

500 FAMILLE-CÔTÉ AVENUE
PROPOSED RESIDENTIAL HIGH-RISE DEVELOPMENT
CITY OF OTTAWA

**TRANSPORTATION IMPACT ASSESSMENT (TIA)
STRATEGY REPORT**

Presented to:

Mr. Mike Giampa
Transportation Project Manager
Planning, Development, and Building
Services Department
City of Ottawa
110 Laurier Avenue
Ottawa, Ontario K1P 1J1
mike.giampa@ottawa.ca

February 5, 2026



Project 7381

CASTLEGLENN CONSULTANTS LTD.

THIRD PARTY DISCLAIMER

This study has been prepared by Castleglenn Consultants Inc. (“CGI”) for the benefit of the Client to whom it is addressed. The information and data contained herein represents CGI’s best professional judgment in light of the knowledge and information available to CGI at the time of preparation. Except as required by law, this study and the information and data contained herein are to be treated as confidential and may be used and relied upon only by the Client, its officers and employees. CGI denies any liability whatsoever to other parties who may obtain access to this study for any injury, loss or damage suffered by such parties arising from their use of, or reliance upon, this study or any of its contents without the express written consent of CGI and the Client.

TABLE OF CONTENTS

1.0	INTRODUCTION AND SCREENING RESULTS.....	1-5
1.1	SUMMARY OF DEVELOPMENT	1-5
1.1	SCREENING RESULTS	1-6
	• Trip Generation Triggers	1-6
	• Location Triggers.....	1-6
	• Safety Triggers.....	1-6
	Conclusion.....	1-6
2.0	SCOPING.....	2-1
2.1	EXISTING AND PLANNED CONDITIONS	2-1
2.1.1	The Proposed Development	2-1
2.1.2	Existing Conditions.....	2-2
2.1.2.1	Study Area Roadways	2-2
2.1.2.2	Study Area Intersections	2-2
2.1.2.3	Existing Adjacent Driveways.....	2-8
2.1.2.4	Existing Pedestrian Facilities	2-10
2.1.2.5	Existing Bicycle Facilities.....	2-11
2.1.2.6	Existing Transit Provisions	2-12
2.1.2.7	Area Traffic Management	2-15
2.1.2.8	Existing Peak Hour Travel Demands by Mode	2-17
	• <i>Vehicle Travel Demand</i>	2-17
	• <i>Existing Pedestrian Travel Demand (Peak Period)</i>	2-20
	• <i>Existing Cyclist Travel Demand (Peak Period)</i>	2-20
	• <i>Intersection Capacity Analysis: Existing (2025) Peak Hour Volumes:</i>	2-21
2.1.2.9	Existing Road Safety Information	2-23
2.1.3	Planned Conditions	2-25
2.1.3.1	Changes to the Study Area Transportation Network	2-25
2.1.3.2	Other Study Area Developments.....	2-27
2.2	ANALYSES (HORIZON YEAR) TIME PERIODS	2-29
2.2.1	Time Periods	2-29
2.2.2	Horizon Years	2-29
3.0	FORECASTING.....	3-1
3.1	DEVELOPMENT-GENERATED TRAFFIC DEMAND	3-1
3.1.1	Trip Generation and Mode Shares	3-1
3.1.1.1	Trip Generation Rate Selection	3-1
3.1.1.2	Mode Shares.....	3-2
3.1.1.3	Resulting Person Trips	3-2
3.1.2	Traffic Distribution	3-4
3.1.3	Trip Assignment.....	3-4
3.2	BACKGROUND NETWORK TRAVEL DEMAND	3-6
3.2.1	Transportation Network Plans	3-6
3.2.1.1	Roadway Projects.....	3-6
3.2.1.2	Transit Project	3-6
3.2.2	Background Growth.....	3-6
3.2.3	Other Developments	3-7
3.3	DEMAND RATIONALIZATION.....	3-7

TABLE OF CONTENTS (CONT.)

4.0	ANALYSIS	4-1
4.1	DEVELOPMENT DESIGN.....	4-1
4.1.1	Design for Sustainable Modes	4-1
4.1.2	Circulation and Access.....	4-2
4.1.2.1	The Bilberry Drive Access	4-3
4.1.2.2	The Famille-Côté Avenue Access	4-3
4.1.2.3	Truck Loading / Unloading Provisions	4-4
4.1.2.4	Parking Garage Circulation	4-4
4.2	PARKING	4-6
4.2.1	Auto Parking Supply	4-6
4.2.2	Bicycle Parking Supply.....	4-6
4.3	BOUNDARY STREET DESIGN	4-7
4.3.1	Mobility	4-7
4.3.1.1	Pedestrian Level of Service (PLOS).....	4-8
4.3.1.2	Bicycle Level of Service (BLOS).....	4-9
4.3.1.3	Transit Level of Service (TLOS).....	4-10
4.3.1.4	Public Realm Level of Service (PrLOS)	4-10
4.3.2	Road Safety	4-11
4.3.2.1	Champlain Street / Jeanne D’Arc Intersection Safety	4-11
4.3.2.2	Champlain Street / Highway 174 WB Off-Ramp / Park-n-Ride Access Intersection	4-12
4.3.3	Neighbourhood Traffic Management.....	4-13
4.4	TRANSPORTATION DEMAND MANAGEMENT	4-13
4.4.1	Context for TDM	4-13
4.4.2	Need and Opportunity	4-13
4.4.3	TDM Program	4-14
4.5	RECOMMENDATIONS FOR NEXT SITE PLAN REVISION	4-15
4.6	RECOMMENDATIONS TO THE CITY OF OTTAWA	4-15
5.0	SIGN-OFF	5-1

APPENDICES

APPENDIX A: CERTIFICATION FORM FOR TIA STUDY PROJECT MANAGER AND SCREENING FORM	A
APPENDIX B: EXISTING TRAFFIC COUNTS, SIGNAL TIMINGS AND COLLISION DATA.....	B
APPENDIX C: EXISTING (2025) SYNCHRO INTERSECTION CAPACITY ANALYSIS.....	C
APPENDIX D: PROPOSED SITE PLAN (DECEMBER 10, 2025)	D
APPENDIX E: TDM SUPPORTIVE DEVELOPMENT CHECKLIST	E
APPENDIX F: VEHICLE SWEPH PATH ANALYSES	F
APPENDIX G: SEGMENT MMLLOS ANALYSIS	G
APPENDIX H: TDM MEASURES CHECKLIST	H
APPENDIX I: E-MAIL COMMUNICATIONS	I

LIST OF TABLES

TABLE 1-1: PHASING PLAN.....	1-6
TABLE 2-1: STUDY AREA ROADWAYS.....	2-2
TABLE 2-2: SUMMARY OF KNOWN ADJACENT DRIVEWAYS	2-9
TABLE 2-3: STUDY AREA ROADWAY PEDESTRIAN / CYCLIST PROVISIONS	2-10
TABLE 2-4: FUTURE LRT AND EXISTING TRANSIT (BUS) ROUTES	2-14
TABLE 2-5: EXISTING TRAFFIC COUNT INFORMATION	2-17
TABLE 2-6: PEDESTRIAN TRAVEL DEMAND	2-20
TABLE 2-7: CYCLIST TRAVEL DEMAND.....	2-20
TABLE 2-8: EXISTING (2025) BALANCED VOLUMES TRAFFIC ANALYSIS	2-21
TABLE 2-9: FIVE -YEAR COLLISION HISTORY: INTERSECTIONS.....	2-24
TABLE 2-10: FIVE -YEAR COLLISION HISTORY: MID-BLOCK.....	2-25
TABLE 3-1: SUMMARY OF CONSIDERED TRIP GENERATION RATES.....	3-1
TABLE 3-2: SUMMARY OF PEAK HOUR PERSON-TRIPS GENERATED BY RATE.....	3-1
TABLE 3-3: SUMMARY OF MODE SHARES	3-2
TABLE 3-4: PERSON-TRIP GENERATION RATES AND RESULTING PERSON-TRIPS, PEAK PERIOD	3-3
TABLE 3-5: SUMMARY OF SITE-GENERATED PERSON TRIPS	3-3
TABLE 3-6: SUMMARY OF AM & PM PEAK HOUR AUTO TRIP DISTRIBUTION	3-4
TABLE 3-7: PEAK HOUR VEHICLE TRIP ASSIGNMENT BY ACCESS.....	3-4
TABLE 4-1: STRATEGY REPORT EXEMPTIONS AS PER TIA GUIDELINES	4-1
TABLE 4-2: AUTO PARKING REQUIREMENTS AND PROVISIONS	4-6
TABLE 4-3: BICYCLE PARKING REQUIREMENTS AND PROVISIONS.....	4-6
TABLE 4-4: SEGMENT MULTI-MODAL LOS ANALYSIS RESULTS	4-7

LIST OF EXHIBITS

EXHIBIT 2-1: STUDY AREA.....	2-1
EXHIBIT 2-2: JEANNE D’ARC BOULEVARD / BILBERRY DRIVE INTERSECTION.....	2-3
EXHIBIT 2-3: JEANNE D’ARC BOULEVARD AND FAMILLE-CÔTÉ AVENUE INTERSECTION.....	2-3
EXHIBIT 2-4: JEANNE D’ARC BOULEVARD AND CHAMPLAIN STREET INTERSECTION.....	2-4
EXHIBIT 2-5: CHAMPLAIN STREET AND JOHN HOLDEN WAY INTERSECTION.....	2-5
EXHIBIT 2-6: FAMILLE-CÔTÉ AVENUE AND JOHN HOLDEN WAY INTERSECTION.....	2-5
EXHIBIT 2-7: CHAMPLAIN STREET AND HIGHWAY 147 WB RAMP-PARK AND RIDE ACCESS INTERSECTION.....	2-6
EXHIBIT 2-8: FAMILLE-CÔTÉ AVENUE AND PARK AND RIDE ACCESS INTERSECTION.....	2-7
EXHIBIT 2-9: BILBERRY DRIVE AND DU BOIS AVENUE INTERSECTION.....	2-7
EXHIBIT 2-10: ADJACENT DRIVEWAYS.....	2-9
EXHIBIT 2-11: BIKE LANE PROVISIONS ALONG JEANNE D’ARC BOULEVARD.....	2-10
EXHIBIT 2-12: CYCLING PROVISIONS.....	2-11
EXHIBIT 2-13: EXISTING TRANSIT STOPS.....	2-12
EXHIBIT 2-14: EXISTING TRANSIT ROUTES.....	2-13
EXHIBIT 2-15: FAMILLE-CÔTÉ AVENUE & PARK-N-RIDE ACCESS:.....	2-16
EXHIBIT 2-16: TRAFFIC COUNTS: “UNBALANCED” MORNING AND AFTERNOON PEAK HOUR TRAFFIC VOLUMES.....	2-18
EXHIBIT 2-17: 2025 “BALANCED MORNING” AND AFTERNOON PEAK HOUR TRAFFIC VOLUMES.....	2-19
EXHIBIT 2-18: FUTURE PLACE D’ORLÉANS LRT STATION:.....	2-26
EXHIBIT 2-19: FUTURE LRT STAGE 2 WEST EXTENSION (2027).....	2-27
EXHIBIT 2-20: ADJACENT DEVELOPMENTS.....	2-28
EXHIBIT 2-21: FAMILLE-CÔTÉ AVENUE CORRIDOR ADJACENT DEVELOPMENT VOLUMES.....	2-28
EXHIBIT 3-1: SITE GENERATED VEHICLE TRIPS AT FULL BUILD-OUT (2030).....	3-5
EXHIBIT 3-2: BACKGROUND 2030 TRAFFIC VOLUMES (WITHOUT THE DEVELOPMENT).....	3-8
EXHIBIT 3-3: BACKGROUND 2035 TRAFFIC VOLUMES (WITHOUT THE DEVELOPMENT).....	3-9
EXHIBIT 3-4: TOTAL 2030 TRAFFIC VOLUMES (WITH THE DEVELOPMENT).....	3-10
EXHIBIT 3-5: TOTAL 2035 TRAFFIC VOLUMES (WITH THE DEVELOPMENT).....	3-11
EXHIBIT 4-1: SITE PLAN PEDESTRIAN CONNECTIONS REVIEW.....	4-2
EXHIBIT 4-2: SITE PLAN VEHICLE ACCESS REVIEW.....	4-3
EXHIBIT 4-3: PASSENGER VEHICLE ACCESSING THE GARAGE.....	4-4
EXHIBIT 4-4: PASSENGER VEHICLE NAVIGATING INSIDE THE GARAGE.....	4-5
EXHIBIT 4-5: PROPOSED NARROWING OF BILBERRY DRIVE.....	4-8
EXHIBIT 4-6: POTENTIAL LOCATIONS OF PEDESTRIAN CROSSINGS OF JEANNE D’ARC BOULEVARD.....	4-9
EXHIBIT 4-7: CHAMPLAIN STREET / HWY 174 WB OFF-RAMP / PARK-N-RIDE INTERSECTION.....	4-12

1.0 INTRODUCTION AND SCREENING RESULTS

The 2017 City of Ottawa “*Transportation Impact Assessment Guidelines*” set out a multi-step sequential pre-application process where the scope, assumptions, study area and methodology to conduct a transportation impact assessment (TIA) are detailed. The City’s TIA sequential process was modified in July, 2023 to include the following 4 steps after submission of an initial Screening and TIA certification form:

- Step 1: Screening
- Step 2: Scoping, and
- Step 3: Strategy Report.
- Step 4’ Final TIA Document

This report is in addition to the completion of the first two steps (Screening & Scoping) of the four-step TIA process.

- A *Screening and TIA Certification Form* (See Appendix “A”) was submitted to the City of Ottawa (Ms. Rochelle Fortier-Lesage, P.Eng.) on August 26, 2025. The document was acknowledged and approved by way of e-mail on August 28, 2025. The development’s unit breakdown by phase and parking provisions have since been further refined since the submission of the initial screening form.
- A combined *Screening and Scoping Report* was submitted to the City of Ottawa (Mr. Mike Giampa) on November 18, 2025. The Screening and Scoping Report was approved by way of e-mail on December 1, 2025, with no comments on the content and instructions to proceed onto the preparation of the required Strategy Report.

This submission represents the third step (Strategy Report) in the City of Ottawa’s TIA process. This report has been prepared in support of a forthcoming Site Plan Application (SPA). The analysis methodology aligns with the submitted Scoping Report. Further adjustments or refinements to the proposed site plan that have taken place after the submission of the Scoping Report are identified and addressed within this document.

Once this Strategy Report is submitted to City staff and comments/suggestions/requests are received, they will be incorporated into a DRAFT final TIA submission.

1.1 SUMMARY OF DEVELOPMENT

The proposed 500 Famille-Côté Avenue development will consist of two interconnected residential high-rise buildings with the South Tower being 14 floors (envisioned as the 1st phase) and the North Tower being 12 floors (envisioned as the 2nd phase). The development would provide for a total of 354 apartment units. The underground vehicle parking supply would consist of 379-stalls. Surface parking for 21 vehicles would be provided. Access to both underground and surface parking would be accessible from Bilberry Drive. An accessible pick-up/drop-off area would be provided at the main entrance from Famille-Côté Avenue.

Table 1-1 provides a summary of the proposed development.

Table 1-1: Phasing Plan

Phase	Description	Units	Vehicle Parking Provisions	Build-Out Year
Phase 1	14-Storey Tower	226	238 underground and 21 at-grade spaces	2027
Phase 2	12-Storey Tower	128	141 underground spaces	2030
TOTAL	2 Towers	354 units	400 spaces	2030

1.1 SCREENING RESULTS

• Trip Generation Triggers

The City of Ottawa TIA Guidelines denote that the generation warrant threshold for an individual high-rise development is 150 units¹. The proposed 354 units exceeds this threshold and therefore the City’s traffic generation trigger is satisfied and as such **this TIA is required to address both the “Design Review” and “Network Impact Components” of the TIA process.**

• Location Triggers

The City of Ottawa TIA Guidelines denote distinct areas which require greater sensitivity to be considered when evaluating traffic and transportation performance measures. The proposed development is located in a future Hub Zone 2², a Protected Major Transit Station Area (PMTSA)³, and a Design Priority Area (DPA)⁴. It was acknowledged that **the TIA Guideline’s “Location” trigger is satisfied.**

• Safety Triggers

The City of Ottawa TIA Guidelines highlight several warrants that would trigger a safety assessment, two of these warrants are:

- If a proposed driveway is within an auxiliary lane of an intersection, and/or
- If horizontal and/or vertical curvatures along adjacent boundary street impact driveway sight lines.

This is the case with the proposed development and the safety trigger was found to be satisfied.

- The sight lines at the proposed access onto Bilberry Drive are limited due to the horizontal curvature of the road south of the access.
- The proposed access onto Bilberry Drive is within the auxiliary right turn lane of the Bilberry Drive/ Jeanne-d’Arc Boulevard intersection.

Conclusion

The screening results indicate that all three triggers (trip generation, location and safety) were satisfied and **this TIA is required to address both the “Design Review” and “Network Impact” components.**

1. City of Ottawa, Revisions to Transportation Impact Assessment Guidelines. Dillon Consulting, June 2023
 2. City of Ottawa, New Zoning (By-law 2026-50) Draft 2
 3. City of Ottawa, Official Plan Schedule C1 – Protected Major Transit Station Areas
 4. City of Ottawa, Official Plan Schedule C7A – Design Priority Areas

2.0 SCOPING

2.1 EXISTING AND PLANNED CONDITIONS

2.1.1 The Proposed Development

Location: Exhibit 2-1 illustrates the location of proposed 500 Famille-Côté Avenue residential two-tower (354 apartment) high-rise development which is situated in the SW quadrant of the Jeanne d’Arc Blvd/ Famille-Côté Ave intersection.

The development is bounded by:

- Jeanne D’Arc Boulevard to the north,
- Bilberry Drive to the west,
- Famille-Côté Avenue to the east, and
- A multi-use pathway to the south.

Access Provisions: The following two accesses are proposed to accommodate the units:

- *Bilberry Drive Access:* an all-movement access to the surface parking lot (21 spaces), underground parking facility and, consisting of 3-levels and 379 parking spaces is located on Bilberry Drive
- *Famille-Côté Avenue Access:* A one-way couplet access along the Famille-Côté Avenue frontage that would lead to a designated off-street pick-up/drop-off area that fronts the entrance to the site.

Zoning: The parcel is currently zoned “MC – Mixed-Use Centre”, with a future “H2 (Hub Zone 2)” zoning. H2 zoning permits mid-to-high density residential developments, which is consistent with the proposed development.



Exhibit 2-1: Study Area

2.1.2 Existing Conditions

The following sections serve to describe the study area roadways, intersections, driveways, as well as the active transportation (pedestrian, bicycle etc.) and transit facilities. The section also addresses the existing area traffic management measures, the existing peak hour travel demand by mode and current road safety provisions as well as planned changes to the transportation network and surrounding developing lands.

2.1.2.1 Study Area Roadways

The City of Ottawa TMP (Map 8) was referenced, along with a desktop review of aerial photography, to document the existing roadways within the surrounding area that would serve the proposed development.

Table 2-1 provides a summary of the public roadways within the vicinity of the proposed development.

Table 2-1: Study Area Roadways

Roadways	Roadway Classification	On-Street Parking Provisions	Posted Speed
<i>Jeanne D'Arc Boulevard</i>	2-to-3-lane* undivided major collector	None within the study area	Posted Speed: 50 km/hr.
<i>Champlain Road</i>	2-to-3-lane* undivided major collector		Posted Speed: 40 km/hr.
<i>Famille-Côté Avenue</i>	2-lane undivided local	On the west side of the roadway	No posted speed limit
<i>Bilberry Drive</i>	2-lane undivided local	None within the study area	Posted (area) speed 40 km/hr.
<i>Du Bois Avenue</i>	2-lane undivided local (private – C.C.C 330)	On the east side of the roadway (private parking)	
<i>John Holden Way</i>	2-lane undivided local	On the south side of the roadway (presently used by construction vehicles)	No Posted Speed
<i>Highway 174</i>	4-lane divided controlled-access highway.	None	Posted Speed: 100 km/hr (Reduced to 80 km/h during LRT construction)

* Both major collectors provide for two travel lanes (one in each direction), and auxiliary turning lanes at key intersections; exhibiting an effective width of three travel lanes

2.1.2.2 Study Area Intersections

The following section of the report summarizes the geometric characteristics of the intersections within the study area. The study area is outlined in blue on Exhibit 2-1.

1. Jeanne D’Arc Boulevard / Bilberry Drive

Exhibit 2-2 illustrates this 3-leg minor leg STOP-controlled (on the south leg) “T” intersection.

- The *eastbound approach* (Jeanne D’Arc Boulevard) provides for one through lane, one auxiliary right turn lane with about 40 metres of available storage, and one receiving lane. A ~3.3m painted median is also present at this approach
- The *westbound approach* (Jeanne D’Arc Boulevard) provides for one through lane, and an auxiliary left turn lane with about 40 metres of available storage, and one receiving lane.
- The *northbound approach* (Bilberry Drive) is STOP-controlled and provides for a dedicated left turn lane, an auxiliary right turn lane with ~70m of storage and a raised channelized island facilitating the NB-RT movement which is YIELD controlled.
- Pedestrian sidewalks are provided along both sides of Jeanne D’Arc Boulevard and the east side of Bilberry Drive. Pedestrian crossing markings are provided. A dedicated cycling exists along the north side of the Jeanne D’Arc Boulevard corridor.

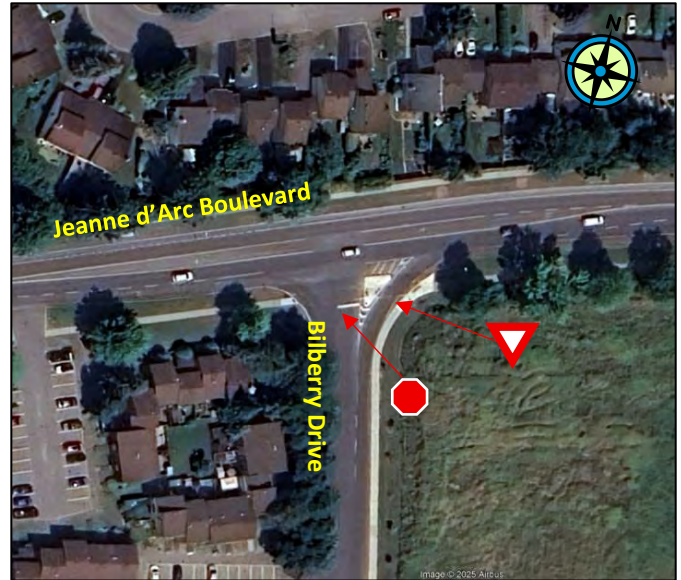


Exhibit 2-2: Jeanne D’Arc Boulevard / Bilberry Drive Intersection

2. Jeanne D’Arc Blvd/Famille-Côté Avenue

Exhibit 2-3 illustrates this 3-leg minor leg STOP-Controlled intersection.

- The *eastbound approach* (Jeanne D’Arc Boulevard) operates under free-flow conditions and provides for one through lane, one shared through-right turn lane and one receiving lane.
- The *westbound approach* (Jeanne D’Arc Boulevard) operates under free-flow conditions and has a single shared thru/left turn lane.
- The *northbound approach* (Famille-Côté Ave) is STOP-controlled and provides for a single shared left/right turn lane, and a receiving lane. Parking is permitted along the west side of Famille-Côté.
- Pedestrian sidewalks are provided along each roadway with the south leg having a pedestrian crossing (inclusive of depressed tactile curbs and crossing markings).
- A dedicated cycling lane is provided along Jeanne D’Arc Boulevard corridor, but only on the north side of the roadway (westbound).

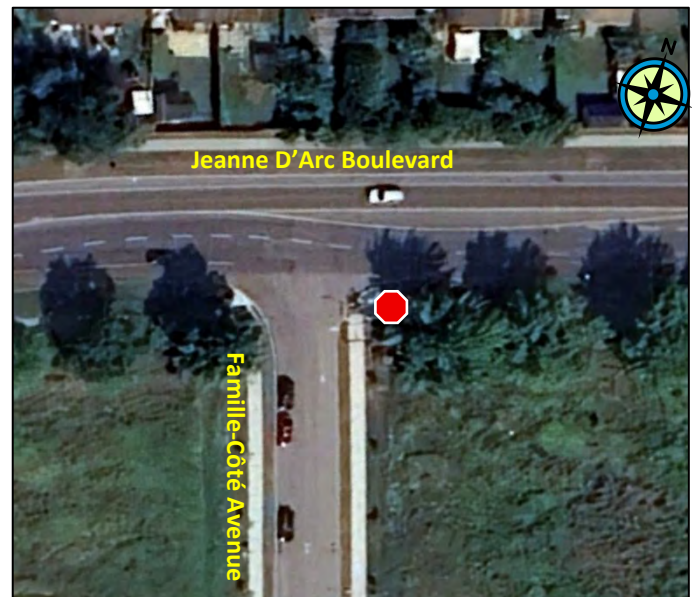


Exhibit 2-3: Jeanne D’Arc Boulevard and Famille-Côté Avenue Intersection

3. Jeanne D’Arc Boulevard / Champlain Street

Exhibit 2-4 illustrates this 4-leg traffic signal-controlled intersection.

- The northbound approach (Champlain Street) provides for:
 - a shared through-right turn lane,
 - an auxiliary left turn lane with approximately 80 metres of storage length, and
 - a single southbound receiving lane
- The *southbound approach* (Champlain Street) provides for:
 - a shared through-right turn lane,
 - an auxiliary left turn lane with approximately 30 metres of storage length,
 - a single northbound receiving lane.

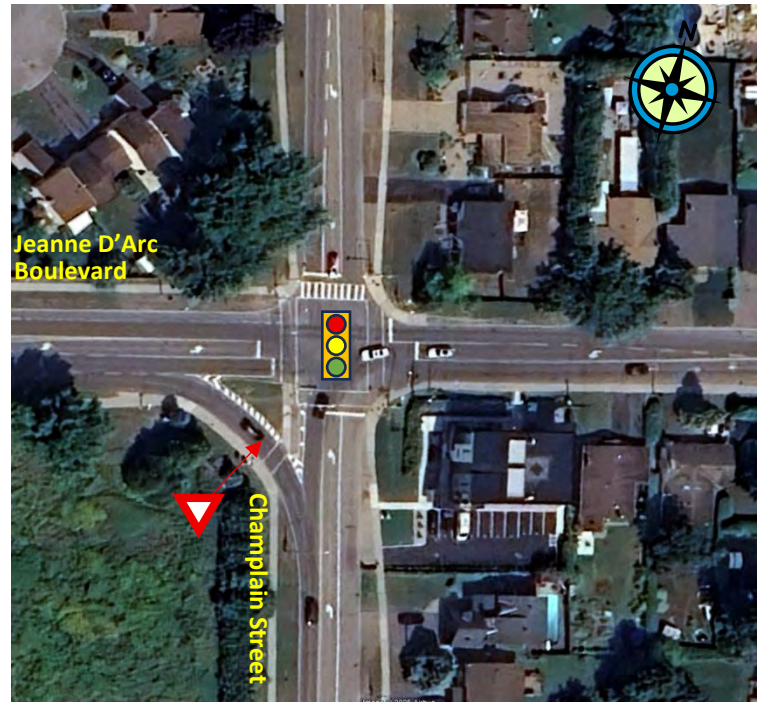


Exhibit 2-4: Jeanne D’Arc Boulevard and Champlain Street Intersection

- The *eastbound approach* (Jeanne d’Arc Boulevard) provides for:
 - one through turn lane,
 - one auxiliary left turn lane with approximately 40 metres of storage length,
 - one auxiliary right turn lane with approximately 130 metres of storage length (storage spills over onto the preceding Famille-Côté Avenue intersection). This right turn is channelized and operates under a yield-to-pedestrians, and yield-to-traffic on Champlain Street conditions,
 - a single westbound receiving lane, and
 - a westbound bike lane along the north side of the roadway.
- The *westbound approach* (Jeanne d’Arc Boulevard) provides for:
 - one shared through-right turn lane,
 - one auxiliary left turn lane with approximately 30 metres of storage length, and
 - a single eastbound receiving lane.
- Pedestrian sidewalks are provided in each quadrant of the intersection. Signalized pedestrian crossings with countdown timers are also provided on each leg of the intersection
- A single westbound receiving cycling lane is provided on the west leg of the intersection. There are no approaching cycling lanes or dedicated cycling treatments at this intersection.

4. Champlain Street and John Holden Way

Exhibit 2-5 illustrates this 3-leg STOP-Controlled (on the west leg) “T” intersection.

- The *northbound approach* (Champlain Street) provides for a single shared thru/left turn lane. An adjacent painted median may be used as a left turn lane, however there are presently no lane markings indicating this. A single southbound receiving lane is provided.
- The *southbound approach* (Champlain Street) provides for a single shared thru/right turn lane, a painted median, and a northbound receiving lane.
- The *eastbound approach* (John Holden Way) provides for a single shared left/right turn lane and a westbound receiving lane.
- Pedestrian crossing of the west leg, include depressed tactile curbs and crossing markings. There are no dedicated cycling facilities.

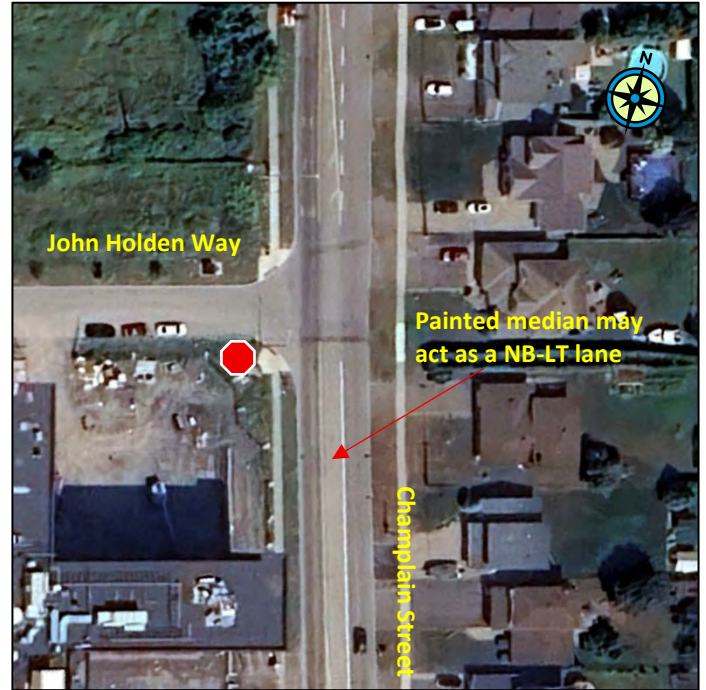


Exhibit 2-5: Champlain Street and John Holden Way Intersection

5. Famille-Côté Avenue and John Holden Way

Exhibit 2-6 illustrates this 3-leg minor leg STOP-Controlled (east leg) “T” intersection.

- The *northbound approach* (Famille-Côté Avenue) provides for a single shared thru/right turn lane and a single southbound receiving lane.
- The *southbound approach* (Famille-Côté Avenue) provides for a single shared thru/left turn lane and a single northbound receiving lane.
- The *westbound approach* (John Holden Way) is STOP-controlled and provides for a single shared right/left turn lane and an eastbound receiving lane.
- On-street parking is provided along the length of the west side of Famille-Côté Avenue and along the south side of John Holden Way.
- An MUP is provided along the west leg.
- Depressed tactile curbs are provided for crossing of each leg of the intersection.



Exhibit 2-6: Famille-Côté Avenue and John Holden Way Intersection

6. Champlain Street and Highway 174 WB Ramp-Park and Ride Access

Exhibit 2-7 illustrates this 4-leg traffic-signal controlled intersection.

- The northbound approach (Champlain Street) provides for:
 - two through lanes,
 - an auxiliary left turn lane with approximately 40m of storage,
 - an auxiliary right turn lane with approximately 150m of storage across the Hwy 174 overpass. This lane provides for a yield-controlled channelized right turn for northbound traffic entering the Hwy 174 corridor,
 - a ~2 m wide raised median, and
 - three SB receiving lanes.
- The *southbound approach* (Champlain Street) provides for:
 - two through lanes (which converge to a single lane some 70m north of the STOP line),
 - a shared single thru/right turn lane with approximately 24m of storage length. (This lane transitions onto the WB Hwy 174 on-ramp),
 - a ~5m raised landscaped median that accommodates a pedestrian/cyclist refuge area, and
 - two northbound receiving lanes.
- The *eastbound approach* (Park-and-Ride Access) provides for:
 - a dedicated right turn lane and an auxiliary left turn lane,
 - a ~1.5m raised median and a single wide (~6m) receiving lane.
- The *westbound approach* (Hwy 174 WB On-Ramp) provides for:
 - a single shared thru/right turn lane,
 - an auxiliary left turn lane with approximately 110m of storage along the ramp terminal,
 - a ~6 metre raised median accommodating a pedestrian refuge area, and
 - a receiving lane (for the northbound-RT traffic entering the Hwy 174 corridor),
- Pedestrian sidewalks are present in each quadrant of the intersection. Signalized pedestrian crossings with countdown timers are present on each leg of the intersection. Crossing of east leg requires pedestrian to cross a yield-controlled NB-RT lane of traffic entering the highway.
- An MUP (Multi-Use Path) crosses the north leg of the intersection. Signalized cyclist crossing of this leg is being implemented at the time of site visit (September 2025) to ensure future pathway connectivity across Champlain Street.

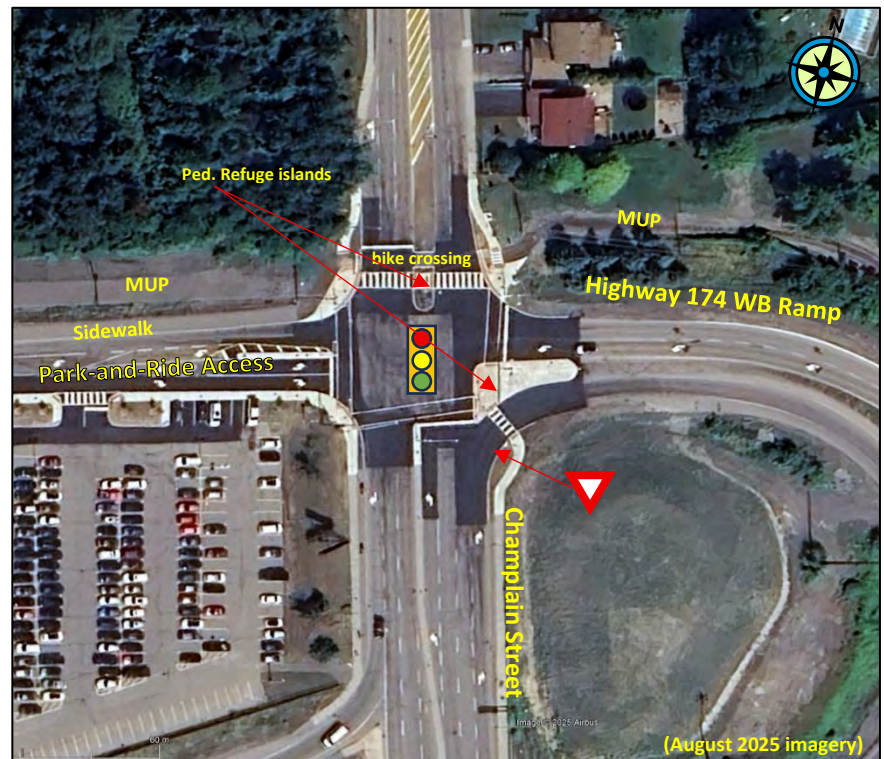


Exhibit 2-7: Champlain Street and Highway 147 WB Ramp-Park and Ride Access Intersection

7. Famille-Côté Ave. and Park-n-Ride Access

Exhibit 2-8 illustrates the southern limit of Famille-Côté Avenue which terminates at the OC Transpo Park-n-Ride Station on the north side of Hwy 174 which is STOP-controlled.

- The *southbound approach* (Famille-Côté Avenue) provides for a single STOP-controlled shared left/right turn lane with a single northbound receiving lane.
- The *eastbound approach* (Park-n-Ride Access Road) provides for a single approach lane, and a westbound receiving lane.
- The *westbound approach* (Park-and-Ride Access Road) provides for a single STOP-controlled approach lane and a single eastbound receiving lane.
- There are two *northbound approach parking aisles lanes* (See red dashed ellipse on the exhibit) consisting of a parking/drop-off laneway and a parking aisle opposite Famille-Côté Avenue.
- Sidewalks are provided in the NW, NE, and SE quadrants of the intersection. A STOP-controlled crossing of the Park-n-Ride Access Road is provided to the east of the intersection.

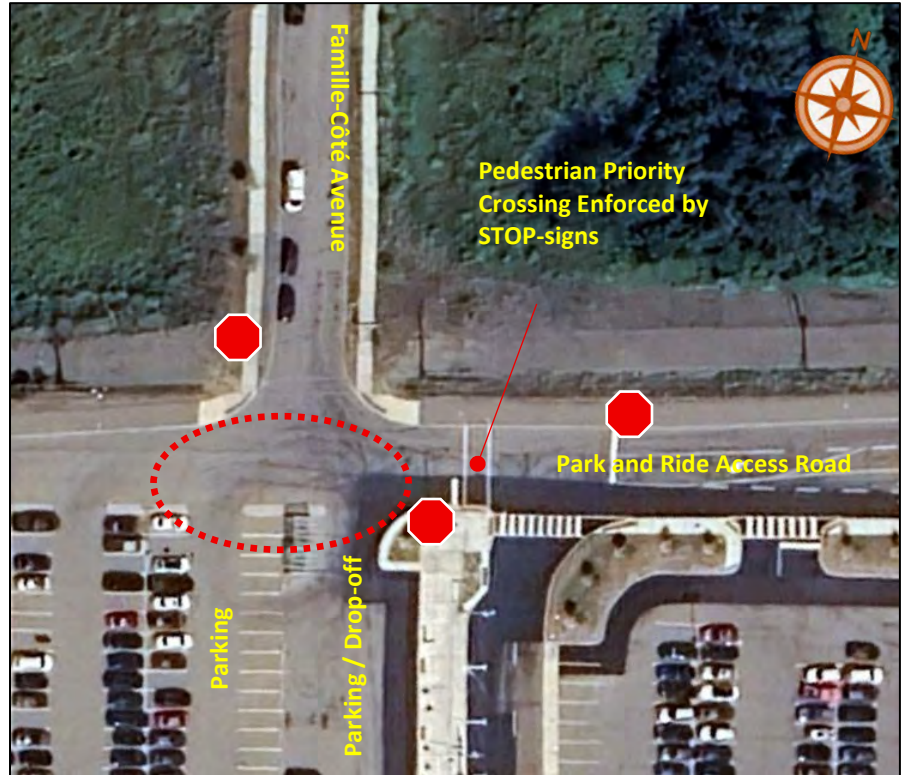


Exhibit 2-8: Famille-Côté Avenue and Park and Ride Access Intersection

8. Bilberry Drive & Du Bois Avenue

Exhibit 2-9 illustrates this 3-leg STOP-controlled “T” intersection.

- The *southbound approach* (Bilberry Drive) provides for a single shared thru/right turn lane operating under free flow conditions, and a single northbound receiving lane.

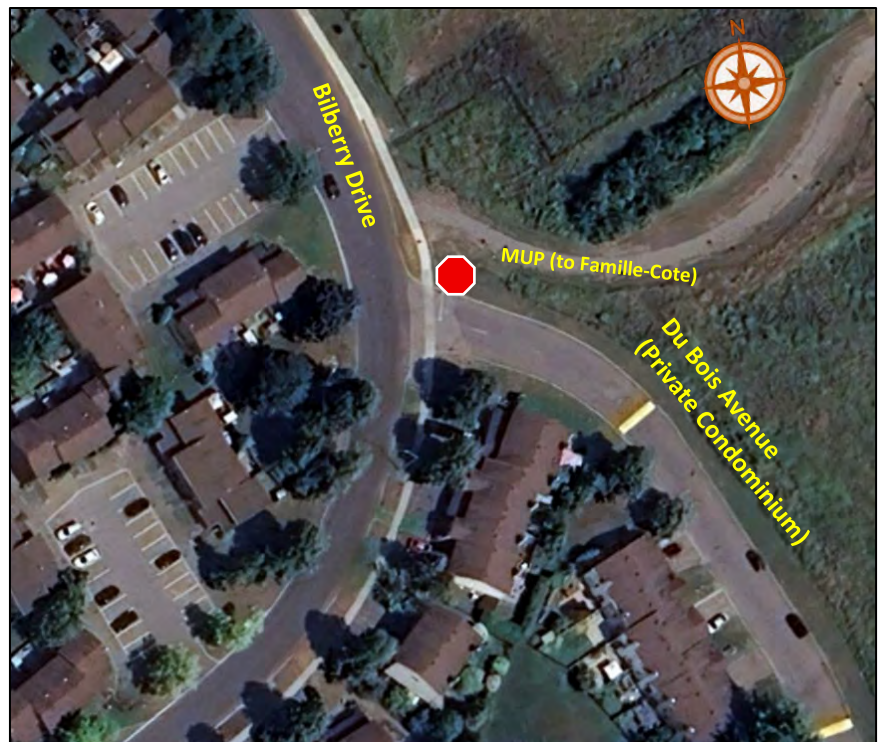


Exhibit 2-9: Bilberry Drive and Du Bois Avenue Intersection

- The *northbound approach* (Bilberry Drive) provides for a single shared thru/left turn lane operating under free flow conditions, and a single southbound receiving lane.
- The *westbound approach* (Du Bois Avenue) is a condominium access that provides for a single shared left/right turn lane that is STOP-controlled and a single eastbound receiving lane.
- A pedestrian crossing of the east leg (WB approach) is provided, the concrete sidewalk extends across the width of the approach.

2.1.2.3 Existing Adjacent Driveways

Exhibit 2-10 illustrates, and Table 2-2 describes the adjacent existing driveways within the immediate proximity of the proposed development. [The accesses within the study area were determined based upon a 200 meters distance from the edge of property line along each boundary street (Jeanne D' Arc Blvd, Bilberry Dr and Famille-Côté Ave)]. In the future conditions, the number of accesses along the Famille-Côté Avenue corridor is likely to increase (e.g. the proposed driveway to 555 Famille-Côté Avenue).

The location and proximity of potential adjacent future driveways, given the absence of site development plans for currently vacant properties along the Famille-Côté Avenue corridor cannot be commented on.



Exhibit 2-10: Adjacent Driveways

Table 2-2: Summary of Known Adjacent Driveways

Driveway Address		Description
6913	Bilberry Drive	5 driveways: 28-spot, 23-spot, and 24-spot parking lot accesses are on west side of Bilberry Drive; and another two (28-spot and 29-spot) parking lot accesses on the south side of Jeanne D' Arc Blvd Corridor
6982		6 double (semi-detached) driveways and one single driveway to the east side of Bilberry Drive
7915-7925	Jeanne D'Arc Boulevard	6 single-family residential driveways on the north side of Jeanne D'Arc
8004-8006		2 single-family residential driveways on the south side of Jeanne D'Arc
555	Famille-Côté Avenue	Proposed "U-shaped" circular driveway access to the future retirement residence development. Currently serves as a construction access. Additional accesses to this parcel are to be provided from John Holden Way.

2.1.2.4 Existing Pedestrian Facilities

Table 2-3 provides a summary of pedestrian provisions within the study area. Overall, the area roadways (Jeanne D’Arc Blvd, Champlain Road, Famille-Côté Ave) all provide sidewalks on both sides of the corridors, while Bilberry Drive provides a sidewalk on the south/east side only (fronting the proposed development).

Table 2-3: Study Area Roadway Pedestrian / Cyclist Provisions

Roadways	Description	Pedestrian Provisions	Cyclist Provisions	Posted Speed
<i>Jeanne D’Arc Boulevard</i>	2-to-3-lane* undivided major collector roadway.	Sidewalks with boulevard on both sides of the roadways.	Continuous curbside bicycle lane exists on the north side (westbound) direction only. Eastbound cycling lanes are provided intermittently but are discontinuous and get disrupted by auxiliary lanes and on-street parking (at which point cyclists have to merge with general traffic), thus cannot be considered a proper cycling facility. (See Exhibit 2-11)	Posted speed: 40 km/hr.
<i>Champlain Road</i>	2-to-3-lane* undivided major collector roadway.			
<i>Famille-Côté Avenue</i>	2-lane (+parking lane) undivided local roadway			
<i>Bilberry Drive</i>	2-lane undivided local roadway	Sidewalk with a boulevard (south side only – fronting the proposed development)	No dedicated cycling facilities	Posted (area) Speed 40 km/hr.
<i>Du Bois Avenue</i>	2-lane undivided local (private – C.C.C 330) roadway	None		
<i>John Holden Way</i>	2-lane undivided local roadway	None currently exist. The roadway has sufficient ROW to allow future sidewalks when warranted.		No posted speed limit signage
<i>Highway 174</i>	4-lane divided controlled-access highway.	Pedestrians can cross the Highway via Champlain Road and Place D’Orléans Station Bridge		Cyclists Prohibited

*both major collectors provide for two travel lanes (one in each direction), and auxiliary turning lanes at key intersections; exhibiting an effective width of three travel lanes



Exhibit 2-11: Bike Lane provisions along Jeanne D’Arc Boulevard

There are no pedestrian provisions provided along John Holden Way, however, the roadway has a total 20m unobstructed right of way, and sidewalks could well be added in the future when warranted.

2.1.2.5 Existing Bicycle Facilities

Exhibit 2-11 references the City of Ottawa’s 2013 Cycling Plan⁵ and identifies the existing and ultimate cycling networks within the study area. The City of Ottawa’s New Transportation Master Plan (2025)⁶ did not identify additional pedestrian, cycling or active transportation improvement projects in the area.

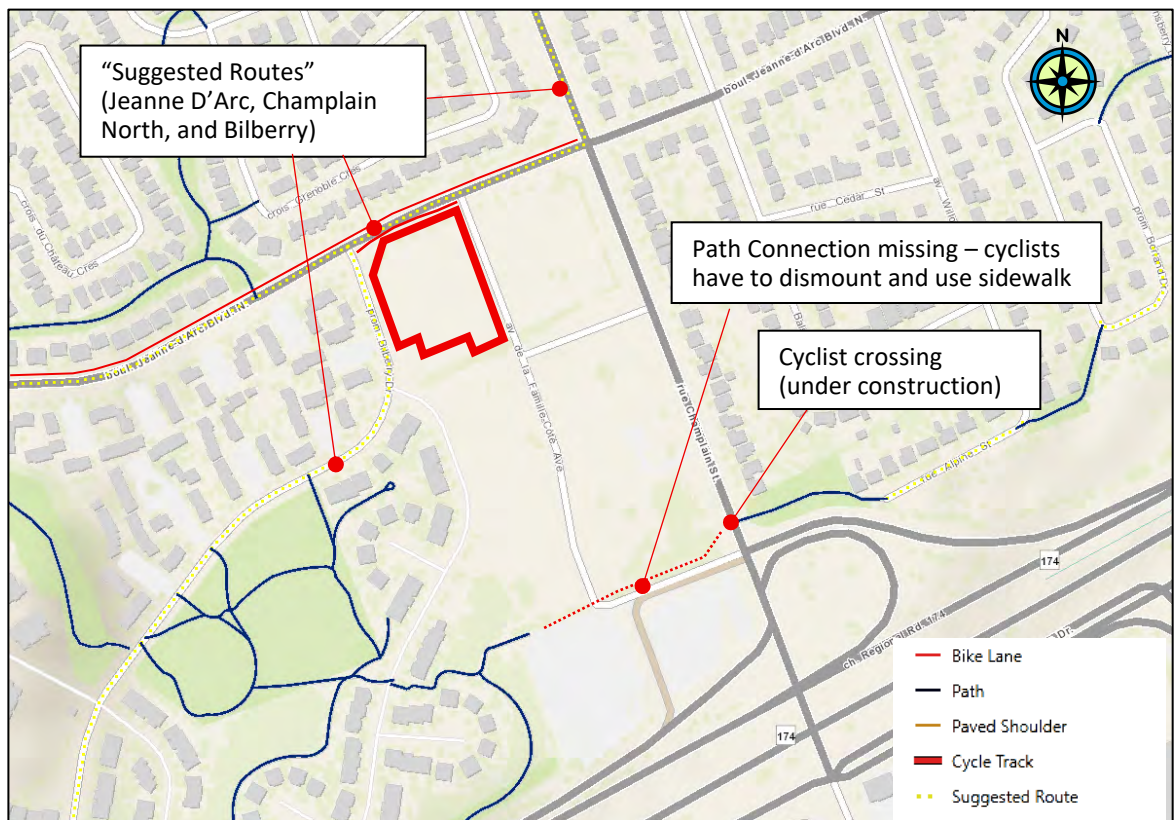


Exhibit 2-12: Cycling Provisions

⁵ “Ottawa Cycling Plan”, November 2013

⁶ Active Transportation Projects Updated Draft for Transportation Committee Table 2: Cycling Projects

The following is noted regarding the cycling network within the study area:

- A bike lane exists along the north side of Jeanne d’Arc Boulevard west of Champlain Street, westbound (See Exhibit 2-11).
- Exhibit 2-12 illustrates the extensive system of park pathways south of the site. However, there are no continuous cycle lane connections across Champlain Street (despite the new cyclist crossing under construction). Cyclists wishing to connect between the two pathway systems are required to dismount and use the sidewalk along the north side of the Park-n-Ride access.
- Bilberry Drive, Jeanne D’Arc Boulevard (west of Champlain Street), Champlain Street (north of Jeanne D’Arc) are all labelled as “Suggested Routes”, however there are no identified projects (i.e. bike lanes, MUP’s, etc.) identified for these corridors within the current City’s plans.

2.1.2.6 Existing Transit Provisions

Distance to LRT Transit: The walking distance from Famille-Côté Avenue front entrance of the development to the new Place D’Orléans LRT Station is approximately 450m.

Transit Stops and Routes: Exhibit 2-13 illustrates the existing bus stops in the area, and Exhibit 2-14 along with Table 2-4 describe the existing (October 2025) transit service along roadways within the immediate proximity of the proposed development.

- Bus Stops 8161, 5871, 8143, and 8167 all provide access to select routes in the immediate proximity to the development.
- Route 38 represents the local route that connects to the Trim, Jeanne D’Arc and Blair Stations.
- Most other routes, including the future LRT service are accessed from the Place d’Orléans Station, located approximately 500 metres (approximately 7-8 minute walk by way of public roadways) south of the proposed development.

Overall, a review of Table 2-4 and the transit exhibits indicate that the development provides significant transit connectivity both to the local neighbourhoods in Orléans (by way of 7 local and 2 school routes), as well as the rest of the City of Ottawa (currently by way of 24-hour service provided by route 39 connecting to Blair and; in the future – by way of LRT Lines 1 and 3).

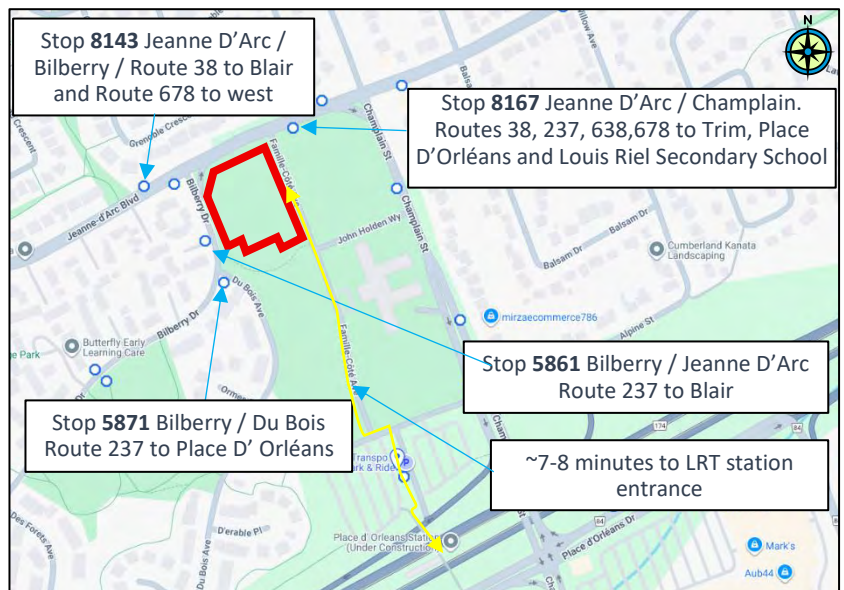
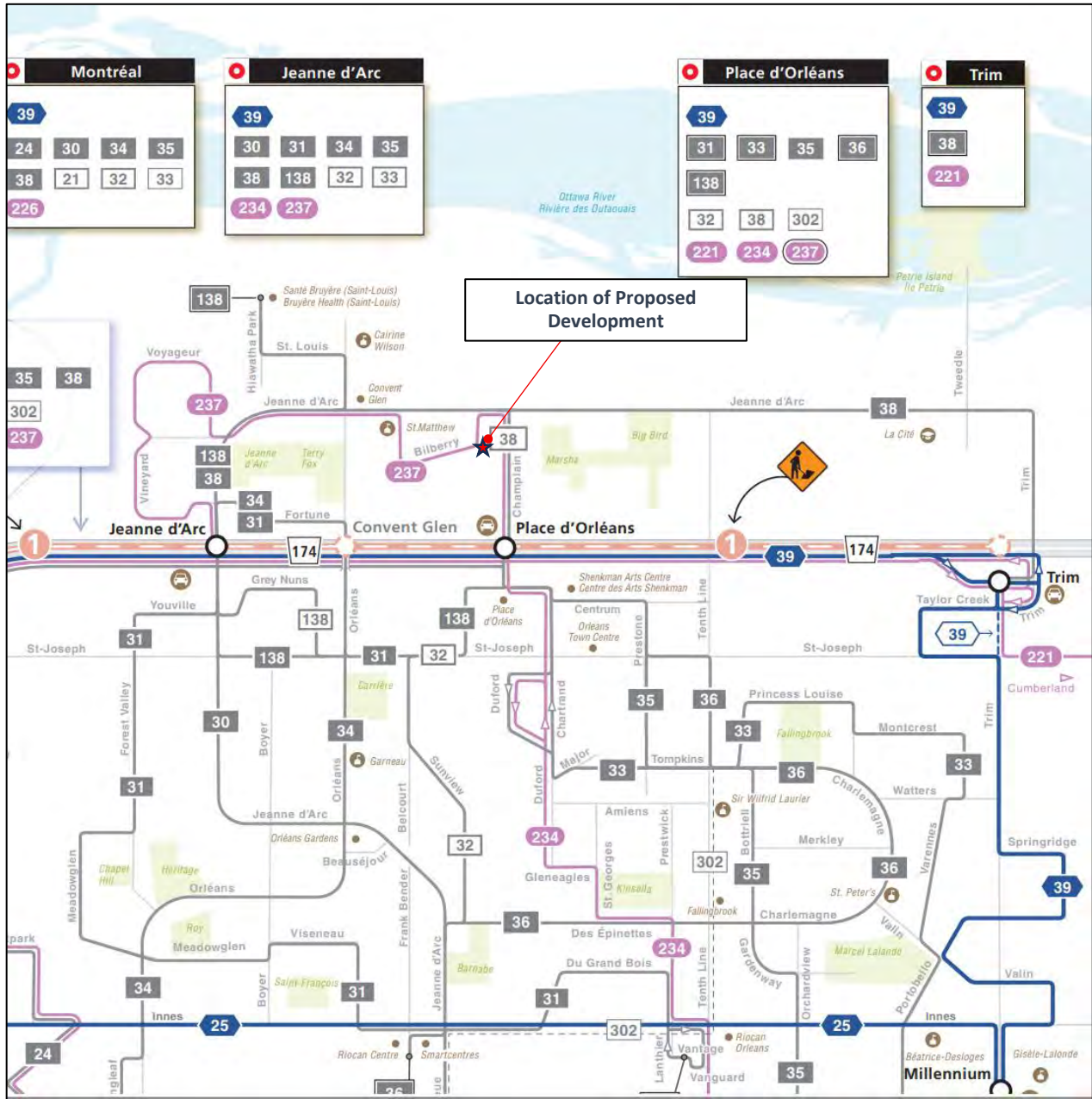


Exhibit 2-13: Existing Transit Stops



Source: OC Transpo "New Ways to Bus" – April 2025 and beyond. Retrieved October 2025 from <https://www.octranspo.com/en/plan-your-trip/schedules-maps/all-maps/>

Exhibit 2-14: Existing Transit Routes

Table 2-4: Future LRT and Existing Transit (Bus) Routes

Route	Type	Terminus 1	Terminus 2	Schedule	Headways	Notes
Future Light Rail Transit (LRT) Service						
1	LRT	Tunney's Pasture (2025) Algonquin (2027)	Trim	Mon-Thu: 5 AM – 1 AM Friday: 5 AM – 2 AM Saturday: 6 AM – 2 AM Sunday: 8 AM – 11 PM	5 min headways during peak hours 10-15 min headways during off-peak hours	Construction of the east extension is currently underway with planned opening likely targeted for early 2026. A future westerly extension of Line 1 (to Algonquin) is currently planned for completion by 2027.
3	LRT	Moodie (2027)	Trim	Unknown at this time, likely similar to Line 1	Unknown at this time	Line 3 is planned as a spur line to run alongside Line 1 between Trim and Lincoln Fields Stations, where Line 3 will split off and continue to Moodie. It is currently planned for completion by 2027.
Existing Bus Routes ("New ways to bus" as of October 2025)						
31	Local	Tenth Line	Place D'Orléans	Mon-Fri: 6:30 AM – 10:30 PM Saturday: 7:00 AM – 11:00 PM Sunday: 7:40 AM – 10:40 PM	30 min headways on Monday-Saturday 30 min-1 hr headways on Sundays	Connects to South Orléans (Innes Road) via Jeanne D'Arc Station
32		Blair	Chapel Hill	Mon-Fri: 6:30 AM – 10:30 PM no service on weekends	Typically, 30 min headways; 1 hour headway before last bus of the day	Connects to Chapel Hill station in south Orléans via Belcourt, Sunview, Jeanne D'Arc S, Mer Bleue and Brian Coburn
33		Place D'Orléans / Blair	Portobello / Summer Sky	Mon-Fri: 6:30 AM – 10:30 PM Saturday: 7:00 AM – 11:30 PM Sunday: 7:40 AM – 10:00 PM	Typically, 30 min headways, up to 1 hour on select early, late night and weekend trips	Select Trips continue to Blair instead of ending at Place D'Orléans Station (subject to change after LRT extension) One daily round-trip to/ from Gisèle Lalonde H.S. Connects to Portobello Blvd. via Duford, Tompkins, Princess Louise, Montcrest and Varennes
35		Blair	Avalon	Mon-Fri: 5:30 AM – 10:30 PM Saturday: 8:30 AM – 11:50 PM Sunday: 9:30 AM – 11:30 PM	Typically, 30 min headways, up to 1 hour on select early morning, late night and weekend trips	Connects to Avalon neighbourhood via Prestone, Tompkins/Charlemagne, Gardenway and Orchardview
36		Place D'Orléans	Innes	Mon-Fri: 5:00 AM – 10:50 PM Saturday: 8:30 AM – 11:50 PM Sunday: 9:30 AM – 11:30 PM	Typically, 30 min headways, up to 1 hour on select early morning, late night and weekend trips	Connects to Innes SmartCentres via Centrum Blvd, Charlemagne, Des Epinettes and Jeanne D'Arc.
38		Blair	Trim	Mon-Fri: 4:40 AM – 10:40 PM Saturday: 7:00 AM – midnight Sunday: 7:40 AM – 9:40 PM	Typically, 30 min headways, up to 1 hour on select early morning, late night and weekend trips	This local route runs along Jeanne D'Arc Boulevard, including the vicinity of the proposed development. Most peak period trips do not stop at Place D'Orléans Station. Select Saturday late night trips stop at Place D'Orléans and do not continue eastbound to Trim.
39	Frequent	Blair	Trim	5AM – 1 AM	Mon-Fri: 15-30 minutes typical, can be as low as 8 minutes Sat-Sun: 15-30 minutes	This "Frequent" route currently serves as the primary rapid transit connection to LRT Line 1 Blair Station. The function of this route will largely be superseded by the advent of LRT extension to Orléans.
N39		Rideau	Trim (1 AM-3AM) Place D'Orléans (3AM – 5 AM)	1 AM – 5 AM	Mon-Sun: 30 minutes	Trips between 1 AM and 5 AM (LRT downtime) continue to Rideau station as N39 enabling 24-hour transit service to Orléans.
138	Local	Hiawatha	Place D'Orléans	Mon-Fri: 5:40 AM – 10:40 PM Saturday: 8 AM – 11 PM Sunday: 9 AM – 10 PM	Mon-Fri: 30 minutes typical, 1 hour during evenings Sat-Sun: 1 hour	Provides service to St-Joseph Boulevard north of Highway 174, and the Bruyère Health Saint-Louis Long-Term Care home via Jeanne D'Arc Boulevard corridor
221	Connexion	Cumberland	Blair	Mon-Fri: WB: 6:40 AM – 8:10 AM Eastbound: 3:10 PM – 5:35 PM	Between 20 min and 1 hour	4 trips per day in each direction during the peak periods only. Serves Cumberland
234		Tenth Line	Blair	Mon-Fri: WB: 6:00 AM – 8:30 AM Eastbound: 3:40 PM – 6:40 PM	30 minutes	6 WB and 7 EB trips per day during the peak periods only. Serves Tenth Line Road (South Orléans)
237		Place D'Orléans	Blair	Mon-Fri: WB: 6:00 AM – 8:15 AM Eastbound: 4:05 PM – 5:55 PM	Between 25 min and 1 hour	4 trips per day in each direction during the peak periods only. Serves communities along Bilberry Drive and Jeanne D'Arc Boulevard west of the site.
302	Shopper (Rural)	Cumberland	St Laurent	Tuesdays only 9 AM Cumberland departure / 2:30 PM return from St. Laurent	One trip / week only	Once-a-week service for Cumberland Residents. Service is free
638	School	Place D'Orléans	St. Matthew High School	One trip in the AM and one trip in the PM for each route; aligning with school bell times.	One trip per peak period for each route	Secondary School service
678		Orléans	Louis Riel High School			

2.1.2.7 Area Traffic Management

The City of Ottawa's traffic management measures in Orleans which include the Queenswood Village (north of Hwy. 174) community, focus on developing a transit-friendly, pedestrian cyclist oriented (active transportation) community by implementing measures intended to reduce motor-vehicle speeds by using complete streets designs, implementing traffic calming measures such as speed-cushions/speed-humps and enhanced pedestrian-cyclist facilities such as multi-use pathways and devices intended to reduce cut-thru traffic resulting in safer neighborhood integrated roadways characterized by reduced speeds.

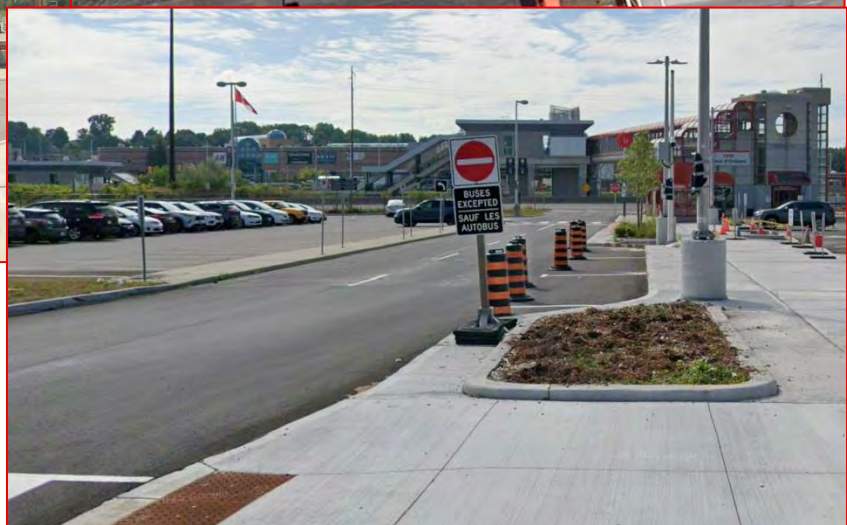
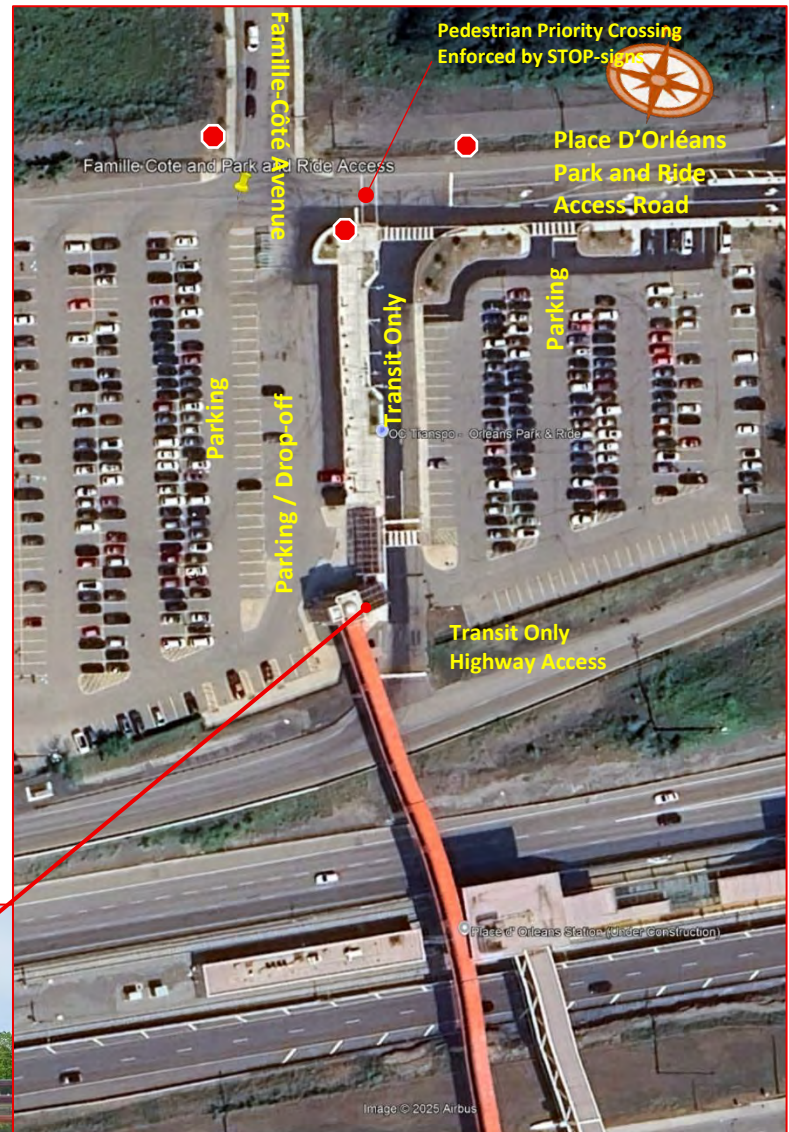
The Orleans Corridor Secondary Plan aims to encourage walking, cycling, and transit the primary travel modes by reducing car reliance especially near future O-Train stations.

The following Area Traffic Management strategies have been identified within the study area:

- *Red Light Camera*: A red-light camera is operational at the Jeanne d'Arc Boulevard / Champlain Street intersection. As of September 2025, the camera is situated on the eastbound approach along Jeanne D'Arc Boulevard. However, warning signage exists at each approach to the intersection, implying possibility of red-light running enforcement on any approach.
- *Reduced Speed Signage*: Regular signage is used in designated community safe zones or school areas inclusive of STOP signs and YIELD signs and reduced speeds. Bilberry Drive is subject to an "Area" speed limit of 40 km/hr.
- *Automated Speed Enforcement (ASE)*: City of Ottawa had installed ASC cameras at Jeanne D'Arc Blvd. north between Paddler way and Orleans Blvd. The camera was used to enforce the posted speed limit in a dead designated community safety zone. However, effective November 14, 2025, the Ontario Provincial Government officially banned the use of speed cameras in the Province in favour of Traffic calming measures such as speed bumps, roundabouts and raised crosswalks.
- *Traffic Calming Measures*: Speed humps are present along Du Bois Avenue (private condominium roadway), as close as approximately 50 metres east of Bilberry Drive corridor. Pavement markings inclusive of lane lines, STOP bars, crosswalks and other standard road markings have been implemented throughout the community.
- *Park and Ride Facilities*: Place D'Orléans Park-and-Ride provides parking facilities for 402 free parking spaces, 16 accessible spaces, 1 "expectant mother" space, and 93 "gold permit" spaces available for monthly reservation subject to a fee. This facility provides parking facilities for commuters to store their vehicles while using OC Transpo's services, thereby reducing the load on nearby arterials and Highway 174 during peak hours.
- *Transit Only Lanes*: There is a transit-only lane running in the north-south direction from the Place D'Orléans Park and Ride Access road. Entry to the transit-only lane is currently restricted by signage. This transit-only lane also provides access to westbound Highway 174 for transit vehicles only, allowing for bus services to enter the highway and bypass general traffic lanes
- Exhibit 2-15 illustrates the pedestrian access through the park-and-ride facility is subject to an All-way STOP-controlled crossing.

Other Area Traffic Management measures may exist in this study area but remain unidentified.

Exhibit 2-15: Famille-Côté Avenue & Park-n-Ride Access:



2.1.2.8 Existing Peak Hour Travel Demands by Mode

Table 2-5 indicates the existing traffic count information which was collected on September 15 (Monday) and September 16 (Tuesday) 2025 to identify the study area’s peak hour of travel demands.

The traffic counts were conducted during the peak periods of travel demand from **6:30-to-9:30 AM** and from **3:30-to-6:30 PM**.

Appendix “B” provides more detailed existing (2025) traffic count and traffic signal timing information.

Table 2-5: Existing Traffic Count Information

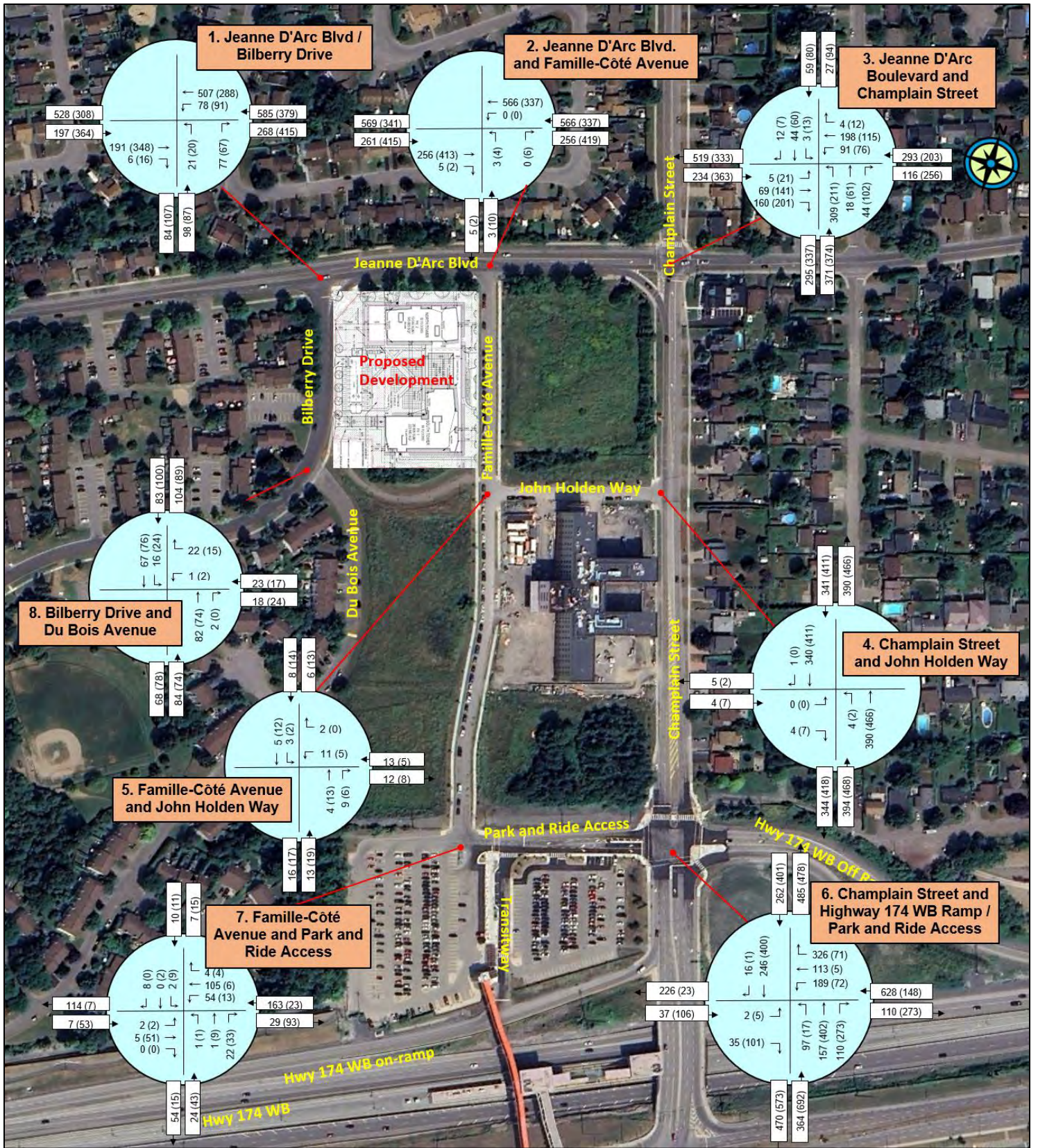
Intersection	Traffic Control	Source	Date of Traffic Count
1. Jeanne D’Arc Boulevard / Bilberry Drive	3-leg Minor Leg STOP-Controlled	Castleglenn Manual Traffic Count	Monday, September 15, 2025 & Tuesday, September 16, 2025
2. Jeanne D’Arc Boulevard / Famille-Côté Avenue	3-leg Minor Leg STOP-Controlled		Monday, September 15, 2025
3. Jeanne D’Arc Boulevard / Champlain Street	4-leg Traffic Signal Controlled		Monday, September 15, 2025
4. Champlain Street and John Holden Way	3-leg Minor Leg STOP-Controlled (west leg)		Tuesday, September 16, 2025
5. Famille-Côté Avenue and John Holden Way	3-leg Minor Leg STOP-Controlled (east leg)		Monday, September 15, 2025
6. Champlain Street and Highway 174 WB Ramp - Park and Ride Access	4-leg Traffic Signal Controlled		Tuesday, September 16, 2025
7. Famille-Côté Avenue and Park and Ride Access	5-leg Minor Leg STOP-Controlled		Tuesday, September 16, 2025
8. Bilberry Drive and Du Bois Avenue	3-leg Minor Leg STOP-Controlled		Monday, September 15, 2025

- Vehicle Travel Demand**

The traffic information, (as noted in Table 2-5), was entered into a computer readable format and used to create Exhibit 2-16 which illustrates the existing (unbalanced) morning and afternoon peak hour motor vehicle traffic volumes within the study area.

Consultants’ experience in the Ottawa area indicated that post-pandemic traffic patterns have been characterized by inconsistent weekday demand due to the advent of hybrid employment. The Jeanne D’Arc Boulevard / Bilberry Drive intersection was counted on both Monday and Tuesday to establish an adjustment factor that would account for daily variations in the peak hour volumes. It was determined that the Tuesday peak traffic volumes were on average about 4% higher during the morning peak hour, and about 9% higher during the afternoon peak hour of travel demand.

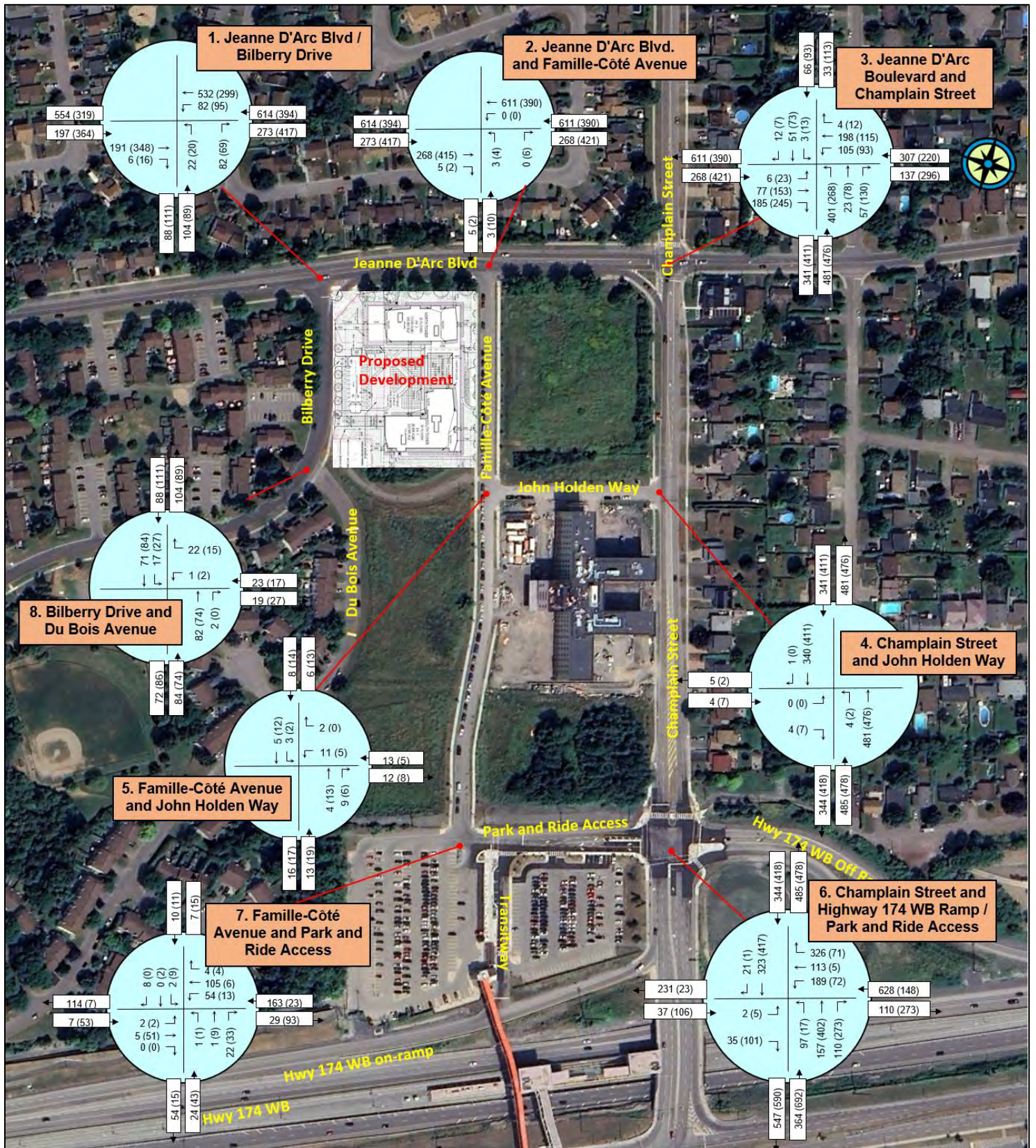
Exhibit 2-17 presents the results of a traffic balancing exercise that was undertaken to account for daily variance in traffic volumes and the variance in traffic counts between adjacent intersections from which a representation of “balanced existing traffic volumes” was produced for analyses purposes.



Morning (Afternoon)

vph = vehicles-per-hour

Exhibit 2-16: Traffic Counts: “Unbalanced” Morning and Afternoon Peak Hour Traffic Volumes



Morning (Afternoon)

vph = vehicles-per-hour

Exhibit 2-17: 2025 "Balanced Morning" and Afternoon Peak Hour Traffic Volumes

- *Existing Pedestrian Travel Demand (Peak Period)*

Table 2-6 indicates existing pedestrian travel demands during the peak periods of travel demand observed during the September traffic counts¹. Moderate pedestrian activity was recorded in the area, particularly along Jeanne D’Arc Boulevard, and in the vicinity of the Place D’Orléans Station / Park-and-Ride.

Table 2-6: Pedestrian Travel Demand

Intersection	Total Pedestrians Entering Each Intersection	
	AM Peak Period (6:30 AM-9:30 AM)	PM Peak Period (3:00 PM – 6:00 PM)
Jeanne D’Arc Boulevard / Bilberry Drive	77	86
Jeanne D’Arc Boulevard / Famille-Côté Avenue	49	66
Jeanne D’Arc Boulevard / Champlain Street	59	57
Champlain Street and John Holden Way	40	34
Famille-Côté Avenue and John Holden Way	105	65
Champlain Street and Highway 174 WB Ramp - Park and Ride Access	83	77
Famille-Côté Avenue and Park and Ride Access	148	84
Bilberry Drive and Du Bois Avenue	20	47

- *Existing Cyclist Travel Demand (Peak Period)*

Table 2-7 indicates morning and afternoon cyclist peak period travel demands in the study area. Traffic counters were asked to record the number of trips made by way of bicycles, e-scooters, and other micro-mobility devices entering each intersection. These trips would typically make use of dedicated bike lanes (where available) or share the road with personal vehicles, while usually travelling below the speed of motor-vehicular traffic flow.

The traffic counts were conducted in mid-September during warm weather and with school being in session, which is conducive to increased cycling/micromobility activity in the area. Notably, the intersection of Jeanne D’Arc Boulevard / Champlain Street recorded 37 cycling trips during the afternoon peak period, which translates to an hourly average of 12 cyclists entering the intersection.

Table 2-7: Cyclist Travel Demand

Intersection	Total Cyclists / E-Scooters Entering Each Intersection	
	AM Peak Period (6:30 AM-9:30 AM)	PM Peak Period (3:00 PM – 6:00 PM)
Jeanne D’Arc Boulevard / Bilberry Drive	10	25
Jeanne D’Arc Boulevard / Famille-Côté Avenue	10	20
Jeanne D’Arc Boulevard / Champlain Street	14	37
Champlain Street and John Holden Way	14	16
Famille-Côté Avenue and John Holden Way	3	11
Champlain Street and Highway 174 WB Ramp - Park and Ride Access	13	18
Famille-Côté Avenue and Park and Ride Access	6	11
Bilberry Drive and Du Bois Avenue	1	7

• *Intersection Capacity Analysis: Existing (2025) Peak Hour Volumes:*

Table 2-8 highlights the current traffic operational performance of each intersection and assumes:

- the development is not in place,
- current traffic (2025) volumes (See Exhibit 2-17 for traffic volumes),
- current traffic signal phasing and timing, [Appendix “B” provides the traffic-signal timings phasing that were provided by the City of Ottawa.], and
- a peak hour factor (PHF) of 0.90.

Table 2-8: Existing (2025) Balanced Volumes Traffic Analysis
[Assumes Development is NOT in Place]

Intersection	Control Type	Critical Movement/Lane	Weekday Morning Peak Hour (Afternoon Peak Hour)				
			Volumes (vph)	95 th Percentile Queue (m)	Delay (seconds)	v/c Ratio	LOS (v/c based)
1. Jeanne D’Arc Boulevard / Bilberry Drive	Minor Leg STOP-Control	NB-LT	22 (20)	2 (2)	20.9 (19.7)	0.10 (0.08)	A (A)
		NB-RT	82 (69)	3 (3)	9.9 (11.4)	0.11 (0.12)	A (A)
		WB-LT	82 (95)	2 (2)	7.9 (8.4)	0.07 (0.09)	A (A)
2. Jeanne D’Arc Boulevard / Famille-Côté Avenue	Minor Leg STOP-Control	NB-LT/RT	3 (10)	0 (1)	16.5 (12.8)	0.02 (0.03)	A (A)
		WB-LT	1 (1)	0 (0)	7.9 (8.3)	0.01 (0.01)	A (A)
3. Jeanne D’Arc Boulevard / Champlain Street	Traffic Signal Control	EB-LT	6 (23)	3 (7)	17.0 (18.6)	0.03 (0.11)	A (A)
		EB-Th	77 (153)	17 (30)	19.4 (24.0)	0.22 (0.47)	A (A)
		EB-RT	185 (245)	13 (15)	6.4 (7.0)	0.45 (0.53)	A (A)
		WB-LT	105 (93)	23 (21)	24.3 (25.6)	0.43 (0.44)	A (A)
		WB-Th/RT	202 (127)	38 (24)	25.9 (21.0)	0.57 (0.38)	A (A)
		NB-LT	401 (268)	63 (36)	12.5 (8.9)	0.60 (0.41)	B (A)
		NB-Th/RT	80 (208)	6 (13)	3.2 (3.3)	0.10 (0.23)	A (A)
		SB-LT	3 (13)	1 (3)	6.0 (5.9)	0.01 (0.02)	A (A)
4. Champlain Street and John Holden Way	Minor Leg STOP-Control	EB-LT/RT	4 (7)	0 (0)	10.8 (11.3)	0.01 (0.01)	A (A)
		NB-LT	4 (2)	0 (0)	8.4 (8.3)	0.01 (0.01)	A (A)
5. Famille-Côté Avenue and John Holden Way	Minor Leg STOP-Control	WB-LT/RT	13 (5)	0 (0)	8.7 (8.9)	0.02 (0.01)	A (A)
		SB-LT	3 (2)	0 (0)	7.2 (7.3)	0.01 (0.01)	A (A)
6. Champlain Street and Highway 174 WB Ramp - Park and Ride Access	Traffic Signal Control	EB-LT	2 (5)	2 (3)	14.5 (18.6)	0.02 (0.04)	A (A)
		EB-RT	35 (101)	4 (10)	4.5 (8.1)	0.09 (0.34)	A (A)
		WB-LT	189 (72)	34 (16)	20.1 (22.9)	0.44 (0.33)	A (A)
		WB-Th/RT	439 (76)	55 (9)	19.6 (8.9)	0.79 (0.28)	C (A)
		NB-LT	97 (17)	19 (3)	12.9 (5.2)	0.25 (0.04)	A (A)
		NB-Th	157 (402)	12 (16)	9.8 (4.8)	0.10 (0.20)	A (A)
		NB-RT	110 (273)	8 (7)	3.2 (1.6)	0.15 (0.28)	A (A)
7. Famille-Côté Avenue and Park and Ride Access	Minor Leg STOP-Control	NB-Th/LT/RT	24 (43)	1 (2)	8.6 (9.0)	0.03 (0.05)	A (A)
		SB-Th/LT/RT	10 (11)	0 (0)	9.2 (9.5)	0.02 (0.02)	A (A)
		EB-LT	2 (2)	0 (0)	7.4 (7.2)	0.01 (0.01)	A (A)
		WB-LT	54 (13)	1 (0)	7.6 (7.8)	0.04 (0.01)	A (A)
8. Bilberry Drive and Du Bois Avenue	Minor Leg STOP-Control	WB-LT/RT	23 (17)	1 (1)	8.9 (8.9)	0.03 (0.02)	A (A)
		SB-LT	17 (27)	0 (1)	7.6 (7.4)	0.02 (0.02)	A (A)

Values outside of Brackets represent Morning Peak Hour Values. / Values inside of Brackets represent Afternoon Peak Hour Values. Values that are in Bold indicate critical results / parameters.

The results within Table 2-8 were developed using Synchro™ 11 traffic analysis software.

[Synchro analysis output sheets can be found in Appendix “C”.]

In general, the City of Ottawa uses a “volume-over-capacity (v/c) based definition for level of service within its Multi Modal Level-of-Service (MMLoS) guidelines⁷ where a value greater than 1.0 indicates a LOS “F” and a value of 0.6-or-lower represents a LOS of “A”. The City’s MMLoS Guidelines establish “*broad guidance for the desired LOS*” for designated land use and policy areas within the City, and notes ...

- the “minimum desirable” motor-vehicle Level of Service (Auto-LOS) target for arterial and collector roadways within 600 metres of a rapid transit station (Protected Major Transit Station Area (PMTSA)⁸) is LOS “E”.
- in the case of “frequent” transit routes, (as defined by OC Transpo’s system map), where transit operates with motor-vehicle traffic, the transit target LOS (TLOS) within 600 metres of a rapid transit station is increased from “E” to “D” “*through the implementation of transit priority measures as part of the Transportation Master Plan (TMP) process*”.
- where intersections operate at a volume-to-capacity (v/c) ratios of 0.60 or lower a target LOS “A” is assigned regardless of the delay experienced by the motorists.

Table 2-8 indicates that:

- most study area intersections and their associated movements operate at an acceptable Level of Service (LOS) “A” (indicative of a v/c under 0.60) during both the weekday morning and afternoon peak hours.
- no single movement was found to exhibit a LOS worse than “C”, or an average delay of more than 30 seconds.
- However, the following three intersections indicate “mild-to-moderate” levels of congestion:
 - **Intersection #1 - Jeanne D’Arc Boulevard / Bilberry Drive:** the NB-LT movement at this intersection was found to operate with an average 20.9 second delay during the morning peak hour, and 19.7 seconds during the afternoon peak hour as motorists have to wait for a gap in traffic along Jeanne D’Arc Boulevard. No significant queuing was forecast at the NB approach.
 - **Intersection #3 - Jeanne D’Arc Boulevard / Champlain Street:** Several movements at this signalized intersection were found to have elevated delays or v/c-based LOS issues, particularly for westbound traffic:
 - The Westbound Left Turn (WB-LT) movement experiences delay of 24.3 seconds during the AM peak and 25.6 seconds in the PM peak.
 - The Westbound Through/Right Turn (WB-Th/RT) movement operates with 25.9 seconds of delay in the AM and 21.0 seconds in the PM.
 - During the PM peak hour, the Eastbound Through (EB-Th) movement also shows elevated delays at 24.0 seconds (19.4 seconds in the AM).

⁷ “Multi-Modal Level of Service (MMLoS) Guidelines Update”, City of Ottawa May 2025, Page 6, Exhibit 2 –MMLoS Targets.

⁸ City of Ottawa, Official Plan Schedule C1 – Protected Major Transit Station Areas

- Additionally, the Northbound Left Turn (NB-LT) movement operates at LOS B during the AM peak (12.5s delay) due to a high volume of traffic turning left from Champlain Street onto the Jeanne D’Arc corridor and associated v/c constraints (0.60), along with a 95th percentile queue of 63m (existing NB-LT lane provides for about 80 m of storage length) This movement improves to LOS A in the PM peak, as the demand for the NB left turn decreases.
- **Intersection #6 - Champlain Street / Hwy 174 WB Ramp / Park and Ride Access:**
 - The Westbound Left Turn (WB-LT) movement operates with 20.1 seconds of delay in the AM peak and 22.9 seconds in the PM peak.
 - Furthermore, the Westbound Through/Right Turn (WB-Th/RT) movement operates at LOS C during the AM peak (19.6s delay and 0.79 v/c) as it conflicts with other high-volume movements, though it improves to LOS A in the PM peak.

2.1.2.9 Existing Road Safety Information

Historical collision information was reviewed for each of the study area intersections and segments. The collision information was referenced from the City of Ottawa for the 4-year period 2019-through-2022 and 2024⁹. (See Appendix “B”) (2023 data was excluded from the latest available data set provided by staff due to “inconsistencies and gaps in collision reporting”.) This range includes the time of the Covid-19 pandemic and its associated travel restrictions; hence the number of reported collisions may be underestimated. Collision rates are not provided within this analysis due to the lower recorded traffic volumes (AADTs).during the pandemic.

The collision information provided included:

- the date and time of each collision
- the type of collision (e.g., angle collision, rear-end)
- the severity of damage involved
- vehicle details (truck, passenger vehicle, etc.)
- vehicle path/maneuver characteristics
- the number of pedestrians involved in the collision

Intersection Collisions:

Table 2-9 provides a summary of the intersection and mid-block collisions within the study area and highlight the type-of-collision and collision-severity.

- Of the 8 intersections in the study area (2 traffic-signal controlled and 6 stop-controlled) only 3 intersection had reported collision information available.
- No collisions were recorded at other study area intersections
- No collisions were recorded at the intersections along Famille-Côté Ave or John Holden Way

⁹ 2023 data is excluded from the latest publicly provided data set due to “ inconsistencies and gaps in the collision reporting”.

Table 2-9: Five -Year Collision History: Intersections

(January 1st, 2019 -to- December 31st, 2022 and January 1st, 2024 - December 31st, 2024)

Intersection Number		Intersections			Total
		-1-	-3-	-6-	
Intersection		Jeanne D’Arc Blvd and Bilberry Drive E	Jeanne D’Arc Blvd and Champlain Street	Champlain Street and Hwy 174 WB Ramp / P&R Access	
Total Collisions (19)		1	12	6	19
Collision Type	Angle	1	5	1	7
	Rear End		2	2	4
	Sideswipe			1	1
	Turning Movement		3		3
	Single Vehicle		2 (one involves ped)	2 (both involve peds)	4
Collision Severity	Property Damage only		7	3	10
	Non-Fatal Injury	1	4	3	8
	Fatal		1		1
No. of Collisions Involving Cyclists		1	1		2
No. of Collisions Involving Pedestrians		0	1	2	3

- **Jeanne D’Arc Blvd and Bilberry Drive East (Intersection #1):** There was only 1 angle collision reported at this intersection within the last available 5-year data set. This collision involved a cyclist.
- **Jeanne D’Arc Blvd and Champlain Street (Intersection #3):** There were 12 collisions reported at this intersection indicating an average of less than 3 collisions-per-year. Two-thirds of the collisions were angle (42%) or turning movement (25%) collisions.
 - One of the collisions reported in 2019 resulted in a fatality that resulted from a turning movement conflict between a westbound left-turning vehicle and an eastbound-through vehicle.
 - 4 collisions resulted in non-fatal injuries that involved single-vehicle collisions with a pedestrian and a cyclist.
- **Champlain Street and Hwy 174 WB Ramp / P&R Access (Intersection #6):** Six collisions were reported at this intersection indicating an average of less than 2 collisions-per-year. Two of the 6 reported collisions (33%) occurred in 2019 (pre-pandemic) and both involved pedestrians.

Mid-Block Collisions:

Table 2-10 indicates 3 mid-block collisions were recorded, including:

- a single vehicle collision along Jeanne D’Arc Boulevard, and
- 2 collisions along Champlain Street.

Table 2-10: Five -Year Collision History: Mid-Block

(January 1st, 2019 -to- December 31st, 2022 and January 1st, 2024 - December 31st, 2024)

Street		Champlain Street	Jeanne D'Arc Boulevard	Total
Between		Jeanne D'Arc Boulevard	Famille-Côté Avenue	
... and		Hwy 174 WB Ramp / P&R Access	Champlain Street	
Total Collisions (3)		2	1	3
Collision Type	Approaching			-
	Rear End			-
	Single Vehicle	1		1
Collision Severity	Property Damage only	1		1
	Non-Fatal Injury	0		-
No. of Collisions Involving Pedestrians or Cyclists		0		

Conclusion:

Based on the available collision information ...

- incidents appear to be concentrated at the two signal-controlled intersections along Champlain Road (Jeanne D'Arc Boulevard and Hwy 174 WB Ramp):
- the Jeanne D'Arc/Champlain Street intersection (Intersection #3) exhibits turning (NB-LT and WB-LT) movement collisions that are possibly attributed to motorists frustration with delays and the lack of acceptable gaps needed to perform the maneuvers.
- a total of 5-out-of-the-22 reported intersection and mid-block collisions (23%) involved either a pedestrian or a cyclist. This may be indicative of potential gaps in the active transportation infrastructure in the area, particularly in the vicinity of the Champlain Street corridor and the Park-and-Ride facility.

2.1.3 Planned Conditions

2.1.3.1 Changes to the Study Area Transportation Network

OC Transpo LRT Line 1 Stage 2 East Extension: (Trim via Place D'Orléans Station (planned 2025))

The planned Ottawa's LRT Line 1 Stage 2 east extension¹⁰ of from Blair Station to Trim Station in Orléans consists of 12.5 km of new two-way rail track separated from the roadway system, and 5 new transit stations, including the a new Place D'Orléans LRT Station. The extension primarily runs inside the Highway 174 right-of-way. The LRT extension was originally planned to enter service in 2025 and is nearing completion.

Exhibit 2-18 illustrates the future direct connections from the Place D'Orléans station to the greater community which includes:

¹⁰ <https://www.octranspo.com/en/o-train-extension/ride/o-train-line-1-east-extension>

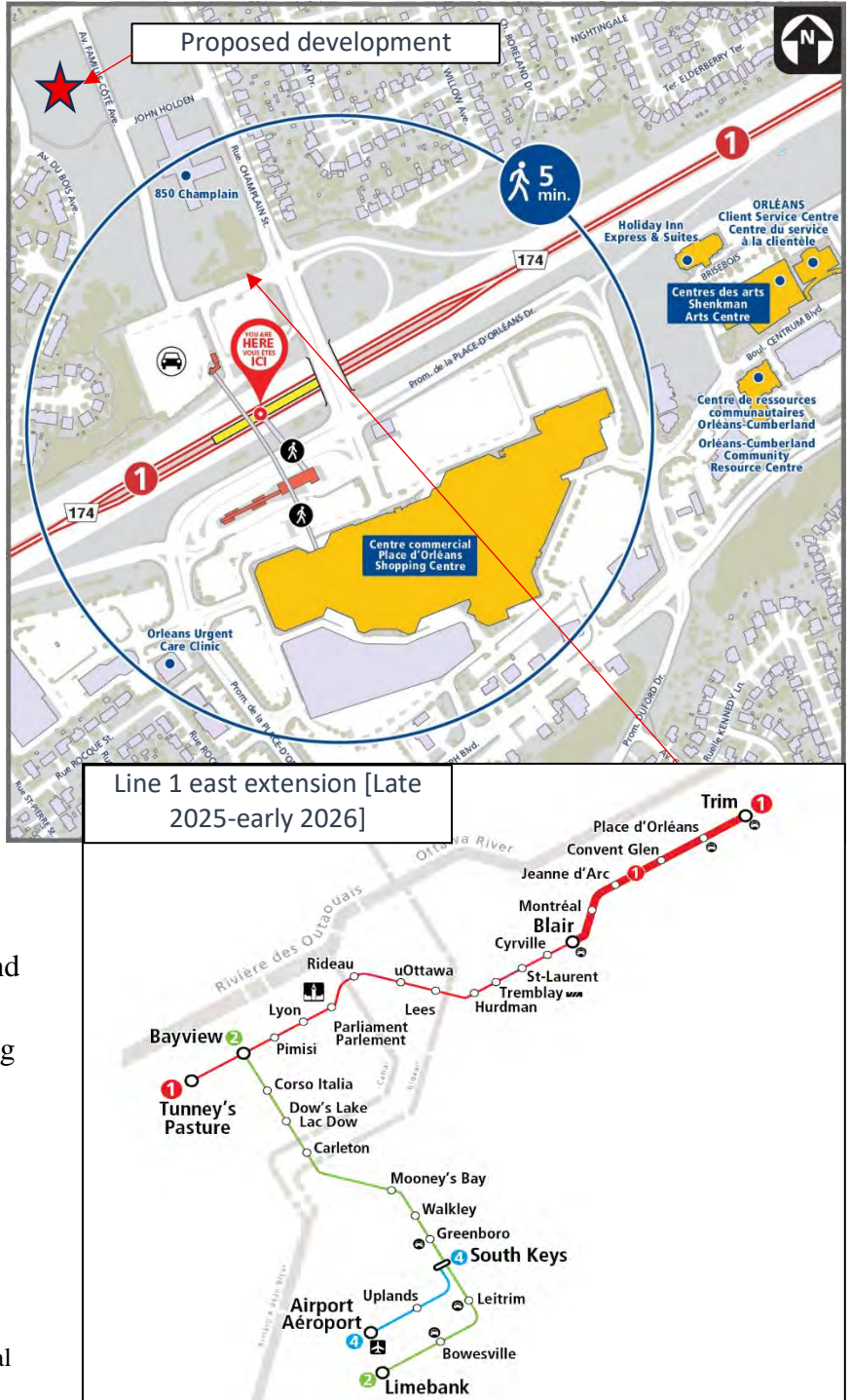
- **Light Rail Transit (LRT) Service** to Trim station in the east and the rest of the LRT system in the west along Line 1, including Bayview Station that provides connections to the north-south Line 2.
- **Bus Platforms** on each side of the Highway 174 corridor will connect the LRT to local bus services within Orléans.

Section 2.1.2.6 of this document highlighted OC Transpo’s current website¹¹ information. This will be modified once the LRT extended services are inaugurated.

OC Transpo LRT Line 1 Stage 2 West Extension (planned 2027)

Exhibit 2-19 illustrates the planned Stage 2 West Extension¹ of Ottawa’s LRT system from Tunney’s Pasture Station to Algonquin Station (Line 1) and Moodie Station (Line 3), which consists of an additional 15 km of rail, including a new “Line 3” designation.

Line 1 and Line 3 trains will run along the same alignment between Trim and Lincoln Fiels Stations, where they will split off to the south (Line 1 to Algonquin and potential future extension to Barrhaven), and the west (Line 3 to Moodie and potential future extension to Kanata). Five new stations are proposed to be used by both Line 1 and Line 3, 2 new stations will be serving Line 1 exclusively, and 4 new stations will be serving Line 3 exclusively.



[Sources: OC Transpo.
<https://www.octranspo.com/en/our-services/stations-2/place-dOrléans>;
https://www.octranspo.com/images/files/maps/line_maps/Stage2_line1_east.png]

Exhibit 2-18: Future Place D’Orléans LRT Station: Station Area Map and System Map (2025)

¹¹ <https://www.octranspo.com/en/o-train-extension/ride/o-train-line-1-east-extension>

Much of the expanded LRT construction and planned new stations are well outside of the study area, however the connections to new lines and stations will introduce faster transit service connections between the Place D'Orléans LRT station and numerous destinations within the greater Ottawa area. Upon completion of the West extension, Place D'Orléans Station will offer direct access to additional destinations along Line 1 and Line 3, which offers the potential to enhance transit usage when compared to the current LRT system.

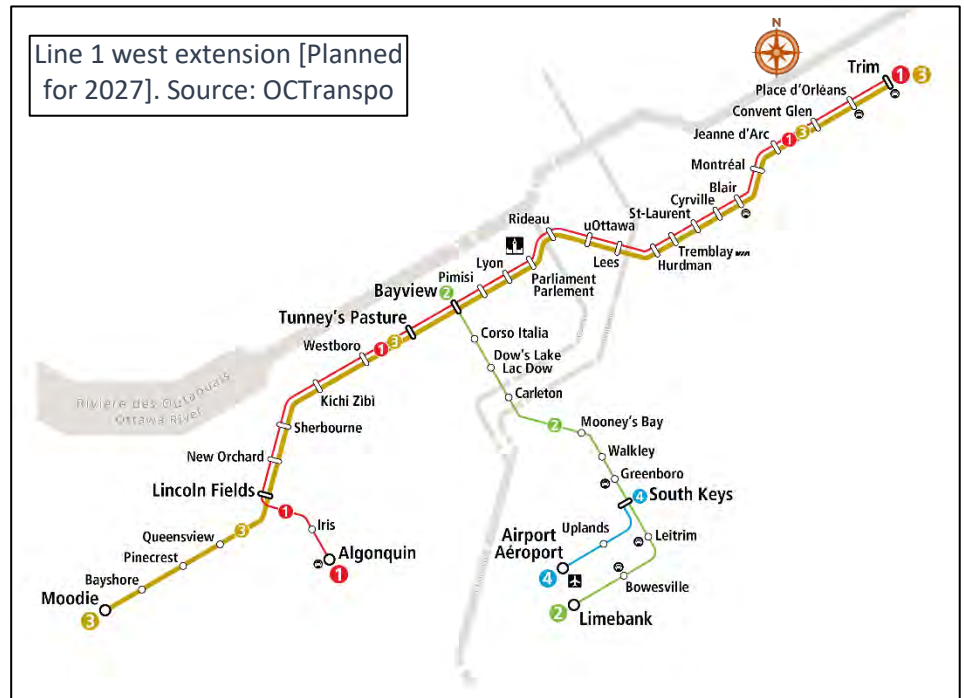


Exhibit 2-19: Future LRT Stage 2 West Extension (2027)

2.1.3.2 Other Study Area Developments

The Famille-Côté Avenue Corridor (Former 850 Champlain Subdivision)

Exhibit 2-20 illustrates the Famille-Côté Avenue Corridor in Orléans which bisects the former 850 Champlain Street parcel into effectively 6 development parcels.

- The 500 Famille-Côté Avenue parcel (See brown area on Exhibit 2-20) represents the proposed development site located on the northwest side of the Famille-Côté corridor.
- The 555 Famille-Côté Avenue parcel is located on the east side of the corridor and is proposed as a future residential assisted-living seniors' residence facility with 320 units which is currently under construction (See blue area on Exhibit 2-20). A TIA addendum¹² for the site issued indicated that the development is forecast to add 40 new vehicle trips (25 in / 15 out) during the morning peak hour and 53 vehicle trips (20 in / 33 out) during the afternoon peak hour.
- The four other parcels known as 505, 550, 580 and 585 Famille-Côté Avenue (See green areas on Exhibit 2-20) are currently vacant.
- The subject site was subject to a previous planning and community traffic study¹³ in 2013 that had included the 500 and 555 Famille-Côté Avenue parcels which had envisioned an additional 80 suite retirement home and 14,875 m² of office space.

12. 850 Champlain Street Block 4 SPA – Addendum #3. Parsons, June 8, 2020

13. Champlain Centre Community Transportation Study. Delcan, July 2013

The 2013 community transportation study and its 2020 addendum may well contain outdated assumptions regarding ultimate land uses. The market changes over the last decade have resulted in lower demand for commercial (office) development and a significantly higher demand for affordable residential accommodation near transit services. Should the future land uses for the adjacent parcels change (for example, from office to residential), re-analysis of the impact these adjacent parcels would have upon the study area would be required.

Exhibit 2-21 illustrates the traffic generated by the full build-out of the former 850 Champlain Site (including the proposed assisted living facility at 555 Famille-Côté Avenue)

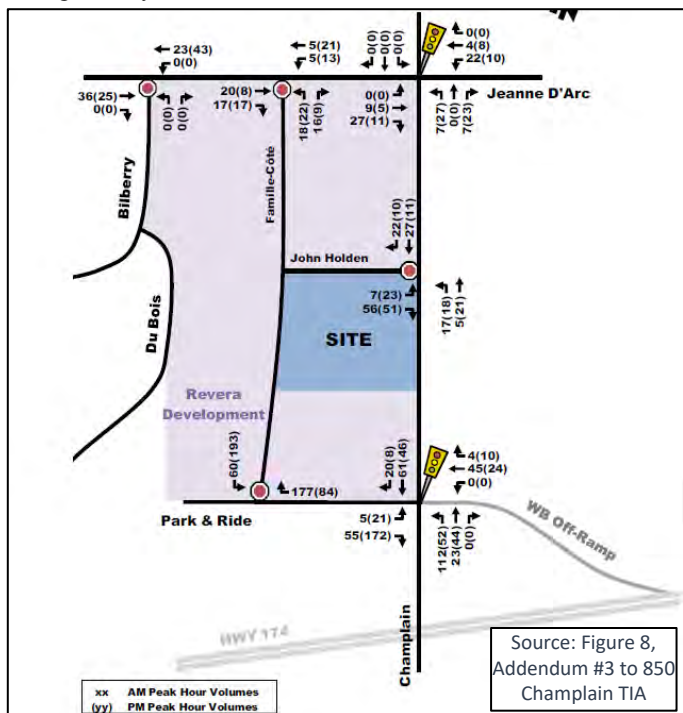


Exhibit 2-21: Famille-Côté Avenue Corridor Adjacent Development Volumes



Exhibit 2-20: Adjacent Developments

Other Developments Applications

The City of Ottawa’s Development Applications website¹⁴ was reviewed to identify other adjacent proposed developments within the study area. At the time of conducting the study, there were no active development applications adjacent to the study area.

However, the **256 Centrum Boulevard** development located outside of the study area was identified. This is a mixed-use development on the south side of the Hwy 174

14 Development Application Search Tool <https://devapps.ottawa.ca/en/applications>

corridor, located approximately 1.5 km southeast of the site¹⁵. This development is envisioned to provide for 1,127 residential units, 31,570 sqft GFA office and 8,967 sqft of retail. A TIA document¹⁶ was prepared for the site and indicates that 210 new auto driver trips were forecast in the morning peak hour, and 248 new auto trips were forecast in the afternoon peak hour of travel demand. However, only 5% of these trips were distributed to the north of the site, which would have an impact about 10-15 vph along the Champlain Street corridor.

Background Growth Rate

A 1.5% background annual traffic growth rate will be adopted within this study that was assumed to account for development-related traffic growth in the area, including the abovementioned 256 Centrum Boulevard development.

2.2 ANALYSES (HORIZON YEAR) TIME PERIODS

2.2.1 Time Periods

The study provided an analysis of the weekday morning and afternoon peak hours of travel demand which was determined to represent the “worst-case” scenario in terms of weekday motor-vehicle commuter traffic conditions.

2.2.2 Horizon Years

The proposed development, at the time of writing is anticipated to be achieved by the end of 2030. A period five-years-after-buildout would then correspond to a horizon year of 2035.

15 The proposed 256 Centrum boulevard development was screened out of further analysis due to being sufficiently far away (~1.5 km from the site). The traffic volumes generated by the development will not have a significant impact **on the proposed development's study area**

16 265 Centrum Boulevard Transportation Impact Assessment. Step 4 Strategy Report (Rev #1). Prepared by CGH Transportation, February 2024

3.0 FORECASTING

3.1 DEVELOPMENT-GENERATED TRAFFIC DEMAND

Section 1.1 indicated that the proponent intends to apply for a Site Plan Application (SPA) that would permitting two high-rise buildings to be constructed on the site described as:

- a 14-storey building with 218 residential units. Assumed to be occupied by the end of 2028;
- a 12-storey building with 136 residential units. Assumed to be occupied by the end of 2030.

3.1.1 Trip Generation and Mode Shares

3.1.1.1 Trip Generation Rate Selection

Table 3-1 provides a comparison of the ITE 11th Edition and TRANS traffic generation rates that were referenced¹⁷ for this study.

Table 3-1: Summary of Considered Trip Generation Rates

Land Use	Size	Independent Variable	Source	Trip Generation Rate (Person-Trips)					
				Morning Peak Hour (AM)			Afternoon Peak Hour (PM)		
				Rate	In	Out	Rate	In	Out
Multi-Unit (High-Rise)/ ITE Land Use 222	354 Units	Number of Dwelling Units	TRANS 2020 Trip Generation Manual (Selected)	0.40	31%	69%	0.40	58%	42%
			ITE Trip Generation Manual 11 th Ed. (Alternative)	0.38	21%	79%	0.26	62%	38%

Table 3-2 presents the associated vehicle traffic for each rate. The TRANS Trip Generation rate was selected as it was found to represent the worst-case for when estimating person-trip generation rates.

Table 3-2: Summary of Peak Hour Person-Trips Generated by Rate

Land Use	Source	Person Trip Ends					
		Morning Peak Hour			Afternoon Peak Hour		
		In	Out	Total	In	Out	Total
Multi-Unit (High-Rise); 354 Units	TRANS 2020 Trip Generation Manual (selected)	44	98	142	83	60	143
ITE Land Use 222: Multifamily Residential (High-Rise); 354 Units	ITE 11 th Ed Trip Generation Manual (Alternative)	29	107	136	58	35	93

17 Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition) – Land Use Code 222 Subcategory: Close to Rail Transit Location: General Urban / Suburban. Low sample size is noted

City of Ottawa TRANS Committee – Trip Generation Manual (2020) Summary Report. Table 3: Recommended Residential Person-Trip Rates. And Table 4: Peak Period to Peak Hour Adjustment Factors. Page 5. Peak period trip generation rate is 0.80.

- AM peak period to peak hour adjustment factor of 0.50 and
- PM factor of 0.44 [0.80*0.50=0.40 and 0.90*0.44 = 0.396 rounded to 0.40.

3.1.1.2 Mode Shares

The future LRT system has the potential to be a competitive and convenient mode of travel (vs. auto trips), particularly for trips heading west towards downtown Ottawa. Its recognized that the success of the transit more share is contingent upon reliability, high service levels, a low number of required transfers between the origin and destination, as well as robust on-site TDM strategies.

Table 3-3 summarizes three alternative scenarios that were considered candidate assumptions within this study that represent possible mode shares applicable to the proposed development:

- A “TRANS 2020 Trip Generation Manual” mode share based on the results of a review of Orléans District high-rise developments. However, this source largely ignores site-specific factors such as the proximity of individual sites to rapid transit services. The mode shares adopted within this study should ideally accounts for a higher forecast transit usage recognizing the relatively close proximity to the Place D’Orléans LRT station.
- A “High Transit Usage” scenario that assumes an aggressive transit target mode share of 55%, however, this may under-represent the traffic impacts associated with motor-vehicle traffic as being just 30%, implying only 1-out-of-3 trips peak period trips are made by a motor-vehicle.
- A “selected” mode share, which lies somewhere between the above two scenarios.

Given the uncertainty related to future public adoption of the LRT services, it was felt that a more conservative forecast transit share in the range of 34-36 % (and auto driver share of 47%) was best to be adopted for analyses purposes.

Table 3-3: Summary of Mode Shares

Land Use	Size	Scenario No. 1 Reference Mode Share, TGM - Orléans District, High-Rise		Scenario No. 2 High Transit Usage Scenario Mode Shares		Scenario No. 3 Conservative Transit Scenario Mode Shares (Selected)	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK
Residential, High-Rise	Auto-Driver	54%	61%	30%	30%	47%	47%
	Auto-Passenger	7%	13%	4%	8%	6%	12%
	Transit	29%	21%	55%	55%	36%	34%
	Cycling	0%	0%	1%	1%	1%	1%
	Walking	10%	6%	10%	6%	10%	6%

City of Ottawa TRANS Committee – Trip Generation Manual (2020) Summary Report. Table 8: Residential Mode Share for High-Rise Multifamily Housing

3.1.1.3 Resulting Person Trips

Table 3-4 provides estimates of the total peak period (7:00AM-9:30 AM and 3:30 PM–6:00 PM) person-trip generation rates and resulting person-trips that would be generated by the proposed development assuming the Institute TE

Table 3-4: Person-Trip Generation Rates and Resulting Person-Trips, Peak Period

Land Use	Size	Independent Variable	(Person-Trip) Generation Rates					
			Morning Peak Period (AM)			Afternoon Peak Period (PM)		
			Rate	In	Out	Rate	In	Out
Multi-Unit (High-Rise)	354 Units	Number of Dwelling Units	0.80	31%	69%	0.90	58%	42%
			Resulting Person-Trips					
			Morning Peak Period (AM)			Afternoon Peak Period (PM)		
			In	Out	Total	In	Out	Total
			88	220	308	185	134	319

Source: TRANS 2020 Trip Generation Manual (Selected)

Table 3-5 provides a summary of forecast person trips generated by the proposed site within:

- *The Peak Period:* The morning peak period is from 7:00-to-9:30 AM, while the afternoon peak period is from 3:30-to-6:00 PM.
- *The Peak Hour:* Peak hour conversion rates¹⁸ were referenced to convert the peak period person trips results to peak hour for each travel mode.

The resulting total person-trip values presented in Table 3-5 were used for analysis purposes. These differ from those presented in Table 3-1 since conversion factors were applied separately for each mode.

Table 3-5 indicates that the 500 Famille-Côté Avenue development is forecast to generate ...

- 161 and 149 person trips during the morning and afternoon peak hour respectively, and
- 71 and 68 motor-vehicle trips during the morning and afternoon peak hours, respectively.

Table 3-5: Summary of Site-Generated Person Trips

1. Peak Period Person Trips by Mode									
Land Use	Mode	Selected Mode Shares (Conservative Transit)		Trip Ends by Mode					
		Morning	Afternoon	PEAK PERIOD Morning			Afternoon		
				In	Out	Total	In	Out	Total
Residential , High-Rise	Auto-Driver	47%	47%	41	103	144	87	63	150
	Auto-Passenger	6%	12%	5	13	18	11	8	19
	Transit	36%	34%	32	80	111	67	49	115
	Cycling	1%	1%	1	2	3	2	1	3
	Walking	10%	6%	9	22	31	18	13	32
TOTAL				88	220	308	185	134	319

2. Peak Hour Person Trips by Mode									
Land Use	Mode	Peak Period to Peak Hour Conversion Factors		PEAK HOUR					
		Morning	Afternoon	Morning			Afternoon		
				In	Out	Total	In	Out	Total
Residential , High-Rise	Auto-Driver (vph)	0.48	0.44	22	49	71	38	30	68
	Auto-Passenger	0.48	0.44	2	6	8	5	4	9
	Transit	0.55	0.47	18	44	62	31	23	54
	Cycling	0.58	0.48	1	1	2	1	0	1
	Walking	0.58	0.52	5	13	18	10	7	17
TOTAL				48	113	161	85	64	149

vph = Vehicles-per-hour

18. City of Ottawa TRANS Committee – Trip Generation Manual (2020) Summary Report. Table 4: :Peak Period to Peak Hour Adjustment Factors for Residential Trip Rates

3.1.2 Traffic Distribution

Table 3-6 provides assumptions adopted for the traffic distribution characteristics along the roadways.

- 25% of the traffic was assigned to the Jeanne D’Arc Boulevard,
- 75% would make use of Champlain Street to access the Hwy 174 corridor and Place D’Orléans Drive to the South

Table 3-6: Summary of AM & PM Peak Hour Auto Trip Distribution

Major Collector used to Access the Development	Direction (heading to/from)	Traffic Distribution	
Jeanne D’Arc Boulevard	West on Jeanne D’Arc Boulevard	20%	25%
	East on Jeanne D’Arc Boulevard	5%	
Champlain Street (South)	West on Highway 174	55%	75%
	East on Highway 174	10%	
	South on Place D’Orléans Drive	10%	
Total		100%	

3.1.3 Trip Assignment

As illustrated in Appendix “D”, access to/from the proposed 500 Famille-Côté Avenue development would be provided by the following two accesses:

- An access to/from Bilberry Drive to the on-site underground parking and surface parking visitor lot was assumed to account for 95% of the peak hour site-generated motor-vehicle traffic representing traffic attributed to future residents and visitors parking on-site
- An access to/from Famille-Côté Avenue is intended to accommodate short-duration Pick-up/drop-off access/egress that accounts for the remaining 5% of peak hour site-generated motor-vehicle traffic representing the short-term travel demands associated with taxis, rideshare or carpooling.

Table 3-7 summarizes the forecast traffic assignment by access.

Table 3-7: Peak Hour Vehicle Trip Assignment by Access

Site Access	Traffic Assignment Split
Parking lot access from Bilberry Drive	95%
Pick-up/Drop-off access/egress from/to Famille-Côté Avenue	5%
Total	100%

Exhibit 3-1 illustrates the vehicle traffic generated by the proposed 500 Famille-Côté Avenue residential development upon its full build-out currently envisioned in 2030.

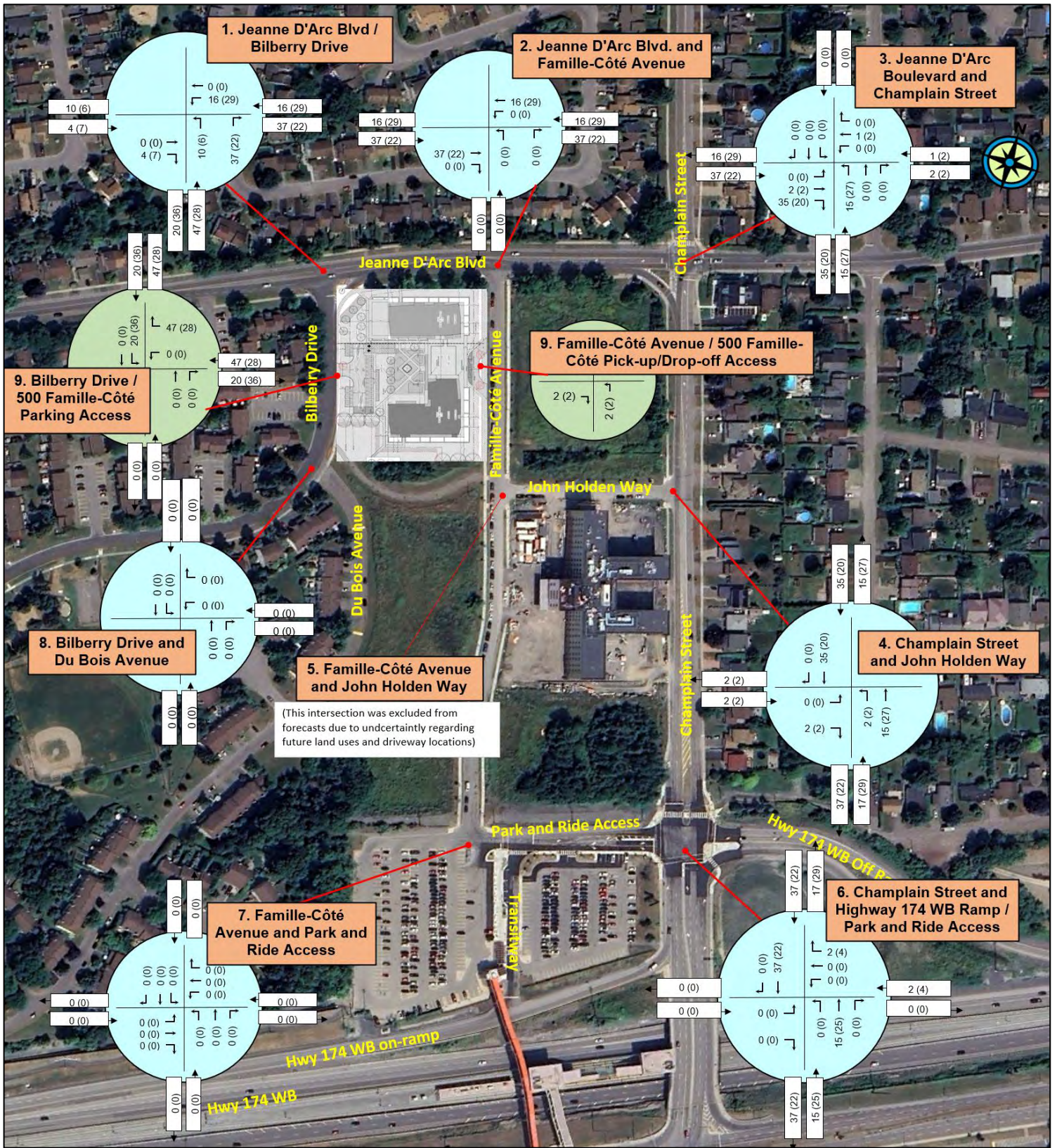


Exhibit 3-1: Site Generated Vehicle Trips at Full Build-out (2030)

3.2 BACKGROUND NETWORK TRAVEL DEMAND

This section outlines the approach taken to provide a forecast of background travel demands within the study area.

3.2.1 Transportation Network Plans

A review of the current (2013) City Transportation Master Plan¹⁹ (TMP), and the 2025 DRAFT TMP²⁰ was conducted that indicated the following future improvements to the area transportation network:

3.2.1.1 Roadway Projects

Hwy 174 was previously identified in the 2013 TMP for widening from four-to-six lanes between the split with Highway 417 and Trim Road to address capacity constraints related to east-west travel to and from Orléans. However, with the advent of the LRT corridor running thorough the centre median, and with the future provincial uploading of the Highway 174 corridor, this project was removed from the capital projects listed in the DRAFT 2025 TMP. There were no other roadway projects identified within the study area.

3.2.1.2 Transit Project

The major change to the area transportation network includes the extension of Ottawa’s LRT system involving existing Line 1 and future Line 3 to Place D’Orléans Station. This project is currently under construction with it’s first phase (Line 1) being envisioned to be open for regular service in 2026. (See Section 2.1.3.1 for a detailed description of this project).

Additionally, the Place D’Orléans park-and-ride, which is adjacent to the LRT station is proposed for a “Potential TOD (Transit-Oriented Development) re-development”²¹, which, if completed, would likely lower the parking capacity at the park-and-ride facility. The timeline or details of this development are unknown at the time.

3.2.2 Background Growth

Section 2.1.3.2 noted a 1.5% annual background traffic growth rate that was adopted within this study. This rate was assumed to account for development-related traffic growth in the area, including the 256 Centrum Boulevard development, but excluding the impacts of the full build-out of adjacent parcels along the Famille-Côté Avenue corridor (former 850 Champlain parcel), which was accounted for separately.

19. 2013 Ottawa Transportation Master Plan

20. DRAFT 2025 Ottawa Transportation Master Plan – “Part 2 – Capital Infrastructure Plan” June 2025

21. DRAFT 2025 Ottawa Transportation Master Plan – “Part 2 – Capital Infrastructure Plan” June 2025. Table A3, Page I-10

3.2.3 Other Developments

The following adjacent proposed developments were described within Section 2.1.3.2 and include:

- *The Famille-Côté Avenue Corridor Development (former 850 Champlain parcel):* This development was accounted for separately within the background traffic forecasts. To simulate a worst-case scenario, the development was assumed to be fully completed by the 2030 horizon and are incorporated within the traffic volumes presented in Exhibit 2-21.
- *The 256 Centrum Boulevard Development:* This development was not accounted for separately, however, the conservative 1.5% annual background traffic growth rate was assumed to capture the impacts of this development upon the study area network.

3.3 DEMAND RATIONALIZATION

The following exhibits were prepared illustrating:

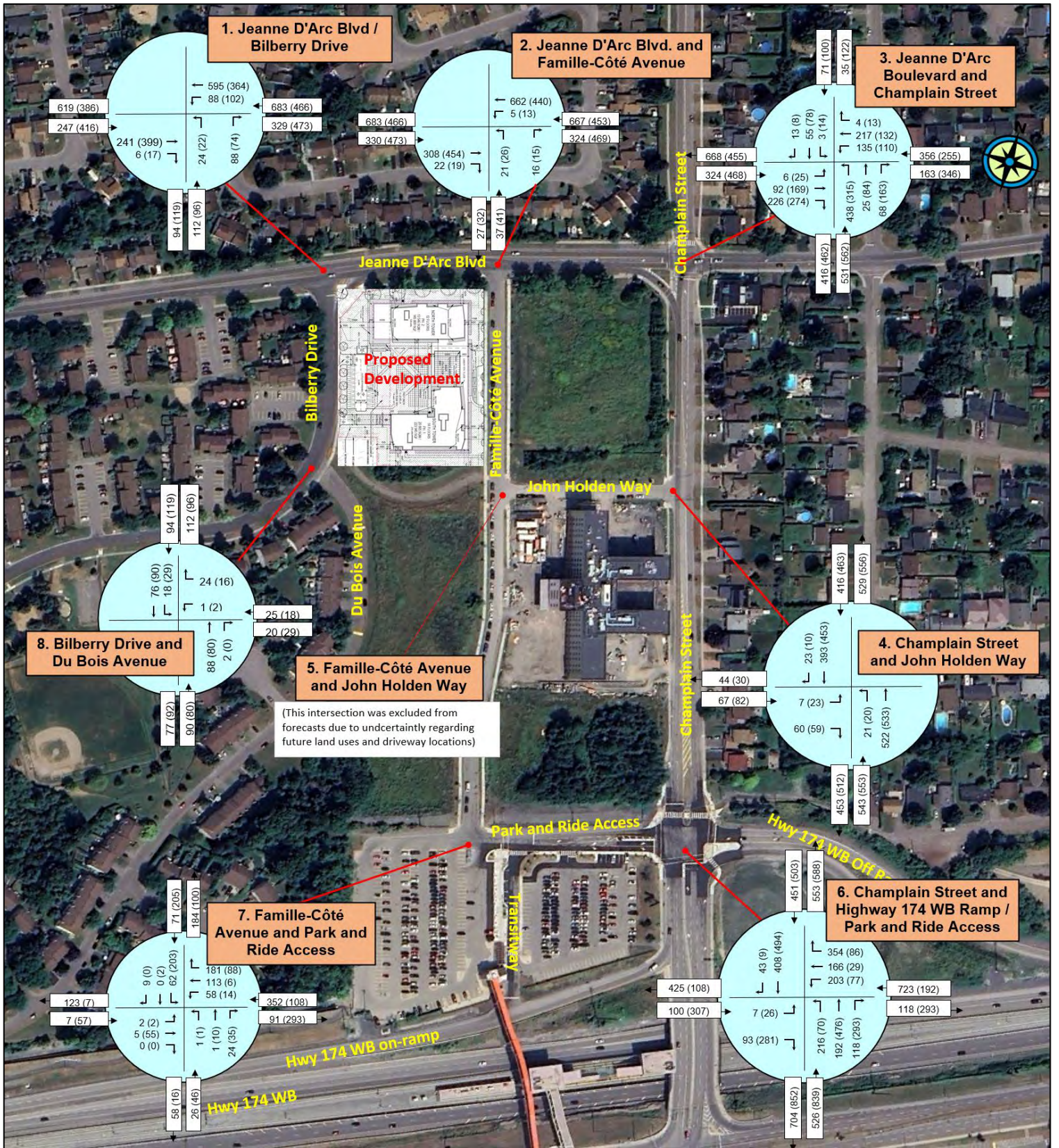
Background Traffic:

- Exhibit 3-2 illustrates the background traffic [excluding the proposed 500 Famille-Côté Avenue residential development] in the 2030 horizon year (build-out);
- Exhibit 3-3 illustrates the background traffic [excluding the proposed 500 Famille-Côté Avenue residential development] in the 2035 horizon year (build-out + 5 years);

Total Traffic:

- Exhibit 3-4 illustrates the background traffic [including the proposed 500 Famille-Côté Avenue residential development] in the 2030 horizon year (build-out);
- Exhibit 3-5 illustrates the background traffic [including the proposed 500 Famille-Côté Avenue residential development] in the 2035 horizon year (build-out + 5 years);

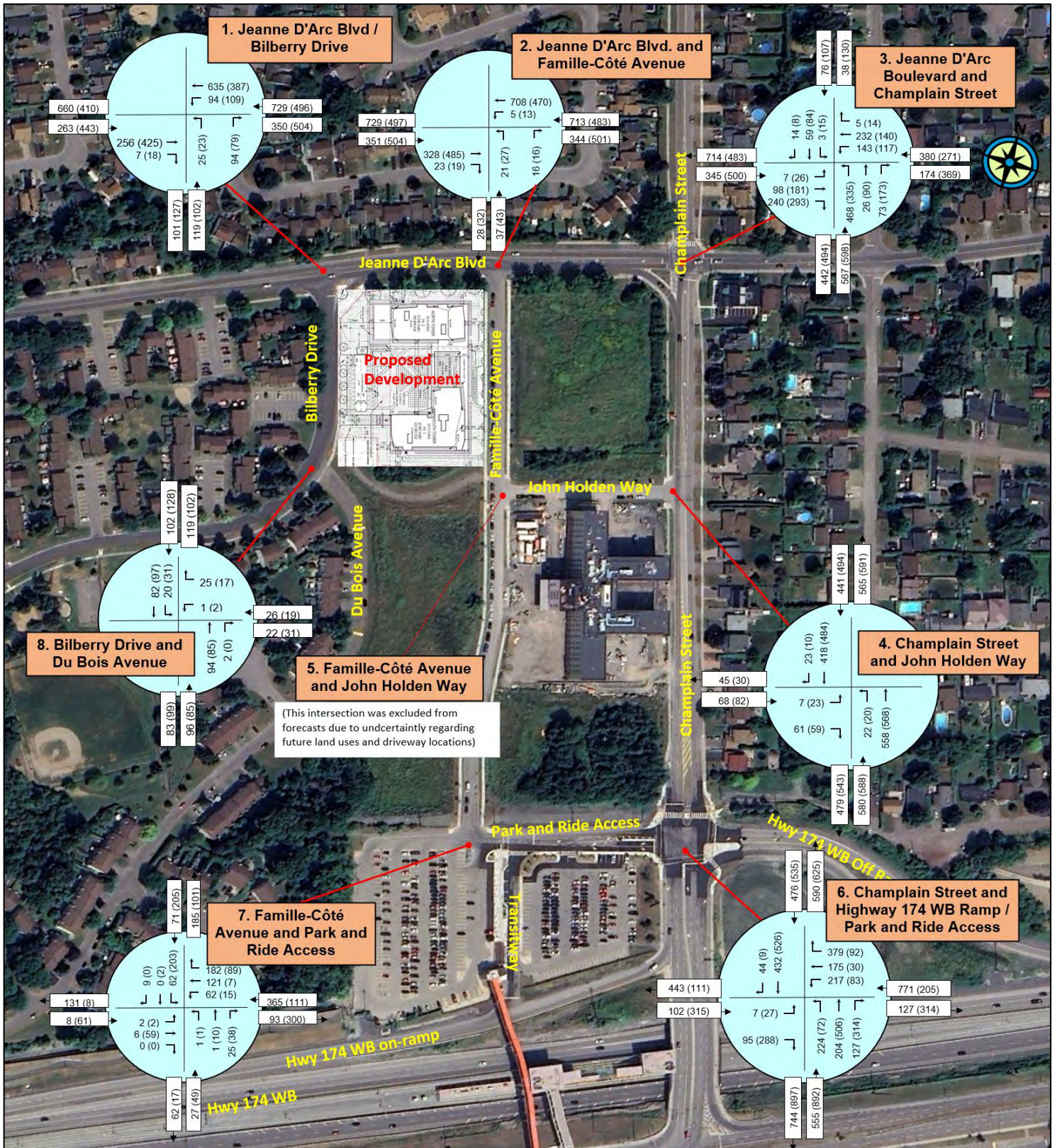
Please note that the above traffic forecasts exclude intersection #5 (Famille-Côté Avenue / John Holden Way) given that there is currently a lot of uncertainty regarding driveway placements of future developments along the Famille-Côté Avenue. This intersection was also excluded from the TIA prepared for the former 850 Champlain Parcel.



Morning (Afternoon)

vph = vehicles-per-hour

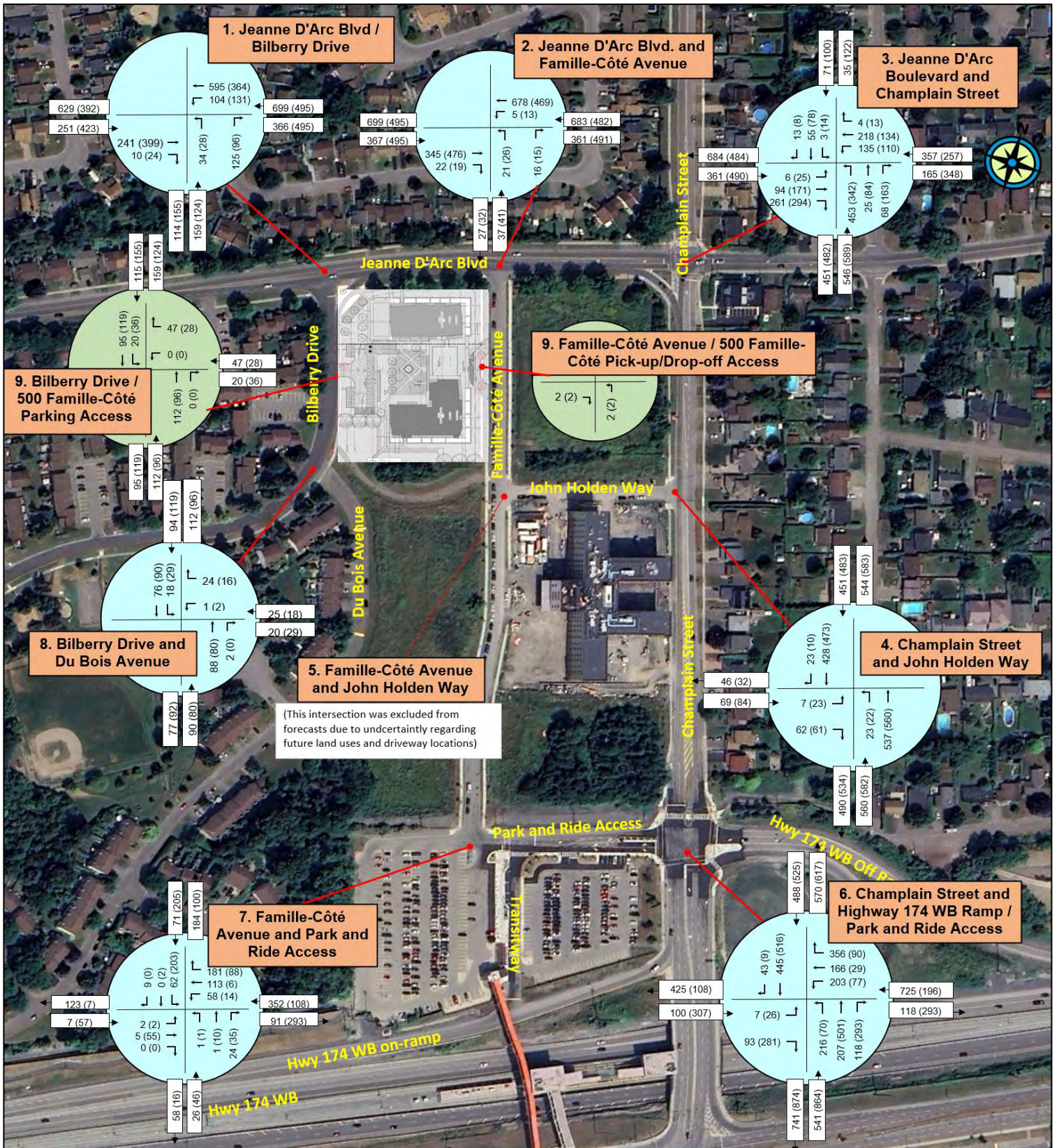
Exhibit 3-2: Background 2030 Traffic Volumes (Without the Development)



Morning (Afternoon)

vph = vehicles-per-hour

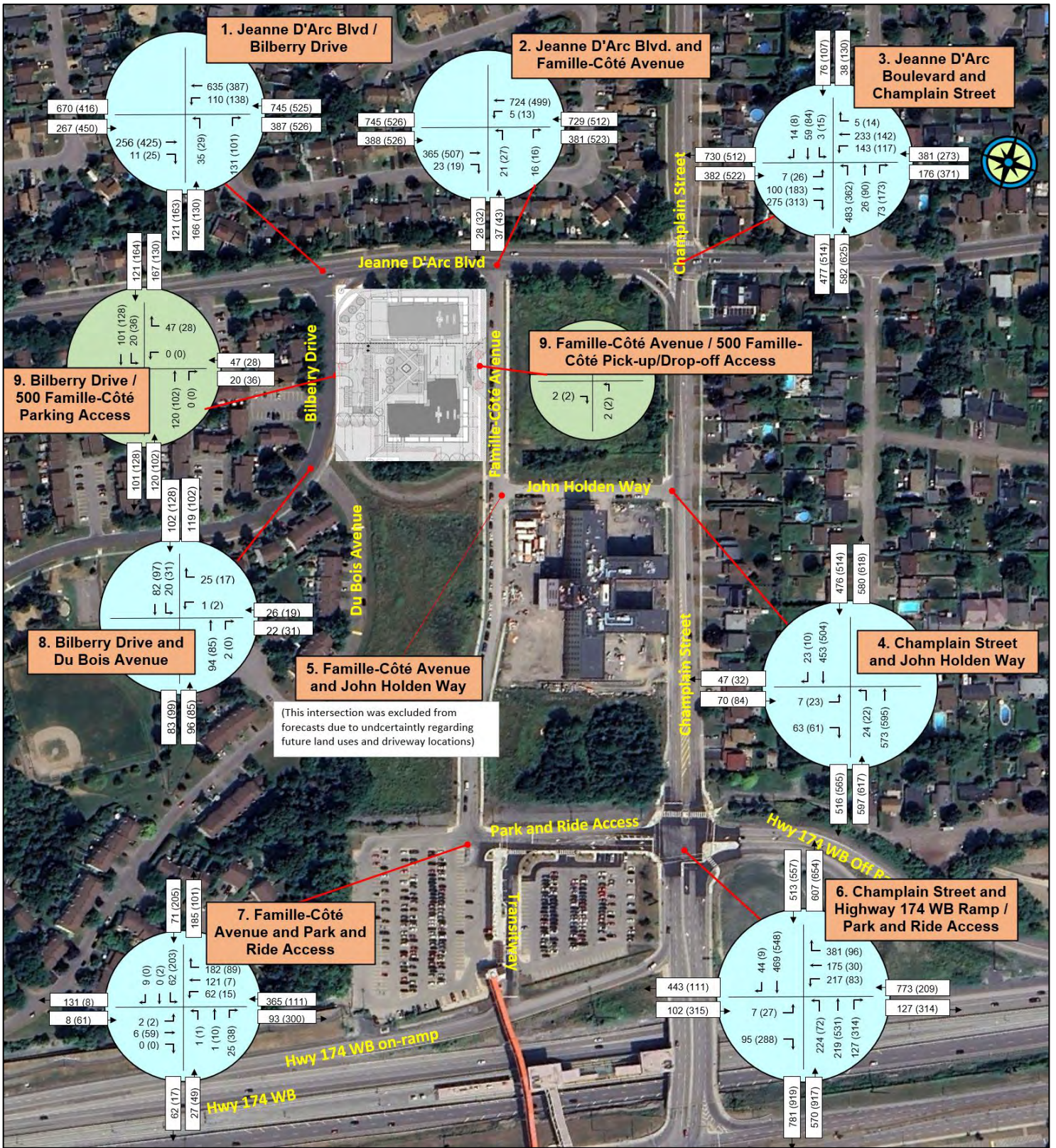
Exhibit 3-3: Background 2035 Traffic Volumes (Without the Development)



Morning (Afternoon)

vph = vehicles-per-hour

Exhibit 3-4: Total 2030 Traffic Volumes (With the Development)



Morning (Afternoon)

vph = vehicles-per-hour

Exhibit 3-5: Total 2035 Traffic Volumes (With the Development)

4.0 ANALYSIS

The following section presents the Strategy/Analysis component of this Transportation Impact Assessment. Six modules that would typically be required to be completed as part of TIA were requested to be exempted from this Strategy report. Table 4-1 reflects the requested exemptions, or reductions in scope. The exemptions are based on the City’s 2023 update to the TIA guidelines²², and include study elements that would ordinarily be contained within the Design Review and Network Impact components of the TIA document. These exemptions were requested at the Scoping stage and were approved by the City²³ on December 1, 2025.

Table 4-1: Strategy Report Exemptions as per TIA Guidelines

Module	Element	Exemption Rationalization / Considerations	Include Module in TIA
<i>Design Review Component</i>			
4.1 Development Design	4.1.3 New Street Networks	There are no new streets being proposed as part of this development.	No
<i>Network Impact Component</i>			
4.6 Neighborhood Traffic Calming	All elements	-The Application is NOT for Zoning By-Law Amendment or Draft Plan of Subdivision;	No
4.7 Transit	4.7.1 Transit Route Capacity	-The development is NOT forecast to produce >75 site-generated transit trips per peak hour	No
	4.7.2 Transit Priority Requirements	-The development is NOT forecast to produce >75 site-generated auto trips per peak hour	No
4.8 Network Concept	All elements	-The development does NOT generate >200 person-trips during the peak hour in excess of the equivalent volume permitted by established zoning.	No
4.9 Intersection Design	All elements	-The development is NOT forecast to produce >75 site-generated auto trips per peak hour.	No

4.1 DEVELOPMENT DESIGN

This section reviews the development’s connectivity to the adjacent roadways within the City’s transportation network intended to ensure safe and efficient access.

4.1.1 Design for Sustainable Modes

Appendix “E” provides a completed City of Ottawa “*TDM-Supportive Residential Development Design and Infrastructure Checklist*” for the proposed 500 Famille-Côté Avenue site. The checklist indicates that the proposed development satisfies all the required TDM infrastructure measures. Exhibit 4-1 illustrates that the development is characterized by direct pedestrian connectivity to all boundary streets, including nearby bus stops at Bilberry Drive, Jeanne D’Arc Avenue and the Place D’Orléans transit station.

22. Revisions to TIA Guidelines Update Effective June 14, 2023 https://documents.ottawa.ca/sites/default/files/tia_revisions_en.pdf

23. Mr. Mike Giampa, Transportation Project Manager, by way of e-mail on December 1, 2025

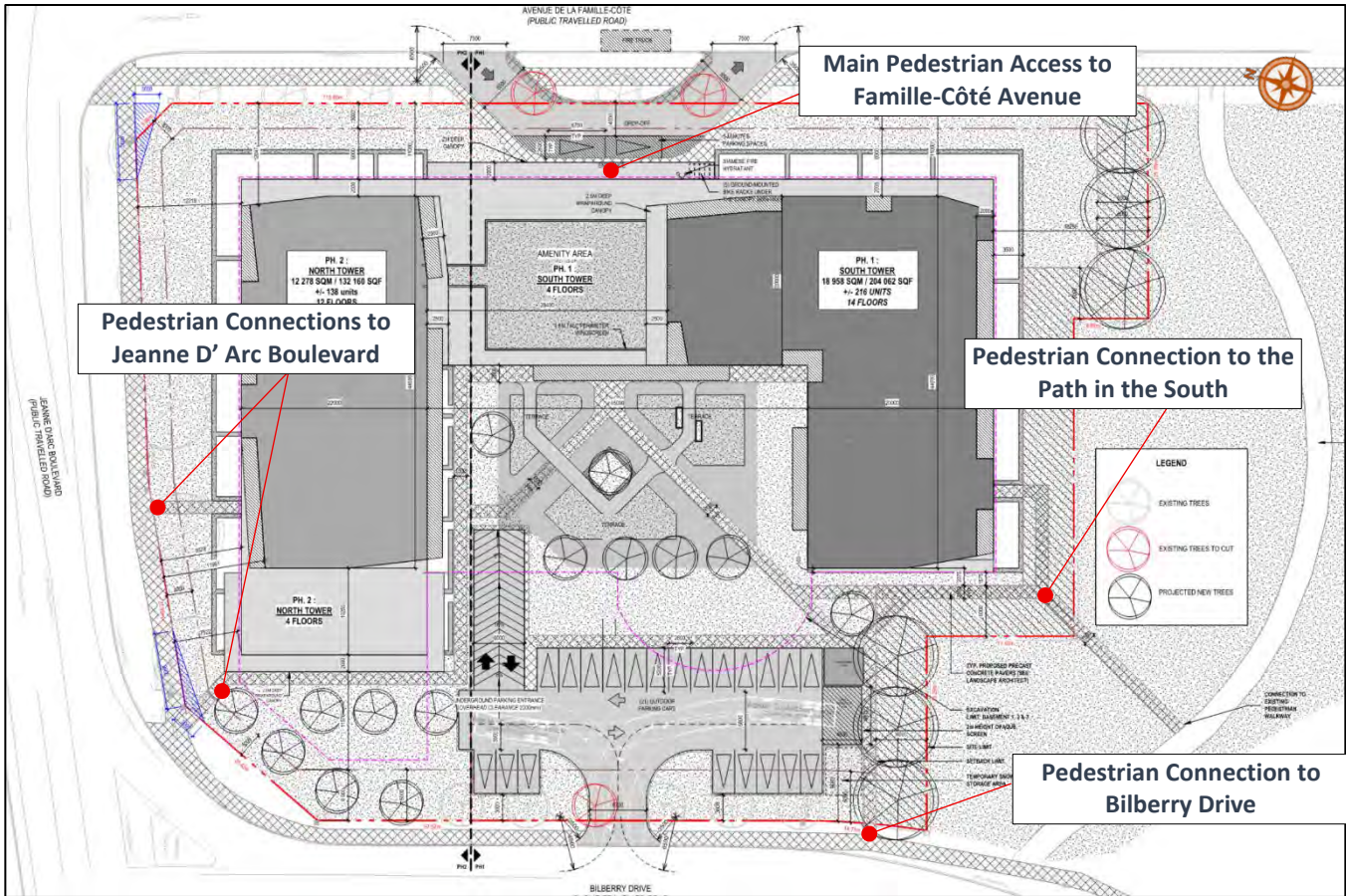


Exhibit 4-1: Site Plan Pedestrian Connections Review

4.1.2 Circulation and Access

The proposed development provides for two motor-vehicle access points:

- *Bilberry Drive Access:* This is an all-movement access to the surface parking lot (21 spaces), underground parking facility and, consisting of 3-levels and 379 parking spaces is located on Bilberry Drive
- *Famille-Côté Avenue Access:* This is a one-way on-site couplet access along the Famille-Côté Avenue frontage that leads to a designated pick-up/drop-off area that fronts the entrance to the site, including two short-term parking spaces intended for pick-up and drop-off only.

Appendix “F” provides an analysis of vehicle turning movements / swept paths that was conducted for the current (December 10, 2025) site plan for the following scenarios:

- *Waste Collection:* Garbage trucks using the Bilberry Drive Access for refuse pickup.
- *Resident/Visitor Parking:* Passenger vehicles use the Bilberry Drive Access to circulate through the parking garage and surface parking reserved for visitors.
- *Short-Term Pick-up/Drop-Off:* Passenger vehicles would use Famille-Côté Avenue Access to accommodate quick short term limited access to the site.

4.1.2.1 The Bilberry Drive Access

This access is located approximately 45m south of the NB STOP-bar of the Bilberry Drive / Jeanne D'Arc Boulevard intersection and is located within the Bilberry Drive NB-RT auxiliary lane.

This design of this access ...

- is 6.7m wide, which meets the requirements of City's private approach by-law²⁴.
- provides for ~8m of clear throat length (There is no applicable TAC standard throat length for residential accesses from "local" roadways).
- allows for waste/refuse pickup to enter and depart the site.
- permits a front-loading waste collection truck to access the refuse pickup area, complete its turning movement on-site, and depart the site using the same access. (See Appendix "F" which provides the results of turning movement analyses.)

4.1.2.2 The Famille-Côté Avenue Access

The proposed one-way southbound one-way on-site couplet driveway consists of an access and egress along the Famille-Côté Avenue corridor. The access is located approximately 35m south of the NB STOP-bar of the Bilberry Drive / Jeanne D'Arc Boulevard intersection and the egress is located approximately 30m further south. The access and egress curb cuts are separated by ~25 metres.

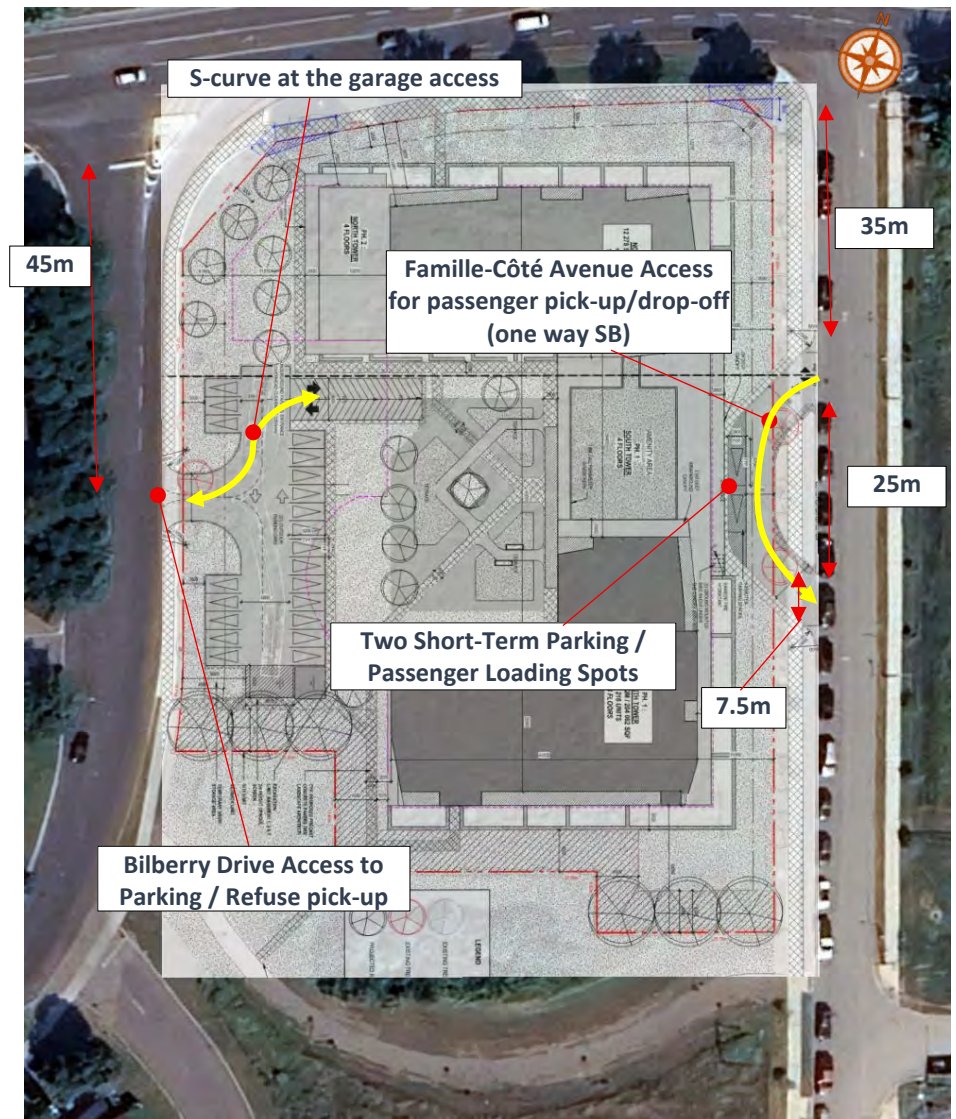


Exhibit 4-2: Site Plan Vehicle Access Review

24 Private Approach by-law 2003-447 Section 25, 1. C maximum two-way width: 9metres, maximum one-way width: 7.5metres

Both the access and egress to Famille-Côté Avenue exhibit a width of 7.5 m parallel to the street edge, which is the maximum allowable by the Private Approach By-law.

This access and egress driveway is effectively configured as a one-way southbound “loop” driveway, making use of two proposed curb cuts, and providing for two short-term parking / passenger loading spaces along the driveway and 5 bicycle parking spaces. Analysis of vehicle turning movements indicated that there are no issues associated with passenger vehicles accessing or leaving the proposed driveway.

4.1.2.3 Truck Loading / Unloading Provisions

The proposed development does not provide for an on-site loading space for heavy vehicles. Any heavy vehicle deliveries (i.e move-in and move-out, furniture / large item deliveries, etc.) will be required to be accommodated from the Famille-Côté Avenue corridor.

4.1.2.4 Parking Garage Circulation

Vehicle turning templates were used to provide a review of the access approaching and internal to the underground parking garage which included the circulation from Bilberry access to the garage entrance and the parking ramps in between the underground levels.

- **The Parking Garage Entrance.**

- Exhibit 4-3 illustrates two vehicle paths (TAC P Passenger Car, length = 5.6m) (inbound and outbound) navigating the proposed S-curve at the parking garage entrance.
- Turning movement analyses indicated an overlap in the travel paths, effectively making this a one-way circulation condition.
- Should this condition be maintained, it is prudent to instate “yield” signage at the approach to the parking ramp (inbound), along with two safety convex mirrors (one for inbound traffic, and one for outbound).
- This would allow inbound motorists to see outbound vehicles and refrain from completing their turning maneuver into the parking garage before the

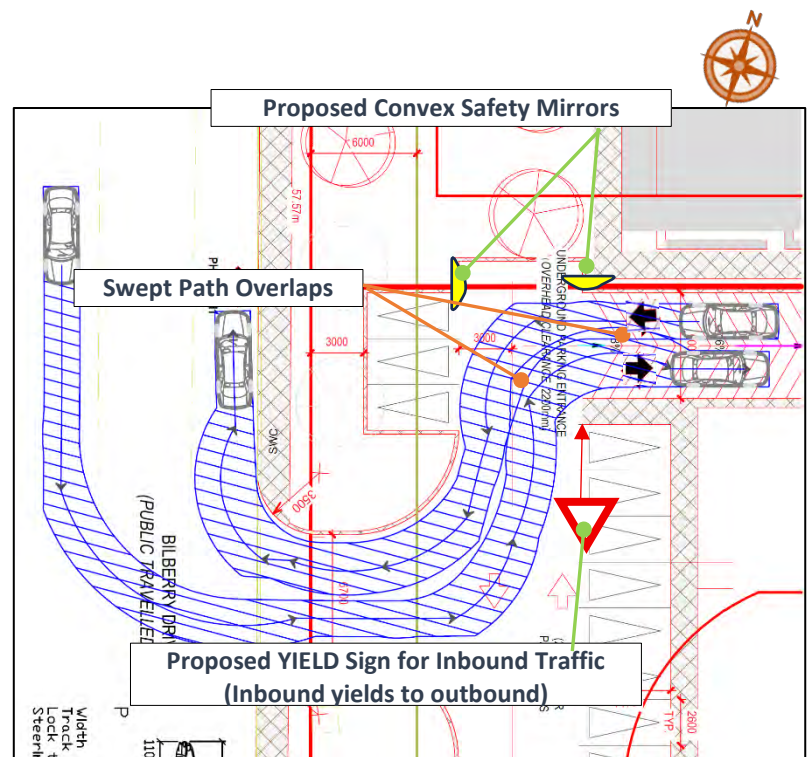


Exhibit 4-3: Passenger Vehicle Accessing the Garage

oncoming outbound vehicles clear. Ultimately, the architect is advised to investigate other geometric improvements which would allow for safe two-way circulation.

- **Circulation Inside the Proposed Parking Garage**

- *Please note that the architectural plans provided for this Site Plan Application did not include a structural column grid. This swept path analysis evaluates the geometric feasibility of the drive aisles and ramps based on walls and curbs only. Future coordination with structural engineering is required, as column placement may further impact vehicle maneuvering and effective drive aisle widths.*

- **“U-curve” to Access the Underground Garage Ramp:** Exhibit 4-4 illustrates that motorists will be required to navigate a “U-curve” between the ground floor ramp and lower-level ramp(s). This curve, even despite an increased 7-metre aisle width, still exhibits issues with 2-lane vehicle flow circulation. It is recommended that the traffic inside the garage operates under a “yield-to-oncoming traffic” condition. This can be achieved with a combination of warning signage and the use of convex mirrors allowing motorists to have a clear view of oncoming vehicles and react appropriately.

- **Circular Ramp Drive Aisle Circulation:** Exhibit 4-4 illustrates that two-way vehicle flow on the ramp is technically achievable within the proposed architectural walls. However, the resulting vehicle envelopes indicate a constrained maneuvering environment with minimal clearance buffers. The design relies on the assumption that “resident” motorists will quickly become familiar/accustomed to the layout and specific geometric constraints of the ramp arrangement over time. However, the proponent has been advised that some “visitors” (as indicated in Section 4.2.1) will also be required to park underground. Additional safety measures, such as painted curbs (i.e. bright yellow) and protective bollards, can further assist in guiding motorists around the proposed ramp.

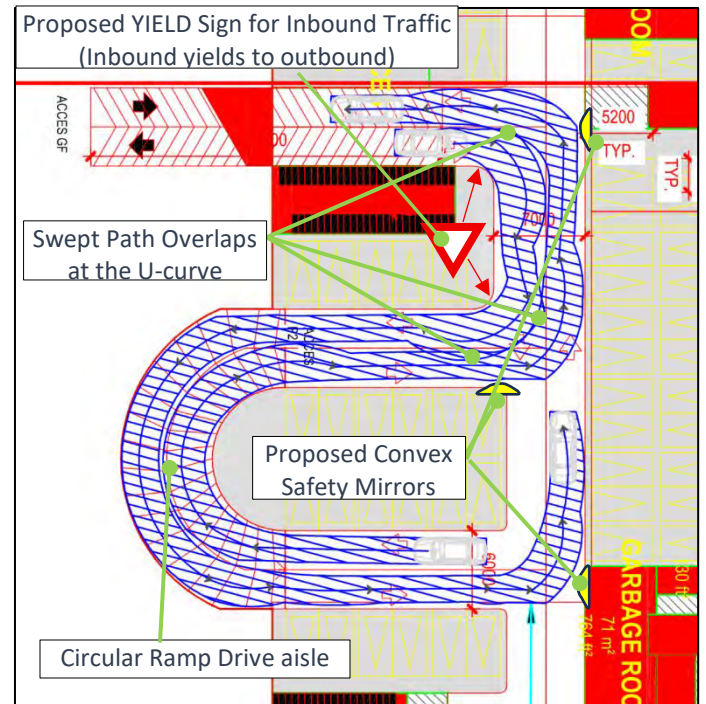


Exhibit 4-4: Passenger Vehicle Navigating Inside the Garage

4.2 PARKING

The proposed development’s parking provisions and compliance to municipal by-laws follows:

4.2.1 Auto Parking Supply

City of Ottawa’s minimum parking requirements vary by area. A review of the applicable by-laws²⁵ indicate that this development is located within “Area Z: Near Major LRT Stations”. A review of the Area Z requirements²⁶ indicate that no residents’ off-street vehicle parking is required, and 0.1 visitor parking spaces-per-unit are required. Table 4-2 indicates that the development:

- meets the City’s requirements for vehicle parking provisions,
- needs to ensure that, ultimately, at least 36 spaces are designated for visitors (including 21 at-grade spaces and 15 underground spaces.), and
- will provide for 2 accessible underground parking spaces.

Table 4-2: Auto Parking Requirements and Provisions

<i>Land Use</i>	<i>City Requirement</i>	<i>Phase 1 Build-Out (2027) Parking Provisions</i>		<i>City Requirement</i>	<i>Full Build-Out (2030) Parking Provisions</i>	
		<i>Underground Spaces</i>	<i>Surface Spaces</i>		<i>Underground Spaces</i>	<i>Surface Spaces</i>
Residents	0 spaces	237 spaces	-	0 spaces	364 spaces	-
Visitors	23 spaces	1 space	21 spaces	36 spaces	15 spaces	21 spaces
Total	23 spaces	238 spaces	21 spaces	36 spaces	379 spaces	21 spaces
		259 On-Site spaces			400 On-Site spaces	

4.2.2 Bicycle Parking Supply

A review of the City of Ottawa’s Zoning by-law²⁷ indicated that a rate of 0.5 bicycle spaces-per-dwelling unit is required, resulting in a requirement of 177 bicycle spaces. Table 4-3 indicates that 180 bicycle spaces are provided, which will all be built out as part of Phase 1 of the development. Therefore, the City’s by-law requirements are satisfied.

Table 4-3: Bicycle Parking Requirements and Provisions

<i>Land Use</i>	<i>City Requirement</i>	<i>Phase 1 Build-Out (2027) Parking Provisions</i>		<i>City Requirement</i>	<i>Full Build-Out (2030) Parking Provisions</i>	
		<i>Underground Spaces</i>	<i>Surface Spaces</i>		<i>Underground Spaces</i>	<i>Surface Spaces</i>
Residents	113 spaces	175 spaces	5 spaces	177 spaces	175 spaces	5 spaces
Total	113 spaces	175 spaces	5 spaces	177 spaces	175 spaces	5 spaces
		180 On-Site spaces			180 On-Site spaces	

²⁵ Schedule 1A to Zoning By-law 2008-250. Attachment 1 to by-law 2016-249, passed July 13, 2016

²⁶ Zoning By-law 2008-250. Part 4 – Parking, Queuing and Loading Provisions. Section 101 (2) and Section 102, Table 102

²⁷ ibid. Section 111 Table 111A row (b)

4.3 BOUNDARY STREET DESIGN

4.3.1 Mobility

The City of Ottawa’s updated 2025 Multi-Modal Level of Service Guidelines²⁸ were used to evaluate multi-modal operational characteristics of roadway segments and signalized intersections in the vicinity of the proposed development. The City of Ottawa’s Multi-Modal Level of Service Guidelines outline the following level of service measures for various non-automotive transportation modes in the city:

- Pedestrian Level of Service (PLOS);
- Bicycle Level of Service (BLOS);
- Transit Level of Service (TLOS); and
- Public Realm Level of Service (PrLOS).

The Multi-Modal Level of Service analysis focuses on roadway segments adjacent to the development. [Multi-modal level of service analysis of intersections was exempted from the report as per Table 4-1.]

Table 4-4 highlights the resulting multi-modal levels-of-service (MMLOS) for the various modes for each of the following roadway segments:

- Jeanne d’Arc Boulevard (between Bilberry Drive and Famille-Côté Avenue),
- Bilberry Drive (between Du Bois Avenue and Jeanne d’Arc Boulevard), and
- Famille-Côté Avenue (between Jeanne d’Arc Boulevard and John Holden Way).

The following sections describe the forecast MMLOS results for each individual mode of travel based on the forecast 2035 traffic volumes.

Table 4-4: Segment Multi-Modal LOS Analysis Results

<i>Location</i>		<i>2035 Level of Service and Target Levels of Service</i>						
		Pedestrian LOS		Cycling LOS		Transit LOS		Public Realm LOS
Roadway Segment	Policy Area/ Land Use Designation	PLOS	Target PLOS	BLOS	Target BLOS	TLOS	Target TLOS	(No Target)
Jeanne d’Arc Boulevard (North Side)	Within 600 m of Rapid Transit Station	E	A	D	B	C	E	C
Jeanne d’Arc Boulevard (South Side)		B	A	E	B	C	E	B
Bilberry Drive (West Side)		N/A	A	C	B	C	E	D
Bilberry Drive (East Side)		C	A	C	B	C	E	C
Famille-Côté Avenue (West Side)		A	A	B	B	N/A	E	B
Famille-Côté Avenue (East Side)		A	A	B	B	N/A	E	B

Note: Levels of Service (LOS) highlighted in bold font fail to meet the respective target LOS

28 Multi-Modal Level of Service (MMLOS) Guidelines, May 2025 Update, City of Ottawa Planning, Development and Building Services Department

4.3.1.1 Pedestrian Level of Service (PLOS)

The target Pedestrian Level of Service (PLOS) for the area is “A”. The method for calculating PLOS takes into account the total facility width (including offset from roadway), as well as distance between controlled crossings (i.e. signal, STOP, pedestrian crossover) along the corridor

- Roadway segments of Bilberry Drive (PLOS “B”) and Jeanne D’Arc Boulevard (PLOS “B/E”) were found to NOT meet the PLOS target of “A”.

Bilberry Drive: to achieve the target PLOS along the east side Bilberry Drive, the following would be required:

- **Boulevard Width:** Introduction of a boulevard that would provide a physical separation between the outer edge of the sidewalk and the outer edge of the vehicle travel lane would increase the existing PLOS “B” to “A”. Exhibit 4-5 illustrates a concept where this can be achieved by shortening the existing NB-RT lane in the vicinity of the Bilberry Drive / Jeanne D’Arc Boulevard intersection and creating “neckdowns / bulb-outs” at the development entrance.



Exhibit 4-5: Proposed Narrowing of Bilberry Drive

- **Crossings:** Bilberry Drive south of the site provides for multiple uncontrolled crossings with curb depressions southwest of the site, which is considered an acceptable crossing for low-volume local roadways (i.e. no signals or PXOs are required due to low volumes).

- **West Side Sidewalk:** Note that Bilberry Drive only provides sidewalk on the east side. This is acceptable on local suburban roads as per the new TMP’s sidewalk policy. Construction of the new sidewalk on the west side may impact existing mature trees, and is thought likely not to be acceptable.

Jeanne D’Arc Boulevard: to achieve the target PLOS “A” along Jeanne D’Arc Boulevard, the following would be required:

- **North Side Sidewalk Width:** Widening of the existing sidewalk along the north side of the corridor from 1.5 metres to at least 1.8 metres would improve the PLOS from “E” to “B”. This minimum width should be considered upon the next scheduled reconstruction of this sidewalk.

- *Pedestrian Crossings of Jeanne D’Arc:* The current separation between the two controlled signalized crossings of Jeanne D’Arc Boulevard within the study area segment fronting the property is 540 metres. The minimum required spacing to achieve a PLOS “A” is 260 metres. Exhibit 4-6 identifies 4 possible locations west of Bilberry Drive where possible pedestrian crossing treatments could be implemented:
 - *Location A:* The west leg of the Jeanne D’Arc/Bilberry Drive intersection located 240m west of the Champlain Street traffic-signal controlled crossing,
 - *Location B:* 260m west of the Jeanne D’Arc/Champlain Street traffic-signal controlled crossing. (This is the maximum offset required to achieve PLOS “A”),
 - *Location C:* The existing pathway 295 m west of the Jeanne D’Arc/Champlain Street traffic-signal controlled crossing. While the 295-metre spacing will technically not achieve a PLOS “A”, this location merits consideration for a mid-block treatment due to an opportunity to accommodate a pedestrian desire path connection (to the existing pathway in the north).
 - *Location D:* The west side of the Bilberry Drive/Jeanne D’Arc intersection has a channelized island which effectively narrows the pedestrian crossing distance of Jean D’Arc and could provide an opportunity to accommodate an additional pedestrian crossing.
- The City of Ottawa is recommended to consider these locations for a potential mid-block pedestrian treatment to align with the new MMLOS targets in the vicinity of rapid transit stations.

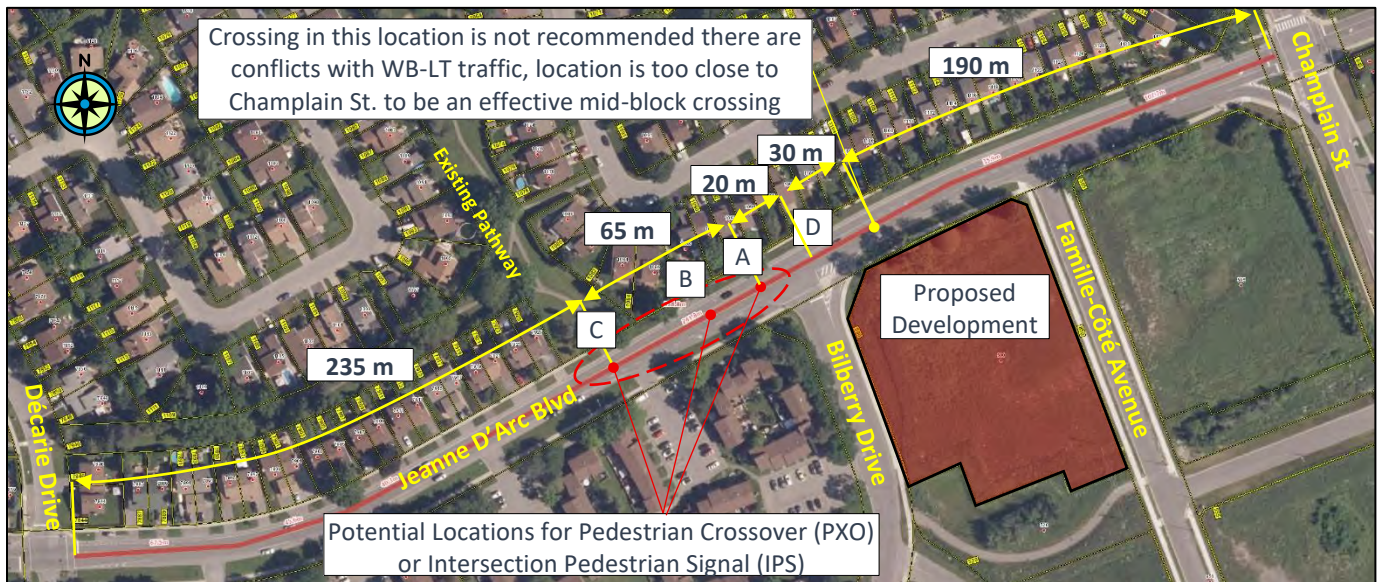


Exhibit 4-6: Potential Locations of Pedestrian Crossings of Jeanne D’Arc Boulevard

4.3.1.2 Bicycle Level of Service (BLOS)

The target Bicycle Level of Service (BLOS) for the area is “A” for routes designated as “Cross-Town Bikeway” and “B” for non-designated routes. Given that none of the study area streets are “Cross-Town

Bikeways”, the target for all segments is “B”. The Jeanne D’Arc Boulevard and Bilberry Drive corridors do not meet this required target.

- ***Bilberry Drive:*** This is a local roadway that is posted at 40 km/hr and has an AADT of approximately 2,500 daily vehicles, scoring it a BLOS “C”. According to the MMLOS guidelines, an addition of any cycling facility (i.e. curbside bike lanes with a width of 1.5m + or MUP) will translate in the facility scoring a BLOS “A”, regardless of the facility specifications.
- ***South Side of Jeanne D’Arc Boulevard:*** Continuous bike lanes are not provided in the eastbound direction. Cyclists are required to navigate within mixed traffic which scores a BLOS “E”.
- ***North Side of Jeanne D’Arc Boulevard:*** provides for an existing 1.5-metre bike lane without a buffer, scoring a BLOS “D”.

Given the high traffic volumes along this major collector corridor, higher-level cycling facilities are required to achieve a BLOS “B”. Bike lanes need to be buffered (possibly with vertical treatment), and be widened to at least a 1.8 metres width.

4.3.1.3 Transit Level of Service (TLOS)

The target Transit Level of Service (TLOS) for the study area and supporting roadways is “E”. All segments were found to meet this target. Note that the segment of Famille-Côté Avenue does not provide for current or future regularly scheduled transit services, therefore the TLOS is not applicable for this roadway segment.

4.3.1.4 Public Realm Level of Service (PrLOS)

Public Realm Level of Service is a new addition to the City’s MMLOS guidelines, intended to evaluate the “overall user experience” of each boundary street. The analysis considers all elements of MMLOS analysis, such as sidewalk space allocation, cycling facilities, and bus stop infrastructure. Conceptually, the Public Realm Level of Service acts as an indicator of the aggregate MMLOS performance:

- PrLOS “A” indicates a successful "complete street" configuration where the right-of-way (ROW) is allocated to benefit all users requiring mobility including pedestrians, cyclists, transit users, and motorists equitably, and with sufficient safety measures (i.e., buffers, traffic calming).
- On the other hand, PrLOS “F” characterizes a car-dependent facility, referred to in planning literature as a “stroad”²⁹, where the majority of space (4-5+ lanes) is dedicated to personal motor vehicles travelling at relatively high speeds (60 km/h+). In this condition, pedestrian, cyclist, and transit facilities are absent (or fail) to offer a sufficient buffer from the motor-vehicle dominance.

29. The term “*stroad*” describes a common roadway type that attempts to combine the high-speed function of a road (mobility) with the complexity and access of a street (destination). The result is often a facility that fails at both functions, creating a hostile environment for active transportation users while introducing multiple conflict points and delays for motorists due to poor access management. These roadways typically score “E” or “F” on the PrLOS system.

- The City’s MMLOS guidelines specifies that no target is provided for the PrLOS, however, it is considered prudent for any development to improve on the adjacent street’s PrLOS metrics where possible and feasible.
- **Jeanne D’Arc Boulevard:** The south and north segments score a PrLOS B and C, respectively.
- **Famille-Côté Avenue:** Both sides of this segment score a PrLOS “B”.
- **Bilberry Drive West Side:** This segment earns a PrLOS “D” due to a lack of sidewalk. As discussed above, installing a sidewalk may not be feasible due to existing constraints
- **Bilberry Drive East Side:** Instating a boulevard bulb-out at the Bilberry Drive development access to improve the PLOS (pedestrian), would also improve the PrLOS for this segment from “C” to “B”, aligning with the City’s MMLOS goals.

4.3.2 Road Safety

Section 2.1.2.9 addressed historical collision analysis of the study area intersections. The review of collision history indicated two intersections of interest:

- Champlain Street/Jeanne D’Arc Boulevard, and
- Champlain Street/Hwy 174 WB Off-Ramp/Park-and-Ride access.

4.3.2.1 Champlain Street / Jeanne D’Arc Intersection Safety

This intersection has maintained its existing configuration largely unchanged since the addition of a painted receiving bike lane in at the westbound egress (~2017). Section 2.1.2.9 indicated that there were 12 collisions recorded in the last 4-year period 2019-through-2022 and 2024.

- There are clear gaps in active transportation infrastructure at this intersection, which may have been a contributing factor to the past collisions. Bridging these gaps can take the form of a combination of the following measures:
 - High-visibility pedestrian crossing “zebra” markings on all approaches;
 - Introducing leading pedestrian signal intervals when called by a push-button;
 - Provision of dedicated cycling lanes on all approaches;
 - Provision of dedicated cyclist crossings with a leading signal interval when called.
- 67% of the recorded collisions were angle or turning movements. This may be due to motorists experiencing delays while turning left at either of the four approaches. The increased advent of these delays may prompt motorists to accept unsafe gaps to avoid waiting any longer, which could lead to a collision. Possible strategies of mitigating the turning movement conflicts are:
 - Providing protected left turn phasing at key approaches (NB-LT and WB-LT are deemed critical based on the traffic volumes with >100 vph each);
 - Ultimately, a roundabout, rather than a conventional intersection could possibly provide for both natural traffic calming, forcing everyone entering the intersection to slow down, and also provide for a reduction in conflict points at the intersection compared to a typical signalized 4-way intersection.

- The above mitigation strategies are considered well outside of the scope of this TIA study, given that the proposed development is not forecast to cause a significant influx of traffic volumes at these intersections requiring immediate mitigation. However, as further mixed-use TOD development in the area progresses, it is considered prudent to continue monitoring the intersection of Champlain Street / Jeanne D’Arc Boulevard intersection for increases in travel volumes across all modes, and possible implementation of the mitigation strategies should safety issues persist.

4.3.2.2 Champlain Street / Highway 174 WB Off-Ramp / Park-n-Ride Access Intersection

Exhibit 4-7 illustrates the chronology of intersection improvements at the Champlain Street / Highway 174 WB Off-Ramp / Park-n-Ride Access. This intersection has undergone significant improvements over the last 7 years, as described below:

- The base design is illustrated at the top of the exhibit (June 2018);
- By June 2021, the intersection had undergone a widening of the west leg to allow for two approach lanes and a wider receiving lane, along with an improvement to the pedestrian curb in the NW corner.
- By August 2025, the intersection had undergone another round of significant improvements (likely in preparation for LRT revenue service at the nearby Place D’Orleans Station), including:
 - Implementation of a raised median on the west leg,
 - Implementation of high-visibility pedestrian crossing markings on the north and part of the east leg,
 - Construction of a new pedestrian corner curb and sidewalk in the SW corner of the intersection,
 - Reconstruction of the channelized island in the SE corner of the intersection,
 - Reconstruction of sidewalk approaches on each corner of the intersection, and
 - Dedicated signalized cycling crossing on the north leg of the intersection connecting a future pathway running east-west.

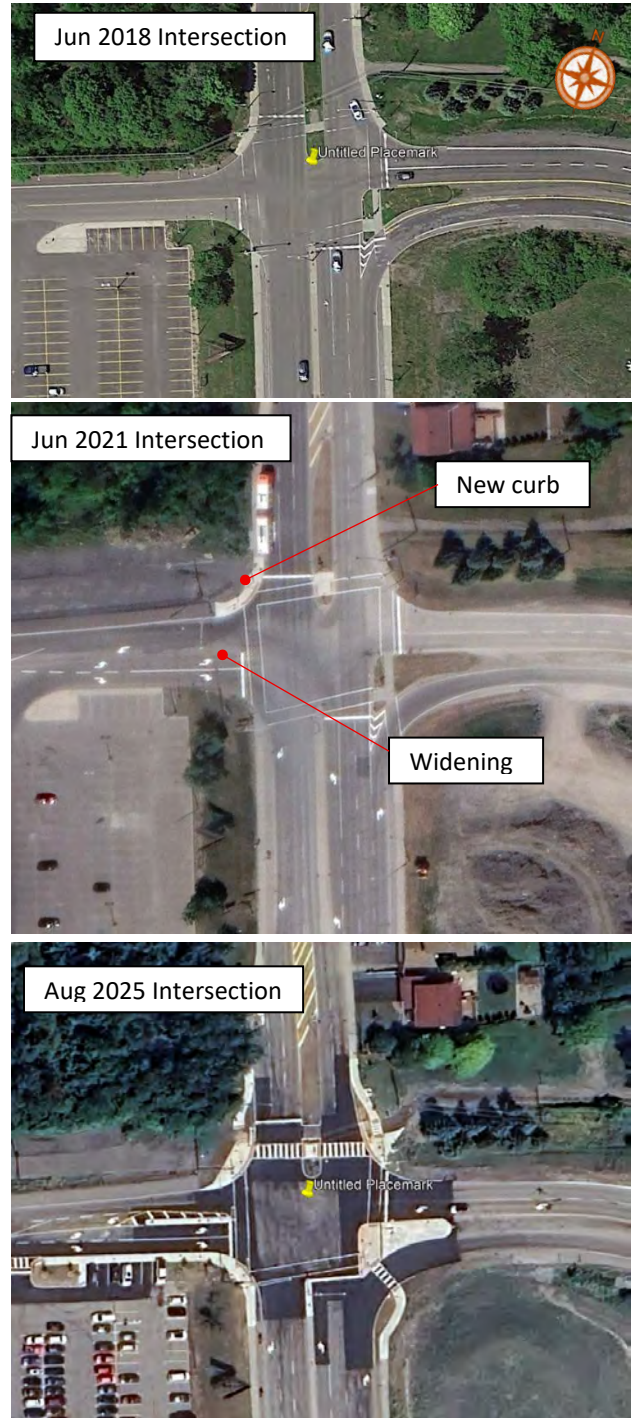


Exhibit 4-7: Champlain Street / Hwy 174 WB Off-Ramp / Park-n-Ride Intersection

The historical collision records provided for this intersection (2019-through-2022 and 2024) do not yet reflect the most recent (2025) improved upgrades to this intersection. A re-evaluation of the safety statistics should be conducted over the next 5-year horizon (to 2030) to assess the post-improvements collision records compared to the collision information presented within this report. Should the future safety analysis indicate continued concerns, further mitigations/improvements may be considered.

4.3.3 Neighbourhood Traffic Management

The proposed site was forecast to generate 71 and 68 motor-vehicle trips during the morning and afternoon peak hours of travel demand, respectively. This level of forecast traffic is not anticipated to exacerbate existing traffic conditions along the study area network intersections nor corridors. The existing intersections were found to operate at a level of service “C” – or-better, indicating sufficient residual capacity remaining to accommodate the proposed development.

According to the MMLOS guidelines, the target auto LOS in policy area within 600 metres of a rapid transit station is “E”. Even if the existing levels of service were to decrease due to advent of the 500 Famille-Côté Avenue development and adjacent developments in the area, it is unlikely that any movements would fall under the critical City’s auto LOS “E” threshold.

4.4 TRANSPORTATION DEMAND MANAGEMENT

This section identifies potential Transportation Demand Management strategies that could be implemented upon the development’s completion to ensure the target mode shares are satisfied.

4.4.1 Context for TDM

The full build-out of the proposed development will contain 354 residential units. The unit breakdown within the residential building is as follows:

- 155 x 1-bedroom units (44%);
- 133 x 2-bedroom units (38%); and
- 41 x 1-bedroom+Den units (12%);
- 25 x 2-bedroom+Den units (7%)

The proposed 500 Famille-Côté Avenue development is located in a Transit-Oriented Development (TOD) zone within 600 metres of future Place D’Orléans LRT Station. The proposed development is also located in close proximity to the Hwy 174 corridor facilitating access to greater Ottawa.

4.4.2 Need and Opportunity

Section 3.1.1.2 provides the forecast and target mode shares for the proposed 500 Famille-Côté Avenue development. Forecasts indicate that the mode share of motor-vehicle traffic for the proposed 500 Famille-Côté Avenue development is anticipated to be lower than typical suburban Orléans dwellings (that are further removed from the future LRT Stations).

The adopted transit mode share for this development was assumed to be ~35% , is thought to be achievable and can potentially reach a level comparable with, or exceed, that of developments within the central, inner-urban area.

Assuming that the provision of transit and active transportation infrastructure is a given, the use of the single-occupant vehicle will be driven by predominantly two key factors:

- **Surrounding Land Use Context:** The local area context north of the Hwy 174 corridor remains predominantly low-density residential and institutional. The vast majority of essential services (medical, leisure, shopping, entertainment, distinct errands) are located south of the Hwy 174 corridor with the Place D'Orléans Shopping Centre being conveniently situated within 700m and the Shenkman Arts Centre within 1.2 km of the proposed 500 Famille-Côté Avenue development. These distances can be considered a relatively comfortable walking/cycling distance thereby avoiding the use of a personal motor-vehicle
- **Target Demographic ("Active Seniors"):** The "Active Seniors" profile is characterized by high vehicle ownership rates but distinct travel behaviors. Unlike working professionals, this demographic does not generate significant traffic during the morning and afternoon peak hours of travel demand. Senior's travel demands are most often spread outside of the peak hours of travel demand for items such as errands, leisure, shopping and appointments.

Conclusion on Parking Provisions: While the proposed parking ratio (~1.13 spaces/unit) exceeds what would typically be expected in a Transit Oriented Development (TOD), the parking strategy is justified by the distinction between vehicle storage for sporadic usage, as opposed to active regular usage during the commuting peak hours of travel demand.

Residents in this "Active Senior" demographic require vehicles for lifestyle maintenance and connectivity (ownership), but they are largely retired or semi-retired. Consequently, the high provision of parking spaces caters to static vehicle storage requirements, while the actual dynamic traffic impact on the roadway network during the peak hours of travel demand remains moderate and significantly lower than a development targeted toward commuting professionals.

4.4.3 TDM Program

The proposed development conforms to the City's TDM initiatives by providing a direct access to surrounding pedestrian sidewalks from the ground floor level of the apartment building. The TDM measures checklists for residential and non-residential components of the development were reviewed (see Appendix "H") and the following TDM measures are suggested to be implemented by the development proponent:

- Display relevant transit schedules and route maps and walking/cycling access routes at the mail box room and other locations;
- Unbundle the parking costs from the monthly rental costs; and

- Provide a multimodal travel option information package to new residents including information concerning the City’s ride share application (i.e. Ottawa Ride Match)

Additionally, the development proponent and project architect are encouraged to consider enhancing the currently proposed bicycle parking provisions to encourage alternative travel modes by:

- Providing more bicycle parking than the minimum required by the Zoning By-law (currently a ratio of about 0.5 bicycle parking spots / unit is proposed);
- Relocating some of the bicycle parking to ground floor level to provide for more convenient access to the street level;

4.5 RECOMMENDATIONS FOR NEXT SITE PLAN REVISION

The following recommendations are provided to the development proponent and the project architect at this initial stage of the Site Plan Application (SPA) process:

- **Site and Parking Circulation:** The architect was advised to investigate increasing the curve radii and widening the vehicle travel lane at the parking garage entrance, and along the main travel lane and ramps inside the parking garage. This is anticipated to be completed during subsequent stages of site and building design once the structural and mechanical systems of the building are finalized.
 - The preferred solution to the identified site circulation issues would be to widen the drive aisles where appropriate to permit for uninterrupted two-way circulation along the main drive aisle.
 - However, if not deemed architecturally or structurally feasible, other safety measures, such as convex safety mirrors, yield and warning signage, and bright reflective paint along curbs need to be used to mitigate the concerns regarding the traffic “choke points” along the main drive aisles
- **Turning Movement Revisions:** Future revisions to the passenger car turning movement exhibits are recommended as the site plan progresses to ensure the safety issues are mitigated. These revisions should be included as part of the Final TIA report.
- **TDM Measures:** The development proponent is encouraged to develop a formal TDM (Transportation Demand Management) Strategy to encourage the usage of alternative travel modes, such as walking, cycling and transit.

4.6 RECOMMENDATIONS TO THE CITY OF OTTAWA

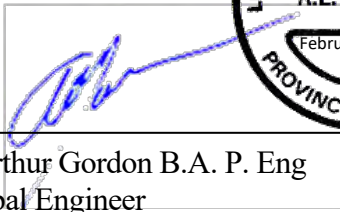
- **Proposed Bulb-Outs along Bilberry drive:** The City of Ottawa is encouraged to consider and comment on the feasibility of the proposed bulb-out (neckdown) design at the Bilberry Drive entrance to improve the pedestrian and public realm levels of service along the Bilberry Street frontage. Should the City want this measure to be implemented, we understand that design drawings would be required.
- **Mid-Block Pedestrian Crossing along Jeanne D’Arc Boulevard:** The City of Ottawa is encouraged to consider locations for a pedestrian crossing treatment within the mid-block segment of Jeanne D’Arc Boulevard between Champlain Street and Décarie Drive.
- **Monitoring of Champlain Street / Jeanne D’Arc Boulevard:** The City of Ottawa is recommended to monitor increase in travel volumes across all modes at this intersection, and consider implementation of mitigation strategies should safety issues persist.

5.0 SIGN-OFF

The undersigned report is submitted to the City of Ottawa staff for review.

Should you have any questions or comments, please do not hesitate to contact us. We await your feedback prior to issuing a final TIA Report.

Respectfully,



Mr. Arthur Gordon B.A. P. Eng
Principal Engineer
Castleglenn Consultants Inc.



Mr. Andrey Kirillov B. Eng
Transportation Planner
Castleglenn Consultants Inc.

List of Appendices

Raw Traffic Volume Information.....	A
Existing Traffic Counts, Signal Timings and Collision Data.....	B
Existing (2025) Synchro Intersection Capacity Analysis Results.....	C
Site Plan (December 10, 2025).....	D
TDM Supportive Development Checklist.....	E
Vehicle Swept Path Analysis.....	F
Segment MMLOS Analysis.....	G
TDM Measures Checklist.....	H
E-Mail Communications.....	I

APPENDIX "A"
RAW TRAFFIC VOLUME INFORMATION



Certification Form for TIA Study PM

TIA Plan Reports

On April 14, 2022, the Province's Bill 109 received Royal Assent providing legislative direction to implement the More Homes for Everyone Act, 2022 aiming to increase the supply of a range of housing options to make housing more affordable. Revisions have been made to the TIA guidelines to comply with Bill 109 and streamline the process for applicants and staff.

Individuals submitting TIA reports will be responsible for all aspects of development-related transportation assessment and reporting, and undertaking such work, in accordance and compliance with the City of Ottawa's Official Plan, the Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines.

By submitting the attached TIA report (and any associated documents) and signing this document, the individual acknowledges that they meet the four criteria listed below.

CERTIFICATION

- I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines; (Update effective July 2023)
- I have a sound knowledge of industry standard practice with respect to the preparation of transportation impact assessment reports, including multi modal level of service review;
- I have substantial experience (more than 5 years) in undertaking and delivering transportation impact studies (analysis, reporting and geometric design) with strong background knowledge in transportation planning, engineering or traffic operations; and
- I am either a licensed or registered¹ professional in good standing, whose field of expertise
 - is either transportation engineering
 - or transportation planning.

¹License of registration body that oversees the profession is required to have a code of conduct and ethics guidelines that will ensure appropriate conduct and representation for transportation planning and/or transportation engineering works.

Dated at Ottawa _____ this _____ day of August _____, 2025.
(City)

Name : Arthur Gordon

Professional title: Chairman Board of Directors



Signature of individual certifier that s/he/they meet the above criteria

Office Contact Information (Please Print)

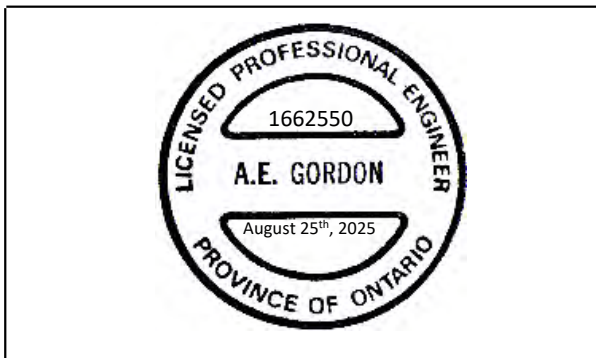
Address: 200-2460 Lancaster Road

City / Postal Code: Ottawa, ON, K1B 4S5

Telephone / Extension: 613-731-4052

Email Address: agordon@castleglenn.ca

Stamp



Revision Date: June 2023

City of Ottawa 2017 TIA Guidelines Screening Form

1. Description of Proposed Development

Municipal Address	500 Famille-Côté Avenue, Orléans, ON K1C 2C2
Description of Location	354-unit high-rise residential development consisting of two towers, located at 500 Famille-Côté Avenue in Orleans, Ontario, also bounded by Jeanne D'Arc Boulevard and Bilberry Drive
Land Use Classification	Currently zoned MC - Mixed-Use Centre, future H2 - Hub Zone 2
Development Size (units)	354 units total (14-storey tower: 227 units, 12-storey tower: 127 units)
Development Size (m ²)	31,212m ² total (14-storey tower: 20265m ² , 12-storey tower: 10947m ²)
Number of Accesses and Locations	One new access on Bilberry Drive, two new one-way accesses on Famille-Côté Avenue (pick up/drop off area)
Phase of Development	Phase 1: 14-storey tower (227 units), Phase 2: 12-storey tower (127 units)
Buildout Year	Phase 1: 2028, Phase 2: 2030

If available, please attach a sketch of the development or site plan to this form.

2. Trip Generation Trigger

Considering the Development's Land Use type and Size (as filled out in the previous section), please refer to the Trip Generation Trigger checks below.

Table notes:

- Table 2, Table 3 & Table 4 TRANS Trip Generation Manual
- Institute of Transportation Engineers (ITE) Trip Generation Manual 11.1 Ed.

Land Use Type	Minimum Development Size
Single-family homes	60 units
Multi-Use Family (Low-Rise) ¹	90 units
Multi-Use Family (High-Rise) ¹	150 units
Office ²	1,400 m ²
Industrial ²	7,000 m ²
Fast-food restaurant or coffee shop ²	110 m ²
Destination retail ²	1,800 m ²
Gas station or convenience market ²	90 m ²

If the proposed development size is greater than the sizes identified above, the Trip Generation Trigger is satisfied.

- Using the **existing** mode share for High-Rise Multifamily Housing in Orleans from the 2020 TRANS Trip Generation Manual:
- TOTAL person-trips:**
AM Peak Hour: 44 inbound, 98 outbound trips (142 total person-trips)
PM Peak Hour: 81 inbound, 59 outbound trips (140 total person-trips)
- TOTAL vehicle-trips (without accounting for reductions associated with the future LRT corridor):**
AM Peak Hour: 23 inbound, 50 outbound trips (73 total vehicle-trips)
PM Peak Hour: 49 inbound, 36 outbound trips (85 total vehicle-trips)
- The two proposed high-rise buildings are estimated to provide a total of 354 units. This exceeds the 150 unit threshold for multi-use family (High-Rise) developments indicated in the above table. The development is forecast to generate greater than 60 person-trips during the peak hours. It was therefore determined that the **traffic generation trigger is satisfied by the proposed development.**

3. Location Triggers

	Yes	No
Does the development propose a new driveway to a boundary street that is designated as part of the City’s Transit Priority Network, Rapid Transit network or Cross-Town Bikeways?		X
Is the development in a Hub Protected or Major Transit Station Area (PMTSA), or a Design Priority Area (DPA)? ²	X	

If any of the above questions were answered with ‘Yes,’ the Location Trigger is satisfied.

- The development is in a future Hub Zone 2, a Protected Major Transit Station Area (PMTSA), and a Design Priority Area (DPA); thus, **the location trigger is satisfied by the development.**

4. Safety Triggers

	Yes	No
Are posted speed limits on a boundary street 80 km/hr or greater?		X
Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway?	X	
Is the <u>proposed driveway</u> within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of an intersection in urban/ suburban conditions)? ,		X
Is the proposed driveway within auxiliary lanes of an intersection?	X	
Does the proposed driveway make use of an existing median break that serves an existing site?		X
Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development?		X
Does the development include a drive-thru facility?		X

If any of the above questions were answered with ‘Yes,’ **the Safety Trigger is satisfied.**

- The horizontal curvature (70m radius) along Bilberry Drive limits the sight lines at the proposed driveway onto Bilberry Drive to about 130 metres, which is sufficient for passenger cars to make a left turn out of the site, however is not sufficient for HSUs and Combination Trucks.
- The proposed driveway onto Bilberry Drive is within the auxiliary northbound right turn lane for the Bilberry Drive/Jeanne d’Arc Boulevard intersection to the north; thus, **the safety trigger is satisfied by the development.**

5. Summary

	Yes	No
Does the development satisfy the results of screening?	X	
Does the development satisfy the Location Trigger?	X	
Does the development satisfy the Safety Trigger?	X	

² Hubs are identified in Schedules B1 to B8 of the City of Ottawa Official Plan. PMTSAs are identified in Schedule C1 of the Official Plan. DPAs are identified in Schedule C7A and C7B of the Official. See Chapter 4 for a list of City of Ottawa Planning and Engineering documents that support the completion of TIA.

If none of the triggers are satisfied, the TIA Study is complete. If one or more of the triggers is satisfied, **the TIA Study must continue into the next stage (Screening and Scoping).**

All of the triggers were found to be satisfied; thus the TIA Study must continue into the next stage.



APPENDIX “B”
EXISTING TRAFFIC COUNTS, SIGNAL TIMINGS AND COLLISION DATA

Intersection 1. Jeanne D'Arc Blvd / Bilberry Drive

MONDAY COUNT

Morning Peak Hour Results (Monday, September 15, 2025)

Time Period		Westbound					Northbound					Eastbound					Southbound					Total		All	Peak Hr Totals						
From	To	RT		TH		LT		RT		TH		LT		RT		TH		LT		RT		TH		LT		Pedestrians		Heavy	Passenger		
		Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Pedestrians	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger			
1	6:30-6:45																														
2	6:45-7:00			1	34	1		1							1													0	51	51	51
3	7:00-7:15			1	42		6								1													2	83	85	205
4	7:15-7:30			1	80	1	11								1													3	136	139	344
5	7:30-7:45			1	110	1	9								1													5	167	172	465
6	7:45-8:00			4	148	2	17								2													8	232	240	636
7	8:00-8:15			3	120		27																					6	224	230	781
8	8:15-8:30			3	78	1	21								1													11	176	187	829
9	8:30-8:45			4	84	2	8	1	1	23																		10	178	188	845
10	8:45-9:00			1	43		7	3	2	15					1													5	100	105	710
11	9:00-9:15			7	41		6			21																		12	114	126	606
12	9:15-9:30				40		5			22																		8	118	126	545
6:45-8:45		<<<Calculated Peak Hour																													
AM Total		0	0	26	839	8	118	5	3	214	0	0	2	36	9	0	14	34	424	0	0	13	0	0	0	0	0	0	73	1645	1718
Heavy Vehicle %		#DIV/0!		3%		3%	6%		1%		#DIV/0!		5%		0%		7%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		4%		
AM Peak Hour		0	0	14	430	5	73	1	1	85	0	0	1	18	4	0	6	14	198	0	0	8	0	0	0	0	0	35	810	845	
Heavy Vehicle %		#DIV/0!		3%		6%		1%		#DIV/0!		5%		0%		7%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		4%			
AM Peak Hr Total		0		444		78			86		0		19		6		212		0		0		0		0						
Peak Hr Approach Totals				522						105						218						0									

845

Afternoon Peak Hour Results (Monday, September 15, 2025)

Time Period		Westbound					Northbound					Eastbound					Southbound					Total		All	Peak Hr Totals						
From	To	RT		TH		LT		RT		TH		LT		RT		TH		LT		RT		TH		LT		Pedestrians		Heavy	Passenger		
		Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Pedestrians	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger			
1	3:00-3:15			1	71		11	3							1													3	176	179	179
2	3:15-3:30			4	77		12	3							3													6	177	183	362
3	3:30-3:45			11	70		18								4													15	190	205	567
4	3:45-4:00			3	57	1	24	1	1	13					1													11	173	184	751
5	4:00-4:15			1	59		13								5													11	165	176	748
6	4:15-4:30				58		25	4							5													2	190	192	757
7	4:30-4:45			1	71		17	1							1													2	193	195	747
8	4:45-5:00			1	65		20	4	1	18					2													5	179	184	747
9	5:00-5:15			1	74		21	4	1	18					2													3	179	182	753
10	5:15-5:30				48		32	1		14					5													0	152	152	713
11	5:30-5:45			1	55	1	17	5		19					3													4	142	146	664
12	5:45-6:00				49		16	2	1	12					4													1	126	127	607
3:30-4:30		<<<Calculated Peak Hour																													
PM Peak Period		0	0	24	754	2	226	28	8	189	0	0	0	33	14	3	29	26	811	0	0	38	0	0	0	0	0	63	2042	2105	
Heavy Vehicle %		#DIV/0!		3%		1%		4%			#DIV/0!		0%		9%		3%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		3%		
PM Peak Hour		0	0	15	244	1	80	5	5	63	0	0	0	14	4	3	8	15	309	0	0	15	0	0	0	0	0	39	718	757	
Heavy Vehicle %		#DIV/0!		6%		1%		7%			#DIV/0!		0%		27%		5%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		5%		
PM Peak Hr Total		0		259		81			68		0		14		11		324		0		0		0		0						
Peak Hr Approach Totals				340						82						335						0									

757

Intersection 7. Famille-Côté Avenue and Park and Ride Access

Morning Peak Hour Results (Tuesday, September 16, 2025)

Time Period		Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Totals				
From	To	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	Pedestrians	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Pedestrians	Heavy	Passenger	Heavy	Passenger	Pedestrians	Heavy	Passenger						
1	6:30	6:45				23	5	4	2				1							5		1			4	5	39	44	44				
2	6:45	7:00	1			18		3	2				4							14		4			1	1	28	29	73				
3	7:00	7:15		1		30	6	9	3				5							1		6			2	6	53	59	132				
4	7:15	7:30		1		16	2	9				1	4							1		6			4	2	32	34	166				
5	7:30	7:45		1		37	6	10	2				4							1		11			4	6	54	60	182				
6	7:45	8:00		1		22	1	11	4				9							4		9			2	2	1	50	51	204			
7	8:00	8:15	1			23	6	5					7							1		11			1	4	7	39	46	191			
8	8:15	8:30	1	4		13	1	5	4				2							2		2			3	2	26	28	185				
9	8:30	8:45		3		9	6	5	3				2							1		3			1	2	6	27	33	158			
10	8:45	9:00		1		3	1		2				1							1		2			2	2	5	7	114				
11	9:00	9:15				5	5	1	1				1							1		2			2	6	5	11	16	84			
12	9:15	9:30		1		5	1	1	2				2							1		2			3	9	1	14	15	71			
3	7:00	8:00	<<<Calculated Peak Hour																														
AM Peak Period		4	17	0	0	204	40	63	25	0	40	0	3	0	3	13	0	1	0	12	0	3	68	0	21	0	1	0	10	42	44	378	422
Heavy Vehicle %		19%		0%		39%			0%		0%		0%		0%		0%		0%		0%		0%		0%					10%			
AM Peak Hour		0	4	0	0	105	15	39	9	0	22	0	1	0	1	1	0	0	0	5	0	2	40	0	8	0	0	2	12	15	189	204	
Heavy Vehicle %		0%		0%		28%			0%		0%		0%		#DIV/0!		0%		0%		0%		0%		#DIV/0!		0%			7%			
AM Peak Hr Total		4		105		54			22		1		1		5		2		8		0		8		0		2						
Peak Hr Approach Totals				163							24				7				10														

204

Afternoon Peak Hour Results (Tuesday, September 16, 2025)

Time Period		Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Totals				
From	To	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	Pedestrians	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Pedestrians	Heavy	Passenger	Heavy	Passenger	Pedestrians	Heavy	Passenger						
1	3:00	3:15	1	1		1	2	1	2				4							11				1	4	7	5	4	24	28	28		
2	3:15	3:30				1	1	1	1				3							3		3			3	1	7	8	36	36			
3	3:30	3:45		2		2	5	1					2							8		1		1	4	5	5	22	27	63			
4	3:45	4:00				3	1	3	1				6							5		1		1	3	1	24	25	88				
5	4:00	4:15		1		2	3	1					5							1		1		1	5	4	4	29	33	93			
6	4:15	4:30		2		1	2	2					10							3		2		1	10	0	39	39	124				
7	4:30	4:45		1		1	2	1	1				10							2		2		1	2	5	2	31	33	130			
8	4:45	5:00				1	1	2					5							3		3			1	1	15	16	121				
9	5:00	5:15				1	3	1	1				17							7		1		1	1	3	31	34	122				
10	5:15	5:30		1		1	1	1					3							12					6	1	17	18	101				
11	5:30	5:45				1	2	2					7							13		1			3	2	25	27	95				
12	5:45	6:00				2		1	3				1							15		1			0	22	22	101					
4	3:45	4:45	<<<Calculated Peak Hour																														
PM Peak Period		1	8	0	0	16	21	15	5	0	74	0	12	1	1	34	0	0	0	124	0	6	0	1	6	0	3	0	21	45	24	286	310
Heavy Vehicle %		11%		0%		58%			0%		0%		50%		#DIV/0!		0%		0%		0%		14%		0%		0%		8%				
PM Peak Hour		0	4	0	0	6	6	7	2	0	33	0	9	1	0	11	0	0	0	51	0	2	0	0	0	2	0	9	22	7	123	130	
Heavy Vehicle %		0%		0%		46%			0%		0%		100%		#DIV/0!		0%		0%		0%		#DIV/0!		0%		0%		5%				
PM Peak Hr Total		4		6		13			33		9		1		51		2		0		2		0		2		9						
Peak Hr Approach Totals				23							43				53				11														

130

Intersection 1. Jeanne D'Arc Blvd / Bilberry Drive

TUESDAY COUNT

Morning Peak Hour Results (Tuesday, September 16, 2025)

Time Period		Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Totals		
From	To	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	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Pedestrians	Heavy	Passenger			
1	6:30-6:45					16	4							10													0	45	45	45	
2	6:45-7:00			3	60		2	1					1	1		1	1										4	103	107	152	
3	7:00-7:15			3	85		4						1	1		1	3										6	122	128	280	
4	7:15-7:30			2	170	1	6	3					5	1		1											3	203	206	486	
5	7:30-7:45			1	176	1	7	1					10			2	1										3	234	237	678	
6	7:45-8:00			3	107	1	13	8					3	3		4											8	195	203	774	
7	8:00-8:15			3	131	1	30	2					4	1		1	1										5	224	229	875	
8	8:15-8:30			3	83	2	23						1	3		3	6										12	199	211	880	
9	8:30-8:45			3	70	2	6	1	1	1	1	1	1	1	1	2	4										10	126	136	779	
10	8:45-9:00			3	71		11	6					1	6		1	2										6	162	168	744	
11	9:00-9:15			7	46		10	4					3	1		3	4										11	140	151	666	
12	9:15-9:30			1	31		11	5	1	1	1	1	1	1	1	6	35										8	86	94	549	
5 7:30-8:30		<<<Calculated Peak Hour																													
AM Total		0	0	32	1046	8	127	31	2	182	0	0	2	42	12	0	16	32	426	0	0	34	0	0	0	0	0	0	76	1839	1915
Heavy Vehicle %		#DIV/0!		3%	6%		1%		#DIV/0!		5%		0%		7%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		4%		
AM Peak Hour		0	0	10	497	5	73	11	0	77	0	0	1	20	4	0	6	12	179	0	0	14	0	0	0	0	0	28	852	880	
Heavy Vehicle %		#DIV/0!		2%	6%		0%		#DIV/0!		5%		0%		6%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		3%		
AM Peak Hr Total		0		507		78			77			0	21		6		191			0		0		0		0					
# Peak Hr Approach T				585								98					197														

880

Afternoon Peak Hour Results (Tuesday, September 16, 2025)

Time Period		Westbound						Northbound						Eastbound						Southbound						Total		All	Peak Hr Totals		
From	To	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	Heavy	Passenger	Heavy	Passenger	Heavy	Passenger	Pedestrians	Heavy	Passenger			
1	3:00-3:15			3	54		12						3	1		1	3										7	190	197	197	
2	3:15-3:30			6	87		21	6					6	1		5	2										8	210	218	415	
3	3:30-3:45			5	59		34	3	1	1	1	1	1	1	1	4	4										10	207	217	632	
4	3:45-4:00			1	59	1	20	4					5			1	3	5									8	180	188	820	
5	4:00-4:15				71		15	1	4	4	4	4	3			3	2										6	201	207	830	
6	4:15-4:30			1	62		18	4					3			5	2										3	194	197	809	
7	4:30-4:45			2	71		22	2					3	1		4	1										3	182	185	777	
8	4:45-5:00			1	64		17	3	1	1	1	1	1	1	1	5	2										4	175	179	768	
9	5:00-5:15			2	52		20						6			3	2										4	164	168	729	
10	5:15-5:30				59		21	6								2	1										1	155	156	688	
11	5:30-5:45				58		20	4					3			2	2										2	152	154	657	
12	5:45-6:00			2	58		28	2	1	1	1	1	1	1	1	5	1										4	174	178	656	
2 3:15-4:15		<<<Calculated Peak Hour																													
PM Peak Period		0	0	23	754	1	248	35	8	201	0	0	0	39	5	1	42	27	900	0	0	46	0	0	0	0	0	0	60	2184	2244
Heavy Vehicle %		#DIV/0!		3%	0%		4%		#DIV/0!		0%		2%		3%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		3%		
PM Peak Hour		0	0	12	276	1	90	14	5	62	0	0	0	20	3	1	15	13	335	0	0	20	0	0	0	0	0	32	798	830	
Heavy Vehicle %		#DIV/0!		4%	1%		7%		#DIV/0!		0%		6%		4%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		4%		
PM Peak Hr Total		0		288		91			67			0	20		16		348			0		0		0		0					
# Peak Hr Approach T				379								87					364														

830

Traffic Signal Timing

City of Ottawa, Public Works Department

Traffic Signal Operations Unit

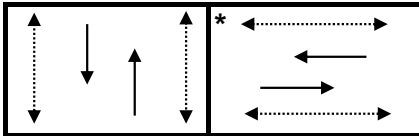
Intersection:	<i>Main:</i> Champlain	<i>Side:</i> Hwy 174 WB Ramp
Controller:	ATC 3	TSD: 5543
Author:	Kymen Kwan	Date: 08-Sep-2025

Existing Timing Plans[†]

	Plan				Ped Minimum Time		
	AM Peak 1	Off Peak 2	PM Peak 3	Night 4	Walk	DW	A+R
Cycle	70	70	70	70			
Offset	X	X	X	X			
NB Thru	37	37	37	37	7	20	3.3+2.8
SB Thru	37	37	37	37	7	20	3.3+2.8
EB Thru	33	33	33	33	7	19	3.3+3.0
WB Thru	33	33	33	33	7	19	3.3+3.0

Phasing Sequence[‡]

Plan: All



Schedule

Weekday		Saturday		Sunday	
Time	Plan	Time	Plan	Time	Plan
0:10	4	0:10	4	0:10	4
6:30	1	7:00	2	7:00	2
9:00	2	20:00	4	19:00	4
15:00	3				
18:30	2				
22:00	4				

Notes

†: Time for each direction includes amber and all red intervals
 ‡: Start of first phase should be used as reference point for offset
 Asterisk (*) Indicates actuated phase
 (fp): Fully Protected Left Turn
 ◀.....▶ Pedestrian signal

Cost is \$62.38 (\$55.20 + HST)

Traffic Signal Timing

City of Ottawa, Public Works Department

Traffic Signal Operations Unit

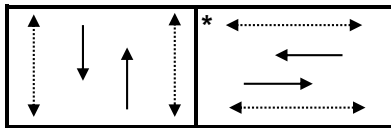
Intersection:	<i>Main:</i> Champlain	<i>Side:</i> Jeanne d'Arc
Controller:	MS 3200	TSD: 6520
Author:	Kymen Kwan	Date: 08-Sep-2025

Existing Timing Plans[†]

	Plan				Ped Minimum Time		
	AM Peak 1	Off Peak 2	PM Peak 3	Night 4	Walk	DW	A+R
Cycle	70	60	70	60			
Offset	X	X	X	X			
NB Thru	40	30	40	30	7	12	3.0+2.4
SB Thru	40	30	40	30	7	12	3.0+2.4
EB Thru	30	30	30	30	7	9	3.3+1.6
WB Thru	30	30	30	30	7	9	3.3+1.6

Phasing Sequence[‡]

Plan: All



Schedule

Weekday		Saturday		Sunday	
Time	Plan	Time	Plan	Time	Plan
0:10	4	0:10	4	0:10	4
6:30	1	7:00	2	7:00	2
9:00	2	20:00	4	19:00	4
15:00	3				
18:30	2				
22:00	4				

Notes

- †: Time for each direction includes amber and all red intervals
- ‡: Start of first phase should be used as reference point for offset
- Asterisk (*) Indicates actuated phase
- (fp): Fully Protected Left Turn
- ◄.....► Pedestrian signal

Cost is \$63.94 (\$56.58 + HST)



Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2019 To: December 31, 2024

Location: BILBERRY DR E @ JEANNE D'ARC BLVD

Traffic Control: Stop sign

Total Collisions: 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-May-07, Tue,19:10	Clear	Angle	Non-fatal injury	Dry	North	Turning right	Automobile, station wagon	Cyclist	0
					East	Going ahead	Bicycle	Other motor vehicle	

Location: CHAMPLAIN ST @ JEANNE D'ARC BLVD

Traffic Control: Traffic signal

Total Collisions: 12

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Jan-18, Fri,11:50	Snow	Rear end	P.D. only	Loose snow	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-May-26, Sun,03:09	Rain	SMV other	P.D. only	Wet	North	Turning left	Automobile, station wagon	Ran off road	0
2019-Oct-28, Mon,17:56	Clear	Turning movement	Fatal injury	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Aug-26, Wed,11:58	Clear	Angle	Non-fatal injury	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2020-Dec-23, Wed,14:18	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	
2021-Feb-05, Fri,19:35	Clear	Angle	Non-fatal injury	Dry	East	Going ahead	Construction equipment	Other motor vehicle	0
					North	Going ahead	Passenger van	Other motor vehicle	
2021-Mar-06, Sat,20:10	Clear	Angle	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Unknown	Unknown	Other motor vehicle	
2021-May-18, Tue,17:20	Clear	Angle	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2021-Oct-20, Wed,06:28	Clear	Turning movement	Non-fatal injury	Dry	West	Turning left	Automobile, station wagon	Cyclist	0
					East	Going ahead	Bicycle	Other motor vehicle	



Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2019 To: December 31, 2024

Location: CHAMPLAIN ST @ JEANNE D'ARC BLVD

Traffic Control: Traffic signal

Total Collisions: 12

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2022-Dec-05, Mon,14:00	Clear	Turning movement	P.D. only	Dry	East	Turning left	Passenger van	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2022-Dec-09, Fri,09:05	Clear	Angle	P.D. only	Dry	West	Stopped	Automobile, station wagon	Other motor vehicle	0
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2024-Aug-08, Thu,21:49	Rain	SMV other	Non-fatal injury	Wet	West	Turning left	Municipal transit bus	Pedestrian	1

Location: CHAMPLAIN ST @ OR174 IC102 RAMP61/PARK AND RIDE LOT ENT

Traffic Control: Traffic signal

Total Collisions: 6

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2019-Apr-27, Sat,17:50	Rain	Rear end	P.D. only	Wet	North	Stopped	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
2019-Aug-12, Mon,17:05	Rain	SMV other	Non-fatal injury	Wet	East	Turning left	Automobile, station wagon	Pedestrian	1
2019-Aug-19, Mon,06:40	Clear	Sideswipe	P.D. only	Wet	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Dec-03, Tue,16:22	Clear	SMV other	Non-fatal injury	Dry	West	Turning left	Municipal transit bus	Pedestrian	1
2020-Dec-18, Fri,11:25	Clear	Angle	Non-fatal injury	Dry	South	Going ahead	Pick-up truck	Other motor vehicle	0
					West	Turning left	Pick-up truck	Other motor vehicle	
2021-Aug-09, Mon,11:58	Clear	Rear end	P.D. only	Dry	North	Going ahead	Pick-up truck	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	

Location: CHAMPLAIN ST btwn JEANNE D'ARC BLVD N & OR174 IC102 RAMP61

Traffic Control: No control

Total Collisions: 2

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2019-Jul-31, Wed,16:20	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	



Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2019 **To:** December 31, 2024

Location: CHAMPLAIN ST btwn JEANNE D'ARC BLVD N & OR174 IC102 RAMP61

Traffic Control: No control

Total Collisions: 2

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Oct-09, Wed,16:30	Clear	Approaching	Non-fatal injury	Dry	South	Going ahead	Pick-up truck	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	

Location: JEANNE D'ARC BLVD btwn FAMILLE-COTE AVE & CHAMPLAIN ST

Traffic Control: No control

Total Collisions: 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2020-Nov-03, Tue,00:21	Snow	SMV other	P.D. only	Ice	West	Going ahead	Automobile, station wagon	Skidding/sliding	0

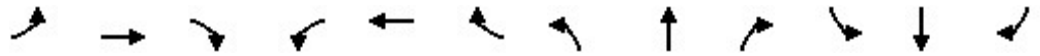
APPENDIX “C”

EXISTING (2025) SYNCHRO INTERSECTION CAPACITY ANALYSIS RESULTS

Lanes, Volumes, Timings
3: Champlain Street & Jeanne D'Arc Boulevard

500 Famille Cote - Existing 2025 AM

11/04/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	77	185	105	198	4	401	23	57	3	51	12
Future Volume (vph)	6	77	185	105	198	4	401	23	57	3	51	12
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	35.0		0.0	30.0		0.0	75.0		0.0	20.0		0.0
Storage Lanes	1		1	1		0	1		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
Ped Bike Factor	0.98		0.95	0.98	1.00			0.97		0.98	0.99	
Frt			0.850		0.997			0.894			0.972	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1712	1750	1432	1712	1778	0	1662	1500	0	1712	1738	0
Flt Permitted	0.545			0.701			0.711			0.699		
Satd. Flow (perm)	967	1750	1366	1239	1778	0	1244	1500	0	1239	1738	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			206		1			63			13	
Link Speed (k/h)		40			40			40			40	
Link Distance (m)		107.4			143.3			137.0			96.5	
Travel Time (s)		9.7			12.9			12.3			8.7	
Confl. Peds. (#/hr)	10		10	10		10			10	10		10
Confl. Bikes (#/hr)			5			5			5			5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	4%	8%	1%	2%	1%	4%	1%	7%	1%	1%	1%
Adj. Flow (vph)	7	86	206	117	220	4	446	26	63	3	57	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	7	86	206	117	224	0	446	89	0	3	70	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	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	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5		24.4	24.4		24.4	24.4	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	42.9%	42.9%	42.9%	42.9%	42.9%		57.1%	57.1%		57.1%	57.1%	
Maximum Green (s)	25.1	25.1	25.1	25.1	25.1		34.6	34.6		34.6	34.6	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.6	1.6	1.6	1.6	1.6		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.9	4.9	4.9	4.9	4.9		5.4	5.4		5.4	5.4	
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	
Recall Mode	None	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	7.0	
Flash Dont Walk (s)	9.0	9.0	9.0	9.0	9.0		12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)	12.7	12.7	12.7	12.7	12.7		34.8	34.8		34.8	34.8	
Actuated g/C Ratio	0.22	0.22	0.22	0.22	0.22		0.60	0.60		0.60	0.60	

Lanes, Volumes, Timings
3: Champlain Street & Jeanne D'Arc Boulevard

500 Famille Cote - Existing 2025 AM
11/04/2025

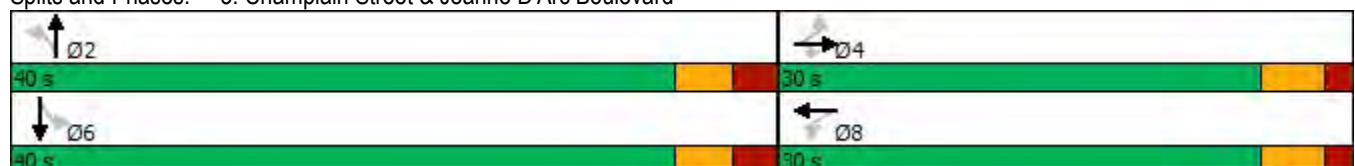


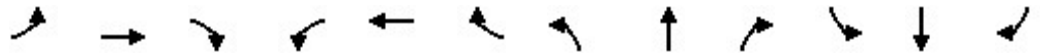
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.03	0.22	0.45	0.43	0.57		0.60	0.10		0.00	0.07	
Control Delay	17.0	19.4	6.6	24.3	25.9		12.5	3.2		6.0	5.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.0	19.4	6.6	24.3	25.9		12.5	3.2		6.0	5.3	
LOS	B	B	A	C	C		B	A		A	A	
Approach Delay		10.5			25.4			10.9			5.3	
Approach LOS		B			C			B			A	
Queue Length 50th (m)	0.6	7.4	0.0	10.6	21.0		24.4	0.9		0.1	2.1	
Queue Length 95th (m)	3.1	16.6	12.8	22.8	38.2		62.9	6.4		1.1	7.6	
Internal Link Dist (m)		83.4			119.3			113.0			72.5	
Turn Bay Length (m)	35.0			30.0			75.0			20.0		
Base Capacity (vph)	421	761	711	539	774		748	927		745	1051	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.02	0.11	0.29	0.22	0.29		0.60	0.10		0.00	0.07	

Intersection Summary

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	57.9
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	14.4
Intersection LOS:	B
Intersection Capacity Utilization:	51.7%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 3: Champlain Street & Jeanne D'Arc Boulevard





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	0	35	189	113	326	97	157	110	0	323	21
Future Volume (vph)	2	0	35	189	113	326	97	157	110	0	323	21
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	35.0		0.0	0.0		0.0	40.0		130.0	0.0		24.0
Storage Lanes	1		1	1		0	1		1	0		1
Taper Length (m)	2.5			2.5			25.0			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	1.00		0.98	0.99	0.98		0.99		0.96			0.96
Frt			0.850		0.889				0.850			0.850
Flt Protected	0.950			0.950			0.950					
Satd. Flow (prot)	1712	0	1532	1695	1575	0	1517	3293	1517	0	3357	1532
Flt Permitted	0.231			0.950			0.537					
Satd. Flow (perm)	415	0	1497	1681	1575	0	851	3293	1461	0	3357	1475
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			48		239				122			51
Link Speed (k/h)		40			40			40				40
Link Distance (m)		100.3			83.4			153.3				108.5
Travel Time (s)		9.0			7.5			13.8				9.8
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Confl. Bikes (#/hr)			5			5			5			5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	2%	1%	1%	14%	5%	2%	1%	3%	1%
Adj. Flow (vph)	2	0	39	210	126	362	108	174	122	0	359	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	0	39	210	488	0	108	174	122	0	359	23
Turn Type	Perm		Perm	Perm	NA		Perm	NA	Perm		NA	Perm
Protected Phases					8			2				6
Permitted Phases	4		4	8			2		2			6
Detector Phase	4		4	8	8		2	2	2			6
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	32.5		32.5	32.3	32.3		33.3	33.3	33.3		33.3	33.3
Total Split (s)	33.0		33.0	33.0	33.0		37.0	37.0	37.0		37.0	37.0
Total Split (%)	47.1%		47.1%	47.1%	47.1%		52.9%	52.9%	52.9%		52.9%	52.9%
Maximum Green (s)	26.7		26.7	26.7	26.7		30.9	30.9	30.9		30.9	30.9
Yellow Time (s)	3.3		3.3	3.3	3.3		3.3	3.3	3.3		3.3	3.3
All-Red Time (s)	3.0		3.0	3.0	3.0		2.8	2.8	2.8		2.8	2.8
Lost Time Adjust (s)	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.3		6.3	6.3	6.3		6.1	6.1	6.1		6.1	6.1
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
Recall Mode	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
Flash Dont Walk (s)	19.0		19.0	19.0	19.0		20.0	20.0	20.0		20.0	20.0
Pedestrian Calls (#/hr)	0		0	0	0		0	0	0		0	0
Act Effct Green (s)	17.3		17.3	17.3	17.3		31.3	31.3	31.3		31.3	31.3
Actuated g/C Ratio	0.28		0.28	0.28	0.28		0.51	0.51	0.51		0.51	0.51

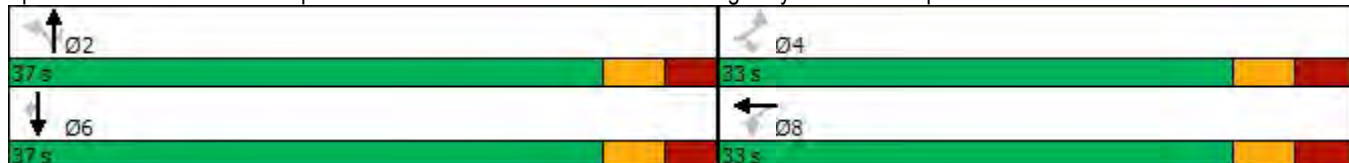


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.02		0.09	0.44	0.79		0.25	0.10	0.15		0.21	0.03
Control Delay	14.5		4.5	20.1	19.6		12.9	9.8	3.2		10.1	1.4
Queue Delay	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	14.5		4.5	20.1	19.6		12.9	9.8	3.2		10.1	1.4
LOS	B		A	C	B		B	A	A		B	A
Approach Delay		5.0			19.8			8.6			9.6	
Approach LOS		A			B			A			A	
Queue Length 50th (m)	0.2		0.0	18.9	24.0		6.4	4.9	0.0		10.8	0.0
Queue Length 95th (m)	1.4		4.4	33.9	54.8		19.3	12.0	7.9		22.8	1.5
Internal Link Dist (m)		76.3			59.4			129.3			84.5	
Turn Bay Length (m)	35.0						40.0		130.0			24.0
Base Capacity (vph)	183		688	743	829		435	1684	807		1717	779
Starvation Cap Reductn	0		0	0	0		0	0	0		0	0
Spillback Cap Reductn	0		0	0	0		0	0	0		0	0
Storage Cap Reductn	0		0	0	0		0	0	0		0	0
Reduced v/c Ratio	0.01		0.06	0.28	0.59		0.25	0.10	0.15		0.21	0.03

Intersection Summary

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	61.2
Natural Cycle:	70
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	13.9
Intersection LOS:	B
Intersection Capacity Utilization:	71.8%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 6: Champlain Street & PdO Park and Ride Access/Highway 174 WB Ramp



Intersection						
Int Delay, s/veh	2.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	191	6	82	532	22	82
Future Vol, veh/h	191	6	82	532	22	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	-	40	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	6	1	6	2	5	1
Mvmt Flow	212	7	91	591	24	91

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	219	0	989
Stage 1	-	-	-	-	216
Stage 2	-	-	-	-	773
Critical Hdwy	-	-	4.16	-	6.45
Critical Hdwy Stg 1	-	-	-	-	5.45
Critical Hdwy Stg 2	-	-	-	-	5.45
Follow-up Hdwy	-	-	2.254	-	3.545
Pot Cap-1 Maneuver	-	-	1327	-	270
Stage 1	-	-	-	-	813
Stage 2	-	-	-	-	450
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1327	-	251
Mov Cap-2 Maneuver	-	-	-	-	251
Stage 1	-	-	-	-	813
Stage 2	-	-	-	-	419

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	251	826	-	-	1327	-
HCM Lane V/C Ratio	0.097	0.11	-	-	0.069	-
HCM Control Delay (s)	20.9	9.9	-	-	7.9	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0.4	-	-	0.2	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	
Traffic Vol, veh/h	268	5	1	611	3	1
Future Vol, veh/h	268	5	1	611	3	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	90	90	90	90	90	90
Heavy Vehicles, %	6	1	1	2	1	1
Mvmt Flow	298	6	1	679	3	1

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	304	0	982
Stage 1	-	-	-	-	301
Stage 2	-	-	-	-	681
Critical Hdwy	-	-	4.115	-	6.615
Critical Hdwy Stg 1	-	-	-	-	5.815
Critical Hdwy Stg 2	-	-	-	-	5.415
Follow-up Hdwy	-	-	2.2095	-	3.3095
Pot Cap-1 Maneuver	-	-	1262	-	262
Stage 1	-	-	-	-	728
Stage 2	-	-	-	-	504
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1262	-	262
Mov Cap-2 Maneuver	-	-	-	-	262
Stage 1	-	-	-	-	728
Stage 2	-	-	-	-	503

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	317	-	-	1262	-
HCM Lane V/C Ratio	0.014	-	-	0.001	-
HCM Control Delay (s)	16.5	-	-	7.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	4	4	481	340	1
Future Vol, veh/h	0	4	4	481	340	1
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	90	90	90	90	90	90
Heavy Vehicles, %	1	25	25	3	3	100
Mvmt Flow	0	4	4	534	378	1

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	921	379	379	0	-	0
Stage 1	379	-	-	-	-	-
Stage 2	542	-	-	-	-	-
Critical Hdwy	6.41	6.45	4.35	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.525	2.425	-	-	-
Pot Cap-1 Maneuver	302	620	1064	-	-	-
Stage 1	694	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	300	620	1064	-	-	-
Mov Cap-2 Maneuver	300	-	-	-	-	-
Stage 1	691	-	-	-	-	-
Stage 2	585	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1064	-	620	-	-
HCM Lane V/C Ratio	0.004	-	0.007	-	-
HCM Control Delay (s)	8.4	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	11	2	4	9	3	5
Future Vol, veh/h	11	2	4	9	3	5
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	90	90	90	90	90	90
Heavy Vehicles, %	9	1	50	11	1	1
Mvmt Flow	12	2	4	10	3	6

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	21	9	0	0	14
Stage 1	9	-	-	-	-
Stage 2	12	-	-	-	-
Critical Hdwy	6.49	6.21	-	-	4.11
Critical Hdwy Stg 1	5.49	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-
Follow-up Hdwy	3.581	3.309	-	-	2.209
Pot Cap-1 Maneuver	978	1076	-	-	1611
Stage 1	996	-	-	-	-
Stage 2	993	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	976	1076	-	-	1611
Mov Cap-2 Maneuver	976	-	-	-	-
Stage 1	996	-	-	-	-
Stage 2	991	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	2.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	990	1611
HCM Lane V/C Ratio	-	-	0.015	0.002
HCM Control Delay (s)	-	-	8.7	7.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	5	0	54	105	4	1	1	22	2	0	8
Future Vol, veh/h	2	5	0	54	105	4	1	1	22	2	0	8
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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	1	1	1	28	1	1	1	1	1	1	1	1
Mvmt Flow	2	6	0	60	117	4	1	1	24	2	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	121	0	0	6	0	0	254	251	6	262	249	119
Stage 1	-	-	-	-	-	-	10	10	-	239	239	-
Stage 2	-	-	-	-	-	-	244	241	-	23	10	-
Critical Hdwy	4.11	-	-	4.38	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.452	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1473	-	-	1460	-	-	701	654	1080	693	655	935
Stage 1	-	-	-	-	-	-	1014	889	-	767	709	-
Stage 2	-	-	-	-	-	-	762	708	-	998	889	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1473	-	-	1460	-	-	670	625	1080	653	626	935
Mov Cap-2 Maneuver	-	-	-	-	-	-	670	625	-	653	626	-
Stage 1	-	-	-	-	-	-	1013	888	-	766	678	-
Stage 2	-	-	-	-	-	-	722	677	-	973	888	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.1			2.5			8.6			9.2		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1023	1473	-	-	1460	-	-	861
HCM Lane V/C Ratio	0.026	0.002	-	-	0.041	-	-	0.013
HCM Control Delay (s)	8.6	7.4	0	-	7.6	0	-	9.2
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	22	82	2	17	71
Future Vol, veh/h	1	22	82	2	17	71
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	90	90	90	90	90	90
Heavy Vehicles, %	9	1	4	1	19	3
Mvmt Flow	1	24	91	2	19	79

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	209	92	0	0	93
Stage 1	92	-	-	-	-
Stage 2	117	-	-	-	-
Critical Hdwy	6.49	6.21	-	-	4.29
Critical Hdwy Stg 1	5.49	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-
Follow-up Hdwy	3.581	3.309	-	-	2.371
Pot Cap-1 Maneuver	764	968	-	-	1401
Stage 1	914	-	-	-	-
Stage 2	891	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	753	968	-	-	1401
Mov Cap-2 Maneuver	753	-	-	-	-
Stage 1	914	-	-	-	-
Stage 2	879	-	-	-	-

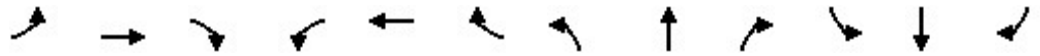
Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	1.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	956	1401
HCM Lane V/C Ratio	-	-	0.027	0.013
HCM Control Delay (s)	-	-	8.9	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Lanes, Volumes, Timings
3: Champlain Street & Jeanne D'Arc Boulevard

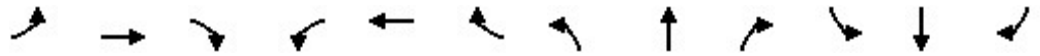
500 Famille Cote - Existing 2025 PM

11/04/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	153	245	93	115	12	268	78	130	13	73	7
Future Volume (vph)	23	153	245	93	115	12	268	78	130	13	73	7
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	35.0		0.0	30.0		0.0	75.0		0.0	20.0		0.0
Storage Lanes	1		1	1		0	1		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
Ped Bike Factor	0.98		0.95	0.98	1.00		0.98	0.97		0.99	1.00	
Frt			0.850		0.986			0.906			0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1647	1750	1532	1679	1753	0	1631	1548	0	1601	1772	0
Flt Permitted	0.667			0.650			0.699			0.615		
Satd. Flow (perm)	1135	1750	1456	1129	1753	0	1181	1548	0	1023	1772	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			272		8			144			8	
Link Speed (k/h)		40			40			40			40	
Link Distance (m)		107.4			143.3			137.0			96.5	
Travel Time (s)		9.7			12.9			12.3			8.7	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Confl. Bikes (#/hr)			8			8			8			8
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	5%	4%	1%	3%	2%	1%	6%	3%	4%	8%	1%	1%
Adj. Flow (vph)	26	170	272	103	128	13	298	87	144	14	81	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	26	170	272	103	141	0	298	231	0	14	89	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	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	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5		24.4	24.4		24.4	24.4	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	42.9%	42.9%	42.9%	42.9%	42.9%		57.1%	57.1%		57.1%	57.1%	
Maximum Green (s)	25.1	25.1	25.1	25.1	25.1		34.6	34.6		34.6	34.6	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.6	1.6	1.6	1.6	1.6		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.9	4.9	4.9	4.9	4.9		5.4	5.4		5.4	5.4	
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	
Recall Mode	None	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	7.0	
Flash Dont Walk (s)	9.0	9.0	9.0	9.0	9.0		12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)	11.7	11.7	11.7	11.7	11.7		34.8	34.8		34.8	34.8	
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.21		0.61	0.61		0.61	0.61	

Lanes, Volumes, Timings
 3: Champlain Street & Jeanne D'Arc Boulevard



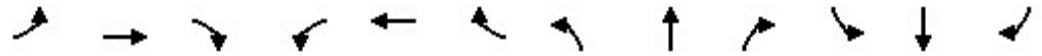
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.11	0.47	0.53	0.44	0.38		0.41	0.23		0.02	0.08	
Control Delay	18.6	24.0	7.0	25.6	21.0		8.9	3.3		5.9	5.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.6	24.0	7.0	25.6	21.0		8.9	3.3		5.9	5.5	
LOS	B	C	A	C	C		A	A		A	A	
Approach Delay		13.8			22.9			6.5			5.5	
Approach LOS		B			C			A			A	
Queue Length 50th (m)	2.2	15.5	0.0	9.3	11.8		13.4	3.1		0.5	2.9	
Queue Length 95th (m)	7.2	29.7	14.5	20.7	24.2		35.6	12.9		2.7	9.2	
Internal Link Dist (m)		83.4			119.3			113.0			72.5	
Turn Bay Length (m)	35.0			30.0			75.0			20.0		
Base Capacity (vph)	504	776	797	501	782		722	1003		625	1087	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.05	0.22	0.34	0.21	0.18		0.41	0.23		0.02	0.08	

Intersection Summary

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	56.8
Natural Cycle:	50
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.53
Intersection Signal Delay:	11.9
Intersection LOS:	B
Intersection Capacity Utilization:	51.0%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 3: Champlain Street & Jeanne D'Arc Boulevard





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	101	72	5	71	17	402	273	0	417	1
Future Volume (vph)	5	0	101	72	5	71	17	402	273	0	417	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	35.0		0.0	0.0		0.0	40.0		130.0	0.0		24.0
Storage Lanes	1		1	1		0	1		1	0		1
Taper Length (m)	2.5			2.5			25.0			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	0.99		0.98	0.99	0.98		0.99		0.96			0.96
Frt			0.850		0.861				0.850			0.850
Flt Protected	0.950			0.950			0.950					
Satd. Flow (prot)	1441	0	1532	1616	1519	0	1226	3357	1473	0	3390	774
Flt Permitted	0.702			0.950			0.486					
Satd. Flow (perm)	1057	0	1497	1603	1519	0	623	3357	1419	0	3390	745
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			112		79				303			51
Link Speed (k/h)		40			40			40				40
Link Distance (m)		100.3			83.4			153.3				108.5
Travel Time (s)		9.0			7.5			13.8				9.8
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Confl. Bikes (#/hr)			5			5			5			5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	20%	1%	1%	7%	1%	1%	41%	3%	5%	1%	2%	100%
Adj. Flow (vph)	6	0	112	80	6	79	19	447	303	0	463	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	0	112	80	85	0	19	447	303	0	463	1
Turn Type	Perm		Perm	Perm	NA		Perm	NA	Perm		NA	Perm
Protected Phases					8			2				6
Permitted Phases	4		4	8			2		2			6
Detector Phase	4		4	8	8		2	2	2			6
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	32.5		32.5	32.3	32.3		33.3	33.3	33.3		33.3	33.3
Total Split (s)	33.0		33.0	33.0	33.0		37.0	37.0	37.0		37.0	37.0
Total Split (%)	47.1%		47.1%	47.1%	47.1%		52.9%	52.9%	52.9%		52.9%	52.9%
Maximum Green (s)	26.7		26.7	26.7	26.7		30.9	30.9	30.9		30.9	30.9
Yellow Time (s)	3.3		3.3	3.3	3.3		3.3	3.3	3.3		3.3	3.3
All-Red Time (s)	3.0		3.0	3.0	3.0		2.8	2.8	2.8		2.8	2.8
Lost Time Adjust (s)	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.3		6.3	6.3	6.3		6.1	6.1	6.1		6.1	6.1
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
Recall Mode	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
Flash Dont Walk (s)	19.0		19.0	19.0	19.0		20.0	20.0	20.0		20.0	20.0
Pedestrian Calls (#/hr)	0		0	0	0		0	0	0		0	0
Act Effct Green (s)	7.9		7.9	7.9	7.9		35.2	35.2	35.2		35.2	35.2
Actuated g/C Ratio	0.15		0.15	0.15	0.15		0.68	0.68	0.68		0.68	0.68

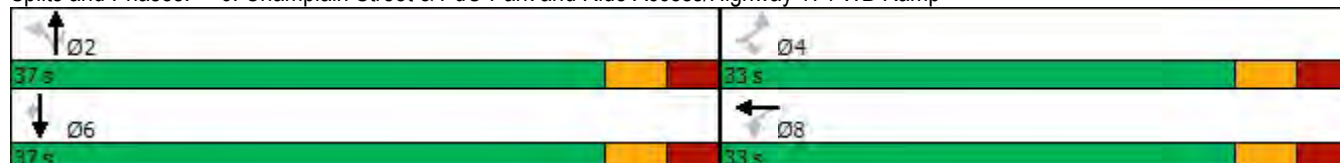


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.04		0.35	0.33	0.28		0.05	0.20	0.29		0.20	0.00
Control Delay	18.4		8.2	22.9	9.0		5.2	4.9	1.6		4.9	0.0
Queue Delay	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	18.4		8.2	22.9	9.0		5.2	4.9	1.6		4.9	0.0
LOS	B		A	C	A		A	A	A		A	A
Approach Delay		8.7			15.8			3.6			4.9	
Approach LOS		A			B			A			A	
Queue Length 50th (m)	0.5		0.0	6.6	0.5		0.6	8.2	0.0		8.5	0.0
Queue Length 95th (m)	2.9		10.0	16.0	9.2		2.8	15.5	7.4		16.0	0.0
Internal Link Dist (m)		76.3			59.4			129.3			84.5	
Turn Bay Length (m)	35.0						40.0		130.0			24.0
Base Capacity (vph)	543		824	824	819		422	2274	1058		2296	521
Starvation Cap Reductn	0		0	0	0		0	0	0		0	0
Spillback Cap Reductn	0		0	0	0		0	0	0		0	0
Storage Cap Reductn	0		0	0	0		0	0	0		0	0
Reduced v/c Ratio	0.01		0.14	0.10	0.10		0.05	0.20	0.29		0.20	0.00

Intersection Summary

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	52
Natural Cycle:	70
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.35
Intersection Signal Delay:	5.7
Intersection LOS:	A
Intersection Capacity Utilization:	53.9%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 6: Champlain Street & PdO Park and Ride Access/Highway 174 WB Ramp



Intersection						
Int Delay, s/veh	2.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	348	16	95	299	20	69
Future Vol, veh/h	348	16	95	299	20	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	-	40	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	6	1	4	1	7
Mvmt Flow	387	18	106	332	22	77

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	405	0	940
Stage 1	-	-	-	-	396
Stage 2	-	-	-	-	544
Critical Hdwy	-	-	4.11	-	6.41
Critical Hdwy Stg 1	-	-	-	-	5.41
Critical Hdwy Stg 2	-	-	-	-	5.41
Follow-up Hdwy	-	-	2.209	-	3.509
Pot Cap-1 Maneuver	-	-	1159	-	294
Stage 1	-	-	-	-	682
Stage 2	-	-	-	-	584
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1159	-	267
Mov Cap-2 Maneuver	-	-	-	-	267
Stage 1	-	-	-	-	682
Stage 2	-	-	-	-	531

Approach	EB	WB	NB
HCM Control Delay, s	0	2	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	267	643	-	-	1159	-
HCM Lane V/C Ratio	0.083	0.119	-	-	0.091	-
HCM Control Delay (s)	19.7	11.4	-	-	8.4	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0.4	-	-	0.3	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	
Traffic Vol, veh/h	415	2	1	390	4	6
Future Vol, veh/h	415	2	1	390	4	6
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	90	90	90	90	90	90
Heavy Vehicles, %	3	1	1	2	1	1
Mvmt Flow	461	2	1	433	4	7

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	463	0	897 232
Stage 1	-	-	-	-	462 -
Stage 2	-	-	-	-	435 -
Critical Hdwy	-	-	4.115	-	6.615 6.915
Critical Hdwy Stg 1	-	-	-	-	5.815 -
Critical Hdwy Stg 2	-	-	-	-	5.415 -
Follow-up Hdwy	-	-2.2095	-	-3.5095	3.3095
Pot Cap-1 Maneuver	-	-	1103	-	296 774
Stage 1	-	-	-	-	604 -
Stage 2	-	-	-	-	654 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1103	-	296 774
Mov Cap-2 Maneuver	-	-	-	-	296 -
Stage 1	-	-	-	-	604 -
Stage 2	-	-	-	-	653 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	470	-	-	1103	-
HCM Lane V/C Ratio	0.024	-	-	0.001	-
HCM Control Delay (s)	12.8	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	7	2	476	411	0
Future Vol, veh/h	0	7	2	476	411	0
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	90	90	90	90	90	90
Heavy Vehicles, %	1	14	1	2	4	1
Mvmt Flow	0	8	2	529	457	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	990	457	457	0	-	0
Stage 1	457	-	-	-	-	-
Stage 2	533	-	-	-	-	-
Critical Hdwy	6.41	6.34	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.426	2.209	-	-	-
Pot Cap-1 Maneuver	274	579	1109	-	-	-
Stage 1	640	-	-	-	-	-
Stage 2	590	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	273	579	1109	-	-	-
Mov Cap-2 Maneuver	273	-	-	-	-	-
Stage 1	638	-	-	-	-	-
Stage 2	590	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1109	-	579	-	-
HCM Lane V/C Ratio	0.002	-	0.013	-	-
HCM Control Delay (s)	8.3	0	11.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	5	0	13	6	2	12
Future Vol, veh/h	5	0	13	6	2	12
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	90	90	90	90	90	90
Heavy Vehicles, %	20	1	8	1	1	1
Mvmt Flow	6	0	14	7	2	13

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	35	18	0	0	21
Stage 1	18	-	-	-	-
Stage 2	17	-	-	-	-
Critical Hdwy	6.6	6.21	-	-	4.11
Critical Hdwy Stg 1	5.6	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-
Follow-up Hdwy	3.68	3.309	-	-	2.209
Pot Cap-1 Maneuver	934	1063	-	-	1601
Stage 1	960	-	-	-	-
Stage 2	961	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	933	1063	-	-	1601
Mov Cap-2 Maneuver	933	-	-	-	-
Stage 1	960	-	-	-	-
Stage 2	960	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	933	1601
HCM Lane V/C Ratio	-	-	0.006	0.001
HCM Control Delay (s)	-	-	8.9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	51	0	13	6	4	1	9	33	9	2	1
Future Vol, veh/h	2	51	0	13	6	4	1	9	33	9	2	1
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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	1	1	1	46	1	1	100	1	1	1	1	1
Mvmt Flow	2	57	0	14	7	4	1	10	37	10	2	1

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	11	0	0	57	0	0	100	100	57	122	98	9
Stage 1	-	-	-	-	-	-	61	61	-	37	37	-
Stage 2	-	-	-	-	-	-	39	39	-	85	61	-
Critical Hdwy	4.11	-	-	4.56	-	-	8.1	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	7.1	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	7.1	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.614	-	-	4.4	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1615	-	-	1308	-	-	694	792	1012	855	794	1076
Stage 1	-	-	-	-	-	-	753	846	-	981	866	-
Stage 2	-	-	-	-	-	-	776	864	-	925	846	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1615	-	-	1308	-	-	686	782	1012	809	784	1076
Mov Cap-2 Maneuver	-	-	-	-	-	-	686	782	-	809	784	-
Stage 1	-	-	-	-	-	-	752	845	-	980	856	-
Stage 2	-	-	-	-	-	-	765	854	-	880	845	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	4.4	9	9.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	943	1615	-	-	1308	-	-	822
HCM Lane V/C Ratio	0.051	0.001	-	-	0.011	-	-	0.016
HCM Control Delay (s)	9	7.2	0	-	7.8	0	-	9.5
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0

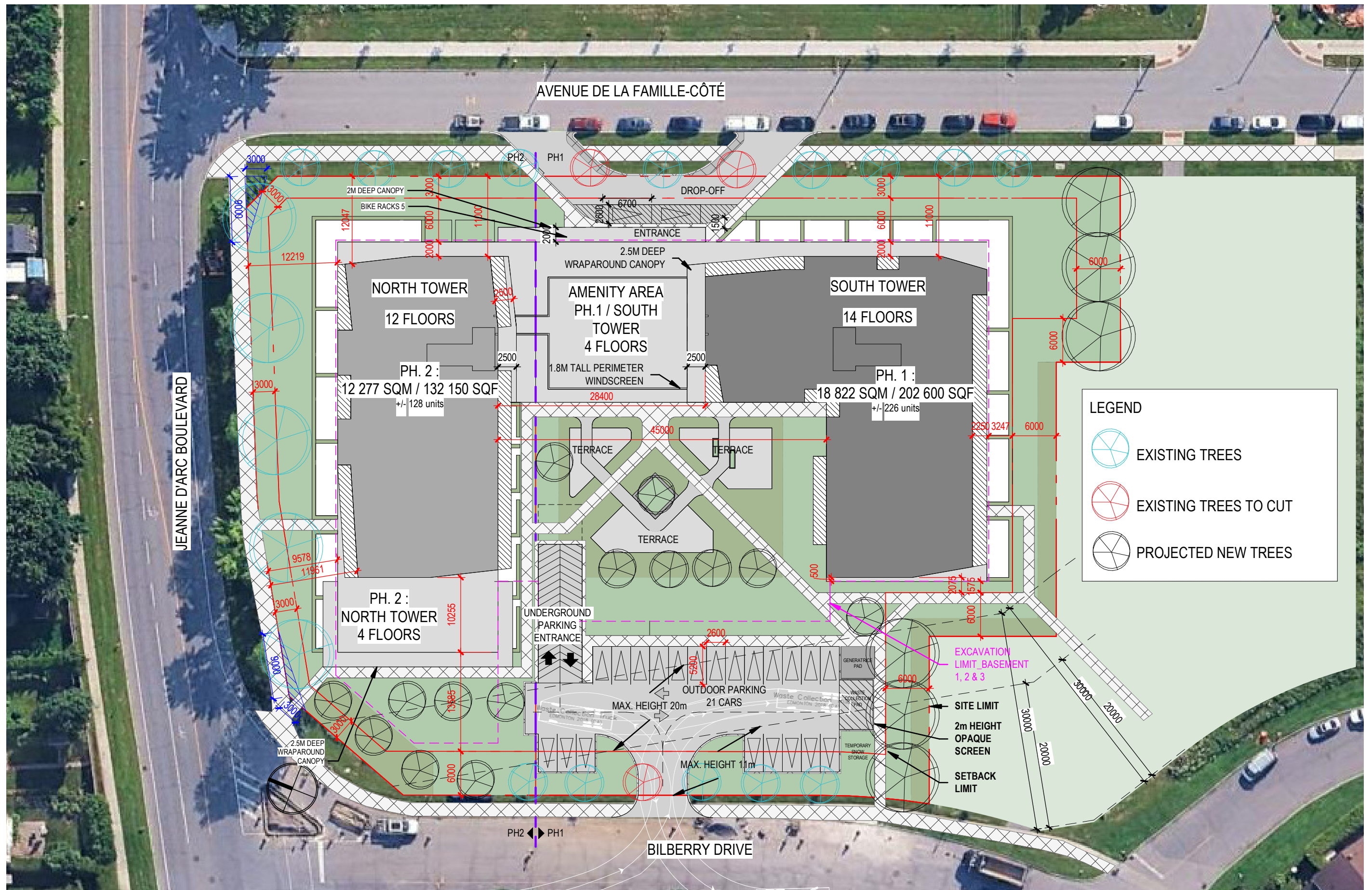
Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	15	74	1	27	84
Future Vol, veh/h	2	15	74	1	27	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	1	1	3	1	1	1
Mvmt Flow	2	17	82	1	30	93

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	236	83	0	0	83
Stage 1	83	-	-	-	-
Stage 2	153	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11
Critical Hdwy Stg 1	5.41	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209
Pot Cap-1 Maneuver	754	979	-	-	1520
Stage 1	943	-	-	-	-
Stage 2	877	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	738	979	-	-	1520
Mov Cap-2 Maneuver	738	-	-	-	-
Stage 1	943	-	-	-	-
Stage 2	859	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	1.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	943	1520
HCM Lane V/C Ratio	-	-	0.02	0.02
HCM Control Delay (s)	-	-	8.9	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

APPENDIX “D”
SITE PLAN (DECEMBER 10, 2025)



PLAN DU SITE

ÉCHELLE = 1 : 500

APPENDIX “E”
TDM SUPPORTIVE DEVELOPMENT CHECKLIST

TDM-Supportive Development Design and Infrastructure Checklist:
Residential Developments (multi-family or condominium)

Legend	
REQUIRED	The Official Plan or Zoning By-law provides related guidance that must be followed
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
1. WALKING & CYCLING: ROUTES		
1.1 Building location & access points		
BASIC	1.1.1 Locate building close to the street, and do not locate parking areas between the street and building entrances	<input checked="" type="checkbox"/>
BASIC	1.1.2 Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	<input checked="" type="checkbox"/>
BASIC	1.1.3 Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	<input checked="" type="checkbox"/>
1.2 Facilities for walking & cycling		
REQUIRED	1.2.1 Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations <i>(see Official Plan policy 4.3.3)</i>	<input checked="" type="checkbox"/>
REQUIRED	1.2.2 Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible <i>(see Official Plan policy 4.3.12)</i>	<input checked="" type="checkbox"/>

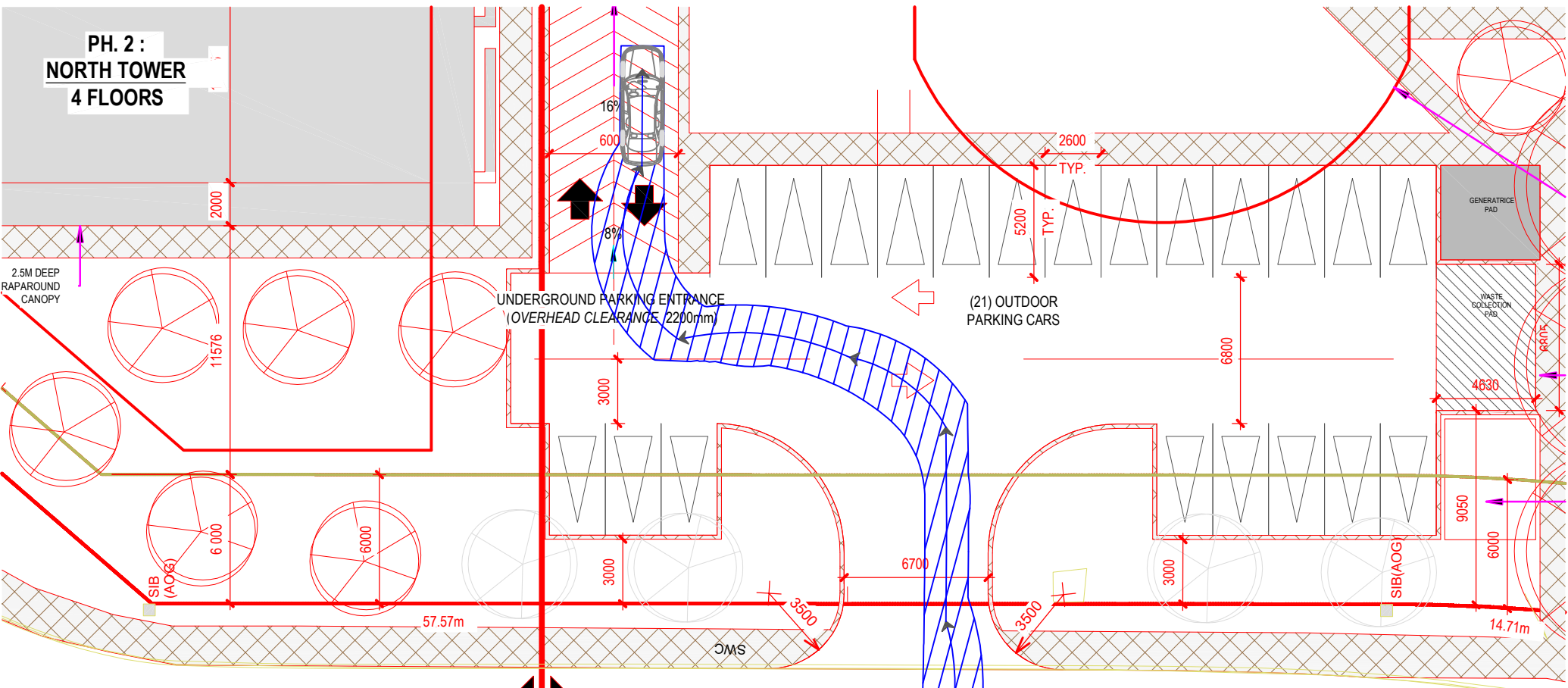
TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3 Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks (see <i>Official Plan policy 4.3.10</i>)	<input checked="" type="checkbox"/>
REQUIRED	1.2.4 Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps (see <i>Official Plan policy 4.3.10</i>)	<input checked="" type="checkbox"/>
REQUIRED	1.2.5 Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on-road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians (see <i>Official Plan policy 4.3.11</i>)	<input checked="" type="checkbox"/>
BASIC	1.2.6 Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	<input checked="" type="checkbox"/>
BASIC	1.2.7 Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	<input type="checkbox"/>
BASIC	1.2.8 Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	<input checked="" type="checkbox"/>
1.3 Amenities for walking & cycling		
BASIC	1.3.1 Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	<input checked="" type="checkbox"/>
BASIC	1.3.2 Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	<input type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
2. WALKING & CYCLING: END-OF-TRIP FACILITIES		
2.1 Bicycle parking		
REQUIRED	2.1.1 Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible (see <i>Official Plan policy 4.3.6</i>)	<input checked="" type="checkbox"/>
REQUIRED	2.1.2 Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas (see <i>Zoning By-law Section 111</i>)	<input checked="" type="checkbox"/>
REQUIRED	2.1.3 Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored (see <i>Zoning By-law Section 111</i>)	<input checked="" type="checkbox"/>
BASIC	2.1.4 Provide bicycle parking spaces equivalent to the expected number of resident-owned bicycles, plus the expected peak number of visitor cyclists	<input type="checkbox"/>
2.2 Secure bicycle parking		
REQUIRED	2.2.1 Where more than 50 bicycle parking spaces are provided for a single residential building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers (see <i>Zoning By-law Section 111</i>)	<input checked="" type="checkbox"/>
BETTER	2.2.2 Provide secure bicycle parking spaces equivalent to at least the number of units at condominiums or multi-family residential developments	<input type="checkbox"/>
2.3 Bicycle repair station		
BETTER	2.3.1 Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	<input type="checkbox"/>
3. TRANSIT		
3.1 Customer amenities		
BASIC	3.1.1 Provide shelters, lighting and benches at any on-site transit stops	<input type="checkbox"/> N/A
BASIC	3.1.2 Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	<input type="checkbox"/>
BETTER	3.1.3 Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	<input type="checkbox"/>

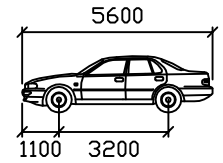
TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
4. RIDESHARING		
4.1 Pick-up & drop-off facilities		
BASIC	4.1.1 Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	<input checked="" type="checkbox"/> Pick-up/drop off area provided off Famille-Cote
5. CARSHARING & BIKESHARING		
5.1 Carshare parking spaces		
BETTER	5.1.1 Provide up to three carshare parking spaces in an R3, R4 or R5 Zone for specified residential uses (see <i>Zoning By-law Section 94</i>)	<input type="checkbox"/>
5.2 Bikeshare station location		
BETTER	5.2.1 Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	<input type="checkbox"/>
6. PARKING		
6.1 Number of parking spaces		
REQUIRED	6.1.1 Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	<input checked="" type="checkbox"/> Parking requirements are met
BASIC	6.1.2 Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	<input type="checkbox"/>
BASIC	6.1.3 Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly (see <i>Zoning By-law Section 104</i>)	<input type="checkbox"/> N/A
BETTER	6.1.4 Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking (see <i>Zoning By-law Section 111</i>)	<input type="checkbox"/>
6.2 Separate long-term & short-term parking areas		
BETTER	6.2.1 Provide separate areas for short-term and long-term parking (using signage or physical barriers) to permit access controls and simplify enforcement (i.e. to discourage residents from parking in visitor spaces, and vice versa)	<input type="checkbox"/>

APPENDIX “F”
VEHICLE SWEPH PATH ANALYSIS

**PH. 2 :
NORTH TOWER
4 FLOORS**



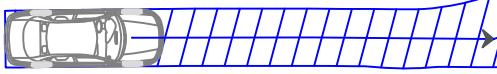
**BILBERRY DRIVE
(PUBLIC TRAVELLED ROAD)**



P

Width	: 2000
Track	: 2000
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

F-2: Passenger Car (TAC P) Inbound



**PH. 2 :
NORTH TOWER
4 FLOORS**

2.5M DEEP
RAPAROUND
CANOPY

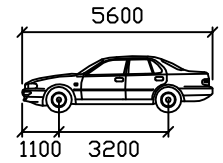
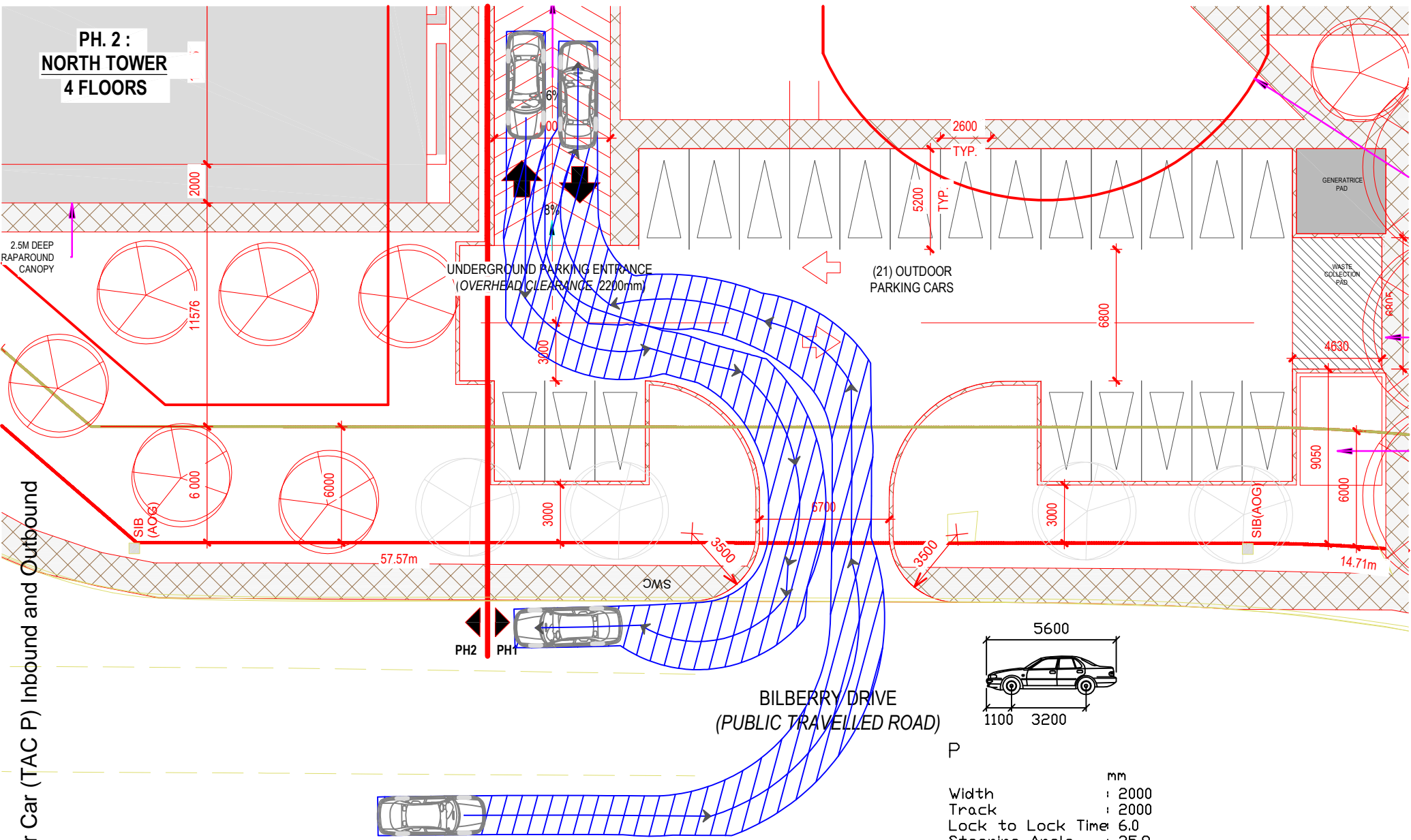
UNDERGROUND PARKING ENTRANCE
(OVERHEAD CLEARANCE 2200mm)

(21) OUTDOOR
PARKING CARS

GENERATRICE PAD

WASTE COLLECTION PAD

F-4 Passenger Car (TAC P) Inbound and Outbound



P

Width	: 2000
Track	: 2000
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

BILBERRY DRIVE
(PUBLIC TRAVELLED ROAD)

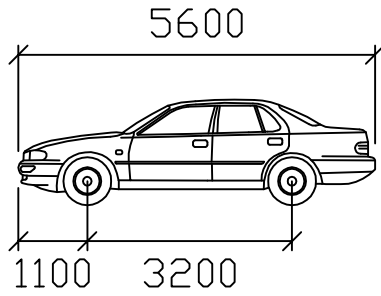
PH2 PH1

CWS

SIB(AOG)

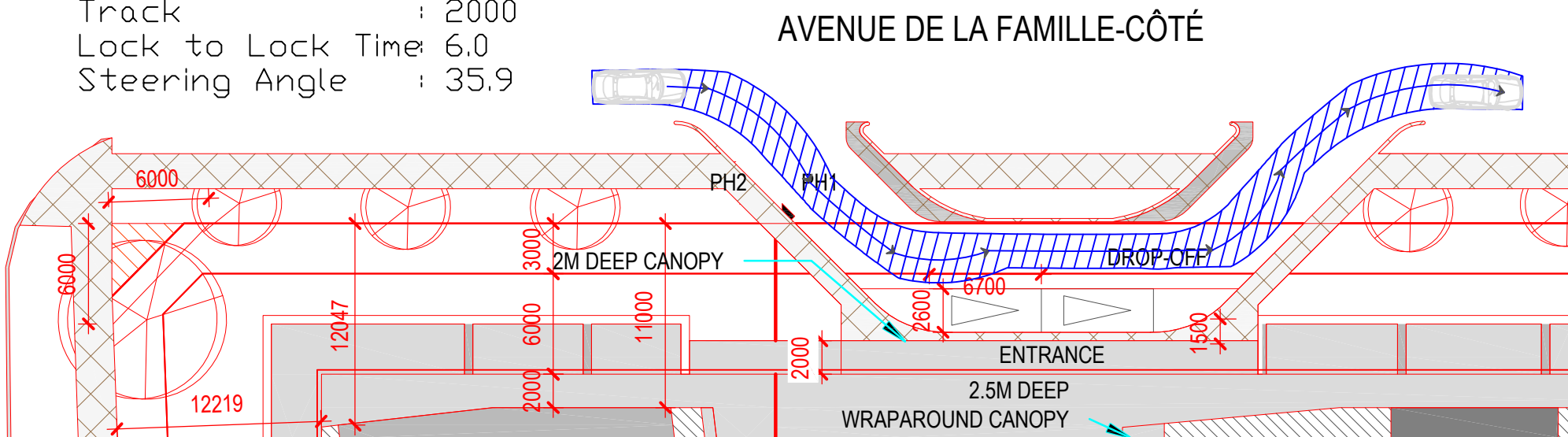
SIB(AOG)

F-5: Passenger Car (TAC P) entering and leaving the pick-up / drop-off area

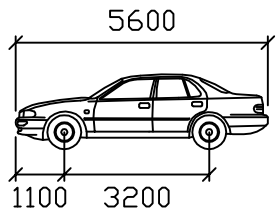


Passenger Car

	mm
Width	: 2000
Track	: 2000
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

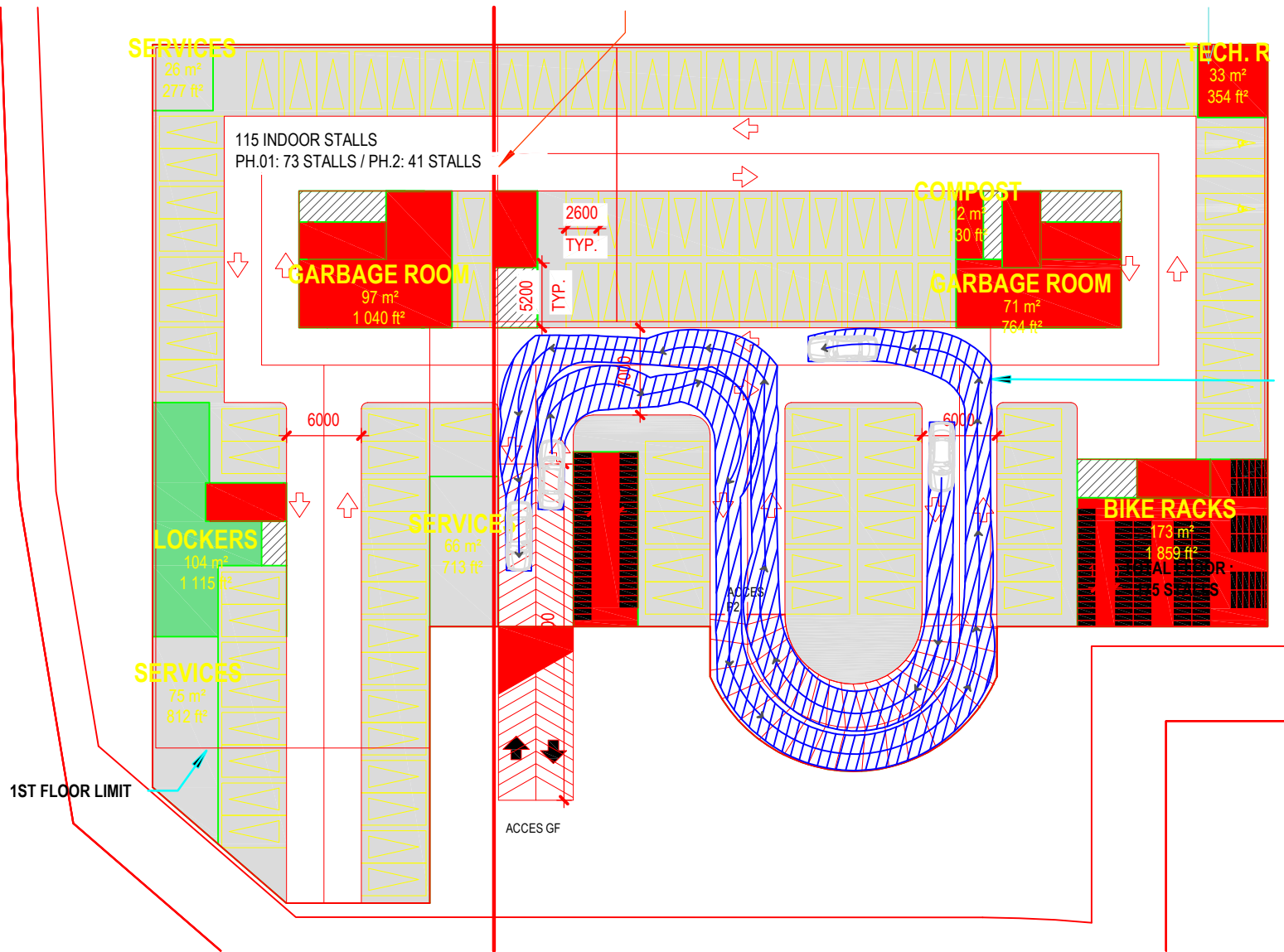


F-6: Passenger Car (TAC P) Navigating the Parking Garage



Passenger Car

	mm
Width	: 2000
Track	: 2000
Lock to Lock Time	: 6.0
Steering Angle	: 35.9



APPENDIX “G”
SEGMENT MMLOS ANALYSIS

Multi-Modal Level of Service - Segments Form

Project: 7381 - 500 Famille-Cote Ave
 Consultant: Castleglenn Consultants
 Date: Dec 8, 2025
 Scenario: Forecast Total 2035

Segment Name		Bilberry Drive b/w Jeanne D'Arc and Du Bois				Jeanne D'Arc between Bilberry and Famille-Cote				Famille cote between Jeanne D'Arc and John Holden			
OP Transect / Policy Area		Within 600m of a rapid transit station				Within 600m of a rapid transit station				Within 600m of a rapid transit station			
Segment Component		Majority (>50%)		Critical		Majority (>50%)		Critical		Majority (>50%)		Critical	
Side of Street		W	E	W	E	S	N	S	N	W	E	W	E
Pedestrian	PLOS Inputs												
	Posted Speed (km/h)	40 km/h		40 km/h		50 km/h		50 km/h		40 km/h		40 km/h	
	Two-Way ADT	2,800		2,300		11,500		11,500		1,000		1,000	
	Pedestrian Facility	None	Sidewalk	None	Sidewalk	Sidewalk	Sidewalk	Sidewalk	Sidewalk	Sidewalk	Sidewalk	Sidewalk	Sidewalk
	Does the facility meet the TMP Sidewalk or MUP Policy? If not, for MUPs, does the location have a low volume of peak daily users AND are pedestrian volumes likely less than 20% of total users?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Facility Width (m)	-	2.00m	-	2.00m	2.00m	1.50m	2.00m	1.50m	2.00m	2.00m	2.00m	2.00m
	Offset from Motor Vehicle Travel Lanes (m)	-	< 0.5m	-	< 0.5m	≥ 3.0m	-	≥ 3.0m	-	1.5-2.99m	1.5-2.99m	1.5-2.99m	1.5-2.99m
	Presence of Adjacent Parking?	-	-	-	-	No	-	No	-	-	-	-	-
	General Purpose Curb Lane ADT	-	≤ 3000	-	≤ 3000	-	-	-	-	≤ 3000	≤ 3000	≤ 3000	≤ 3000
	Max Distance between Controlled Crossings (m)	-	≤ 200m	-	≤ 200m	> 400m	> 400m	> 400m	> 400m	-	-	-	-
Score	-	4.25	-	4.25	3.75	0.75	3.75	0.75	5.00	5.00	5.00	5.00	
PLOS	-	B	-	B	B	E	B	E	A	A	A	A	
Target PLOS	A												
Bicycle	BLOS Inputs												
	Cycling Route Classification	Elsewhere				Elsewhere				Elsewhere			
	Cycling Facility	Shared Operating Space	Shared Operating Space	Shared Operating Space	Shared Operating Space	Painted or Physically Separated Bike Lanes	Painted or Physically Separated Bike Lanes	Shared Operating Space	Painted or Physically Separated Bike Lanes	Shared Operating Space	Shared Operating Space	Shared Operating Space	Shared Operating Space
	Is the minimum level of separation provided according to OTM Book 18 Pre-Selection Nomograph - Rural Context (Figure 5.6)? (for paved shoulders)	-	-	-	-	-	-	-	-	-	-	-	-
	Facility Operation	-	-	-	-	Unidirectional	Unidirectional	-	Unidirectional	-	-	-	-
	Pedestrian/Cyclist Volume	-	-	-	-	-	-	-	-	-	-	-	-
	Facility Width	-	-	-	-	1.5-1.79m or 1.8m contraflow bike lane	1.5-1.79m or 1.8m contraflow bike lane	-	1.5-1.79m or 1.8m contraflow bike lane	-	-	-	-
	Boulevard/Buffer Width (excluding curb)	-	-	-	-	< 1.0m and no vertical measure or < 0.6m with adjacent parking	< 1.0m and no vertical measure or < 0.6m with adjacent parking	-	< 1.0m and no vertical measure or < 0.6m with adjacent parking	-	-	-	-
	Unsignalized Roadway Crossing Type (where cyclists are required to yield)	None	Cross-Street	None	Cross-Street	None	None	None	None	None	Cross-Street	None	Cross-Street
	Number of Travel Lanes at Crossing	-	3	-	3	-	-	-	-	-	3	-	3
Crossing includes Median Refuge (≥ 2.7m)	-	No	-	-	-	-	-	-	-	No	-	No	
Cross-street Posted Speed (km/h)	-	50 km/h	-	50 km/h	-	-	-	-	-	50 km/h	-	50 km/h	
Cycling Path Blockages (e.g. bus stops and/or loading zones)	Rare	Rare	Rare	Rare	Rare	Rare	Rare	Rare	Rare	Frequent, Short Duration	Frequent, Short Duration	Frequent, Short Duration	Frequent, Short Duration
Score	3.30	3.30	3.30	3.30	2.03	2.03	0.75	2.03	3.85	3.70	3.85	3.70	
BLOS	C	C	C	C	D	D	E	D	B	B	B	B	
Target BLOS	B												
Transit	TLOS Inputs												
	Transit Facility	Mixed Traffic				Mixed Traffic				Mixed Traffic			
	Facility Type	Mixed Traffic	Mixed Traffic			Mixed Traffic	Mixed Traffic			Mixed Traffic	Mixed Traffic		
	Expected Transit Running Time	Slightly Impeded	Slightly Impeded			Slightly Impeded	Slightly Impeded			Moderately Impeded	Moderately Impeded		
	Transit Travel Speed (if available)	Enter Speed (if available)	Enter Speed (if available)			Enter Speed (if available)	Enter Speed (if available)			Enter Speed (if available)	Enter Speed (if available)		
TLOS	C	C			C	C			D	D			
Target TLOS	E				E				E				
Public Realm	PRLOS Inputs												
	Context	Other Streets	Other Streets			Other Streets	Other Streets			Mainstreet or active frontage street within a Hub, Special District, or Village	Mainstreet or active frontage street within a Hub, Special District, or Village		
	Inner Boulevard Width	≤ 0.6m	≤ 0.6m			2.0-3.99m	2.0-3.99m			2.0-3.99m	2.0-3.99m		
	Middle Boulevard Width	≤ 0.5m	≤ 0.5m			≤ 0.5m	≤ 0.5m			2.0-2.99m	2.0-2.99m		
	Outer Boulevard (Frontage) Width	≥ 3.0m	≤ 0.5m			≤ 0.5m	≤ 0.5m			-	-		
	Transit Route on Segment?	Yes	Yes			Yes	Yes			No	No		
	Bus Stop Elements	No platform, landing zone or shelter	Curbside landing zone with no shelter			Curbside platform with shelter (island style)	Curbside platform with no shelter			-	-		
Number of Midblock Traffic Lanes (both travel directions)	3				3				≤ 2				
Score	12.00	18.60			21.60	17.40			24.60	24.60			
PRLOS	D	C			B	C			B	B			
	D				C				B				

APPENDIX “H”
TDM MEASURES CHECKLIST

TDM Measures Checklist:
Residential Developments (multi-family, condominium or subdivision)

Legend	
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance
★	The measure is one of the most dependably effective tools to encourage the use of sustainable modes

TDM measures: Residential developments		Check if proposed & add descriptions
1. TDM PROGRAM MANAGEMENT		
1.1 Program coordinator		
BASIC	★	1.1.1 Designate an internal coordinator, or contract with an external coordinator <input type="checkbox"/>
1.2 Travel surveys		
BETTER		1.2.1 Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress <input type="checkbox"/>
2. WALKING AND CYCLING		
2.1 Information on walking/cycling routes & destinations		
BASIC		2.1.1 Display local area maps with walking/cycling access routes and key destinations at major entrances (<i>multi-family, condominium</i>) <input checked="" type="checkbox"/>
2.2 Bicycle skills training		
BETTER		2.2.1 Offer on-site cycling courses for residents, or subsidize off-site courses <input type="checkbox"/>

TDM measures: <i>Residential developments</i>		Check if proposed & add descriptions
3. TRANSIT		
3.1 Transit information		
BASIC	3.1.1 Display relevant transit schedules and route maps at entrances (<i>multi-family, condominium</i>)	<input checked="" type="checkbox"/>
BETTER	3.1.2 Provide real-time arrival information display at entrances (<i>multi-family, condominium</i>)	<input type="checkbox"/>
3.2 Transit fare incentives		
BASIC ★	3.2.1 Offer PRESTO cards preloaded with one monthly transit pass on residence purchase/move-in, to encourage residents to use transit	<input type="checkbox"/>
BETTER	3.2.2 Offer at least one year of free monthly transit passes on residence purchase/move-in	<input type="checkbox"/>
3.3 Enhanced public transit service		
BETTER ★	3.3.1 Contract with OC Transpo to provide early transit services until regular services are warranted by occupancy levels (<i>subdivision</i>)	<input type="checkbox"/>
3.4 Private transit service		
BETTER	3.4.1 Provide shuttle service for seniors homes or lifestyle communities (e.g. scheduled mall or supermarket runs)	<input type="checkbox"/>
4. CARSHARING & BIKESHARING		
4.1 Bikeshare stations & memberships		
BETTER	4.1.1 Contract with provider to install on-site bikeshare station (<i>multi-family</i>)	<input type="checkbox"/>
BETTER	4.1.2 Provide residents with bikeshare memberships, either free or subsidized (<i>multi-family</i>)	<input type="checkbox"/>
4.2 Carshare vehicles & memberships		
BETTER	4.2.1 Contract with provider to install on-site carshare vehicles and promote their use by residents	<input type="checkbox"/>
BETTER	4.2.2 Provide residents with carshare memberships, either free or subsidized	<input type="checkbox"/>
5. PARKING		
5.1 Priced parking		
BASIC ★	5.1.1 Unbundle parking cost from purchase price (<i>condominium</i>)	<input type="checkbox"/>
BASIC ★	5.1.2 Unbundle parking cost from monthly rent (<i>multi-family</i>)	<input checked="" type="checkbox"/>

TDM measures: <i>Residential developments</i>		Check if proposed & add descriptions
6. TDM MARKETING & COMMUNICATIONS		
6.1 Multimodal travel information		
BASIC ★	6.1.1 Provide a multimodal travel option information package to new residents	<input checked="" type="checkbox"/>
6.2 Personalized trip planning		
BETTER ★	6.2.1 Offer personalized trip planning to new residents	<input type="checkbox"/>

APPENDIX “I”
E-MAIL COMMUNICATIONS



Re: 500 Famille-Côté Avenue - TIA Scoping Report Submission

From Giampa, Mike <Mike.Giampa@ottawa.ca>
Date Mon 12/1/2025 8:31 AM
To Andrey Kirillov <akirillov@castleglenn.ca>
Cc Arthur Gordon <agordon@castleglenn.ca>; Chadi Kahwaji <ckahwaji@emd-batimo.ca>; caboutayeh <caboutayeh@emd-batimo.ca>

Hi Andrey, please proceed to strategy.

Thanks
Mike

Classified as City of Ottawa - Internal / Ville d'Ottawa - classé interne

From: Andrey Kirillov <akirillov@castleglenn.ca>
Sent: Thursday, November 27, 2025 11:07 AM
To: Giampa, Mike <Mike.Giampa@ottawa.ca>
Cc: Arthur Gordon <agordon@castleglenn.ca>; Chadi Kahwaji <ckahwaji@emd-batimo.ca>; caboutayeh <caboutayeh@emd-batimo.ca>; Fortier, Rochelle <Rochelle.Fortier@ottawa.ca>
Subject: Re: 500 Famille-Côté Avenue - TIA Scoping Report Submission

CAUTION: This email originated from an External Sender. Please do not click links or open attachments unless you recognize the source.

ATTENTION : Ce courriel provient d'un expéditeur externe. Ne cliquez sur aucun lien et n'ouvrez pas de pièce jointe, excepté si vous connaissez l'expéditeur.

Hi Mike,

Just following up to make sure you received the TIA Scoping report for the proposed 500 Famille-Côté Avenue development. We look forward to your feedback.

Thank you,

Andrey Kirillov

Transportation Planner
CastleGlenn Consultants Inc.
2460 Lancaster Road, Suite 200
Ottawa, Ontario
K1B 4S5
(T) 613-731-4052 (F) 613-731-0253 (C) 613-799-8774



From: Andrey Kirillov <akirillov@castleglenn.ca>
Sent: Tuesday, November 18, 2025 4:37 PM
To: Giampa, Mike <mike.giampa@ottawa.ca>
Cc: Arthur Gordon <agordon@castleglenn.ca>; Chadi Kahwaji <ckahwaji@emd-batimo.ca>; Charbel Abou Tayeh <Caboutayeh@emd-batimo.ca>; Fortier, Rochelle <Rochelle.Fortier@ottawa.ca>
Subject: 500 Famille-Côté Avenue - TIA Scoping Report Submission

Hi Mike,

We were working with Rochelle Fortier-Lesage on a TIA study pertaining to the proposed high-rise residential development located at 500 Famille-Côté Avenue in Orleans. You can find the approval of our screening form and authorization to proceed with Scoping in the e-mail conversation below (August 28, 2025). I understand you are the new point of contact regarding the transportation concerns associated with this development application.

Please find the final draft of the Screening and Scoping report for this development attached to this e-mail. We look forward to receiving your feedback on the Scoping report prior to continuing with the Strategy Report.

Let us know if you have any questions on the attached materials.

Regards,

Andrey Kirillov

Transportation Planner
CastleGlenn Consultants Inc.
2460 Lancaster Road, Suite 200
Ottawa, Ontario
K1B 4S5
(T) 613-731-4052 (F) 613-731-0253 (C) 613-799-8774



From: Andrey Kirillov <akirillov@castleglenn.ca>
Sent: Tuesday, November 18, 2025 4:16 PM
To: Fortier, Rochelle <Rochelle.Fortier@ottawa.ca>
Cc: Arthur Gordon <agordon@castleglenn.ca>; Chadi Kahwaji <ckahwaji@emd-batimo.ca>; Charbel Abou Tayeh <caboutayeh@emd-batimo.ca>
Subject: 500 Famille-Côté Avenue - TIA Scoping Report Submission

Hi Rochelle,

Please find attached our final draft of the TIA Scoping Report for the 500 Famille-Côté Avenue high-rise residential development.

We await your feedback and concurrence with exemption requests prior to continuing with the Strategy Report.

Feel free to let us know if you have any questions on the attached materials.

Thank you,

Andrey Kirillov

Transportation Planner
CastleGlenn Consultants Inc.
2460 Lancaster Road, Suite 200
Ottawa, Ontario
K1B 4S5
(T) 613-731-4052 (F) 613-731-0253 (C) 613-799-8774



From: Fortier, Rochelle <Rochelle.Fortier@ottawa.ca>
Sent: Thursday, August 28, 2025 8:55 AM
To: Andrey Kirillov <akirillov@castleglenn.ca>
Cc: Arthur Gordon <agordon@castleglenn.ca>
Subject: Re: 500 Famille-Côté Avenue - Screening From and TIA Study Initiation

Hi Andrey,

Please proceed with the Scoping report as described below. I've also attached for your reference the 850 Champlain Street Block 4 (555 Famille Cote) report which was prepared in 2020 - note that the report also includes in the Appendix the overall Community Transportation Study (2013) and Addendum (2017) which were prepared in support of the Plan of Subdivision. I trust this will help with the adjacent land use assumptions.

Regards,

Rochelle Fortier-Lesage, P.Eng. (she/her/elle)

Transportation Project Manager, Infrastructure Approvals | Gestionnaire de projets de transportation, Approbation des demandes d'infrastructure
Planning, Development, and Building Services Department | Services de la planification, de l'aménagement et du bâtiment
City of Ottawa | Ville d'Ottawa
613-580-2424 ext. 60986

Classified as City of Ottawa - Internal / Ville d'Ottawa - classé interne

From: Andrey Kirillov <akirillov@castleglenn.ca>
Sent: Tuesday, August 26, 2025 11:02 AM
To: Fortier, Rochelle <Rochelle.Fortier@ottawa.ca>
Cc: Arthur Gordon <agordon@castleglenn.ca>
Subject: 500 Famille-Côté Avenue - Screening From and TIA Study Initiation

CAUTION: This email originated from an External Sender. Please do not click links or open attachments unless you recognize the source.

ATTENTION : Ce courriel provient d'un expéditeur externe. Ne cliquez sur aucun lien et n'ouvrez pas de pièce jointe, excepté si vous connaissez l'expéditeur.

Hi Rochelle,

We've been retained by Batimo Développement Inc. to prepare a Transportation Impact Assessment for the proposed residential development located at 500 Famille-Côté Avenue. The City Pre-Consultation comments (January 2025) identified you as the transportation contact.

Screening Report: Please find attached a completed screening form dated August 25, 2025 for the proposed high-rise 354 unit development. We understand that a full TIA will be required for this site. Our study scope will follow the 2017 Transportation Impact Assessment Guidelines, and we are aware of the July 2023 update which eliminated the Forecasting module. Our full study scope is also attached for your information.

Questions: We have the following three questions that we are hoping to get your guidance on before we continue with Scoping:

1. Below exhibit illustrates a 400 metre radius from each of the proposed accesses (see development site outlined in red solid line, red pin: garage access; yellow pin: pick-up/drop off accesses). Note the 8 intersections circled in green, located within 400 metres of both accesses, which we propose to include in our study area:
 1. **Jeanne D'Arc Boulevard / Bilberry Drive:** Minor Leg STOP-Controlled
 2. **Jeanne D'Arc Boulevard / Famille Côté Avenue:** Minor Leg STOP-Controlled
 3. **Jeanne D'Arc Boulevard / Champlain Drive:** Traffic Signal-Controlled
 4. **Bilberry Drive / Du Bois Avenue:** Minor Leg STOP-Controlled
 5. **Famille Côté Avenue / John Holden Way:** Minor Leg STOP-Controlled
 6. **Champlain Drive / John Holden Way:** Minor Leg STOP-Controlled
 7. **Famille Côté Avenue / Park-and-Ride access:** Minor Leg STOP-Controlled
 8. **Champlain Drive / Highway 174 WB Ramp Terminal - Transitway:** Traffic Signal-Controlled

Let us know if you concur with the above 8 intersections comprising the study area for this TIA.

2. We would like, at your discretion and concurrence, to omit the analysis of the following three intersections (blue on the exhibit) from the study:
 1. **Champlain Drive / Highway 174 EB Ramp Terminal - Transitway** (Traffic Signal-Controlled), and
 2. **Place d'Orleans Drive / Highway 174 EB Off-Ramp** (Traffic Signal-Controlled)
Reason: both of these two intersections are located further than 400 meters from any active entrance/exit to the proposed development. As well, both intersections already provide for ultimate vehicle facilities in the critical eastbound (PM Peak) direction of travel, such as dual left turn lanes.
 3. **Jeanne D'Arc Boulevard / Décarie Drive (Traffic Signal-Controlled)**
Reason: we recognize this intersection is about 380 meters west from the proposed development's parking access, however, please note that we anticipate that most trips would be headed towards Champlain St. and Highway 174 instead or west along Jeanne d'Arc. The few trips that head towards the west (likely 10-20%) along Jeanne D'Arc corridor can be considered as naturally occurring background growth along the single through lane of the intersection. As well, we do not expect significant (if any) volumes of the development-generated traffic turning to/from Décarie Drive corridor.
Please let us know if you agree with the above reasoning, or if the City wishes us to include any (or all) of the three intersections listed just above.

3. According to the Orleans Corridor Secondary Plan, the future intent of this and other parcels along Famille-Côté Avenue (see orange dashes on the exhibit) is to serve as a hub for the

Transportation Planner
CastleGlenn Consultants Inc.
2460 Lancaster Road, Suite 200
Ottawa, Ontario
K1B 4S5
(T) 613-731-4052 (F) 613-731-0253 (C) 613-799-8774



'
This e-mail originates from the City of Ottawa e-mail system. Any distribution, use or copying of this e-mail or the information it contains by other than the intended recipient(s) is unauthorized. Thank you.

Le présent courriel a été expédié par le système de courriels de la Ville d'Ottawa. Toute distribution, utilisation ou reproduction du courriel ou des renseignements qui s'y trouvent par une personne autre que son destinataire prévu est interdite. Je vous remercie de votre collaboration.

'
This e-mail originates from the City of Ottawa e-mail system. Any distribution, use or copying of this e-mail or the information it contains by other than the intended recipient(s) is unauthorized. Thank you.

Le présent courriel a été expédié par le système de courriels de la Ville d'Ottawa. Toute distribution, utilisation ou reproduction du courriel ou des renseignements qui s'y trouvent par une personne autre que son destinataire prévu est interdite. Je vous remercie de votre collaboration.