing urban boundary), may become developable and require additional road right-of-way to be protected.

6. “Multimodal Transportation Master Plan Amendment” (The City of Clarence Rockland) Stantec, May, 2025, Section 6.2.2.2 Figure 6.8

Table 4-2: Roadway Network: Time Frame Beyond Current Official Plan

Road Segment	From	To	Road Classification	No of Lanes
Caron Street	S of David St.	N of Bronze Ave.	Major Collector	2+Centre Turning Lane
	S of Bronze Ave.	Street "B"	Major Collector	4+Aux Lanes
	Street "B"	Baseline Road		
Street "B"	St. Jean Street	Caron Street	Major Collector (Divided)	4+Aux Lanes
	Caron Street	NS Urban Boundary		
	NS Urban Boundary	Further East		
Street "C"	Caron Street	NS Urban Boundary	Minor Collector	2+Aux Lanes
	Street "B"	Caron Street		
	NS Urban Boundary	Street "F" Extension		
Club House Drive	David Street	Bronze Ave.	Minor Collector	2 Lanes+Aux Lanes
	Bronze Ave.	Street "B"		
Street "F"	Street "A"	EW Urban Boundary	Minor Collector	2+ Aux Lane
	EW Urban Boundary	Baseline Road	Minor Collector	2+ Aux Lane

MUP - Multi-Use Path SW – Sidewalk E=East Side W=West Side N-North Side S=South Side n/a not applicable TBD To-be-determined
 Aux Lanes – Auxiliary Turning Lanes at intersections

4.4 PHASING

This study considered two interim build-out horizons, in addition to the full build-out horizon. Table 4-3 provides a summary of three distinct phases of development that were analyzed within this TIA report.

Exhibit 4-2 illustrated an 8-phase development strategy which has, for analyses purposes, been consolidated/aggregated into the three phases as detailed within column 1 of Table 4-3.

Table 4-3: Phasing Plan

Phase	Assumed Horizon ² year	Number of Units	Size of Commercial Space	Access Strategy
Phase 1-thru-2	Horizon #1 2026-to-2031 5-year Horizon	<ul style="list-style-type: none"> Singles: 133 Semis: 134 Townhomes: 115 Stacked Townhomes: 139 Apartment units: 4-storey buildings with ground floor retail: 67 Total: 588 units: ~118 units/year	Ground floor of mixed-use buildings: 25,830 ft² GFA	Access to David St. only ¹
Phase 1-thru-5	Horizon #2 2032-to-2037 10-year Horizon	<ul style="list-style-type: none"> Singles: 387 Semis: 387 Townhomes: 341 Stacked Townhomes: 139 Apartment units: 4-storey buildings with ground floor retail: 96 Total: 1,350 units ~135 units/year	Ground floor of mixed-use buildings: 38,750 ft² GFA	Access to David St. and Bronze St.
Phase 1-thru-8	Full Build-Out & Occupancy 2038-to-2043 17-year Horizon	<ul style="list-style-type: none"> Singles: 580 Semis: 580 Townhomes: 530 Stacked Townhomes: 650 Apartment units in 4-storey bldgs with ground floor retail: 190 Apartments: 4-storey buildings: 310 Total: 2,840 units ~167 units/year <ul style="list-style-type: none"> Community Facilities / Institutional: <u>High School, 800 Students³</u> 	<ul style="list-style-type: none"> Ground floor of mixed-use buildings: <u>73,190 ft² GFA</u> Local Node Commercial Plaza (Bronze Ave): <u>60,820 ft² GFA</u> Community Node Commercial Plaza (Caron St.): <u>101,000 ft² GFA</u> Total Commercial: 235,000 ft² GFA	6 Accesses to the subdivision as described above

1. It is understood that Bronze Ave access may be open before Phase 2 is fully complete. This study assumes worst-case scenario of only David St. access being open for the first two phases of the development, after which the Bronze Ave. access would be open to public to supplement the David Street Access.
2. The horizon year assumption reflects current (March 2025) market conditions. For the purposes of this study, it was assumed that each phase of the development is fully constructed and occupied upon by the end of the Horizon year within that period.
3. A worst-case scenario of an 800-student High School was assumed. Other institutional land uses that were considered include elementary/middle school, community center, multipurpose recreational facility, skating rink. Out of the considered land uses, the high school was found to have the most impact on the adjacent transportation network with regards to peak hour traffic generation.

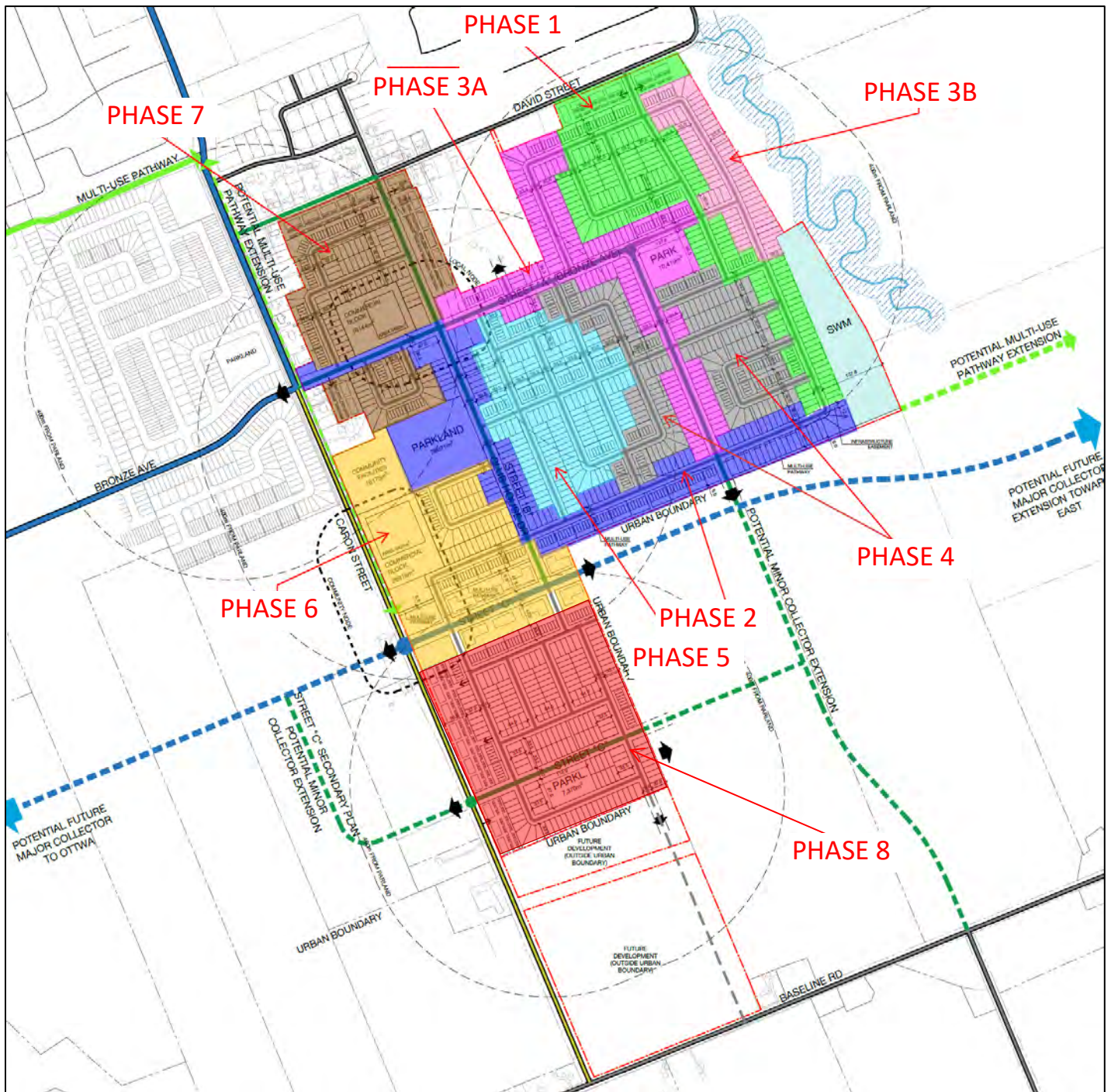


Exhibit 4-2 Subdivision Phasing Plan (January 2025)

4.5 STREET “B” WESTERLY EXTENSION: MAJOR COLLECTOR

Exhibit 4-4 illustrates the proposed Bronze Avenue easterly extension which would extend Bronze Avenue from St. Jean / Montee Poupart Road through to Caron Street. Bronze Avenue is envisioned as a 2-lane collector corridor that would see residential driveways and STOP-controlled intersections facing the corridor. Upon the build-out of the proposed subdivision, the Bronze Avenue corridor on the west site of Caron Street, is forecast to experience two-way vehicle traffic demand that is anticipated to approach capacity of the 2-lane facility. Exhibit 6-6 in this report forecasts that by 2043, peak hour traffic along Bronze Avenue would reach:

- 829 vehicles-per-hour (vph) during the morning peak hour of travel demand. This implies a headway between vehicles of 4.3 seconds in the morning peak hour, and
- 1,111 vehicles-per-hour (vph) during the afternoon peak hour of travel demand. This implies a headway between vehicles of 3.2 seconds during the afternoon peak hour.

This level of traffic and short time gap between vehicles on the roadway is insufficient to permit vehicles parked on driveways facing Bronze Avenue to safely enter the traffic stream. This situation, in concert with the post 2043 potential of developing lands between St. Jean and Caron and north of Baseline Road will exhaust the east-west capacity of the roadway network in the absence of an additional east-west collector roadway.

Ultimate Development Potential:

Exhibit 4-3 illustrates, by way of a green shaded area, the lands that were excluded from consideration within the time frame (20 year) of this TIA and the current official plan. The lands on the west side of the Caron corridor were also excluded as no site plan was available to provide sufficient detail to assess the likely traffic impacts with any degree of certainty.

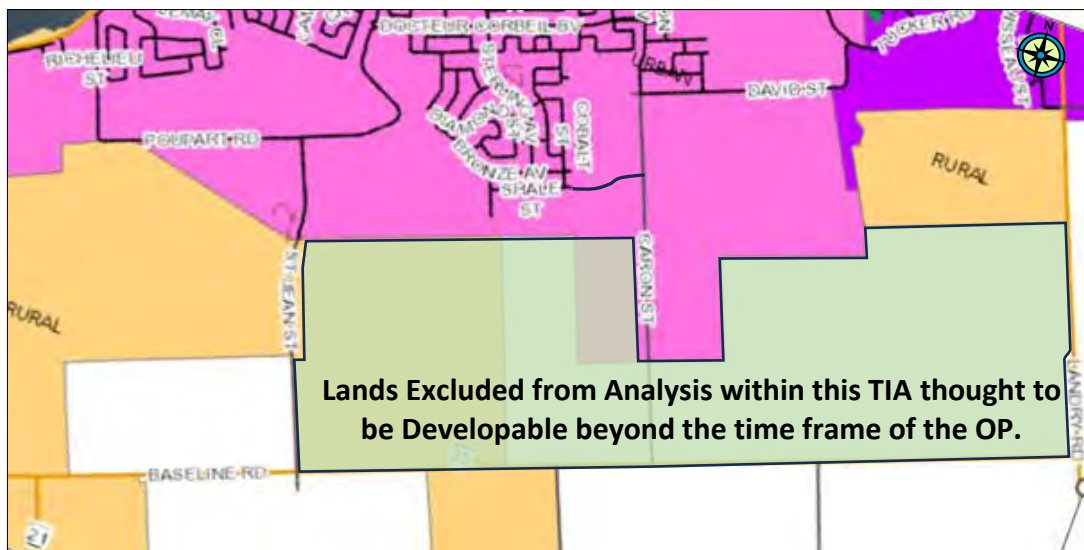


Exhibit 4-3: Lands Not Considered for Development within this TIA

It's Considered Prudent to Protect for an Additional East-West Corridor:

Exhibit 4-4 illustrates a potential future east-west collector roadway that represent a continuous roadway that would connect the future Caron Street / Street “B” intersection to St. Jean Street.

Recognizing the forecast traffic impacts along the Bronze Avenue corridor and the ultimate impact of the unaccounted for potential developments (shaded in green within Exhibit 4-3), it is considered prudent to protect for a future 4-lane east-west major collector corridor to assure sufficient capacity to protect for the future development of Clarence-Rockland beyond the 20-year time frame. This also implies that a 2-lane 4-leg roundabout as illustrated within Exhibit 6-6, would also likely ultimately be warranted in the ultimate time frame.

The plan of Caron Subdivision envisions a major 4-lane divided major collector road (Street “B”) running through the subdivision. Plans should also be in place to protect this E-W major collector corridor for future development, particularly to the west of the proposed subdivision.

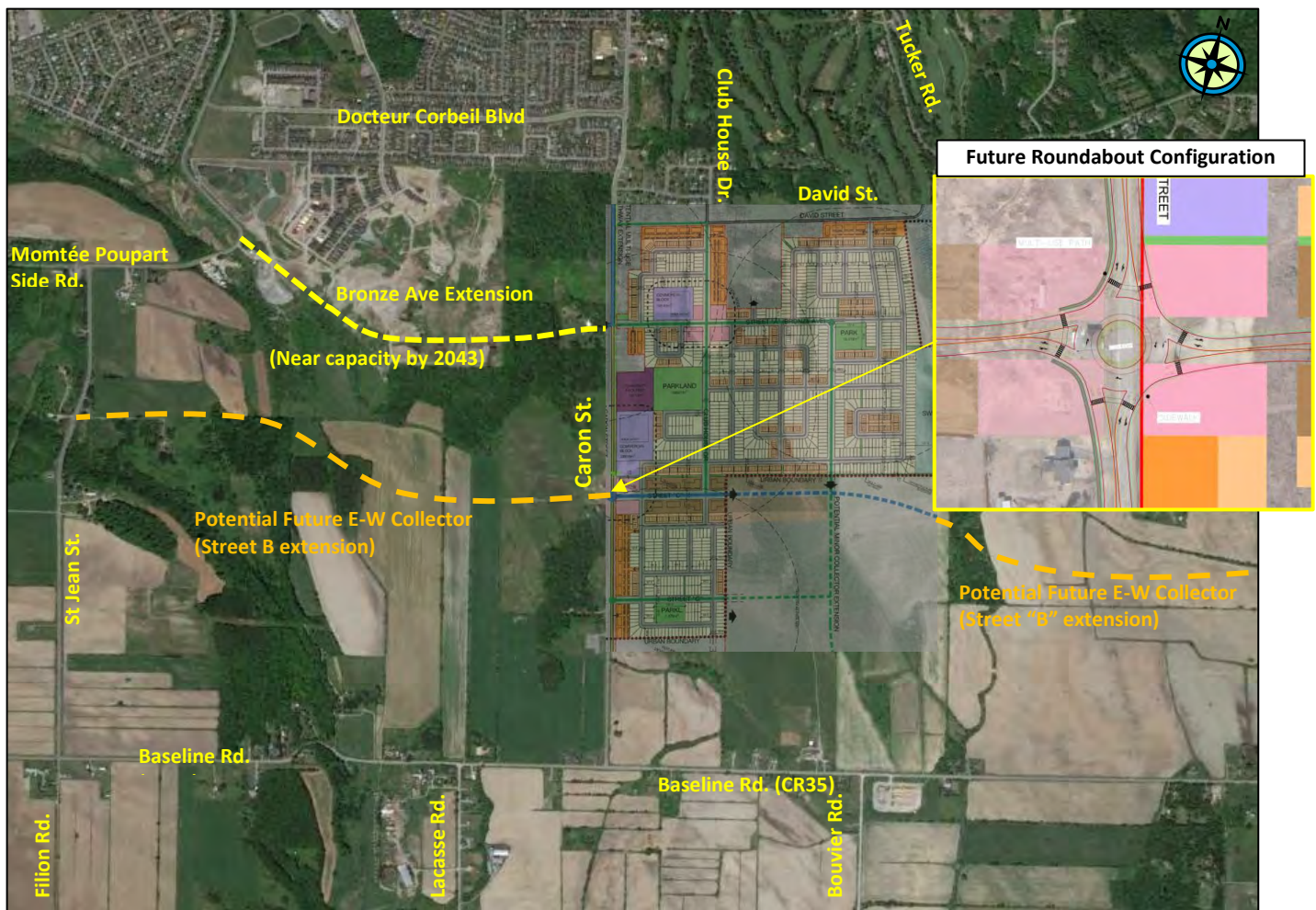


Exhibit 4-4: Major E-W Collector

5.0 TRAFFIC FORECASTING

The following sections details the approach used to forecast the morning and afternoon peak hour traffic that would be generated by the three phases (See Table 4-3) of the proposed Caron Subdivision adopted for this study.

5.1 TRAFFIC GENERATION RATES

Table 5-1 indicates the traffic generation rates used to forecast vehicle trips associated with the new residential, commercial and institutional (community facilities) components of the development.

Table 5-1: ITE Trip Generation Rate

Trip Generation Rate	Independent Variable	Rate (Vehicle Trips per Ind. Variable)	
		Morning Peak Hour	Afternoon Peak Hour
Land Use 210- Single-Family Detached Housing	Dwelling Units	0.7	0.94
Land Use 215 - Single-Family Attached Housing		0.48	0.57
Land Use 220 – Multifamily Housing (Low-Rise)		0.4	0.51
Land Use 221 – Multifamily Housing (Mid-Rise)		0.37	0.39
Land Use 822 - Strip Retail Plaza (<40,000 ft ²)	1000's SF GLA	2.36	6.59
Land Use 821 (a) Shopping Plaza (40-150k ft ²) – With Supermarket		3.53	9.03
Land Use 525 – High School	Students	0.52	0.14

Institute of Transportation Engineers (ITE) Trip Generation Manual 11th Edition

5.2 DIRECTIONAL SPLITS

Directional splits refer to the proportion of vehicle traffic entering, and leaving, each land use. The directional split for residential land uses generally follow typical commuter patterns during the morning and afternoon peak hours of travel demand (leaving home in the morning and coming back in the afternoon).

Table 5-2 provides the directional split for the development's land uses indicated within Table 5-1.

Table 5-2: Directional Splits

Trip Generation Rate	Ind. Variable	Rate (Vehicle Trips / Ind. Variable)			
		Morning Peak Hour		Afternoon Peak Hour	
		Inbound	Outbound	Inbound	Outbound
Land Use 210- Single-Family Detached Housing	Dwelling Units	25%	75%	63%	37%
Land Use 215 - Single-Family Attached Housing		25%	75%	59%	41%
Land Use 220 – Multifamily Housing (Low-Rise)		24%	76%	63%	37%
Land Use 220 – Multifamily Housing (Mid-Rise)		23%	77%	61%	39%
Land Use 822 - Strip Retail Plaza (<40,000 sqft)	1000's SF GLA	60%	40%	50%	50%
Land Use 821 (a) Shopping Plaza (40-150k) – With Supermarket		62%	38%	48%	52%
Land Use 525 – High School	Students	68%	32%	48%	52%

Institute of Transportation Engineers (ITE) Trip Generation Manual 11th Edition

5.3 TRIP REDUCTION FACTORS

5.3.1 Internal Trips

Internal trips refer to those trips between complimentary land uses, most often internal to a mixed-use community, that circumvent adjacent external roadways. This reduction is applied directly to traffic generated by each land use. For example

- a) Dense residential land uses proposed within a subdivision that offer convenient walking distance to commercial or institutional areas internal to the sub-division, are more likely to be undertaken by a walking or cycling trips or a short-vehicle trip as compared to a more isolated traditional car-dependent retail area; or
- b) Commercial/institutional land uses with access from the internal street network are more likely to attract a higher portion of the vehicle trips from the adjacent residential community without those trips having to access the adjacent arterial roadways surrounding the community.

An internal trip reduction was applied to the inbound and outbound motor-vehicle traffic component generated by the proposed commercial development. A corresponding reduction was then applied to the residential trip component (i.e. an inbound commercial trip corresponded to an outbound residential trip).

Table 5-3 presents the adopted internal trip rates that ranged from 25%-to-35% considering the anticipated size and location of future commercial developments. The local commercial developments on the ground floor of mixed-use buildings were assumed to have a higher rate of internalization (35%) as compared to the large commercial/retail development (25%) which in the ultimate phase were forecast to produce a higher number of external trips. The proposed retail plaza that faces Caron Street and the adjacent Community Facilities can be easily accessed from the interior of the subdivision without having to enter Caron Street.

5.3.2 Pass-by Trip Reduction

A pass-by trip refers to a trip where a patron stops at a location, such as a gas station, grocery store, bank, barber, quick-service restaurant without significantly altering their original route. In short, these motorists would have already been driving on the adjacent road and simply decided for convenience reasons to “save a trip” when passing by. The above land uses often rely on pass-by traffic for patronage. This traffic study assumed a 25% rate for pass-by trips⁷ associated with the proposed retail plaza facing Caron Street. Additionally, a 40% pass-by trip reduction was applied to the trips attributed to the proposed community facility.

⁷ Trip Generation Manual, Institute of Transportation Engineers, 11th Edition. Vehicle pass-by rate for shopping plazas are between 22% and 59%, with a 40% average rate. A 25% pass-by rate was selected to remain conservative.

5.4 TRAFFIC GENERATION BY DEVELOPMENT PHASE

The traffic generation rates and directional splits described within Table 5-1 and Table 5-2 were applied to the forecast land uses for the Caron subdivision development.

5.4.1 Traffic Generation: Five-Year (2031) Horizon: [Phases 1 and 2]

Table 5-3 provides a forecast of development-generated vehicle trips along with applicable trip reductions during both morning and afternoon peak hours of travel demand for the first two phases of the proposed Caron development. It was assumed, for the purpose of this TIA, that Phase 1 & 2 (588 units and 25,830 ft² GFA commercial) would rely exclusively on the single David Street access.

Table 5-3: Development-Generated Trips: Five-Year (2031) Horizon: [Phase 1-&2]

Trip Generation Rate	Size	Variable	Dwelling Type	Vehicle Trips			
				Morning Peak Hour		Afternoon Peak Hour	
				Inbound	Outbound	Inbound	Outbound
Land Use 210- Single-Family Detached Housing	133	Dwelling Units	Singles	23	70	79	46
Land Use 215 - Single-Family Attached Housing	249		Semi-Detached and Traditional Townhomes	30	90	84	58
Land Use 220 – Multifamily Housing (Low-Rise)	206		Stacked Townhomes and Low-rise Apartments (3 storeys above commercial space)	20	63	66	39
a) Total Residential				73	223	229	143
Land Use 822 - Strip Retail Plaza (<40,000 sqft) [Ground-floor retail in mixed-use buildings]	25.8	1000s sqft GLA	b) Total Commercial	37	24	85	85
Unadjusted Total (a+b)				110	247	314	228
Trip Reduction Component	Reduction Rate	Notes	Vehicle Trips				
			Morning Peak Hour		Morning Peak Hour		
			Inbound	Outbound	Inbound	Outbound	
Internal Trip Capture - Commercial Component (c1)	35%	Internal Capture Rate	-13	-8	-30	-30	
Internal Trip Capture - Residential Component (c2)		Residential trips matching the above	-8	-13	-30	-30	
c) Internal Trip Reduction (c1 + c2)			-21	-21	-60	-60	
Total (a+b+c)				89	226	254	168

Internal Trip Component – 35% of the vehicle trips attributed to the commercial component of the mixed-use buildings were assumed to originate from inside the subdivision. The ground-floor commercial component is more likely to contain local businesses serving the immediate adjacent community and are less likely to attract trips from outside the community.

5.4.2 Traffic Generation: Ten-Year (2037) Horizon: [Phases 1-thru-5]

Table 5-4 provides a forecast of development-generated vehicle trips during both morning and afternoon peak hours of travel demand for the first five phases of the proposed Caron development.

Table 5-4: Development-Generated Trips: Ten-Year (2037) Horizon: [Phase 1-thru-5]

Trip Generation Rate	Size	Variable	Dwelling Type	Vehicle Trips			
				Morning Peak Hour		Afternoon Peak Hour	
				Inbound	Outbound	Inbound	Outbound
Land Use 210- Single-Family Detached Housing	387	Dwelling Units	Singles	68	203	229	135
Land Use 215 - Single-Family Attached Housing	728		Semi-Detached and Traditional Townhomes	87	262	245	170
Land Use 220 – Multifamily Housing (Low-Rise)	235		Stacked Townhomes and Low-rise Apartments (3 storeys above commercial space)	23	71	76	44
a) Total Residential				178	536	550	349
Land Use 822 - Strip Retail Plaza (<40,000 sqft) [Ground-floor retail in mixed-use buildings]	38.75	1000s SF GLA	b) Retail Plaza	128	37	128	128
Unadjusted Total (a+b)				306	573	678	477
Trip Reduction Component	Reduction Rate	Notes	Vehicle Trips				
			Morning Peak Hour		Morning Peak Hour		
			Inbound	Inbound	Inbound	Inbound	
Internal Trip Capture – Commercial Component (c1)	35%	Internal capture rate	-19	-13	-45	-45	
Internal Trip Capture – Residential Component (c2)		Residential trips matching the above	-13	-19	-45	-45	
c) Internal Trip Reduction (c1 + c2)			-32	-32	-90	-90	
Total (a+b+c)			201	541	588	387	

Internal Trip Component: 35% of the vehicle trips attributed to the commercial component of the mixed-use buildings were assumed to originate from inside the subdivision. The ground-floor commercial component is more likely to contain local businesses serving the immediate adjacent community and are less likely to attract trips from outside the community.

This TIA study determined (See Table 4-3) that:

- the east leg of the Bronze Avenue/ Caron Street intersection would be required to be in place by the 2032 horizon year or at the time when Phase 3 of the proposed Caron development is scheduled to commence.
- The two accesses [David Street (by way of Street “E”) and Caron Street (by way of Bronze Avenue/Street “A”)] would serve the development up to the end of the 2037-time horizon when Phase 5 would be completed (when 1,350 units and 38,750 ft2 GFA commercial would be in place.)

5.4.3 Traffic Generation: Ultimate Build-out (2043) Horizon: [Phase 1-through-8]

Table 5-4 provides a forecast of development-generated vehicle trips during both morning and afternoon peak hours of travel demand for all 8 phases of the development. The remaining 3 phases would be serviced by the following 4 additional accesses:

- Phase 7 would be serviced by a 3rd access along a south extension of Clubhouse Drive (that would connect to David Street).
- Phase 6 would be serviced by a 4th access along Street “B” which would be designated as a major collector roadway (recognizing a potential future connection to the west to St. Jean Blvd).
- Phase 8 would be served by a 5th access along Street “C” which would be designated a minor collector roadway.
- Lastly, an 6th access to the proposed commercial area fronting Caron Street (located roughly midway between the Bronze Avenue and Street “B”) would be provided to access the community facility, the proposed Caron commercial lands and the parkland area of the development.

Table 5-5: Development-Generated Trips: Ultimate Build-out (2043) Horizon: [Phase 1-thru-8]

Trip Generation Rate	Size	Variable	Dwelling Type	Vehicle Trips			
				Morning Peak Hour		Afternoon Peak Hour	
				Inbound	Outbound	Inbound	Outbound
Land Use 210- Single-Family Detached Housing	580	Dwelling Units	Singles	102	305	343	202
Land Use 215 - Single-Family Attached Housing	1110		Semi-Detached and Traditional Townhomes	133	400	373	259
Land Use 220 – Multifamily Housing (Low-Rise)	840		Stacked Townhomes/ Low-rise Apartments (3 storeys above commercial space)	81	255	270	159
Land Use 221 – Multifamily Housing (Mid-Rise)	310		4 Storey Apartment Buildings	26	88	74	47
a) Total Residential				342	1,048	1,060	667
Commercial Area within mixed-use buildings	73.19	1000's SF GLA	Commercial Area within low-rise mixed-use buildings	104	69	241	241
Commercial Area 1: (Caron Street frontage). With Supermarket	101.43		Commercial 1 (Bix box Grocery Store Anchor e.g. Loblaw's/Walmart)	222	136	440	476
Commercial Area 2: (Local Node) With Supermarket	60.82		Commercial 2 (small Grocery Store Anchor (e.g. Sobey's, Metro, FreshCo, Food Basics, Farm Boy, No Frills etc.))	133	82	264	286
b) Total Retail				459	287	945	1,003
Land Use 525 - High School	800	Students		283	133	54	58
c) Total Institutional				283	133	54	58
Total Unadjusted Vehicle Trips (a+b+c)				1,084	1,468	2,059	1,728
Trip Reduction		Reduction	Notes				
(d1) Internal Trip Capture - Commercial component		25%	Internal community capture rate	-115	-72	-236	-251
(d2) Internal Trip Capture - Residential component matching commercial		-	Residential trips matching the above	-72	-115	-251	-236
(d3) Commercial Area 1 (Caron Street Frontage) - Pass-by Trip Reduction (d3)		25%	Pass-by trips already on Caron Street making a stop at the plaza	-34	-34	-110	-110
(d4) Institutional Trip Reduction for walking / active modes		35%	Given the density of adjacent uses and assuming adequate active transportation provisions	-99	-47	-19	-20
(d5) Institutional Trip Pass-By Reduction		40%*		-53	-53	-22	-22
d) Internal and Pass-By Trip Reductions (d1-thru-d5)				-373	-321	-638	-639
Total (a+b+c+d)				711	1,147	1,421	1,089

(d1/d2): Internal Trip Component – 25% of the vehicle trips attributed to all proposed commercial developments were assumed to originate from inside the subdivision. The lower rate selected in the ultimate 2043 horizon (vs. 35% previously) is due to large commercial plazas proposed at this stage, which are more likely to contain external traffic generators (i.e. grocery stores, discount department stores, specialty retail)

(d3): 25% of the trips attributed to the Caron Street commercial plaza were assumed to be pass-by trips,

* Institutional Pass-by traffic: 40% of the unadjusted off-peak direction trips were assumed to be pass-by trips for the proposed community facility.

Table 5-6 provides a summary of the forecast traffic generation for each development phase.

Table 5-6: Traffic Generation Summary by Phase

Development Phases of Proposed Caron Subdivision	Site-Generated External Vehicle Trips					
	Morning Peak Hour			Afternoon Peak Hour		
	Inbound	Outbound	Total	Inbound	Outbound	Total
5-year Horizon (2031) Phase 1-2	89	226	315	254	168	422
10-Year Horizon (2037) Phase 1-5	201	541	742	588	387	975
20-Year Horizon (2043) Phase 1-8	711	1,147	1,858	1,421	1,089	2,510

5.5 TRAFFIC DISTRIBUTION

The following section addresses the methodology used to distribute site-generated traffic throughout the study area network. The methodology referenced information from the City’s 2019 Multi-Modal Transportation Master Plan (MMTMP), along with existing travel demand within the periphery of the study area. Most of the existing traffic was found to be destined to the north and west of the proposed development. (i.e. toward/from downtown Rockland, County Road 17 and the City of Ottawa).

5.5.1 Traffic Distribution: Five-Year (2031) and Ten-Year (2037) Horizon

Table 5-7 highlights the traffic distribution assumptions adopted for both the commercial and residential traffic for the first five phases of the Caron development.

Table 5-7: Traffic Distribution: 5-Year (2031) & 10-Year (2037): Residential & Commercial

Destined to (from)	Traffic Distribution Proportion			
	Morning Peak Hour		Afternoon Peak Hour	
	INBOUND		OUTBOUND	
	Off-Peak Direction	Peak Direction	Off-Peak Direction	Peak Direction
East Tucker Road (towards Hwy 17 - east)	25.00%	15.00%	15.00%	25.00%
North Caron St. (towards Hwy 17 - west)	45.00%	51.00%	51.00%	45.00%
West Bronze Ave	18.00%	23.80%	23.80%	18.00%
West Baseline Road (CR35)	8.40%	8.16%	8.16%	8.40%
East Baseline Road (CR35)	3.60%	2.04%	2.04%	3.60%
Total	100.00%	100.00%	100.00%	100.00%

5.5.2 Traffic Distribution: Ultimate (2043) Horizon [Phase 1-thru-8]

The following tables address the traffic distribution patterns associated with the residential and commercial/institutional components of the Caron development at the time of the 2043-time horizon when the Caron Subdivision has been completed and if occupied.

- Table 5-8 represents the residential component of the development, and
- Table 5-9 represents the commercial/institutional/retail component of the development.

Table 5-8: Traffic Distribution: Ultimate (2043) Horizon: Residential Traffic

<i>Destined to (from)</i>	<i>Traffic Distribution Proportion</i>			
	Morning Peak Hour		Afternoon Peak Hour	
	INBOUND		OUTBOUND	
	Off-Peak Direction	Peak Direction		Off-Peak Direction
East Tucker Road (towards Hwy 17 - east)	25.00%	15.00%	15.00%	25.00%
North Caron St. (towards Hwy 17 - west)	30.00%	36.00%	36.00%	30.00%
West Bronze Ave	33.00%	38.80%	38.80%	33.00%
West Baseline Road (CR35)	8.40%	8.16%	8.16%	8.40%
East Baseline Road (CR35)	3.60%	2.04%	2.04%	3.60%
Total	100.00%	100.00%	100.00%	100.00%

Table 5-9: Traffic Distribution: Ultimate (2043) Horizon: Commercial/Institutional Traffic

<i>Destined to (from)</i>	<i>Traffic Distribution Proportion</i>			
	Morning Peak Hour		Afternoon Peak Hour	
	INBOUND		OUTBOUND	
	Off-Peak Direction	Peak Direction		Off-Peak Direction
East Tucker Road (towards Hwy 17 - east)	15.00%	15.00%	15.00%	15.00%
North Caron St. (towards Hwy 17 - west)	35.00%	35.00%	35.00%	35.00%
West Bronze Ave	40.00%	40.00%	40.00%	40.00%
West Baseline Road (CR35)	5.00%	5.00%	5.00%	5.00%
East Baseline Road (CR35)	5.00%	5.00%	5.00%	5.00%
Total	100.00%	100.00%	100.00%	100.00%

The primary difference between the interim (Table 5-7) and ultimate (Table 5-8 & Table 5-9) horizon-year traffic distribution trends is recognition that the capacity of the Caron Street North corridor is limited to a single lane in each direction with a single centre left turn lane. The ultimate traffic distribution trends assume a greater diversion to the Bronze Avenue West corridor to reach the Sterling Avenue/St. Joseph corridor and the St. Jean/Montee Poupart corridor to travel to the north-west.

5.6 ACCESS ASSIGNMENT

The following sections describe the traffic assignment to each of the proposed six accesses connecting to the subdivision.

5.6.1 Access Assignment: Five-Year (2031) Horizon: [Phases 1 and 2]

All site generated traffic, to the end of the 2031 horizon year (assuming Phases 1 and 2 of the Caron development is completed and occupied), was assigned to the David Street (Street “E”) subdivision access.

5.6.2 Access Assignment: Ten-Year (2037) Horizon: [Phases 1-through-5]

Traffic for the ten-year (2037) horizon was assigned to the following sub-division accesses:

- 60% of all trips (residential + commercial) were assigned to the Bronze Avenue/Caron Street, and
- 40% of all site generated traffic were assigned to the David Street (Street “E”) access.

5.6.3 Access Assignment: Ultimate Build-out (2043)) [Phases 1-through-8]

Table 5-10 highlights the adopted assumptions for the (2043) time horizon attributed to the residential, commercial and community facilities components of the development. site-generated traffic.

Table 5-10: Trip Assignment, Residential Trips

<i>Subdivision Access</i>		<i>Proportion of Traffic Assigned to ...</i>		
		<i>Residential</i>	<i>Commercial</i>	<i>Community Facilities</i>
1	David Street / Street "E"	15%	0%	0%
2	Caron Street / Street "A" - Bronze Ave	35%	30%	0%
3	David Street / Club House Drive	20%	5%	0%
4	Caron Street / Commercial – Community Facilities	0%	50%	100%
5	Caron Street / Street "B" (Major collector)	20%	10%	0%
6	Caron Street / Street "C"	10%	5%	0%
Total		100%	100%	100%

5.7 SITE-GENERATED TRAFFIC BY HORIZON YEAR

Site generated traffic represents only the component of traffic that would be generated by, and attributable to, the proposed Caron Street development. The following exhibits serve to illustrate the traffic generated by the proposed Caron development for each of the selected horizon years adopted by this traffic impact assessment (TIA) report.

- Exhibit 5-1 represents the traffic generated by the Caron development at the end of the five-year (2031) time horizon when Phases 1 & 2 are completed which would see 588 dwellings and 25,830 SF of commercial space occupied.
- Exhibit 5-2 represents the traffic generated by the Caron development at the end of the ten-year (2037) time horizon when Phases 3-thru-5 are also completed which would see 1,350 dwellings and 38,750 SF of commercial space occupied.
- Exhibit 5-3 represents the traffic generated by the Caron development at the end of almost two decades (2043) when Phases 1-thru-8 are planned for completion. At this time the entire planned Caron development would consist of 2,840 dwellings, 235,000 SF of gross leasable area of commercial space, community facilities and greenspace/parks etc.

The exhibits also illustrate the traffic control determined to be necessary for each horizon year at each access location.

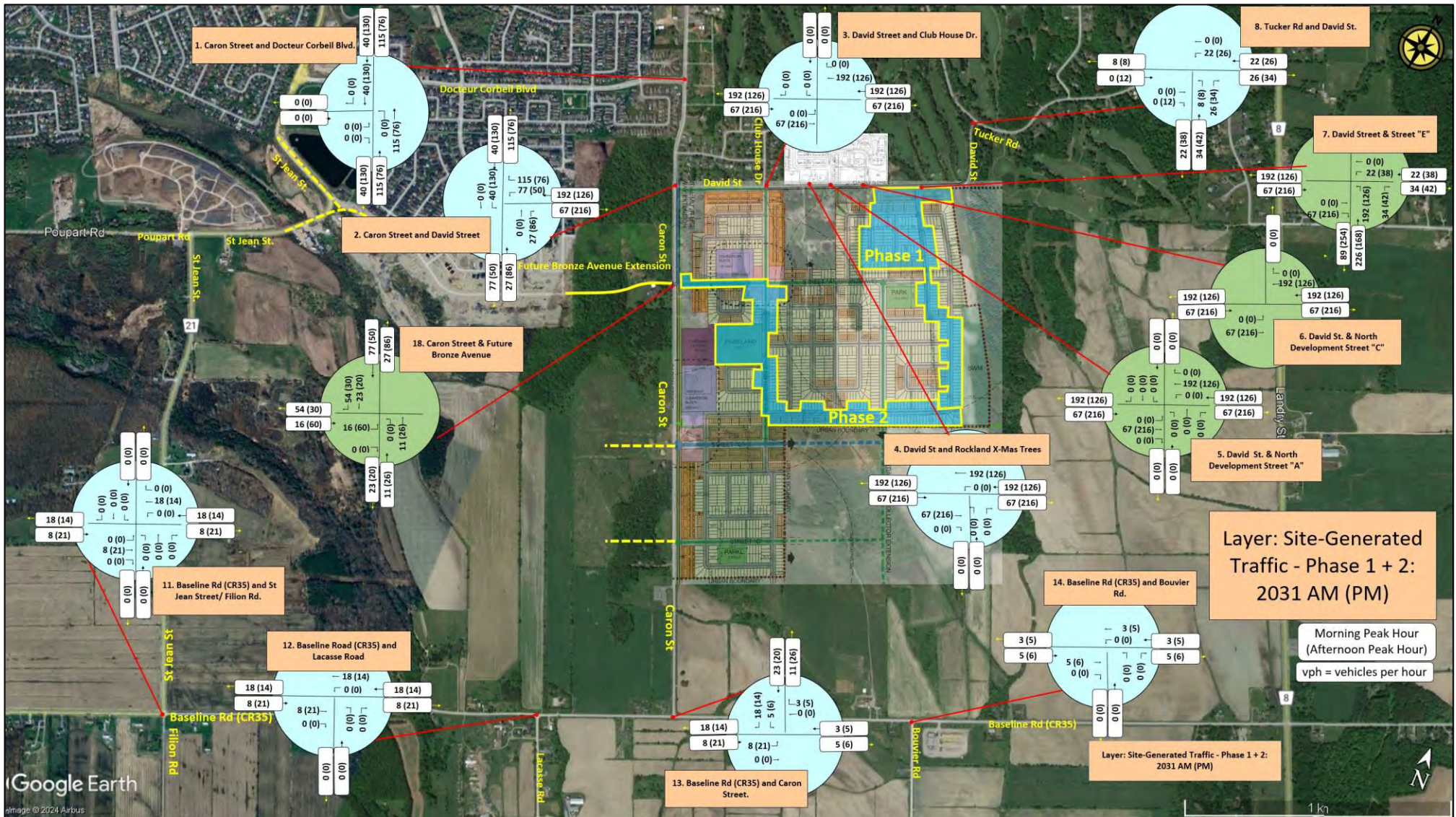


Exhibit 5-1 Site-Generated Traffic: Five-Year (2031) Horizon [Phases 1 and 2]

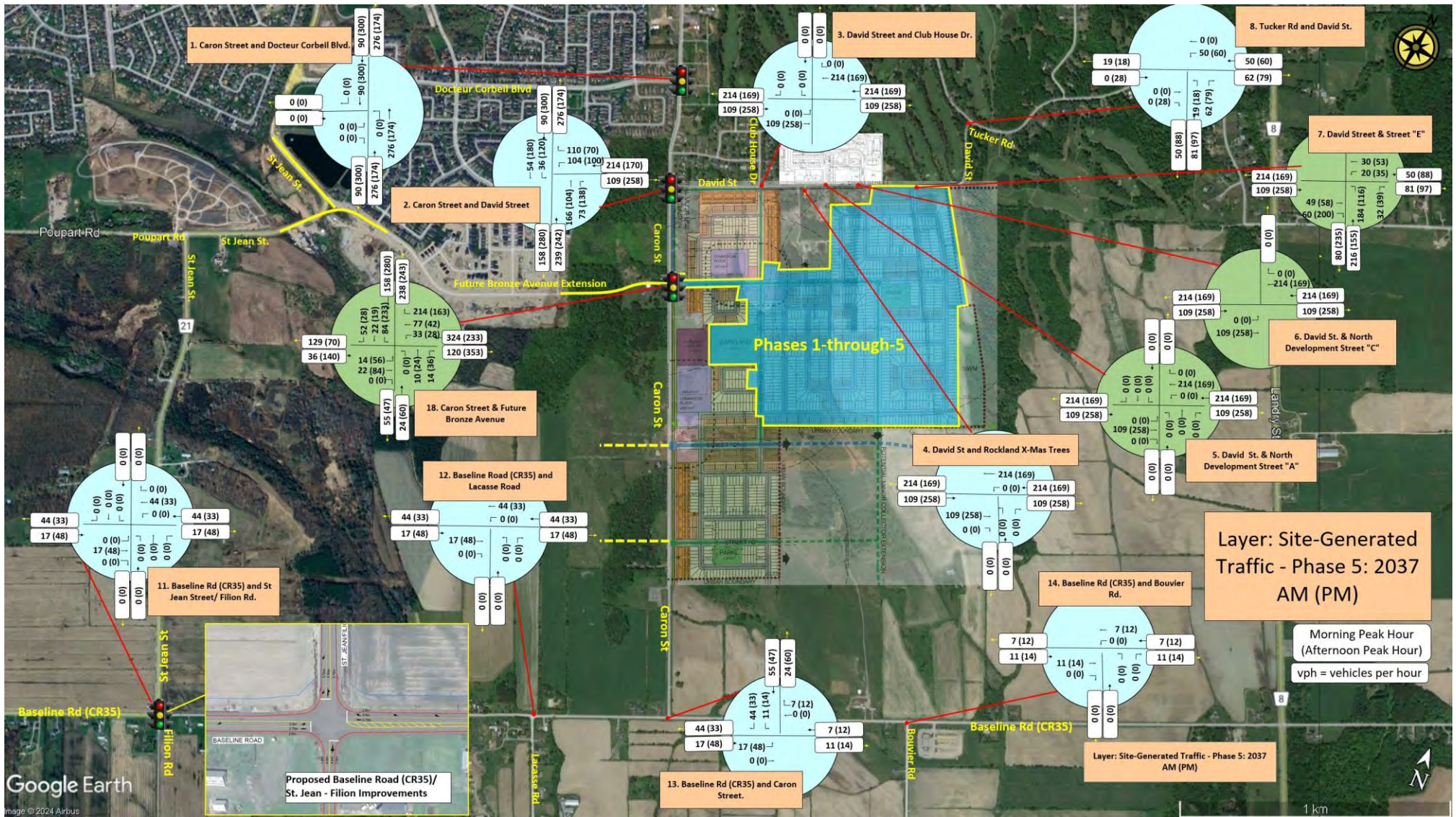


Exhibit 5-2 Site-Generated Traffic: Ten-Year (2037) Horizon: [Phases 1-through-5]

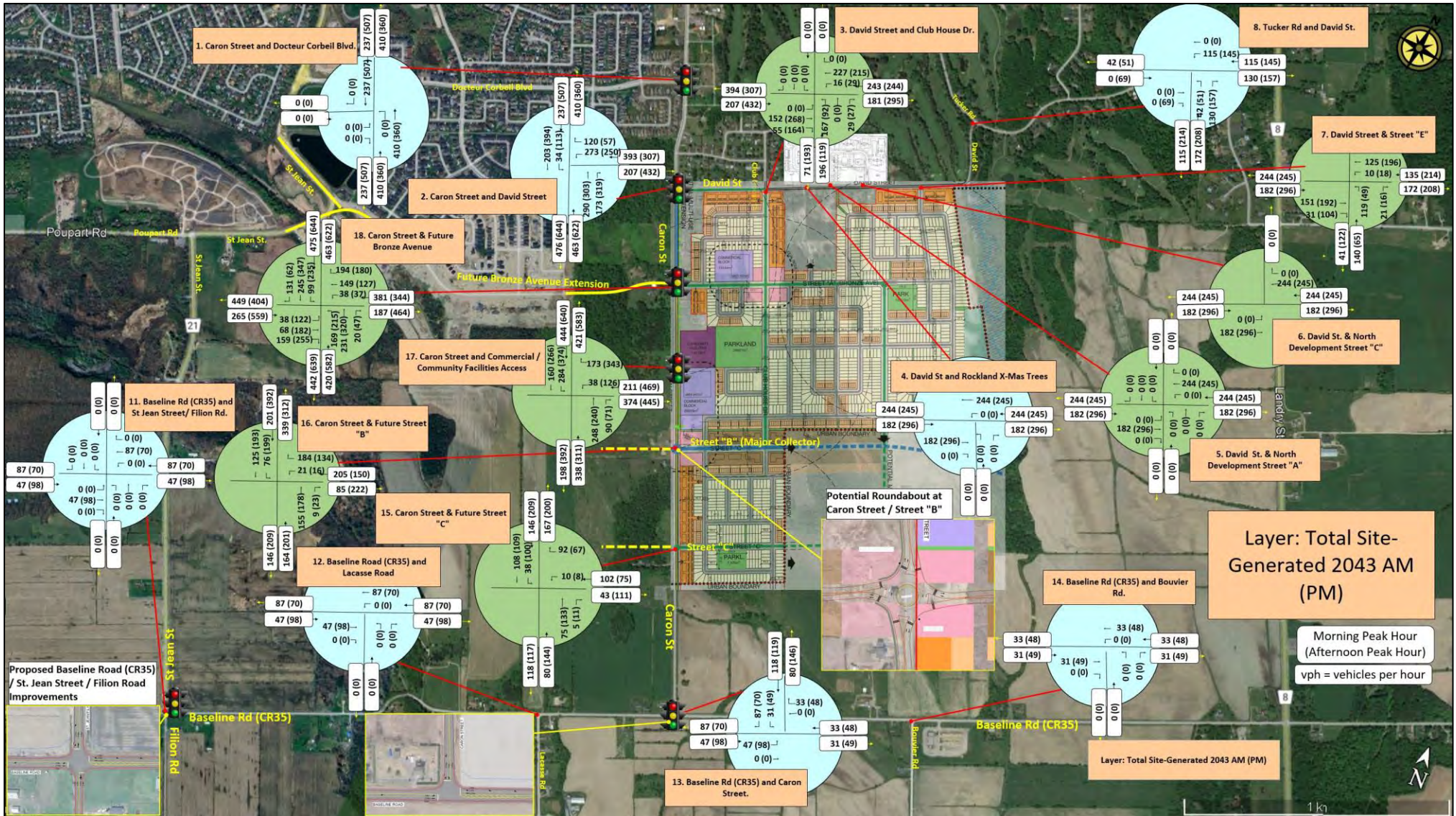


Exhibit 5-3 Site-Generated Traffic: Ultimate Build-out (2043) [Phases 1-8]

6.0 FORECAST TRAFFIC AND ANALYSES

The following sections provide traffic forecasts for each horizon year assuming the following two scenarios:

- a) Without the proposed Caron development in place, and
- b) With the proposed Caron development in place.

Scenario “a” represents the base-line condition that Scenario “b” was compared to. This permits identification of the impacts that are attributable to the proposed Caron Development as opposed to the growth that would occur along the corridors independent of the Caron Development.

6.1 BACKGROUND TRAFFIC FORECASTS [WITHOUT DEVELOPMENT IN PLACE]

Background traffic forecasts have been prepared for each of the following three horizon years assuming the proposed Caron subdivision is **not** in place.

- Exhibit 6-1 illustrates the traffic forecasts that represent the five-year (2031) horizon year.
- Exhibit 6-2 illustrates the traffic forecasts that represent the ten-year (2037) horizon year, and
- Exhibit 6-3 illustrates the traffic forecasts that are representative of the buildout horizon year (2043) almost two decades in the future.

The values within these exhibits were used to provide a basis of comparison of what infrastructure works would be necessary, for each horizon year, independent of the proposed Caron development.

6.2 TOTAL TRAFFIC FORECASTS [WITH DEVELOPMENT IN PLACE]

Traffic forecasts have been prepared for each of the following three horizon years assuming the proposed Caron subdivision would be in place.

- Exhibit 6-4 illustrates the traffic forecasts that represent a five-year (2031) horizon year from the assumed time when construction would commence (late 2026) when Phases 1 & 2 of the development are assumed to be completed and occupied.
- Exhibit 6-5 illustrates the traffic forecasts that represent a ten-year (2037) horizon year when Phases 1-through-5 are assumed to have been completed and occupied, and
- Exhibit 6-6 illustrates the traffic forecasts representative of the 2043 horizon year when Phases 1-through-8 are assumed to have been completed and occupied.

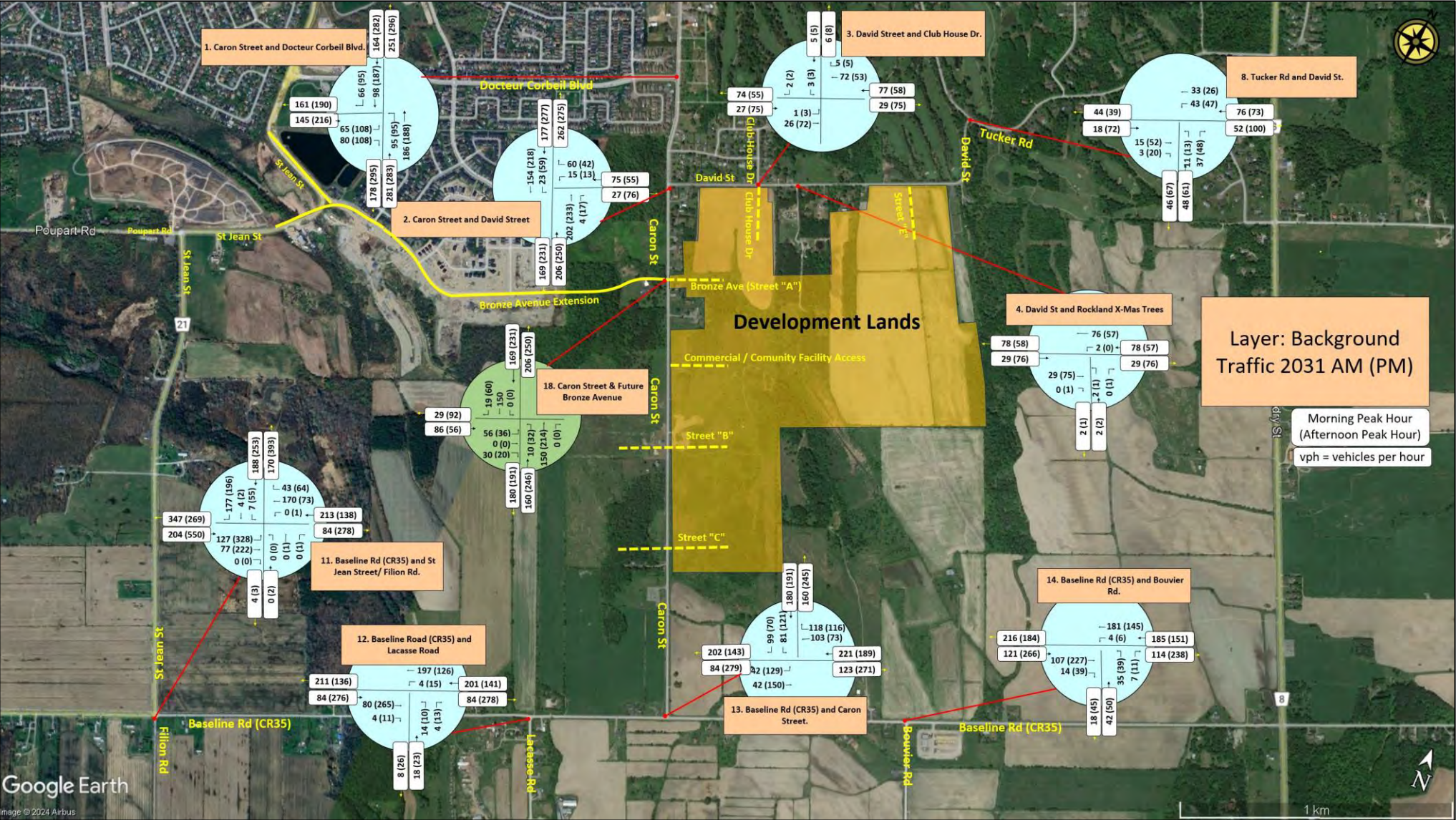


Exhibit 6-1 Background 2031 Traffic Volumes: Without Development

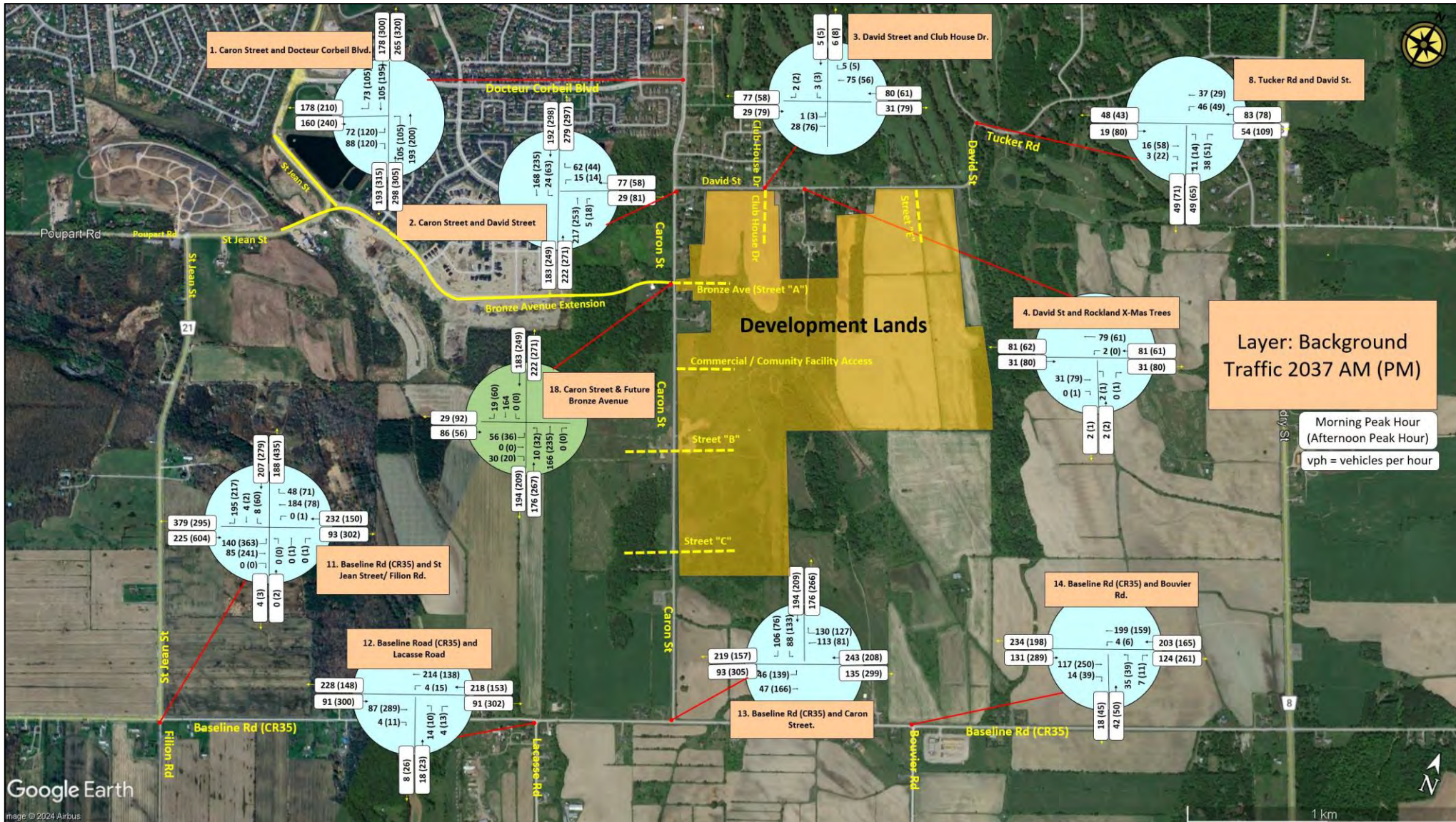


Exhibit 6-2 Background 2037 Traffic Volumes: Without Development

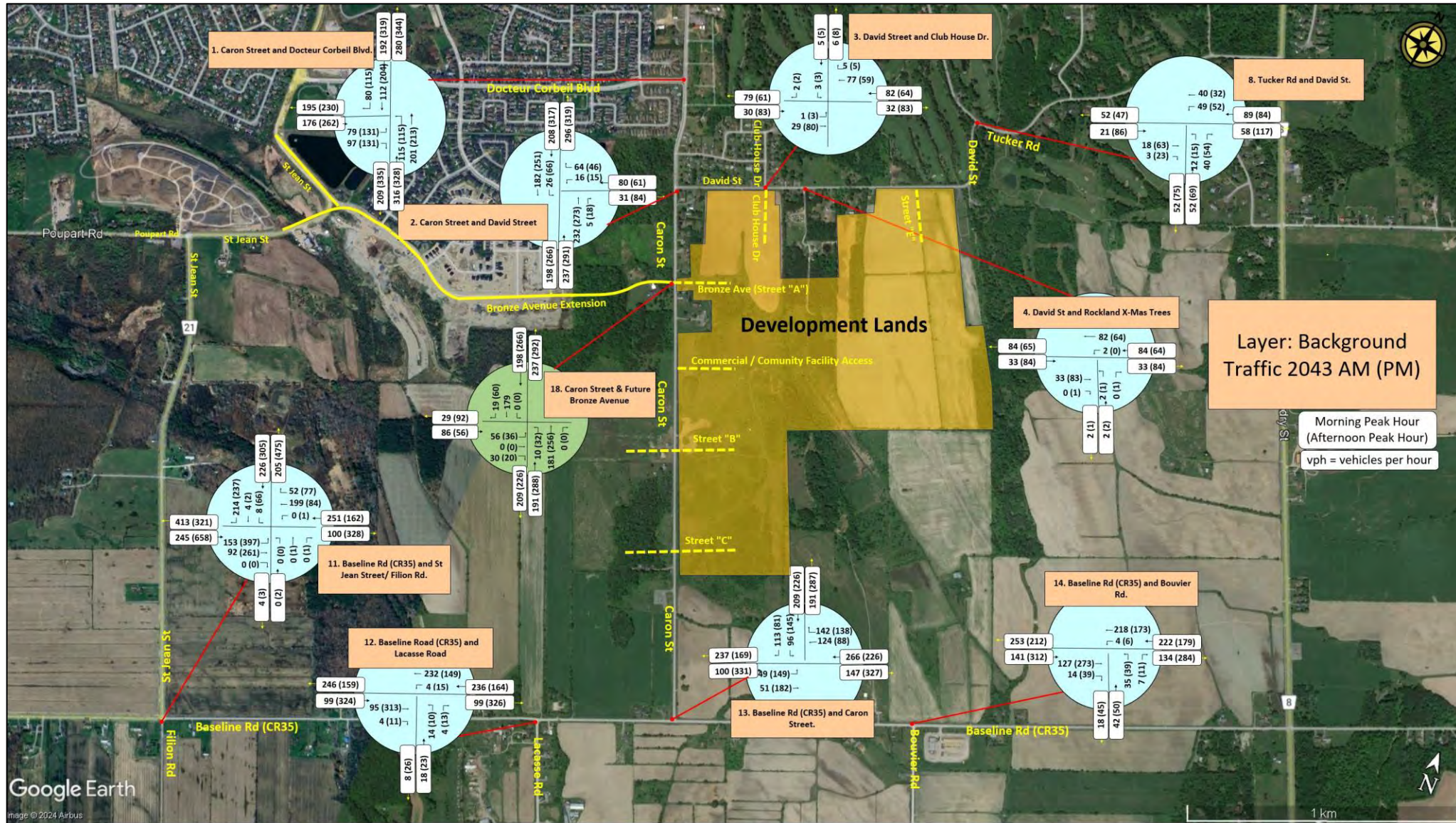


Exhibit 6-3 Background 2043 Traffic Volumes: Without Development

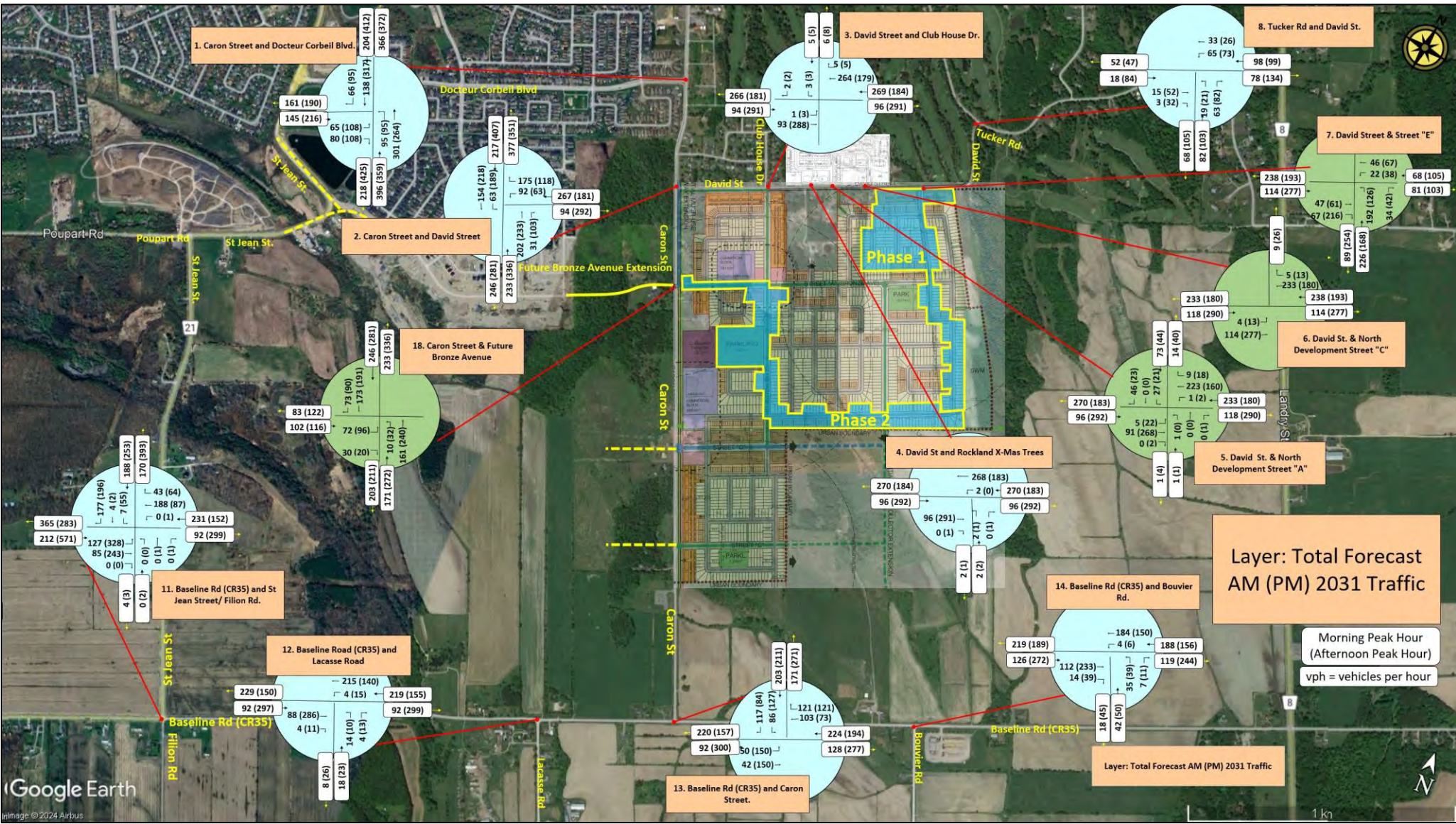


Exhibit 6-4 Forecast Traffic Volumes (2031): With Development

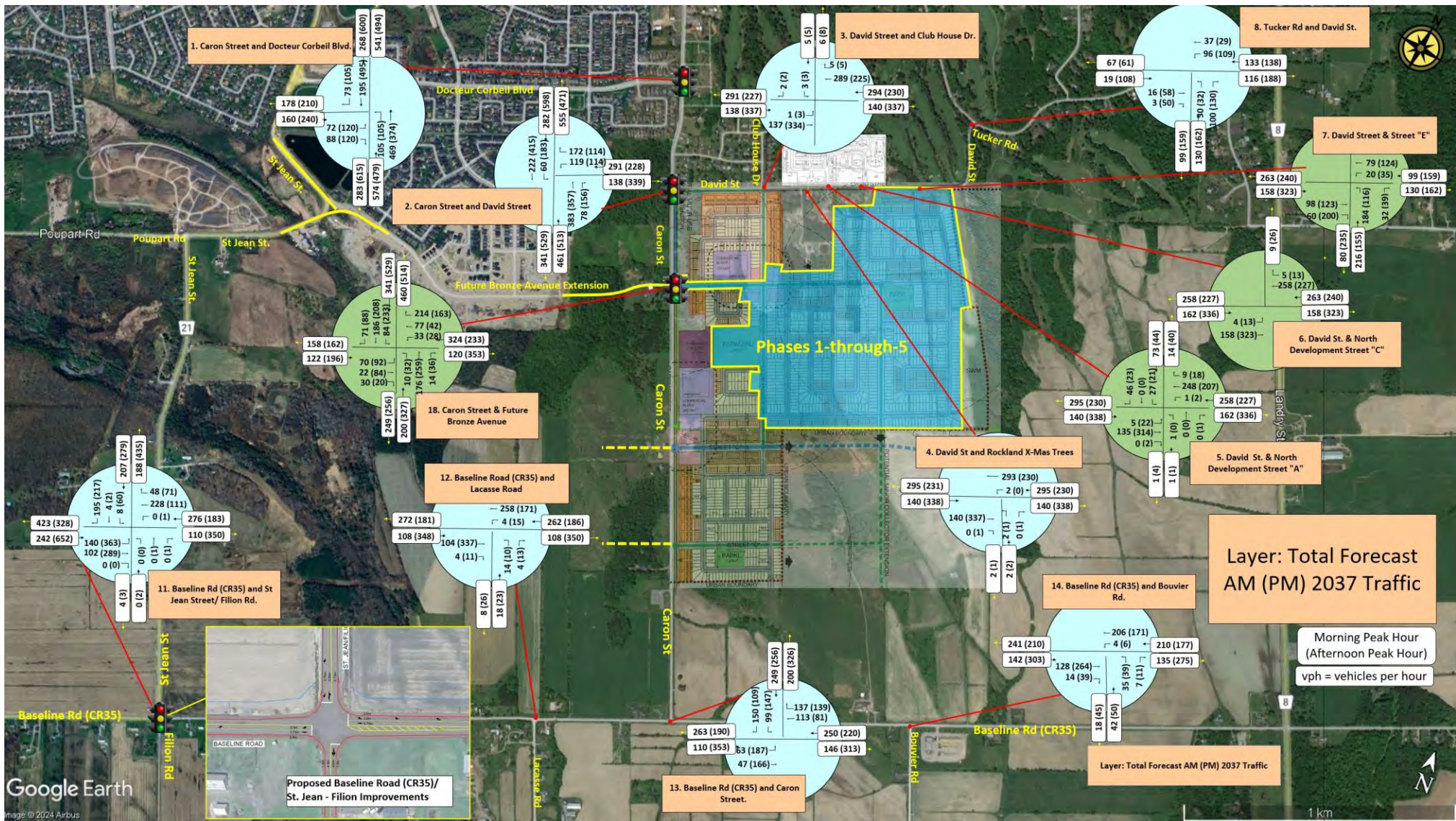


Exhibit 6-5 Forecast Traffic Volumes (2037): With Development

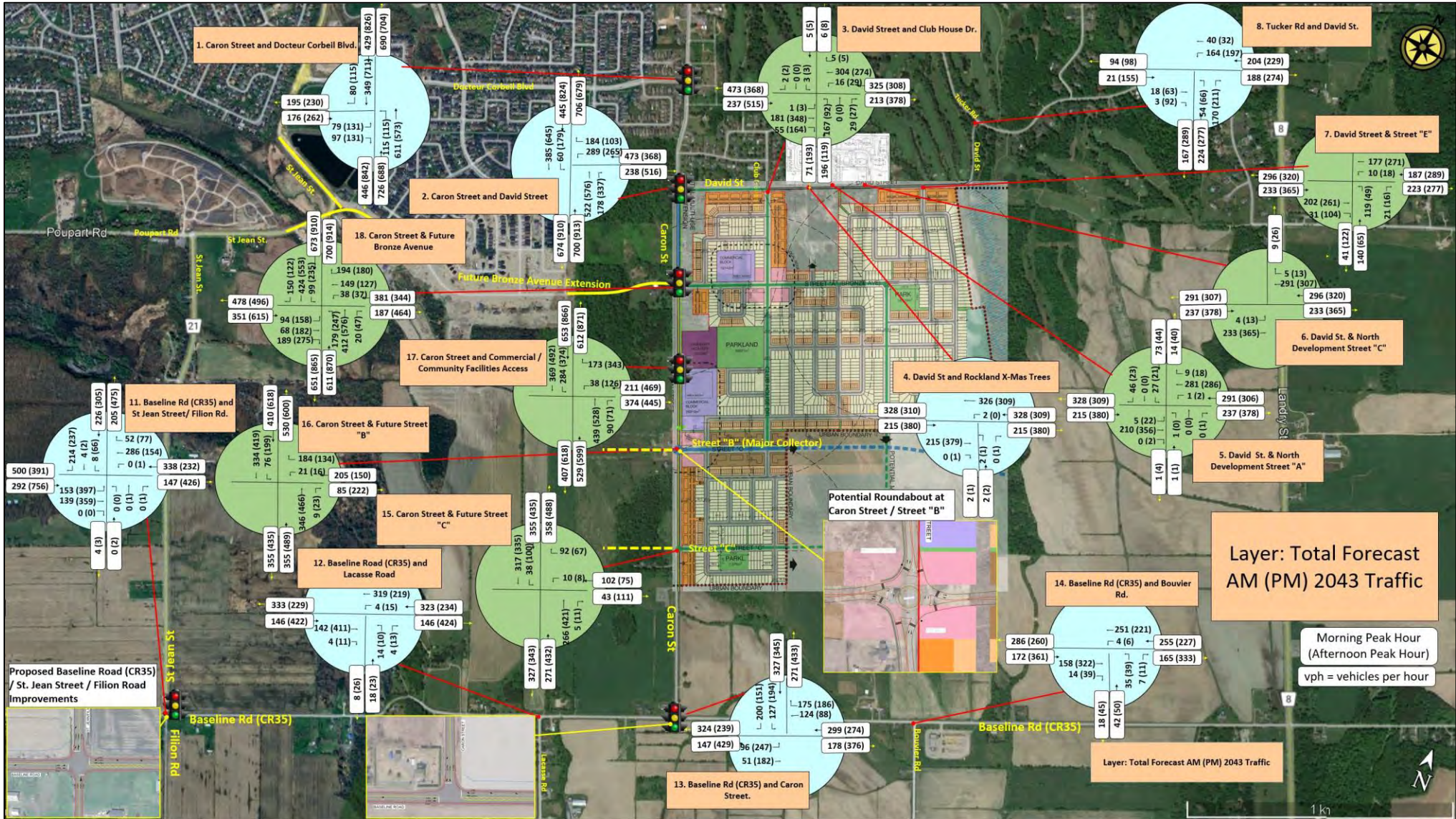


Exhibit 6-6 Forecast Traffic Volumes (2043): With Development

6.3 INTERSECTION CAPACITY ANALYSES

The following sections provide intersection capacity analysis tables and summaries of resulting traffic operations for each intersection in the study area assuming:

- Scenario (a) Without the proposed Caron development in place, and
- Scenario (b) With the proposed Caron development in place.

The three sections that follow highlight the operational conditions for critical turning movements at the various intersections for each of the horizon years (2031, 2037 and 2043).

Appendix “B-2” provides analysis output sheets for Scenario (a) background conditions, and

Appendix “B-3” provides analysis output sheets for Scenario (b) total traffic conditions.

The intersections of Poupart Road / St Jean Street and St. Jean Street / Bronze Avenue were **excluded** from this analysis given there is a significant extent of future proposed development adjacent to these two intersections that remains to be finalized.

6.3.1 Five-Year (2031) Horizon: [Phases 1 and 2]

Table 6-1 presents the intersection capacity analysis results assuming 2031 traffic both with, and without, the proposed Caron development in place. The traffic operations along the following two locations are worthy of note:

A. The David Street/Caron Street Intersection and the David Street Corridor

The effect of the Caron development’s 588 residential units and mixed-use buildings with 25,830 SF of commercial space, is essentially confined to the David Street (Street “E”) corridor and the David Street/Caron Street intersection.

- Exhibit 6-4 indicates that:
 - during the morning peak hour of travel demand approximately 192 vehicles-per-hour (vph) that are forecast to leave the Caron community by making the northbound left turn from Street “A” onto David Street. When this traffic combined with adjacent development traffic reaches the All-way STOP-Controlled Caron Street/David Street “T” intersection, the traffic splits with 66% (175 vph) headed to the north by way of a right turn and 33% (92 vph) headed to the south (to connect to the Bronze Avenue corridor and Baseline Road) by way of a left turn. The existing all-way STOP control assures an average vehicle delay of less than 10 seconds at a LOS “A” for all movements.
 - during the afternoon peak hour of travel demand approximately 216 vehicles-per-hour (vph) are forecast to return to the Caron community by making the eastbound right turn from David Street onto Street “A”. This traffic originates from the All-way STOP-Controlled Caron Street/David Street “T” intersection with 65% (189 vph) coming from the north making the left turn onto David Street and 35% (103 vph) coming from the south. The southbound left turn from Caron onto David Street is provided with a dedicated auxiliary turning lane. The existing all-way STOP control assures an average vehicle delay of less than 13.5 seconds at a LOS “B” for all movements.

This TIA concludes that by the 5-year (2031) time horizon:

- the David Street/Caron Street intersection, which represents the primary intersection that would provide access into, and out of, the Caron development, assuming its existing land configuration and all-way STOP control, is forecast to operate with satisfactory operations, and
- peak hour traffic volumes along the 1.3km length of David Street between Caron Street and Tucker Street are forecast not to exceed 300 vph in the peak direction which is below the theoretical capacity of its “local” roadway designation. However, as traffic continues to grow along the corridor, the City should consider re-designation of David Street to a “collector” status.

Table 6-1: Intersection Capacity Analyses Results: Five-Year (2031) Horizon: [Phases 1 & 2]

Intersection	Control Type	Scenario (a) WITHOUT Development in Place							Scenario (b) WITH Development in Place						
		Critical Approach/Movement	Volumes (vph)	Weekday Morning Peak Hour (Afternoon Peak Hour)				Critical Approach/Movement	Volumes (vph)	Weekday Morning Peak Hour (Afternoon Peak Hour)					
				Avg. Delay per Vehicle (seconds)	Level of Service (LOS)	95 th Percentile Queue (m)	Volume-to-Capacity Ratio (v/c)			Avg. Delay per Vehicle (seconds)	Level of Service (LOS)	95 th Percentile Queue (m)	Volume-to-Capacity Ratio (v/c)		
1	Caron St. & Dr. Corbeil Blvd.	ML STOP Control	EB	145 (216)	12.7 (16.3)	B (C)	8 (16)	0.25 (0.43)	EB	145 (216)	14.7 (27)	B (D)	9 (29)	0.3 (0.6)	
2	Caron St. & David St.	All Way STOP-control	NB	206 (250)	9.4 (9.9)	A (A)	9 (11)	0.29 (0.34)	NB	233 (336)	11.1 (13.5)	B (B)	12 (23)	0.37 (0.52)	
			WB	75 (55)	8 (9.3)	A (A)	2 (2)	0.1 (0.1)	WB	267 (181)	11 (12.8)	B (B)	14 (11)	0.39 (0.35)	
			SB-LT	23 (59)	8.5 (8.8)	A (A)	1 (2)	0.04 (0.1)	SB-LT	63 (189)	9.8 (12.2)	A (B)	3 (12)	0.12 (0.35)	
			SB-Th	154 (218)	9.2 (10.3)	A (B)	7 (11)	0.23 (0.33)	SB-Th	154 (218)	10.4 (11.9)	B (B)	8 (14)	0.26 (0.38)	
3	David St. & Club House Dr. (Existing "T" Intersection Config.)	ML STOP-control	SB	5 (5)	9.1 (9.2)	A (A)	0 (0)	0.01 (0.01)	SB	5 (5)	10.9 (11.4)	B (B)	0 (0)	0.01 (0.01)	
4	David St. & Rockland X-Mas Trees	ML STOP-control	NB	2 (2)	9.1 (9)	A (A)	0 (0)	0.01 (0.01)	NB	2 (2)	11 (11)	B (B)	0 (0)	0.01 (0.01)	
5	David S. & North Dvlpmnt St. "A"	ML STOP-control	SB	73 (44)	9 (9.1)	A (A)	2 (2)	0.08 (0.05)	SB	73 (44)	10.5 (11.1)	B (B)	3 (2)	0.11 (0.07)	
6	David S. & North Dvlpmnt St. "C"	ML STOP-control	EB-LT	4 (13)	7.3 (7.4)	A (A)	0 (0)	0.01 (0.01)	EB-LT	4 (13)	7.8 (7.7)	A (A)	0 (0)	0.01 (0.01)	
8	David St. & Tucker Rd/Outaouais	ML STOP-control	NB	48 (61)	8.8 (9.1)	A (A)	2 (2)	0.05 (0.07)	NB	82 (103)	9.1 (9.5)	A (A)	2 (3)	0.09 (0.12)	
			SB	3 (2)	8.3 (9.2)	A (A)	0 (0)	0.01 (0.01)	SB	3 (2)	8.4 (9.4)	A (A)	0 (0)	0.01 (0.01)	
			EB	188 (253)	9 (12.3)	A (B)	8 (15)	0.25 (0.42)	EB	188 (253)	9.1 (12.6)	A (B)	8 (16)	0.26 (0.42)	
			WB	204 (550)	10.1 (29.1)	B (D)	10 (71)	0.3 (0.83)	WB	212 (571)	10.2 (33.7)	B (D)	11 (81)	0.32 (0.88)	
11	Baseline Rd. (CR35) & St Jean St.-Filion Rd.	All Way STOP-control	WB	213 (138)	9.7 (9.8)	A (A)	10 (6)	0.3 (0.22)	WB	231 (152)	10 (10.2)	B (B)	11 (8)	0.33 (0.25)	
			NB	18 (23)	10.2 (11.1)	B (B)	1 (1)	0.03 (0.04)	NB	18 (23)	10.4 (11.3)	B (B)	1 (1)	0.03 (0.04)	
			SB	180 (191)	11.6 (16.4)	B (C)	8 (14)	0.26 (0.4)	SB	203 (211)	12 (18.3)	B (C)	10 (18)	0.3 (0.46)	
			NB	42 (50)	10.6 (11.6)	B (B)	2 (2)	0.07 (0.09)	NB	42 (50)	10.7 (11.7)	B (B)	2 (2)	0.07 (0.09)	
18	Caron St. & Future Bronze Ave.	ML STOP-control	EB	86 (56)	10.9 (11.9)	B (B)	4 (2)	0.13 (0.11)	EB	102 (116)	11.9 (16.2)	B (C)	5 (8)	0.18 (0.28)	

Values outside of brackets represent morning peak hour results. Values inside brackets represent afternoon peak hour results.

Bold font indicates approach or turning movement is congested.

ML-Minor Leg, NB-Northbound, SB-Southbound, EB-Eastbound, WB-Westbound, LT-Left turn, Th-Through Movement, RT-Right Turn

B. The Baseline Road (CR35) / St. Jean Street-Filion Road Intersection

Exhibit 6-7 illustrates the All-Way STOP-controlled Baseline Road / St. Jean Street-Filion Road intersection in July of 2022.

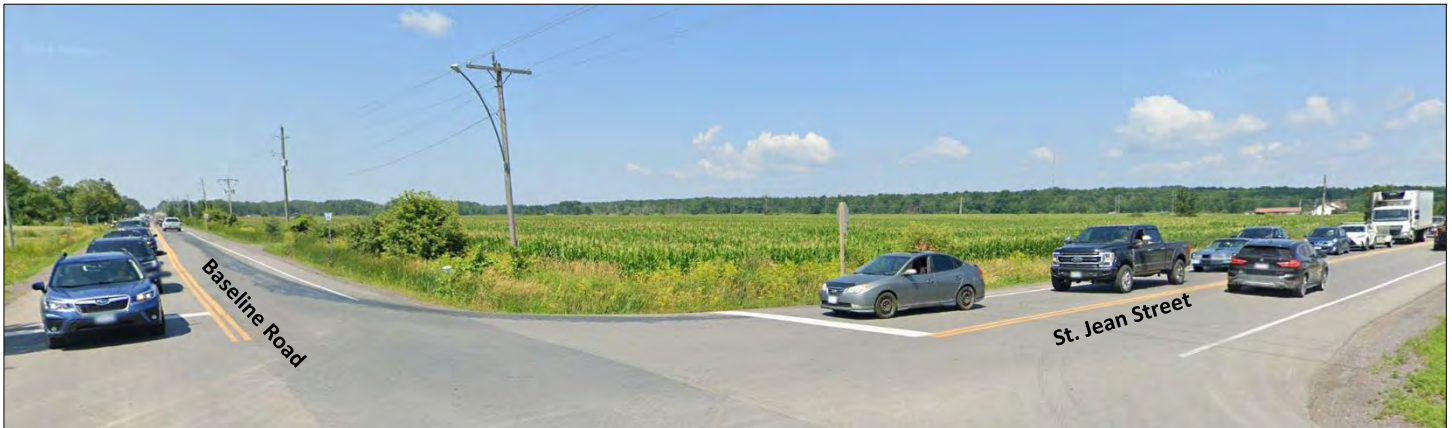


Exhibit 6-7: Baseline Road / St. Jean Street Intersection (July 2022) [Looking North-West]

- Exhibit 6-8 indicates the results of the 2024 traffic count undertaken on Wednesday, October 16th, 2204. The exhibits clearly illustrate, that during the 2024 afternoon peak hour of travel demand the eastbound approach traffic on Baseline Road reached 451 vph and the southbound approach traffic on St. Jean Street reached 222 vph.

- Exhibit 6-4 illustrates that within the 5-years (2031) time horizon during the afternoon peak hour of travel demand eastbound traffic on Baseline Road is anticipated to grow by 27% (to 571 vph) and southbound traffic on St. Jean Street by 14% (to reach 253 vph).
- The traffic operational results (See Table 6-1) indicate that with, or without the Caron Subdivision in place, the Baseline Road / St. Jean Street-Filion Road intersection’s eastbound approach was determined during the afternoon peak hour of travel demand to operate at a LOS “D”.



- with the Caron subdivision in place a volume-to-capacity (v/c) ratio of 0.88 results with average delays-per-vehicle approaching 34 seconds and average (95th percentile) queues reaching 11 vehicles.
- without the Caron subdivision in place a volume-to-capacity (v/c) ratio of 0.83 results with average delays-per-vehicle just exceeding 29 seconds and average (95th percentile) queues reaching 10 vehicles.

These results are both indicative of an “existing” congested traffic condition worsened by natural background traffic growth and are independent of the Caron subdivision’s development.

C. All Other Intersections

Table 6-1 indicates that the other adjacent intersections in the study area within the five-year time horizon were all found to operate acceptably at a level of service “C”-or-better, whether the proposed Caron subdivision (Phases 1 & 2) is in place and occupied, or not. The traffic operational results are satisfactory.

6.3.2 Ten-Year (2037) Horizon: [Phases 1-through-5]

Table 6-2 presents the intersection capacity analysis results assuming a 10-year (2037) horizon both with, and without, the proposed Caron development (Phases 1-thru-5) in place. The effect of the Caron development in this time frame would see Phases 1-thru-5 completed and occupied resulting in 1,350 residential units with some mixed-use buildings and approximately 38,750 SF of commercial leasable area.

- The unshaded rows in Table 6-2 indicate the operational performance of the various intersections assuming forecast 2037 traffic volumes operating on the existing or five-year (2031) time horizon lane configurations / traffic controls. The yellow-shaded cells represent specific turning movements where operations are forecast to be constrained.
- The tan shaded rows in Table 6-2 indicate the identified intersection modifications (traffic signals, auxiliary lanes, signage, lane markings etc.) thought necessary to assure satisfactory operations during the ten-year (2037) time horizon.

Table 6-2 indicates that following locations will require operational upgrades from their current or 2031 configuration / traffic control:

A. Caron Street Intersections

Intersection 1. Caron Street & Docteur Corbeil Boulevard

This existing intersection is currently configured with an eastbound approach from Docteur Corbeil onto Caron Street configured with a single 3.5m wide motor-vehicle lane and an adjacent 2m wide bike lane. The eastbound approach is STOP controlled on Docteur Corbeil. The existing motor-vehicle operation along Caron is free-flow.



This configuration was analyzed using the 10-year (2037) forecast traffic volumes and determined to exhibit failure (LOS “F”) operations for the eastbound approach with delays exceeding 1.5 minutes and a v/c ratio of 1.03. The reason for the poor operations is the largely attributable to the new Caron Phase (Phases 1-thru-5) development which would see southbound traffic volumes essentially double from 300-to-600 vph and northbound traffic volumes increase from 305-to-480 vph. When combined, the northbound and southbound traffic volumes result in over 1,080 vph with an average time gap between north-south vehicles of only 3.3 seconds which is insufficient to accommodate turning movements from Docteur Corbeil.

Table 6-2: Intersection Capacity Analyses Results: Ten-Year (2037) Horizon: [Phases 1-thru-5]

Intersection	Control Type	Scenario (a) WITHOUT Development in Place						Scenario (b) WITH Development in Place						
		Critical Approach/Movement	Volumes (vph)	Weekday				Critical Approach/Movement	Volumes (vph)	Weekday				
				Morning Peak Hour (Afternoon Peak Hour)		95 th Percentile Queue (m)	Volume-to-Capacity Ratio (v/c)			Morning Peak Hour (Afternoon Peak Hour)		95 th Percentile Queue (m)	Volume-to-Capacity Ratio (v/c)	
Avg. Delay per Vehicle (seconds)	Level of Service (LOS)	Avg. Delay per Vehicle (seconds)	Level of Service (LOS)	Avg. Delay per Vehicle (seconds)	Level of Service (LOS)									
1 Caron St. & Dr. Corbeil Blvd.	ML STOP control	EB	160 (240)	13.5 (20.6)	B (C)	9 (23)	0.29 (0.54)	EB	160 (240)	21.1 (106.4)	C (F)	17 (77)	0.44 (1.03)	
	NEW Traffic-Signal Controlled	EB-LT/RT						EB-LT/RT	160 (240)	13.4 (20.3)	B (C)	17 (33)	0.26 (0.64)	
		NB-LT						NB-LT	105 (105)	6.6 (11.6)	A (B)	12 (19)	0.17 (0.35)	
		NB-Th						NB-Th	469 (374)	8.2 (9.1)	A (A)	50 (46)	0.46 (0.41)	
2 Caron St. & David St.	All Way STOP-control	NB	222 (271)	9.7 (10.3)	A (B)	10 (13)	0.31 (0.37)	NB	461 (513)	25.2 (37.9)	D (E)	55 (80)	0.78 (0.89)	
		WB	77 (58)	8.1 (9.4)	A (A)	3 (2)	0.11 (0.1)	WB	291 (228)	14.8 (18)	B (C)	22 (21)	0.51 (0.51)	
		SB-LT	24 (63)	8.5 (8.8)	A (A)	1 (2)	0.04 (0.1)	SB-LT	60 (183)	10.6 (13.7)	B (B)	3 (13)	0.12 (0.38)	
		SB-Th	168 (235)	9.4 (10.6)	A (B)	8 (12)	0.26 (0.36)	SB-Th	222 (415)	13.6 (30.6)	B (D)	16 (59)	0.42 (0.81)	
	NEW Traffic-Signal Controlled	WB-LT/RT						WB-LT/RT	291 (228)	16.8 (22.9)	C (C)	31 (33)	0.68 (0.69)	
		NB-Th/RT						NB-Th/RT	461 (513)	12.2 (9.9)	B (A)	64 (63)	0.58 (0.53)	
		SB-Th						SB-Th	222 (415)	8.4 (9.8)	A (A)	10 (53)	0.16 (0.48)	
		SB-LT						SB-LT	60 (183)	9.1 (13.7)	A (B)	26 (33)	0.25 (0.45)	
3 David St. & Club House Dr. (Existing "T" Intersection Config.)	ML STOP-control –	SB	5 (5)	9.2 (9.3)	A (A)	0 (0)	0.01 (0.01)	SB	5 (5)	11.4 (12.2)	B (B)	0 (0)	0.01 (0.01)	
4 David St. & Rockland X-Mas Trees	ML STOP-control	NB	2 (2)	9.1 (9)	A (A)	0 (0)	0.01 (0.01)	NB	2 (2)	11.6 (11.7)	B (B)	0 (0)	0.01 (0.01)	
5 David S. & North Dvlpmnt St. "A"	ML STOP-control	SB	73 (44)	9 (9.2)	A (A)	2 (2)	0.08 (0.05)	SB	73 (44)	11 (11.8)	B (B)	3 (2)	0.12 (0.08)	
6 David S. & North Dvlpmnt St. "C"	ML STOP-control	EB-LT	4 (13)	7.3 (7.4)	A (A)	0 (0)	0.01 (0.01)	EB-LT	4 (13)	7.8 (7.8)	A (A)	0 (0)	0.01 (0.01)	
7 David S. & Street "E"	ML STOP-control							NB	216 (155)	12.2 (13.5)	B (B)	11 (9)	0.32 (0.29)	
8 David St. & Tucker Rd/Outaouais	ML STOP-control	NB	49 (65)	8.8 (9.2)	A (A)	2 (2)	0.05 (0.08)	NB	130 (162)	9.5 (10.3)	A (B)	4 (6)	0.15 (0.21)	
11 Baseline Rd. (CR35) & St Jean St.-Fillion Rd.	All Way STOP-control	NB	3 (2)	8.5 (9.6)	A (A)	0 (0)	0.01 (0.01)	NB	3 (2)	8.7 (9.9)	A (A)	0 (0)	0.01 (0.01)	
		SB	207 (279)	9.4 (13.7)	A (B)	9 (20)	0.29 (0.48)	SB	207 (279)	9.8 (14.3)	A (B)	9 (20)	0.3 (0.5)	
		EB	225 (604)	10.6 (46.1)	B (E)	11 (103)	0.34 (0.94)	EB	242 (652)	11.1 (69.5)	B (F)	13 (137)	0.37 (1.03)	
		WB	232 (150)	10.2 (10.4)	B (B)	11 (8)	0.33 (0.25)	WB	276 (183)	11.1 (11.3)	B (B)	14 (10)	0.4 (0.32)	
	NEW Minor leg (N-S) STOP control with EB-LT and SB-LT aux lanes	NB	3 (2)	15.3 (21.3)	C (C)	0 (0)	0.01 (0.01)	NB	3 (2)	16.5 (23.5)	C (C)	0 (0)	0.01 (0.01)	
		EB-LT	140 (363)	8.2 (8.5)	A (A)	3 (8)	0.12 (0.28)	EB-LT	140 (363)	8.3 (8.7)	A (A)	3 (9)	0.12 (0.29)	
		SB-LT	8 (60)	15.2 (57.8)	C (F)	1 (17)	0.02 (0.50)	SB-LT	8 (60)	16.4 (73.3)	C (F)	1 (21)	0.03 (0.58)	
		SB-Th/RT	199 (219)	11.4 (10.6)	B (B)	8 (8)	0.28 (0.27)	SB-Th/RT	199 (219)	11.9 (11.1)	B (B)	2 (9)	0.30 (0.29)	
	NEW Traffic-Signal Control (assumed semi-actuated phasing)	EB-LT	140 (363)	19.0 (23.6)	B (C)	19 (58)	0.54 (0.76)	EB-LT	140 (363)	21.4 (22.3)	C (B)	22 (53)	0.55 (0.75)	
		EB-TH	85 (241)	11.1 (12.4)	B (B)	11 (27)	0.21 (0.42)	EB-TH	102 (289)	13.1 (13.5)	B (B)	15 (35)	0.26 (0.47)	
		WB	232 (150)	13.1 (6.4)	B (A)	24 (12)	0.50 (0.24)	WB	276 (183)	17.7 (7.2)	B (A)	34 (16)	0.60 (0.28)	
		NB	3 (2)	6.3 (7.5)	A (A)	1 (1)	0.01 (0.01)	NB	3 (2)	8.0 (11.0)	A (B)	1 (1)	0.01 (0.01)	
	SB-LT	8 (60)	6.9 (9.1)	A (A)	2 (8)	0.01 (0.11)	SB-LT	8 (60)	8.8 (13.3)	A (B)	3 (11)	0.01 (0.12)		
	SB-Th-RT	199 (279)	2.4 (2.9)	A (A)	8 (9)	0.22 (0.30)	SB-Th-RT	199 (279)	3.2 (4.0)	A (A)	10 (12)	0.26 (0.33)		
12 Baseline Rd. (CR35) & Lacasse Rd.	ML STOP-control	NB	18 (23)	10.4 (11.4)	B (B)	1 (1)	0.03 (0.04)	NB	18 (23)	10.8 (12)	B (B)	1 (1)	0.03 (0.05)	
13 Baseline Road (CR35) & Caron St.	ML STOP-control – Existing Configuration	SB	192 (209)	12.1 (19)	B (C)	9 (19)	0.29 (0.47)	SB	249 (256)	13.3 (27.5)	B (D)	14 (34)	0.39 (0.65)	
14 Baseline Road (CR35) & Bouvier St.	ML STOP-control	NB	42 (50)	10.8 (11.9)	B (B)	2 (2)	0.07 (0.1)	NB	42 (50)	11 (12.2)	B (B)	2 (2)	0.07 (0.1)	
18 Caron St. & Future Bronze Ave.	ML STOP-control	EB	86 (56)	11.6 (13)	B (B)	4 (3)	0.15 (0.12)	EB	122 (196)	39.1 (641.6)	E (F)	24 (141)	0.57 (2.2)	
		WB						WB	324 (233)	22.2 (129.1)	C (F)	34 (83)	0.64 (1.09)	
	NEW Traffic-Signal Control (Assumes Permissive Phasing Only)	EB-LT							EB-LT	70 (92)	16.7 (17.5)	C (C)	12 (15)	0.3 (0.36)
		EB-Th							EB-Th	22 (84)	13 (14.7)	B (B)	5 (13)	0.07 (0.24)
		WB-LT							WB-LT	33 (28)	14 (13.6)	B (B)	7 (6)	0.13 (0.11)
		WB-Th							WB-Th	77 (42)	14.8 (13.4)	B (B)	12 (8)	0.23 (0.12)
		NB-LT							NB-LT	10 (32)	6 (6.5)	A (A)	2 (5)	0.02 (0.05)
		NB-Th/RT							NB-Th/RT	176 (259)	6.3 (7.1)	A (A)	17 (27)	0.18 (0.29)
SB-LT							SB-LT	84 (233)	6.7 (9.9)	A (A)	9 (28)	0.13 (0.4)		
SB-Th							SB-Th	186 (208)	6.6 (6.9)	A (A)	17 (19)	0.18 (0.2)		

Values outside of brackets represent morning peak hour results. Values inside brackets represent afternoon peak hour results.
ML-Minor Leg, NB-Northbound, SB-Southbound, EB-Eastbound, WB-Westbound, LT-Left turn, Th-Through Movement, RT-Right Turn

Indicates approach or turning movement is constrained or operating at failure levels of service.

It is worthwhile to note that the Caron Street corridor north of Bronze Avenue does not provide sufficient right-of-way to permit consideration of a roundabout as a potential alternative solution to the forecast poor operational performance.



The Caron Street & Docteur Corbeil Boulevard intersection was determined to require traffic signals by the 2037-time horizon along with specialized cycling signals to connect the MUP along the east side of Caron Street to the dedicated bike lanes along Docteur Corbeil.

Intersection 2. Caron Street & David Street Intersection,

This existing intersection is currently configured as an all-way STOP controlled “T” intersection. Caron Street provides a dedicated southbound left-turn auxiliary lane, a raised median on the south leg of the intersection and a single lane approach on the east leg of the intersection.



The all-way STOP configuration was analyzed using the 10-year (2037) forecast traffic volumes and determined to exhibit congested (LOS “E”) operations for the northbound approach with average vehicle delays exceeding 38 seconds, a v/c ratio of 0.89 and 95th percentile queues extending 10 vehicles in length. The north-south traffic volumes during the afternoon peak hour are anticipated to be over 1,100 vph by the 2037 time-horizon. This intersection was determined to require traffic signals by the 2037-time horizon.

Intersection 18. NEW Caron Street & Future Bronze Avenue Intersection:

This new intersection was estimated to be required sometime prior to the ten-year (2037) time horizon. It was estimated that the intersection would initially be developed as a “T” intersection to assure that Bronze Avenue would be continuous between Sr. Jean Street and Caron Street. This assumed that the development to the west of Caron (Spacebuilders-Landrock) would be completed prior to the east leg (associated with the proposed Caron development) being necessary after the ten-year (2037) time horizon.

Initially, a roundabout configuration was envisioned for this intersection, however the Caron Street corridor north of Bronze Avenue does not provide sufficient right-of-way to permit consideration of a roundabout as a potential alternative solution. (See Appendix “D” for conceptual layout of roundabout vs. traffic-signal control/ed intersection.)

Table 6-2 indicates the requirements for this intersection at the ten-year (2037) time horizon assuming the Morris Village Stage 6 development on the east side of Caron Street and Phase 1-thru-5 of the Caron development on the west side of the development would be completed. The table clearly indicates that minor-leg STOP control will result in failure levels of service (LOS “F”) and significant queuing. This intersection was determined to require traffic signals by the 2037-time horizon. (See Appendix “D-2” for a conceptual layout of the traffic-signal controlled intersection.)

B. Baseline Road Intersections

Intersection No. 11: Baseline Road (CR35) / St. Jean Street-Filion Road

Table 6-2 indicates that at the ten-year (2037) time horizon this All-Way STOP controlled intersection, during the afternoon peak hour of travel demand, even **without the Caron Subdivision in place**, is forecast to ...

- exhibit congested conditions with the eastbound movement on the west leg of the intersection forecast to operate at a LOS “E”, with queues extending the length of 15 passenger vehicles, a volume-to-capacity (v/c) ratio of 0.94 and average vehicle delays of 45 seconds/per/vehicle.

Even with the advent of new EB-LT and SB-LT auxiliary lanes and limiting STOP control to both north and south legs, satisfactory operation cannot be achieved as the SB-LT movement (estimated at 60 vph) is anticipated to operate at a LOS “F” with an average delay-per-vehicle forecast to be 1 minute-per-vehicle.

- Table 6-2 indicates that by the 2037-time horizon satisfactory traffic operations could be achieved with traffic signals at this intersection.
- It is emphasized that the need for signalization at this intersection is triggered more, by the developments in the vicinity of Poupart and St. Jean (Brigil/Spacebuilders), than the proposed Caron development.
- The County of Prescott-Russel is encouraged to monitor the traffic volumes at this intersection and determine if traffic signal warrants involving an 8-hour time frame would be triggered that could confirm the need and justification for signalization within the ten-year time frame. Exhibit 6-5 does not illustrate signalization at this intersection for the 10-year time frame as the peak hours on their own may not satisfy the required warrants.

With the proposed Caron Subdivision in place, by 2037 ...:

- Table 6-2 indicates that this intersection will require traffic signals (assuming semi-actuated phasing) with new auxiliary EB-LT and SB-LT lanes to assure satisfactory traffic operations.
- A roundabout configuration was also proven to result in satisfactory operational requirements.

6.3.3 Ultimate (2043) (Phases 1-through-8) [Build-out]

Table 6-3 presents the intersection capacity analysis results assuming a 20-year (2043) time horizon both with, and without, the proposed Caron development (Phases 1-thru-8) in place. The Caron development in this time frame would see Phases 1-thru-8 completed and occupied resulting in a total of 2,840 residential units, a community facility (assumed to be a school for the purposes of this TIA) and approximately 235,000 SF of commercial leasable area. In short, the 20-year time horizon more than doubles the 10-year development forecast.

A. Caron Street Intersections

As indicated in the previous section three of the intersections along Caron Street, (Docteur Corbeil Boulevard, David Street, and Bronze Avenue) were all identified as requiring traffic signals to be in place sometime on or before the ten-year time horizon. Table 6-3 further substantiates this conclusion and indicates that traffic signals at these 3 intersections will absolutely be warranted by the 20-year (2043) time horizon for each of the above intersections.

Table 6-3: Intersection Capacity Analyses Results: Ultimate Build-Out (2043) Horizon: [Phases 1-thru-8]

Intersection	Control Type	Scenario (a) WITHOUT Development in Place						Scenario (b) WITH Development in Place					
		Critical Approach/Movement	Volumes (vph)	Weekday Morning Peak Hour (Afternoon Peak Hour)				Critical Approach/Movement	Volumes (vph)	Weekday Morning Peak Hour (Afternoon Peak Hour)			
				Avg. Delay per Vehicle (seconds)	Level of Service (LOS)	95 th Percentile Queue (m)	Volume-to-Capacity Ratio (v/c)			Avg. Delay per Vehicle (seconds)	Level of Service (LOS)	95 th Percentile Queue (m)	Volume-to-Capacity Ratio (v/c)
1 Caron St. & Dr. Corbeil Blvd. Int 1, 2, 17 & 18 are multi-Signal Coordinated	ML STOP-control	EB	176 (262)	14.5 (25.1)	B (D)	11 (32)	0.34 (0.63)	EB	176 (262)	57.7 (453.1)	F (F)	23 (89)	0.58 (1.72)
	Traffic-Signal Controlled (Required by 10-year 2037 Horizon)	Traffic signals are not warranted without the Caron Development						EB-LT/RT	176 (262)	17.8 (35.6)	B (D)	22 (52)	0.57 (0.77)
		NB-LT	115 (115)	6.7 (20.7)	A (C)	14 (11)	0.23 (0.58)						
		NB-Th	611 (573)	10 (8.4)	B (A)	79 (45)	0.6 (0.57)						
SB-Th	429 (826)	6.7 (17.1)	A (B)	43 (174)	0.41 (0.78)								
2 Caron St. & David St. Int 1, 2, 17 & 18 are multi-Signal Coordinated	All Way STOP-control	NB	237 (291)	10 (10.7)	B (B)	11 (15)	0.33 (0.4)	NB	700 (913)	244.8 (399.4)	F (F)	284 (442)	1.47 (1.89)
		WB	80 (61)	8.2 (9.6)	A (A)	3 (3)	0.11 (0.11)	WB	473 (368)	60.5 (49.9)	F (E)	91 (64)	1.06 (1.01)
		SB-LT	26 (66)	8.6 (8.9)	A (A)	1 (3)	0.04 (0.11)	SB-LT	60 (179)	13.2 (18.1)	B (C)	4 (16)	0.16 (0.48)
		SB-Th	182 (251)	9.7 (11)	A (B)	8 (14)	0.28 (0.39)	SB-Th	385 (645)	48.0 (237.9)	E (F)	69 (233)	0.96 (1.61)
	Traffic-Signal Controlled (Required by 10-year 2037 Horizon)	Traffic signals are not warranted without the Caron Development						WB-LT/RT	473 (368)	51.8 (60)	D (E)	136 (89)	0.93 (0.97)
		NB-Th/RT	700 (913)	33.4 (69.3)	C (E)	189 (186)	0.9 (1.07)						
		SB-Th	385 (645)	19.1 (320.1)	B (F)	63 (53)	0.43 (1.59)						
	Traffic Signal Control with Widening to accommodate WB LT & RT Auxiliary Lanes + permissive-protected SB LT phasing (Required by 20-year 2043 Horizon)	SB-LT	60 (179)	14.1 (21.9)	B (C)	17 (118)	0.35 (0.8)	SB-LT	60 (179)	14.1 (21.9)	B (C)	17 (118)	0.35 (0.8)
		WB-LT	289 (265)	38.2 (53.8)	D (D)	69 (76)	0.73 (0.88)	WB-LT	289 (265)	38.2 (53.8)	D (D)	69 (76)	0.73 (0.88)
		WB-RT	184 (103)	6.2 (5.6)	A (A)	14 (10)	0.4 (0.22)	WB-RT	184 (103)	6.2 (5.6)	A (A)	14 (10)	0.4 (0.22)
		NB-Th	522 (576)	12.6 (34.1)	B (C)	92 (131)	0.54 (0.82)	NB-Th	522 (576)	12.6 (34.1)	B (C)	92 (131)	0.54 (0.82)
		NB-RT	178 (337)	2.5 (8.6)	A (A)	9 (28)	0.26 (0.42)	NB-RT	178 (337)	2.5 (8.6)	A (A)	9 (28)	0.26 (0.42)
		SB-Th	385 (645)	10.3 (22.4)	B (C)	60 (131)	0.38 (0.71)	SB-Th	385 (645)	10.3 (22.4)	B (C)	60 (131)	0.38 (0.71)
3 NEW David St. & Club House Dr.	ML STOP-control – 4 leg Intersection Config.	SB	5 (5)	9.2 (9.3)	A (A)	0 (0)	0.01 (0.01)	SB-LT	5 (5)	13.4 (16.7)	B (C)	0 (1)	0.01 (0.02)
		NB	196 (119)	20.6 (24.4)	C (C)	20 (14)	0.48 (0.41)						
4 David St. & Rockland X-Mas Trees	ML STOP-control	NB	2 (2)	9.2 (9)	A (A)	0 (0)	0.01 (0.01)	NB	2 (2)	12.7 (12.6)	B (B)	0 (0)	0.01 (0.01)
5 David S. & North Dvlpmt St. "A"	ML STOP-control	SB	73 (44)	9 (9.2)	A (A)	2 (2)	0.08 (0.05)	SB	73 (44)	11.6 (13.1)	B (B)	3 (2)	0.13 (0.1)
6 David S. & North Dvlpmt St. "C"	ML STOP-control	EB-LT	4 (13)	7.3 (7.4)	A (A)	0 (0)	0.01 (0.01)	EB-LT	4 (13)	7.9 (8)	A (A)	0 (0)	0.01 (0.01)
7 David S. & Street "E"	ML STOP-control	This new access would not be required without the Caron Development						NB	140 (65)	13.3 (14.3)	B (B)	8 (4)	0.26 (0.16)
8 David St. & Tucker Rd/Outaouais	ML STOP-control	NB	52 (69)	8.9 (9.3)	A (A)	2 (2)	0.06 (0.08)	NB	224 (277)	11 (13.8)	B (B)	9 (16)	0.29 (0.42)
11 Baseline Rd. (CR35) & St Jean St.-Filion Rd.	All Way STOP-control (Do Nothing)	NB	3 (2)	8.7 (10)	A (B)	0 (0)	0.01 (0.01)	NB	3 (2)	9.2 (10.7)	A (B)	0 (0)	0.01 (0.01)
		SB	226 (305)	9.9 (15.3)	A (C)	11 (23)	0.32 (0.54)	SB	226 (305)	10.9 (16.6)	B (C)	12 (24)	0.35 (0.59)
		EB	245 (658)	11.2 (76.8)	B (F)	14 (146)	0.38 (1.05)	EB	292 (756)	13.0 (148.4)	B (F)	19 (233)	0.47 (1.23)
		WB	251 (162)	10.7 (11)	B (B)	13 (8)	0.37 (0.28)	WB	338 (232)	13.5 (13.3)	B (B)	23 (15)	0.52 (0.43)
	Traffic-Signal Control (assumed semi-actuated phasing) (Required by 10-year 2037 Horizon)	EB-LT	153 (397)	20.8 (22.8)	C (C)	21 (58)	0.59 (0.78)	EB-LT	153 (397)	27.0 (26.4)	C (C)	26 (68)	0.66 (0.81)
		EB-TH	92 (261)	10.9 (11.5)	B (B)	12 (30)	0.22 (0.40)	EB-TH	139 (359)	13.4 (13.5)	B (B)	19 (44)	0.31 (0.52)
		WB	251 (162)	13.6 (5.7)	B (A)	25 (13)	0.53 (0.23)	WB	286 (232)	19.3 (8.1)	B (A)	43 (22)	0.67 (0.32)
		NB	3 (2)	7.0 (10.0)	A (B)	1 (1)	0.01 (0.01)	NB	3 (2)	8.7 (13)	A (B)	1 (1)	0.01 (0.01)
		SB-LT	8 (66)	7.4 (12.2)	A (B)	2 (12)	0.01 (0.13)	SB-LT	8 (66)	9.4 (15.8)	A (B)	3 (14)	0.01 (0.15)
SB-Th-RT	218 (239)	2.6 (3.6)	A (A)	9 (12)	0.27 (0.33)	SB-Th-RT	218 (239)	3.2 (4.5)	A (A)	10 (14)	0.30 (0.37)		
12 Baseline Rd. (CR35) & Lacasse Rd.	ML STOP-control	NB	18 (23)	10.2 (11.1)	B (B)	1 (1)	0.03 (0.04)	NB	18 (23)	10.8 (12)	B (B)	1 (1)	0.03 (0.05)
13 Baseline Road (CR35) & Caron St.	ML STOP-control	SB	180 (191)	11.6 (16.4)	B (C)	8 (14)	0.26 (0.4)	SB	327 (345)	17.9 (127.3)	C (F)	26 (113)	0.56 (1.14)
	ML STOP-control with Dedicated EB-LT and SB-LT aux. Lanes	This improvement is not required without the Caron Development						EB-LT	96 (247)	8.6 (8.6)	A (A)	2 (6)	0.09 (0.21)
		SB-LT	127 (194)	15.6 (82.3)	C (F)	9 (58)	0.29 (0.91)						
SB-RT	200 (151)	11.2 (10.3)	B (B)	8 (5)	0.27 (0.19)								

Table 6-3: Intersection Capacity Analyses Results: Ultimate Build-Out (2043) Horizon: [Phases 1-thru-8]

Intersection	Control Type	Scenario (a) WITHOUT Development in Place						Scenario (b) WITH Development in Place					
		Critical Approach/Movement	Volumes (vph)	Weekday Morning Peak Hour (Afternoon Peak Hour)				Critical Approach/Movement	Volumes (vph)	Weekday Morning Peak Hour (Afternoon Peak Hour)			
				Avg. Delay per Vehicle (seconds)	Level of Service (LOS)	95 th Percentile Queue (m)	Volume-to-Capacity Ratio (v/c)			Avg. Delay per Vehicle (seconds)	Level of Service (LOS)	95 th Percentile Queue (m)	Volume-to-Capacity Ratio (v/c)
13 Baseline Road (CR35) & Caron St. (Cont.)	Traffic Signal Control (semi-actuated) (Required by 20-year 2043 Horizon)	This improvement is not required without the Caron Development						EB-LT	96 (247)	24.3 (26.6)	C (C)	17 (40)	0.54 (0.74)
								EB-Th	51 (182)	12 (12.7)	B (B)	8 (23)	0.13 (0.35)
								WB-TH-RT-LT	299 (274)	12.1 (6)	B (A)	25 (17)	0.61 (0.42)
								SB-LT	127 (194)	8.8 (12.2)	A (B)	16 (26)	0.17 (0.3)
								SB-RT	200 (151)	2.8 (3.4)	A (A)	9 (9)	0.26 (0.22)
14 Baseline Road (CR35) & Bouvier St.	ML STOP-control	NB	42 (50)	10.6 (11.6)	B (B)	2 (2)	0.07 (0.09)	NB	42 (50)	11 (13.5)	B (B)	2 (3)	0.07 (0.11)
15 Caron St. & Street "C"	NEW Minor Leg STOP Control	This new access would not be required without the Caron Development						WB	102 (75)	11.3 (13.5)	B (B)	5 (5)	0.16 (0.16)
16 Caron St. & Street "B"	NEW Minor Leg STOP-Control "T" Intersection	This new access would not be required without the Caron Development						WB-LT	21 (16)	18.7 (38.7)	C (E)	2 (4)	0.08 (0.14)
								WB-RT	184 (134)	12.6 (13.6)	B (B)	9 (8)	0.3 (0.26)
17 Caron Street and Future Commercial / Community Facilities Access Int 1, 2, 17 & 18 are multi-Signal Coordinated	Traffic Signal Control with permissive-protected SB left turn phasing' (Required by 20-year 2043 Horizon)	This new Access with Traffic signals is not warranted without the Caron Development This was examined with Permissive Phasing but found to exhibit congested operations for the SB-LT						WB-LT	38 (126)	19.8 (38.3)	B (D)	9 (33)	0.16 (0.53)
								WB-RT	173 (343)	8.5 (10.2)	A (B)	13 (21)	0.49 (0.68)
								NB-TH	439 (528)	5.9 (27.5)	A (C)	38 (133)	0.37 (0.72)
								NB-RT	90 (71)	1.6 (5.6)	A (A)	4 (9)	0.09 (0.11)
								SB-LT	284 (374)	9.4 (17.3)	A (B)	37 (68)	0.49 (0.73)
18 Caron St. & Future Bronze Ave. Int 1, 2, 17 & 18 are multi-Signal Coordinated	ML STOP-control	EB	86 (56)	10.9 (11.9)	B (B)	4 (2)	0.13 (0.11)	EB	351 (615)	157.9 (4911)	F (F)	35 (191)	0.89 (10.99)
		The east leg of Bronze Avenue does not exist without the Caron Development						WB-LT	381 (344)	777.8 (3901)	F (F)	118 (136)	2.42 ()
	Traffic Signal Control (Required by 10-year 2037 Horizon) Permissive-protected NB and SB left turn phasing (Required by 20-year 2043 Horizon)	This east leg of this intersection with Traffic signals would not be required without the Caron Development Signal heads and Detector Loops would be required.						EB-LT	94 (158)	24.8 (43.6)	C (D)	18 (40)	0.41 (0.7)
								EB-Th	68 (182)	18.8 (32.2)	B (C)	13 (42)	0.19 (0.54)
								WB-LT	38 (37)	18.6 (26)	B (C)	9 (12)	0.15 (0.19)
								WB-Th	149 (127)	23.2 (28.3)	C (C)	25 (30)	0.43 (0.38)
								NB-LT	179 (247)	9.6 (15.6)	A (B)	25 (31)	0.41 (0.64)
								NB-Th-RT	412 (623)	8.3 (29)	A (C)	48 (147)	0.46 (0.81)
								SB-LT	99 (235)	7.7 (22.8)	A (C)	13 (48)	0.23 (0.7)
								SB-Th	424 (553)	8.3 (23.7)	A (C)	47 (113)	0.45 (0.71)

Values outside of brackets represent morning peak hour results. Values inside brackets represent afternoon peak hour results.

ML-Minor Leg, NB-Northbound, SB-Southbound, EB-Eastbound, WB-Westbound, LT-Left turn, Th-Through Movement, RT-Right Turn

☐ Indicates approach or turning movement is constrained or operating a failure levels of service.

Exhibit 6-9 illustrates the forecast 20-year (2043) traffic volumes and additional envisioned intersection improvements found to be necessary to provide sufficient traffic operations along the Caron Street corridor.

Intersection 1. Caron Street & Docteur Corbeil Boulevard Intersection

Table 6-3 indicates that the traffic signals required to address the deficiencies identified in the 5-year (2031) time horizon will continue to satisfy the 20-year (2043) time horizon with no further changes.

Intersection 2. Caron Street & David Street Intersection

Table 6-3 indicates that the traffic signal installation required to address the deficiencies identified in the 5-year (2031) time horizon are anticipated to fail (LOS “F”, v/c 1.59) for the SB-Th movement and exhibit congested conditions for the NB-Th/RT movement (LOS “E”, v/c 1.09) and WB LT/RT movement (LOS “E”, v/c 1.07) during the 20-year (2043) time horizon.

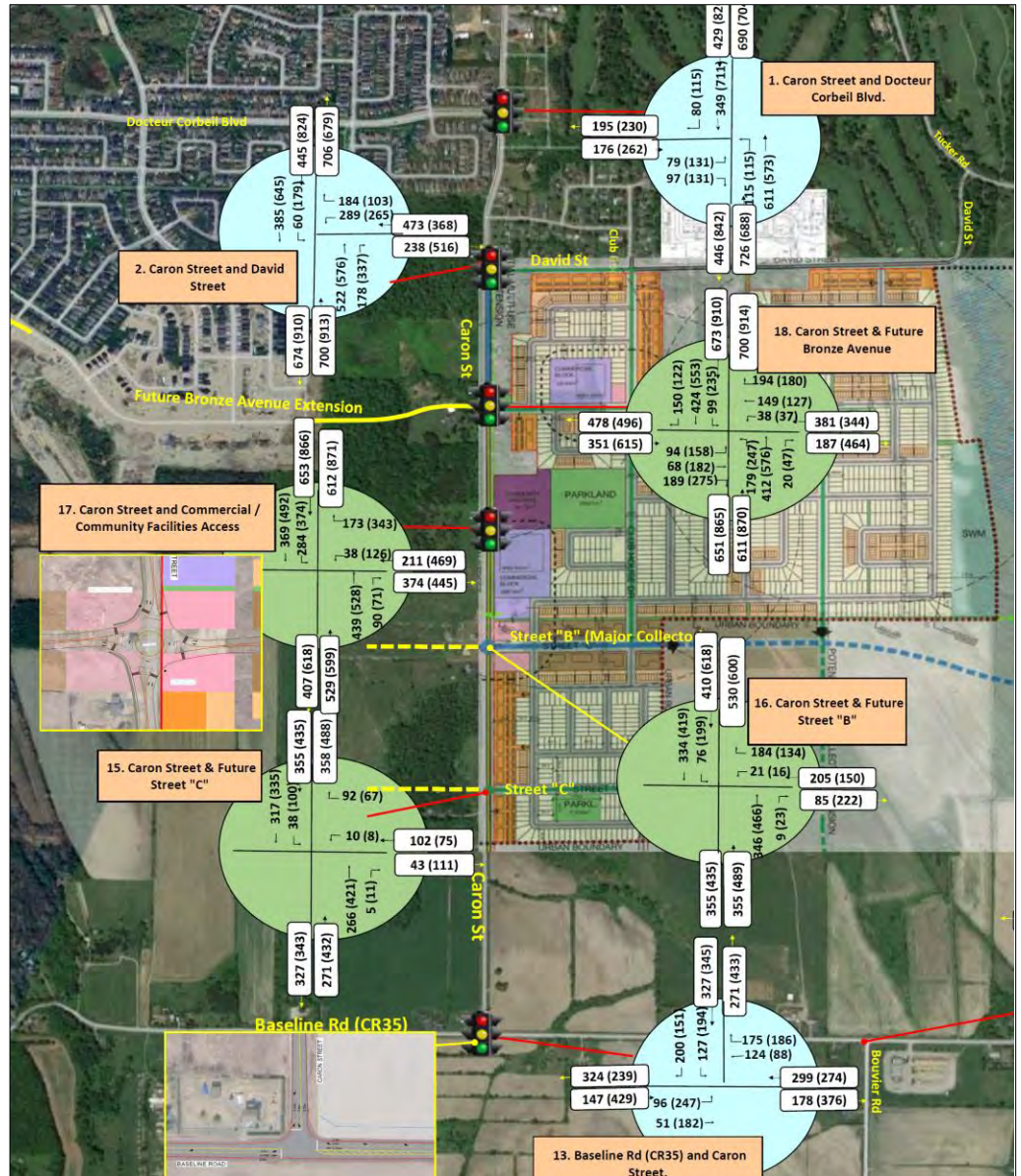


Exhibit 6-9: Intersections Along Caron Street

Additional intersection modifications are forecast to be required that should include:

- the widening of the David Street WB approach lane to provide dedicated WB-RT and WB-LT auxiliary lanes; and
- implementing permissive/protected phasing for the SB-LT lane.

Intersection 18. Caron Street & Future Bronze Avenue Intersection

Table 6-2 indicated that traffic signals assuming permissive phasing would be required to address the deficiencies identified in the 10-year (2037) time horizon. However, when the Caron development is built-out (Phases 1-thru-8) by the 20-year time horizon ..

- the permissive signalization strategy implemented in 2037 was determined to exhibit failure operations during the afternoon peak hour of travel demand in the NB-LT and SB-LT movements [NB-LT: LOS “F”, $v/c=0.99$, 95th Percentile Queue=73m / SB-LT: LOS “F”, $v/c=1.20$, 95th Percentile Queue=150m-20 car lengths], and
- Table 6-3 indicates that the permissive-protected NB and SB left turn phasing would be required by the 20-year (2043) time horizon which would require new signal heads and detector loops to be installed. With this upgrade, satisfactory traffic operations will be achieved.

Intersection 17. NEW Caron Street & Future Commercial / Community Facilities Access

This intersection represents a new intersection estimated to be required at the time Stage 6-thru-8 of the Caron Subdivision is developed in the 20-year (2043) time horizon. The intersection would provide access to the proposed Caron Street retail development, the adjacent community facility and parkland. Pedestrian and active transportation access is envisioned that would connect this access through to Club House Drive.

It was determined that this Caron Street intersection would be configured as a traffic signal controlled “T” intersection, (which assumes no development on the west side of Caron Street) within the 20-year time horizon. The intersection layout was assumed to provide dedicated northbound right-turn, southbound left turn and westbound left and right turn lanes.

Table 6-3 indicates that the permissive-protected SB left turn and WB left turn phasing would be required by the 20-year (2043) time horizon which would require signal heads and detector loops. With this upgrade, satisfactory traffic operations in the 20-year time horizon can be achieved.

Intersection 16. NEW Caron Street & Street “B” Intersection

Street “B” of the Caron Development is being defined as a “major collector” roadway given that the segment of roadway that travels through the Caron development could potentially form a continuous east-west corridor extending from St. Jean on the west through to the east side of the proposed Caron Development.

- *Why is it Considered Prudent to Protect for an Additional East-West Corridor:* Exhibit 6-6 indicates that by 2043, traffic along Bronze Avenue, to the west of Caron, is forecast to experience two-way vehicle traffic demand of:
 - 829 vehicles-per-hour (vph) during the morning peak hour of travel demand. This implies a headway between vehicles of 4.3 seconds in the morning peak hour, and
 - 1,111 vehicles-per-hour (vph) during the afternoon peak hour of travel demand. This implies a headway between vehicles of 3.2 seconds during the afternoon peak hour.

This level of traffic and short time gap between vehicles on the roadway is insufficient to permit vehicles parked on driveways facing Bronze Avenue to safely enter the traffic stream. This situation, in concert with the post 2043 potential of developing lands between St. Jean and Caron and north of Baseline Road will exhaust the east-west capacity of the roadway network in the absence of an additional east-west collector roadway. It is considered prudent to therefore protect for a future 4-lane east-west major collector corridor to address the Bronze Avenue concern and protect for future

development of Clarence-Rockland. This implies that the future intersection improvements to the Caron Street / Street “B” intersection, such as a 2-lane roundabout as illustrated within Exhibit 6-6, will likely ultimately be warranted at the time of further development on the west side of Caron which merits right-of-way protection

For analysis purposes it was assumed that there would be no development on the west side of Caron by the 2043-time horizon. Table 6-3 assumes that the Caron Street/Street “B” intersection was assumed to be configured initially as a minor leg “T” STOP-controlled intersection.

Assuming no further development in the immediate area, the WB-LT movement from Street “B” onto Caron Street SB was forecast to operate at a LOS “E” with a 38.7 sec delay during the afternoon peak hour of travel demand. Only 16 vehicles-per-hour on this movement would be affected by this poor LOS, with no significant queueing.

Intersection 15. NEW Caron Street & Street “C” Intersection

This new intersection is forecast to be required at the time Stage 6-thru-8 of the Caron Subdivision is developed in the 20-year (2043) time horizon. The intersection would be located roughly 580m north of the Caron Street/Baseline (CR-35) intersection and 160m north of the southern limit of the Caron Subdivision and would provide access to the predominantly lower-density residential area. The new Street “C” was envisioned within a secondary plan as a potential “minor collector” that would connect to the west side of Caron Street and then curve to the north to connect to an expanded commercial area on the west side of Caron Street. The Caron development envisions Street “C” as also being extended further to the east and eventually curve to the south to connect to Baseline Road.

It is noted that this study did not assume the lands surround the southern portion of the proposed Caron subdivision to Baseline Road to the south, to the east as far as Clarence Creek nor to the west of Caron Street to be developed prior to the 20-year (2043) time horizon. The ultimate development of these lands will affect the access requirements along the southern portion of Caron Street as well as the required right-of-way of the Caron Street corridor.

B. Baseline Road Intersections

Intersection 13. Baseline Road (CR-35) & Caron Street & Intersection

Table 6-2 [ten-year (2037) horizon] indicated that this intersection would continue to operate as a minor leg STOP controlled “T” intersection and offer acceptable traffic operations.

Table 6-3 indicates that during the 20-year horizon (2043), the existing configuration is forecast to fail and the following improvement would be required.

- *The lane configuration would be required to be updated to include a new EB-LT and SB-LT lanes.* However, this can only be viewed as a staged improvements, as ultimately without traffic signals the SB-LT lane during the afternoon peak hour of travel demand is forecast to operate at a LOS “F” with unacceptable delays-per-vehicle exceeding 1.3 minutes (82.3 seconds) and a volume-to-capacity (v/c) ratio of 0.91.
- *Traffic signalization would be required* during the 20-year time horizon to provide satisfactory traffic operations during the afternoon peak hour of travel demand. The signalization was found to require permissive-protected NB and SB left turn signal phasing which in turn would require additional signal heads and detector loops.

Intersection 11. Baseline Road (CR35) / St. Jean Street-Filion Road Intersection:

Table 6-2 [ten-year (2037) horizon] indicated that without any improvements the EB approach to this all-way STOP controlled intersection even without the Caron Development in place, would operated under constrained conditions. Intersection improvements inclusive of new EB-LT and SB-LT auxiliary turning lanes were found to be required along with traffic signals (when warranted) assuming semi-actuated phasing.

Table 6-3 indicates that during the 20-year (2043) horizon, the intersection improvements adopted in the ten-year (2037) horizon are forecast to continue to provide satisfactory levels of service and acceptable operations.

Analysis was undertaken that also considered a roundabout at this location and was proven to also offer satisfactory traffic operations to the 20-year time horizon.

C. The Caron Street Corridor

Up to this point, all analyses has concentrated on intersection capacity and the need for auxiliary lanes at intersections. However, it is worthwhile to note that between Bronze Avenue and Street “B”, 2043 forecast traffic volumes exceed 870 vph-per-direction, assuming no development on the west side of Caron Road. This can well exceed the capacity of a 2-lane major collector roadway. It is therefore considered prudent to protect sufficient right-of-way for a 4 lane cross section, with auxiliary lanes at intersections along Caron Street between Bronze Avenue south to Street “B” (Major Collector) to meet 20 year travel demand.

Beyond the 2043-time frame, further wideing to the south as far as Baseline Road (CR35) is to be confirmed and dependent on ultimate development plans.

D. A Summary of Intersection Improvements

Table 6-4 provides a tabular summary of the envisioned intersection improvements and serves to provide the timeline of each of the proposed required improvements to assure satisfactory traffic operations for the time horizons considered within this study.

Table 6-4: Summary of Network Modifications and Time Horizons when Required

	<i>Intersection</i>	<i>Control Type</i>	<i>Phase 1-2 (2031)</i>	<i>Phase 1-5 (2037)</i>	<i>Phase 1-8 (2043)</i>
1	Caron St. and Docteur Corbeil Blvd. Int 1, 2, 17 & 18 are multi-Signal Coordinated	NEW: Traffic Signal Control	N/A	Signalization	Beyond 2043: Consider widening of the west leg (EB approach) to 2 lanes (EB-RT and EB-LT).
2	Caron St. and David St. Int 1, 2, 17 & 18 are multi-Signal Coordinated	NEW: Traffic Signal Control	N/A	Signalization	East leg widening to accommodate 2 lanes WB-LT (80 m storage) and WB-RT, NB-RT Lane and add Permissive-protected phasing for SB-LT – Loops and detectors required.
		NEW: Additional Upgrades	N/A		
3	David St. and Club House Dr.	Minor Leg STOP-control			Conversion of “T” intersection to “4-Leg” configuration
4	David St. and Rockland X-Mas Trees	Minor Leg STOP-control			
5	David St. and North Development St. "A"	Minor Leg STOP-control	✓		
6	David St. and North Development St. "C"	Minor Leg STOP-control	✓		
7	New David St. and St. "E"	Minor Leg STOP-control	Minor Leg STOP-control		
8	David St. and Tucker Rd. / Outaouais	Minor Leg STOP-control			
11	Baseline Rd. (CR35) and St Jean St. - Fillion Rd.	NEW: Traffic Signal Control (Semi-Actuated)		Signalization and widening of west and north legs to provide for auxiliary SB-LT and EB-LT lanes	
12	Baseline Rd. (CR35) and Lacasse Rd.	Minor Leg STOP-control			
13	Baseline Rd. (CR35) and Caron St.	NEW: Traffic Signal Control (semi-actuated)			Signalization and widening of west and north legs to provide for auxiliary SB-LT and EB-LT lanes.
14	Baseline Rd. (CR35) and Bouvier St.	Minor Leg STOP-control			
15	New Caron St. and Future St. "C".	Minor Leg STOP-control “T” Intersection			Minor leg STOP-control
16	New Caron St. and Future St. "B"	Minor Leg STOP-control “T” Intersection*			Minor leg STOP-control; Auxiliary SB-LT and WB-LT lanes
17	New Caron St. and Future Commercial / Community Facilities Access Int 1, 2, 17 & 18 are multi-Signal Coordinated	NEW: Traffic Signal Control with perm-prot SB left turn phasing			Signalization Permissive-protected phasing for SB-LT Auxiliary SB-LT, NB-RT and WB-LT lanes
18	New Caron St. and Future Bronze Avenue Int 1, 2, 17 & 18 are multi-Signal Coordinated	NEW: East Extension with Traffic Signal Control	“T” intersection on the west leg, minor leg STOP-controlled	Signalization, auxiliary left and right turn lanes in each direction, shared NB-TH-RT	
		Permissive-protected NB and SB left turn phasing			Permissive-protected phasing for SB-LT and NB-LT – Loops and Dedectors Required

*Future roundabout or signal control may be warranted upon the advent of development west of Caron Street

7.0 INFRASTRUCTURE REQUIREMENTS

The following section serves to provide additional detail regarding the proposed infrastructure upgrades and access intersection configurations that were found to be warranted to support the build-out of the proposed Caron Street subdivision. The infrastructure requirements were based upon the forecast traffic operational characteristics described in the preceding sections of this report.

7.1.1 2031 Infrastructure Requirements (Phases 1-through-2)

Phase 1 and 2 of the proposed Caron Street subdivision [588 residential units and mixed-use buildings with 25,830 SF of commercial space] were assumed to be accessed by a single access to / from David Street. The David Street / Street “E” access will operate as a minor leg STOP-controlled access. No further infrastructure improvements were found to be warranted at this stage.

However, the Baseline Road /St. Jean Street-Filion Road intersection currently operates at congested traffic levels that are anticipated to worsen over the next 5-years, indicative that ongoing monitoring is required.

7.1.2 2037 Infrastructure Requirements (Phases 1-through-5)

Upon build-out of Phases 1-through-5, [1,350 residential units with some mixed-use buildings and approximately 38,750 SF of commercial leasable area] of the Caron subdivision, access would be provided only by way of the David Street/Street “E” and the Caron Street/Bronze Street intersections. The David Street/Street “E” intersection was found to continue to operate acceptably in the 2037 horizon year assuming Street “E” is STOP-controlled.

The following intersections along Caron Street were found to require the following improvements by the 10-year (2037) horizon:

- | | |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Int 1. Caron Street / Docteur Corbeil Blvd. | <ul style="list-style-type: none"> • Traffic signals required by 10-year (2037) time horizon along with specialized cycling signals to connect the MUP along the east side of Caron Street to the dedicated bike lanes along Docteur Corbeil |
| Int. 2. Caron Street / David Street | <ul style="list-style-type: none"> • Traffic signals required by 10-year (2037) time horizon |
| Int, 18. Caron Street / Bronze Avenue | <ul style="list-style-type: none"> • Traffic signals required by 10-year (2037) time horizon |
| Int. 11. Baseline Road (CR35) / St. Jean Street – Filion Road | <ul style="list-style-type: none"> • Traffic signals and auxiliary EB-LT and SB-LT lanes by 10-year (2037) time horizon. A single-lane roundabout was also determined to provide satisfactory operations. (See Appendix B-6.) |

7.1.3 2043 Infrastructure Requirements (Phases 1-through-8 [Ultimate Build-out])

The following sections describe the required intersection improvements necessary to support the full build-out of the Caron Street subdivision in the 20-year (2043) time horizon.

1. Caron Street / Docteur Corbeil Blvd. Intersection

- Signalization was found to be required by the 10-year (2037) time horizon.
- Upon signalization of this intersection, consideration should be given to provide signalized bicycle crossings on the north and south legs of the intersection, as illustrated within Exhibit 7-1 to connect the MUP on the east side of Caron Street to the dedicated bike lanes along Docteur Corbeil.
- Existing intersection layout was found to perform acceptably at a level of service “D” without a need for geometric improvements.
- Further mitigations beyond the 20-year (2043) time horizon may include widening of the west leg (EB approach) to 2 lanes (EB-RT and EB-LT).

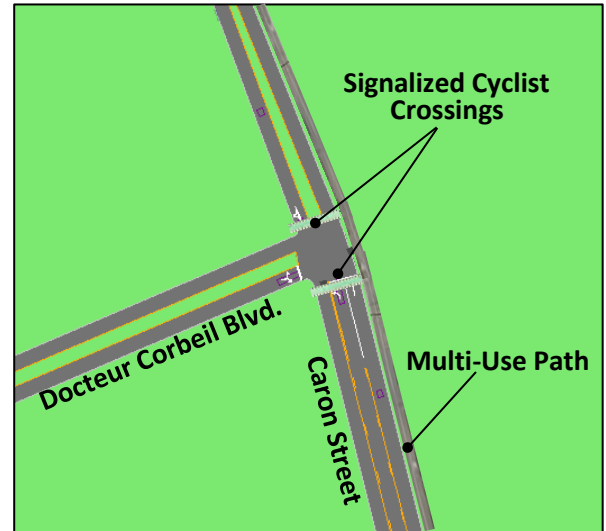


Exhibit 7-1 Caron Street / Docteur Corbeil Boulevard Intersection Layout (Ultimate 2043)

2. Caron Street / David Street intersection

- Signalization was found to be required by the 10-year (2037) time horizon.
- Widening of the east leg and provision of an auxiliary WB-LT lane were found to be required by the 10-year (2037) time horizon.
- Storage length of at least 80 metres for the WB-LT lane was determined to be warranted to accommodate the 95th percentile queue during the afternoon peak hour.
- Widening of the south leg and provision of the NB-RT lane with at least 30 metres of storage length was found to be warranted by the 20-year (2043) time horizon.
- Permissive-protected phasing on the SB-LT lane was found to be required by the 20-year (2043) time horizon to facilitate left turn movements from Caron Street onto David Street.
- Exhibit 7-2 illustrates the intersection layout of Caron Street / David Street intersection.

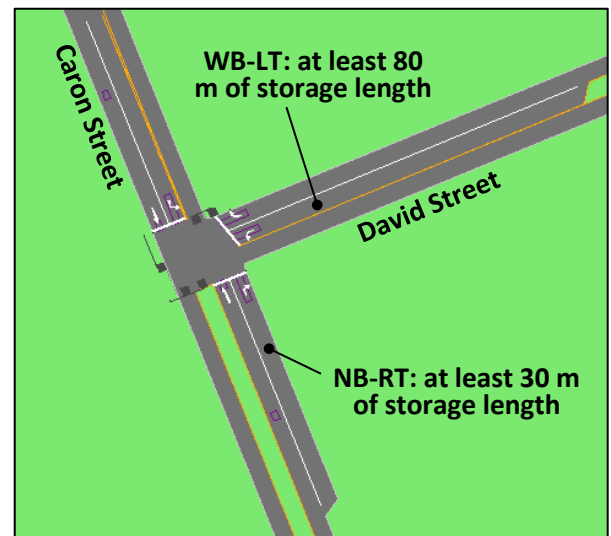


Exhibit 7-2 Caron Street / David Street Intersection Layout (Ultimate 2043)

18. Caron Street / Bronze Avenue Intersection

- Signalization was found to be required by the 10-year (2037) time horizon.
- Permissive-protected phasing on the SB-LT and NB-LT lanes was found to be required.
- Table 7-1 highlights the required storage lengths based on the 20-year (2043) time horizon.
- Auxiliary left and right turn lanes are to be provided on each approach except for the south leg, which was assumed to contain an auxiliary NB-LT lane and a NB-Th-RT shared lane.
- Exhibit 7-3 illustrates the Caron Street/Bronze Avenue intersection lane configuration required to satisfy the 20-year (2043) time horizon demand.

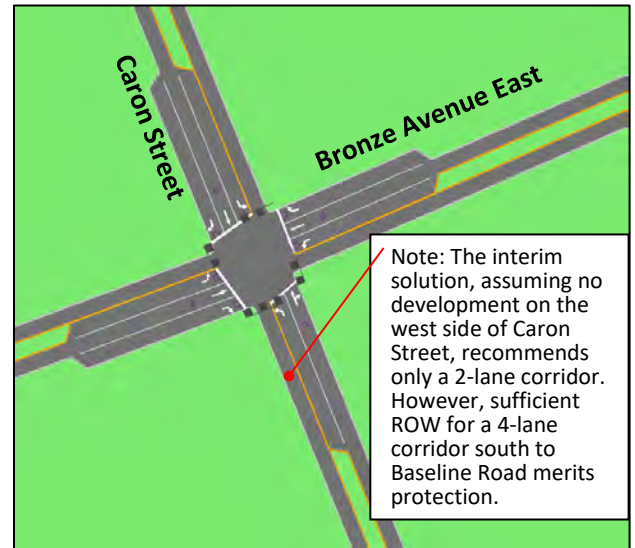


Exhibit 7-3 Caron Street / Bronze Avenue Intersection Layout (Ultimate 2043)

Table 7-1: Storage Lengths at Caron St. / Bronze Ave. (Ultimate beyond 2043)

Lane	EB-LT	EB-RT	WB-LT	WB-RT	NB-LT	SB-LT	SB-RT
Required Storage Length, assuming 120 sec. cycle and a 1.5 factor of safety	55	100	15	70	90	85	55

17. Caron Street / Commercial-Community Facility Access Intersection

- Signalization was found to be required by the 20-year (2043) time horizon to coincide with Phase 6 of the Caron subdivision.
- An auxiliary southbound left turn lane was found to be required given the volume of left-turning traffic.
- Permissive-protected phasing on the SB-LT lane was found to be required to maintain satisfactory traffic operational performance.
- Analyses indicated that storage lengths for the SB-LT, NB-RT, WB-LT would require 70m, 40m, 30m, respectively. These lengths are to be confirmed once the proposed land uses on the east leg are finalized.
- Exhibit 7-4 illustrates the Caron Street/ Commercial-Community Facility access lane configuration required to satisfy the 20-year (2043) time horizon demand.

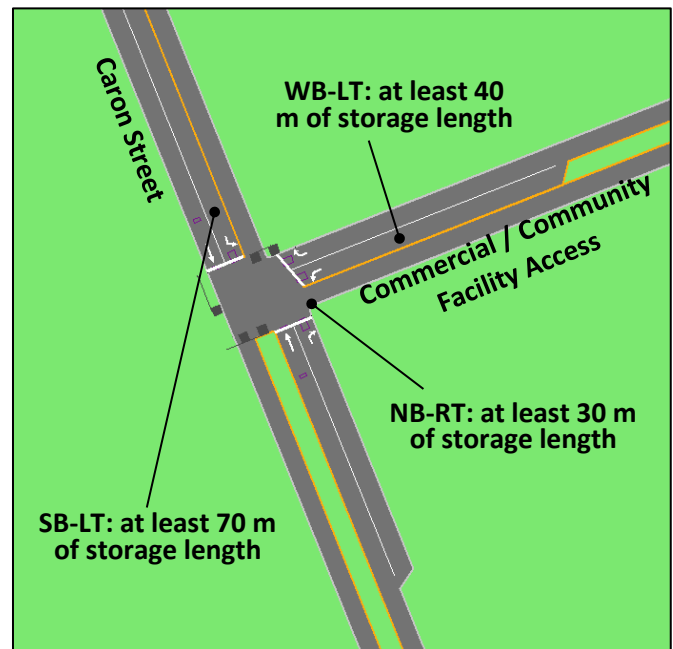


Exhibit 7-4 Caron Street / Commercial – Community Facility Access Intersection Layout

16. Caron Street / Street “B” Intersection

- This intersection was envisioned to operate with a STOP-control on the minor leg, assuming no development occurs on lands on the opposite side of Caron Street by the 20-year (2043) time horizon.
- Auxiliary SB-LT and WB-LT left turn lanes were found to be required. Given that this intersection services a later phase of the development, it is recommended to review the storage lengths for these turning lanes upon confirmation of intended land uses occupying the east leg of the intersection.
- A future extension of Street “B” to the west is likely to be warranted in the future, as the Bronze Avenue corridor exhausts its capacity to handle east-west traffic volumes.
- Subsequent to the 20-year (2043) time horizon, and dependent upon the scale of development of lands west of the proposed Caron subdivision, a 2-lane roundabout merits consideration for this intersection if found to be warranted.
- Exhibit 7-5 illustrates the Caron Street/Street “B” interim “T-intersection layout.
- Exhibit 7-7 illustrates a conceptual ultimate Caron Street /Street “B” roundabout configuration.



Exhibit 7-5 Caron Street / Street “B” Intersection Layout (Ultimate 2043)

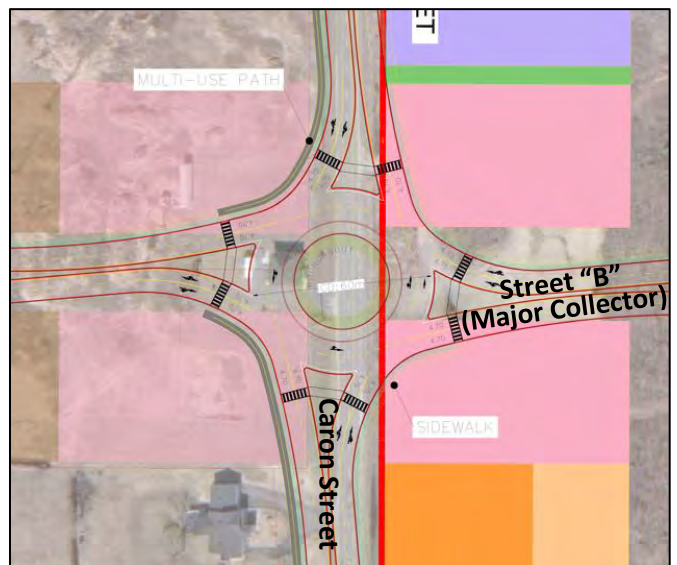


Exhibit 7-6 Caron Street / Street “B” Conceptual Roundabout (Post- 2043 horizon)

15. Caron Street / Street “C” Intersection

- This intersection was found to operate acceptably assuming a STOP-control on the minor leg with no auxiliary lanes.

3. David Street / Club House Drive Intersection

- This intersection was found to operate acceptably assuming a STOP-control on the minor leg with no auxiliary lanes found to be required.

7. David Street / Street “E” Intersection

- This intersection was found to operate acceptably assuming a STOP-control on the minor leg without any auxiliary lanes.

13. Caron Street / Baseline Road Intersection

- Signalization or a single lane roundabout was found to be required by the 20-year (2043) time horizon to assure acceptable levels-of-service during the afternoon peak hour of travel demand.
- Traffic signals would require the widening of the west and north legs and provision of auxiliary EB-LT and SB-LT lanes were found to be required.
- The required storage lengths needed to accommodate the 95th percentile queue lengths would be 40m for the EB-LT and 30m for the SB-LT lanes.

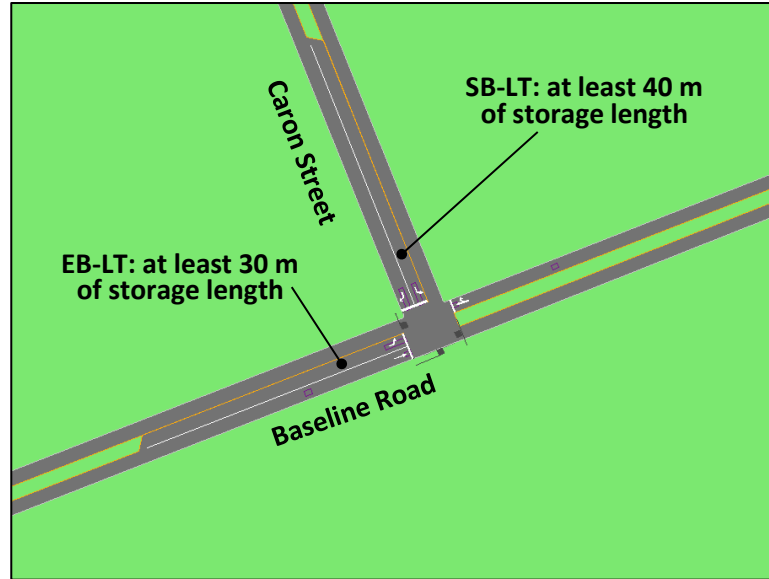


Exhibit 7-7 Caron Street / Baseline Road Intersection

11. Baseline Road / St. Jean-Filion Street

- Signalization or a single-lane roundabout was found to be required by the 10-year (2037) time horizon to sustain an acceptable level of traffic operations during the afternoon peak hour of travel demand.
- Future widening of the west and north legs to provide for auxiliary EB-LT and SB-LT lanes would be required.
- The storage lengths required to accommodate the 95th percentile queue was found to be 70 m for the EB-LT and 20 m for the SB-LT. These lengths should ultimately be confirmed upon build-out of lands to the north along the St. Jean/Montée Poupart corridor.

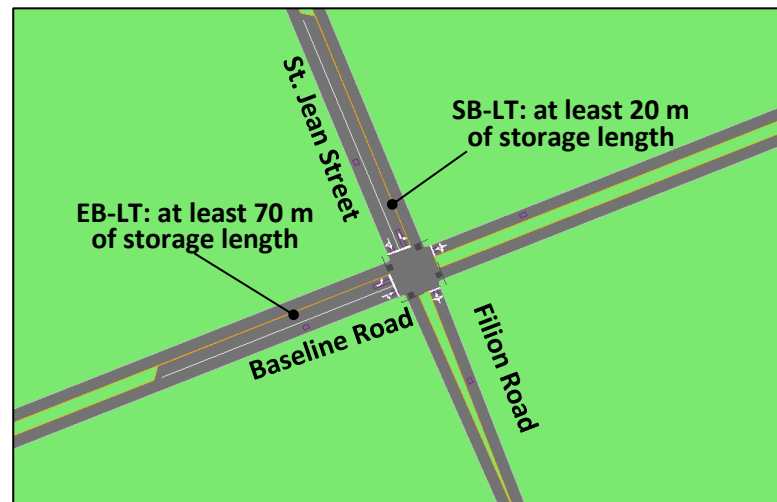


Exhibit 7-8 Baseline Road / St. Jean Street – Filion Road

7.1.4 Other Infrastructure Considerations

Pedestrian and cycling infrastructure is recommended to be incorporated into urbanization of Caron Street, and future Street “A” (Bronze Ave East), Street “B”, Street “C” and Club House Drive corridors within the proposed Caron subdivision.

Should significant future development occur in the areas south and west of the proposed subdivision, a widening of Caron Street may ultimately be warranted. While the widening was not found to be required by 20-year (2043) time horizon, it remains prudent to protect the Caron Street corridor ROW between Bronze Avenue and Street “B” for a potential future 4-lane facility.

8.0 FINDINGS AND RECOMMENDATIONS

8.1 FINDINGS

8.1.1 Existing Conditions

- All study area intersections were determined to currently (2024) operate at a level of service “C” -or-better.
- The eastbound approach to the Baseline Road (CR35) / St. Jean Street / Filion Road intersection is characterized by congestion during the afternoon peak period with the average delay-per-vehicle approaching 17 seconds, a 95 percentile queue length of 37m (5 passenger vehicles) and a volume-to-capacity ratio of 0.66.

8.1.2 Sources of Background Traffic

- The annual background traffic growth rate within the City of Clarence-Rockland was determined, for the purposes of this study, to be 2 percent.
- This study accounted for three proposed subdivisions (David Street, Massicotte, Phase 6 of Morris Village) located adjacent to the proposed Caron subdivision.

8.1.3 Proposed Development

- The proposed Caron subdivision:
 - when completed would consist of 2,840 dwellings 235,000 ft² GFA of commercial space and a 195,600 ft² parcel dedicated to housing community facilities adjacent to proposed parkland.
 - is presently envisioned to be build-out over 8 phases. For the traffic analysis purposes, the following 3 horizons were considered:
 - A 5-year (2031) time horizon would include Phases 1&2 of the 8-phase strategy and would consist of a total of 588 dwellings and 25,830 ft² GFA of commercial space. Access would be provided only by way of a new David Street/Street “E” intersection.
 - A 10-year (2037) time horizon which include Phase 1-through-5 that would see the development reach 1,350 dwellings and 38,750 ft² GFA of commercial space. By the start of this horizon the subdivision would be accessed by way of two intersections [David Street / Street “E” and Caron Street/Bronze Avenue intersections].
 - A 20-year (2043) time horizon when the Caron subdivision would be completed. Access to the subdivision would be provided by the two accesses to David Street and four accesses along Caron Street.

8.1.4 Traffic Generation

The site is forecast to generate the following levels of traffic for each horizon year considered:

- At the 5-year (2031) time horizon:
 - approximately 300 vehicle trips are forecast during the morning peak hour, and
 - just over 400 vehicle trips are forecast during the afternoon peak hour.
- At the 10-year (2037) time horizon:
 - approximately 750 vehicle trips are forecast during the morning peak hour; and
 - just under 1,000 vehicle trips are forecast during the afternoon peak hour.
- At the 20-year (2043) time horizon:
 - approximately 1,850 vehicle trips are forecast during the morning peak hour; and
 - just over 2,500 vehicle trips are forecast during the afternoon peak hour.

8.1.5 Infrastructure Requirements

- At the 5-year (2031) time horizon there were no roadway infrastructure improvements found to be necessary other than:
 - the new David Street/Street “E” intersection that would be required to access the proposed Caron development; and
 - monitoring of the traffic conditions at the Baseline Road /St. Jean Street-Filion Road intersection which is likely to be impacted by the planned Brigil and Spacebuilders developments to the north.
- At the 10-year (2037) time horizon when Phase 1-through 5 of the development is completed:
 - three intersections along the Caron Street corridor [Caron Street / Docteur Corbeil Blvd, Caron Street / David Street, Caron Street / Bronze Avenue] were determined to require traffic signals. Consideration should be given to provide signalized bicycle crossings on the north and south legs of the Caron Street / Docteur Corbeil Blvd intersection to connect the MUP on the east side of Caron Street to the dedicated bike lanes along Docteur Corbeil.
 - Although not associated with the proposed Caron development, the intersection of Baseline Road / St. Jean Street-Filion Road was found to require traffic signals and auxiliary eastbound and southbound left turn lanes to achieve a satisfactory level of afternoon peak hour operations.
- At the 20-year (2043) time horizon when all 8 phases of the proposed Caron development have been completed, the following improvements were found to be necessary to improve operations.

David Street

- *New: David Street / Club House Drive Intersection:* This existing T-intersection would be expanded to a 4-leg intersection and be STOP-control on the minor legs. Analyses indicated that auxiliary turning lanes would not be required to accommodate Phase 7 of the proposed Caron development.

Caron Street

- *Caron Street / Docteur Corbeil Blvd. Intersection:* Consideration should be given to widen the west leg (EB approach) to two lanes (EB-RT and EB-LT) .
- *Caron Street / David Street Intersection:* Widening of the south leg and provision of the NB-RT lane with at least 30 metres of storage length. Upgrade the traffic signals completed for the 10-year horizon to include permissive-protected phasing on the SB-LT lane to facilitate left turn movements from Caron Street onto David Street
- *New: Caron Street / Bronze Avenue Intersection:* Upgrade the traffic signals installed in the 10-year horizon with permissive-protected phasing on the SB-LT and NB-LT lanes.
- *New: Caron Street / Commercial-Community Access:* The commercial/community access would be developed as Phase 6 of the overall community phasing strategy. For the purposes of this study, no development was assumed on the west side of this intersection and a “T”-intersection was assumed. Traffic signals with permissive-protected phasing were determined to be required along with an auxiliary southbound left turn lane.

It is recommended that the signal timings of the above four signalized intersections along Caron Street be coordinated to ensure optimal progression of traffic flow.

Assuming that there is no development on the west side of Caron Street in the 20-year (2043) time horizon the following intersection improvements were found to be required:

- *New: Caron Street / Street “B” Intersection:* The intersection was envisioned to operate as a “T” configured intersection with a STOP-control on the minor leg with auxiliary SB-LT and WB-LT left turn lanes. A roundabout configuration is envisioned as an ultimate-term objective should the municipality conclude that a continuous major collector from St. Jean Street through to east of the Caron subdivision is required.
- *New: Caron Street / Street “C” Intersection:* This intersection was found to operate acceptably assuming a STOP-control on the minor leg with no auxiliary lanes
- *Caron Street / Baseline Road Intersection:* Traffic signals were found to be required along with widening of the west and north legs and provision of auxiliary EB-LT and SB-LT lanes. A single-lane roundabout was also determined to provide satisfactory operations. (See Appendix B-6.)

8.2 OTHER RECOMMENDATIONS

8.2.1 Future Transit Considerations

The existing and future commuter travel demand to/from the west (greater Ottawa) must be considered from a municipal and regional growth perspective when considering the proposed Caron subdivision along with other significant proposed developments. The City of Clarence Rockland’s Multi-Modal Transportation Master Plan (May 2025 amendment) recommended that a feasibility studies be undertaken that would recommend “a new appropriate service type,

optimal physical coverage area(s), meaningful external connections, mutual reinforcement of the active transportation network, and fundamental operational considerations.”⁸

The future east extension of OC Transpo’s LRT to Trim Station, currently anticipated to be completed by 2025, presents an opportunity to act as a fixed-route terminus for a potential municipal transit system. The City of Clarence Rockland is encouraged to consider preparing for regularly scheduled local transit routes along key corridors that would link the community to OC Transpo’s expanding light rail system.

8.2.2 Caron Street Functional Plan

Caron Street should be protected to accommodate a widened 4-lane cross-section between Bronze Avenue and Street “B” (Future Divided Major Collector). The 4-lane cross-section (if found to be warranted by future development adjacent to the Caron subdivision) should be protected as far south as Baseline Road.

It is recommended that the City of Clarence-Rockland develop a functional plan covering the 1.6km length of the Caron Street corridor between Bronze Avenue to Baseline Road. This plan would form the basis of assuring that sufficient right-of-way would be protected to accommodate the envisioned motor-vehicle, cycling and pedestrian infrastructure.

8.2.3 Cycling Infrastructure

It is recommended to incorporate cycling infrastructure into the designs of collector streets in the study area. Particularly, bike lanes or multi-use paths should be considered as part of the future urbanization of Caron Street, and plans for future Street “A” (Bronze Ave), Street “B” (Future Major Collector), Street “C”, Club House Drive, and Street “F” within the Caron subdivision.

8.2.4 Pedestrian Infrastructure

It is recommended to incorporate pedestrian sidewalks into along Caron Street and the future Street “A” (Bronze Ave east), Street “B”, Street “C” and Club House Drive within the Caron subdivision. Additional sidewalks should be considered within the subdivision subject to housing density, traffic volumes, pedestrian desire lines and right-of-way considerations.

8. “Multi-Modal Transportation Master Plan” 2025 Amendment, City of Clarence-Rockland. Stantec May 2025. Page 44

8.2.5 Proposed Roadway Classifications

The Caron Subdivision development envisions the following roadway classifications:

- Caron Street between Bronze Avenue and Baseline Road is to be re-designated as a major collector permitting a cross-section up to 4 lanes + auxiliary lanes, as required by the functional plan (as noted in Section 8.2.2).
- David Street between Caron Street and Club House Drive is to be re-designated from a “local” to a “minor collector” designation.
- New Street “B” is to be designated as a “major collector” that would permit a 4 lanes + auxiliary lane cross section.
- The following roadways within the Caron subdivision are to be designated as “minor collectors”:
 - Bronze Avenue extension east of Caron Street,
 - the new Street “C”,
 - the Club House extension south of David Street, and
 - Street “F”.

8.2.6 Street “B” Extension to St. Jean Street and East-West Capacity

Section 4.5 highlighted the issues associated with the Bronze Avenue corridor which is forecast to reach peak hour congestion levels by the 20-year time horizon that would leave only 3-to-4 second gaps for vehicles leaving the driveways fronting Bronze to enter the traffic stream. This operational constraint would be further worsened by the development of lands to the south of the current urban boundary.

The proposed Caron subdivision envisions a major 4-lane divided major collector road (Street “B”) running through the subdivision. The City of Clarence-Rockland is encouraged to plan to protect an east-west major collector corridor that would be intended to accommodate future development beyond the 20-year time frame of the official plan between St. Jean Street and Caron Street and south of the current urban boundary (See Exhibit 4-4). It is recommended that the City of Clarence-Rockland consider incorporating such a facility into future Official Plan and Transportation Master Plans to guide future development of the lands abutting Clarence-Rockland.

Future intersection improvements to the Caron Street / Street “B” intersection, such as a roundabout, will likely be warranted in the ultimate time horizon.

8.2.7 County Road 17 Capacity and Connection to Ottawa

Plans that envision a widened County Road 17 corridor between Clarence-Rockland and Greater Ottawa would not only effect regional travel demand but also future travel demand along the Caron Street corridor north of Bronze Avenue. This impact is beyond the scope of this study.

The City of Clarence-Rockland should consider conducting a long-range Transportation Planning Study to properly quantify the traffic impacts of all ongoing, approved and proposed development plans in the City of Clarence-Rockland, and identify appropriate travel demand management strategies for regional travel demands, such as...

- Provide frequent transit service between Clarence-Rockland and Ottawa, particularly during the commuter peak hours of travel demand to reduce reliance on personal vehicles.
- Enhance existing planning policies aimed at encouraging new and intensifying existing local employment areas (i.e. industrial, office, business park, retail, etc.) within the City of Clarence-Rockland that encourage employment opportunities for residents.
- Continue discussions with the City of Ottawa that would establish an east-west corridor between Clarence-Rockland and Ottawa (i.e. Innes Road – Baseline Road corridor) that would reduce demand to the presently congested CR 17 corridor.

8.3 CONCLUDING REMARKS

The proposed Caron Subdivision development envisions a subdivision with 2,840 units and 235,000 ft² GFA of commercial space. The development is currently envisioned to be built over 8 phases and be completed within two decades (by 2043). Given the scale of the development, significant impacts on the roadway network of Clarence-Rockland, particularly the Caron Street corridor are anticipated.

This study identified roadway improvements (traffic signals, widenings, auxiliary turning lanes, roundabouts) that address the requirements for:

- existing intersections that would be impacted by future growth; and
- new access/intersections intended to directly connect to the proposed subdivision.

This study has also identified additional recommendations inclusive of classification/designation and active transportation/ transit provisions that are to be considered which include:

- Assuring plans and policies are in place to protect the right-of-way requirements for a future westerly extension of the Street “B” corridor (between Caron Street and St. Jean Street) that would provide for a future 4-lane major collector corridor intended to provide an alternate east-west roadway that would be needed for the period beyond the 20-year time horizon.
- The production of a functional plan of the Caron Street corridor covering the 1.6km length between Bronze Avenue and Baseline Road (CR-35), which would account the proposed Caron subdivision and any future development to the west and south of the site. The functional plan should identify the required right-of-way to protect for an ultimate 4-lane cross-section.
- A long-range planning study that would quantify the impacts of all planned development (inclusive of the Caron Subdivision) upon future regional travel demands intended to formulate a long-term strategy aimed at addressing the constrained capacity of the County Road 17 corridor.

APPENDICIES

Appendix "A" – Raw Traffic Volume Information.....	"A"
Appendix "B" – Intersection Capacity Analysis: Synchro Results	"B"
"B-1" – Existing (2024) Conditions	"B-1"
"B-2" – Background (2031, 2037, 2043) Conditions	"B-2"
"B-3" – Background Mitigation (2037, 2043) Conditions	"B-3"
"B-4" – Total Forecast (2031, 2037, 2043) Conditions.....	"B-4"
"B-5" – Total Forecast Mitigation (2037, 2043) Conditions.....	"B-5"
"B-6" – Baseline Road (CR35) Roundabout Analysis	"B-6"
Appendix "C" – Site Plan	"C"
Appendix "D" – Right of Way Constraints Caron St & Bronze Ave: Roundabout vs. Signalization	"D"
Appendix "E" – Roundabout Concept at Caron St. & Street "B" (Major Collector).....	"E"

APPENDIX "A"
RAW TRAFFIC VOLUME INFORMATION

Date of Traffic Counts:

Intersection: 11. Baseline Rd (CR35) and St Jean Street/ Filion Rd.

Wednesday, Oct 16 2024

Morning Peak Hour Results:

2.3 Heavy Vehicle Factor

Time Period		Westbound								Northbound								Eastbound								Southbound								Total		All	Peak Hr Total
From	To	RT		TH		LT		Pedestrians	RT		TH		LT		Pedestrians	RT		TH		LT		Pedestrians	RT		TH		LT		Pedestrians	Heavy	Passenger						
6:30	6:45	0	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	1	5	1	7	0	0	44	0	0	0	1	0	6	59	65	65				
6:45	7:00	0	5	5	27	0	0	0	0	0	0	0	0	0	0	0	0	4	2	16	0	1	58	0	0	0	3	0	8	113	121	186					
7:00	7:15	0	6	1	33	0	0	0	0	0	0	0	0	0	0	0	3	6	2	11	0	3	34	0	0	0	2	0	9	92	101	287					
7:15	7:30	1	9	3	19	0	0	0	0	0	0	0	0	0	0	4	10	0	32	0	2	27	0	2	27	0	0	0	0	10	97	107	394				
7:30	7:45	1	10	0	19	0	0	0	0	0	0	0	0	0	0	1	9	3	27	0	0	22	1	1	1	0	1	0	6	89	95	424					
7:45	8:00	1	9	1	17	0	0	0	0	0	0	1	0	0	0	1	9	0	39	0	6	21	0	0	0	1	1	0	10	96	106	409					
8:00	8:15	0	4	3	17	1	0	0	0	0	0	0	0	3	0	1	8	1	25	0	2	25	0	0	0	0	6	0	11	85	96	404					
8:15	8:30	0	8	2	13	0	1	0	0	0	0	3	1	0	0	1	4	2	32	0	0	22	0	0	0	0	2	0	8	84	92	389					
8:30	8:45	0	7	0	11	0	0	0	0	0	0	1	1	0	0	1	0	6	3	41	0	1	16	0	0	0	6	0	5	90	95	389					
8:45	9:00	2	7	2	8	0	0	0	0	0	0	0	0	0	1	3	6	1	28	0	3	17	0	0	0	1	4	0	12	71	83	366					
9:00	9:15	0	10	1	9	0	0	0	0	0	0	1	1	0	0	4	7	2	24	0	3	19	0	0	0	3	0	0	11	74	85	355					
9:15	9:30	0	6	1	5	0	0	0	0	0	0	1	0	0	0	0	4	8	1	22	0	1	20	0	0	1	1	0	8	63	71	334					
6:45-7:45		<<<Calculated Peak Hour																																			
AM Total		5	82	23	180	1	1	0	0	0	1	2	5	3	0	3	3	23	82	18	304	0	22	325	1	1	2	30	0	104	1013	1117					
Heavy Vehicle %		6%			11%				50%				33%			63%			50%			22%		6%		50%			6%		9%						
AM Peak Hour		2	30	9	98	0	0	0	0	0	0	0	0	0	0	0	8	29	7	86	0	6	141	1	1	0	6	0	33	391	424						
Heavy Vehicle %		6%			8%				#DIV/0!				#DIV/0!			#DIV/0!			22%			8%		4%		50%			0%		8%						
AM Peak Hr Total		35			119	0			0			0			0		48		103			155		4		6											
Peak Hr Approach Tot					154				0			0			0		151					165															

424

Afternoon Peak Hour Results:

Time Period		Westbound								Northbound								Eastbound								Southbound								Total		All	Peak Hr Total
From	To	RT		TH		LT		Pedestrians	RT		TH		LT		Pedestrians	RT		TH		LT		Pedestrians	RT		TH		LT		Pedestrians	Heavy	Passenger						
3:30	3:45	0	3	0	5	0	0	0	0	1	0	2	0	0	0	0	0	7	4	28	0	1	30	0	1	15	0	8	92	100	100						
3:45	4:00	0	3	1	12	0	0	0	0	1	0	0	0	0	0	1	0	25	1	28	0	3	37	0	0	1	9	0	6	116	122	222					
4:00	4:15	0	5	1	11	0	1	0	0	0	1	0	0	0	0	0	2	28	2	44	0	4	38	0	1	0	7	0	9	135	144	366					
4:15	4:30	1	8	1	10	0	0	0	0	0	0	0	0	0	0	1	30	1	50	0	3	37	0	0	0	11	0	7	146	153	519						
4:30	4:45	0	8	1	13	0	0	0	0	0	0	0	0	0	0	6	31	1	47	0	0	45	0	1	0	12	0	8	157	165	584						
4:45	5:00	0	12	0	5	0	0	0	0	0	0	0	0	0	0	6	26	0	49	0	0	35	0	0	0	14	0	6	141	147	609						
5:00	5:15	0	11	0	11	0	0	0	0	0	0	0	0	0	0	0	0	24	1	43	0	0	28	0	0	0	16	0	1	133	134	599					
5:15	5:30	0	9	0	8	0	0	0	0	0	0	0	0	0	0	0	2	28	1	35	0	0	39	0	0	0	9	0	3	128	131	577					
5:30	5:45	0	4	0	13	0	0	0	0	1	0	0	0	0	0	1	25	0	40	0	0	33	0	1	0	9	0	1	126	127	539						
5:45	6:00	0	4	1	4	0	0	0	0	0	0	0	0	0	0	0	0	13	0	41	0	0	30	0	0	0	8	0	1	100	101	493					
6:00	6:15	0	3	1	4	0	0	0	0	0	0	0	0	0	0	1	16	0	20	0	0	20	0	0	1	6	0	3	69	72	431						
6:15	6:30	0	5	0	4	0	0	0	0	0	0	0	0	0	0	1	13	0	31	0	0	24	0	0	0	9	0	1	86	87	387						
4:00-5:00		<<<Calculated Peak Hour																																			
PM Peak Period		1	75	6	100	0	1	0	0	4	0	3	0	0	0	0	1	22	264	11	456	0	11	396	0	4	3	125	0	54	1429	1483					
Heavy Vehicle %		1%			6%				0%				#DIV/0!			0%		8%		2%		3%		0%		2%			4%		5%						
PM Peak Hour		1	33	3	39	0	1	0	0	1	0	1	0	0	0	0	0	15	113	4	190	0	7	155	0	2	0	44	0	30	579	609					
Heavy Vehicle %		3%			7%				0%				#DIV/0!			12%		2%		4%		0%		0%		0%											
PM Peak Hr Total		36			46	1			1			1			0		148		200			172		2		44											
Peak Hr Approach Tot					83				2						0		346					218															

609

Intersection: 2. Caron Street and David Street

Thursday, Oct 17 2024

Morning Peak Hour Results:

Time Period		Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Total								
From	To	RT		TH		LT		RT		TH		LT		RT		TH		LT		RT		TH		LT		Heavy	Passenger										
1	6:30	6:45	0	1	0	0	0	2	0	1	1	1	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	0	0	0	2	51	53	53		
2	6:45	7:00	0	2	0	0	0	1	0	0	1	1	14	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	1	0	1	41	42	42			
3	7:00	7:15	1	0	0	0	0	1	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0	0	0	1	17	0	1	0	3	36	39	39			
4	7:15	7:30	1	0	0	0	0	3	0	0	1	0	19	0	0	0	0	0	0	0	0	0	0	0	0	4	14	0	3	0	5	40	45	179			
5	7:30	7:45	1	3	0	0	0	0	0	1	1	8	19	0	0	0	0	0	0	0	0	0	0	0	0	1	24	0	1	0	11	48	59	185			
6	7:45	8:00	1	4	0	0	0	1	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	3	24	1	5	0	5	60	65	208				
7	8:00	8:15	0	4	0	0	0	1	1	0	0	3	25	0	0	0	0	0	0	0	0	0	0	0	1	18	0	1	0	4	49	53	222				
8	8:15	8:30	0	2	0	0	0	1	0	0	0	1	26	0	0	0	0	0	0	0	0	0	0	0	1	18	0	2	0	2	49	51	228				
9	8:30	8:45	0	3	0	0	0	0	0	1	2	17	0	0	0	0	0	0	0	0	0	0	0	0	4	13	0	4	0	6	38	44	213				
10	8:45	9:00	1	9	0	0	0	0	0	2	8	32	0	0	0	0	0	0	0	0	0	0	0	0	4	9	1	0	0	14	52	66	214				
11	9:00	9:15	0	3	0	0	1	1	0	2	2	1	24	0	0	0	0	0	0	0	0	0	0	0	5	17	0	5	0	9	52	61	222				
12	9:15	9:30	1	4	0	0	0	0	0	2	4	12	0	0	0	0	0	0	0	0	0	0	0	0	4	13	1	4	1	10	35	45	216				
5	7:30	8:30	Calculated Peak Hour																																		
AM Peak Period		6	35	0	0	1	11	1	4	11	30	239	0	0	0	0	0	0	0	0	0	0	0	0	0	28	228	3	27	1	72	551	623				
Heavy Vehicle %		15%	#DIV/0!		8%		27%		11%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		11%		10%		6%		10%		12%								
AM Peak Hour		2	13	0	0	0	3	1	1	1	12	96	0	0	0	0	0	0	0	0	0	0	0	0	6	84	1	9	0	22	206	228					
Heavy Vehicle %		13%	#DIV/0!		0%		50%		11%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		7%		10%		9%		10%		10%								
AM Peak Hr Total		15	3		2		11		108		0		0		0		0		0		90		10														
Peak Hr Approach Total		18		3		2		110		0		0		0		0		100																			

228

Afternoon Peak Hour Results:

Time Period		Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Total								
From	To	RT		TH		LT		RT		TH		LT		RT		TH		LT		RT		TH		LT		Heavy	Passenger										
1	3:30	3:45	0	3	0	0	0	0	0	0	3	24	0	0	0	0	0	0	0	0	0	0	0	0	2	28	1	6	0	6	61	67	67				
2	3:45	4:00	0	6	0	0	0	2	0	0	0	31	0	0	0	0	0	0	0	0	0	0	0	0	5	30	1	8	0	6	77	83	83				
3	4:00	4:15	0	5	0	0	0	5	0	1	2	32	0	0	0	0	0	0	0	0	0	0	0	4	31	0	8	0	6	77	83	83					
4	4:15	4:30	0	6	0	0	2	1	0	0	2	0	24	0	0	0	0	0	0	0	0	0	0	3	16	0	5	0	5	54	59	292					
5	4:30	4:45	0	2	0	0	2	1	0	0	1	2	31	0	0	0	0	0	0	0	0	0	0	1	35	0	5	0	5	75	80	305					
6	4:45	5:00	0	2	0	0	0	0	1	3	0	42	0	0	0	0	0	0	0	0	0	0	0	1	26	1	4	0	3	77	80	302					
7	5:00	5:15	0	3	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	24	0	6	0	0	56	56	275					
8	5:15	5:30	0	3	0	0	0	2	0	0	2	1	32	0	0	0	0	0	0	0	0	0	0	1	21	0	2	0	2	62	64	280					
9	5:30	5:45	0	4	0	0	0	1	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	14	0	3	0	0	46	46	246					
10	5:45	6:00	0	3	0	0	0	0	3	1	12	0	0	0	0	0	0	0	0	0	0	0	0	22	0	1	0	1	41	42	208						
11	6:00	6:15	0	6	0	0	0	1	0	0	1	0	16	0	0	0	0	0	0	0	0	0	0	16	0	3	0	0	43	43	195						
12	6:15	6:30	0	3	0	0	0	0	1	0	1	0	14	0	0	0	0	0	0	0	0	0	0	0	13	0	4	0	0	35	35	166					
2	3:45	4:45	Calculated Peak Hour																																		
PM Peak Period		0	46	0	0	4	8	5	1	14	9	305	0	0	0	0	0	0	0	0	0	0	0	0	17	276	3	55	0	34	704	738					
Heavy Vehicle %		0%	#DIV/0!		33%		7%		3%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		6%		5%		6%		5%		5%								
PM Peak Hour		0	19	0	0	4	4	5	0	4	4	118	0	0	0	0	0	0	0	0	0	0	0	13	112	1	26	0	22	283	305						
Heavy Vehicle %		0%	#DIV/0!		50%		0%		3%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		10%		4%		7%		7%		7%								
PM Peak Hr Total		19	8		4		122		0		0		0		0		0		0		125		27														
Peak Hr Approach Total		27		126		0		0		0		152																									

305

Intersection: 14. Baseline Rd (CR35) and Bouvier Rd.

2

Thursday, Oct 17 2024

Morning Peak Hour Results:

Time Period		Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Total
From	To	RT		TH		LT		RT		TH		LT		RT		TH		LT		RT		TH		LT		Heavy	Passenger		
1	6:30-6:45	0	0	6	38	0	1	0	0	0	0	1	3	0	0	0	0	0	2	0	0	0	0	0	0	7	54	61	61
2	6:45-7:00	0	0	4	29	0	0	0	0	1	0	1	9	0	0	0	0	0	0	0	0	0	0	0	0	5	52	57	57
3	7:00-7:15	0	0	3	28	0	0	0	0	1	0	0	0	4	0	0	2	1	8	0	0	0	0	0	0	4	43	47	47
4	7:15-7:30	0	0	2	21	1	1	0	0	0	1	0	0	5	0	2	3	1	16	0	0	0	0	0	0	6	47	53	218
5	7:30-7:45	0	0	3	26	0	0	0	0	1	2	0	0	2	0	1	1	1	23	0	0	0	0	0	0	6	54	60	217
6	7:45-8:00	0	0	3	27	0	2	0	0	0	0	0	0	8	0	0	3	3	26	0	0	0	0	0	0	6	66	72	232
7	8:00-8:15	0	0	3	34	0	0	0	0	3	0	0	1	11	0	0	4	1	14	0	0	0	0	0	0	5	66	71	256
8	8:15-8:30	0	0	1	17	0	1	0	1	0	0	0	1	6	0	0	1	1	15	0	0	0	0	0	0	4	40	44	247
9	8:30-8:45	0	0	2	21	0	0	0	0	4	0	0	3	10	0	0	4	0	13	0	0	0	0	0	0	5	52	57	244
10	8:45-9:00	0	0	0	27	0	0	0	0	0	0	0	2	7	0	0	3	4	12	0	0	0	0	0	0	6	49	55	227
11	9:00-9:15	0	0	3	21	0	0	0	0	1	2	0	0	2	7	0	0	3	5	15	0	0	0	0	0	11	48	59	215
12	9:15-9:30	0	0	2	21	1	2	0	0	0	0	0	0	10	0	0	4	4	15	0	0	0	0	0	0	7	52	59	230
7:15-8:15		<<<Calculated Peak Hour																											
AM Peak Period		0	0	32	310	2	7	0	3	14	0	0	11	82	0	3	28	21	177	0	5	0	0	0	0	0	72	623	695
Heavy Vehicle %		#DIV/0!																											
AM Peak Hour		0	0	11	108	1	3	0	1	6	0	0	1	26	0	3	11	6	79	0	0	0	0	0	0	0	23	233	256
Heavy Vehicle %		#DIV/0!																											
AM Peak Hr Total		0	0	119	1199	4	0	0	7	0	0	0	4	27	0	14	0	85	0	0	0	0	0	0	0	0	0	0	0
Peak Hr Approach Tot		0	0	123	123	4	0	0	7	0	0	0	4	27	0	14	0	85	0	0	0	0	0	0	0	0	0	0	0

256

Afternoon Peak Hour Results:

Time Period		Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Total
From	To	RT		TH		LT		RT		TH		LT		RT		TH		LT		RT		TH		LT		Heavy	Passenger		
1	3:30-3:45	0	0	3	12	1	2	0	1	1	0	0	1	8	0	1	7	1	22	0	0	0	0	0	0	8	52	60	60
2	3:45-4:00	0	0	0	20	1	0	0	7	3	0	0	0	7	0	3	11	2	25	0	0	0	0	0	0	13	66	79	79
3	4:00-4:15	0	0	0	27	0	2	0	1	1	0	0	0	5	0	0	11	4	43	0	0	0	0	0	0	5	89	94	94
4	4:15-4:30	0	0	1	17	0	2	0	0	2	0	0	0	9	0	0	6	7	44	0	0	0	0	0	0	8	80	88	321
5	4:30-4:45	0	0	0	19	0	0	0	0	5	0	0	1	6	0	1	9	2	44	0	0	0	0	0	0	4	83	87	348
6	4:45-5:00	0	0	0	25	0	2	0	0	2	0	0	0	8	1	0	10	6	30	0	0	0	0	0	0	6	77	83	352
7	5:00-5:15	0	0	2	32	0	0	0	1	1	0	0	0	3	0	0	6	2	45	0	0	0	0	0	0	5	87	92	350
8	5:15-5:30	0	0	0	19	0	1	0	0	0	0	0	0	6	0	0	7	0	40	0	0	0	0	0	0	7	73	73	335
9	5:30-5:45	0	0	0	25	0	1	0	0	2	0	0	0	4	0	0	2	0	41	0	0	0	0	0	0	0	75	75	323
10	5:45-6:00	0	0	1	16	0	1	0	0	1	0	0	0	6	0	0	6	1	23	0	0	0	0	0	0	2	53	55	295
11	6:00-6:15	0	0	0	25	0	1	0	0	2	0	0	0	6	0	0	10	2	25	0	0	0	0	0	0	2	69	71	274
12	6:15-6:30	0	0	0	13	0	0	0	0	1	0	0	0	3	0	0	4	0	13	0	0	0	0	0	0	0	34	34	235
4:00-5:00		<<<Calculated Peak Hour																											
PM Peak Period		0	0	7	250	2	12	0	10	21	0	0	2	71	1	5	89	27	395	0	0	0	0	0	0	0	53	838	891
Heavy Vehicle %		#DIV/0!																											
PM Peak Hour		0	0	1	88	0	6	0	1	10	0	0	1	28	1	1	36	19	161	0	0	0	0	0	0	0	23	329	352
Heavy Vehicle %		#DIV/0!																											
PM Peak Hr Total		0	0	89	89	6	0	0	11	0	0	0	29	0	0	37	0	180	0	0	0	0	0	0	0	0	0	0	0
Peak Hr Approach Tot		0	0	95	95	6	0	0	11	0	0	0	29	0	0	37	0	180	0	0	0	0	0	0	0	0	0	0	0

352

Intersection: 8. Tucker Rd and David St.

2

Tuesday, Oct 22 2024

Morning Peak Hour Results:

2.3 Heavy Vehicle Factor

Time Period	From	To	Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Total					
			RT		TH		LT		RT		TH		LT		RT		TH		LT		RT		TH		LT		Heavy	Passenger							
			Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Pedestrian	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Pedestrian	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Pedestrian	Heavy			Passenger				
1	6:30	6:45	0	0	0	2	0	2	0	0	1	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	1	8	9	9				
2	6:45	7:00	0	0	0	2	0	3	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	11	11	11				
3	7:00	7:15	0	0	0	4	0	3	0	0	2	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	15	15	15					
4	7:15	7:30	0	0	0	2	2	6	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	13	15	50					
5	7:30	7:45	0	0	0	8	2	5	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	20	22	63					
6	7:45	8:00	0	0	0	4	2	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	12	14	66					
7	8:00	8:15	0	0	0	9	0	4	0	0	5	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	23	23	74					
8	8:15	8:30	0	0	0	8	0	4	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	17	17	76					
9	8:30	8:45	0	0	1	3	1	1	0	0	2	0	0	0	3	0	0	2	0	4	0	0	0	0	0	0	2	15	17	71					
10	8:45	9:00	0	0	2	6	1	3	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3	13	16	73					
11	9:00	9:15	0	0	1	8	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	12	13	63					
12	9:15	9:30	0	0	0	6	0	3	0	0	3	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	20	21	67					
5	7:30	8:30	Calculated Peak Hour																																
AM Total			0	0	4	62	8	40	0	0	23	0	0	2	11	2	0	5	0	38	0	0	0	0	0	0	0	14	179	193					
Heavy Vehicle %			#DIV/0!		6%		17%		0%		#DIV/0!		15%		0%		0%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		7%								
AM Peak Hour			0	0	0	29	4	17	0	0	10	0	0	3	2	0	0	0	13	0	0	0	0	0	0	0	4	72	76						
Heavy Vehicle %			#DIV/0!		0%		19%		0%		#DIV/0!		0%		#DIV/0!		0%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		5%								
AM Peak Hr Total			0		29		27		0		10		3		2		0		13		0		0		0		5								
Peak Hr Approach Tot			0		56		13		3		2		0		13		0		0		0		0		0		0								

76

Afternoon Peak Hour Results:

Time Period	From	To	Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Total					
			RT		TH		LT		RT		TH		LT		RT		TH		LT		RT		TH		LT		Heavy	Passenger							
			Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Pedestrian	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Pedestrian	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Pedestrian	Heavy			Passenger				
1	3:30	3:45	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	1	8	0	0	0	0	0	0	0	1	12	13	13					
2	3:45	4:00	0	0	0	3	0	2	0	2	3	0	0	0	2	0	0	3	2	11	0	0	0	0	0	0	4	24	28	28					
3	4:00	4:15	0	0	0	4	0	5	0	0	2	0	0	0	1	0	0	2	1	9	0	0	0	0	0	0	1	23	24	24					
4	4:15	4:30	0	0	0	6	0	10	0	0	5	0	0	0	0	1	1	3	0	12	0	0	0	0	0	0	1	36	37	102					
5	4:30	4:45	0	0	0	8	0	4	0	0	5	0	0	0	2	0	0	1	0	13	0	0	0	0	0	0	0	33	33	122					
6	4:45	5:00	0	0	0	5	0	2	0	0	10	0	0	0	2	0	0	1	0	9	0	0	0	0	0	0	0	29	29	123					
7	5:00	5:15	0	0	0	8	0	4	0	0	1	0	0	0	0	0	1	0	6	0	0	0	0	0	0	0	0	20	20	119					
8	5:15	5:30	0	0	0	2	0	3	0	0	3	0	0	0	3	0	0	2	0	9	0	0	1	0	0	0	0	22	22	104					
9	5:30	5:45	0	0	0	2	0	3	0	0	7	0	0	0	1	1	0	2	0	6	0	0	0	0	0	0	0	21	21	92					
10	5:45	6:00	0	0	0	4	0	1	0	0	3	0	0	0	1	0	0	2	0	2	0	0	0	0	0	0	0	13	13	76					
11	6:00	6:15	0	0	0	4	0	4	0	0	1	0	0	0	1	0	0	1	0	4	0	0	0	0	0	0	0	15	15	71					
12	6:15	6:30	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	7	7	56					
3	4:00	5:00	Calculated Peak Hour																																
PM Peak Period			0	0	0	50	0	38	0	2	42	0	0	0	14	2	1	18	4	93	0	0	1	0	0	0	0	7	255	262					
Heavy Vehicle %			#DIV/0!		0%		0%		5%		#DIV/0!		0%		5%		4%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		3%								
PM Peak Hour			0	0	0	23	0	21	0	0	22	0	0	5	1	1	7	1	43	0	0	0	0	0	0	0	2	121	123						
Heavy Vehicle %			#DIV/0!		0%		0%		0%		#DIV/0!		0%		13%		2%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		2%								
PM Peak Hr Total			0		23		21		0		22		5		1		10		46		0		0		0		2								
Peak Hr Approach Tot			0		44		27		5		1		10		56		0		0		0		0		0		0								

123

Intersection: 12. Baseline Road (CR35) and Lacasse Road

Wednesday, Oct 16 2024

Morning Peak Hour Results:

2.3 Heavy Vehicle Factor

Time Period		Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Total
From	To	RT		TH		LT		RT		TH		LT		RT		TH		LT		RT		TH		LT		Heavy	Passenger		
7:00	7:15	0	0	1	34	0	0	0	1	0	0	0	1	0	0	0	0	9	0	0	0	0	0	0	0	1	45	46	46
7:15	7:30	0	0	4	26	0	1	0	0	0	0	3	0	1	1	3	8	0	0	0	0	0	0	0	0	8	39	47	47
7:30	7:45	0	0	0	19	0	0	0	0	1	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	5	34	39	39
7:45	8:00	0	0	1	24	1	0	0	0	1	0	0	1	0	0	1	7	0	0	0	0	0	0	0	0	3	33	36	168
8:00	8:15	0	0	5	15	1	2	0	0	2	0	0	3	0	0	1	9	0	0	0	0	0	0	0	0	7	32	39	161
8:15	8:30	0	0	2	20	0	1	0	0	1	0	0	0	0	1	0	7	0	0	0	0	0	0	0	0	2	30	32	146
8:30	8:45	0	0	0	18	0	0	0	0	1	0	0	0	0	0	1	10	0	0	0	0	0	0	0	0	1	29	30	137
8:45	9:00	0	0	4	12	0	1	0	2	1	0	0	0	0	0	3	11	0	0	0	0	0	0	0	0	9	25	34	135
9:00	9:15	0	0	1	13	0	0	0	2	0	0	0	2	0	0	3	9	0	0	0	0	0	0	0	0	6	24	30	126
9:15	9:30	0	0	1	16	0	1	0	1	2	0	0	0	0	0	2	13	0	0	0	0	0	0	0	0	4	32	36	130
9:30	9:45	0	0	0	8	2	0	0	0	0	0	0	0	1	1	4	13	0	0	0	0	0	0	0	0	7	22	29	129
9:45	10:00	0	0	0	8	0	0	0	0	3	0	0	0	1	1	13	0	0	0	0	0	0	0	0	0	1	26	27	122
7:00	8:00	Calculated Peak Hour																											
AM Total		0	0	19	213	4	6	0	5	13	0	0	1	14	0	2	5	23	120	0	0	0	0	0	0	54	371	425	
Heavy Vehicle %		#DIV/0!		8%		40%			28%		#DIV/0!		7%			29%		16%		#DIV/0!		#DIV/0!		#DIV/0!			13%		
AM Peak Hour		0	0	6	103	1	1	0	0	3	0	0	1	8	0	1	1	8	35	0	0	0	0	0	0	17	151	168	
Heavy Vehicle %		#DIV/0!		6%		50%			0%		#DIV/0!		11%			50%		19%		#DIV/0!		#DIV/0!		#DIV/0!			10%		
AM Peak Hr Total		0		117		4		0		3		14		11		4		54		0		0		0					
Peak Hr Approach Tot				121																									

168

Afternoon Peak Hour Results:

Time Period		Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Total
From	To	RT		TH		LT		RT		TH		LT		RT		TH		LT		RT		TH		LT		Heavy	Passenger		
3:30	3:45	0	0	0	5	0	2	0	2	2	0	0	1	0	0	4	2	21	0	0	0	0	0	0	0	4	35	39	39
3:45	4:00	0	0	2	14	1	3	0	0	1	0	0	0	0	0	1	2	23	0	0	0	0	0	0	0	5	42	47	47
4:00	4:15	0	0	0	15	0	1	0	0	1	0	0	0	1	0	0	35	0	0	0	0	0	0	0	0	0	54	54	54
4:15	4:30	0	0	3	16	3	0	0	1	1	0	0	0	1	3	42	0	0	0	0	0	0	0	0	0	10	61	71	211
4:30	4:45	0	0	1	20	0	2	0	2	1	0	0	0	3	0	1	5	35	0	0	0	0	0	0	0	8	62	70	242
4:45	5:00	0	0	0	14	0	4	0	0	2	0	0	0	2	0	1	3	5	37	0	0	0	0	0	0	6	62	68	263
5:00	5:15	0	0	0	19	0	1	0	0	2	0	0	0	2	0	3	1	44	0	0	0	0	0	0	0	1	71	72	281
5:15	5:30	0	0	0	15	0	0	0	0	1	0	0	0	9	0	1	0	29	0	0	0	0	0	0	0	0	46	46	256
5:30	5:45	0	0	0	14	0	0	0	0	1	0	0	0	0	0	1	1	20	0	0	0	0	0	0	0	1	36	37	223
5:45	6:00	0	0	0	6	0	2	0	0	1	0	0	0	0	0	1	22	0	0	0	0	0	0	0	0	1	31	32	187
6:00	6:15	0	0	0	12	0	2	0	0	1	0	0	0	0	2	0	20	0	0	0	0	0	0	0	0	0	37	37	152
6:15	6:30	0	0	1	7	0	0	0	0	1	0	0	0	0	1	2	0	10	0	0	0	0	0	0	0	2	20	22	128
4:15	5:15	Calculated Peak Hour																											
PM Peak Period		0	0	7	157	4	17	0	5	15	0	0	0	10	9	2	20	20	338	0	0	0	0	0	0	38	557	595	
Heavy Vehicle %		#DIV/0!		4%		19%			25%		#DIV/0!		0%			9%		6%		#DIV/0!		#DIV/0!		#DIV/0!			6%		
PM Peak Hour		0	0	4	69	3	7	0	3	6	0	0	0	8	0	1	8	14	158	0	0	0	0	0	0	25	256	281	
Heavy Vehicle %		#DIV/0!		5%		30%			33%		#DIV/0!		0%			11%		8%		#DIV/0!		#DIV/0!		#DIV/0!			9%		
PM Peak Hr Total		0		79		14		0		13		8		0		11		191		0		0		0					
Peak Hr Approach Tot				93																									

281

Intersection: 10. Poupart Rd and St Jean St.

Wednesday, Oct 16 2024

Morning Peak Hour Results:

2.3 Heavy Vehicle Factor

Time Period		Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Total
From	To	RT		TH		LT		RT		TH		LT		RT		TH		LT		RT		TH		LT		Heavy	Passenger	Pedestrians	
6:30	6:45	0	0	0	0	35	3	32	0	1	8	0	0	0	6	0	0	4	0	7	0	0	0	0	0	4	92	96	96
6:45	7:00	0	0	1	23	1	20	0	2	26	0	0	0	11	0	0	6	0	4	0	0	0	0	0	0	4	90	94	94
7:00	7:15	0	0	1	48	0	22	0	2	21	0	0	2	16	0	0	5	2	6	0	0	0	0	0	0	7	118	125	125
7:15	7:30	0	0	2	27	7	13	0	1	22	0	0	0	20	0	0	9	0	6	0	0	0	0	0	0	10	97	107	422
7:30	7:45	0	0	0	24	2	22	0	1	18	0	0	0	13	0	0	8	0	6	0	0	0	0	0	0	3	91	94	420
7:45	8:00	0	0	0	23	0	18	0	1	16	0	0	0	19	0	0	7	1	5	0	0	0	0	0	0	2	88	90	416
8:00	8:15	0	0	1	19	1	12	0	2	22	0	0	0	24	0	0	10	1	10	0	0	0	0	0	0	5	97	102	393
8:15	8:30	0	0	2	12	3	12	0	3	23	0	0	1	15	1	0	9	0	8	0	0	0	0	0	0	9	79	88	374
8:30	8:45	0	0	0	19	3	11	0	2	15	0	0	0	16	0	0	11	0	3	0	0	2	0	0	0	5	75	80	360
8:45	9:00	0	0	0	18	0	10	0	1	12	0	0	1	16	2	2	11	1	8	0	0	0	0	0	0	5	75	80	350
9:00	9:15	0	0	1	19	0	13	0	0	10	0	0	1	18	0	1	11	1	6	0	0	0	0	0	0	4	77	81	329
9:15	9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	241
6:30	7:30	Calculated Peak Hour																											
AM Total		0	0	8	267	20	185	0	16	193	0	0	5	174	3	3	91	6	69	0	0	2	0	0	0	0	58	979	1037
Heavy Vehicle %		#DIV/0!		3%		10%		8%		#DIV/0!		3%		3%		8%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		6%			
AM Peak Hour		0	0	4	133	11	87	0	6	77	0	0	2	53	0	0	24	2	23	0	0	0	0	0	0	25	397	422	
Heavy Vehicle %		#DIV/0!		3%		11%		7%		#DIV/0!		4%		0%		8%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		6%			
AM Peak Hr Total		0		143		113		0		91		0		58		0		24		28		0		0	0				
Peak Hr Approach Tot				256						149						52					0		0						

422

Afternoon Peak Hour Results:

Time Period		Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Total
From	To	RT		TH		LT		RT		TH		LT		RT		TH		LT		RT		TH		LT		Heavy	Passenger	Pedestrians	
3:30	3:45	0	0	0	14	1	26	0	3	25	0	1	11	0	0	1	22	3	24	0	0	0	0	0	0	19	112	131	131
3:45	4:00	0	0	0	14	1	26	0	2	23	0	0	14	0	0	0	20	0	29	0	0	0	0	0	0	17	112	129	129
4:00	4:15	0	0	0	14	4	25	0	2	24	0	0	16	0	0	2	25	0	41	0	0	0	0	0	0	24	129	153	153
4:15	4:30	0	0	0	13	2	21	0	1	35	0	1	24	0	0	0	25	1	45	0	0	0	0	0	0	28	140	168	581
4:30	4:45	0	0	2	18	3	22	0	0	23	0	1	17	0	0	0	27	0	38	0	0	0	0	0	0	22	129	151	601
4:45	5:00	0	0	0	23	0	28	0	0	33	0	0	28	0	0	0	22	0	41	0	0	0	0	0	0	28	147	175	647
5:00	5:15	0	0	1	21	0	16	0	0	28	0	0	25	0	0	0	30	1	44	0	0	0	0	0	0	27	139	166	660
5:15	5:30	0	0	0	18	0	20	0	0	29	0	0	26	0	0	0	32	1	28	0	0	0	0	0	0	27	127	154	646
5:30	5:45	0	0	1	18	0	23	0	1	24	0	0	18	0	0	0	20	0	33	0	0	0	0	0	0	20	118	138	633
5:45	6:00	0	0	0	16	0	16	0	0	24	0	0	18	0	0	0	17	0	38	0	0	0	0	0	0	18	111	129	587
6:00	6:15	0	0	0	16	0	16	0	0	14	0	0	10	0	0	1	10	0	36	0	0	0	0	0	0	11	92	103	524
6:15	6:30	0	0	0	14	0	11	0	0	20	0	0	17	0	0	0	23	0	28	0	0	0	0	0	0	17	96	113	483
4:15	5:15	Calculated Peak Hour																											
PM Peak Period		0	0	4	199	11	250	0	9	302	0	3	224	0	0	4	273	6	425	0	0	0	0	0	0	258	1452	1710	
Heavy Vehicle %		#DIV/0!		2%		4%		3%		0%		100%		0%		1%		1%		#DIV/0!		#DIV/0!		#DIV/0!		15%			
PM Peak Hour		0	0	3	75	5	87	0	1	119	0	2	94	0	0	0	104	2	168	0	0	0	0	0	0	105	555	660	
Heavy Vehicle %		#DIV/0!		4%		5%		1%		0%		100%		0%		1%		1%		#DIV/0!		#DIV/0!		#DIV/0!		16%			
PM Peak Hr Total		0		82		99		0		122		2		217		0		104		173		0		0	0				
Peak Hr Approach Tot				181						341						277					0		0						

660

Intersection: 4. David St and Rockland X-Mas Trees

2 **Tuesday, Oct 22 2024**

Morning Peak Hour Results:

Time Period		Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Total				
From	To	RT		TH		LT		RT		TH		LT		RT		TH		LT		RT		TH		LT		Heavy	Passenger						
6:30	6:45	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3		
6:45	7:00	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	7	7		
7:00	7:15	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	8		
7:15	7:30	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	9	27			
7:30	7:45	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	9	33			
7:45	8:00	0	0	0	4	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	8	12	38			
8:00	8:15	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	11	12	42		
8:15	8:30	0	0	0	0	5	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	41		
8:30	8:45	0	0	0	1	5	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10	11	43			
8:45	9:00	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	6	37			
9:00	9:15	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	31			
9:15	9:30	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8	9	32			
7:45 - 8:45		<<<Calculated Peak Hour																															
AM Peak Period	0	0	0	9	49	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	13	87	100		
Heavy Vehicle %	#DIV/0!	#DIV/0!	16%	0%	0%	#DIV/0!	#DIV/0!	0%	0%	#DIV/0!	#DIV/0!	0%	0%	2	0	#DIV/0!	10%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	6	37	43			
AM Peak Hour	0	0	0	5	20	0	1	0	0	0	0	0	2	0	0	0	0	0	1	14	0	0	0	0	0	0	0	0	0	6	37	43	
Heavy Vehicle %	#DIV/0!	#DIV/0!	20%	0%	0%	#DIV/0!	#DIV/0!	0%	0%	#DIV/0!	#DIV/0!	0%	7%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	14%		
AM Peak Hr Total	0	0	0	25	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	6	37	43
Peak Hr Approach T	0	0	0	26	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	6	37	43

43

Afternoon Peak Hour Results:

Time Period		Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Total					
From	To	RT		TH		LT		RT		TH		LT		RT		TH		LT		RT		TH		LT		Heavy	Passenger							
3:30	3:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	6			
3:45	4:00	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	10	12	12			
4:00	4:15	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16	16			
4:15	4:30	0	0	0	1	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	14	15	49			
4:30	4:45	0	0	0	0	5	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	12	13	56			
4:45	5:00	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15	59			
5:00	5:15	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	13	56			
5:15	5:30	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9	50				
5:30	5:45	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	43			
5:45	6:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	31			
6:00	6:15	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	28			
6:15	6:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	20			
4:00 - 5:00		<<<Calculated Peak Hour																																
PM Peak Period	0	0	0	1	57	0	0	0	0	0	1	0	0	0	0	1	3	0	0	1	3	55	0	0	1	0	0	0	0	4	115	119		
Heavy Vehicle %	#DIV/0!	#DIV/0!	2%	#DIV/0!	0%	0%	#DIV/0!	0%	0%	#DIV/0!	#DIV/0!	0%	1	2	0	0%	1	5%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	2	57	59			
PM Peak Hour	0	0	0	1	25	0	0	0	0	0	1	0	0	0	0	1	2	0	0	1	1	29	0	0	0	0	0	0	0	2	57	59		
Heavy Vehicle %	#DIV/0!	#DIV/0!	4%	#DIV/0!	0%	0%	#DIV/0!	0%	0%	#DIV/0!	#DIV/0!	0%	3%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	3%		
PM Peak Hr Total	0	0	0	26	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	30	0	0	0	0	0	0	0	0	2	57	59	
Peak Hr Approach T	0	0	0	26	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	31	0	0	0	0	0	0	0	0	0	2	57	59

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Morning Peak Hour Results:

Time Period		Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Total																																			
		RT		TH		LT		RT		TH		LT		RT		TH		LT		RT		TH		LT		Heavy	Passenger																																					
		Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Pedestrians	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Pedestrians	Heavy	Passenger	Heavy	Passenger	Pedestrians	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Pedestrians			Heavy	Passenger																																	
From	To																																																															
1	6:30	6:45	1	2	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	37	39	39																										
2	6:45	7:00	2	13	3	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	5	70	75	75																									
3	7:00	7:15	1	14	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	1	63	64	64																										
4	7:15	7:30	0	11	2	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	5	49	54	232																										
5	7:30	7:45	3	14	3	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	11	0	14	61	75	268																										
6	7:45	8:00	0	21	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	18	0	5	83	88	281																											
7	8:00	8:15	1	16	2	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	11	0	6	56	62	279																										
8	8:15	8:30	1	24	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	2	62	64	289																										
9	8:30	8:45	2	13	1	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10	0	5	54	59	273																											
10	8:45	9:00	3	28	2	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	9	0	12	63	75	260																											
11	9:00	9:15	1	21	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	12	0	6	67	76	274																											
12	9:15	9:30	2	11	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	9	0	9	55	61	271																											
5 7:30 8:30		<<<Calculated Peak Hour																																																														
AM Peak Period		17	188	13	182	0	0	0	0	0	0	0	0	0	0	0	7	77	12	51	0	8	94	0	0	15	128	0	72	720	792																																	
Heavy Vehicle %		8%	7%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	8%	19%	8%	#DIV/0!	10%	9%																																																		
AM Peak Hour		5	75	5	53	0	0	0	0	0	0	0	0	0	0	4	30	6	17	0	3	34	0	4	53	0	27	262	289																																			
Heavy Vehicle %		6%	9%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	12%	26%	8%	#DIV/0!	7%	9%																																																		
AM Peak Hr Total		80	58	0	0	0	0	0	0	0	0	0	0	0	0	0	34	23	0	0	0	37	0	0	57	0	0	0	0	0	0	0	0	0	0	0	0	0																										
Peak Hr Approach Tot			138															57				94																																										

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Afternoon Peak Hour Results:

Time Period		Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Total																																					
		RT		TH		LT		RT		TH		LT		RT		TH		LT		RT		TH		LT		Heavy	Passenger																																							
		Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Pedestrians	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Pedestrians	Heavy	Passenger	Heavy	Passenger	Pedestrians	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy			Passenger	Pedestrians	Heavy	Passenger																																	
From	To																																																																	
1	3:30	3:45	2	16	0	9	0	0	0	0	0	0	0	0	0	0	0	1	17	1	5	0	0	7	0	0	1	26	0	5	80	85	85																																	
2	3:45	4:00	0	16	0	6	0	0	0	0	0	0	0	0	0	0	0	2	25	0	18	0	0	8	0	0	3	25	0	5	98	103	103																																	
3	4:00	4:15	0	16	0	6	0	0	0	0	0	0	0	0	0	0	0	1	24	1	9	0	0	4	0	0	2	21	0	4	90	94	94																																	
4	4:15	4:30	0	21	0	13	0	0	0	0	0	0	0	0	0	0	0	2	20	0	19	0	0	8	0	0	3	18	0	5	99	104	386																																	
5	4:30	4:45	0	17	1	12	0	0	0	0	0	0	0	0	0	0	0	5	19	0	19	0	0	11	0	0	0	18	0	6	96	102	403																																	
6	4:45	5:00	0	35	0	19	0	0	0	0	0	0	0	0	0	0	0	4	26	0	16	0	0	7	0	0	0	18	0	4	121	125	425																																	
7	5:00	5:15	0	20	0	7	0	0	0	0	0	0	0	0	0	0	0	1	26	0	15	0	0	5	0	0	0	21	0	1	94	95	426																																	
8	5:15	5:30	0	21	0	8	0	0	0	0	0	0	0	0	0	0	0	0	18	0	8	0	0	4	0	0	0	23	1	0	82	82	404																																	
9	5:30	5:45	0	11	0	10	0	0	0	0	0	0	0	0	0	0	0	2	10	1	15	0	0	1	0	0	0	14	0	3	61	64	366																																	
10	5:45	6:00	0	6	0	4	0	0	0	0	0	0	0	0	0	0	0	1	17	0	7	0	0	4	0	0	0	15	0	1	53	54	295																																	
11	6:00	6:15	0	9	0	6	0	0	0	0	0	0	0	0	0	0	0	2	15	1	6	0	0	6	0	0	0	13	0	3	55	58	258																																	
12	6:15	6:30	0	7	0	3	0	0	0	0	0	0	0	0	0	0	0	1	5	1	8	0	0	6	0	0	0	9	0	2	38	40	216																																	
4 4:15 5:15		<<<Calculated Peak Hour																																																																
PM Peak Period		2	195	1	113	0	0	0	0	0	0	0	0	0	0	0	22	222	5	145	0	0	71	0	0	9	221	1	39	967	1006																																			
Heavy Vehicle %		1%	1%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	9%	3%	0%	#DIV/0!	4%	4%																																																				
PM Peak Hour		0	93	1	51	0	0	0	0	0	0	0	0	0	0	0	12	91	0	69	0	0	31	0	3	75	0	16	410	426																																				
Heavy Vehicle %		0%	2%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	12%	0%	0%	#DIV/0!	4%	4%																																																				
PM Peak Hr Total		93	52	0	0	0	0	0	0	0	0	0	0	0	0	0	103	69	0	0	0	31	0	0	78	0	0	0	0	0	0	0	0	0	0	0	0	0																												
Peak Hr Approach Tot			145															172				109																																												

426





APPENDIX “B”

INTERSECTION CAPACITY ANALYSIS: SYNCHRO RESULTS

APPENDIX B-1: EXISTING (2024) CONDITIONS..... B-1
APPENDIX B-2: BACKGROUND (2031, 2037, 2043) CONDITIONS..... B-2
APPENDIX B-3: BACKGROUND MITIGATION (2037, 2043) CONDITIONS B-3
APPENDIX B-4: TOTAL FORECAST (2031, 2037, 2043) CONDITIONS B-4
APPENDIX B-5: TOTAL FORECAST MITIGATION (2037, 2043) CONDITIONS..... B-5
APPENDIX B-6: BASELINE ROAD ROUNDABOUT ANALYSIS..... B-6

**APPENDIX “B-1”
EXISTING (2024) CONDITIONS**

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	19	127	2	13	115
Future Vol, veh/h	5	19	127	2	13	115
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	13	11	50	10	7
Mvmt Flow	5	21	138	2	14	125
Number of Lanes	1	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	1	0
HCM Control Delay	7.3	8.3	8.4
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	21%	100%	0%
Vol Thru, %	98%	0%	0%	100%
Vol Right, %	2%	79%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	24	13	115
LT Vol	0	5	13	0
Through Vol	127	0	0	115
RT Vol	2	19	0	0
Lane Flow Rate	140	26	14	125
Geometry Grp	5	2	7	7
Degree of Util (X)	0.168	0.03	0.021	0.164
Departure Headway (Hd)	4.325	4.154	5.286	4.734
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	822	867	676	756
Service Time	2.389	2.154	3.025	2.473
HCM Lane V/C Ratio	0.17	0.03	0.021	0.165
HCM Control Delay	8.3	7.3	8.1	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.1	0.1	0.6

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	28	29	136	143	58	91
Future Vol, veh/h	28	29	136	143	58	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	32	148	155	63	99
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.7	10.2	8.6
HCM LOS	A	B	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	39%	0%	49%
Vol Thru, %	0%	49%	51%
Vol Right, %	61%	51%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	149	57	279
LT Vol	58	0	136
Through Vol	0	28	143
RT Vol	91	29	0
Lane Flow Rate	162	62	303
Geometry Grp	1	1	1
Degree of Util (X)	0.202	0.075	0.377
Departure Headway (Hd)	4.483	4.342	4.476
Convergence, Y/N	Yes	Yes	Yes
Cap	802	825	804
Service Time	2.507	2.371	2.499
HCM Lane V/C Ratio	0.202	0.075	0.377
HCM Control Delay	8.6	7.7	10.2
HCM Lane LOS	A	A	B
HCM 95th-tile Q	0.8	0.2	1.8

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	111	60	0	0	120	38	1	1	1	6	4	155
Future Vol, veh/h	111	60	0	0	120	38	1	1	1	6	4	155
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
Heavy Vehicles, %	8	22	2	2	8	6	5	5	5	2	50	4
Mvmt Flow	121	65	0	0	130	41	1	1	1	7	4	168
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.3	8.8	8	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	65%	0%	4%
Vol Thru, %	33%	35%	76%	2%
Vol Right, %	33%	0%	24%	94%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	171	158	165
LT Vol	1	111	0	6
Through Vol	1	60	120	4
RT Vol	1	0	38	155
Lane Flow Rate	3	186	172	179
Geometry Grp	1	1	1	1
Degree of Util (X)	0.004	0.245	0.215	0.21
Departure Headway (Hd)	4.906	4.754	4.507	4.22
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	728	755	795	852
Service Time	2.944	2.785	2.538	2.243
HCM Lane V/C Ratio	0.004	0.246	0.216	0.21
HCM Control Delay	8	9.3	8.8	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	1	0.8	0.8

Intersection						
Int Delay, s/veh	5.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	57	70	83	63	58	58
Future Vol, veh/h	57	70	83	63	58	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	20	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	10	9	13	7	5
Mvmt Flow	62	76	90	68	63	63

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	343	95	126	0	0
Stage 1	95	-	-	-	-
Stage 2	248	-	-	-	-
Critical Hdwy	6.42	6.3	4.19	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.39	2.281	-	-
Pot Cap-1 Maneuver	653	940	1418	-	-
Stage 1	929	-	-	-	-
Stage 2	793	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	612	940	1418	-	-
Mov Cap-2 Maneuver	612	-	-	-	-
Stage 1	870	-	-	-	-
Stage 2	793	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	4.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1418	-	758	-	-
HCM Lane V/C Ratio	0.064	-	0.182	-	-
HCM Control Delay (s)	7.7	-	10.8	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.7	-	-

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	1	14	22	5	3	2
Future Vol, veh/h	1	14	22	5	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	7	29	40	33	2
Mvmt Flow	1	15	24	5	3	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	29	0	-	0	44
Stage 1	-	-	-	-	27
Stage 2	-	-	-	-	17
Critical Hdwy	4.12	-	-	-	6.73
Critical Hdwy Stg 1	-	-	-	-	5.73
Critical Hdwy Stg 2	-	-	-	-	5.73
Follow-up Hdwy	2.218	-	-	-	3.797
Pot Cap-1 Maneuver	1584	-	-	-	894
Stage 1	-	-	-	-	921
Stage 2	-	-	-	-	931
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1584	-	-	-	893
Mov Cap-2 Maneuver	-	-	-	-	893
Stage 1	-	-	-	-	920
Stage 2	-	-	-	-	931

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1584	-	-	-	949
HCM Lane V/C Ratio	0.001	-	-	-	0.006
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	17	0	2	25	2	0
Future Vol, veh/h	17	0	2	25	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	2	2	20	2	2
Mvmt Flow	18	0	2	27	2	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	18	0	49
Stage 1	-	-	-	-	18
Stage 2	-	-	-	-	31
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1599	-	960
Stage 1	-	-	-	-	1005
Stage 2	-	-	-	-	992
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1599	-	959
Mov Cap-2 Maneuver	-	-	-	-	959
Stage 1	-	-	-	-	1005
Stage 2	-	-	-	-	991

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	959	-	-	1599	-
HCM Lane V/C Ratio	0.002	-	-	0.001	-
HCM Control Delay (s)	8.8	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	13	0	27	29	4	13
Future Vol, veh/h	13	0	27	29	4	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	20	2	2	2
Mvmt Flow	14	0	29	32	4	14

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	14	0	104
Stage 1	-	-	-	-	14
Stage 2	-	-	-	-	90
Critical Hdwy	-	-	4.3	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.38	-	3.518
Pot Cap-1 Maneuver	-	-	1494	-	894
Stage 1	-	-	-	-	1009
Stage 2	-	-	-	-	934
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1494	-	876
Mov Cap-2 Maneuver	-	-	-	-	876
Stage 1	-	-	-	-	1009
Stage 2	-	-	-	-	915

Approach	EB	WB	NB
HCM Control Delay, s	0	3.6	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1014	-	-	1494	-
HCM Lane V/C Ratio	0.018	-	-	0.02	-
HCM Control Delay (s)	8.6	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	29	37	90	100	62	58
Future Vol, veh/h	29	37	90	100	62	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	26	12	9	6	7	8
Mvmt Flow	32	40	98	109	67	63

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	207	0	-	0	257 153
Stage 1	-	-	-	-	153 -
Stage 2	-	-	-	-	104 -
Critical Hdwy	4.36	-	-	-	6.47 6.28
Critical Hdwy Stg 1	-	-	-	-	5.47 -
Critical Hdwy Stg 2	-	-	-	-	5.47 -
Follow-up Hdwy	2.434	-	-	-	3.563 3.372
Pot Cap-1 Maneuver	1234	-	-	-	721 878
Stage 1	-	-	-	-	863 -
Stage 2	-	-	-	-	908 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1234	-	-	-	702 878
Mov Cap-2 Maneuver	-	-	-	-	702 -
Stage 1	-	-	-	-	840 -
Stage 2	-	-	-	-	908 -

Approach	EB	WB	SB
HCM Control Delay, s	3.5	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1234	-	-	-	777
HCM Lane V/C Ratio	0.026	-	-	-	0.168
HCM Control Delay (s)	8	0	-	-	10.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	85	14	4	155	35	7
Future Vol, veh/h	85	14	4	155	35	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	21	25	10	4	14
Mvmt Flow	92	15	4	168	38	8

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	107	0	276
Stage 1	-	-	-	-	100
Stage 2	-	-	-	-	176
Critical Hdwy	-	-	4.35	-	6.44
Critical Hdwy Stg 1	-	-	-	-	5.44
Critical Hdwy Stg 2	-	-	-	-	5.44
Follow-up Hdwy	-	-	2.425	-	3.536
Pot Cap-1 Maneuver	-	-	1352	-	709
Stage 1	-	-	-	-	919
Stage 2	-	-	-	-	850
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1352	-	707
Mov Cap-2 Maneuver	-	-	-	-	707
Stage 1	-	-	-	-	919
Stage 2	-	-	-	-	847

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	736	-	-	1352	-
HCM Lane V/C Ratio	0.062	-	-	0.003	-
HCM Control Delay (s)	10.2	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-





Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	62	4	4	144	14	4
Future Vol, veh/h	62	4	4	144	14	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	19	50	50	6	11	2
Mvmt Flow	67	4	4	157	15	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	71	0	234 69
Stage 1	-	-	-	-	69 -
Stage 2	-	-	-	-	165 -
Critical Hdwy	-	-	4.6	-	6.51 6.22
Critical Hdwy Stg 1	-	-	-	-	5.51 -
Critical Hdwy Stg 2	-	-	-	-	5.51 -
Follow-up Hdwy	-	-	2.65	-	3.599 3.318
Pot Cap-1 Maneuver	-	-	1273	-	735 994
Stage 1	-	-	-	-	931 -
Stage 2	-	-	-	-	843 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1273	-	733 994
Mov Cap-2 Maneuver	-	-	-	-	733 -
Stage 1	-	-	-	-	931 -
Stage 2	-	-	-	-	840 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	778	-	-	1273	-
HCM Lane V/C Ratio	0.025	-	-	0.003	-
HCM Control Delay (s)	9.7	-	-	7.8	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	19	83	105	29	137
Future Vol, veh/h	8	19	83	105	29	137
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	50	2	3	2	4	10
Mvmt Flow	9	21	90	114	32	149
Number of Lanes	1	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	1	0
HCM Control Delay	8.5	8.2	8.7
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	30%	100%	0%
Vol Thru, %	44%	0%	0%	100%
Vol Right, %	56%	70%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	188	27	29	137
LT Vol	0	8	29	0
Through Vol	83	0	0	137
RT Vol	105	19	0	0
Lane Flow Rate	204	29	32	149
Geometry Grp	5	2	7	7
Degree of Util (X)	0.227	0.043	0.046	0.2
Departure Headway (Hd)	3.999	5.24	5.222	4.823
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	903	686	682	739
Service Time	1.999	3.25	2.984	2.585
HCM Lane V/C Ratio	0.226	0.042	0.047	0.202
HCM Control Delay	8.2	8.5	8.2	8.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	0.1	0.1	0.7

Intersection	
Intersection Delay, s/veh	12.7
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	173	114	108	82	221	122
Future Vol, veh/h	173	114	108	82	221	122
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	188	124	117	89	240	133
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	12	11.2	14.2
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	64%	0%	57%
Vol Thru, %	0%	60%	43%
Vol Right, %	36%	40%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	343	287	190
LT Vol	221	0	108
Through Vol	0	173	82
RT Vol	122	114	0
Lane Flow Rate	373	312	207
Geometry Grp	1	1	1
Degree of Util (X)	0.539	0.439	0.318
Departure Headway (Hd)	5.203	5.063	5.545
Convergence, Y/N	Yes	Yes	Yes
Cap	693	711	648
Service Time	3.232	3.094	3.579
HCM Lane V/C Ratio	0.538	0.439	0.319
HCM Control Delay	14.2	12	11.2
HCM Lane LOS	B	B	B
HCM 95th-tile Q	3.2	2.2	1.4

Intersection	
Intersection Delay, s/veh	13.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	288	163	0	1	48	56	0	1	1	48	2	172
Future Vol, veh/h	288	163	0	1	48	56	0	1	1	48	2	172
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
Heavy Vehicles, %	2	12	2	2	7	3	2	2	2	2	2	4
Mvmt Flow	313	177	0	1	52	61	0	1	1	52	2	187
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	16.6	8.8	8.6	10.5
HCM LOS	C	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	64%	1%	22%
Vol Thru, %	50%	36%	46%	1%
Vol Right, %	50%	0%	53%	77%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	451	105	222
LT Vol	0	288	1	48
Through Vol	1	163	48	2
RT Vol	1	0	56	172
Lane Flow Rate	2	490	114	241
Geometry Grp	1	1	1	1
Degree of Util (X)	0.003	0.654	0.153	0.332
Departure Headway (Hd)	5.567	4.8	4.817	4.95
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	647	745	735	722
Service Time	3.567	2.869	2.909	3.023
HCM Lane V/C Ratio	0.003	0.658	0.155	0.334
HCM Control Delay	8.6	16.6	8.8	10.5
HCM Lane LOS	A	C	A	B
HCM 95th-tile Q	0	4.9	0.5	1.5

Intersection						
Int Delay, s/veh	5.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	95	95	83	105	71	83
Future Vol, veh/h	95	95	83	105	71	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	20	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	10	9	13	7	5
Mvmt Flow	103	103	90	114	77	90

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	416	122	167	0	0
Stage 1	122	-	-	-	-
Stage 2	294	-	-	-	-
Critical Hdwy	6.42	6.3	4.19	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.39	2.281	-	-
Pot Cap-1 Maneuver	593	908	1369	-	-
Stage 1	903	-	-	-	-
Stage 2	756	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	554	908	1369	-	-
Mov Cap-2 Maneuver	554	-	-	-	-
Stage 1	843	-	-	-	-
Stage 2	756	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	3.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1369	-	688	-	-
HCM Lane V/C Ratio	0.066	-	0.3	-	-
HCM Control Delay (s)	7.8	-	12.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1.3	-	-

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	3	32	25	5	3	2
Future Vol, veh/h	3	32	25	5	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	7	29	40	33	2
Mvmt Flow	3	35	27	5	3	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	32	0	-	0	71 30
Stage 1	-	-	-	-	30 -
Stage 2	-	-	-	-	41 -
Critical Hdwy	4.12	-	-	-	6.73 6.22
Critical Hdwy Stg 1	-	-	-	-	5.73 -
Critical Hdwy Stg 2	-	-	-	-	5.73 -
Follow-up Hdwy	2.218	-	-	-	3.797 3.318
Pot Cap-1 Maneuver	1580	-	-	-	862 1044
Stage 1	-	-	-	-	918 -
Stage 2	-	-	-	-	908 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1580	-	-	-	860 1044
Mov Cap-2 Maneuver	-	-	-	-	860 -
Stage 1	-	-	-	-	916 -
Stage 2	-	-	-	-	908 -

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1580	-	-	-	925
HCM Lane V/C Ratio	0.002	-	-	-	0.006
HCM Control Delay (s)	7.3	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	34	1	0	29	1	1
Future Vol, veh/h	34	1	0	29	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	4	2	2
Mvmt Flow	37	1	0	32	1	1

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	38	0	70
Stage 1	-	-	-	-	38
Stage 2	-	-	-	-	32
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1572	-	934
Stage 1	-	-	-	-	984
Stage 2	-	-	-	-	991
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1572	-	934
Mov Cap-2 Maneuver	-	-	-	-	934
Stage 1	-	-	-	-	984
Stage 2	-	-	-	-	991

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	981	-	-	1572	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	8.7	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	3.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	46	10	21	23	7	27
Future Vol, veh/h	46	10	21	23	7	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	13	2	2	2	2
Mvmt Flow	50	11	23	25	8	29

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	61	0	127
Stage 1	-	-	-	-	56
Stage 2	-	-	-	-	71
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1542	-	868
Stage 1	-	-	-	-	967
Stage 2	-	-	-	-	952
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1542	-	855
Mov Cap-2 Maneuver	-	-	-	-	855
Stage 1	-	-	-	-	967
Stage 2	-	-	-	-	938

Approach	EB	WB	NB
HCM Control Delay, s	0	3.5	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	974	-	-	1542	-
HCM Lane V/C Ratio	0.038	-	-	0.015	-
HCM Control Delay (s)	8.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	4.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	82	132	64	93	99	46
Future Vol, veh/h	82	132	64	93	99	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	12	2	2	4	2
Mvmt Flow	89	143	70	101	108	50

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	171	0	-	0	442 121
Stage 1	-	-	-	-	121 -
Stage 2	-	-	-	-	321 -
Critical Hdwy	4.12	-	-	-	6.44 6.22
Critical Hdwy Stg 1	-	-	-	-	5.44 -
Critical Hdwy Stg 2	-	-	-	-	5.44 -
Follow-up Hdwy	2.218	-	-	-	3.536 3.318
Pot Cap-1 Maneuver	1406	-	-	-	569 930
Stage 1	-	-	-	-	899 -
Stage 2	-	-	-	-	731 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1406	-	-	-	530 930
Mov Cap-2 Maneuver	-	-	-	-	530 -
Stage 1	-	-	-	-	837 -
Stage 2	-	-	-	-	731 -

Approach	EB	WB	SB
HCM Control Delay, s	3	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1406	-	-	-	614
HCM Lane V/C Ratio	0.063	-	-	-	0.257
HCM Control Delay (s)	7.7	0	-	-	12.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	192	39	6	118	39	11
Future Vol, veh/h	192	39	6	118	39	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	11	3	10	2	3	9
Mvmt Flow	209	42	7	128	42	12

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	251	0	372
Stage 1	-	-	-	-	230
Stage 2	-	-	-	-	142
Critical Hdwy	-	-	4.2	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.29	-	3.527
Pot Cap-1 Maneuver	-	-	1269	-	627
Stage 1	-	-	-	-	806
Stage 2	-	-	-	-	883
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1269	-	623
Mov Cap-2 Maneuver	-	-	-	-	623
Stage 1	-	-	-	-	806
Stage 2	-	-	-	-	878

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	11
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	654	-	-	1269	-
HCM Lane V/C Ratio	0.083	-	-	0.005	-
HCM Control Delay (s)	11	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	201	11	15	95	10	13
Future Vol, veh/h	201	11	15	95	10	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	11	30	5	0	33
Mvmt Flow	218	12	16	103	11	14

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	230	0	359 224
Stage 1	-	-	-	-	224 -
Stage 2	-	-	-	-	135 -
Critical Hdwy	-	-	4.4	-	6.4 6.53
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.47	-	3.5 3.597
Pot Cap-1 Maneuver	-	-	1189	-	644 744
Stage 1	-	-	-	-	818 -
Stage 2	-	-	-	-	896 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1189	-	635 744
Mov Cap-2 Maneuver	-	-	-	-	635 -
Stage 1	-	-	-	-	818 -
Stage 2	-	-	-	-	883 -

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	692	-	-	1189	-
HCM Lane V/C Ratio	0.036	-	-	0.014	-
HCM Control Delay (s)	10.4	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

APPENDIX “B-2”
BACKGROUND (2031, 2037, 2043) CONDITIONS

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T		T	T
Traffic Vol, veh/h	15	60	202	4	23	154
Future Vol, veh/h	15	60	202	4	23	154
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	13	11	50	10	7
Mvmt Flow	16	65	220	4	25	167
Number of Lanes	1	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	1	0
HCM Control Delay	8	9.4	9.1
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	20%	100%	0%
Vol Thru, %	98%	0%	0%	100%
Vol Right, %	2%	80%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	206	75	23	154
LT Vol	0	15	23	0
Through Vol	202	0	0	154
RT Vol	4	60	0	0
Lane Flow Rate	224	82	25	167
Geometry Grp	5	2	7	7
Degree of Util (X)	0.285	0.101	0.039	0.232
Departure Headway (Hd)	4.586	4.477	5.548	4.994
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	786	801	649	723
Service Time	2.603	2.499	3.248	2.694
HCM Lane V/C Ratio	0.285	0.102	0.039	0.231
HCM Control Delay	9.4	8	8.5	9.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.2	0.3	0.1	0.9

Intersection	
Intersection Delay, s/veh	13.2
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	79	33	155	303	66	104
Future Vol, veh/h	79	33	155	303	66	104
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	86	36	168	329	72	113
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.8	15.5	9.9
HCM LOS	A	C	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	39%	0%	34%
Vol Thru, %	0%	71%	66%
Vol Right, %	61%	29%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	170	112	458
LT Vol	66	0	155
Through Vol	0	79	303
RT Vol	104	33	0
Lane Flow Rate	185	122	498
Geometry Grp	1	1	1
Degree of Util (X)	0.26	0.162	0.639
Departure Headway (Hd)	5.069	4.803	4.619
Convergence, Y/N	Yes	Yes	Yes
Cap	704	741	777
Service Time	3.135	2.871	2.668
HCM Lane V/C Ratio	0.263	0.165	0.641
HCM Control Delay	9.9	8.8	15.5
HCM Lane LOS	A	A	C
HCM 95th-tile Q	1	0.6	4.7

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	127	77	0	0	170	43	1	1	1	7	4	177
Future Vol, veh/h	127	77	0	0	170	43	1	1	1	7	4	177
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
Heavy Vehicles, %	8	22	2	2	8	6	5	5	5	2	50	4
Mvmt Flow	138	84	0	0	185	47	1	1	1	8	4	192
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.1	9.7	8.3	9
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	62%	0%	4%
Vol Thru, %	33%	38%	80%	2%
Vol Right, %	33%	0%	20%	94%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	204	213	188
LT Vol	1	127	0	7
Through Vol	1	77	170	4
RT Vol	1	0	43	177
Lane Flow Rate	3	222	232	204
Geometry Grp	1	1	1	1
Degree of Util (X)	0.005	0.302	0.299	0.253
Departure Headway (Hd)	5.198	4.899	4.655	4.45
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	684	730	769	805
Service Time	3.266	2.95	2.706	2.493
HCM Lane V/C Ratio	0.004	0.304	0.302	0.253
HCM Control Delay	8.3	10.1	9.7	9
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0	1.3	1.3	1

Intersection						
Int Delay, s/veh	4.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	65	80	95	186	98	66
Future Vol, veh/h	65	80	95	186	98	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	20	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	10	9	13	7	5
Mvmt Flow	71	87	103	202	107	72

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	551	143	179	0	0
Stage 1	143	-	-	-	-
Stage 2	408	-	-	-	-
Critical Hdwy	6.42	6.3	4.19	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.39	2.281	-	-
Pot Cap-1 Maneuver	495	884	1355	-	-
Stage 1	884	-	-	-	-
Stage 2	671	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	457	884	1355	-	-
Mov Cap-2 Maneuver	457	-	-	-	-
Stage 1	817	-	-	-	-
Stage 2	671	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.7	2.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1355	-	623	-	-
HCM Lane V/C Ratio	0.076	-	0.253	-	-
HCM Control Delay (s)	7.9	-	12.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1	-	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	1	26	72	5	3	2
Future Vol, veh/h	1	26	72	5	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	7	29	40	33	2
Mvmt Flow	1	28	78	5	3	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	83	0	-	0	111 81
Stage 1	-	-	-	-	81 -
Stage 2	-	-	-	-	30 -
Critical Hdwy	4.12	-	-	-	6.73 6.22
Critical Hdwy Stg 1	-	-	-	-	5.73 -
Critical Hdwy Stg 2	-	-	-	-	5.73 -
Follow-up Hdwy	2.218	-	-	-	3.797 3.318
Pot Cap-1 Maneuver	1514	-	-	-	816 979
Stage 1	-	-	-	-	870 -
Stage 2	-	-	-	-	918 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1514	-	-	-	815 979
Mov Cap-2 Maneuver	-	-	-	-	815 -
Stage 1	-	-	-	-	869 -
Stage 2	-	-	-	-	918 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1514	-	-	-	874
HCM Lane V/C Ratio	0.001	-	-	-	0.006
HCM Control Delay (s)	7.4	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	29	0	2	76	2	0
Future Vol, veh/h	29	0	2	76	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	2	2	20	2	2
Mvmt Flow	32	0	2	83	2	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	32	0	119
Stage 1	-	-	-	-	32
Stage 2	-	-	-	-	87
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1580	-	877
Stage 1	-	-	-	-	991
Stage 2	-	-	-	-	936
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1580	-	876
Mov Cap-2 Maneuver	-	-	-	-	876
Stage 1	-	-	-	-	991
Stage 2	-	-	-	-	935

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	876	-	-	1580	-
HCM Lane V/C Ratio	0.002	-	-	0.001	-
HCM Control Delay (s)	9.1	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	4.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	5	24	31	9	27	46
Future Vol, veh/h	5	24	31	9	27	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	26	34	10	29	50

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	44	0	-	0	75 39
Stage 1	-	-	-	-	39 -
Stage 2	-	-	-	-	36 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1564	-	-	-	928 1033
Stage 1	-	-	-	-	983 -
Stage 2	-	-	-	-	986 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1564	-	-	-	925 1033
Mov Cap-2 Maneuver	-	-	-	-	925 -
Stage 1	-	-	-	-	980 -
Stage 2	-	-	-	-	986 -

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1564	-	-	-	990
HCM Lane V/C Ratio	0.003	-	-	-	0.08
HCM Control Delay (s)	7.3	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	4	47	41	5	0	0
Future Vol, veh/h	4	47	41	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	51	45	5	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	50	0	-	0	107 48
Stage 1	-	-	-	-	48 -
Stage 2	-	-	-	-	59 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1557	-	-	-	891 1021
Stage 1	-	-	-	-	974 -
Stage 2	-	-	-	-	964 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1557	-	-	-	888 1021
Mov Cap-2 Maneuver	-	-	-	-	888 -
Stage 1	-	-	-	-	971 -
Stage 2	-	-	-	-	964 -

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1557	-	-	-	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	7.3	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	47	0	0	46	0	0
Future Vol, veh/h	47	0	0	46	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	0	0	50	0	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	51	0	101
Stage 1	-	-	-	-	51
Stage 2	-	-	-	-	50
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1555	-	898
Stage 1	-	-	-	-	971
Stage 2	-	-	-	-	972
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1555	-	898
Mov Cap-2 Maneuver	-	-	-	-	898
Stage 1	-	-	-	-	971
Stage 2	-	-	-	-	972

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1555	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	5.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	3	43	33	11	37
Future Vol, veh/h	15	3	43	33	11	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	20	2	2	2
Mvmt Flow	16	3	47	36	12	40

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	19	0	148 18
Stage 1	-	-	-	-	18 -
Stage 2	-	-	-	-	130 -
Critical Hdwy	-	-	4.3	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.38	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1488	-	844 1061
Stage 1	-	-	-	-	1005 -
Stage 2	-	-	-	-	896 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1488	-	817 1061
Mov Cap-2 Maneuver	-	-	-	-	817 -
Stage 1	-	-	-	-	1005 -
Stage 2	-	-	-	-	867 -

Approach	EB	WB	NB
HCM Control Delay, s	0	4.2	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	993	-	-	1488	-
HCM Lane V/C Ratio	0.053	-	-	0.031	-
HCM Control Delay (s)	8.8	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	80	4	4	197	14	4
Future Vol, veh/h	80	4	4	197	14	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	19	50	50	6	11	2
Mvmt Flow	87	4	4	214	15	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	91	0	311 89
Stage 1	-	-	-	-	89 -
Stage 2	-	-	-	-	222 -
Critical Hdwy	-	-	4.6	-	6.51 6.22
Critical Hdwy Stg 1	-	-	-	-	5.51 -
Critical Hdwy Stg 2	-	-	-	-	5.51 -
Follow-up Hdwy	-	-	2.65	-	3.599 3.318
Pot Cap-1 Maneuver	-	-	1250	-	663 969
Stage 1	-	-	-	-	912 -
Stage 2	-	-	-	-	794 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1250	-	660 969
Mov Cap-2 Maneuver	-	-	-	-	660 -
Stage 1	-	-	-	-	912 -
Stage 2	-	-	-	-	791 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	710	-	-	1250	-
HCM Lane V/C Ratio	0.028	-	-	0.003	-
HCM Control Delay (s)	10.2	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	42	42	103	118	81	99
Future Vol, veh/h	42	42	103	118	81	99
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	26	12	9	6	7	8
Mvmt Flow	46	46	112	128	88	108

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	240	0	-	0	314 176
Stage 1	-	-	-	-	176 -
Stage 2	-	-	-	-	138 -
Critical Hdwy	4.36	-	-	-	6.47 6.28
Critical Hdwy Stg 1	-	-	-	-	5.47 -
Critical Hdwy Stg 2	-	-	-	-	5.47 -
Follow-up Hdwy	2.434	-	-	-	3.563 3.372
Pot Cap-1 Maneuver	1198	-	-	-	669 852
Stage 1	-	-	-	-	843 -
Stage 2	-	-	-	-	876 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1198	-	-	-	643 852
Mov Cap-2 Maneuver	-	-	-	-	643 -
Stage 1	-	-	-	-	810 -
Stage 2	-	-	-	-	876 -

Approach	EB	WB	SB
HCM Control Delay, s	4.1	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1198	-	-	-	743
HCM Lane V/C Ratio	0.038	-	-	-	0.263
HCM Control Delay (s)	8.1	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.1

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	107	14	4	181	35	7
Future Vol, veh/h	107	14	4	181	35	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	21	25	10	4	14
Mvmt Flow	116	15	4	197	38	8

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	131	0	329
Stage 1	-	-	-	-	124
Stage 2	-	-	-	-	205
Critical Hdwy	-	-	4.35	-	6.44
Critical Hdwy Stg 1	-	-	-	-	5.44
Critical Hdwy Stg 2	-	-	-	-	5.44
Follow-up Hdwy	-	-	2.425	-	3.536
Pot Cap-1 Maneuver	-	-	1324	-	661
Stage 1	-	-	-	-	897
Stage 2	-	-	-	-	825
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1324	-	659
Mov Cap-2 Maneuver	-	-	-	-	659
Stage 1	-	-	-	-	897
Stage 2	-	-	-	-	823

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	689	-	-	1324	-
HCM Lane V/C Ratio	0.066	-	-	0.003	-
HCM Control Delay (s)	10.6	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-





Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	56	30	10	150	150	19
Future Vol, veh/h	56	30	10	150	150	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	61	33	11	163	163	21

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	359	174	184	0	-	0
Stage 1	174	-	-	-	-	-
Stage 2	185	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	640	869	1391	-	-	-
Stage 1	856	-	-	-	-	-
Stage 2	847	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	634	869	1391	-	-	-
Mov Cap-2 Maneuver	634	-	-	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	847	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1391	-	700	-	-
HCM Lane V/C Ratio	0.008	-	0.134	-	-
HCM Control Delay (s)	7.6	0	10.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	42	233	17	59	218
Future Vol, veh/h	13	42	233	17	59	218
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	50	2	3	2	4	10
Mvmt Flow	14	46	253	18	64	237
Number of Lanes	1	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	1	0
HCM Control Delay	9.3	9.9	10
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	24%	100%	0%
Vol Thru, %	93%	0%	0%	100%
Vol Right, %	7%	76%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	250	55	59	218
LT Vol	0	13	59	0
Through Vol	233	0	0	218
RT Vol	17	42	0	0
Lane Flow Rate	272	60	64	237
Geometry Grp	5	2	7	7
Degree of Util (X)	0.341	0.094	0.097	0.332
Departure Headway (Hd)	4.516	5.642	5.44	5.04
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	796	634	660	716
Service Time	2.539	3.681	3.164	2.764
HCM Lane V/C Ratio	0.342	0.095	0.097	0.331
HCM Control Delay	9.9	9.3	8.8	10.3
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	1.5	0.3	0.3	1.5

Intersection	
Intersection Delay, s/veh	26.8
Intersection LOS	D

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	347	130	123	185	252	139
Future Vol, veh/h	347	130	123	185	252	139
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	377	141	134	201	274	151
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	33.2	18.5	25.6
HCM LOS	D	C	D

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	64%	0%	40%
Vol Thru, %	0%	73%	60%
Vol Right, %	36%	27%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	391	477	308
LT Vol	252	0	123
Through Vol	0	347	185
RT Vol	139	130	0
Lane Flow Rate	425	518	335
Geometry Grp	1	1	1
Degree of Util (X)	0.746	0.847	0.596
Departure Headway (Hd)	6.322	5.879	6.411
Convergence, Y/N	Yes	Yes	Yes
Cap	574	617	562
Service Time	4.322	3.925	4.463
HCM Lane V/C Ratio	0.74	0.84	0.596
HCM Control Delay	25.6	33.2	18.5
HCM Lane LOS	D	D	C
HCM 95th-tile Q	6.5	9.2	3.9

Intersection	
Intersection Delay, s/veh	21.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	328	222	0	1	73	64	0	1	1	55	2	196
Future Vol, veh/h	328	222	0	1	73	64	0	1	1	55	2	196
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
Heavy Vehicles, %	2	12	2	2	7	3	2	2	2	2	2	4
Mvmt Flow	357	241	0	1	79	70	0	1	1	60	2	213
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	29.1	9.8	9.2	12.3
HCM LOS	D	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	60%	1%	22%
Vol Thru, %	50%	40%	53%	1%
Vol Right, %	50%	0%	46%	77%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	550	138	253
LT Vol	0	328	1	55
Through Vol	1	222	73	2
RT Vol	1	0	64	196
Lane Flow Rate	2	598	150	275
Geometry Grp	1	1	1	1
Degree of Util (X)	0.004	0.842	0.22	0.414
Departure Headway (Hd)	6.132	5.072	5.289	5.426
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	582	717	678	663
Service Time	4.191	3.097	3.327	3.465
HCM Lane V/C Ratio	0.003	0.834	0.221	0.415
HCM Control Delay	9.2	29.1	9.8	12.3
HCM Lane LOS	A	D	A	B
HCM 95th-tile Q	0	9.5	0.8	2

Intersection						
Int Delay, s/veh	5.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	108	108	95	188	95	187
Future Vol, veh/h	108	108	95	188	95	187
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	20	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	10	9	13	7	5
Mvmt Flow	117	117	103	204	103	203

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	615	205	306	0	0
Stage 1	205	-	-	-	-
Stage 2	410	-	-	-	-
Critical Hdwy	6.42	6.3	4.19	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.39	2.281	-	-
Pot Cap-1 Maneuver	455	816	1216	-	-
Stage 1	829	-	-	-	-
Stage 2	670	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	416	816	1216	-	-
Mov Cap-2 Maneuver	416	-	-	-	-
Stage 1	759	-	-	-	-
Stage 2	670	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.3	2.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1216	-	551	-	-
HCM Lane V/C Ratio	0.085	-	0.426	-	-
HCM Control Delay (s)	8.2	-	16.3	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.3	-	2.1	-	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	3	72	53	5	3	2
Future Vol, veh/h	3	72	53	5	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	7	29	40	33	2
Mvmt Flow	3	78	58	5	3	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	63	0	-	0	145 61
Stage 1	-	-	-	-	61 -
Stage 2	-	-	-	-	84 -
Critical Hdwy	4.12	-	-	-	6.73 6.22
Critical Hdwy Stg 1	-	-	-	-	5.73 -
Critical Hdwy Stg 2	-	-	-	-	5.73 -
Follow-up Hdwy	2.218	-	-	-	3.797 3.318
Pot Cap-1 Maneuver	1540	-	-	-	780 1004
Stage 1	-	-	-	-	888 -
Stage 2	-	-	-	-	867 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1540	-	-	-	778 1004
Mov Cap-2 Maneuver	-	-	-	-	778 -
Stage 1	-	-	-	-	886 -
Stage 2	-	-	-	-	867 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1540	-	-	-	855
HCM Lane V/C Ratio	0.002	-	-	-	0.006
HCM Control Delay (s)	7.3	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	75	1	0	57	1	1
Future Vol, veh/h	75	1	0	57	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	4	2	2
Mvmt Flow	82	1	0	62	1	1

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	83	0	145
Stage 1	-	-	-	-	83
Stage 2	-	-	-	-	62
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1514	-	847
Stage 1	-	-	-	-	940
Stage 2	-	-	-	-	961
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1514	-	847
Mov Cap-2 Maneuver	-	-	-	-	847
Stage 1	-	-	-	-	940
Stage 2	-	-	-	-	961

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	907	-	-	1514	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	22	52	34	18	21	23
Future Vol, veh/h	22	52	34	18	21	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	57	37	20	23	25

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	57	0	-	0	152 47
Stage 1	-	-	-	-	47 -
Stage 2	-	-	-	-	105 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1547	-	-	-	840 1022
Stage 1	-	-	-	-	975 -
Stage 2	-	-	-	-	919 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1547	-	-	-	827 1022
Mov Cap-2 Maneuver	-	-	-	-	827 -
Stage 1	-	-	-	-	959 -
Stage 2	-	-	-	-	919 -

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1547	-	-	-	919
HCM Lane V/C Ratio	0.015	-	-	-	0.052
HCM Control Delay (s)	7.4	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	13	61	54	13	0	0
Future Vol, veh/h	13	61	54	13	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	66	59	14	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	73	0	-	0	160 66
Stage 1	-	-	-	-	66 -
Stage 2	-	-	-	-	94 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1527	-	-	-	831 998
Stage 1	-	-	-	-	957 -
Stage 2	-	-	-	-	930 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1527	-	-	-	823 998
Mov Cap-2 Maneuver	-	-	-	-	823 -
Stage 1	-	-	-	-	947 -
Stage 2	-	-	-	-	930 -

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1527	-	-	-	-
HCM Lane V/C Ratio	0.009	-	-	-	-
HCM Control Delay (s)	7.4	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	61	0	0	67	0	0
Future Vol, veh/h	61	0	0	67	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	0	0	73	0	0

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	66	0	139	66
Stage 1	-	-	-	-	66	-
Stage 2	-	-	-	-	73	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1536	-	854	998
Stage 1	-	-	-	-	957	-
Stage 2	-	-	-	-	950	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1536	-	854	998
Mov Cap-2 Maneuver	-	-	-	-	854	-
Stage 1	-	-	-	-	957	-
Stage 2	-	-	-	-	950	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1536	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	4.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	52	20	47	26	13	48
Future Vol, veh/h	52	20	47	26	13	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	13	2	2	2	2
Mvmt Flow	57	22	51	28	14	52

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	79	0	198 68
Stage 1	-	-	-	-	68 -
Stage 2	-	-	-	-	130 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1519	-	791 995
Stage 1	-	-	-	-	955 -
Stage 2	-	-	-	-	896 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1519	-	764 995
Mov Cap-2 Maneuver	-	-	-	-	764 -
Stage 1	-	-	-	-	955 -
Stage 2	-	-	-	-	866 -

Approach	EB	WB	NB
HCM Control Delay, s	0	4.8	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	935	-	-	1519	-
HCM Lane V/C Ratio	0.071	-	-	0.034	-
HCM Control Delay (s)	9.1	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	265	11	15	126	10	13
Future Vol, veh/h	265	11	15	126	10	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	11	30	5	0	33
Mvmt Flow	288	12	16	137	11	14

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	300	0	463 294
Stage 1	-	-	-	-	294 -
Stage 2	-	-	-	-	169 -
Critical Hdwy	-	-	4.4	-	6.4 6.53
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.47	-	3.5 3.597
Pot Cap-1 Maneuver	-	-	1118	-	561 678
Stage 1	-	-	-	-	761 -
Stage 2	-	-	-	-	866 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1118	-	553 678
Mov Cap-2 Maneuver	-	-	-	-	553 -
Stage 1	-	-	-	-	761 -
Stage 2	-	-	-	-	853 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	617	-	-	1118	-
HCM Lane V/C Ratio	0.041	-	-	0.015	-
HCM Control Delay (s)	11.1	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	6.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	129	150	73	116	121	70
Future Vol, veh/h	129	150	73	116	121	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	12	2	2	4	2
Mvmt Flow	140	163	79	126	132	76

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	205	0	-	0	585 142
Stage 1	-	-	-	-	142 -
Stage 2	-	-	-	-	443 -
Critical Hdwy	4.12	-	-	-	6.44 6.22
Critical Hdwy Stg 1	-	-	-	-	5.44 -
Critical Hdwy Stg 2	-	-	-	-	5.44 -
Follow-up Hdwy	2.218	-	-	-	3.536 3.318
Pot Cap-1 Maneuver	1366	-	-	-	470 906
Stage 1	-	-	-	-	880 -
Stage 2	-	-	-	-	643 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1366	-	-	-	417 906
Mov Cap-2 Maneuver	-	-	-	-	417 -
Stage 1	-	-	-	-	781 -
Stage 2	-	-	-	-	643 -

Approach	EB	WB	SB
HCM Control Delay, s	3.7	0	16.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1366	-	-	-	520
HCM Lane V/C Ratio	0.103	-	-	-	0.399
HCM Control Delay (s)	7.9	0	-	-	16.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	1.9

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	227	39	6	145	39	11
Future Vol, veh/h	227	39	6	145	39	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	11	3	10	2	3	9
Mvmt Flow	247	42	7	158	42	12

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	289	0	440 268
Stage 1	-	-	-	-	268 -
Stage 2	-	-	-	-	172 -
Critical Hdwy	-	-	4.2	-	6.43 6.29
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.29	-	3.527 3.381
Pot Cap-1 Maneuver	-	-	1228	-	573 754
Stage 1	-	-	-	-	775 -
Stage 2	-	-	-	-	856 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1228	-	570 754
Mov Cap-2 Maneuver	-	-	-	-	570 -
Stage 1	-	-	-	-	775 -
Stage 2	-	-	-	-	851 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	602	-	-	1228	-
HCM Lane V/C Ratio	0.09	-	-	0.005	-
HCM Control Delay (s)	11.6	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	36	20	32	214	171	60
Future Vol, veh/h	36	20	32	214	171	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	22	35	233	186	65

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	522	219	251	0	0
Stage 1	219	-	-	-	-
Stage 2	303	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	515	821	1314	-	-
Stage 1	817	-	-	-	-
Stage 2	749	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	499	821	1314	-	-
Mov Cap-2 Maneuver	499	-	-	-	-
Stage 1	792	-	-	-	-
Stage 2	749	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1314	-	580	-	-
HCM Lane V/C Ratio	0.026	-	0.105	-	-
HCM Control Delay (s)	7.8	0	11.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T		T	T
Traffic Vol, veh/h	15	62	217	5	24	168
Future Vol, veh/h	15	62	217	5	24	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	13	11	50	10	7
Mvmt Flow	16	67	236	5	26	183
Number of Lanes	1	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	1	0
HCM Control Delay	8.1	9.7	9.3
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	19%	100%	0%
Vol Thru, %	98%	0%	0%	100%
Vol Right, %	2%	81%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	222	77	24	168
LT Vol	0	15	24	0
Through Vol	217	0	0	168
RT Vol	5	62	0	0
Lane Flow Rate	241	84	26	183
Geometry Grp	5	2	7	7
Degree of Util (X)	0.309	0.106	0.04	0.253
Departure Headway (Hd)	4.608	4.548	5.55	4.997
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	782	788	646	719
Service Time	2.63	2.573	3.274	2.72
HCM Lane V/C Ratio	0.308	0.107	0.04	0.255
HCM Control Delay	9.7	8.1	8.5	9.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.3	0.4	0.1	1

Intersection	
Intersection Delay, s/veh	14.8
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	82	37	171	320	73	115
Future Vol, veh/h	82	37	171	320	73	115
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	89	40	186	348	79	125
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	9.1	17.8	10.4
HCM LOS	A	C	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	39%	0%	35%
Vol Thru, %	0%	69%	65%
Vol Right, %	61%	31%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	188	119	491
LT Vol	73	0	171
Through Vol	0	82	320
RT Vol	115	37	0
Lane Flow Rate	204	129	534
Geometry Grp	1	1	1
Degree of Util (X)	0.294	0.176	0.695
Departure Headway (Hd)	5.179	4.905	4.691
Convergence, Y/N	Yes	Yes	Yes
Cap	687	723	763
Service Time	3.259	2.991	2.753
HCM Lane V/C Ratio	0.297	0.178	0.7
HCM Control Delay	10.4	9.1	17.8
HCM Lane LOS	B	A	C
HCM 95th-tile Q	1.2	0.6	5.7

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	140	85	0	0	184	48	1	1	1	8	4	195
Future Vol, veh/h	140	85	0	0	184	48	1	1	1	8	4	195
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
Heavy Vehicles, %	8	22	2	2	8	6	5	5	5	2	50	4
Mvmt Flow	152	92	0	0	200	52	1	1	1	9	4	212
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.6	10.2	8.5	9.4
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	62%	0%	4%
Vol Thru, %	33%	38%	79%	2%
Vol Right, %	33%	0%	21%	94%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	225	232	207
LT Vol	1	140	0	8
Through Vol	1	85	184	4
RT Vol	1	0	48	195
Lane Flow Rate	3	245	252	225
Geometry Grp	1	1	1	1
Degree of Util (X)	0.005	0.339	0.332	0.285
Departure Headway (Hd)	5.353	4.985	4.742	4.559
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	662	717	754	783
Service Time	3.44	3.049	2.805	2.614
HCM Lane V/C Ratio	0.005	0.342	0.334	0.287
HCM Control Delay	8.5	10.6	10.2	9.4
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0	1.5	1.5	1.2

Intersection						
Int Delay, s/veh	4.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	72	88	105	193	105	73
Future Vol, veh/h	72	88	105	193	105	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	20	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	10	9	13	7	5
Mvmt Flow	78	96	114	210	114	79

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	592	154	193	0	0
Stage 1	154	-	-	-	-
Stage 2	438	-	-	-	-
Critical Hdwy	6.42	6.3	4.19	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.39	2.281	-	-
Pot Cap-1 Maneuver	469	871	1339	-	-
Stage 1	874	-	-	-	-
Stage 2	651	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	429	871	1339	-	-
Mov Cap-2 Maneuver	429	-	-	-	-
Stage 1	800	-	-	-	-
Stage 2	651	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.5	2.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1339	-	595	-	-
HCM Lane V/C Ratio	0.085	-	0.292	-	-
HCM Control Delay (s)	7.9	-	13.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1.2	-	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	1	28	75	5	3	2
Future Vol, veh/h	1	28	75	5	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	7	29	40	33	2
Mvmt Flow	1	30	82	5	3	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	87	0	-	0	117 85
Stage 1	-	-	-	-	85 -
Stage 2	-	-	-	-	32 -
Critical Hdwy	4.12	-	-	-	6.73 6.22
Critical Hdwy Stg 1	-	-	-	-	5.73 -
Critical Hdwy Stg 2	-	-	-	-	5.73 -
Follow-up Hdwy	2.218	-	-	-	3.797 3.318
Pot Cap-1 Maneuver	1509	-	-	-	810 974
Stage 1	-	-	-	-	866 -
Stage 2	-	-	-	-	916 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1509	-	-	-	809 974
Mov Cap-2 Maneuver	-	-	-	-	809 -
Stage 1	-	-	-	-	865 -
Stage 2	-	-	-	-	916 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1509	-	-	-	868
HCM Lane V/C Ratio	0.001	-	-	-	0.006
HCM Control Delay (s)	7.4	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	31	0	2	79	2	0
Future Vol, veh/h	31	0	2	79	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	2	2	20	2	2
Mvmt Flow	34	0	2	86	2	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	34	0	124
Stage 1	-	-	-	-	34
Stage 2	-	-	-	-	90
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1578	-	871
Stage 1	-	-	-	-	988
Stage 2	-	-	-	-	934
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1578	-	870
Mov Cap-2 Maneuver	-	-	-	-	870
Stage 1	-	-	-	-	988
Stage 2	-	-	-	-	933

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	870	-	-	1578	-
HCM Lane V/C Ratio	0.002	-	-	0.001	-
HCM Control Delay (s)	9.1	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	4.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	5	26	34	9	27	46
Future Vol, veh/h	5	26	34	9	27	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	28	37	10	29	50

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	47	0	-	0	80 42
Stage 1	-	-	-	-	42 -
Stage 2	-	-	-	-	38 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1560	-	-	-	922 1029
Stage 1	-	-	-	-	980 -
Stage 2	-	-	-	-	984 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1560	-	-	-	919 1029
Mov Cap-2 Maneuver	-	-	-	-	919 -
Stage 1	-	-	-	-	977 -
Stage 2	-	-	-	-	984 -

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1560	-	-	-	985
HCM Lane V/C Ratio	0.003	-	-	-	0.081
HCM Control Delay (s)	7.3	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	4	49	44	5	0	0
Future Vol, veh/h	4	49	44	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	53	48	5	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	53	0	-	0	112 51
Stage 1	-	-	-	-	51 -
Stage 2	-	-	-	-	61 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1553	-	-	-	885 1017
Stage 1	-	-	-	-	971 -
Stage 2	-	-	-	-	962 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1553	-	-	-	882 1017
Mov Cap-2 Maneuver	-	-	-	-	882 -
Stage 1	-	-	-	-	968 -
Stage 2	-	-	-	-	962 -

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1553	-	-	-	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	7.3	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	49	0	0	49	0	0
Future Vol, veh/h	49	0	0	49	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	0	0	53	0	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	53	0	106
Stage 1	-	-	-	-	53
Stage 2	-	-	-	-	53
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1553	-	892
Stage 1	-	-	-	-	970
Stage 2	-	-	-	-	970
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1553	-	892
Mov Cap-2 Maneuver	-	-	-	-	892
Stage 1	-	-	-	-	970
Stage 2	-	-	-	-	970

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1553	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	5.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	16	3	46	37	11	38
Future Vol, veh/h	16	3	46	37	11	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	20	2	2	2
Mvmt Flow	17	3	50	40	12	41

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	20	0	159 19
Stage 1	-	-	-	-	19 -
Stage 2	-	-	-	-	140 -
Critical Hdwy	-	-	4.3	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.38	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1487	-	832 1059
Stage 1	-	-	-	-	1004 -
Stage 2	-	-	-	-	887 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1487	-	804 1059
Mov Cap-2 Maneuver	-	-	-	-	804 -
Stage 1	-	-	-	-	1004 -
Stage 2	-	-	-	-	857 -

Approach	EB	WB	NB
HCM Control Delay, s	0	4.2	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	989	-	-	1487	-
HCM Lane V/C Ratio	0.054	-	-	0.034	-
HCM Control Delay (s)	8.8	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	87	4	4	214	14	4
Future Vol, veh/h	87	4	4	214	14	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	19	50	50	6	11	2
Mvmt Flow	95	4	4	233	15	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	99	0	338 97
Stage 1	-	-	-	-	97 -
Stage 2	-	-	-	-	241 -
Critical Hdwy	-	-	4.6	-	6.51 6.22
Critical Hdwy Stg 1	-	-	-	-	5.51 -
Critical Hdwy Stg 2	-	-	-	-	5.51 -
Follow-up Hdwy	-	-	2.65	-	3.599 3.318
Pot Cap-1 Maneuver	-	-	1241	-	640 959
Stage 1	-	-	-	-	905 -
Stage 2	-	-	-	-	778 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1241	-	637 959
Mov Cap-2 Maneuver	-	-	-	-	637 -
Stage 1	-	-	-	-	905 -
Stage 2	-	-	-	-	775 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	688	-	-	1241	-
HCM Lane V/C Ratio	0.028	-	-	0.004	-
HCM Control Delay (s)	10.4	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	5.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	46	47	113	130	88	106
Future Vol, veh/h	46	47	113	130	88	106
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	26	12	9	6	7	8
Mvmt Flow	50	51	123	141	96	115

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	264	0	-	0	345 194
Stage 1	-	-	-	-	194 -
Stage 2	-	-	-	-	151 -
Critical Hdwy	4.36	-	-	-	6.47 6.28
Critical Hdwy Stg 1	-	-	-	-	5.47 -
Critical Hdwy Stg 2	-	-	-	-	5.47 -
Follow-up Hdwy	2.434	-	-	-	3.563 3.372
Pot Cap-1 Maneuver	1173	-	-	-	642 832
Stage 1	-	-	-	-	827 -
Stage 2	-	-	-	-	865 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1173	-	-	-	614 832
Mov Cap-2 Maneuver	-	-	-	-	614 -
Stage 1	-	-	-	-	791 -
Stage 2	-	-	-	-	865 -

Approach	EB	WB	SB
HCM Control Delay, s	4.1	0	12.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1173	-	-	-	717
HCM Lane V/C Ratio	0.043	-	-	-	0.294
HCM Control Delay (s)	8.2	0	-	-	12.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.2

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	117	14	4	199	35	7
Future Vol, veh/h	117	14	4	199	35	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	21	25	10	4	14
Mvmt Flow	127	15	4	216	38	8

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	142	0	359 135
Stage 1	-	-	-	-	135 -
Stage 2	-	-	-	-	224 -
Critical Hdwy	-	-	4.35	-	6.44 6.34
Critical Hdwy Stg 1	-	-	-	-	5.44 -
Critical Hdwy Stg 2	-	-	-	-	5.44 -
Follow-up Hdwy	-	-	2.425	-	3.536 3.426
Pot Cap-1 Maneuver	-	-	1311	-	636 883
Stage 1	-	-	-	-	886 -
Stage 2	-	-	-	-	809 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1311	-	634 883
Mov Cap-2 Maneuver	-	-	-	-	634 -
Stage 1	-	-	-	-	886 -
Stage 2	-	-	-	-	807 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	665	-	-	1311	-
HCM Lane V/C Ratio	0.069	-	-	0.003	-
HCM Control Delay (s)	10.8	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	56	0	30	0	0	0	10	166	0	0	164	19
Future Vol, veh/h	56	0	30	0	0	0	10	166	0	0	164	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	0	33	0	0	0	11	180	0	0	178	21

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	391	391	189	407	401	180	199	0	0	180	0	0
Stage 1	189	189	-	202	202	-	-	-	-	-	-	-
Stage 2	202	202	-	205	199	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	568	545	853	555	538	863	1373	-	-	1396	-	-
Stage 1	813	744	-	800	734	-	-	-	-	-	-	-
Stage 2	800	734	-	797	736	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	564	540	853	530	533	863	1373	-	-	1396	-	-
Mov Cap-2 Maneuver	564	540	-	530	533	-	-	-	-	-	-	-
Stage 1	806	744	-	793	727	-	-	-	-	-	-	-
Stage 2	793	727	-	767	736	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.6		0		0.4		0	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1373	-	-	640	-	1396	-	-
HCM Lane V/C Ratio	0.008	-	-	0.146	-	-	-	-
HCM Control Delay (s)	7.6	0	-	11.6	0	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	-	0	-	-

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	44	253	18	63	235
Future Vol, veh/h	14	44	253	18	63	235
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	50	2	3	2	4	10
Mvmt Flow	15	48	275	20	68	255
Number of Lanes	1	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	1	0
HCM Control Delay	9.4	10.3	10.2
HCM LOS	A	B	B

Lane	NBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	24%	100%	0%
Vol Thru, %	93%	0%	0%	100%
Vol Right, %	7%	76%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	271	58	63	235
LT Vol	0	14	63	0
Through Vol	253	0	0	235
RT Vol	18	44	0	0
Lane Flow Rate	295	63	68	255
Geometry Grp	5	2	7	7
Degree of Util (X)	0.373	0.101	0.104	0.36
Departure Headway (Hd)	4.554	5.742	5.471	5.071
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	789	623	656	710
Service Time	2.581	3.789	3.199	2.799
HCM Lane V/C Ratio	0.374	0.101	0.104	0.359
HCM Control Delay	10.3	9.4	8.8	10.6
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	1.7	0.3	0.3	1.6

Intersection	
Intersection Delay, s/veh	39.6
Intersection LOS	E

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	368	144	136	195	278	154
Future Vol, veh/h	368	144	136	195	278	154
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	400	157	148	212	302	167
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	52.6	23.1	36.9
HCM LOS	F	C	E

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	64%	0%	41%
Vol Thru, %	0%	72%	59%
Vol Right, %	36%	28%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	432	512	331
LT Vol	278	0	136
Through Vol	0	368	195
RT Vol	154	144	0
Lane Flow Rate	470	557	360
Geometry Grp	1	1	1
Degree of Util (X)	0.854	0.958	0.678
Departure Headway (Hd)	6.546	6.2	6.785
Convergence, Y/N	Yes	Yes	Yes
Cap	554	584	532
Service Time	4.599	4.258	4.851
HCM Lane V/C Ratio	0.848	0.954	0.677
HCM Control Delay	36.9	52.6	23.1
HCM Lane LOS	E	F	C
HCM 95th-tile Q	9.1	12.9	5.1

Intersection	
Intersection Delay, s/veh	32.1
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	363	241	0	1	78	71	0	1	1	60	2	217
Future Vol, veh/h	363	241	0	1	78	71	0	1	1	60	2	217
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
Heavy Vehicles, %	2	12	2	2	7	3	2	2	2	2	2	4
Mvmt Flow	395	262	0	1	85	77	0	1	1	65	2	236
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	46.1	10.4	9.6	13.7
HCM LOS	E	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	60%	1%	22%
Vol Thru, %	50%	40%	52%	1%
Vol Right, %	50%	0%	47%	78%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	604	150	279
LT Vol	0	363	1	60
Through Vol	1	241	78	2
RT Vol	1	0	71	217
Lane Flow Rate	2	657	163	303
Geometry Grp	1	1	1	1
Degree of Util (X)	0.004	0.952	0.25	0.475
Departure Headway (Hd)	6.483	5.22	5.523	5.644
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	548	696	647	637
Service Time	4.571	3.254	3.578	3.7
HCM Lane V/C Ratio	0.004	0.944	0.252	0.476
HCM Control Delay	9.6	46.1	10.4	13.7
HCM Lane LOS	A	E	B	B
HCM 95th-tile Q	0	13.7	1	2.6

Intersection						
Int Delay, s/veh	6.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	120	120	105	200	195	105
Future Vol, veh/h	120	120	105	200	195	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	20	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	10	9	13	7	5
Mvmt Flow	130	130	114	217	212	114

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	714	269	326	0	0
Stage 1	269	-	-	-	-
Stage 2	445	-	-	-	-
Critical Hdwy	6.42	6.3	4.19	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.39	2.281	-	-
Pot Cap-1 Maneuver	398	751	1195	-	-
Stage 1	776	-	-	-	-
Stage 2	646	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	360	751	1195	-	-
Mov Cap-2 Maneuver	360	-	-	-	-
Stage 1	702	-	-	-	-
Stage 2	646	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.6	2.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1195	-	487	-	-
HCM Lane V/C Ratio	0.096	-	0.536	-	-
HCM Control Delay (s)	8.3	-	20.6	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.3	-	3.1	-	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	3	76	56	5	3	2
Future Vol, veh/h	3	76	56	5	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	7	29	40	33	2
Mvmt Flow	3	83	61	5	3	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	66	0	-	0	153 64
Stage 1	-	-	-	-	64 -
Stage 2	-	-	-	-	89 -
Critical Hdwy	4.12	-	-	-	6.73 6.22
Critical Hdwy Stg 1	-	-	-	-	5.73 -
Critical Hdwy Stg 2	-	-	-	-	5.73 -
Follow-up Hdwy	2.218	-	-	-	3.797 3.318
Pot Cap-1 Maneuver	1536	-	-	-	771 1000
Stage 1	-	-	-	-	886 -
Stage 2	-	-	-	-	862 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1536	-	-	-	769 1000
Mov Cap-2 Maneuver	-	-	-	-	769 -
Stage 1	-	-	-	-	884 -
Stage 2	-	-	-	-	862 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1536	-	-	-	847
HCM Lane V/C Ratio	0.002	-	-	-	0.006
HCM Control Delay (s)	7.3	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	79	1	0	61	1	1
Future Vol, veh/h	79	1	0	61	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	4	2	2
Mvmt Flow	86	1	0	66	1	1

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	87	0	153
Stage 1	-	-	-	-	87
Stage 2	-	-	-	-	66
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1509	-	839
Stage 1	-	-	-	-	936
Stage 2	-	-	-	-	957
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1509	-	839
Mov Cap-2 Maneuver	-	-	-	-	839
Stage 1	-	-	-	-	936
Stage 2	-	-	-	-	957

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	900	-	-	1509	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	22	56	38	18	21	23
Future Vol, veh/h	22	56	38	18	21	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	61	41	20	23	25

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	61	0	-	0	160 51
Stage 1	-	-	-	-	51 -
Stage 2	-	-	-	-	109 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1542	-	-	-	831 1017
Stage 1	-	-	-	-	971 -
Stage 2	-	-	-	-	916 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1542	-	-	-	818 1017
Mov Cap-2 Maneuver	-	-	-	-	818 -
Stage 1	-	-	-	-	955 -
Stage 2	-	-	-	-	916 -

Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1542	-	-	-	911
HCM Lane V/C Ratio	0.016	-	-	-	0.052
HCM Control Delay (s)	7.4	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	13	65	58	13	0	0
Future Vol, veh/h	13	65	58	13	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	71	63	14	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	77	0	-	0	169 70
Stage 1	-	-	-	-	70 -
Stage 2	-	-	-	-	99 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1522	-	-	-	821 993
Stage 1	-	-	-	-	953 -
Stage 2	-	-	-	-	925 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1522	-	-	-	813 993
Mov Cap-2 Maneuver	-	-	-	-	813 -
Stage 1	-	-	-	-	943 -
Stage 2	-	-	-	-	925 -

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1522	-	-	-	-
HCM Lane V/C Ratio	0.009	-	-	-	-
HCM Control Delay (s)	7.4	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	65	0	0	71	0	0
Future Vol, veh/h	65	0	0	71	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	0	0	77	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	71	0	148 71
Stage 1	-	-	-	-	71 -
Stage 2	-	-	-	-	77 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1529	-	844 991
Stage 1	-	-	-	-	952 -
Stage 2	-	-	-	-	946 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1529	-	844 991
Mov Cap-2 Maneuver	-	-	-	-	844 -
Stage 1	-	-	-	-	952 -
Stage 2	-	-	-	-	946 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1529	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	4.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	58	22	49	29	14	51
Future Vol, veh/h	58	22	49	29	14	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	13	2	2	2	2
Mvmt Flow	63	24	53	32	15	55

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	87	0	213 75
Stage 1	-	-	-	-	75 -
Stage 2	-	-	-	-	138 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1509	-	775 986
Stage 1	-	-	-	-	948 -
Stage 2	-	-	-	-	889 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1509	-	747 986
Mov Cap-2 Maneuver	-	-	-	-	747 -
Stage 1	-	-	-	-	948 -
Stage 2	-	-	-	-	857 -

Approach	EB	WB	NB
HCM Control Delay, s	0	4.7	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	922	-	-	1509	-
HCM Lane V/C Ratio	0.077	-	-	0.035	-
HCM Control Delay (s)	9.2	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	289	11	15	138	10	13
Future Vol, veh/h	289	11	15	138	10	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	11	30	5	0	33
Mvmt Flow	314	12	16	150	11	14

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	326	0	502 320
Stage 1	-	-	-	-	320 -
Stage 2	-	-	-	-	182 -
Critical Hdwy	-	-	4.4	-	6.4 6.53
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.47	-	3.5 3.597
Pot Cap-1 Maneuver	-	-	1092	-	533 654
Stage 1	-	-	-	-	741 -
Stage 2	-	-	-	-	854 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1092	-	524 654
Mov Cap-2 Maneuver	-	-	-	-	524 -
Stage 1	-	-	-	-	741 -
Stage 2	-	-	-	-	840 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	590	-	-	1092	-
HCM Lane V/C Ratio	0.042	-	-	0.015	-
HCM Control Delay (s)	11.4	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	7.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	139	166	81	127	133	76
Future Vol, veh/h	139	166	81	127	133	76
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	12	2	2	4	2
Mvmt Flow	151	180	88	138	145	83

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	226	0	-	0	639 157
Stage 1	-	-	-	-	157 -
Stage 2	-	-	-	-	482 -
Critical Hdwy	4.12	-	-	-	6.44 6.22
Critical Hdwy Stg 1	-	-	-	-	5.44 -
Critical Hdwy Stg 2	-	-	-	-	5.44 -
Follow-up Hdwy	2.218	-	-	-	3.536 3.318
Pot Cap-1 Maneuver	1342	-	-	-	437 889
Stage 1	-	-	-	-	867 -
Stage 2	-	-	-	-	617 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1342	-	-	-	382 889
Mov Cap-2 Maneuver	-	-	-	-	382 -
Stage 1	-	-	-	-	759 -
Stage 2	-	-	-	-	617 -

Approach	EB	WB	SB
HCM Control Delay, s	3.7	0	19
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1342	-	-	-	482
HCM Lane V/C Ratio	0.113	-	-	-	0.471
HCM Control Delay (s)	8	0	-	-	19
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	2.5

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	250	39	6	159	39	11
Future Vol, veh/h	250	39	6	159	39	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	11	3	10	2	3	9
Mvmt Flow	272	42	7	173	42	12

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	314	0	480 293
Stage 1	-	-	-	-	293 -
Stage 2	-	-	-	-	187 -
Critical Hdwy	-	-	4.2	-	6.43 6.29
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.29	-	3.527 3.381
Pot Cap-1 Maneuver	-	-	1202	-	543 730
Stage 1	-	-	-	-	755 -
Stage 2	-	-	-	-	843 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1202	-	540 730
Mov Cap-2 Maneuver	-	-	-	-	540 -
Stage 1	-	-	-	-	755 -
Stage 2	-	-	-	-	838 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	573	-	-	1202	-
HCM Lane V/C Ratio	0.095	-	-	0.005	-
HCM Control Delay (s)	11.9	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	36	0	20	0	0	0	32	235	0	0	189	60
Future Vol, veh/h	36	0	20	0	0	0	32	235	0	0	189	60
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	0	22	0	0	0	35	255	0	0	205	65

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	563	563	238	574	595	255	270	0	0	255	0	0
Stage 1	238	238	-	325	325	-	-	-	-	-	-	-
Stage 2	325	325	-	249	270	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	437	435	801	430	417	784	1293	-	-	1310	-	-
Stage 1	765	708	-	687	649	-	-	-	-	-	-	-
Stage 2	687	649	-	755	686	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	427	421	801	408	404	784	1293	-	-	1310	-	-
Mov Cap-2 Maneuver	427	421	-	408	404	-	-	-	-	-	-	-
Stage 1	741	708	-	665	628	-	-	-	-	-	-	-
Stage 2	665	628	-	735	686	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13	0	0.9	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1293	-	-	512	-	1310	-	-
HCM Lane V/C Ratio	0.027	-	-	0.119	-	-	-	-
HCM Control Delay (s)	7.9	0	-	13	0	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	-	0	-	-

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T		T	T
Traffic Vol, veh/h	16	64	232	5	26	182
Future Vol, veh/h	16	64	232	5	26	182
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	13	11	50	10	7
Mvmt Flow	17	70	252	5	28	198
Number of Lanes	1	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	1	0
HCM Control Delay	8.2	10	9.6
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	20%	100%	0%
Vol Thru, %	98%	0%	0%	100%
Vol Right, %	2%	80%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	237	80	26	182
LT Vol	0	16	26	0
Through Vol	232	0	0	182
RT Vol	5	64	0	0
Lane Flow Rate	258	87	28	198
Geometry Grp	5	2	7	7
Degree of Util (X)	0.332	0.112	0.044	0.276
Departure Headway (Hd)	4.641	4.632	5.575	5.021
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	775	774	643	716
Service Time	2.666	2.66	3.301	2.747
HCM Lane V/C Ratio	0.333	0.112	0.044	0.277
HCM Control Delay	10	8.2	8.6	9.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.5	0.4	0.1	1.1

Intersection	
Intersection Delay, s/veh	17
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	86	40	188	337	80	126
Future Vol, veh/h	86	40	188	337	80	126
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	93	43	204	366	87	137
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	9.4	21.2	11.1
HCM LOS	A	C	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	39%	0%	36%
Vol Thru, %	0%	68%	64%
Vol Right, %	61%	32%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	206	126	525
LT Vol	80	0	188
Through Vol	0	86	337
RT Vol	126	40	0
Lane Flow Rate	224	137	571
Geometry Grp	1	1	1
Degree of Util (X)	0.336	0.195	0.755
Departure Headway (Hd)	5.396	5.125	4.766
Convergence, Y/N	Yes	Yes	Yes
Cap	670	703	748
Service Time	3.396	3.141	2.859
HCM Lane V/C Ratio	0.334	0.195	0.763
HCM Control Delay	11.1	9.4	21.2
HCM Lane LOS	B	A	C
HCM 95th-tile Q	1.5	0.7	7.1

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	153	92	0	0	199	52	1	1	1	8	4	214
Future Vol, veh/h	153	92	0	0	199	52	1	1	1	8	4	214
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
Heavy Vehicles, %	8	22	2	2	8	6	5	5	5	2	50	4
Mvmt Flow	166	100	0	0	216	57	1	1	1	9	4	233
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.2	10.7	8.7	9.9
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	62%	0%	4%
Vol Thru, %	33%	38%	79%	2%
Vol Right, %	33%	0%	21%	95%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	245	251	226
LT Vol	1	153	0	8
Through Vol	1	92	199	4
RT Vol	1	0	52	214
Lane Flow Rate	3	266	273	246
Geometry Grp	1	1	1	1
Degree of Util (X)	0.005	0.376	0.367	0.318
Departure Headway (Hd)	5.622	5.078	4.837	4.666
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	640	703	737	764
Service Time	3.622	3.153	2.91	2.734
HCM Lane V/C Ratio	0.005	0.378	0.37	0.322
HCM Control Delay	8.7	11.2	10.7	9.9
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0	1.8	1.7	1.4

Intersection						
Int Delay, s/veh	5.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TT		T	T	T	
Traffic Vol, veh/h	79	97	115	201	112	80
Future Vol, veh/h	79	97	115	201	112	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	20	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	10	9	13	7	5
Mvmt Flow	86	105	125	218	122	87

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	634	166	209	0	-	0
Stage 1	166	-	-	-	-	-
Stage 2	468	-	-	-	-	-
Critical Hdwy	6.42	6.3	4.19	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.39	2.281	-	-	-
Pot Cap-1 Maneuver	443	858	1321	-	-	-
Stage 1	863	-	-	-	-	-
Stage 2	630	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	401	858	1321	-	-	-
Mov Cap-2 Maneuver	401	-	-	-	-	-
Stage 1	781	-	-	-	-	-
Stage 2	630	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	2.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1321	-	568	-	-
HCM Lane V/C Ratio	0.095	-	0.337	-	-
HCM Control Delay (s)	8	-	14.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1.5	-	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	1	29	77	5	3	2
Future Vol, veh/h	1	29	77	5	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	7	29	40	33	2
Mvmt Flow	1	32	84	5	3	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	89	0	-	0	121 87
Stage 1	-	-	-	-	87 -
Stage 2	-	-	-	-	34 -
Critical Hdwy	4.12	-	-	-	6.73 6.22
Critical Hdwy Stg 1	-	-	-	-	5.73 -
Critical Hdwy Stg 2	-	-	-	-	5.73 -
Follow-up Hdwy	2.218	-	-	-	3.797 3.318
Pot Cap-1 Maneuver	1506	-	-	-	805 971
Stage 1	-	-	-	-	864 -
Stage 2	-	-	-	-	914 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1506	-	-	-	804 971
Mov Cap-2 Maneuver	-	-	-	-	804 -
Stage 1	-	-	-	-	863 -
Stage 2	-	-	-	-	914 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1506	-	-	-	863
HCM Lane V/C Ratio	0.001	-	-	-	0.006
HCM Control Delay (s)	7.4	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	33	0	2	82	2	0
Future Vol, veh/h	33	0	2	82	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	2	2	20	2	2
Mvmt Flow	36	0	2	89	2	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	36	0	129
Stage 1	-	-	-	-	36
Stage 2	-	-	-	-	93
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1575	-	865
Stage 1	-	-	-	-	986
Stage 2	-	-	-	-	931
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1575	-	864
Mov Cap-2 Maneuver	-	-	-	-	864
Stage 1	-	-	-	-	986
Stage 2	-	-	-	-	930

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	864	-	-	1575	-
HCM Lane V/C Ratio	0.003	-	-	0.001	-
HCM Control Delay (s)	9.2	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	5	28	37	9	27	46
Future Vol, veh/h	5	28	37	9	27	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	30	40	10	29	50

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	50	0	-	0	85 45
Stage 1	-	-	-	-	45 -
Stage 2	-	-	-	-	40 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1557	-	-	-	916 1025
Stage 1	-	-	-	-	977 -
Stage 2	-	-	-	-	982 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1557	-	-	-	913 1025
Mov Cap-2 Maneuver	-	-	-	-	913 -
Stage 1	-	-	-	-	974 -
Stage 2	-	-	-	-	982 -

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1557	-	-	-	981
HCM Lane V/C Ratio	0.003	-	-	-	0.081
HCM Control Delay (s)	7.3	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	4	51	47	5	0	0
Future Vol, veh/h	4	51	47	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	55	51	5	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	56	0	-	0	117 54
Stage 1	-	-	-	-	54 -
Stage 2	-	-	-	-	63 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1549	-	-	-	879 1013
Stage 1	-	-	-	-	969 -
Stage 2	-	-	-	-	960 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1549	-	-	-	876 1013
Mov Cap-2 Maneuver	-	-	-	-	876 -
Stage 1	-	-	-	-	966 -
Stage 2	-	-	-	-	960 -

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1549	-	-	-	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	7.3	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	51	0	0	52	0	0
Future Vol, veh/h	51	0	0	52	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	55	0	0	57	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	55	0	112
Stage 1	-	-	-	-	55
Stage 2	-	-	-	-	57
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1550	-	885
Stage 1	-	-	-	-	968
Stage 2	-	-	-	-	966
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1550	-	885
Mov Cap-2 Maneuver	-	-	-	-	885
Stage 1	-	-	-	-	968
Stage 2	-	-	-	-	966

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1550	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	5.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	18	3	49	40	12	40
Future Vol, veh/h	18	3	49	40	12	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	20	2	2	2
Mvmt Flow	20	3	53	43	13	43

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	23	0	171 22
Stage 1	-	-	-	-	22 -
Stage 2	-	-	-	-	149 -
Critical Hdwy	-	-	4.3	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.38	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1483	-	819 1055
Stage 1	-	-	-	-	1001 -
Stage 2	-	-	-	-	879 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1483	-	789 1055
Mov Cap-2 Maneuver	-	-	-	-	789 -
Stage 1	-	-	-	-	1001 -
Stage 2	-	-	-	-	846 -

Approach	EB	WB	NB
HCM Control Delay, s	0	4.1	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	979	-	-	1483	-
HCM Lane V/C Ratio	0.058	-	-	0.036	-
HCM Control Delay (s)	8.9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	95	4	4	232	14	4
Future Vol, veh/h	95	4	4	232	14	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	19	50	50	6	11	2
Mvmt Flow	103	4	4	252	15	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	107	0	365 105
Stage 1	-	-	-	-	105 -
Stage 2	-	-	-	-	260 -
Critical Hdwy	-	-	4.6	-	6.51 6.22
Critical Hdwy Stg 1	-	-	-	-	5.51 -
Critical Hdwy Stg 2	-	-	-	-	5.51 -
Follow-up Hdwy	-	-	2.65	-	3.599 3.318
Pot Cap-1 Maneuver	-	-	1232	-	617 949
Stage 1	-	-	-	-	897 -
Stage 2	-	-	-	-	763 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1232	-	615 949
Mov Cap-2 Maneuver	-	-	-	-	615 -
Stage 1	-	-	-	-	897 -
Stage 2	-	-	-	-	760 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	667	-	-	1232	-
HCM Lane V/C Ratio	0.029	-	-	0.004	-
HCM Control Delay (s)	10.6	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	49	51	124	142	96	113
Future Vol, veh/h	49	51	124	142	96	113
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	26	12	9	6	7	8
Mvmt Flow	53	55	135	154	104	123

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	289	0	0	373	212
Stage 1	-	-	-	212	-
Stage 2	-	-	-	161	-
Critical Hdwy	4.36	-	-	6.47	6.28
Critical Hdwy Stg 1	-	-	-	5.47	-
Critical Hdwy Stg 2	-	-	-	5.47	-
Follow-up Hdwy	2.434	-	-	3.563	3.372
Pot Cap-1 Maneuver	1147	-	-	618	813
Stage 1	-	-	-	812	-
Stage 2	-	-	-	856	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1147	-	-	588	813
Mov Cap-2 Maneuver	-	-	-	588	-
Stage 1	-	-	-	773	-
Stage 2	-	-	-	856	-

Approach	EB	WB	SB
HCM Control Delay, s	4.1	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1147	-	-	-	691
HCM Lane V/C Ratio	0.046	-	-	-	0.329
HCM Control Delay (s)	8.3	0	-	-	12.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.4

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	127	14	4	218	35	7
Future Vol, veh/h	127	14	4	218	35	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	21	25	10	4	14
Mvmt Flow	138	15	4	237	38	8

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	153	0	391
Stage 1	-	-	-	-	146
Stage 2	-	-	-	-	245
Critical Hdwy	-	-	4.35	-	6.44
Critical Hdwy Stg 1	-	-	-	-	5.44
Critical Hdwy Stg 2	-	-	-	-	5.44
Follow-up Hdwy	-	-	2.425	-	3.536
Pot Cap-1 Maneuver	-	-	1299	-	609
Stage 1	-	-	-	-	876
Stage 2	-	-	-	-	791
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1299	-	607
Mov Cap-2 Maneuver	-	-	-	-	607
Stage 1	-	-	-	-	876
Stage 2	-	-	-	-	788

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	639	-	-	1299	-
HCM Lane V/C Ratio	0.071	-	-	0.003	-
HCM Control Delay (s)	11.1	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	56	0	30	0	0	0	10	181	0	0	179	19
Future Vol, veh/h	56	0	30	0	0	0	10	181	0	0	179	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	0	33	0	0	0	11	197	0	0	195	21

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	425	425	206	441	435	197	216	0	0	197	0	0
Stage 1	206	206	-	219	219	-	-	-	-	-	-	-
Stage 2	219	219	-	222	216	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	540	521	835	527	514	844	1354	-	-	1376	-	-
Stage 1	796	731	-	783	722	-	-	-	-	-	-	-
Stage 2	783	722	-	780	724	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	536	516	835	503	509	844	1354	-	-	1376	-	-
Mov Cap-2 Maneuver	536	516	-	503	509	-	-	-	-	-	-	-
Stage 1	789	731	-	776	716	-	-	-	-	-	-	-
Stage 2	776	716	-	750	724	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.9		0		0.4		0	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1354	-	-	613	-	1376	-	-
HCM Lane V/C Ratio	0.008	-	-	0.152	-	-	-	-
HCM Control Delay (s)	7.7	0	-	11.9	0	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	-	0	-	-

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T		T	T
Traffic Vol, veh/h	15	46	273	18	66	251
Future Vol, veh/h	15	46	273	18	66	251
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	50	2	3	2	4	10
Mvmt Flow	16	50	297	20	72	273
Number of Lanes	1	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	1	0
HCM Control Delay	9.6	10.7	10.6
HCM LOS	A	B	B

Lane	NBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	25%	100%	0%
Vol Thru, %	94%	0%	0%	100%
Vol Right, %	6%	75%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	291	61	66	251
LT Vol	0	15	66	0
Through Vol	273	0	0	251
RT Vol	18	46	0	0
Lane Flow Rate	316	66	72	273
Geometry Grp	5	2	7	7
Degree of Util (X)	0.404	0.108	0.11	0.387
Departure Headway (Hd)	4.593	5.839	5.502	5.102
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	784	612	651	707
Service Time	2.623	3.891	3.235	2.834
HCM Lane V/C Ratio	0.403	0.108	0.111	0.386
HCM Control Delay	10.7	9.6	8.9	11
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	2	0.4	0.4	1.8

Intersection	
Intersection Delay, s/veh	60.7
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	389	157	149	205	305	168
Future Vol, veh/h	389	157	149	205	305	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	423	171	162	223	332	183
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	87.1	28.6	54.2
HCM LOS	F	D	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	64%	0%	42%
Vol Thru, %	0%	71%	58%
Vol Right, %	36%	29%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	473	546	354
LT Vol	305	0	149
Through Vol	0	389	205
RT Vol	168	157	0
Lane Flow Rate	514	593	385
Geometry Grp	1	1	1
Degree of Util (X)	0.951	1.081	0.747
Departure Headway (Hd)	6.867	6.558	7.237
Convergence, Y/N	Yes	Yes	Yes
Cap	530	558	504
Service Time	4.867	4.558	5.237
HCM Lane V/C Ratio	0.97	1.063	0.764
HCM Control Delay	54.2	87.1	28.6
HCM Lane LOS	F	F	D
HCM 95th-tile Q	12.2	18	6.3

Intersection	
Intersection Delay, s/veh	50.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	397	261	0	1	84	77	0	1	1	66	2	237
Future Vol, veh/h	397	261	0	1	84	77	0	1	1	66	2	237
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
Heavy Vehicles, %	2	12	2	2	7	3	2	2	2	2	2	4
Mvmt Flow	432	284	0	1	91	84	0	1	1	72	2	258
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	76.8	11	10	15.3
HCM LOS	F	B	A	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	60%	1%	22%
Vol Thru, %	50%	40%	52%	1%
Vol Right, %	50%	0%	48%	78%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	658	162	305
LT Vol	0	397	1	66
Through Vol	1	261	84	2
RT Vol	1	0	77	237
Lane Flow Rate	2	715	176	332
Geometry Grp	1	1	1	1
Degree of Util (X)	0.004	1.068	0.277	0.523
Departure Headway (Hd)	6.949	5.377	5.813	5.941
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	518	679	622	610
Service Time	4.949	3.383	3.813	3.941
HCM Lane V/C Ratio	0.004	1.053	0.283	0.544
HCM Control Delay	10	76.8	11	15.3
HCM Lane LOS	A	F	B	C
HCM 95th-tile Q	0	19.5	1.1	3

Intersection						
Int Delay, s/veh	8.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	131	131	115	213	204	115
Future Vol, veh/h	131	131	115	213	204	115
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	20	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	10	9	13	7	5
Mvmt Flow	142	142	125	232	222	125

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	767	285	347	0	0
Stage 1	285	-	-	-	-
Stage 2	482	-	-	-	-
Critical Hdwy	6.42	6.3	4.19	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.39	2.281	-	-
Pot Cap-1 Maneuver	370	735	1174	-	-
Stage 1	763	-	-	-	-
Stage 2	621	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	331	735	1174	-	-
Mov Cap-2 Maneuver	331	-	-	-	-
Stage 1	682	-	-	-	-
Stage 2	621	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25.1	3	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1174	-	456	-	-
HCM Lane V/C Ratio	0.106	-	0.625	-	-
HCM Control Delay (s)	8.4	-	25.1	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	0.4	-	4.2	-	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	3	80	59	5	3	2
Future Vol, veh/h	3	80	59	5	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	7	29	40	33	2
Mvmt Flow	3	87	64	5	3	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	69	0	0	160	67
Stage 1	-	-	-	67	-
Stage 2	-	-	-	93	-
Critical Hdwy	4.12	-	-	6.73	6.22
Critical Hdwy Stg 1	-	-	-	5.73	-
Critical Hdwy Stg 2	-	-	-	5.73	-
Follow-up Hdwy	2.218	-	-	3.797	3.318
Pot Cap-1 Maneuver	1532	-	-	764	997
Stage 1	-	-	-	883	-
Stage 2	-	-	-	858	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1532	-	-	762	997
Mov Cap-2 Maneuver	-	-	-	762	-
Stage 1	-	-	-	881	-
Stage 2	-	-	-	858	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1532	-	-	-	841
HCM Lane V/C Ratio	0.002	-	-	-	0.006
HCM Control Delay (s)	7.4	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	83	1	0	64	1	1
Future Vol, veh/h	83	1	0	64	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	4	2	2
Mvmt Flow	90	1	0	70	1	1

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	91	0	161
Stage 1	-	-	-	-	91
Stage 2	-	-	-	-	70
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1504	-	830
Stage 1	-	-	-	-	933
Stage 2	-	-	-	-	953
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1504	-	830
Mov Cap-2 Maneuver	-	-	-	-	830
Stage 1	-	-	-	-	933
Stage 2	-	-	-	-	953

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	893	-	-	1504	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection

Int Delay, s/veh 3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	22	60	41	18	21	23
Future Vol, veh/h	22	60	41	18	21	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	65	45	20	23	25

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	65	0	-	0	168 55
Stage 1	-	-	-	-	55 -
Stage 2	-	-	-	-	113 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1537	-	-	-	822 1012
Stage 1	-	-	-	-	968 -
Stage 2	-	-	-	-	912 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1537	-	-	-	809 1012
Mov Cap-2 Maneuver	-	-	-	-	809 -
Stage 1	-	-	-	-	953 -
Stage 2	-	-	-	-	912 -

Approach	EB	WB	SB
HCM Control Delay, s	2	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1537	-	-	-	904
HCM Lane V/C Ratio	0.016	-	-	-	0.053
HCM Control Delay (s)	7.4	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	13	69	62	13	0	0
Future Vol, veh/h	13	69	62	13	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	75	67	14	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	81	0	-	0	177 74
Stage 1	-	-	-	-	74 -
Stage 2	-	-	-	-	103 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1517	-	-	-	813 988
Stage 1	-	-	-	-	949 -
Stage 2	-	-	-	-	921 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1517	-	-	-	805 988
Mov Cap-2 Maneuver	-	-	-	-	805 -
Stage 1	-	-	-	-	940 -
Stage 2	-	-	-	-	921 -

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1517	-	-	-	-
HCM Lane V/C Ratio	0.009	-	-	-	-
HCM Control Delay (s)	7.4	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	69	0	0	75	0	0
Future Vol, veh/h	69	0	0	75	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	75	0	0	82	0	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	75	0	157
Stage 1	-	-	-	-	75
Stage 2	-	-	-	-	82
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1524	-	834
Stage 1	-	-	-	-	948
Stage 2	-	-	-	-	941
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1524	-	834
Mov Cap-2 Maneuver	-	-	-	-	834
Stage 1	-	-	-	-	948
Stage 2	-	-	-	-	941

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1524	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection

Int Delay, s/veh 4.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	63	23	52	32	15	54
Future Vol, veh/h	63	23	52	32	15	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	13	2	2	2	2
Mvmt Flow	68	25	57	35	16	59

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	93	0	230 81
Stage 1	-	-	-	-	81 -
Stage 2	-	-	-	-	149 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1501	-	758 979
Stage 1	-	-	-	-	942 -
Stage 2	-	-	-	-	879 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1501	-	728 979
Mov Cap-2 Maneuver	-	-	-	-	728 -
Stage 1	-	-	-	-	942 -
Stage 2	-	-	-	-	845 -

Approach	EB	WB	NB
HCM Control Delay, s	0	4.6	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	911	-	-	1501	-
HCM Lane V/C Ratio	0.082	-	-	0.038	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	313	11	15	149	10	13
Future Vol, veh/h	313	11	15	149	10	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	11	30	5	0	33
Mvmt Flow	340	12	16	162	11	14

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	352	0	540 346
Stage 1	-	-	-	-	346 -
Stage 2	-	-	-	-	194 -
Critical Hdwy	-	-	4.4	-	6.4 6.53
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.47	-	3.5 3.597
Pot Cap-1 Maneuver	-	-	1067	-	506 632
Stage 1	-	-	-	-	721 -
Stage 2	-	-	-	-	844 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1067	-	498 632
Mov Cap-2 Maneuver	-	-	-	-	498 -
Stage 1	-	-	-	-	721 -
Stage 2	-	-	-	-	830 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	566	-	-	1067	-
HCM Lane V/C Ratio	0.044	-	-	0.015	-
HCM Control Delay (s)	11.7	-	-	8.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	149	182	88	138	145	81
Future Vol, veh/h	149	182	88	138	145	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	12	2	2	4	2
Mvmt Flow	162	198	96	150	158	88

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	246	0	-	0	693
Stage 1	-	-	-	-	171
Stage 2	-	-	-	-	522
Critical Hdwy	4.12	-	-	-	6.44
Critical Hdwy Stg 1	-	-	-	-	5.44
Critical Hdwy Stg 2	-	-	-	-	5.44
Follow-up Hdwy	2.218	-	-	-	3.536
Pot Cap-1 Maneuver	1320	-	-	-	406
Stage 1	-	-	-	-	854
Stage 2	-	-	-	-	591
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1320	-	-	-	350
Mov Cap-2 Maneuver	-	-	-	-	350
Stage 1	-	-	-	-	736
Stage 2	-	-	-	-	591

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	22.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1320	-	-	-	446
HCM Lane V/C Ratio	0.123	-	-	-	0.551
HCM Control Delay (s)	8.1	0	-	-	22.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	3.3

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	273	39	6	173	39	11
Future Vol, veh/h	273	39	6	173	39	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	11	3	10	2	3	9
Mvmt Flow	297	42	7	188	42	12

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	339	0	520 318
Stage 1	-	-	-	-	318 -
Stage 2	-	-	-	-	202 -
Critical Hdwy	-	-	4.2	-	6.43 6.29
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.29	-	3.527 3.381
Pot Cap-1 Maneuver	-	-	1177	-	515 707
Stage 1	-	-	-	-	735 -
Stage 2	-	-	-	-	830 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1177	-	511 707
Mov Cap-2 Maneuver	-	-	-	-	511 -
Stage 1	-	-	-	-	735 -
Stage 2	-	-	-	-	824 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	544	-	-	1177	-
HCM Lane V/C Ratio	0.1	-	-	0.006	-
HCM Control Delay (s)	12.4	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	36	0	20	0	0	0	32	256	0	0	206	60
Future Vol, veh/h	36	0	20	0	0	0	32	256	0	0	206	60
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	0	22	0	0	0	35	278	0	0	224	65

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	605	605	257	616	637	278	289	0	0	278	0	0
Stage 1	257	257	-	348	348	-	-	-	-	-	-	-
Stage 2	348	348	-	268	289	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	410	412	782	403	395	761	1273	-	-	1285	-	-
Stage 1	748	695	-	668	634	-	-	-	-	-	-	-
Stage 2	668	634	-	738	673	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	400	398	782	382	382	761	1273	-	-	1285	-	-
Mov Cap-2 Maneuver	400	398	-	382	382	-	-	-	-	-	-	-
Stage 1	723	695	-	646	613	-	-	-	-	-	-	-
Stage 2	646	613	-	717	673	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	13.5		0			0.9			0		
HCM LOS	B		A								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1273	-	-	485	-	1285	-	-
HCM Lane V/C Ratio	0.027	-	-	0.126	-	-	-	-
HCM Control Delay (s)	7.9	0	-	13.5	0	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	-	0	-	-

APPENDIX “B-3”
BACKGROUND MITIGATION (2037, 2043) CONDITIONS

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	140	85	0	0	184	48	1	1	1	8	4	195
Future Vol, veh/h	140	85	0	0	184	48	1	1	1	8	4	195
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	8	22	2	2	8	6	5	5	5	2	50	4
Mvmt Flow	152	92	0	0	200	52	1	1	1	9	4	212

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	252	0	0	92	0	0	730	648	92	623	622	226
Stage 1	-	-	-	-	-	-	396	396	-	226	226	-
Stage 2	-	-	-	-	-	-	334	252	-	397	396	-
Critical Hdwy	4.18	-	-	4.12	-	-	7.15	6.55	6.25	7.12	7	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.12	6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.12	6	-
Follow-up Hdwy	2.272	-	-	2.218	-	-	3.545	4.045	3.345	3.518	4.45	3.336
Pot Cap-1 Maneuver	1279	-	-	1503	-	-	334	385	957	398	346	808
Stage 1	-	-	-	-	-	-	623	599	-	777	636	-
Stage 2	-	-	-	-	-	-	674	693	-	629	529	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1279	-	-	1503	-	-	221	339	957	361	305	808
Mov Cap-2 Maneuver	-	-	-	-	-	-	221	339	-	361	305	-
Stage 1	-	-	-	-	-	-	549	528	-	685	636	-
Stage 2	-	-	-	-	-	-	494	693	-	552	466	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	5.1		0		15.3		11.5	
HCM LOS					C		B	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	352	1279	-	-	1503	-	-	361	782
HCM Lane V/C Ratio	0.009	0.119	-	-	-	-	-	0.024	0.277
HCM Control Delay (s)	15.3	8.2	-	-	0	-	-	15.2	11.4
HCM Lane LOS		C	A	-	-	A	-	C	B
HCM 95th %tile Q(veh)		0	0.4	-	-	0	-	0.1	1.1

Intersection												
Int Delay, s/veh	8.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	363	241	0	1	78	71	0	1	1	60	2	217
Future Vol, veh/h	363	241	0	1	78	71	0	1	1	60	2	217
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	12	2	2	7	3	2	2	2	2	2	4
Mvmt Flow	395	262	0	1	85	77	0	1	1	65	2	236

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	162	0	0	262	0	0	1297	1216	262	1179	1178	124
Stage 1	-	-	-	-	-	-	1052	1052	-	126	126	-
Stage 2	-	-	-	-	-	-	245	164	-	1053	1052	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.336
Pot Cap-1 Maneuver	1417	-	-	1302	-	-	139	181	777	167	191	921
Stage 1	-	-	-	-	-	-	274	303	-	878	792	-
Stage 2	-	-	-	-	-	-	759	762	-	274	303	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1417	-	-	1302	-	-	80	130	777	130	138	921
Mov Cap-2 Maneuver	-	-	-	-	-	-	80	130	-	130	138	-
Stage 1	-	-	-	-	-	-	198	218	-	633	791	-
Stage 2	-	-	-	-	-	-	563	761	-	196	218	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	5.1		0.1		21.3		20.8	
HCM LOS					C		C	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	
Capacity (veh/h)	223	1417	-	-	1302	-	-	130	876	
HCM Lane V/C Ratio	0.01	0.278	-	-	0.001	-	-	0.502	0.272	
HCM Control Delay (s)	21.3	8.5	-	-	7.8	0	-	57.8	10.6	
HCM Lane LOS		C	A	-	-	A	A	-	F	B
HCM 95th %tile Q(veh)		0	1.1	-	-	0	-	-	2.3	1.1

Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	153	92	0	0	199	52	1	1	1	8	4	214
Future Vol, veh/h	153	92	0	0	199	52	1	1	1	8	4	214
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	-	-	-	-	-	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	8	22	2	2	8	6	5	5	5	2	50	4
Mvmt Flow	166	100	0	0	216	57	1	1	1	9	4	233

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	273	0	0	100	0	0	795	705	100	678	677	245
Stage 1	-	-	-	-	-	-	432	432	-	245	245	-
Stage 2	-	-	-	-	-	-	363	273	-	433	432	-
Critical Hdwy	4.18	-	-	4.12	-	-	7.15	6.55	6.25	7.12	7	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.12	6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.12	6	-
Follow-up Hdwy	2.272	-	-	2.218	-	-	3.545	4.045	3.345	3.518	4.45	3.336
Pot Cap-1 Maneuver	1256	-	-	1493	-	-	302	357	947	366	320	789
Stage 1	-	-	-	-	-	-	596	577	-	759	623	-
Stage 2	-	-	-	-	-	-	650	678	-	601	508	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1256	-	-	1493	-	-	189	310	947	328	278	789
Mov Cap-2 Maneuver	-	-	-	-	-	-	189	310	-	328	278	-
Stage 1	-	-	-	-	-	-	517	501	-	659	623	-
Stage 2	-	-	-	-	-	-	455	678	-	520	441	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	5.2			0			16.6			12		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	313	1256	-	-	1493	-	-	328	763
HCM Lane V/C Ratio	0.01	0.132	-	-	-	-	-	0.027	0.311
HCM Control Delay (s)	16.6	8.3	-	-	0	-	-	16.3	11.8
HCM Lane LOS		C	A	-	-	A	-	C	B
HCM 95th %tile Q(veh)		0	0.5	-	-	0	-	0.1	1.3

Intersection												
Int Delay, s/veh	10.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	397	261	0	1	84	77	0	1	1	66	2	237
Future Vol, veh/h	397	261	0	1	84	77	0	1	1	66	2	237
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	-	-	-	-	-	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	12	2	2	7	3	2	2	2	2	2	4
Mvmt Flow	432	284	0	1	91	84	0	1	1	72	2	258





Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	175	0	0	284	0	0	1413	1325	284	1284	1283	133
Stage 1	-	-	-	-	-	-	1148	1148	-	135	135	-
Stage 2	-	-	-	-	-	-	265	177	-	1149	1148	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.336
Pot Cap-1 Maneuver	1401	-	-	1278	-	-	115	156	755	142	165	911
Stage 1	-	-	-	-	-	-	242	273	-	868	785	-
Stage 2	-	-	-	-	-	-	740	753	-	242	273	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1401	-	-	1278	-	-	62	108	755	107	114	911
Mov Cap-2 Maneuver	-	-	-	-	-	-	62	108	-	107	114	-
Stage 1	-	-	-	-	-	-	167	189	-	601	784	-
Stage 2	-	-	-	-	-	-	529	752	-	166	189	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	5.3			0			24.3			28		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	
Capacity (veh/h)	189	1401	-	-	1278	-	-	107	861	
HCM Lane V/C Ratio	0.012	0.308	-	-	0.001	-	-	0.67	0.302	
HCM Control Delay (s)	24.3	8.7	-	-	7.8	0	-	89.6	11	
HCM Lane LOS		C	A	-	-	A	A	-	F	B
HCM 95th %tile Q(veh)		0	1.3	-	-	0	-	-	3.4	1.3

APPENDIX “B-4”
TOTAL FORECAST (2031, 2037, 2043) CONDITIONS

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	92	175	202	31	63	154
Future Vol, veh/h	92	175	202	31	63	154
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	13	11	50	10	7
Mvmt Flow	100	190	220	34	68	167
Number of Lanes	1	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	1	0
HCM Control Delay	11	11.1	10.2
HCM LOS	B	B	B

Lane	NBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	34%	100%	0%
Vol Thru, %	87%	0%	0%	100%
Vol Right, %	13%	66%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	233	267	63	154
LT Vol	0	92	63	0
Through Vol	202	0	0	154
RT Vol	31	175	0	0
Lane Flow Rate	253	290	68	167
Geometry Grp	5	2	7	7
Degree of Util (X)	0.361	0.389	0.117	0.26
Departure Headway (Hd)	5.137	4.824	6.15	5.594
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	691	740	577	636
Service Time	3.226	2.892	3.946	3.389
HCM Lane V/C Ratio	0.366	0.392	0.118	0.263
HCM Control Delay	11.1	11	9.8	10.4
HCM Lane LOS	B	B	A	B
HCM 95th-tile Q	1.6	1.8	0.4	1

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	95	33	155	357	66	104
Future Vol, veh/h	95	33	155	357	66	104
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	103	36	168	388	72	113
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	9.2	18.7	10.3
HCM LOS	A	C	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	39%	0%	30%
Vol Thru, %	0%	74%	70%
Vol Right, %	61%	26%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	170	128	512
LT Vol	66	0	155
Through Vol	0	95	357
RT Vol	104	33	0
Lane Flow Rate	185	139	557
Geometry Grp	1	1	1
Degree of Util (X)	0.269	0.19	0.718
Departure Headway (Hd)	5.24	4.907	4.647
Convergence, Y/N	Yes	Yes	Yes
Cap	680	723	774
Service Time	3.321	2.988	2.706
HCM Lane V/C Ratio	0.272	0.192	0.72
HCM Control Delay	10.3	9.2	18.7
HCM Lane LOS	B	A	C
HCM 95th-tile Q	1.1	0.7	6.2

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	127	85	0	0	188	43	1	1	1	7	4	177
Future Vol, veh/h	127	85	0	0	188	43	1	1	1	7	4	177
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
Heavy Vehicles, %	8	22	2	2	8	6	5	5	5	2	50	4
Mvmt Flow	138	92	0	0	204	47	1	1	1	8	4	192
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.2	10	8.4	9.1
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	60%	0%	4%
Vol Thru, %	33%	40%	81%	2%
Vol Right, %	33%	0%	19%	94%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	212	231	188
LT Vol	1	127	0	7
Through Vol	1	85	188	4
RT Vol	1	0	43	177
Lane Flow Rate	3	230	251	204
Geometry Grp	1	1	1	1
Degree of Util (X)	0.005	0.315	0.326	0.256
Departure Headway (Hd)	5.272	4.922	4.68	4.514
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	673	726	763	793
Service Time	3.346	2.977	2.734	2.562
HCM Lane V/C Ratio	0.004	0.317	0.329	0.257
HCM Control Delay	8.4	10.2	10	9.1
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0	1.4	1.4	1

Intersection						
Int Delay, s/veh	3.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	65	80	95	301	138	66
Future Vol, veh/h	65	80	95	301	138	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	20	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	10	9	13	7	5
Mvmt Flow	71	87	103	327	150	72

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	719	186	222	0	0
Stage 1	186	-	-	-	-
Stage 2	533	-	-	-	-
Critical Hdwy	6.42	6.3	4.19	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.39	2.281	-	-
Pot Cap-1 Maneuver	395	836	1307	-	-
Stage 1	846	-	-	-	-
Stage 2	588	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	364	836	1307	-	-
Mov Cap-2 Maneuver	364	-	-	-	-
Stage 1	779	-	-	-	-
Stage 2	588	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.7	1.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1307	-	529	-	-
HCM Lane V/C Ratio	0.079	-	0.298	-	-
HCM Control Delay (s)	8	-	14.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1.2	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	1	93	264	5	3	2
Future Vol, veh/h	1	93	264	5	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	7	29	40	33	2
Mvmt Flow	1	101	287	5	3	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	292	0	-	0	393 290
Stage 1	-	-	-	-	290 -
Stage 2	-	-	-	-	103 -
Critical Hdwy	4.12	-	-	-	6.73 6.22
Critical Hdwy Stg 1	-	-	-	-	5.73 -
Critical Hdwy Stg 2	-	-	-	-	5.73 -
Follow-up Hdwy	2.218	-	-	-	3.797 3.318
Pot Cap-1 Maneuver	1270	-	-	-	556 749
Stage 1	-	-	-	-	694 -
Stage 2	-	-	-	-	849 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1270	-	-	-	555 749
Mov Cap-2 Maneuver	-	-	-	-	555 -
Stage 1	-	-	-	-	693 -
Stage 2	-	-	-	-	849 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1270	-	-	-	619
HCM Lane V/C Ratio	0.001	-	-	-	0.009
HCM Control Delay (s)	7.8	0	-	-	10.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	96	0	2	268	2	0
Future Vol, veh/h	96	0	2	268	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	2	2	20	2	2
Mvmt Flow	104	0	2	291	2	0

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	104	399
Stage 1	-	-	-	104
Stage 2	-	-	-	295
Critical Hdwy	-	-	4.12	6.42
Critical Hdwy Stg 1	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	3.518
Pot Cap-1 Maneuver	-	-	1488	607
Stage 1	-	-	-	920
Stage 2	-	-	-	755
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1488	606
Mov Cap-2 Maneuver	-	-	-	606
Stage 1	-	-	-	920
Stage 2	-	-	-	753

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	606	-	-	1488	-
HCM Lane V/C Ratio	0.004	-	-	0.001	-
HCM Control Delay (s)	11	-	-	7.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	5	91	223	9	27	46
Future Vol, veh/h	5	91	223	9	27	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	99	242	10	29	50

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	252	0	-	0	356 247
Stage 1	-	-	-	-	247 -
Stage 2	-	-	-	-	109 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1313	-	-	-	642 792
Stage 1	-	-	-	-	794 -
Stage 2	-	-	-	-	916 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1313	-	-	-	639 792
Mov Cap-2 Maneuver	-	-	-	-	639 -
Stage 1	-	-	-	-	791 -
Stage 2	-	-	-	-	916 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1313	-	-	-	728
HCM Lane V/C Ratio	0.004	-	-	-	0.109
HCM Control Delay (s)	7.8	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	4	114	233	5	0	0
Future Vol, veh/h	4	114	233	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	124	253	5	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	258	0	0	388	256
Stage 1	-	-	-	256	-
Stage 2	-	-	-	132	-
Critical Hdwy	4.12	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	3.518	3.318
Pot Cap-1 Maneuver	1307	-	-	616	783
Stage 1	-	-	-	787	-
Stage 2	-	-	-	894	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1307	-	-	614	783
Mov Cap-2 Maneuver	-	-	-	614	-
Stage 1	-	-	-	785	-
Stage 2	-	-	-	894	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1307	-	-	-	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	7.8	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	6.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	47	67	22	46	192	34
Future Vol, veh/h	47	67	22	46	192	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	73	24	50	209	37

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	124	0	186
Stage 1	-	-	-	-	88
Stage 2	-	-	-	-	98
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1463	-	803
Stage 1	-	-	-	-	935
Stage 2	-	-	-	-	926
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1463	-	789
Mov Cap-2 Maneuver	-	-	-	-	789
Stage 1	-	-	-	-	935
Stage 2	-	-	-	-	910

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	812	-	-	1463	-
HCM Lane V/C Ratio	0.303	-	-	0.016	-
HCM Control Delay (s)	11.3	-	-	7.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.3	-	-	0.1	-

Intersection						
Int Delay, s/veh	6.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	3	65	33	19	63
Future Vol, veh/h	15	3	65	33	19	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	20	2	2	2
Mvmt Flow	16	3	71	36	21	68

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	19	0	196 18
Stage 1	-	-	-	-	18 -
Stage 2	-	-	-	-	178 -
Critical Hdwy	-	-	4.3	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.38	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1488	-	793 1061
Stage 1	-	-	-	-	1005 -
Stage 2	-	-	-	-	853 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1488	-	754 1061
Mov Cap-2 Maneuver	-	-	-	-	754 -
Stage 1	-	-	-	-	1005 -
Stage 2	-	-	-	-	811 -

Approach	EB	WB	NB
HCM Control Delay, s	0	5	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	970	-	-	1488	-
HCM Lane V/C Ratio	0.092	-	-	0.047	-
HCM Control Delay (s)	9.1	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection						
Int Delay, s/veh	5.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	50	42	103	121	86	117
Future Vol, veh/h	50	42	103	121	86	117
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	26	12	9	6	7	8
Mvmt Flow	54	46	112	132	93	127

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	244	0	-	0	332 178
Stage 1	-	-	-	-	178 -
Stage 2	-	-	-	-	154 -
Critical Hdwy	4.36	-	-	-	6.47 6.28
Critical Hdwy Stg 1	-	-	-	-	5.47 -
Critical Hdwy Stg 2	-	-	-	-	5.47 -
Follow-up Hdwy	2.434	-	-	-	3.563 3.372
Pot Cap-1 Maneuver	1194	-	-	-	653 850
Stage 1	-	-	-	-	841 -
Stage 2	-	-	-	-	862 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1194	-	-	-	623 850
Mov Cap-2 Maneuver	-	-	-	-	623 -
Stage 1	-	-	-	-	802 -
Stage 2	-	-	-	-	862 -

Approach	EB	WB	SB
HCM Control Delay, s	4.4	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1194	-	-	-	736
HCM Lane V/C Ratio	0.046	-	-	-	0.3
HCM Control Delay (s)	8.2	0	-	-	12
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.3

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	112	14	4	184	35	7
Future Vol, veh/h	112	14	4	184	35	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	21	25	10	4	14
Mvmt Flow	122	15	4	200	38	8

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	137	0	338
Stage 1	-	-	-	-	130
Stage 2	-	-	-	-	208
Critical Hdwy	-	-	4.35	-	6.44
Critical Hdwy Stg 1	-	-	-	-	5.44
Critical Hdwy Stg 2	-	-	-	-	5.44
Follow-up Hdwy	-	-	2.425	-	3.536
Pot Cap-1 Maneuver	-	-	1317	-	654
Stage 1	-	-	-	-	891
Stage 2	-	-	-	-	822
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1317	-	652
Mov Cap-2 Maneuver	-	-	-	-	652
Stage 1	-	-	-	-	891
Stage 2	-	-	-	-	820

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	682	-	-	1317	-
HCM Lane V/C Ratio	0.067	-	-	0.003	-
HCM Control Delay (s)	10.7	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	72	30	10	161	173	73
Future Vol, veh/h	72	30	10	161	173	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	78	33	11	175	188	79

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	425	228	267	0	-	0
Stage 1	228	-	-	-	-	-
Stage 2	197	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	586	811	1297	-	-	-
Stage 1	810	-	-	-	-	-
Stage 2	836	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	581	811	1297	-	-	-
Mov Cap-2 Maneuver	581	-	-	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	836	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1297	-	634	-	-
HCM Lane V/C Ratio	0.008	-	0.175	-	-
HCM Control Delay (s)	7.8	0	11.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-





Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	88	4	4	215	14	4
Future Vol, veh/h	88	4	4	215	14	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	19	50	50	6	11	2
Mvmt Flow	96	4	4	234	15	4

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	100	0	340
Stage 1	-	-	-	-	98
Stage 2	-	-	-	-	242
Critical Hdwy	-	-	4.6	-	6.51
Critical Hdwy Stg 1	-	-	-	-	5.51
Critical Hdwy Stg 2	-	-	-	-	5.51
Follow-up Hdwy	-	-	2.65	-	3.599
Pot Cap-1 Maneuver	-	-	1240	-	638
Stage 1	-	-	-	-	904
Stage 2	-	-	-	-	778
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1240	-	635
Mov Cap-2 Maneuver	-	-	-	-	635
Stage 1	-	-	-	-	904
Stage 2	-	-	-	-	775

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	686	-	-	1240	-
HCM Lane V/C Ratio	0.029	-	-	0.004	-
HCM Control Delay (s)	10.4	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	12.7
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	63	118	233	103	189	218
Future Vol, veh/h	63	118	233	103	189	218
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	50	2	3	2	4	10
Mvmt Flow	68	128	253	112	205	237
Number of Lanes	1	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	1	0
HCM Control Delay	12.8	13.5	12
HCM LOS	B	B	B

Lane	NBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	35%	100%	0%
Vol Thru, %	69%	0%	0%	100%
Vol Right, %	31%	65%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	336	181	189	218
LT Vol	0	63	189	0
Through Vol	233	0	0	218
RT Vol	103	118	0	0
Lane Flow Rate	365	197	205	237
Geometry Grp	5	2	7	7
Degree of Util (X)	0.519	0.348	0.351	0.378
Departure Headway (Hd)	5.115	6.363	6.151	5.749
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	705	567	585	628
Service Time	3.139	4.392	3.876	3.473
HCM Lane V/C Ratio	0.518	0.347	0.35	0.377
HCM Control Delay	13.5	12.8	12.2	11.9
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	3	1.5	1.6	1.8

Intersection	
Intersection Delay, s/veh	39.3
Intersection LOS	E

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	407	130	123	215	252	139
Future Vol, veh/h	407	130	123	215	252	139
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	442	141	134	234	274	151
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	57.2	22.6	29
HCM LOS	F	C	D

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	64%	0%	36%
Vol Thru, %	0%	76%	64%
Vol Right, %	36%	24%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	391	537	338
LT Vol	252	0	123
Through Vol	0	407	215
RT Vol	139	130	0
Lane Flow Rate	425	584	367
Geometry Grp	1	1	1
Degree of Util (X)	0.777	0.982	0.677
Departure Headway (Hd)	6.585	6.058	6.629
Convergence, Y/N	Yes	Yes	Yes
Cap	548	595	544
Service Time	4.634	4.107	4.685
HCM Lane V/C Ratio	0.776	0.982	0.675
HCM Control Delay	29	57.2	22.6
HCM Lane LOS	D	F	C
HCM 95th-tile Q	7.1	14.1	5.1

Intersection	
Intersection Delay, s/veh	24.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	328	243	0	1	87	64	0	1	1	55	2	196
Future Vol, veh/h	328	243	0	1	87	64	0	1	1	55	2	196
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
Heavy Vehicles, %	2	12	2	2	7	3	2	2	2	2	2	4
Mvmt Flow	357	264	0	1	95	70	0	1	1	60	2	213
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	33.7	10.2	9.4	12.6
HCM LOS	D	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	57%	1%	22%
Vol Thru, %	50%	43%	57%	1%
Vol Right, %	50%	0%	42%	77%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	571	152	253
LT Vol	0	328	1	55
Through Vol	1	243	87	2
RT Vol	1	0	64	196
Lane Flow Rate	2	621	165	275
Geometry Grp	1	1	1	1
Degree of Util (X)	0.004	0.88	0.246	0.422
Departure Headway (Hd)	6.264	5.107	5.368	5.525
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	569	708	667	652
Service Time	4.331	3.135	3.411	3.569
HCM Lane V/C Ratio	0.004	0.877	0.247	0.422
HCM Control Delay	9.4	33.7	10.2	12.6
HCM Lane LOS	A	D	B	B
HCM 95th-tile Q	0	10.8	1	2.1

Intersection						
Int Delay, s/veh	6.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	108	108	95	264	317	95
Future Vol, veh/h	108	108	95	264	317	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	20	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	10	9	13	7	5
Mvmt Flow	117	117	103	287	345	103

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	890	397	448	0	0
Stage 1	397	-	-	-	-
Stage 2	493	-	-	-	-
Critical Hdwy	6.42	6.3	4.19	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.39	2.281	-	-
Pot Cap-1 Maneuver	313	635	1076	-	-
Stage 1	679	-	-	-	-
Stage 2	614	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	283	635	1076	-	-
Mov Cap-2 Maneuver	283	-	-	-	-
Stage 1	614	-	-	-	-
Stage 2	614	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	27	2.3	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1076	-	392	-	-
HCM Lane V/C Ratio	0.096	-	0.599	-	-
HCM Control Delay (s)	8.7	-	27	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	0.3	-	3.8	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	3	288	179	5	3	2
Future Vol, veh/h	3	288	179	5	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	7	29	40	33	2
Mvmt Flow	3	313	195	5	3	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	200	0	-	0	517 198
Stage 1	-	-	-	-	198 -
Stage 2	-	-	-	-	319 -
Critical Hdwy	4.12	-	-	-	6.73 6.22
Critical Hdwy Stg 1	-	-	-	-	5.73 -
Critical Hdwy Stg 2	-	-	-	-	5.73 -
Follow-up Hdwy	2.218	-	-	-	3.797 3.318
Pot Cap-1 Maneuver	1372	-	-	-	468 843
Stage 1	-	-	-	-	767 -
Stage 2	-	-	-	-	672 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1372	-	-	-	467 843
Mov Cap-2 Maneuver	-	-	-	-	467 -
Stage 1	-	-	-	-	765 -
Stage 2	-	-	-	-	672 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1372	-	-	-	568
HCM Lane V/C Ratio	0.002	-	-	-	0.01
HCM Control Delay (s)	7.6	0	-	-	11.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	291	1	0	183	1	1
Future Vol, veh/h	291	1	0	183	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	4	2	2
Mvmt Flow	316	1	0	199	1	1

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	317	0	516	317
Stage 1	-	-	-	-	317	-
Stage 2	-	-	-	-	199	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1243	-	519	724
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	835	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1243	-	519	724
Mov Cap-2 Maneuver	-	-	-	-	519	-
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	835	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	605	-	-	1243	-
HCM Lane V/C Ratio	0.004	-	-	-	-
HCM Control Delay (s)	11	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	22	268	160	18	21	23
Future Vol, veh/h	22	268	160	18	21	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	291	174	20	23	25

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	194	0	-	0	523 184
Stage 1	-	-	-	-	184 -
Stage 2	-	-	-	-	339 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1379	-	-	-	514 858
Stage 1	-	-	-	-	848 -
Stage 2	-	-	-	-	722 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1379	-	-	-	503 858
Mov Cap-2 Maneuver	-	-	-	-	503 -
Stage 1	-	-	-	-	830 -
Stage 2	-	-	-	-	722 -

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1379	-	-	-	642
HCM Lane V/C Ratio	0.017	-	-	-	0.074
HCM Control Delay (s)	7.7	0	-	-	11.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	13	277	180	13	0	0
Future Vol, veh/h	13	277	180	13	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	301	196	14	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	210	0	-	0	532 203
Stage 1	-	-	-	-	203 -
Stage 2	-	-	-	-	329 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1361	-	-	-	508 838
Stage 1	-	-	-	-	831 -
Stage 2	-	-	-	-	729 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1361	-	-	-	502 838
Mov Cap-2 Maneuver	-	-	-	-	502 -
Stage 1	-	-	-	-	821 -
Stage 2	-	-	-	-	729 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1361	-	-	-	-
HCM Lane V/C Ratio	0.01	-	-	-	-
HCM Control Delay (s)	7.7	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	4.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	61	216	38	67	126	42
Future Vol, veh/h	61	216	38	67	126	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	235	41	73	137	46

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	301	0	339
Stage 1	-	-	-	-	184
Stage 2	-	-	-	-	155
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1260	-	657
Stage 1	-	-	-	-	848
Stage 2	-	-	-	-	873
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1260	-	635
Mov Cap-2 Maneuver	-	-	-	-	635
Stage 1	-	-	-	-	848
Stage 2	-	-	-	-	843

Approach	EB	WB	NB
HCM Control Delay, s	0	2.9	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	679	-	-	1260	-
HCM Lane V/C Ratio	0.269	-	-	0.033	-
HCM Control Delay (s)	12.2	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.1	-	-	0.1	-

Intersection						
Int Delay, s/veh	5.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	52	32	73	26	21	82
Future Vol, veh/h	52	32	73	26	21	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	13	2	2	2	2
Mvmt Flow	57	35	79	28	23	89

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	92	0	261 75
Stage 1	-	-	-	-	75 -
Stage 2	-	-	-	-	186 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1503	-	728 986
Stage 1	-	-	-	-	948 -
Stage 2	-	-	-	-	846 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1503	-	689 986
Mov Cap-2 Maneuver	-	-	-	-	689 -
Stage 1	-	-	-	-	948 -
Stage 2	-	-	-	-	801 -

Approach	EB	WB	NB
HCM Control Delay, s	0	5.6	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	906	-	-	1503	-
HCM Lane V/C Ratio	0.124	-	-	0.053	-
HCM Control Delay (s)	9.5	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

Intersection						
Int Delay, s/veh	7.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	150	150	73	121	127	84
Future Vol, veh/h	150	150	73	121	127	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	12	2	2	4	2
Mvmt Flow	163	163	79	132	138	91

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	211	0	-	0	634 145
Stage 1	-	-	-	-	145 -
Stage 2	-	-	-	-	489 -
Critical Hdwy	4.12	-	-	-	6.44 6.22
Critical Hdwy Stg 1	-	-	-	-	5.44 -
Critical Hdwy Stg 2	-	-	-	-	5.44 -
Follow-up Hdwy	2.218	-	-	-	3.536 3.318
Pot Cap-1 Maneuver	1360	-	-	-	440 902
Stage 1	-	-	-	-	877 -
Stage 2	-	-	-	-	612 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1360	-	-	-	382 902
Mov Cap-2 Maneuver	-	-	-	-	382 -
Stage 1	-	-	-	-	761 -
Stage 2	-	-	-	-	612 -

Approach	EB	WB	SB
HCM Control Delay, s	4	0	18.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1360	-	-	-	496
HCM Lane V/C Ratio	0.12	-	-	-	0.462
HCM Control Delay (s)	8	0	-	-	18.3
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	2.4

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	233	39	6	150	39	11
Future Vol, veh/h	233	39	6	150	39	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	11	3	10	2	3	9
Mvmt Flow	253	42	7	163	42	12

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	295	0	451 274
Stage 1	-	-	-	-	274 -
Stage 2	-	-	-	-	177 -
Critical Hdwy	-	-	4.2	-	6.43 6.29
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.29	-	3.527 3.381
Pot Cap-1 Maneuver	-	-	1222	-	564 748
Stage 1	-	-	-	-	770 -
Stage 2	-	-	-	-	851 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1222	-	561 748
Mov Cap-2 Maneuver	-	-	-	-	561 -
Stage 1	-	-	-	-	770 -
Stage 2	-	-	-	-	846 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	594	-	-	1222	-
HCM Lane V/C Ratio	0.091	-	-	0.005	-
HCM Control Delay (s)	11.7	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	96	0	20	0	0	0	32	240	0	0	191	90
Future Vol, veh/h	96	0	20	0	0	0	32	240	0	0	191	90
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	104	0	22	0	0	0	35	261	0	0	208	98

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	588	588	257	599	637	261	306	0	0	261	0	0
Stage 1	257	257	-	331	331	-	-	-	-	-	-	-
Stage 2	331	331	-	268	306	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	421	421	782	413	395	778	1255	-	-	1303	-	-
Stage 1	748	695	-	682	645	-	-	-	-	-	-	-
Stage 2	682	645	-	738	662	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	410	407	782	392	382	778	1255	-	-	1303	-	-
Mov Cap-2 Maneuver	410	407	-	392	382	-	-	-	-	-	-	-
Stage 1	723	695	-	659	624	-	-	-	-	-	-	-
Stage 2	659	624	-	717	662	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	16.2		0		0.9		0	
HCM LOS	C		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1255	-	-	447	-	1303	-	-
HCM Lane V/C Ratio	0.028	-	-	0.282	-	-	-	-
HCM Control Delay (s)	8	0	-	16.2	0	0	-	-
HCM Lane LOS	A	A	-	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.1	-	0	-	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	286	11	15	140	10	13
Future Vol, veh/h	286	11	15	140	10	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	11	30	5	0	33
Mvmt Flow	311	12	16	152	11	14

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	323	0	501
Stage 1	-	-	-	-	317
Stage 2	-	-	-	-	184
Critical Hdwy	-	-	4.4	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.47	-	3.5
Pot Cap-1 Maneuver	-	-	1095	-	533
Stage 1	-	-	-	-	743
Stage 2	-	-	-	-	852
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1095	-	524
Mov Cap-2 Maneuver	-	-	-	-	524
Stage 1	-	-	-	-	743
Stage 2	-	-	-	-	838

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	592	-	-	1095	-
HCM Lane V/C Ratio	0.042	-	-	0.015	-
HCM Control Delay (s)	11.3	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	18.9
Intersection LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	119	172	383	78	60	222
Future Vol, veh/h	119	172	383	78	60	222
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	13	11	50	10	7
Mvmt Flow	129	187	416	85	65	241
Number of Lanes	1	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	1	0
HCM Control Delay	14.8	25.2	13
HCM LOS	B	D	B

Lane	NBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	41%	100%	0%
Vol Thru, %	83%	0%	0%	100%
Vol Right, %	17%	59%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	461	291	60	222
LT Vol	0	119	60	0
Through Vol	383	0	0	222
RT Vol	78	172	0	0
Lane Flow Rate	501	316	65	241
Geometry Grp	5	2	7	7
Degree of Util (X)	0.775	0.51	0.124	0.421
Departure Headway (Hd)	5.566	5.799	6.836	6.276
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	646	620	523	572
Service Time	3.617	3.86	4.599	4.038
HCM Lane V/C Ratio	0.776	0.51	0.124	0.421
HCM Control Delay	25.2	14.8	10.6	13.6
HCM Lane LOS	D	B	B	B
HCM 95th-tile Q	7.3	2.9	0.4	2.1

Intersection	
Intersection Delay, s/veh	27.5
Intersection LOS	D

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	118	37	171	449	73	115
Future Vol, veh/h	118	37	171	449	73	115
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	128	40	186	488	79	125
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	10	36.8	11.5
HCM LOS	A	E	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	39%	0%	28%
Vol Thru, %	0%	76%	72%
Vol Right, %	61%	24%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	188	155	620
LT Vol	73	0	171
Through Vol	0	118	449
RT Vol	115	37	0
Lane Flow Rate	204	168	674
Geometry Grp	1	1	1
Degree of Util (X)	0.324	0.247	0.911
Departure Headway (Hd)	5.706	5.278	4.869
Convergence, Y/N	Yes	Yes	Yes
Cap	629	681	748
Service Time	3.748	3.312	2.869
HCM Lane V/C Ratio	0.324	0.247	0.901
HCM Control Delay	11.5	10	36.8
HCM Lane LOS	B	A	E
HCM 95th-tile Q	1.4	1	12.3

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	140	102	0	0	228	48	1	1	1	8	4	195
Future Vol, veh/h	140	102	0	0	228	48	1	1	1	8	4	195
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
Heavy Vehicles, %	8	22	2	2	8	6	5	5	5	2	50	4
Mvmt Flow	152	111	0	0	248	52	1	1	1	9	4	212
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.1	11.1	8.7	9.8
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	58%	0%	4%
Vol Thru, %	33%	42%	83%	2%
Vol Right, %	33%	0%	17%	94%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	242	276	207
LT Vol	1	140	0	8
Through Vol	1	102	228	4
RT Vol	1	0	48	195
Lane Flow Rate	3	263	300	225
Geometry Grp	1	1	1	1
Degree of Util (X)	0.005	0.369	0.4	0.295
Departure Headway (Hd)	5.643	5.054	4.805	4.715
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	638	705	744	756
Service Time	3.643	3.127	2.875	2.782
HCM Lane V/C Ratio	0.005	0.373	0.403	0.298
HCM Control Delay	8.7	11.1	11.1	9.8
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0	1.7	1.9	1.2

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	72	88	105	469	195	73
Future Vol, veh/h	72	88	105	469	195	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	20	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	10	9	13	7	5
Mvmt Flow	78	96	114	510	212	79

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	990	252	291	0	0
Stage 1	252	-	-	-	-
Stage 2	738	-	-	-	-
Critical Hdwy	6.42	6.3	4.19	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.39	2.281	-	-
Pot Cap-1 Maneuver	273	768	1232	-	-
Stage 1	790	-	-	-	-
Stage 2	473	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	248	768	1232	-	-
Mov Cap-2 Maneuver	248	-	-	-	-
Stage 1	717	-	-	-	-
Stage 2	473	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.1	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1232	-	395	-	-
HCM Lane V/C Ratio	0.093	-	0.44	-	-
HCM Control Delay (s)	8.2	-	21.1	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.3	-	2.2	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	1	137	289	5	3	2
Future Vol, veh/h	1	137	289	5	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	7	29	40	33	2
Mvmt Flow	1	149	314	5	3	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	319	0	0	468	317
Stage 1	-	-	-	317	-
Stage 2	-	-	-	151	-
Critical Hdwy	4.12	-	-	6.73	6.22
Critical Hdwy Stg 1	-	-	-	5.73	-
Critical Hdwy Stg 2	-	-	-	5.73	-
Follow-up Hdwy	2.218	-	-	3.797	3.318
Pot Cap-1 Maneuver	1241	-	-	501	724
Stage 1	-	-	-	673	-
Stage 2	-	-	-	807	-
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	1241	-	-	500	724
Mov Cap-2 Maneuver	-	-	-	500	-
Stage 1	-	-	-	672	-
Stage 2	-	-	-	807	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1241	-	-	-	571
HCM Lane V/C Ratio	0.001	-	-	-	0.01
HCM Control Delay (s)	7.9	0	-	-	11.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	140	0	2	293	2	0
Future Vol, veh/h	140	0	2	293	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	2	2	20	2	2
Mvmt Flow	152	0	2	318	2	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	152	0	474
Stage 1	-	-	-	-	152
Stage 2	-	-	-	-	322
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1429	-	549
Stage 1	-	-	-	-	876
Stage 2	-	-	-	-	735
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1429	-	548
Mov Cap-2 Maneuver	-	-	-	-	548
Stage 1	-	-	-	-	876
Stage 2	-	-	-	-	734

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	548	-	-	1429	-
HCM Lane V/C Ratio	0.004	-	-	0.002	-
HCM Control Delay (s)	11.6	-	-	7.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	5	135	248	9	27	46
Future Vol, veh/h	5	135	248	9	27	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	147	270	10	29	50

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	280	0	-	0	432 275
Stage 1	-	-	-	-	275 -
Stage 2	-	-	-	-	157 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1283	-	-	-	581 764
Stage 1	-	-	-	-	771 -
Stage 2	-	-	-	-	871 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1283	-	-	-	579 764
Mov Cap-2 Maneuver	-	-	-	-	579 -
Stage 1	-	-	-	-	768 -
Stage 2	-	-	-	-	871 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1283	-	-	-	683
HCM Lane V/C Ratio	0.004	-	-	-	0.116
HCM Control Delay (s)	7.8	0	-	-	11
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	4	158	258	5	0	0
Future Vol, veh/h	4	158	258	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	172	280	5	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	285	0	-	0	463 283
Stage 1	-	-	-	-	283 -
Stage 2	-	-	-	-	180 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1277	-	-	-	557 756
Stage 1	-	-	-	-	765 -
Stage 2	-	-	-	-	851 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1277	-	-	-	555 756
Mov Cap-2 Maneuver	-	-	-	-	555 -
Stage 1	-	-	-	-	763 -
Stage 2	-	-	-	-	851 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1277	-	-	-	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	7.8	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	5.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	98	60	20	79	184	32
Future Vol, veh/h	98	60	20	79	184	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	107	65	22	86	200	35

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	172	0	270
Stage 1	-	-	-	-	140
Stage 2	-	-	-	-	130
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1405	-	719
Stage 1	-	-	-	-	887
Stage 2	-	-	-	-	896
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1405	-	707
Mov Cap-2 Maneuver	-	-	-	-	707
Stage 1	-	-	-	-	887
Stage 2	-	-	-	-	882

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	731	-	-	1405	-
HCM Lane V/C Ratio	0.321	-	-	0.015	-
HCM Control Delay (s)	12.2	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.4	-	-	0	-

Intersection						
Int Delay, s/veh	7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	16	3	96	37	30	100
Future Vol, veh/h	16	3	96	37	30	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	20	2	2	2
Mvmt Flow	17	3	104	40	33	109

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	20	0	267 19
Stage 1	-	-	-	-	19 -
Stage 2	-	-	-	-	248 -
Critical Hdwy	-	-	4.3	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.38	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1487	-	722 1059
Stage 1	-	-	-	-	1004 -
Stage 2	-	-	-	-	793 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1487	-	670 1059
Mov Cap-2 Maneuver	-	-	-	-	670 -
Stage 1	-	-	-	-	1004 -
Stage 2	-	-	-	-	736 -

Approach	EB	WB	NB
HCM Control Delay, s	0	5.5	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	934	-	-	1487	-
HCM Lane V/C Ratio	0.151	-	-	0.07	-
HCM Control Delay (s)	9.5	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

Intersection						
Int Delay, s/veh	6.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	63	47	113	137	99	150
Future Vol, veh/h	63	47	113	137	99	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	26	12	9	6	7	8
Mvmt Flow	68	51	123	149	108	163

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	272	0	-	0	385 198
Stage 1	-	-	-	-	198 -
Stage 2	-	-	-	-	187 -
Critical Hdwy	4.36	-	-	-	6.47 6.28
Critical Hdwy Stg 1	-	-	-	-	5.47 -
Critical Hdwy Stg 2	-	-	-	-	5.47 -
Follow-up Hdwy	2.434	-	-	-	3.563 3.372
Pot Cap-1 Maneuver	1165	-	-	-	608 828
Stage 1	-	-	-	-	824 -
Stage 2	-	-	-	-	833 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1165	-	-	-	572 828
Mov Cap-2 Maneuver	-	-	-	-	572 -
Stage 1	-	-	-	-	775 -
Stage 2	-	-	-	-	833 -

Approach	EB	WB	SB
HCM Control Delay, s	4.7	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1165	-	-	-	703
HCM Lane V/C Ratio	0.059	-	-	-	0.385
HCM Control Delay (s)	8.3	0	-	-	13.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.8

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	128	14	4	206	35	7
Future Vol, veh/h	128	14	4	206	35	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	21	25	10	4	14
Mvmt Flow	139	15	4	224	38	8

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	154	0	379
Stage 1	-	-	-	-	147
Stage 2	-	-	-	-	232
Critical Hdwy	-	-	4.35	-	6.44
Critical Hdwy Stg 1	-	-	-	-	5.44
Critical Hdwy Stg 2	-	-	-	-	5.44
Follow-up Hdwy	-	-	2.425	-	3.536
Pot Cap-1 Maneuver	-	-	1297	-	619
Stage 1	-	-	-	-	876
Stage 2	-	-	-	-	802
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1297	-	617
Mov Cap-2 Maneuver	-	-	-	-	617
Stage 1	-	-	-	-	876
Stage 2	-	-	-	-	799

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	648	-	-	1297	-
HCM Lane V/C Ratio	0.07	-	-	0.003	-
HCM Control Delay (s)	11	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection												
Int Delay, s/veh	12.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	70	22	30	33	77	214	10	176	14	84	186	71
Future Vol, veh/h	70	22	30	33	77	214	10	176	14	84	186	71
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	76	24	33	36	84	233	11	191	15	91	202	77

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	802	651	241	672	682	199	279	0	0	206	0	0
Stage 1	423	423	-	221	221	-	-	-	-	-	-	-
Stage 2	379	228	-	451	461	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	302	388	798	370	372	842	1284	-	-	1365	-	-
Stage 1	609	588	-	781	720	-	-	-	-	-	-	-
Stage 2	643	715	-	588	565	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	165	353	798	314	339	842	1284	-	-	1365	-	-
Mov Cap-2 Maneuver	165	353	-	314	339	-	-	-	-	-	-	-
Stage 1	603	541	-	773	713	-	-	-	-	-	-	-
Stage 2	407	708	-	496	520	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	39.1		22.2		0.4		1.9	
HCM LOS	E		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1284	-	-	233	553	1365	-	-
HCM Lane V/C Ratio	0.008	-	-	0.569	0.637	0.067	-	-
HCM Control Delay (s)	7.8	0	-	39.1	22.2	7.8	0	-
HCM Lane LOS	A	A	-	E	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	3.2	4.5	0.2	-	-

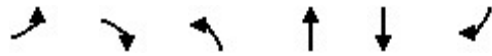
Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	104	4	4	258	14	4
Future Vol, veh/h	104	4	4	258	14	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	19	50	50	6	11	2
Mvmt Flow	113	4	4	280	15	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	117	0	403 115
Stage 1	-	-	-	-	115 -
Stage 2	-	-	-	-	288 -
Critical Hdwy	-	-	4.6	-	6.51 6.22
Critical Hdwy Stg 1	-	-	-	-	5.51 -
Critical Hdwy Stg 2	-	-	-	-	5.51 -
Follow-up Hdwy	-	-	2.65	-	3.599 3.318
Pot Cap-1 Maneuver	-	-	1221	-	586 937
Stage 1	-	-	-	-	888 -
Stage 2	-	-	-	-	741 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1221	-	584 937
Mov Cap-2 Maneuver	-	-	-	-	584 -
Stage 1	-	-	-	-	888 -
Stage 2	-	-	-	-	738 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	637	-	-	1221	-
HCM Lane V/C Ratio	0.031	-	-	0.004	-
HCM Control Delay (s)	10.8	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lanes, Volumes, Timings
1: Caron Street & Docteur Corbeil Blvd



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	72	88	105	469	195	73
Future Volume (vph)	72	88	105	469	195	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0	20.0			0.0
Storage Lanes	1	0	1			0
Taper Length (m)	2.5		2.5			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.926				0.963	
Flt Protected	0.978		0.950			
Satd. Flow (prot)	1635	0	1674	1700	1738	0
Flt Permitted	0.978		0.582			
Satd. Flow (perm)	1635	0	1026	1700	1738	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	96				45	
Link Speed (k/h)	50			50	50	
Link Distance (m)	172.7			277.3	120.1	
Travel Time (s)	12.4			20.0	8.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	10%	9%	13%	7%	5%
Adj. Flow (vph)	78	96	114	510	212	79
Shared Lane Traffic (%)						
Lane Group Flow (vph)	174	0	114	510	291	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	24.0		24.0	24.0	24.0	
Total Split (s)	24.0		31.0	31.0	31.0	
Total Split (%)	43.6%		56.4%	56.4%	56.4%	
Maximum Green (s)	18.0		25.0	25.0	25.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	2.5		2.5	2.5	2.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		Max	Max	Max	
Walk Time (s)	7.0		7.0	7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effct Green (s)	8.1		30.9	30.9	30.9	
Actuated g/C Ratio	0.17		0.65	0.65	0.65	
v/c Ratio	0.49		0.17	0.46	0.25	
Control Delay	13.4		6.6	8.2	5.5	
Queue Delay	0.0		0.0	0.0	0.0	

Lanes, Volumes, Timings
 1: Caron Street & Docteur Corbeil Blvd



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	13.4		6.6	8.2	5.5	
LOS	B		A	A	A	
Approach Delay	13.4			7.9	5.5	
Approach LOS	B			A	A	
Queue Length 50th (m)	5.5		3.7	20.9	8.2	
Queue Length 95th (m)	17.4		11.8	50.3	22.0	
Internal Link Dist (m)	148.7			253.3	96.1	
Turn Bay Length (m)			20.0			
Base Capacity (vph)	681		669	1109	1150	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.26		0.17	0.46	0.25	

Intersection Summary

Area Type:	Other
Cycle Length:	55
Actuated Cycle Length:	47.4
Natural Cycle:	55
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.49
Intersection Signal Delay:	8.2
Intersection LOS:	A
Intersection Capacity Utilization	44.9%
ICU Level of Service	A
Analysis Period (min)	15











Splits and Phases: 1: Caron Street & Docteur Corbeil Blvd



Lanes, Volumes, Timings
2: Caron Street & David Street

Caron Subdivision - Future Total 2037 AM - signalized

03/14/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	119	172	383	78	60	222
Future Volume (vph)	119	172	383	78	60	222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0		0.0	45.0	
Storage Lanes	1	0		0	1	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.920		0.977			
Flt Protected	0.980				0.950	
Satd. Flow (prot)	1596	0	1596	0	1659	1795
Flt Permitted	0.980				0.426	
Satd. Flow (perm)	1596	0	1596	0	744	1795
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	141		25			
Link Speed (k/h)	50		50			50
Link Distance (m)	331.3		361.0			126.2
Travel Time (s)	23.9		26.0			9.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	13%	11%	50%	10%	7%
Adj. Flow (vph)	129	187	416	85	65	241
Shared Lane Traffic (%)						
Lane Group Flow (vph)	316	0	501	0	65	241
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	24.0		24.0		24.0	24.0
Total Split (s)	24.0		31.0		31.0	31.0
Total Split (%)	43.6%		56.4%		56.4%	56.4%
Maximum Green (s)	18.0		25.0		25.0	25.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	2.5		2.5		2.5	2.5
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0		6.0		6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	None		Max		Max	Max
Walk Time (s)	7.0		7.0		7.0	7.0
Flash Dont Walk (s)	11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)	0		0		0	0
Act Effct Green (s)	11.1		26.2		26.2	26.2
Actuated g/C Ratio	0.22		0.53		0.53	0.53
v/c Ratio	0.68		0.58		0.16	0.25
Control Delay	16.8		12.2		9.1	8.4
Queue Delay	0.0		0.0		0.0	0.0



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Delay	16.8		12.2		9.1	8.4
LOS	B		B		A	A
Approach Delay	16.8		12.2			8.6
Approach LOS	B		B			A
Queue Length 50th (m)	12.9		24.3		2.6	9.9
Queue Length 95th (m)	31.4		63.5		9.9	26.3
Internal Link Dist (m)	307.3		337.0			102.2
Turn Bay Length (m)					45.0	
Base Capacity (vph)	673		859		395	953
Starvation Cap Reductn	0		0		0	0
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.47		0.58		0.16	0.25

Intersection Summary

Area Type:	Other
Cycle Length:	55
Actuated Cycle Length:	49.4
Natural Cycle:	55
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	12.5
Intersection LOS:	B
Intersection Capacity Utilization	61.2%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 2: Caron Street & David Street



Lanes, Volumes, Timings
17: Caron Street & Bronze Avenue

Caron Subdivision - Future Total 2037 AM - signalized

03/14/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	22	30	33	77	214	10	176	14	84	186	71
Future Volume (vph)	70	22	30	33	77	214	10	176	14	84	186	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		35.0	35.0		35.0	35.0		0.0	35.0		35.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.989				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	1883	1601	1789	1883	1601	1789	1863	0	1789	1883	1601
Flt Permitted	0.702			0.742			0.631			0.629		
Satd. Flow (perm)	1322	1883	1601	1398	1883	1601	1188	1863	0	1185	1883	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			65			233		9				77
Link Speed (k/h)		48			48			48			48	
Link Distance (m)		413.5			239.5			1605.8			361.0	
Travel Time (s)		31.0			18.0			120.4			27.1	
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
Adj. Flow (vph)	76	24	33	36	84	233	11	191	15	91	202	77
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	24	33	36	84	233	11	206	0	91	202	77
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2				6
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	4	4	4	8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0		24.0	24.0	24.0
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	26.0	26.0		26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%		52.0%	52.0%	52.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	7.8	7.8	7.8	7.8	7.8	7.8	24.2	24.2		24.2	24.2	24.2
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.19	0.60	0.60		0.60	0.60	0.60
v/c Ratio	0.30	0.07	0.09	0.13	0.23	0.47	0.02	0.18		0.13	0.18	0.08
Control Delay	16.7	13.0	2.6	14.0	14.8	6.1	6.0	6.3		6.7	6.6	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	16.7	13.0	2.6	14.0	14.8	6.1	6.0	6.3		6.7	6.6	2.4

Lanes, Volumes, Timings
 17: Caron Street & Bronze Avenue

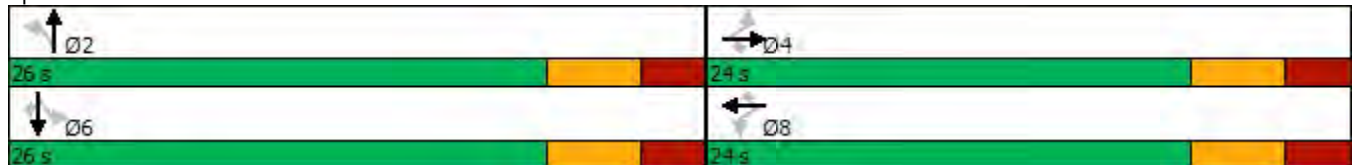
Caron Subdivision - Future Total 2037 AM - signalized
 03/14/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	B	B	A	B	B	A	A	A		A	A	A
Approach Delay		12.5			9.0			6.3			5.7	
Approach LOS		B			A			A			A	
Queue Length 50th (m)	4.4	1.3	0.0	2.0	4.8	0.0	0.3	6.4		2.8	6.5	0.0
Queue Length 95th (m)	11.9	5.1	2.4	6.8	12.3	11.3	2.1	16.9		9.4	16.9	4.4
Internal Link Dist (m)		389.5			215.5			1581.8			337.0	
Turn Bay Length (m)	35.0		35.0	35.0		35.0	35.0			35.0		35.0
Base Capacity (vph)	587	836	747	621	836	840	708	1114		706	1122	985
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.13	0.03	0.04	0.06	0.10	0.28	0.02	0.18		0.13	0.18	0.08

Intersection Summary

Area Type: Other
 Cycle Length: 50
 Actuated Cycle Length: 40.6
 Natural Cycle: 50
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 7.8
 Intersection LOS: A
 Intersection Capacity Utilization 42.5%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 17: Caron Street & Bronze Avenue



Intersection	
Intersection Delay, s/veh	28.9
Intersection LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	114	114	357	156	183	415
Future Vol, veh/h	114	114	357	156	183	415
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	50	2	3	2	4	10
Mvmt Flow	124	124	388	170	199	451
Number of Lanes	1	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	1	0
HCM Control Delay	18	37.9	25.4
HCM LOS	C	E	D

Lane	NBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	50%	100%	0%
Vol Thru, %	70%	0%	0%	100%
Vol Right, %	30%	50%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	513	228	183	415
LT Vol	0	114	183	0
Through Vol	357	0	0	415
RT Vol	156	114	0	0
Lane Flow Rate	558	248	199	451
Geometry Grp	5	2	7	7
Degree of Util (X)	0.888	0.51	0.377	0.804
Departure Headway (Hd)	5.732	7.406	6.821	6.415
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	630	486	525	559
Service Time	3.8	5.48	4.599	4.193
HCM Lane V/C Ratio	0.886	0.51	0.379	0.807
HCM Control Delay	37.9	18	13.7	30.6
HCM Lane LOS	E	C	B	D
HCM 95th-tile Q	10.7	2.8	1.7	7.8

Intersection	
Intersection Delay, s/veh	91.2
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	508	144	136	265	278	154
Future Vol, veh/h	508	144	136	265	278	154
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	552	157	148	288	302	167
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	157.2	35.9	42.8
HCM LOS	F	E	E

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	64%	0%	34%
Vol Thru, %	0%	78%	66%
Vol Right, %	36%	22%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	432	652	401
LT Vol	278	0	136
Through Vol	0	508	265
RT Vol	154	144	0
Lane Flow Rate	470	709	436
Geometry Grp	1	1	1
Degree of Util (X)	0.878	1.272	0.823
Departure Headway (Hd)	7.223	6.459	7.273
Convergence, Y/N	Yes	Yes	Yes
Cap	507	560	501
Service Time	5.223	4.524	5.273
HCM Lane V/C Ratio	0.927	1.266	0.87
HCM Control Delay	42.8	157.2	35.9
HCM Lane LOS	E	F	E
HCM 95th-tile Q	9.6	28.1	8

Intersection	
Intersection Delay, s/veh	46
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	363	289	0	1	111	71	0	1	1	60	2	217
Future Vol, veh/h	363	289	0	1	111	71	0	1	1	60	2	217
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
Heavy Vehicles, %	2	12	2	2	7	3	2	2	2	2	2	4
Mvmt Flow	395	314	0	1	121	77	0	1	1	65	2	236
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	69.5	11.3	9.9	14.3
HCM LOS	F	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	56%	1%	22%
Vol Thru, %	50%	44%	61%	1%
Vol Right, %	50%	0%	39%	78%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	652	183	279
LT Vol	0	363	1	60
Through Vol	1	289	111	2
RT Vol	1	0	71	217
Lane Flow Rate	2	709	199	303
Geometry Grp	1	1	1	1
Degree of Util (X)	0.004	1.045	0.31	0.479
Departure Headway (Hd)	6.889	5.309	5.736	5.941
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	523	687	631	610
Service Time	4.889	3.317	3.736	3.941
HCM Lane V/C Ratio	0.004	1.032	0.315	0.497
HCM Control Delay	9.9	69.5	11.3	14.3
HCM Lane LOS	A	F	B	B
HCM 95th-tile Q	0	18.3	1.3	2.6

Intersection						
Int Delay, s/veh	20.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	120	120	105	374	495	105
Future Vol, veh/h	120	120	105	374	495	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	20	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	10	9	13	7	5
Mvmt Flow	130	130	114	407	538	114

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1230	595	652	0	-	0
Stage 1	595	-	-	-	-	-
Stage 2	635	-	-	-	-	-
Critical Hdwy	6.42	6.3	4.19	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.39	2.281	-	-	-
Pot Cap-1 Maneuver	196	490	902	-	-	-
Stage 1	551	-	-	-	-	-
Stage 2	528	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	171	490	902	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	482	-	-	-	-	-
Stage 2	528	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	106.4	2.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	902	-	254	-	-
HCM Lane V/C Ratio	0.127	-	1.027	-	-
HCM Control Delay (s)	9.6	-	106.4	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	0.4	-	10.3	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	3	334	225	5	3	2
Future Vol, veh/h	3	334	225	5	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	7	29	40	33	2
Mvmt Flow	3	363	245	5	3	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	250	0	-	0	617 248
Stage 1	-	-	-	-	248 -
Stage 2	-	-	-	-	369 -
Critical Hdwy	4.12	-	-	-	6.73 6.22
Critical Hdwy Stg 1	-	-	-	-	5.73 -
Critical Hdwy Stg 2	-	-	-	-	5.73 -
Follow-up Hdwy	2.218	-	-	-	3.797 3.318
Pot Cap-1 Maneuver	1316	-	-	-	407 791
Stage 1	-	-	-	-	726 -
Stage 2	-	-	-	-	636 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1316	-	-	-	406 791
Mov Cap-2 Maneuver	-	-	-	-	406 -
Stage 1	-	-	-	-	724 -
Stage 2	-	-	-	-	636 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1316	-	-	-	504
HCM Lane V/C Ratio	0.002	-	-	-	0.011
HCM Control Delay (s)	7.7	0	-	-	12.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	337	1	0	230	1	1
Future Vol, veh/h	337	1	0	230	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	4	2	2
Mvmt Flow	366	1	0	250	1	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	367	0	617
Stage 1	-	-	-	-	367
Stage 2	-	-	-	-	250
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1192	-	453
Stage 1	-	-	-	-	701
Stage 2	-	-	-	-	792
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1192	-	453
Mov Cap-2 Maneuver	-	-	-	-	453
Stage 1	-	-	-	-	701
Stage 2	-	-	-	-	792

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	543	-	-	1192	-
HCM Lane V/C Ratio	0.004	-	-	-	-
HCM Control Delay (s)	11.7	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	22	314	207	18	21	23
Future Vol, veh/h	22	314	207	18	21	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	341	225	20	23	25

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	245	0	-	0	624 235
Stage 1	-	-	-	-	235 -
Stage 2	-	-	-	-	389 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1321	-	-	-	449 804
Stage 1	-	-	-	-	804 -
Stage 2	-	-	-	-	685 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1321	-	-	-	439 804
Mov Cap-2 Maneuver	-	-	-	-	439 -
Stage 1	-	-	-	-	786 -
Stage 2	-	-	-	-	685 -

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1321	-	-	-	576
HCM Lane V/C Ratio	0.018	-	-	-	0.083
HCM Control Delay (s)	7.8	0	-	-	11.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	13	323	227	13	0	0
Future Vol, veh/h	13	323	227	13	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	351	247	14	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	261	0	0	633	254
Stage 1	-	-	-	254	-
Stage 2	-	-	-	379	-
Critical Hdwy	4.12	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	3.518	3.318
Pot Cap-1 Maneuver	1303	-	-	444	785
Stage 1	-	-	-	788	-
Stage 2	-	-	-	692	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1303	-	-	438	785
Mov Cap-2 Maneuver	-	-	-	438	-
Stage 1	-	-	-	778	-
Stage 2	-	-	-	692	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1303	-	-	-	-
HCM Lane V/C Ratio	0.011	-	-	-	-
HCM Control Delay (s)	7.8	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	3.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	123	200	35	124	116	39
Future Vol, veh/h	123	200	35	124	116	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	134	217	38	135	126	42

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	351	0	454	243
Stage 1	-	-	-	-	243	-
Stage 2	-	-	-	-	211	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1208	-	564	796
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	824	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1208	-	545	796
Mov Cap-2 Maneuver	-	-	-	-	545	-
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	796	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	13.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	592	-	-	1208	-
HCM Lane V/C Ratio	0.285	-	-	0.031	-
HCM Control Delay (s)	13.5	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.2	-	-	0.1	-

Intersection						
Int Delay, s/veh	6.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	58	50	109	29	32	130
Future Vol, veh/h	58	50	109	29	32	130
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	13	2	2	2	2
Mvmt Flow	63	54	118	32	35	141

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	117	0	358 90
Stage 1	-	-	-	-	90 -
Stage 2	-	-	-	-	268 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1471	-	640 968
Stage 1	-	-	-	-	934 -
Stage 2	-	-	-	-	777 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1471	-	588 968
Mov Cap-2 Maneuver	-	-	-	-	588 -
Stage 1	-	-	-	-	934 -
Stage 2	-	-	-	-	713 -

Approach	EB	WB	NB
HCM Control Delay, s	0	6.1	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	858	-	-	1471	-
HCM Lane V/C Ratio	0.205	-	-	0.081	-
HCM Control Delay (s)	10.3	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.3	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	337	11	15	171	10	13
Future Vol, veh/h	337	11	15	171	10	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	11	30	5	0	33
Mvmt Flow	366	12	16	186	11	14

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	378	0	590 372
Stage 1	-	-	-	-	372 -
Stage 2	-	-	-	-	218 -
Critical Hdwy	-	-	4.4	-	6.4 6.53
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.47	-	3.5 3.597
Pot Cap-1 Maneuver	-	-	1042	-	474 610
Stage 1	-	-	-	-	702 -
Stage 2	-	-	-	-	823 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1042	-	466 610
Mov Cap-2 Maneuver	-	-	-	-	466 -
Stage 1	-	-	-	-	702 -
Stage 2	-	-	-	-	809 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	538	-	-	1042	-
HCM Lane V/C Ratio	0.046	-	-	0.016	-
HCM Control Delay (s)	12	-	-	8.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	10.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	187	166	81	139	147	109
Future Vol, veh/h	187	166	81	139	147	109
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	12	2	2	4	2
Mvmt Flow	203	180	88	151	160	118

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	239	0	-	0	750 164
Stage 1	-	-	-	-	164 -
Stage 2	-	-	-	-	586 -
Critical Hdwy	4.12	-	-	-	6.44 6.22
Critical Hdwy Stg 1	-	-	-	-	5.44 -
Critical Hdwy Stg 2	-	-	-	-	5.44 -
Follow-up Hdwy	2.218	-	-	-	3.536 3.318
Pot Cap-1 Maneuver	1328	-	-	-	376 881
Stage 1	-	-	-	-	860 -
Stage 2	-	-	-	-	552 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1328	-	-	-	312 881
Mov Cap-2 Maneuver	-	-	-	-	312 -
Stage 1	-	-	-	-	714 -
Stage 2	-	-	-	-	552 -

Approach	EB	WB	SB
HCM Control Delay, s	4.3	0	27.5
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1328	-	-	-	430
HCM Lane V/C Ratio	0.153	-	-	-	0.647
HCM Control Delay (s)	8.2	0	-	-	27.5
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.5	-	-	-	4.5

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	264	39	6	171	39	11
Future Vol, veh/h	264	39	6	171	39	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	11	3	10	2	3	9
Mvmt Flow	287	42	7	186	42	12

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	329	0	508
Stage 1	-	-	-	-	308
Stage 2	-	-	-	-	200
Critical Hdwy	-	-	4.2	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.29	-	3.527
Pot Cap-1 Maneuver	-	-	1187	-	523
Stage 1	-	-	-	-	743
Stage 2	-	-	-	-	831
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1187	-	519
Mov Cap-2 Maneuver	-	-	-	-	519
Stage 1	-	-	-	-	743
Stage 2	-	-	-	-	825

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	552	-	-	1187	-
HCM Lane V/C Ratio	0.098	-	-	0.005	-
HCM Control Delay (s)	12.2	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection												
Int Delay, s/veh	123											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	92	84	20	28	42	163	32	259	36	233	208	88
Future Vol, veh/h	92	84	20	28	42	163	32	259	36	233	208	88
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	100	91	22	30	46	177	35	282	39	253	226	96

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1263	1171	274	1209	1200	302	322	0	0	321	0	0
Stage 1	780	780	-	372	372	-	-	-	-	-	-	-
Stage 2	483	391	-	837	828	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	147	193	765	160	185	738	1238	-	-	1239	-	-
Stage 1	388	406	-	648	619	-	-	-	-	-	-	-
Stage 2	565	607	-	361	386	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 66	139	765	60	134	738	1238	-	-	1239	-	-
Mov Cap-2 Maneuver	~ 66	139	-	60	134	-	-	-	-	-	-	-
Stage 1	374	304	-	625	597	-	-	-	-	-	-	-
Stage 2	383	586	-	184	289	-	-	-	-	-	-	-

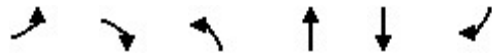
Approach	EB		WB		NB		SB	
HCM Control Delay, s	\$ 641.6		129.1		0.8		3.8	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1238	-	-	97	233	1239	-	-
HCM Lane V/C Ratio	0.028	-	-	2.196	1.087	0.204	-	-
HCM Control Delay (s)	8	0	-	\$ 641.6	129.1	8.7	0	-
HCM Lane LOS	A	A	-	F	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	18.8	11.1	0.8	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lanes, Volumes, Timings
1: Caron Street & Docteur Corbeil Blvd

Caron Subdivision - Future Total 2037 PM - signalized
03/14/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	120	120	105	374	495	105
Future Volume (vph)	120	120	105	374	495	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0	20.0			0.0
Storage Lanes	1	0	1			0
Taper Length (m)	2.5		2.5			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932				0.976	
Flt Protected	0.976		0.950			
Satd. Flow (prot)	1649	0	1674	1700	1758	0
Flt Permitted	0.976		0.323			
Satd. Flow (perm)	1649	0	569	1700	1758	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	86				25	
Link Speed (k/h)	48			48	48	
Link Distance (m)	172.7			277.3	120.1	
Travel Time (s)	13.0			20.8	9.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	10%	9%	13%	7%	5%
Adj. Flow (vph)	130	130	114	407	538	114
Shared Lane Traffic (%)						
Lane Group Flow (vph)	260	0	114	407	652	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	24.0		24.0	24.0	24.0	
Total Split (s)	24.0		36.0	36.0	36.0	
Total Split (%)	40.0%		60.0%	60.0%	60.0%	
Maximum Green (s)	18.0		30.0	30.0	30.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	2.5		2.5	2.5	2.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		Max	Max	Max	
Walk Time (s)	7.0		7.0	7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effct Green (s)	11.3		32.2	32.2	32.2	
Actuated g/C Ratio	0.20		0.58	0.58	0.58	
v/c Ratio	0.64		0.35	0.41	0.63	
Control Delay	20.3		11.6	9.1	12.2	
Queue Delay	0.0		0.0	0.0	0.0	

Lanes, Volumes, Timings
 1: Caron Street & Docteur Corbeil Blvd



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	20.3		11.6	9.1	12.2	
LOS	C		B	A	B	
Approach Delay	20.3			9.7	12.2	
Approach LOS	C			A	B	
Queue Length 50th (m)	14.8		5.1	19.2	35.3	
Queue Length 95th (m)	32.5		18.6	46.0	84.7	
Internal Link Dist (m)	148.7			253.3	96.1	
Turn Bay Length (m)			20.0			
Base Capacity (vph)	593		329	985	1029	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.44		0.35	0.41	0.63	

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	55.6
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	12.8
Intersection LOS:	B
Intersection Capacity Utilization	67.3%
ICU Level of Service	C
Analysis Period (min)	15











Splits and Phases: 1: Caron Street & Docteur Corbeil Blvd



Lanes, Volumes, Timings
2: Caron Street & David Street

Caron Subdivision - Future Total 2037 PM - signalized

03/14/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	114	114	357	156	183	415
Future Volume (vph)	114	114	357	156	183	415
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0		0.0	45.0	
Storage Lanes	1	0		0	1	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932		0.959			
Flt Protected	0.976				0.950	
Satd. Flow (prot)	1387	0	1794	0	1755	1746
Flt Permitted	0.976				0.389	
Satd. Flow (perm)	1387	0	1794	0	719	1746
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	86		53			
Link Speed (k/h)	50		50			50
Link Distance (m)	331.3		361.0			126.2
Travel Time (s)	23.9		26.0			9.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	50%	2%	3%	2%	4%	10%
Adj. Flow (vph)	124	124	388	170	199	451
Shared Lane Traffic (%)						
Lane Group Flow (vph)	248	0	558	0	199	451
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	24.0		24.0		24.0	24.0
Total Split (s)	24.0		36.0		36.0	36.0
Total Split (%)	40.0%		60.0%		60.0%	60.0%
Maximum Green (s)	18.0		30.0		30.0	30.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	2.5		2.5		2.5	2.5
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0		6.0		6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	None		Max		Max	Max
Walk Time (s)	7.0		7.0		7.0	7.0
Flash Dont Walk (s)	11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)	0		0		0	0
Act Effct Green (s)	11.9		32.7		32.7	32.7
Actuated g/C Ratio	0.21		0.58		0.58	0.58
v/c Ratio	0.69		0.53		0.48	0.45
Control Delay	22.9		9.9		13.7	9.8
Queue Delay	0.0		0.0		0.0	0.0



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Delay	22.9		9.9		13.7	9.8
LOS	C		A		B	A
Approach Delay	22.9		9.9			11.0
Approach LOS	C		A			B
Queue Length 50th (m)	13.9		26.6		10.4	22.9
Queue Length 95th (m)	32.6		63.0		32.9	52.5
Internal Link Dist (m)	307.3		337.0			102.2
Turn Bay Length (m)					45.0	
Base Capacity (vph)	501		1057		414	1007
Starvation Cap Reductn	0		0		0	0
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.50		0.53		0.48	0.45

Intersection Summary

























Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	56.6
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	12.6
Intersection LOS:	B
Intersection Capacity Utilization	66.7%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 2: Caron Street & David Street

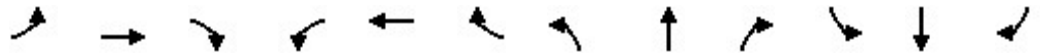


Lanes, Volumes, Timings
17: Caron Street & Bronze Avenue

Caron Subdivision - Future Total 2037 PM - signalized
03/14/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	84	20	28	42	163	32	259	36	233	208	88
Future Volume (vph)	92	84	20	28	42	163	32	259	36	233	208	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		35.0	35.0		35.0	35.0		0.0	35.0		35.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.982				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	1883	1601	1789	1883	1601	1789	1850	0	1789	1883	1601
Flt Permitted	0.727			0.698			0.617			0.566		
Satd. Flow (perm)	1369	1883	1601	1315	1883	1601	1162	1850	0	1066	1883	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			65			177		17				96
Link Speed (k/h)		50			50			50				50
Link Distance (m)		413.5			239.5			1605.8				361.0
Travel Time (s)		29.8			17.2			115.6				26.0
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
Adj. Flow (vph)	100	91	22	30	46	177	35	282	39	253	226	96
Shared Lane Traffic (%)												
Lane Group Flow (vph)	100	91	22	30	46	177	35	321	0	253	226	96
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2				6
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	4	4	4	8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0		24.0	24.0	24.0
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	26.0	26.0		26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%		52.0%	52.0%	52.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effect Green (s)	8.3	8.3	8.3	8.3	8.3	8.3	24.3	24.3		24.3	24.3	24.3
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.20	0.20	0.59	0.59		0.59	0.59	0.59
v/c Ratio	0.36	0.24	0.06	0.11	0.12	0.38	0.05	0.29		0.40	0.20	0.10
Control Delay	17.5	14.7	1.3	13.6	13.4	5.6	6.5	7.1		9.9	6.9	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	17.5	14.7	1.3	13.6	13.4	5.6	6.5	7.1		9.9	6.9	2.3

Lanes, Volumes, Timings
 17: Caron Street & Bronze Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	B	B	A	B	B	A	A	A		A	A	A
Approach Delay		14.6			8.0			7.1			7.5	
Approach LOS		B			A			A			A	
Queue Length 50th (m)	5.9	5.3	0.0	1.7	2.6	0.0	1.1	10.9		10.0	7.7	0.0
Queue Length 95th (m)	14.7	13.0	1.0	6.0	7.8	9.8	4.6	26.6		28.2	19.3	4.9
Internal Link Dist (m)		389.5			215.5			1581.8			337.0	
Turn Bay Length (m)	35.0		35.0	35.0		35.0	35.0			35.0		35.0
Base Capacity (vph)	600	826	739	577	826	802	686	1098		629	1111	984
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.17	0.11	0.03	0.05	0.06	0.22	0.05	0.29		0.40	0.20	0.10

Intersection Summary

Area Type:	Other
Cycle Length:	50
Actuated Cycle Length:	41.1
Natural Cycle:	50
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.40
Intersection Signal Delay:	8.6
Intersection LOS:	A
Intersection Capacity Utilization:	55.5%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 17: Caron Street & Bronze Avenue



Intersection	
Intersection Delay, s/veh	177.2
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	351	40	188	786	80	126
Future Vol, veh/h	351	40	188	786	80	126
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	382	43	204	854	87	137
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	20.1	274.6	14.8
HCM LOS	C	F	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	39%	0%	19%
Vol Thru, %	0%	90%	81%
Vol Right, %	61%	10%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	206	391	974
LT Vol	80	0	188
Through Vol	0	351	786
RT Vol	126	40	0
Lane Flow Rate	224	425	1059
Geometry Grp	1	1	1
Degree of Util (X)	0.39	0.652	1.56
Departure Headway (Hd)	7.261	6.199	5.305
Convergence, Y/N	Yes	Yes	Yes
Cap	499	587	688
Service Time	5.261	4.199	3.394
HCM Lane V/C Ratio	0.449	0.724	1.539
HCM Control Delay	14.8	20.1	274.6
HCM Lane LOS	B	C	F
HCM 95th-tile Q	1.8	4.7	54

Intersection												
Int Delay, s/veh	5.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	181	55	16	304	5	167	0	29	3	0	2
Future Vol, veh/h	1	181	55	16	304	5	167	0	29	3	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	7	2	2	29	40	2	2	2	33	2	2
Mvmt Flow	1	197	60	17	330	5	182	0	32	3	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	335	0	0	257	0	0	597	598	227	612	626	333
Stage 1	-	-	-	-	-	-	229	229	-	367	367	-
Stage 2	-	-	-	-	-	-	368	369	-	245	259	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.43	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.43	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.43	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.797	4.018	3.318
Pot Cap-1 Maneuver	1224	-	-	1308	-	-	415	416	812	364	401	709
Stage 1	-	-	-	-	-	-	774	715	-	594	622	-
Stage 2	-	-	-	-	-	-	652	621	-	695	694	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1224	-	-	1308	-	-	408	409	812	345	394	709
Mov Cap-2 Maneuver	-	-	-	-	-	-	408	409	-	345	394	-
Stage 1	-	-	-	-	-	-	773	714	-	593	612	-
Stage 2	-	-	-	-	-	-	640	611	-	667	693	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.4			20.6			13.4		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	440	1224	-	-	1308	-	-	434
HCM Lane V/C Ratio	0.484	0.001	-	-	0.013	-	-	0.013
HCM Control Delay (s)	20.6	7.9	0	-	7.8	0	-	13.4
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	2.6	0	-	-	0	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	215	0	2	326	2	0
Future Vol, veh/h	215	0	2	326	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	2	2	20	2	2
Mvmt Flow	234	0	2	354	2	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	234	0	592
Stage 1	-	-	-	-	234
Stage 2	-	-	-	-	358
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1333	-	469
Stage 1	-	-	-	-	805
Stage 2	-	-	-	-	707
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1333	-	468
Mov Cap-2 Maneuver	-	-	-	-	468
Stage 1	-	-	-	-	805
Stage 2	-	-	-	-	706

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	468	-	-	1333	-
HCM Lane V/C Ratio	0.005	-	-	0.002	-
HCM Control Delay (s)	12.7	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	5	210	281	9	27	46
Future Vol, veh/h	5	210	281	9	27	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	228	305	10	29	50

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	315	0	-	0	548 310
Stage 1	-	-	-	-	310 -
Stage 2	-	-	-	-	238 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1245	-	-	-	497 730
Stage 1	-	-	-	-	744 -
Stage 2	-	-	-	-	802 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1245	-	-	-	495 730
Mov Cap-2 Maneuver	-	-	-	-	495 -
Stage 1	-	-	-	-	740 -
Stage 2	-	-	-	-	802 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1245	-	-	-	621
HCM Lane V/C Ratio	0.004	-	-	-	0.128
HCM Control Delay (s)	7.9	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	4	233	291	5	0	0
Future Vol, veh/h	4	233	291	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	253	316	5	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	321	0	-	0	580 319
Stage 1	-	-	-	-	319 -
Stage 2	-	-	-	-	261 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1239	-	-	-	477 722
Stage 1	-	-	-	-	737 -
Stage 2	-	-	-	-	783 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1239	-	-	-	475 722
Mov Cap-2 Maneuver	-	-	-	-	475 -
Stage 1	-	-	-	-	734 -
Stage 2	-	-	-	-	783 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1239	-	-	-	-
HCM Lane V/C Ratio	0.004	-	-	-	-
HCM Control Delay (s)	7.9	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	3.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	202	31	10	177	119	21
Future Vol, veh/h	202	31	10	177	119	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	220	34	11	192	129	23

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	254	0	451
Stage 1	-	-	-	-	237
Stage 2	-	-	-	-	214
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1311	-	566
Stage 1	-	-	-	-	802
Stage 2	-	-	-	-	822
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1311	-	561
Mov Cap-2 Maneuver	-	-	-	-	561
Stage 1	-	-	-	-	802
Stage 2	-	-	-	-	815

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	587	-	-	1311	-
HCM Lane V/C Ratio	0.259	-	-	0.008	-
HCM Control Delay (s)	13.3	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1	-	-	0	-

Intersection

Int Delay, s/veh 8.3

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations						
Traffic Vol, veh/h	18	3	164	40	54	170
Future Vol, veh/h	18	3	164	40	54	170
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	20	2	2	2
Mvmt Flow	20	3	178	43	59	185

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	23	0	421	22
Stage 1	-	-	-	-	22	-
Stage 2	-	-	-	-	399	-
Critical Hdwy	-	-	4.3	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.38	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1483	-	589	1055
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	678	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1483	-	517	1055
Mov Cap-2 Maneuver	-	-	-	-	517	-
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	595	-

Approach EB WB NB

HCM Control Delay, s	0	6.2	11
HCM LOS			B

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h)	843	-	-	1483	-
HCM Lane V/C Ratio	0.289	-	-	0.12	-
HCM Control Delay (s)	11	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.2	-	-	0.4	-

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	153	139	0	0	286	52	1	1	1	8	4	214
Future Vol, veh/h	153	139	0	0	286	52	1	1	1	8	4	214
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	8	22	2	2	8	6	5	5	5	2	50	4
Mvmt Flow	166	151	0	0	311	57	1	1	1	9	4	233

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	368	0	0	151	0	0	941	851	151	824	823	340
Stage 1	-	-	-	-	-	-	483	483	-	340	340	-
Stage 2	-	-	-	-	-	-	458	368	-	484	483	-
Critical Hdwy	4.18	-	-	4.12	-	-	7.15	6.55	6.25	7.12	7	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.12	6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.12	6	-
Follow-up Hdwy	2.272	-	-	2.218	-	-	3.545	4.045	3.345	3.518	4.45	3.336
Pot Cap-1 Maneuver	1158	-	-	1430	-	-	240	294	887	292	260	698
Stage 1	-	-	-	-	-	-	559	548	-	675	562	-
Stage 2	-	-	-	-	-	-	577	616	-	564	480	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1158	-	-	1430	-	-	140	252	887	259	223	698
Mov Cap-2 Maneuver	-	-	-	-	-	-	140	252	-	259	223	-
Stage 1	-	-	-	-	-	-	479	470	-	578	562	-
Stage 2	-	-	-	-	-	-	382	616	-	481	411	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.5	0	19.9	13.4
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	245	1158	-	-	1430	-	-	259	672
HCM Lane V/C Ratio	0.013	0.144	-	-	-	-	-	0.034	0.353
HCM Control Delay (s)	19.9	8.6	-	-	0	-	-	19.4	13.2
HCM Lane LOS		C	A	-	-	A	-	C	B
HCM 95th %tile Q(veh)		0	0.5	-	-	0	-	0.1	1.6

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	142	4	4	319	14	4
Future Vol, veh/h	142	4	4	319	14	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	19	50	50	6	11	2
Mvmt Flow	154	4	4	347	15	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	158	0	511 156
Stage 1	-	-	-	-	156 -
Stage 2	-	-	-	-	355 -
Critical Hdwy	-	-	4.6	-	6.51 6.22
Critical Hdwy Stg 1	-	-	-	-	5.51 -
Critical Hdwy Stg 2	-	-	-	-	5.51 -
Follow-up Hdwy	-	-	2.65	-	3.599 3.318
Pot Cap-1 Maneuver	-	-	1176	-	507 890
Stage 1	-	-	-	-	851 -
Stage 2	-	-	-	-	690 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1176	-	505 890
Mov Cap-2 Maneuver	-	-	-	-	505 -
Stage 1	-	-	-	-	851 -
Stage 2	-	-	-	-	687 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	559	-	-	1176	-
HCM Lane V/C Ratio	0.035	-	-	0.004	-
HCM Control Delay (s)	11.7	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	6.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↘		↙	↘
Traffic Vol, veh/h	96	51	124	175	127	200
Future Vol, veh/h	96	51	124	175	127	200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	75	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	26	12	9	6	7	8
Mvmt Flow	104	55	135	190	138	217

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	325	0	-	0	493 230
Stage 1	-	-	-	-	230 -
Stage 2	-	-	-	-	263 -
Critical Hdwy	4.36	-	-	-	6.47 6.28
Critical Hdwy Stg 1	-	-	-	-	5.47 -
Critical Hdwy Stg 2	-	-	-	-	5.47 -
Follow-up Hdwy	2.434	-	-	-	3.563 3.372
Pot Cap-1 Maneuver	1111	-	-	-	526 795
Stage 1	-	-	-	-	797 -
Stage 2	-	-	-	-	770 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1111	-	-	-	477 795
Mov Cap-2 Maneuver	-	-	-	-	477 -
Stage 1	-	-	-	-	722 -
Stage 2	-	-	-	-	770 -

Approach	EB	WB	SB
HCM Control Delay, s	5.6	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1111	-	-	-	477	795
HCM Lane V/C Ratio	0.094	-	-	-	0.289	0.273
HCM Control Delay (s)	8.6	-	-	-	15.6	11.2
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.2	1.1

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	158	14	4	251	35	7
Future Vol, veh/h	158	14	4	251	35	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	21	25	10	4	14
Mvmt Flow	172	15	4	273	38	8

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	187	0	461
Stage 1	-	-	-	-	180
Stage 2	-	-	-	-	281
Critical Hdwy	-	-	4.35	-	6.44
Critical Hdwy Stg 1	-	-	-	-	5.44
Critical Hdwy Stg 2	-	-	-	-	5.44
Follow-up Hdwy	-	-	2.425	-	3.536
Pot Cap-1 Maneuver	-	-	1260	-	555
Stage 1	-	-	-	-	846
Stage 2	-	-	-	-	762
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1260	-	553
Mov Cap-2 Maneuver	-	-	-	-	553
Stage 1	-	-	-	-	846
Stage 2	-	-	-	-	759

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	586	-	-	1260	-
HCM Lane V/C Ratio	0.078	-	-	0.003	-
HCM Control Delay (s)	11.7	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T			T
Traffic Vol, veh/h	10	92	266	5	38	317
Future Vol, veh/h	10	92	266	5	38	317
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	100	289	5	41	345

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	719	292	0	0	294
Stage 1	292	-	-	-	-
Stage 2	427	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	395	747	-	-	1268
Stage 1	758	-	-	-	-
Stage 2	658	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	379	747	-	-	1268
Mov Cap-2 Maneuver	379	-	-	-	-
Stage 1	758	-	-	-	-
Stage 2	632	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	682	1268
HCM Lane V/C Ratio	-	-	0.163	0.033
HCM Control Delay (s)	-	-	11.3	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1

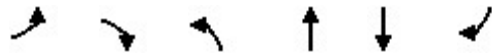
Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑	↗	↘	↑
Traffic Vol, veh/h	21	184	346	9	76	334
Future Vol, veh/h	21	184	346	9	76	334
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	50	75	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	200	376	10	83	363

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	905	376	0	0	386
Stage 1	376	-	-	-	-
Stage 2	529	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	307	670	-	-	1172
Stage 1	694	-	-	-	-
Stage 2	591	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	285	670	-	-	1172
Mov Cap-2 Maneuver	285	-	-	-	-
Stage 1	694	-	-	-	-
Stage 2	549	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.2	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	285	670	1172
HCM Lane V/C Ratio	-	-	0.08	0.299	0.07
HCM Control Delay (s)	-	-	18.7	12.6	8.3
HCM Lane LOS	-	-	C	B	A
HCM 95th %tile Q(veh)	-	-	0.3	1.2	0.2

Lanes, Volumes, Timings
1: Caron Street & Docteur Corbeil Blvd



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	79	97	115	611	349	80
Future Volume (vph)	79	97	115	611	349	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0	20.0			0.0
Storage Lanes	1	0	1			0
Taper Length (m)	2.5		2.5			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.926				0.975	
Flt Protected	0.978		0.950			
Satd. Flow (prot)	1635	0	1674	1700	1757	0
Flt Permitted	0.978		0.484			
Satd. Flow (perm)	1635	0	853	1700	1757	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	105				28	
Link Speed (k/h)	50			50	50	
Link Distance (m)	172.7			277.3	120.1	
Travel Time (s)	12.4			20.0	8.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	10%	9%	13%	7%	5%
Adj. Flow (vph)	86	105	125	664	379	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	191	0	125	664	466	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	24.0		24.0	24.0	24.0	
Total Split (s)	24.0		36.0	36.0	36.0	
Total Split (%)	40.0%		60.0%	60.0%	60.0%	
Maximum Green (s)	18.0		30.0	30.0	30.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	2.5		2.5	2.5	2.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		Max	Max	Max	
Walk Time (s)	7.0		7.0	7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effct Green (s)	8.6		35.3	35.3	35.3	
Actuated g/C Ratio	0.16		0.67	0.67	0.67	
v/c Ratio	0.54		0.22	0.58	0.39	
Control Delay	15.4		6.9	9.8	6.7	
Queue Delay	0.0		0.0	0.0	0.0	

Lanes, Volumes, Timings
 1: Caron Street & Docteur Corbeil Blvd



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	15.4		6.9	9.8	6.7	
LOS	B		A	A	A	
Approach Delay	15.4			9.4	6.7	
Approach LOS	B			A	A	
Queue Length 50th (m)	6.9		4.4	32.5	17.4	
Queue Length 95th (m)	20.7		14.0	77.9	42.0	
Internal Link Dist (m)	148.7			253.3	96.1	
Turn Bay Length (m)			20.0			
Base Capacity (vph)	632		576	1148	1195	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.30		0.22	0.58	0.39	

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	52.3
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.58
Intersection Signal Delay:	9.3
Intersection LOS:	A
Intersection Capacity Utilization	54.9%
ICU Level of Service	A
Analysis Period (min)	15











Splits and Phases: 1: Caron Street & Docteur Corbeil Blvd



Lanes, Volumes, Timings
2: Caron Street & David Street

Caron Subdivision - Future Total 2043 AM - signalized

03/26/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	289	184	522	178	60	385
Future Volume (vph)	289	184	522	178	60	385
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0		0.0	45.0	
Storage Lanes	1	0		0	1	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.947		0.966			
Flt Protected	0.970				0.950	
Satd. Flow (prot)	1660	0	1535	0	1659	1795
Flt Permitted	0.970				0.194	
Satd. Flow (perm)	1660	0	1535	0	339	1795
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	38		29			
Link Speed (k/h)	50		50			50
Link Distance (m)	331.3		361.0			126.2
Travel Time (s)	23.9		26.0			9.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	13%	11%	50%	10%	7%
Adj. Flow (vph)	314	200	567	193	65	418
Shared Lane Traffic (%)						
Lane Group Flow (vph)	514	0	760	0	65	418
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	24.0		24.0		24.0	24.0
Total Split (s)	36.0		54.0		54.0	54.0
Total Split (%)	40.0%		60.0%		60.0%	60.0%
Maximum Green (s)	30.0		48.0		48.0	48.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	2.5		2.5		2.5	2.5
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0		6.0		6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	None		Max		Max	Max
Walk Time (s)	7.0		7.0		7.0	7.0
Flash Dont Walk (s)	11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)	0		0		0	0
Act Effct Green (s)	28.2		48.1		48.1	48.1
Actuated g/C Ratio	0.32		0.54		0.54	0.54
v/c Ratio	0.93		0.90		0.35	0.43
Control Delay	51.8		33.4		19.1	14.1
Queue Delay	0.0		0.0		0.0	0.0

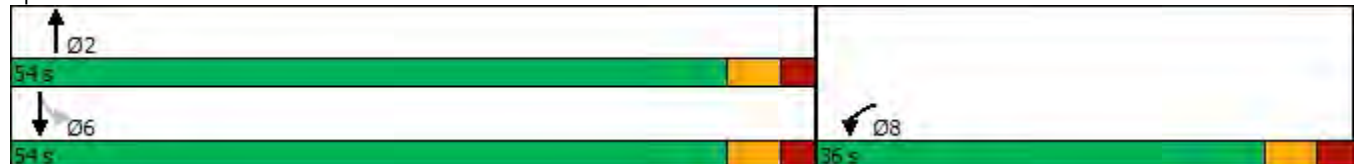














Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Delay	51.8		33.4		19.1	14.1
LOS	D		C		B	B
Approach Delay	51.8		33.4			14.8
Approach LOS	D		C			B
Queue Length 50th (m)	78.0		109.4		6.1	41.4
Queue Length 95th (m)	#136.1		#189.4		16.9	63.2
Internal Link Dist (m)	307.3		337.0			102.2
Turn Bay Length (m)					45.0	
Base Capacity (vph)	589		849		184	977
Starvation Cap Reductn	0		0		0	0
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.87		0.90		0.35	0.43

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	88.3
Natural Cycle:	90
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.93
Intersection Signal Delay:	33.7
Intersection LOS:	C
Intersection Capacity Utilization:	84.7%
ICU Level of Service:	E
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 2: Caron Street & David Street



						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	38	173	439	90	284	369
Future Volume (vph)	38	173	439	90	284	369
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		50.0	75.0	
Storage Lanes	1	1		1	1	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1789	1601	1883	1601	1789	1883
Flt Permitted	0.950				0.483	
Satd. Flow (perm)	1789	1601	1883	1601	910	1883
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		188		98		
Link Speed (k/h)	50		60			60
Link Distance (m)	338.5		319.0			293.1
Travel Time (s)	24.4		19.1			17.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	188	477	98	309	401
Shared Lane Traffic (%)						
Lane Group Flow (vph)	41	188	477	98	309	401
Turn Type	Prot	Perm	NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	24.0	24.0	36.0	36.0	36.0	36.0
Total Split (%)	40.0%	40.0%	60.0%	60.0%	60.0%	60.0%
Maximum Green (s)	18.0	18.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effect Green (s)	7.1	7.1	34.9	34.9	34.9	34.9
Actuated g/C Ratio	0.14	0.14	0.69	0.69	0.69	0.69
v/c Ratio	0.16	0.49	0.37	0.09	0.49	0.31
Control Delay	19.8	8.5	5.9	1.6	9.4	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	8.5	5.9	1.6	9.4	5.5



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	B	A	A	A	A	A
Approach Delay	10.5		5.2			7.2
Approach LOS	B		A			A
Queue Length 50th (m)	3.2	0.0	16.9	0.0	12.4	13.5
Queue Length 95th (m)	9.3	12.6	38.0	4.1	37.1	30.8
Internal Link Dist (m)	314.5		295.0			269.1
Turn Bay Length (m)	50.0			50.0	75.0	
Base Capacity (vph)	637	691	1301	1136	628	1301
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.27	0.37	0.09	0.49	0.31

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	50.5
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.49
Intersection Signal Delay:	6.9
Intersection LOS:	A
Intersection Capacity Utilization	58.0%
ICU Level of Service	B
Analysis Period (min)	15
























Splits and Phases: 17: Caron Street & Commercial - Community Access



Lanes, Volumes, Timings
18: Caron Street & Bronze Avenue

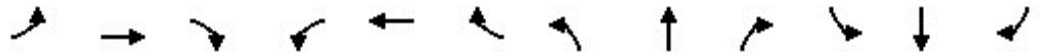
Caron Subdivision - Future Total 2043 AM - signalized

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	68	189	38	149	194	179	412	20	99	424	150
Future Volume (vph)	94	68	189	38	149	194	179	412	20	99	424	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		35.0	35.0		35.0	35.0		0.0	35.0		35.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.993				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	1883	1601	1789	1883	1601	1789	1870	0	1789	1883	1601
Flt Permitted	0.654			0.709			0.470			0.462		
Satd. Flow (perm)	1232	1883	1601	1335	1883	1601	885	1870	0	870	1883	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			205			211		6				163
Link Speed (k/h)		48			48			48			48	
Link Distance (m)		413.5			239.5			293.1			361.0	
Travel Time (s)		31.0			18.0			22.0			27.1	
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
Adj. Flow (vph)	102	74	205	41	162	211	195	448	22	108	461	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	102	74	205	41	162	211	195	470	0	108	461	163
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	4	4	4	8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0		24.0	24.0	24.0
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	31.0	31.0		31.0	31.0	31.0
Total Split (%)	43.6%	43.6%	43.6%	43.6%	43.6%	43.6%	56.4%	56.4%		56.4%	56.4%	56.4%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	25.0	25.0		25.0	25.0	25.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	9.6	9.6	9.6	9.6	9.6	9.6	25.8	25.8		25.8	25.8	25.8
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.20	0.20	0.54	0.54		0.54	0.54	0.54
v/c Ratio	0.41	0.19	0.42	0.15	0.43	0.43	0.41	0.46		0.23	0.45	0.17
Control Delay	21.1	16.2	5.9	16.1	19.6	5.9	10.6	9.1		8.3	9.1	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	21.1	16.2	5.9	16.1	19.6	5.9	10.6	9.1		8.3	9.1	2.1

Lanes, Volumes, Timings
18: Caron Street & Bronze Avenue

Caron Subdivision - Future Total 2043 AM - signalized
03/26/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	B	A	B	B	A	B	A		A	A	A
Approach Delay		12.0			12.3			9.5			7.4	
Approach LOS		B			B			A			A	
Queue Length 50th (m)	7.3	5.1	0.0	2.8	11.6	0.0	8.0	19.8		4.0	19.6	0.0
Queue Length 95th (m)	17.3	12.5	11.4	8.3	23.6	11.6	24.8	46.7		13.2	46.1	6.7
Internal Link Dist (m)		389.5			215.5			269.1			337.0	
Turn Bay Length (m)	35.0		35.0	35.0		35.0	35.0			35.0		35.0
Base Capacity (vph)	468	716	736	508	716	740	481	1020		473	1024	945
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.22	0.10	0.28	0.08	0.23	0.29	0.41	0.46		0.23	0.45	0.17

Intersection Summary

Area Type:	Other
Cycle Length:	55
Actuated Cycle Length:	47.4
Natural Cycle:	55
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.46
Intersection Signal Delay:	9.8
Intersection LOS:	A
Intersection Capacity Utilization:	65.3%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 18: Caron Street & Bronze Avenue



Intersection	
Intersection Delay, s/veh	407.4
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	948	157	149	609	305	168
Future Vol, veh/h	948	157	149	609	305	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1030	171	162	662	332	183
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	616.5	311	73.5
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	64%	0%	20%
Vol Thru, %	0%	86%	80%
Vol Right, %	36%	14%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	473	1105	758
LT Vol	305	0	149
Through Vol	0	948	609
RT Vol	168	157	0
Lane Flow Rate	514	1201	824
Geometry Grp	1	1	1
Degree of Util (X)	0.992	2.316	1.617
Departure Headway (Hd)	8.968	7.834	8.842
Convergence, Y/N	Yes	Yes	Yes
Cap	411	480	420
Service Time	6.968	5.834	6.842
HCM Lane V/C Ratio	1.251	2.502	1.962
HCM Control Delay	73.5	616.5	311
HCM Lane LOS	F	F	F
HCM 95th-tile Q	12	80.5	37.9

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	348	164	29	274	5	92	0	27	3	0	2
Future Vol, veh/h	3	348	164	29	274	5	92	0	27	3	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	7	2	2	29	40	2	2	2	33	2	2
Mvmt Flow	3	378	178	32	298	5	100	0	29	3	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	303	0	0	556	0	0	839	840	467	853	927	301
Stage 1	-	-	-	-	-	-	473	473	-	365	365	-
Stage 2	-	-	-	-	-	-	366	367	-	488	562	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.43	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.43	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.43	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.797	4.018	3.318
Pot Cap-1 Maneuver	1258	-	-	1015	-	-	285	302	596	247	268	739
Stage 1	-	-	-	-	-	-	572	558	-	595	623	-
Stage 2	-	-	-	-	-	-	653	622	-	507	510	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1258	-	-	1015	-	-	275	289	596	227	257	739
Mov Cap-2 Maneuver	-	-	-	-	-	-	275	289	-	227	257	-
Stage 1	-	-	-	-	-	-	570	556	-	593	599	-
Stage 2	-	-	-	-	-	-	626	598	-	480	508	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.8			24.4			16.7		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	313	1258	-	-	1015	-	-	314
HCM Lane V/C Ratio	0.413	0.003	-	-	0.031	-	-	0.017
HCM Control Delay (s)	24.4	7.9	0	-	8.7	0	-	16.7
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.9	0	-	-	0.1	-	-	0.1

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	379	1	0	309	1	1
Future Vol, veh/h	379	1	0	309	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	4	2	2
Mvmt Flow	412	1	0	336	1	1

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	413	0	749
Stage 1	-	-	-	-	413
Stage 2	-	-	-	-	336
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1146	-	379
Stage 1	-	-	-	-	668
Stage 2	-	-	-	-	724
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1146	-	379
Mov Cap-2 Maneuver	-	-	-	-	379
Stage 1	-	-	-	-	668
Stage 2	-	-	-	-	724

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	476	-	-	1146	-
HCM Lane V/C Ratio	0.005	-	-	-	-
HCM Control Delay (s)	12.6	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	22	356	286	18	21	23
Future Vol, veh/h	22	356	286	18	21	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	387	311	20	23	25

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	331	0	-	0	756 321
Stage 1	-	-	-	-	321 -
Stage 2	-	-	-	-	435 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1228	-	-	-	376 720
Stage 1	-	-	-	-	735 -
Stage 2	-	-	-	-	653 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1228	-	-	-	367 720
Mov Cap-2 Maneuver	-	-	-	-	367 -
Stage 1	-	-	-	-	717 -
Stage 2	-	-	-	-	653 -

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	13.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1228	-	-	-	493
HCM Lane V/C Ratio	0.019	-	-	-	0.097
HCM Control Delay (s)	8	0	-	-	13.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	13	365	307	13	0	0
Future Vol, veh/h	13	365	307	13	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	397	334	14	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	348	0	-	0	766 341
Stage 1	-	-	-	-	341 -
Stage 2	-	-	-	-	425 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1211	-	-	-	371 701
Stage 1	-	-	-	-	720 -
Stage 2	-	-	-	-	659 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1211	-	-	-	365 701
Mov Cap-2 Maneuver	-	-	-	-	365 -
Stage 1	-	-	-	-	709 -
Stage 2	-	-	-	-	659 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1211	-	-	-	-
HCM Lane V/C Ratio	0.012	-	-	-	-
HCM Control Delay (s)	8	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	261	104	18	271	49	16
Future Vol, veh/h	261	104	18	271	49	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	284	113	20	295	53	17

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	397	0	676 341
Stage 1	-	-	-	-	341 -
Stage 2	-	-	-	-	335 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1162	-	419 701
Stage 1	-	-	-	-	720 -
Stage 2	-	-	-	-	725 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1162	-	410 701
Mov Cap-2 Maneuver	-	-	-	-	410 -
Stage 1	-	-	-	-	720 -
Stage 2	-	-	-	-	710 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	14.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	457	-	-	1162	-
HCM Lane V/C Ratio	0.155	-	-	0.017	-
HCM Control Delay (s)	14.3	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Intersection

Int Delay, s/veh 8.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	63	92	197	32	66	211
Future Vol, veh/h	63	92	197	32	66	211
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	13	2	2	2	2
Mvmt Flow	68	100	214	35	72	229

Major/Minor

	Major1	Major2	Minor1		
Conflicting Flow All	0	0	168	0	581
Stage 1	-	-	-	-	118
Stage 2	-	-	-	-	463
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1410	-	476
Stage 1	-	-	-	-	907
Stage 2	-	-	-	-	634
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1410	-	402
Mov Cap-2 Maneuver	-	-	-	-	402
Stage 1	-	-	-	-	907
Stage 2	-	-	-	-	536

Approach

	EB	WB	NB
HCM Control Delay, s	0	6.9	13.8
HCM LOS			B

Minor Lane/Major Mvmt

	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	710	-	-	1410	-
HCM Lane V/C Ratio	0.424	-	-	0.152	-
HCM Control Delay (s)	13.8	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	2.1	-	-	0.5	-

Intersection												
Int Delay, s/veh	13.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	397	359	0	1	154	77	0	1	1	66	2	237
Future Vol, veh/h	397	359	0	1	154	77	0	1	1	66	2	237
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	12	2	2	7	3	2	2	2	2	2	4
Mvmt Flow	432	390	0	1	167	84	0	1	1	72	2	258

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	251	0	0	390	0	0	1595	1507	390	1466	1465	209
Stage 1	-	-	-	-	-	-	1254	1254	-	211	211	-
Stage 2	-	-	-	-	-	-	341	253	-	1255	1254	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.336
Pot Cap-1 Maneuver	1314	-	-	1169	-	-	86	121	658	106	128	826
Stage 1	-	-	-	-	-	-	211	243	-	791	728	-
Stage 2	-	-	-	-	-	-	674	698	-	210	243	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1314	-	-	1169	-	-	43	81	658	78	86	826
Mov Cap-2 Maneuver	-	-	-	-	-	-	43	81	-	78	86	-
Stage 1	-	-	-	-	-	-	142	163	-	531	727	-
Stage 2	-	-	-	-	-	-	462	697	-	140	163	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.8	0	30.4	46.7
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	144	1314	-	-	1169	-	-	78	771
HCM Lane V/C Ratio	0.015	0.328	-	-	0.001	-	-	0.92	0.337
HCM Control Delay (s)	30.4	9.1	-	-	8.1	0	-	172.5	12
HCM Lane LOS		D	A	-	A	A	-	F	B
HCM 95th %tile Q(veh)		0	1.4	-	-	0	-	4.8	1.5

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	411	11	15	219	10	13
Future Vol, veh/h	411	11	15	219	10	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	11	30	5	0	33
Mvmt Flow	447	12	16	238	11	14

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	459	0	723	453
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	270	-
Critical Hdwy	-	-	4.4	-	6.4	6.53
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.47	-	3.5	3.597
Pot Cap-1 Maneuver	-	-	970	-	396	547
Stage 1	-	-	-	-	645	-
Stage 2	-	-	-	-	780	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	970	-	388	547
Mov Cap-2 Maneuver	-	-	-	-	388	-
Stage 1	-	-	-	-	645	-
Stage 2	-	-	-	-	765	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	13.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	464	-	-	970	-
HCM Lane V/C Ratio	0.054	-	-	0.017	-
HCM Control Delay (s)	13.2	-	-	8.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection						
Int Delay, s/veh	18.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	247	182	88	186	194	151
Future Vol, veh/h	247	182	88	186	194	151
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	75	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	12	2	2	4	2
Mvmt Flow	268	198	96	202	211	164

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	298	0	-	0	931
Stage 1	-	-	-	-	197
Stage 2	-	-	-	-	734
Critical Hdwy	4.12	-	-	-	6.44
Critical Hdwy Stg 1	-	-	-	-	5.44
Critical Hdwy Stg 2	-	-	-	-	5.44
Follow-up Hdwy	2.218	-	-	-	3.536
Pot Cap-1 Maneuver	1263	-	-	-	294
Stage 1	-	-	-	-	831
Stage 2	-	-	-	-	471
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1263	-	-	-	232
Mov Cap-2 Maneuver	-	-	-	-	232
Stage 1	-	-	-	-	655
Stage 2	-	-	-	-	471

Approach	EB	WB	SB
HCM Control Delay, s	5	0	50.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1263	-	-	-	232	844
HCM Lane V/C Ratio	0.213	-	-	-	0.909	0.194
HCM Control Delay (s)	8.6	-	-	-	82.3	10.3
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.8	-	-	-	7.7	0.7

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	322	39	6	221	39	11
Future Vol, veh/h	322	39	6	221	39	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	11	3	10	2	3	9
Mvmt Flow	350	42	7	240	42	12

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	392	0	625 371
Stage 1	-	-	-	-	371 -
Stage 2	-	-	-	-	254 -
Critical Hdwy	-	-	4.2	-	6.43 6.29
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.29	-	3.527 3.381
Pot Cap-1 Maneuver	-	-	1124	-	447 659
Stage 1	-	-	-	-	696 -
Stage 2	-	-	-	-	786 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1124	-	444 659
Mov Cap-2 Maneuver	-	-	-	-	444 -
Stage 1	-	-	-	-	696 -
Stage 2	-	-	-	-	780 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	13.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	478	-	-	1124	-
HCM Lane V/C Ratio	0.114	-	-	0.006	-
HCM Control Delay (s)	13.5	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	8	67	421	11	100	335
Future Vol, veh/h	8	67	421	11	100	335
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	73	458	12	109	364

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1046	464	0	0	470
Stage 1	464	-	-	-	-
Stage 2	582	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	253	598	-	-	1092
Stage 1	633	-	-	-	-
Stage 2	559	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	221	598	-	-	1092
Mov Cap-2 Maneuver	221	-	-	-	-
Stage 1	633	-	-	-	-
Stage 2	489	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.5	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	506	1092
HCM Lane V/C Ratio	-	-	0.161	0.1
HCM Control Delay (s)	-	-	13.5	8.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0.3

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑	↗	↘	↑
Traffic Vol, veh/h	16	134	466	23	199	419
Future Vol, veh/h	16	134	466	23	199	419
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	50	75	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	146	507	25	216	455

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1394	507	0	0	532
Stage 1	507	-	-	-	-
Stage 2	887	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	156	566	-	-	1036
Stage 1	605	-	-	-	-
Stage 2	402	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	124	566	-	-	1036
Mov Cap-2 Maneuver	124	-	-	-	-
Stage 1	605	-	-	-	-
Stage 2	318	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.3	0	3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	124	566	1036
HCM Lane V/C Ratio	-	-	0.14	0.257	0.209
HCM Control Delay (s)	-	-	38.7	13.6	9.4
HCM Lane LOS	-	-	E	B	A
HCM 95th %tile Q(veh)	-	-	0.5	1	0.8

Lanes, Volumes, Timings
1: Caron Street & Docteur Corbeil Blvd

Caron Subdivision - Future Total 2043 PM - signalized
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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	131	131	115	573	711	115
Future Volume (vph)	131	131	115	573	711	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0	20.0			0.0
Storage Lanes	1	0	1			0
Taper Length (m)	2.5		2.5			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932				0.981	
Flt Protected	0.976		0.950			
Satd. Flow (prot)	1649	0	1674	1700	1766	0
Flt Permitted	0.976		0.186			
Satd. Flow (perm)	1649	0	328	1700	1766	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	63				19	
Link Speed (k/h)	48			50	50	
Link Distance (m)	172.7			277.3	120.1	
Travel Time (s)	13.0			20.0	8.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	10%	9%	13%	7%	5%
Adj. Flow (vph)	142	142	125	623	773	125
Shared Lane Traffic (%)						
Lane Group Flow (vph)	284	0	125	623	898	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	24.0		24.0	24.0	24.0	
Total Split (s)	24.0		51.0	51.0	51.0	
Total Split (%)	32.0%		68.0%	68.0%	68.0%	
Maximum Green (s)	18.0		45.0	45.0	45.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	2.5		2.5	2.5	2.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		Max	Max	Max	
Walk Time (s)	7.0		7.0	7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effct Green (s)	14.2		46.0	46.0	46.0	
Actuated g/C Ratio	0.20		0.64	0.64	0.64	
v/c Ratio	0.76		0.60	0.58	0.79	
Control Delay	34.4		25.3	11.0	17.5	
Queue Delay	0.0		0.0	0.0	0.0	

Lanes, Volumes, Timings
 1: Caron Street & Docteur Corbeil Blvd

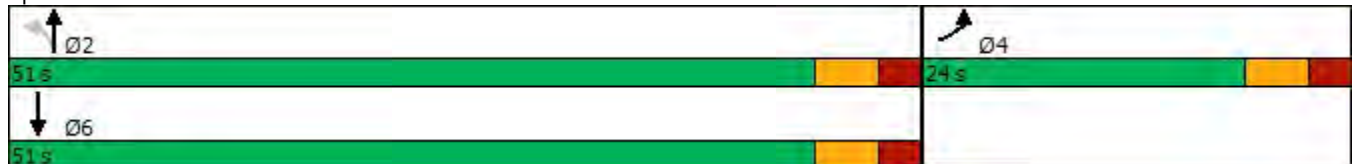


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	34.4		25.3	11.0	17.5	
LOS	C		C	B	B	
Approach Delay	34.4			13.4	17.5	
Approach LOS	C			B	B	
Queue Length 50th (m)	27.8		9.0	43.9	79.4	
Queue Length 95th (m)	52.0		#38.6	79.5	#173.9	
Internal Link Dist (m)	148.7			253.3	96.1	
Turn Bay Length (m)			20.0			
Base Capacity (vph)	457		208	1083	1131	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.62		0.60	0.58	0.79	

Intersection Summary











Area Type:	Other
Cycle Length:	75
Actuated Cycle Length:	72.3
Natural Cycle:	75
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	18.4
Intersection LOS:	B
Intersection Capacity Utilization:	81.1%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 1: Caron Street & Docteur Corbeil Blvd



Lanes, Volumes, Timings
2: Caron Street & David Street

Caron Subdivision - Future Total 2043 PM - signalized
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Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	265	103	576	337	179	645
Future Volume (vph)	265	103	576	337	179	645
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0		0.0	45.0	
Storage Lanes	1	0		0	1	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.962		0.950			
Flt Protected	0.965				0.950	
Satd. Flow (prot)	1306	0	1778	0	1755	1746
Flt Permitted	0.965				0.133	
Satd. Flow (perm)	1306	0	1778	0	246	1746
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	33		70			
Link Speed (k/h)	50		50			50
Link Distance (m)	331.3		361.0			126.2
Travel Time (s)	23.9		26.0			9.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	50%	2%	3%	2%	4%	10%
Adj. Flow (vph)	288	112	626	366	195	701
Shared Lane Traffic (%)						
Lane Group Flow (vph)	400	0	992	0	195	701
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	24.0		24.0		24.0	24.0
Total Split (s)	24.0		36.0		36.0	36.0
Total Split (%)	40.0%		60.0%		60.0%	60.0%
Maximum Green (s)	18.0		30.0		30.0	30.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	2.5		2.5		2.5	2.5
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0		6.0		6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	None		Max		Max	Max
Walk Time (s)	7.0		7.0		7.0	7.0
Flash Dont Walk (s)	11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)	0		0		0	0
Act Effct Green (s)	18.0		30.0		30.0	30.0
Actuated g/C Ratio	0.30		0.50		0.50	0.50
v/c Ratio	0.97		1.07		1.59	0.80
Control Delay	60.0		69.3		320.1	21.9
Queue Delay	0.0		0.0		0.0	0.0















Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Delay	60.0		69.3		320.1	21.9
LOS	E		E		F	C
Approach Delay	60.0		69.3			86.8
Approach LOS	E		E			F
Queue Length 50th (m)	39.7		~121.6		~31.6	59.4
Queue Length 95th (m)	#89.1		#185.8		#53.2	#117.7
Internal Link Dist (m)	307.3		337.0			102.2
Turn Bay Length (m)					45.0	
Base Capacity (vph)	414		924		123	873
Starvation Cap Reductn	0		0		0	0
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.97		1.07		1.59	0.80

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Natural Cycle:	140
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	1.59
Intersection Signal Delay:	74.5
Intersection LOS:	E
Intersection Capacity Utilization:	96.8%
ICU Level of Service:	F
Analysis Period (min):	15
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 2: Caron Street & David Street



						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	126	343	528	71	374	492
Future Volume (vph)	126	343	528	71	374	492
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		50.0	75.0	
Storage Lanes	1	1		1	1	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1789	1601	1883	1601	1789	1883
Flt Permitted	0.950				0.327	
Satd. Flow (perm)	1789	1601	1883	1601	616	1883
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		145		77		
Link Speed (k/h)	48		48			48
Link Distance (m)	338.5		319.0			293.1
Travel Time (s)	25.4		23.9			22.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	137	373	574	77	407	535
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	373	574	77	407	535
Turn Type	Prot	Perm	NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	11.5	11.5	18.5	18.5	18.5	18.5
Actuated g/C Ratio	0.27	0.27	0.44	0.44	0.44	0.44
v/c Ratio	0.28	0.69	0.69	0.10	1.50	0.65
Control Delay	12.8	15.0	17.9	3.5	265.0	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.8	15.0	17.9	3.5	265.0	16.2



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	B	B	B	A	F	B
Approach Delay	14.4		16.2			123.7
Approach LOS	B		B			F
Queue Length 50th (m)	7.5	13.5	30.6	0.0	~43.4	27.6
Queue Length 95th (m)	16.4	32.1	#87.6	5.7	#79.8	#79.2
Internal Link Dist (m)	314.5		295.0			269.1
Turn Bay Length (m)	50.0			50.0	75.0	
Base Capacity (vph)	771	772	829	748	271	829
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.48	0.69	0.10	1.50	0.65

Intersection Summary

Area Type: Other

Cycle Length: 48

Actuated Cycle Length: 42.1

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.50

Intersection Signal Delay: 63.9

Intersection LOS: E

Intersection Capacity Utilization 70.5%

ICU Level of Service C

Analysis Period (min) 15

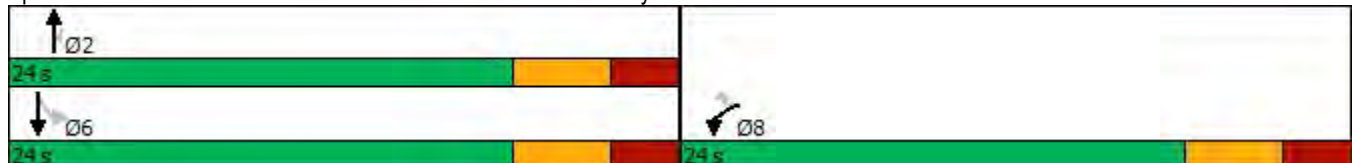
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

























Splits and Phases: 17: Caron Street & Commercial - Community Access



Lanes, Volumes, Timings
18: Caron Street & Bronze Avenue

Caron Subdivision - Future Total 2043 PM - signalized

03/26/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	158	182	275	37	127	180	247	576	47	235	553	122
Future Volume (vph)	158	182	275	37	127	180	247	576	47	235	553	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		35.0	35.0		35.0	35.0		0.0	35.0		35.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.989				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	1883	1601	1789	1883	1601	1789	1863	0	1789	1883	1601
Flt Permitted	0.669			0.633			0.313			0.244		
Satd. Flow (perm)	1260	1883	1601	1192	1883	1601	590	1863	0	460	1883	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			151			139		10				133
Link Speed (k/h)		50			50			50				50
Link Distance (m)		413.5			239.5			293.1				361.0
Travel Time (s)		29.8			17.2			21.1				26.0
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
Adj. Flow (vph)	172	198	299	40	138	196	268	626	51	255	601	133
Shared Lane Traffic (%)												
Lane Group Flow (vph)	172	198	299	40	138	196	268	677	0	255	601	133
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2				6
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	4	4	4	8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0		24.0	24.0	24.0
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	26.0	26.0		26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%		52.0%	52.0%	52.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	11.4	11.4	11.4	11.4	11.4	11.4	20.2	20.2		20.2	20.2	20.2
Actuated g/C Ratio	0.26	0.26	0.26	0.26	0.26	0.26	0.46	0.46		0.46	0.46	0.46
v/c Ratio	0.52	0.40	0.57	0.13	0.28	0.38	0.99	0.78		1.20	0.69	0.16
Control Delay	19.5	15.4	11.3	12.5	13.8	7.0	73.1	20.7		149.9	17.0	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	19.5	15.4	11.3	12.5	13.8	7.0	73.1	20.7		149.9	17.0	2.9

Lanes, Volumes, Timings
18: Caron Street & Bronze Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	B	B	B	B	B	A	E	C		F	B	A
Approach Delay		14.6			10.1			35.6			49.4	
Approach LOS		B			B			D			D	
Queue Length 50th (m)	11.0	12.2	9.0	2.3	8.2	3.2	17.6	37.2		~24.3	31.5	0.0
Queue Length 95th (m)	23.6	24.0	23.7	7.0	17.5	13.5	#64.0	#109.9		#65.7	#91.9	7.3
Internal Link Dist (m)		389.5			215.5			269.1			337.0	
Turn Bay Length (m)	35.0		35.0	35.0		35.0	35.0			35.0		35.0
Base Capacity (vph)	523	782	754	495	782	747	272	866		212	870	811
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.33	0.25	0.40	0.08	0.18	0.26	0.99	0.78		1.20	0.69	0.16

Intersection Summary

Area Type: Other
 Cycle Length: 50
 Actuated Cycle Length: 43.7
 Natural Cycle: 70
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 1.20
 Intersection Signal Delay: 32.3
 Intersection LOS: C
 Intersection Capacity Utilization 81.6%
 ICU Level of Service D
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 18: Caron Street & Bronze Avenue



APPENDIX “B-5”
TOTAL FORECAST MITIGATION (2037, 2043) CONDITIONS

Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 AM - signalized - mitigation
 1: Caron Street & Docteur Corbeil Blvd 03/26/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	79	97	115	611	349	80
Future Volume (vph)	79	97	115	611	349	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0	20.0			0.0
Storage Lanes	1	0	1			0
Taper Length (m)	2.5		2.5			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.926				0.975	
Flt Protected	0.978		0.950			
Satd. Flow (prot)	1635	0	1674	1700	1757	0
Flt Permitted	0.978		0.478			
Satd. Flow (perm)	1635	0	842	1700	1757	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	105				28	
Link Speed (k/h)	50			50	50	
Link Distance (m)	172.7			277.3	120.1	
Travel Time (s)	12.4			20.0	8.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	10%	9%	13%	7%	5%
Adj. Flow (vph)	86	105	125	664	379	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	191	0	125	664	466	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	24.0		24.0	24.0	24.0	
Total Split (s)	24.0		36.0	36.0	36.0	
Total Split (%)	40.0%		60.0%	60.0%	60.0%	
Maximum Green (s)	18.0		30.0	30.0	30.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	2.5		2.5	2.5	2.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		C-Max	C-Max	C-Max	
Walk Time (s)	7.0		7.0	7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effct Green (s)	9.1		38.9	38.9	38.9	
Actuated g/C Ratio	0.15		0.65	0.65	0.65	
v/c Ratio	0.57		0.23	0.60	0.41	
Control Delay	17.8		6.7	10.0	6.7	
Queue Delay	0.0		0.0	0.0	0.0	

Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 AM - signalized - mitigation
 1: Caron Street & Docteur Corbeil Blvd 03/26/2025

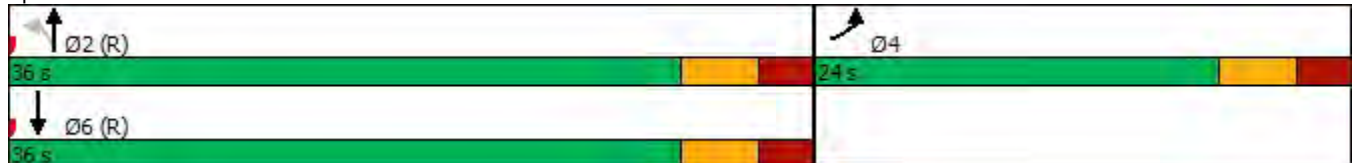


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	17.8		6.7	10.0	6.7	
LOS	B		A	A	A	
Approach Delay	17.8			9.4	6.7	
Approach LOS	B			A	A	
Queue Length 50th (m)	8.7		4.6	33.9	18.2	
Queue Length 95th (m)	22.2		14.1	79.1	42.8	
Internal Link Dist (m)	148.7			253.3	96.1	
Turn Bay Length (m)			20.0			
Base Capacity (vph)	564		545	1102	1148	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.34		0.23	0.60	0.41	













Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	9.7
Intersection LOS:	A
Intersection Capacity Utilization	54.9%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 1: Caron Street & Docteur Corbeil Blvd



Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 AM - signalized - mitigation
 2: Caron Street & David Street 03/26/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	289	184	522	178	60	385
Future Volume (vph)	289	184	522	178	60	385
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0	0.0		0.0	45.0	
Storage Lanes	1	1		1	1	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1789	1445	1731	1089	1659	1795
Flt Permitted	0.950				0.374	
Satd. Flow (perm)	1789	1445	1731	1089	653	1795
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		200		193		
Link Speed (k/h)	50		50			50
Link Distance (m)	331.3		361.0			126.2
Travel Time (s)	23.9		26.0			9.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	13%	11%	50%	10%	7%
Adj. Flow (vph)	314	200	567	193	65	418
Shared Lane Traffic (%)						
Lane Group Flow (vph)	314	200	567	193	65	418
Turn Type	Prot	Perm	NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	36.0	36.0	54.0	54.0	54.0	54.0
Total Split (%)	40.0%	40.0%	60.0%	60.0%	60.0%	60.0%
Maximum Green (s)	30.0	30.0	48.0	48.0	48.0	48.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	19.0	19.0	48.2	48.2	48.2	48.2
Actuated g/C Ratio	0.24	0.24	0.61	0.61	0.61	0.61
v/c Ratio	0.73	0.40	0.54	0.26	0.16	0.38
Control Delay	38.2	6.2	12.6	2.5	9.7	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0

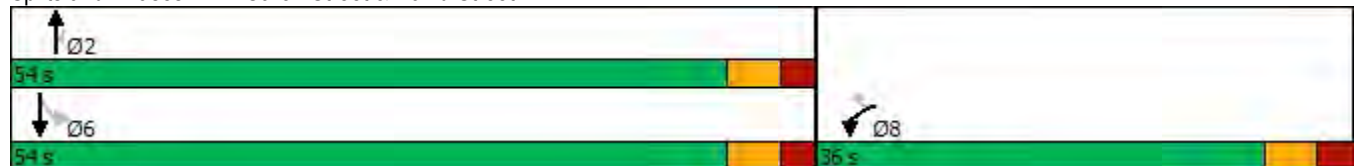
Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 AM - signalized - mitigation
 2: Caron Street & David Street 03/26/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Delay	38.2	6.2	12.6	2.5	9.7	10.3
LOS	D	A	B	A	A	B
Approach Delay	25.7		10.0			10.2
Approach LOS	C		B			B
Queue Length 50th (m)	43.4	0.0	44.2	0.0	3.8	28.6
Queue Length 95th (m)	68.6	14.1	91.9	9.0	12.3	60.0
Internal Link Dist (m)	307.3		337.0			102.2
Turn Bay Length (m)	75.0				45.0	
Base Capacity (vph)	680	673	1052	737	397	1091
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.30	0.54	0.26	0.16	0.38

Intersection Summary	
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	79.3
Natural Cycle:	55
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	14.7
Intersection LOS:	B
Intersection Capacity Utilization	62.7%
ICU Level of Service	B
Analysis Period (min)	15

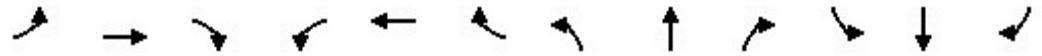
Splits and Phases: 2: Caron Street & David Street



Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 AM - signalized - mitigation
 11: Filion Road/St. Jean Street & Baseline Road 03/26/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	139	0	0	286	52	1	1	1	8	4	214
Future Volume (vph)	153	139	0	0	286	52	1	1	1	8	4	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0		0.0	0.0		0.0	0.0		0.0	75.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.979			0.955				0.853
Flt Protected	0.950							0.984		0.950		
Satd. Flow (prot)	1690	1575	0	0	1746	0	0	1719	0	1789	1564	0
Flt Permitted	0.463							0.925		0.756		
Satd. Flow (perm)	824	1575	0	0	1746	0	0	1616	0	1424	1564	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					21			1				233
Link Speed (k/h)		60			60			60				60
Link Distance (m)		280.0			1373.9			82.7				605.0
Travel Time (s)		16.8			82.4			5.0				36.3
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
Heavy Vehicles (%)	8%	22%	2%	2%	8%	6%	5%	5%	5%	2%	50%	4%
Adj. Flow (vph)	166	151	0	0	311	57	1	1	1	9	4	233
Shared Lane Traffic (%)												
Lane Group Flow (vph)	166	151	0	0	368	0	0	3	0	9	237	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2				6
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6		6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0		5.0
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0		24.0
Total Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0		25.0
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%		50.0%
Maximum Green (s)	19.0	19.0		19.0	19.0		19.0	19.0		19.0		19.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5		2.5
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0		0.0
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0		6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	None	None		None	None		Max	Max		Max		Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0		11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0		0
Act Effct Green (s)	13.7	13.7			13.7			19.2		19.2		19.2
Actuated g/C Ratio	0.30	0.30			0.30			0.43		0.43		0.43
v/c Ratio	0.66	0.31			0.67			0.00		0.01		0.30
Control Delay	27.0	13.4			19.3			8.7		9.4		3.2
Queue Delay	0.0	0.0			0.0			0.0		0.0		0.0

Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 AM - signalized - mitigation
 11: Filion Road/St. Jean Street & Baseline Road 03/26/2025

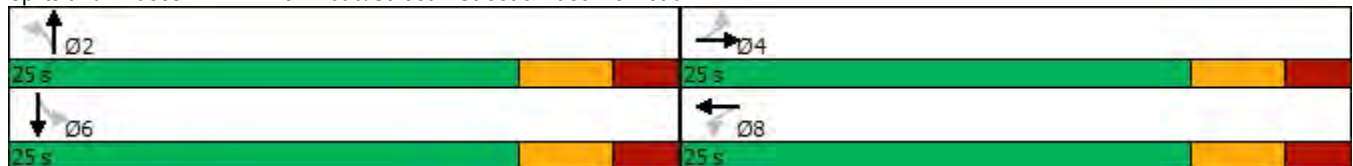


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	27.0	13.4			19.3			8.7		9.4	3.2	
LOS	C	B			B			A		A	A	
Approach Delay		20.5			19.3			8.7			3.4	
Approach LOS		C			B			A			A	
Queue Length 50th (m)	11.0	8.8			22.9			0.1		0.4	0.2	
Queue Length 95th (m)	26.4	18.9			42.9			1.2		2.5	10.4	
Internal Link Dist (m)		256.0			1349.9			58.7			581.0	
Turn Bay Length (m)	75.0									75.0		
Base Capacity (vph)	350	670			755			688		606	799	
Starvation Cap Reductn	0	0			0			0		0	0	
Spillback Cap Reductn	0	0			0			0		0	0	
Storage Cap Reductn	0	0			0			0		0	0	
Reduced v/c Ratio	0.47	0.23			0.49			0.00		0.01	0.30	

Intersection Summary

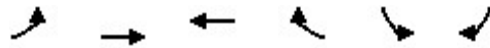
Area Type:	Other
Cycle Length:	50
Actuated Cycle Length:	45
Natural Cycle:	50
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	15.5
Intersection LOS:	B
Intersection Capacity Utilization:	55.1%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 11: Filion Road/St. Jean Street & Baseline Road



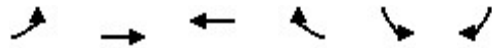
Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 AM - signalized - mitigation
 13: Baseline Road & Caron Street

03/26/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	96	51	124	175	127	200
Future Volume (vph)	96	51	124	175	127	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0			0.0	75.0	0.0
Storage Lanes	1			0	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.921			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1448	1715	1650	0	1706	1512
Flt Permitted	0.507				0.950	
Satd. Flow (perm)	773	1715	1650	0	1706	1512
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			163			217
Link Speed (k/h)		80	80		48	
Link Distance (m)		500.9	877.6		681.1	
Travel Time (s)		22.5	39.5		51.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	26%	12%	9%	6%	7%	8%
Adj. Flow (vph)	104	55	135	190	138	217
Shared Lane Traffic (%)						
Lane Group Flow (vph)	104	55	325	0	138	217
Turn Type	Perm	NA	NA		Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4					6
Detector Phase	4	4	8		6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	24.0	24.0	24.0		24.0	24.0
Total Split (s)	25.0	25.0	25.0		25.0	25.0
Total Split (%)	50.0%	50.0%	50.0%		50.0%	50.0%
Maximum Green (s)	19.0	19.0	19.0		19.0	19.0
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	2.5	2.5	2.5		2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None		Max	Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	10.6	10.6	10.6		20.1	20.1
Actuated g/C Ratio	0.25	0.25	0.25		0.47	0.47
v/c Ratio	0.54	0.13	0.61		0.17	0.26
Control Delay	24.3	12.0	12.1		8.8	2.8
Queue Delay	0.0	0.0	0.0		0.0	0.0

Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 AM - signalized - mitigation
 13: Baseline Road & Caron Street 03/26/2025

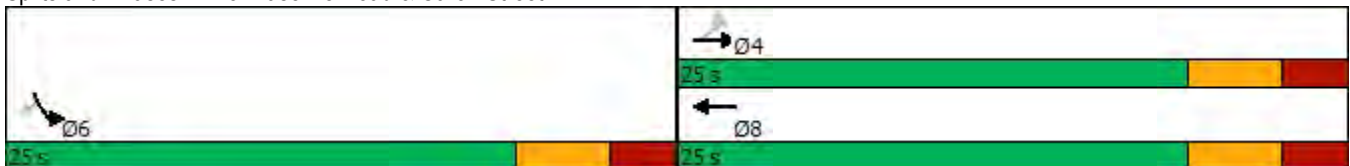


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Total Delay	24.3	12.0	12.1		8.8	2.8
LOS	C	B	B		A	A
Approach Delay		20.0	12.1		5.2	
Approach LOS		C	B		A	
Queue Length 50th (m)	6.4	3.0	9.5		5.2	0.0
Queue Length 95th (m)	16.7	8.3	24.8		16.2	9.2
Internal Link Dist (m)		476.9	853.6		657.1	
Turn Bay Length (m)	75.0				75.0	
Base Capacity (vph)	345	765	827		801	825
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.30	0.07	0.39		0.17	0.26













Intersection Summary

Area Type:	Other
Cycle Length:	50
Actuated Cycle Length:	42.8
Natural Cycle:	50
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	10.7
Intersection LOS:	B
Intersection Capacity Utilization:	44.6%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 13: Baseline Road & Caron Street



Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 AM - signalized - mitigation
 17: Caron Street & Commercial - Community Access 03/26/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	38	173	439	90	284	369
Future Volume (vph)	38	173	439	90	284	369
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		50.0	75.0	
Storage Lanes	1	1		1	1	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1789	1601	1883	1601	1789	1883
Flt Permitted	0.950				0.483	
Satd. Flow (perm)	1789	1601	1883	1601	910	1883
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		188		98		
Link Speed (k/h)	50		60			60
Link Distance (m)	338.5		319.0			293.1
Travel Time (s)	24.4		19.1			17.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	188	477	98	309	401
Shared Lane Traffic (%)						
Lane Group Flow (vph)	41	188	477	98	309	401
Turn Type	Prot	Perm	NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	24.0	24.0	36.0	36.0	36.0	36.0
Total Split (%)	40.0%	40.0%	60.0%	60.0%	60.0%	60.0%
Maximum Green (s)	18.0	18.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effect Green (s)	7.1	7.1	34.9	34.9	34.9	34.9
Actuated g/C Ratio	0.14	0.14	0.69	0.69	0.69	0.69
v/c Ratio	0.16	0.49	0.37	0.09	0.49	0.31
Control Delay	19.8	8.5	5.9	1.6	9.4	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	8.5	5.9	1.6	9.4	5.5



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	B	A	A	A	A	A
Approach Delay	10.5		5.2			7.2
Approach LOS	B		A			A
Queue Length 50th (m)	3.2	0.0	16.9	0.0	12.4	13.5
Queue Length 95th (m)	9.3	12.6	38.0	4.1	37.1	30.8
Internal Link Dist (m)	314.5		295.0			269.1
Turn Bay Length (m)	50.0			50.0	75.0	
Base Capacity (vph)	637	691	1301	1136	628	1301
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.27	0.37	0.09	0.49	0.31























Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 50.5
 Natural Cycle: 60
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.49
 Intersection Signal Delay: 6.9 Intersection LOS: A
 Intersection Capacity Utilization 58.0% ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 17: Caron Street & Commercial - Community Access



Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 AM - signalized - mitigation
 18: Caron Street & Bronze Avenue 03/26/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	68	189	38	149	194	179	412	20	99	424	150
Future Volume (vph)	94	68	189	38	149	194	179	412	20	99	424	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		35.0	35.0		35.0	35.0		0.0	35.0		35.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.993				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	1883	1601	1789	1883	1601	1789	1870	0	1789	1883	1601
Flt Permitted	0.654			0.709			0.472			0.465		
Satd. Flow (perm)	1232	1883	1601	1335	1883	1601	889	1870	0	876	1883	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			205			211		6				163
Link Speed (k/h)		48			48			48			48	
Link Distance (m)		413.5			239.5			293.1			361.0	
Travel Time (s)		31.0			18.0			22.0			27.1	
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
Adj. Flow (vph)	102	74	205	41	162	211	195	448	22	108	461	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	102	74	205	41	162	211	195	470	0	108	461	163
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	4	4	4	8	8	8	2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0		24.0	24.0	24.0
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	31.0	31.0		31.0	31.0	31.0
Total Split (%)	43.6%	43.6%	43.6%	43.6%	43.6%	43.6%	56.4%	56.4%		56.4%	56.4%	56.4%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	25.0	25.0		25.0	25.0	25.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	10.3	10.3	10.3	10.3	10.3	10.3	32.7	32.7		32.7	32.7	32.7
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.19	0.59	0.59		0.59	0.59	0.59
v/c Ratio	0.44	0.21	0.44	0.16	0.46	0.45	0.37	0.42		0.21	0.41	0.16
Control Delay	24.8	18.8	6.4	18.6	23.2	6.4	9.6	8.3		7.7	8.3	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	24.8	18.8	6.4	18.6	23.2	6.4	9.6	8.3		7.7	8.3	1.9

Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 AM - signalized - mitigation
 18: Caron Street & Bronze Avenue 03/26/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	B	A	B	C	A	A	A		A	A	A
Approach Delay		13.7			14.2			8.7			6.8	
Approach LOS		B			B			A			A	
Queue Length 50th (m)	9.2	6.4	0.0	3.5	14.6	0.0	8.5	20.8		4.2	20.7	0.0
Queue Length 95th (m)	18.3	13.3	11.9	8.8	25.3	12.1	25.0	47.8		13.2	46.8	6.7
Internal Link Dist (m)		389.5			215.5			269.1			337.0	
Turn Bay Length (m)	35.0		35.0	35.0		35.0	35.0			35.0		35.0
Base Capacity (vph)	403	616	661	436	616	665	527	1112		520	1118	1016
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.25	0.12	0.31	0.09	0.26	0.32	0.37	0.42		0.21	0.41	0.16

Intersection Summary

Area Type:	Other
Cycle Length:	55
Actuated Cycle Length:	55
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.46
Intersection Signal Delay:	9.9
Intersection LOS:	A
Intersection Capacity Utilization:	65.3%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 18: Caron Street & Bronze Avenue



Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation
 1: Caron Street & Docteur Corbeil Blvd 03/26/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	131	131	115	573	711	115
Future Volume (vph)	131	131	115	573	711	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0	20.0			0.0
Storage Lanes	1	0	1			0
Taper Length (m)	2.5		2.5			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932				0.981	
Flt Protected	0.976		0.950			
Satd. Flow (prot)	1649	0	1674	1700	1766	0
Flt Permitted	0.976		0.191			
Satd. Flow (perm)	1649	0	337	1700	1766	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	63				19	
Link Speed (k/h)	48			50	50	
Link Distance (m)	172.7			277.3	120.1	
Travel Time (s)	13.0			20.0	8.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	10%	9%	13%	7%	5%
Adj. Flow (vph)	142	142	125	623	773	125
Shared Lane Traffic (%)						
Lane Group Flow (vph)	284	0	125	623	898	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	24.0		24.0	24.0	24.0	
Total Split (s)	24.0		51.0	51.0	51.0	
Total Split (%)	32.0%		68.0%	68.0%	68.0%	
Maximum Green (s)	18.0		45.0	45.0	45.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	2.5		2.5	2.5	2.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		C-Max	C-Max	C-Max	
Walk Time (s)	7.0		7.0	7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effct Green (s)	14.6		48.4	48.4	48.4	
Actuated g/C Ratio	0.19		0.65	0.65	0.65	
v/c Ratio	0.77		0.58	0.57	0.78	
Control Delay	35.6		23.3	10.8	17.1	
Queue Delay	0.0		0.0	0.0	0.0	

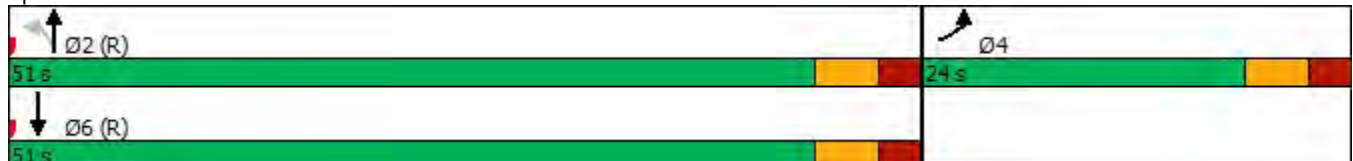


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	35.6		23.3	10.8	17.1	
LOS	D		C	B	B	
Approach Delay	35.6			12.9	17.1	
Approach LOS	D			B	B	
Queue Length 50th (m)	29.2		9.1	44.9	81.3	
Queue Length 95th (m)	52.0		#37.8	79.5	#173.9	
Internal Link Dist (m)	148.7			253.3	96.1	
Turn Bay Length (m)			20.0			
Base Capacity (vph)	443		217	1096	1146	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.64		0.58	0.57	0.78	













Intersection Summary

Area Type: Other
 Cycle Length: 75
 Actuated Cycle Length: 75
 Offset: 5 (7%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 18.2 Intersection LOS: B
 Intersection Capacity Utilization 81.1% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Caron Street & Docteur Corbeil Blvd



Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation
 2: Caron Street & David Street 03/26/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	265	103	576	337	179	645
Future Volume (vph)	265	103	576	337	179	645
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0	0.0		0.0	45.0	
Storage Lanes	1	1		1	1	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1217	1601	1865	1601	1755	1746
Flt Permitted	0.950				0.149	
Satd. Flow (perm)	1217	1601	1865	1601	275	1746
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		112		366		
Link Speed (k/h)	50		50			50
Link Distance (m)	331.3		361.0			126.2
Travel Time (s)	23.9		26.0			9.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	50%	2%	3%	2%	4%	10%
Adj. Flow (vph)	288	112	626	366	195	701
Shared Lane Traffic (%)						
Lane Group Flow (vph)	288	112	626	366	195	701
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	11.0	24.0
Total Split (s)	25.0	25.0	34.0	34.0	11.0	45.0
Total Split (%)	35.7%	35.7%	48.6%	48.6%	15.7%	64.3%
Maximum Green (s)	19.0	19.0	28.0	28.0	5.0	39.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0		7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0	0	0		0
Act Effct Green (s)	18.3	18.3	28.2	28.2	39.7	39.7
Actuated g/C Ratio	0.26	0.26	0.40	0.40	0.57	0.57
v/c Ratio	0.91	0.22	0.83	0.42	0.72	0.71
Control Delay	59.3	5.8	31.0	3.5	26.5	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0

Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation
 2: Caron Street & David Street 03/26/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Delay	59.3	5.8	31.0	3.5	26.5	16.2
LOS	E	A	C	A	C	B
Approach Delay	44.3		20.8			18.5
Approach LOS	D		C			B
Queue Length 50th (m)	35.9	0.0	71.7	0.0	11.6	61.8
Queue Length 95th (m)	#76.4	10.3	#127.2	14.2	#30.5	100.8
Internal Link Dist (m)	307.3		337.0			102.2
Turn Bay Length (m)	75.0				45.0	
Base Capacity (vph)	330	516	752	864	271	990
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.22	0.83	0.42	0.72	0.71



















Intersection Summary

Area Type: Other
 Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 24.0 Intersection LOS: C
 Intersection Capacity Utilization 69.9% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

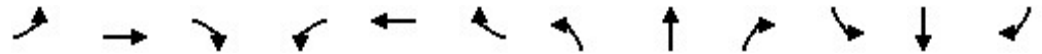
Splits and Phases: 2: Caron Street & David Street



Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation
 11: Filion Road/St. Jean Street & Baseline Road 03/26/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	397	359	0	1	154	77	0	1	1	66	2	237
Future Volume (vph)	397	359	0	1	154	77	0	1	1	66	2	237
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0		0.0	0.0		0.0	0.0		0.0	75.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.955			0.932				0.851
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1789	1715	0	0	1737	0	0	1755	0	1789	1572	0
Flt Permitted	0.653				0.999					0.757		
Satd. Flow (perm)	1230	1715	0	0	1735	0	0	1755	0	1426	1572	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					60			1				258
Link Speed (k/h)		60			60			60				60
Link Distance (m)		280.0			1373.9			82.7				605.0
Travel Time (s)		16.8			82.4			5.0				36.3
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
Heavy Vehicles (%)	2%	12%	2%	2%	7%	3%	2%	2%	2%	2%	2%	4%
Adj. Flow (vph)	432	390	0	1	167	84	0	1	1	72	2	258
Shared Lane Traffic (%)												
Lane Group Flow (vph)	432	390	0	0	252	0	0	2	0	72	260	0
Turn Type	Perm	NA		Perm	NA			NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	36.0	36.0		36.0	36.0		24.0	24.0		24.0	24.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	23.3	23.3			23.3			18.3		18.3	18.3	
Actuated g/C Ratio	0.43	0.43			0.43			0.34		0.34	0.34	
v/c Ratio	0.81	0.52			0.32			0.00		0.15	0.37	
Control Delay	26.4	13.5			8.1			13.0		15.8	4.5	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	

Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation
 11: Filion Road/St. Jean Street & Baseline Road 03/26/2025

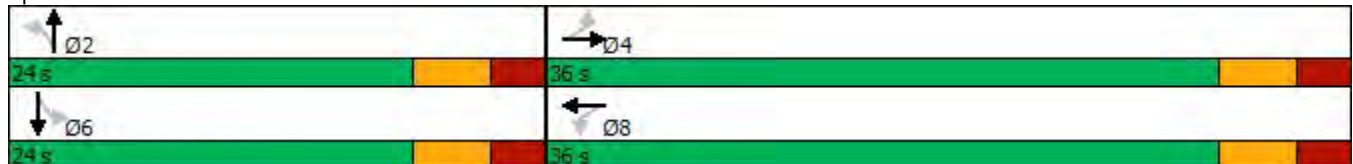


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	26.4	13.5			8.1			13.0		15.8	4.5	
LOS	C	B			A			B		B	A	
Approach Delay		20.3			8.1			13.0			6.9	
Approach LOS		C			A			B			A	
Queue Length 50th (m)	33.8	25.7			10.9			0.1		5.1	0.2	
Queue Length 95th (m)	#67.5	44.2			22.2			1.3		13.9	13.7	
Internal Link Dist (m)		256.0			1349.9			58.7			581.0	
Turn Bay Length (m)	75.0									75.0		
Base Capacity (vph)	697	971			1009			597		484	704	
Starvation Cap Reductn	0	0			0			0		0	0	
Spillback Cap Reductn	0	0			0			0		0	0	
Storage Cap Reductn	0	0			0			0		0	0	
Reduced v/c Ratio	0.62	0.40			0.25			0.00		0.15	0.37	

Intersection Summary

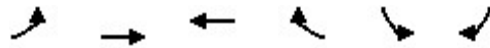
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	53.8
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	14.9
Intersection LOS:	B
Intersection Capacity Utilization:	64.6%
ICU Level of Service:	C
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 11: Filion Road/St. Jean Street & Baseline Road



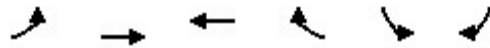
Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation
 13: Baseline Road & Caron Street

03/26/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	247	182	88	186	194	151
Future Volume (vph)	247	182	88	186	194	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0			0.0	75.0	0.0
Storage Lanes	1			0	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.908			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1789	1715	1710	0	1755	1601
Flt Permitted	0.578				0.950	
Satd. Flow (perm)	1089	1715	1710	0	1755	1601
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			202			164
Link Speed (k/h)		80	80		50	
Link Distance (m)		500.9	877.6		681.1	
Travel Time (s)		22.5	39.5		49.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	12%	2%	2%	4%	2%
Adj. Flow (vph)	268	198	96	202	211	164
Shared Lane Traffic (%)						
Lane Group Flow (vph)	268	198	298	0	211	164
Turn Type	Perm	NA	NA		Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4					6
Detector Phase	4	4	8		6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	24.0	24.0	24.0		24.0	24.0
Total Split (s)	26.0	26.0	26.0		24.0	24.0
Total Split (%)	52.0%	52.0%	52.0%		48.0%	48.0%
Maximum Green (s)	20.0	20.0	20.0		18.0	18.0
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	2.5	2.5	2.5		2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None		Max	Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	15.2	15.2	15.2		18.2	18.2
Actuated g/C Ratio	0.33	0.33	0.33		0.40	0.40
v/c Ratio	0.74	0.35	0.42		0.30	0.22
Control Delay	26.6	12.7	6.0		12.2	3.4
Queue Delay	0.0	0.0	0.0		0.0	0.0

Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation
 13: Baseline Road & Caron Street 03/26/2025

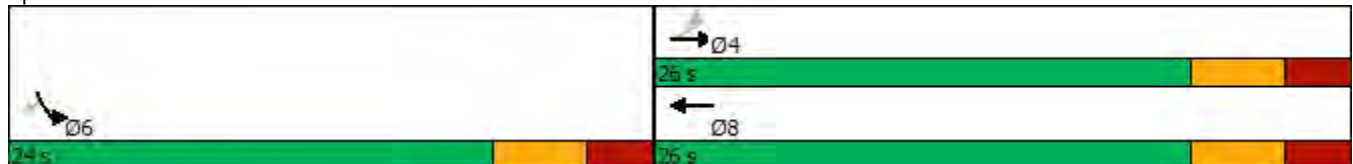


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Total Delay	26.6	12.7	6.0		12.2	3.4
LOS	C	B	A		B	A
Approach Delay		20.7	6.0		8.4	
Approach LOS		C	A		A	
Queue Length 50th (m)	18.0	11.4	5.2		11.3	0.0
Queue Length 95th (m)	#40.2	22.8	17.2		26.0	8.7
Internal Link Dist (m)		476.9	853.6		657.1	
Turn Bay Length (m)	75.0				75.0	
Base Capacity (vph)	483	761	871		701	738
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.55	0.26	0.34		0.30	0.22

Intersection Summary













Area Type: Other
 Cycle Length: 50
 Actuated Cycle Length: 45.5
 Natural Cycle: 50
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 12.8 Intersection LOS: B
 Intersection Capacity Utilization 55.5% ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 13: Baseline Road & Caron Street



Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation
 17: Caron Street & Commercial - Community Access

03/26/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	126	343	528	71	374	492
Future Volume (vph)	126	343	528	71	374	492
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		50.0	75.0	
Storage Lanes	1	1		1	1	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1789	1601	1883	1601	1789	1883
Flt Permitted	0.950				0.208	
Satd. Flow (perm)	1789	1601	1883	1601	392	1883
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		373		72		
Link Speed (k/h)	48		48			48
Link Distance (m)	338.5		319.0			293.1
Travel Time (s)	25.4		23.9			22.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	137	373	574	77	407	535
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	373	574	77	407	535
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	11.0	24.0
Total Split (s)	24.0	24.0	35.0	35.0	21.0	56.0
Total Split (%)	30.0%	30.0%	43.8%	43.8%	26.3%	70.0%
Maximum Green (s)	18.0	18.0	29.0	29.0	15.0	50.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0		7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0	0	0		0
Act Effct Green (s)	11.6	11.6	34.1	34.1	56.4	56.4
Actuated g/C Ratio	0.14	0.14	0.43	0.43	0.70	0.70
v/c Ratio	0.53	0.68	0.72	0.11	0.73	0.40
Control Delay	38.3	10.2	27.5	5.6	17.3	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.3	10.2	27.5	5.6	17.3	6.5

Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation
 17: Caron Street & Commercial - Community Access 03/26/2025

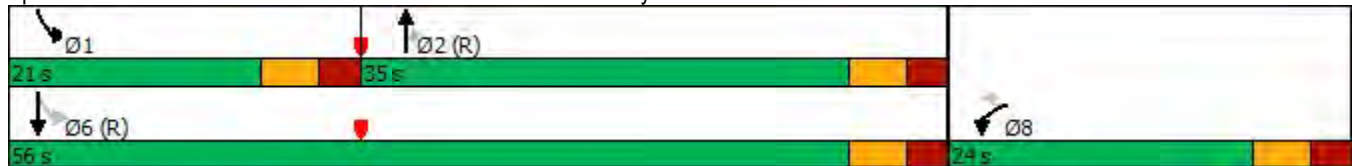


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	D	B	C	A	B	A
Approach Delay	17.8		24.9			11.2
Approach LOS	B		C			B
Queue Length 50th (m)	19.6	0.0	74.4	0.5	20.9	27.5
Queue Length 95th (m)	33.3	20.7	#132.5	8.5	#67.7	55.0
Internal Link Dist (m)	314.5		295.0			269.1
Turn Bay Length (m)	50.0			50.0	75.0	
Base Capacity (vph)	402	649	801	723	575	1327
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.57	0.72	0.11	0.71	0.40

























Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 21 (26%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 17.0 Intersection LOS: B
 Intersection Capacity Utilization 70.5% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 17: Caron Street & Commercial - Community Access



Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation
 18: Caron Street & Bronze Avenue 03/26/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	158	182	275	37	127	180	247	576	47	235	553	122
Future Volume (vph)	158	182	275	37	127	180	247	576	47	235	553	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		35.0	35.0		35.0	35.0		0.0	35.0		35.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.989				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	1883	1601	1789	1883	1601	1789	1863	0	1789	1883	1601
Flt Permitted	0.669			0.569			0.251			0.173		
Satd. Flow (perm)	1260	1883	1601	1072	1883	1601	473	1863	0	326	1883	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			299			196		7				131
Link Speed (k/h)		50			50			50				50
Link Distance (m)		413.5			239.5			293.1				361.0
Travel Time (s)		29.8			17.2			21.1				26.0
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
Adj. Flow (vph)	172	198	299	40	138	196	268	626	51	255	601	133
Shared Lane Traffic (%)												
Lane Group Flow (vph)	172	198	299	40	138	196	268	677	0	255	601	133
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	4	4	4	8	8	8	5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	11.0	24.0		11.0	24.0	24.0
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	14.0	37.0		14.0	37.0	37.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	32.0%	32.0%	18.7%	49.3%		18.7%	49.3%	49.3%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	8.0	31.0		8.0	31.0	31.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0			7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0			11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0			0	0
Act Effct Green (s)	14.5	14.5	14.5	14.5	14.5	14.5	42.1	33.4		42.9	33.7	33.7
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.19	0.56	0.45		0.57	0.45	0.45
v/c Ratio	0.70	0.54	0.54	0.19	0.38	0.42	0.64	0.81		0.70	0.71	0.17
Control Delay	43.6	32.3	7.3	26.0	28.3	6.9	15.6	29.0		22.8	23.7	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	43.6	32.3	7.3	26.0	28.3	6.9	15.6	29.0		22.8	23.7	3.5

Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation
 18: Caron Street & Bronze Avenue 03/26/2025

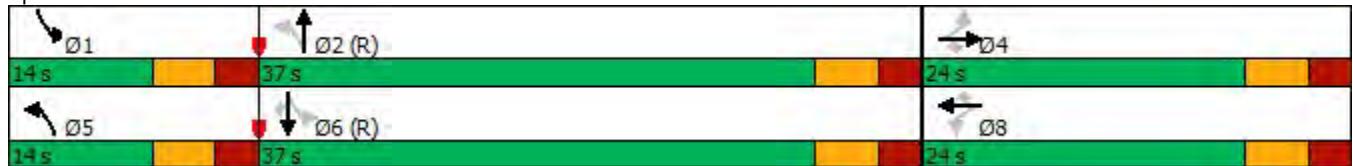


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	D	C	A	C	C	A	B	C		C	C	A
Approach Delay		24.0			16.9			25.2			20.8	
Approach LOS		C			B			C			C	
Queue Length 50th (m)	22.6	25.1	0.0	4.7	16.9	0.0	14.2	84.3		13.4	70.9	0.2
Queue Length 95th (m)	40.4	41.8	17.4	12.0	30.4	14.5	#30.9	#147.2		#48.3	#113.2	9.2
Internal Link Dist (m)		389.5			215.5			269.1			337.0	
Turn Bay Length (m)	35.0		35.0	35.0		35.0	35.0			35.0		35.0
Base Capacity (vph)	302	451	611	257	451	533	420	832		364	847	792
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.57	0.44	0.49	0.16	0.31	0.37	0.64	0.81		0.70	0.71	0.17

Intersection Summary

Area Type: Other
 Cycle Length: 75
 Actuated Cycle Length: 75
 Offset: 14 (19%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 22.4 Intersection LOS: C
 Intersection Capacity Utilization 81.6% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 18: Caron Street & Bronze Avenue



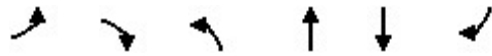
Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation 2
 1: Caron Street & Docteur Corbeil Blvd

04/01/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	131	131	115	573	711	115
Future Volume (vph)	131	131	115	573	711	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0	20.0			0.0
Storage Lanes	1	0	1			0
Taper Length (m)	2.5		2.5			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932				0.981	
Flt Protected	0.976		0.950			
Satd. Flow (prot)	1649	0	1674	1700	1766	0
Flt Permitted	0.976		0.191			
Satd. Flow (perm)	1649	0	337	1700	1766	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	63				19	
Link Speed (k/h)	48			50	50	
Link Distance (m)	172.7			277.3	120.1	
Travel Time (s)	13.0			20.0	8.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	10%	9%	13%	7%	5%
Adj. Flow (vph)	142	142	125	623	773	125
Shared Lane Traffic (%)						
Lane Group Flow (vph)	284	0	125	623	898	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	24.0		24.0	24.0	24.0	
Total Split (s)	24.0		51.0	51.0	51.0	
Total Split (%)	32.0%		68.0%	68.0%	68.0%	
Maximum Green (s)	18.0		45.0	45.0	45.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	2.5		2.5	2.5	2.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		C-Max	C-Max	C-Max	
Walk Time (s)	7.0		7.0	7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effct Green (s)	14.6		48.4	48.4	48.4	
Actuated g/C Ratio	0.19		0.65	0.65	0.65	
v/c Ratio	0.77		0.58	0.57	0.78	
Control Delay	35.6		20.7	8.4	17.1	
Queue Delay	0.0		0.0	0.0	0.0	

Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation 2
 1: Caron Street & Docteur Corbeil Blvd 04/01/2025

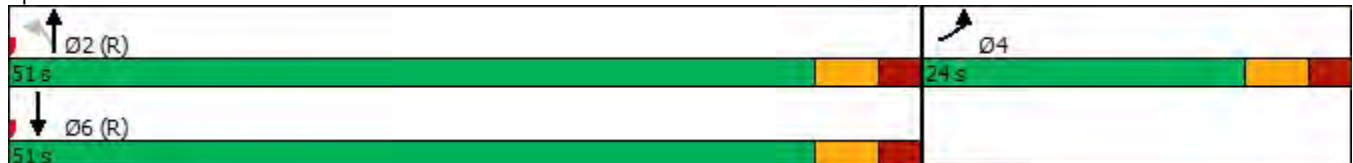


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	35.6		20.7	8.4	17.1	
LOS	D		C	A	B	
Approach Delay	35.6			10.4	17.1	
Approach LOS	D			B	B	
Queue Length 50th (m)	29.2		4.0	19.7	81.3	
Queue Length 95th (m)	52.0		m10.8	m44.7	#173.9	
Internal Link Dist (m)	148.7			253.3	96.1	
Turn Bay Length (m)			20.0			
Base Capacity (vph)	443		217	1096	1146	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.64		0.58	0.57	0.78	

Intersection Summary













Area Type: Other
 Cycle Length: 75
 Actuated Cycle Length: 75
 Offset: 5 (7%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 17.2 Intersection LOS: B
 Intersection Capacity Utilization 81.1% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Caron Street & Docteur Corbeil Blvd



Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation 2
 2: Caron Street & David Street

04/01/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	265	103	576	337	179	645
Future Volume (vph)	265	103	576	337	179	645
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0	0.0		0.0	45.0	
Storage Lanes	1	1		1	1	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1217	1601	1865	1601	1755	1746
Flt Permitted	0.950				0.154	
Satd. Flow (perm)	1217	1601	1865	1601	284	1746
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		112		366		
Link Speed (k/h)	50		50			50
Link Distance (m)	331.3		361.0			126.2
Travel Time (s)	23.9		26.0			9.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	50%	2%	3%	2%	4%	10%
Adj. Flow (vph)	288	112	626	366	195	701
Shared Lane Traffic (%)						
Lane Group Flow (vph)	288	112	626	366	195	701
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	11.0	24.0
Total Split (s)	28.0	28.0	36.0	36.0	11.0	47.0
Total Split (%)	37.3%	37.3%	48.0%	48.0%	14.7%	62.7%
Maximum Green (s)	22.0	22.0	30.0	30.0	5.0	41.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0		7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0	0	0		0
Act Effct Green (s)	20.3	20.3	30.8	30.8	42.7	42.7
Actuated g/C Ratio	0.27	0.27	0.41	0.41	0.57	0.57
v/c Ratio	0.88	0.22	0.82	0.42	0.71	0.71
Control Delay	53.8	5.6	34.1	8.6	26.9	22.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0

Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation 2
 2: Caron Street & David Street 04/01/2025

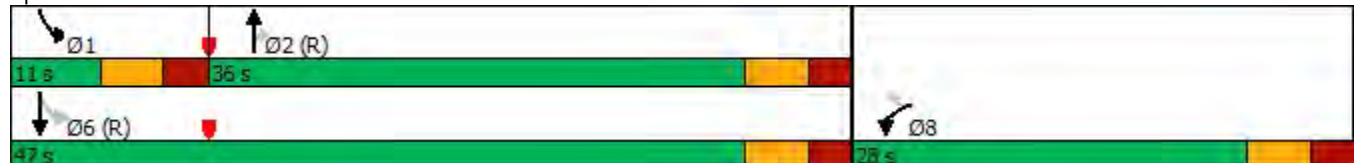


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Delay	53.8	5.6	34.1	8.6	26.9	22.4
LOS	D	A	C	A	C	C
Approach Delay	40.3		24.7			23.4
Approach LOS	D		C			C
Queue Length 50th (m)	37.5	0.0	96.0	17.2	21.0	96.0
Queue Length 95th (m)	#76.4	10.4 m#131.4	m#131.4	m#27.8	m#24.3	m#131.4
Internal Link Dist (m)	307.3		337.0			102.2
Turn Bay Length (m)	75.0				45.0	
Base Capacity (vph)	356	548	766	873	276	993
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.20	0.82	0.42	0.71	0.71

Intersection Summary

Area Type: Other
 Cycle Length: 75
 Actuated Cycle Length: 75
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 26.9 Intersection LOS: C
 Intersection Capacity Utilization 69.9% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Caron Street & David Street



Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation 2
 11: Filion Road/St. Jean Street & Baseline Road 04/01/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	397	359	0	1	154	77	0	1	1	66	2	237
Future Volume (vph)	397	359	0	1	154	77	0	1	1	66	2	237
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0		0.0	0.0		0.0	0.0		0.0	75.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.955			0.932				0.851
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1789	1715	0	0	1737	0	0	1755	0	1789	1572	0
Flt Permitted	0.653				0.999					0.757		
Satd. Flow (perm)	1230	1715	0	0	1735	0	0	1755	0	1426	1572	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					60			1				258
Link Speed (k/h)		60			60			60				60
Link Distance (m)		280.0			1373.9			82.7				605.0
Travel Time (s)		16.8			82.4			5.0				36.3
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
Heavy Vehicles (%)	2%	12%	2%	2%	7%	3%	2%	2%	2%	2%	2%	4%
Adj. Flow (vph)	432	390	0	1	167	84	0	1	1	72	2	258
Shared Lane Traffic (%)												
Lane Group Flow (vph)	432	390	0	0	252	0	0	2	0	72	260	0
Turn Type	Perm	NA		Perm	NA			NA		Perm	NA	
Protected Phases		4			8			2				6
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6		6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0		5.0
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0		24.0
Total Split (s)	36.0	36.0		36.0	36.0		24.0	24.0		24.0		24.0
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%		40.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		18.0	18.0		18.0		18.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5		2.5
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0		0.0
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0		6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Recall Mode	None	None		None	None		Max	Max		Max		Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0		7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0		11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0		0
Act Effct Green (s)	23.3	23.3			23.3			18.3		18.3		18.3
Actuated g/C Ratio	0.43	0.43			0.43			0.34		0.34		0.34
v/c Ratio	0.81	0.52			0.32			0.00		0.15		0.37
Control Delay	26.4	13.5			8.1			13.0		15.8		4.5
Queue Delay	0.0	0.0			0.0			0.0		0.0		0.0

Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation 2
 11: Filion Road/St. Jean Street & Baseline Road 04/01/2025

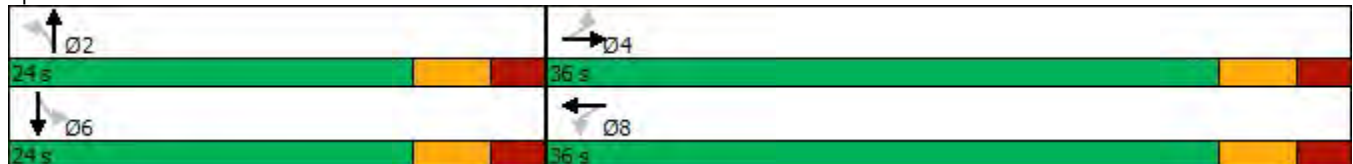


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	26.4	13.5			8.1			13.0		15.8	4.5	
LOS	C	B			A			B		B	A	
Approach Delay		20.3			8.1			13.0			6.9	
Approach LOS		C			A			B			A	
Queue Length 50th (m)	33.8	25.7			10.9			0.1		5.1	0.2	
Queue Length 95th (m)	#67.5	44.2			22.2			1.3		13.9	13.7	
Internal Link Dist (m)		256.0			1349.9			58.7			581.0	
Turn Bay Length (m)	75.0									75.0		
Base Capacity (vph)	697	971			1009			597		484	704	
Starvation Cap Reductn	0	0			0			0		0	0	
Spillback Cap Reductn	0	0			0			0		0	0	
Storage Cap Reductn	0	0			0			0		0	0	
Reduced v/c Ratio	0.62	0.40			0.25			0.00		0.15	0.37	

Intersection Summary

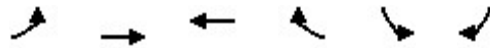
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	53.8
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	14.9
Intersection LOS:	B
Intersection Capacity Utilization:	64.6%
ICU Level of Service:	C
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 11: Filion Road/St. Jean Street & Baseline Road



Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation 2
 13: Baseline Road & Caron Street

04/01/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	247	182	88	186	194	151
Future Volume (vph)	247	182	88	186	194	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0			0.0	75.0	0.0
Storage Lanes	1			0	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.908			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1789	1715	1710	0	1755	1601
Flt Permitted	0.578				0.950	
Satd. Flow (perm)	1089	1715	1710	0	1755	1601
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			202			164
Link Speed (k/h)		80	80		50	
Link Distance (m)		500.9	877.6		681.1	
Travel Time (s)		22.5	39.5		49.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	12%	2%	2%	4%	2%
Adj. Flow (vph)	268	198	96	202	211	164
Shared Lane Traffic (%)						
Lane Group Flow (vph)	268	198	298	0	211	164
Turn Type	Perm	NA	NA		Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4					6
Detector Phase	4	4	8		6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	24.0	24.0	24.0		24.0	24.0
Total Split (s)	26.0	26.0	26.0		24.0	24.0
Total Split (%)	52.0%	52.0%	52.0%		48.0%	48.0%
Maximum Green (s)	20.0	20.0	20.0		18.0	18.0
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	2.5	2.5	2.5		2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None		Max	Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	15.2	15.2	15.2		18.2	18.2
Actuated g/C Ratio	0.33	0.33	0.33		0.40	0.40
v/c Ratio	0.74	0.35	0.42		0.30	0.22
Control Delay	26.6	12.7	6.0		12.2	3.4
Queue Delay	0.0	0.0	0.0		0.0	0.0

Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation 2
 13: Baseline Road & Caron Street 04/01/2025

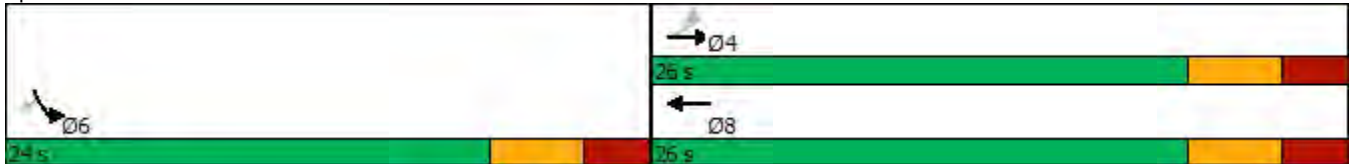


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Total Delay	26.6	12.7	6.0		12.2	3.4
LOS	C	B	A		B	A
Approach Delay		20.7	6.0		8.4	
Approach LOS		C	A		A	
Queue Length 50th (m)	18.0	11.4	5.2		11.3	0.0
Queue Length 95th (m)	#40.2	22.8	17.2		26.0	8.7
Internal Link Dist (m)		476.9	853.6		657.1	
Turn Bay Length (m)	75.0				75.0	
Base Capacity (vph)	483	761	871		701	738
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.55	0.26	0.34		0.30	0.22

Intersection Summary













Area Type: Other
 Cycle Length: 50
 Actuated Cycle Length: 45.5
 Natural Cycle: 50
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 12.8 Intersection LOS: B
 Intersection Capacity Utilization 55.5% ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 13: Baseline Road & Caron Street



Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation 2
 17: Caron Street & Commercial - Community Access

04/01/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	126	343	528	71	374	492
Future Volume (vph)	126	343	528	71	374	492
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0	0.0		50.0	75.0	
Storage Lanes	1	1		1	1	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1789	1601	1883	1601	1789	1883
Flt Permitted	0.950				0.208	
Satd. Flow (perm)	1789	1601	1883	1601	392	1883
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		373		72		
Link Speed (k/h)	48		48			48
Link Distance (m)	338.5		319.0			293.1
Travel Time (s)	25.4		23.9			22.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	137	373	574	77	407	535
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	373	574	77	407	535
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	11.0	24.0
Total Split (s)	24.0	24.0	35.0	35.0	21.0	56.0
Total Split (%)	30.0%	30.0%	43.8%	43.8%	26.3%	70.0%
Maximum Green (s)	18.0	18.0	29.0	29.0	15.0	50.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0		7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0	0	0		0
Act Effct Green (s)	11.6	11.6	34.1	34.1	56.4	56.4
Actuated g/C Ratio	0.14	0.14	0.43	0.43	0.70	0.70
v/c Ratio	0.53	0.68	0.72	0.11	0.73	0.40
Control Delay	38.3	10.2	27.5	5.6	17.3	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.3	10.2	27.5	5.6	17.3	6.5

Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation 2
 17: Caron Street & Commercial - Community Access 04/01/2025

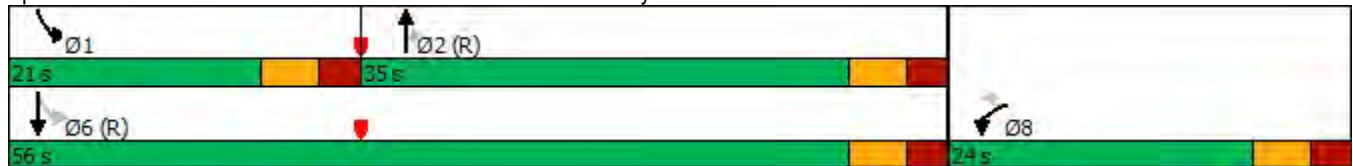


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	D	B	C	A	B	A
Approach Delay	17.8		24.9			11.2
Approach LOS	B		C			B
Queue Length 50th (m)	19.6	0.0	74.4	0.5	20.9	27.5
Queue Length 95th (m)	33.3	20.7	#132.5	8.5	#67.7	55.0
Internal Link Dist (m)	314.5		295.0			269.1
Turn Bay Length (m)	50.0			50.0	75.0	
Base Capacity (vph)	402	649	801	723	575	1327
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.57	0.72	0.11	0.71	0.40

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 21 (26%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 17.0 Intersection LOS: B
 Intersection Capacity Utilization 70.5% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 17: Caron Street & Commercial - Community Access



Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation 2
 18: Caron Street & Bronze Avenue

04/01/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	158	182	275	37	127	180	247	576	47	235	553	122
Future Volume (vph)	158	182	275	37	127	180	247	576	47	235	553	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		35.0	35.0		35.0	35.0		0.0	35.0		35.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.989				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	1883	1601	1789	1883	1601	1789	1863	0	1789	1883	1601
Flt Permitted	0.669			0.569			0.251			0.173		
Satd. Flow (perm)	1260	1883	1601	1072	1883	1601	473	1863	0	326	1883	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			299			196		7				131
Link Speed (k/h)		50			50			50				50
Link Distance (m)		413.5			239.5			293.1				361.0
Travel Time (s)		29.8			17.2			21.1				26.0
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
Adj. Flow (vph)	172	198	299	40	138	196	268	626	51	255	601	133
Shared Lane Traffic (%)												
Lane Group Flow (vph)	172	198	299	40	138	196	268	677	0	255	601	133
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	4	4	4	8	8	8	5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	11.0	24.0		11.0	24.0	24.0
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	14.0	37.0		14.0	37.0	37.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	32.0%	32.0%	18.7%	49.3%		18.7%	49.3%	49.3%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	8.0	31.0		8.0	31.0	31.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0			7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0			11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0			0	0
Act Effct Green (s)	14.5	14.5	14.5	14.5	14.5	14.5	42.1	33.4		42.9	33.7	33.7
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.19	0.56	0.45		0.57	0.45	0.45
v/c Ratio	0.70	0.54	0.54	0.19	0.38	0.42	0.64	0.81		0.70	0.71	0.17
Control Delay	43.6	32.3	7.3	26.0	28.3	6.9	15.6	29.0		20.3	15.8	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	43.6	32.3	7.3	26.0	28.3	6.9	15.6	29.0		20.3	15.8	2.4

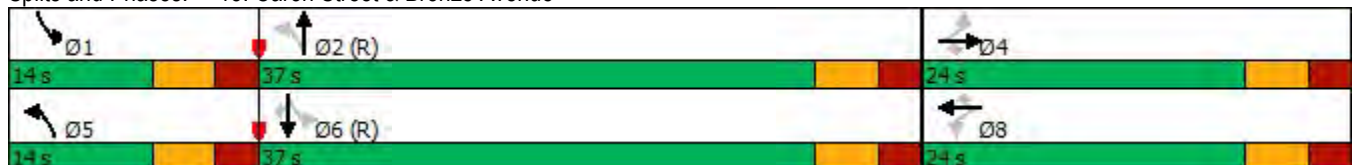
Lanes, Volumes, Timings Caron Subdivision - Future Total 2043 PM - signalized - mitigation 2
 18: Caron Street & Bronze Avenue 04/01/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	D	C	A	C	C	A	B	C		C	B	A
Approach Delay		24.0			16.9			25.2			15.2	
Approach LOS		C			B			C			B	
Queue Length 50th (m)	22.6	25.1	0.0	4.7	16.9	0.0	14.2	84.3		13.2	31.9	0.7
Queue Length 95th (m)	40.4	41.8	17.4	12.0	30.4	14.5	#30.9	#147.2		m#34.5	m#95.1	m2.1
Internal Link Dist (m)		389.5			215.5			269.1			337.0	
Turn Bay Length (m)	35.0		35.0	35.0		35.0	35.0			35.0		35.0
Base Capacity (vph)	302	451	611	257	451	533	420	832		364	847	792
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.57	0.44	0.49	0.16	0.31	0.37	0.64	0.81		0.70	0.71	0.17

Intersection Summary

Area Type: Other
 Cycle Length: 75
 Actuated Cycle Length: 75
 Offset: 14 (19%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 20.6 Intersection LOS: C
 Intersection Capacity Utilization 81.6% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 18: Caron Street & Bronze Avenue



APPENDIX “B-6”
BASELINE ROAD (CR35) ROUNDABOUT ANALYSIS

Operational analysis of two potential roundabouts along Baseline Road (CR35) corridor has been conducted. The following design assumptions were adopted.

Assuming 25 m center island diameter (with truck apron as required by design)

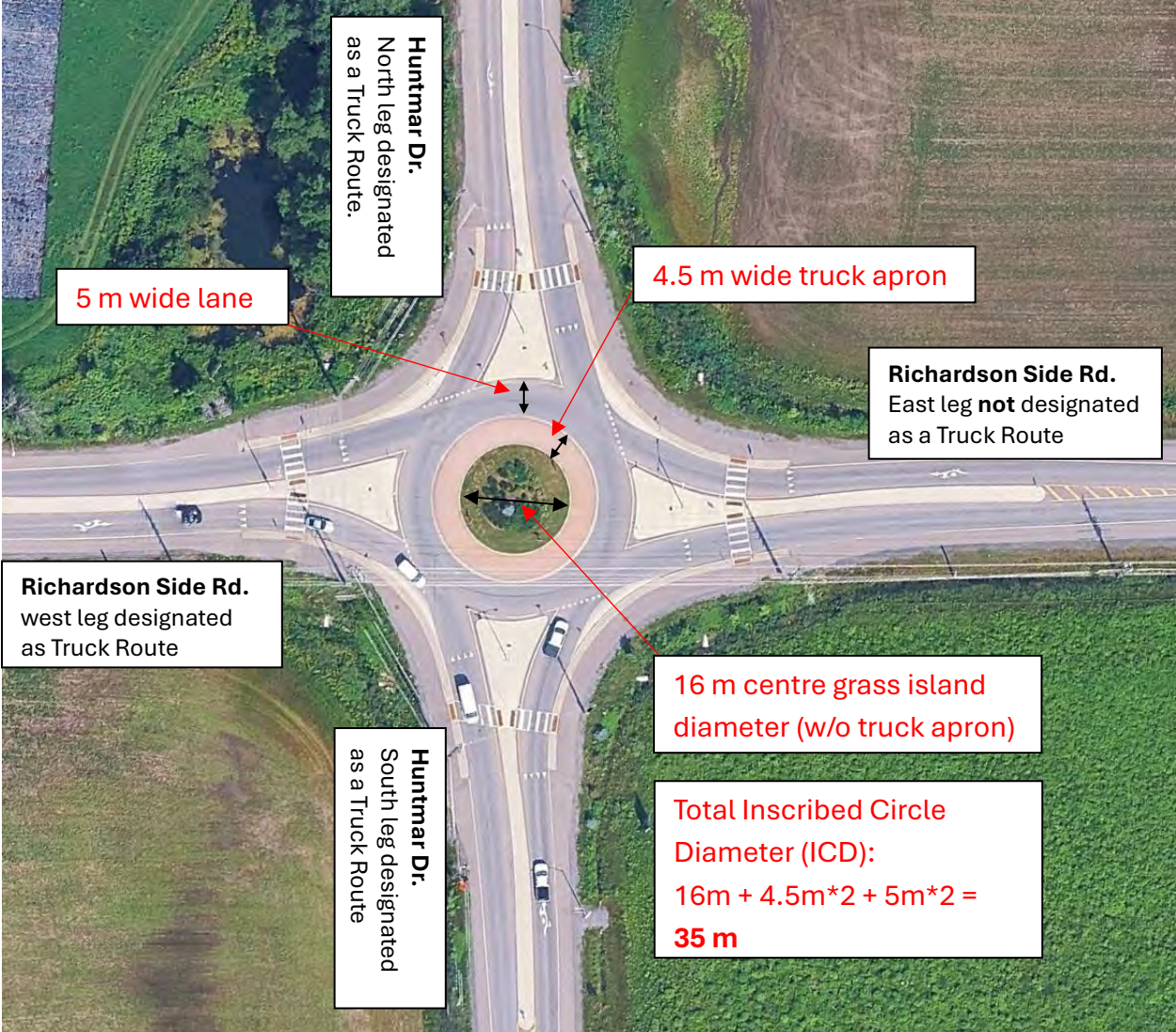
Assuming 5 m wide circulating lane

Singla lane on each approach

The following roundabout in the City of Ottawa was used as design example:

Huntmar Dr / Richardson Side Road, Ottawa.

This roundabout serves an area with similar characteristics (rural but in close proximity to built-up (sub)urban areas).

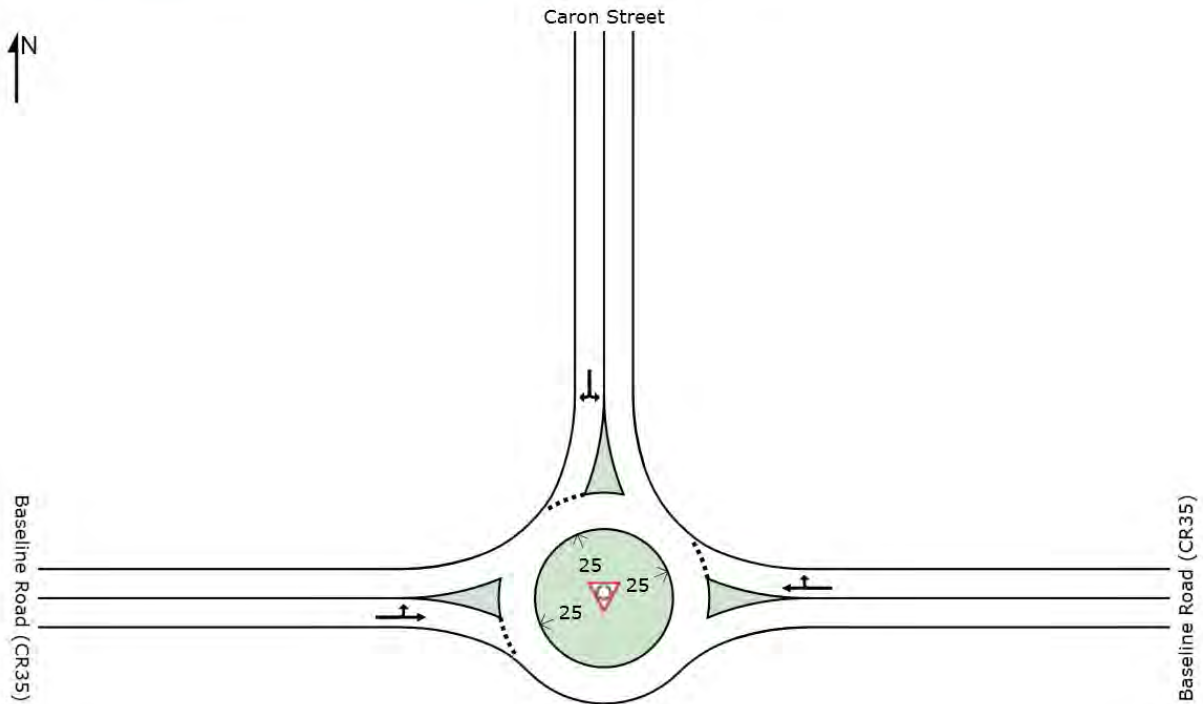


Baseline Road – Caron Street. 2043 Afternoon Peak Hour volumes

SITE LAYOUT

Site: Baseline Road (CR35) - Caron Street 2043 PM

Afternoon Peak Hour 2043
Roundabout



LANE SUMMARY

Site: Baseline Road (CR35) - Caron Street 2043 PM

Afternoon Peak Hour 2043
Roundabout

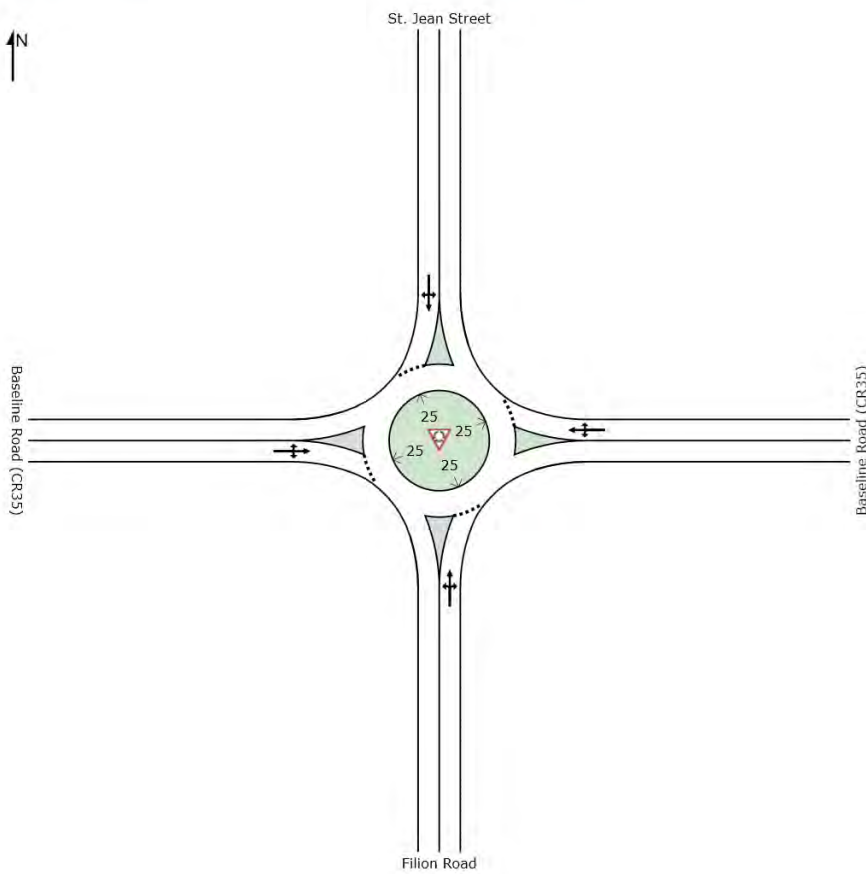
Lane Use and Performance													
	Demand Flows		Cap. veh/h	Deg. Safn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	Total veh/h	HV %						Veh	Dist m				
East: Baseline Road (CR35)													
Lane 1 ^d	288	5.0	1134	0.254	100	5.2	LOS A	1.6	11.4	Full	500	0.0	0.0
Approach	288	5.0		0.254		5.2	LOS A	1.6	11.4				
North: Caron Street													
Lane 1 ^d	363	5.0	1383	0.263	100	7.2	LOS A	1.7	12.4	Full	500	0.0	0.0
Approach	363	5.0		0.263		7.2	LOS A	1.7	12.4				
West: Baseline Road (CR35)													
Lane 1 ^d	452	5.0	1234	0.366	100	8.1	LOS A	2.4	17.8	Full	500	0.0	0.0
Approach	452	5.0		0.366		8.1	LOS A	2.4	17.8				
Intersection	1103	5.0		0.366		7.0	LOS A	2.4	17.8				

Baseline Road – St Jean St.-Filion Rd. 2037&2043 Afternoon Peak Hour vols.

SITE LAYOUT

Site: Baseline Road (CR35) - St. Jean Street - Filion Road 2037 PM

Afternoon Peak Hour 2037
Roundabout



LANE SUMMARY

Site: Baseline Road (CR35) - St. Jean Street - Filion Road 2037 PM

Afternoon Peak Hour 2037
Roundabout

Lane Use and Performance													
	Demand Total	Flows HV	Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue Veh	Dist	Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
South: Filion Road													
Lane 1 ^d	3	0.0	800	0.004	100	9.3	LOS A	0.0	0.2	Full	500	0.0	0.0
Approach	3	0.0		0.004		9.3	LOS A	0.0	0.2				
East: Baseline Road (CR35)													
Lane 1 ^d	193	5.0	1044	0.185	100	5.8	LOS A	1.1	7.7	Full	500	0.0	0.0
Approach	193	5.0		0.185		5.8	LOS A	1.1	7.7				
North: St. Jean Street													
Lane 1 ^d	294	5.0	1320	0.223	100	5.4	LOS A	1.4	10.1	Full	500	0.0	0.0
Approach	294	5.0		0.223		5.4	LOS A	1.4	10.1				
West: Baseline Road (CR35)													
Lane 1 ^d	687	5.0	1488	0.462	100	7.2	LOS A	3.7	27.0	Full	500	0.0	0.0
Approach	687	5.0		0.462		7.2	LOS A	3.7	27.0				
Intersection	1177	5.0		0.462		6.5	LOS A	3.7	27.0				

LANE SUMMARY

Site: Baseline Road (CR35) - St. Jean Street - Filion Road 2043 PM

Afternoon Peak Hour 2043
Roundabout

Lane Use and Performance													
	Demand Total	Flows HV	Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue Veh	Dist	Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
South: Filion Road													
Lane 1 ^d	3	0.0	700	0.005	100	10.5	LOS B	0.0	0.2	Full	500	0.0	0.0
Approach	3	0.0		0.005		10.5	LOS B	0.0	0.2				
East: Baseline Road (CR35)													
Lane 1 ^d	244	5.0	1008	0.242	100	6.2	LOS A	1.5	10.7	Full	500	0.0	0.0
Approach	244	5.0		0.242		6.2	LOS A	1.5	10.7				
North: St. Jean Street													
Lane 1 ^d	321	5.0	1251	0.257	100	5.7	LOS A	1.7	12.1	Full	500	0.0	0.0
Approach	321	5.0		0.257		5.7	LOS A	1.7	12.1				
West: Baseline Road (CR35)													
Lane 1 ^d	797	5.0	1480	0.538	100	7.1	LOS A	4.9	35.7	Full	500	0.0	0.0
Approach	797	5.0		0.538		7.1	LOS A	4.9	35.7				
Intersection	1365	5.0		0.538		6.6	LOS A	4.9	35.7				

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Signalised Intersections.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: SIDRA Standard.

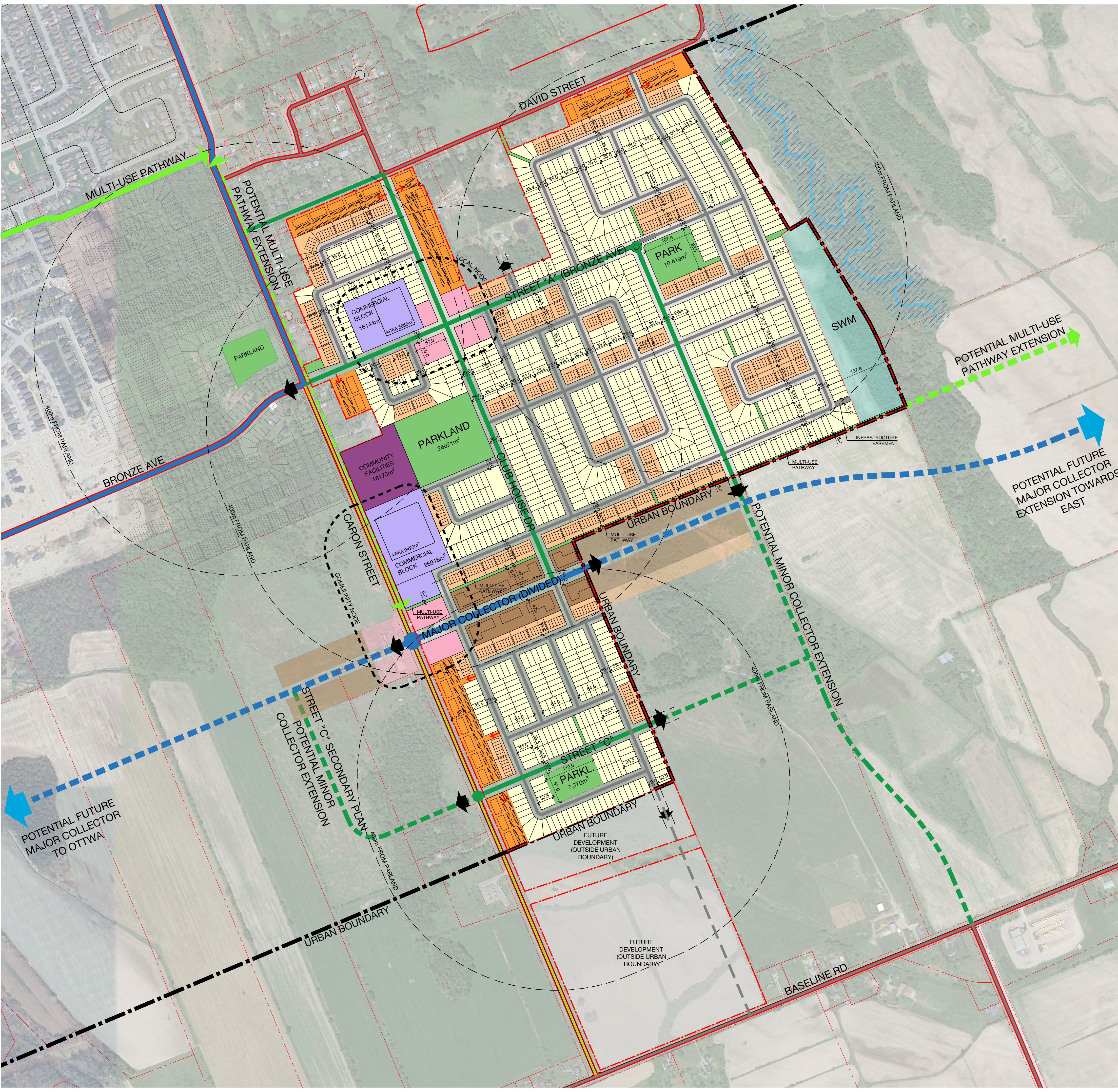
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

APPENDIX “C”
SITE PLAN



SITE INFORMATION

TOTAL SITE AREA:	1,126,026m ² (112.6ha)
TOTAL SITE AREA (URBAN B.):	1,084,353m ² (108.4ha)
GROSS LAND AREA*:	804,179m ² (80.42ha)
NET DEVELOPABLE AREA**:	700,063m ² (67.55ha)

DEVELOPMENT STATISTICS

SINGLE / SEMI-DETACHED	~1,160 units
TRADITIONAL TOWNHOUSES	~530 units
STACKED TOWNHOUSES	~650 units
4-STOREY APARTMENTS RESIDENTIAL	~310 units
4-STOREY APARTMENTS MIXED-USE	~190 units
TOTAL	~2,840 units

PARKLAND DEDICATION

Required if density < 35u/Ha:	40,209m ² (5%)
Required if density > 35u/Ha:	94,667m ² (1Ha/300units*)
Maximum Provincial Bill 23:	47,333m ² (1Ha/600units)
Provided:	~43,811m ² (5.45%)

*limited to 10% of the gross land area.

DENSITY PROVIDED

Average:	Gross: 35.3 u/ha*
Low Density:	62.8%
Medium Density:	20.6%
High Density:	16.6%

*Total number of units divided by the gross land area.

STREET NETWORK LENGTH*

Local Streets:	10,583m
Minor Collectors:	2,644m
Major Collector:	396m
Total:	13,623m

*Measured from street centerline.

STREET LENGTH x FRONTAGE RATIO

Total Frontage Length at Setback:	21,580m
Frontage to Road Length Ratio*:	1.26

*(Street length) / (frontage length at setback / 2)

NOTES

- The base plan (lot lines, existing roads and surrounding areas) is based on the City's Open Data and aerial images. The site area is approximate and all dimensions need to be confirmed by a legal survey.
- For the purpose of this concept, an average of 90m² (970sf) unit size is used to calculate approximate total number of units for apartment buildings.
- This concept makes assumptions based on preliminary environmental studies. Further environmental studies are required to validate and identify the qualities of the wetland and wooded areas shown and their potential development.
- Location of the stormwater management facilities is conceptual and should be confirmed by servicing studies.

*As per the By-law 2022-115, GROSS LAND AREA means the land area of the entire development site, including the parcel of land which is to be dedicated for park purposes, including any easements, driveways, parking areas, and stormwater management facilities etc., but excluding public and private roads, road rights-of-way, hazard lands, and areas that have been dedicated to the local municipality or other public agency for conservation or environmental protection.

**The NET DEVELOPABLE AREA assumes the total area of the site, excluding the space occupied by streets, parklands, environmentally sensitive areas, storm water ponds, pedestrian connections and community facilities.

Caron St Clarence- Rockland Lot Subdivision Concept Plan



LEGEND

- LOW DENSITY RESIDENTIAL - 28 unit/ha
- MEDIUM DENSITY RESIDENTIAL - 48 unit/ha STACKED TOWNHOUSES
- HIGH DENSITY RESIDENTIAL - 100 unit/ha 4-STOREY APARTMENT BUILDINGS
- HIGH DENSITY - RESIDENTIAL - 125 unit/ha 4-STOREY APARTMENT BUILDINGS
- HIGH DENSITY - MIXED-USE - 100 unit/ha COMMERCIAL & SERVICES + 4-STOREY APARTMENT BUILDING
- COMMUNITY FACILITIES SCHOOL, ARENA, OTHERS
- COMMERCIAL BLOCKS
- 30m BUFFER FROM CREEK
- WATER COURSE / CREEK
- STORMWATER MANAGEMENT POND APPROXIMATE LOCATION
- PARKLAND DEDICATION
- PROPERTY LINE
- URBAN BOUNDARY
- EXISTING MAJOR COLLECTOR
- PROPOSED MAJOR COLLECTOR
- POTENTIAL MAJOR COLLECTOR EXTENSION
- EXISTING MINOR COLLECTOR
- PROPOSED MINOR COLLECTOR
- POTENTIAL MINOR COLLECTOR EXTENSION
- EXISTING RURAL ARTERIAL
- EXISTING LOCAL STREET
- PROPOSED LOCAL STREET

11	REVISIONS	2025.04.22	DM
10	REVISIONS	2025.02.11	MZ
01	CONCEPT PLAN	2024.05.13	RG
No.	REVISION	DATE	BY

CLIENT
MAISONS SACA HOMES

FOTENN

Planning + Design

420 O'Connor St, Ottawa ON K2P 1W4
613.730.5709 www.fotenn.com

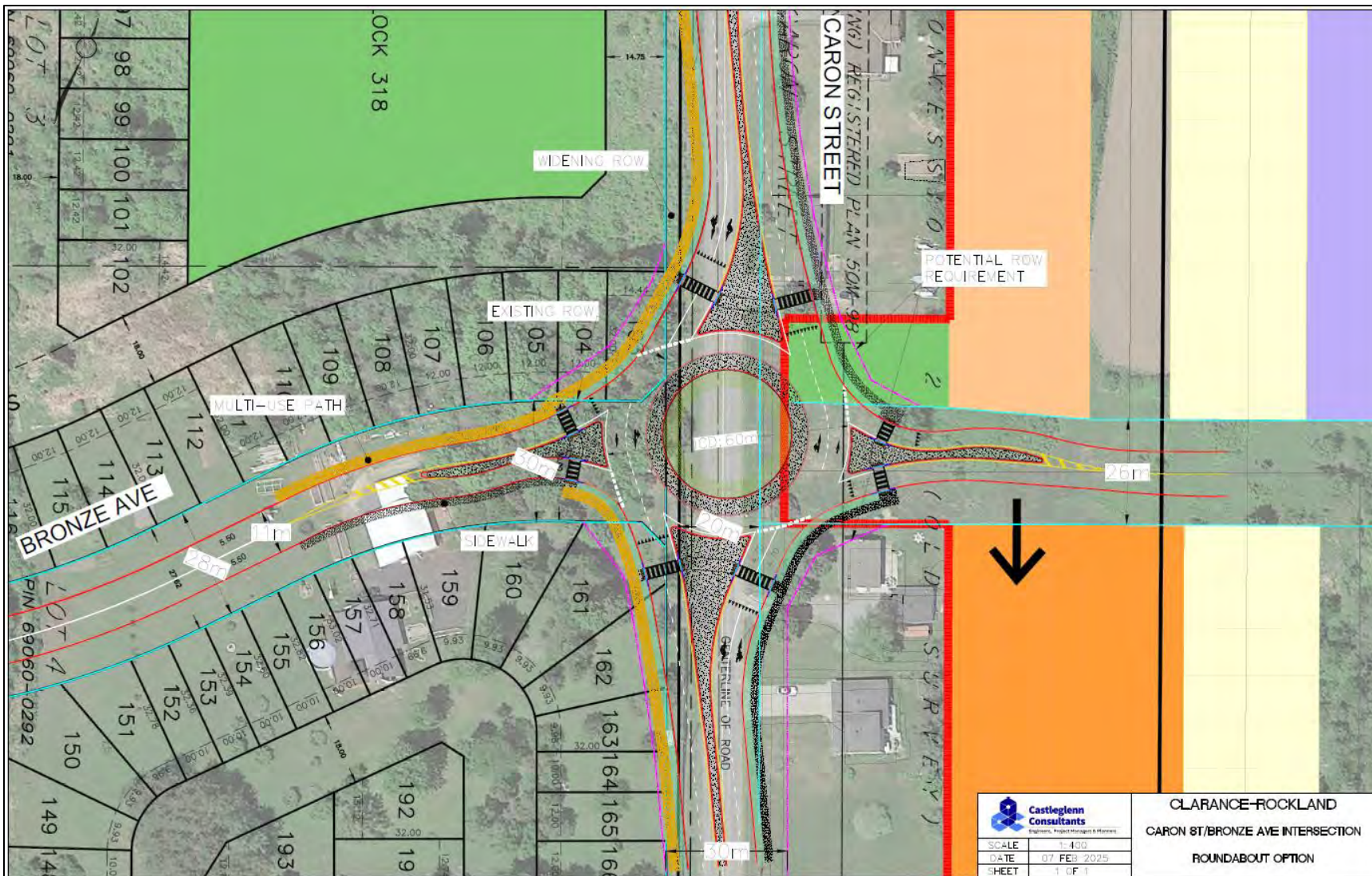
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DATE	2024.11.05

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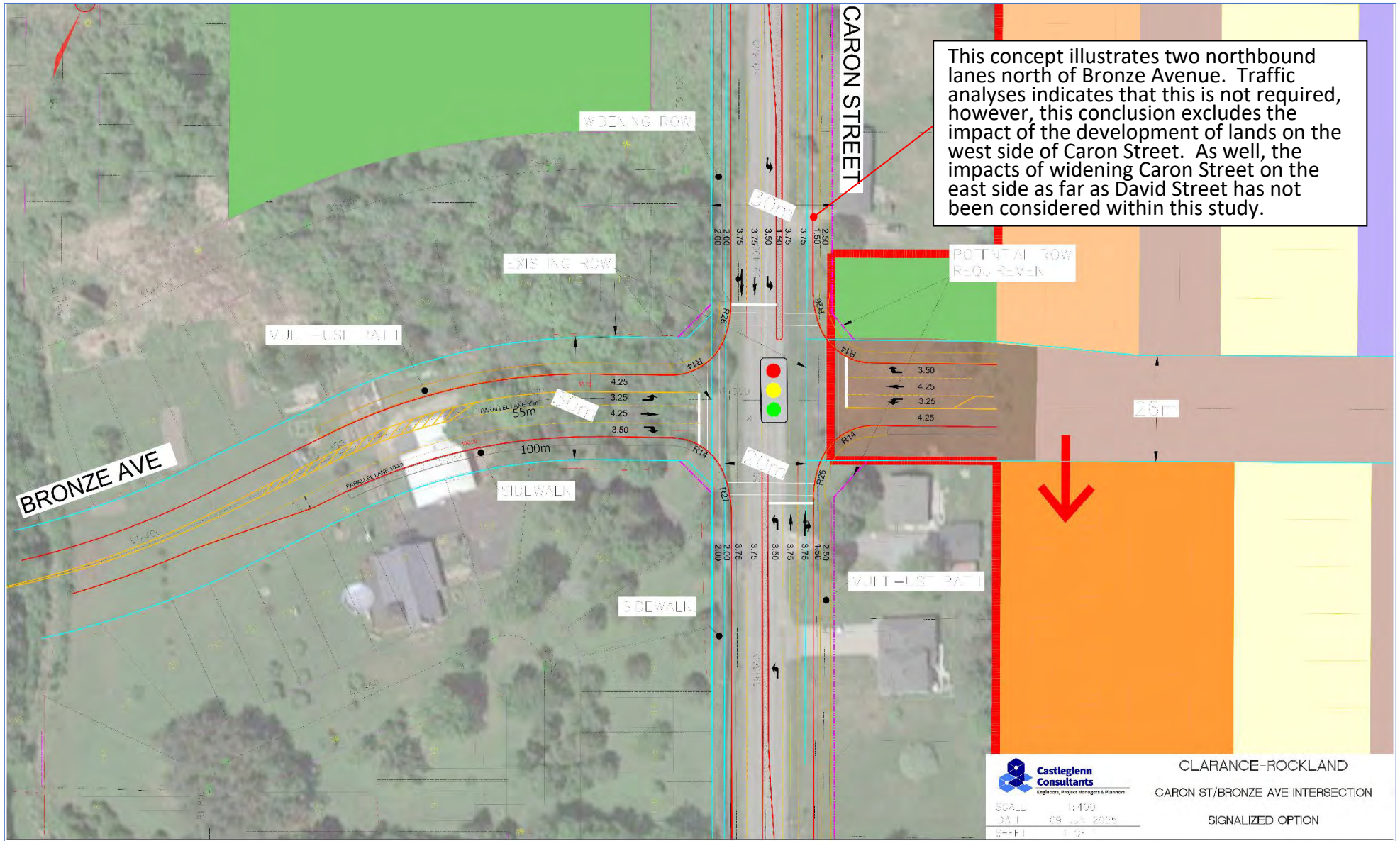
APPENDIX “D”

**RIGHT OF WAY CONSTRAINTS CARON ST & BRONZE AVE: ROUNDABOUT VS.
SIGNALIZATION**

Appendix “D-1: Right-of-Way Requirements Necessary to Accommodate Conceptual Roundabout Solution”



Appendix “D-2: Right-of-Way Requirements Necessary to Accommodate Traditional Traffic Signal Controlled Intersection



APPENDIX “E”

ROUNDAABOUT CONCEPT AT CARON ST. & STREET “B” (MAJOR COLLECTOR)

Appendix "E": Conceptual Roundabout Solution at Street "B" (Major Collector)

