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The Grove at Greystone

Part of 375 Deschâtelets Avenue

Transportation Impact Assessment

**The Grove at Greystone
Part of 375 Deschâtelets Avenue
Transportation Impact Assessment**

Prepared By:

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April 2018

Novatech File: 114025
Ref No. R-2018-055

April 27th, 2018

City of Ottawa
Planning and Growth Management Department
110 Laurier Ave. W., 4th Floor,
Ottawa, Ontario K1P 1J1

Attention: Mr. Wally Dubyk
Project Manager, Infrastructure Approvals

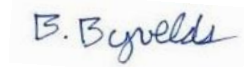
Dear Sir:

Reference: The Grove at Greystone
Transportation Impact Assessment
Novatech File No. 114025

We are pleased to submit the following Transportation Impact Assessment (TIA) in support of a Site Plan Control application for The Grove at Greystone. The site currently forms part of 375 Deschâtelets Avenue, with an individual municipal address to be determined. The structure and format of this report is in accordance with the 2017 City of Ottawa TIA Guidelines.

Yours truly,

NOVATECH



Brad Byvelds, P. Eng.
Project Coordinator | Transportation/Traffic

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EXECUTIVE SUMMARY

This Transportation Impact Assessment (TIA) has been prepared in support of a Site Plan Control application for The Grove at Greystone. The site currently forms part of 375 Deschâtelets Avenue, with an individual municipal address to be determined. The subject site forms part of the Greystone Village subdivision and is located northeast of the Deschâtelets Avenue/De Mazenod Avenue intersection. The subject site is surrounded by the following:

- the existing Deschâtelets building to the north;
- Deschâtelets Avenue and residential development to the south;
- future residential development to the east; and
- parkland to the west.

The proposed development consists of a three-storey stacked townhouse block containing 18 residential units. An underground parking lot containing 20 parking spaces will be provided with access along Deschâtelets Avenue. The proposed development is anticipated to commence construction in 2019 with anticipated build-out and occupancy in 2021.

As the proposed development only satisfies the safety trigger, the scope of the TIA will be limited to the Design Review component and is not required to address the Network Impact component of the TIA guidelines.

The conclusions and recommendations of this TIA can be summarized as follows:

- The proposed development is anticipated to generate 7 vehicle trips during the AM peak hour and 8 vehicle trips during the PM peak hour. Trips generated by the proposed development were included in the overall traffic generated by the Greystone Village CTS.
- Pedestrian facilities will be provided between all residential dwelling entrances and the sidewalk along Deschâtelets Avenue as well as the parkland to the west.
- As development progresses within the Greystone Village subdivision, OC Transpo Route 16 will travel east on Hazel Street, north on Deschâtelets Avenue, and west on des Oblats Avenue. A new bus stop will be located in the southeast corner of the des Oblats Avenue/Deschâtelets Avenue intersection.
- OC Transpo staff have advised that a new transit Route 55 will be introduced along Main Street following the implementation of Light Rail Transit in the City of Ottawa.
- A review of the Transportation Demand Management (TDM) – *Supportive Development Design and Infrastructure Checklist* has been conducted. All required TDM-supportive design and infrastructure measures in the TDM checklist are met.
- Fire access to the proposed development will occur along Deschâtelets Avenue as well as through the fire access route within the park adjacent to the western frontage of the site.
- The vehicular and bicycle parking provided is in accordance with the minimum requirements identified in the ZBL.

- Deschâtelets Avenue meets the target PLOS, BLOS and Auto LOS for the General Urban Area.
- The proposed development will be served by one all-movement access along Deschâtelets Avenue. The proposed access will be 6.0m in width, and is located 27m from the existing western property line and 43m from the existing eastern property line. The proposed driveway is planned to be shared between the proposed development and the future development to the east. As this will be a shared driveway in the future, no driveways are anticipated to be developed along Deschâtelets Avenue in the vicinity of the proposed development.
- The width and location of the proposed access conform to the requirements of the City's Zoning By-law and Private Approach By-law.
- The proposed eastern property line shown on the site plan is conceptual, and will be developed through a future severance application. The City's Private Approach By-law identifies a minimum distance of 3.0m between an access and the property line. If the property line is developed within 3.0m of the proposed access, a waiver to the Private Approach By-law will be required at that time.
- The sight distance looking left, to turn right out of the access is governed by the Deschâtelets Avenue/Scholastic Drive intersection and is approximately 55m. This does not meet the minimum requirements identified in TAC, however vehicles turning left or right onto Deschâtelets Avenue from Scholastic Drive are anticipated to be turning at a slower speed. Based on a lower design speed of 30km/hr, and since the proposed access and westbound vehicles along Deschâtelets Avenue are anticipated to be low in volume, the sight distance to turn right from the proposed access is anticipated to be sufficient.
- The stairs leading to the residential unit obstruct the sight distance looking right, to turn left out of the access, and limit the sight distance to approximately 70m. To achieve the minimum sight distance identified in TAC, drivers are required to encroach into the sidewalk. It is noteworthy that the majority of traffic departing the site will be destined to Main Street. Vehicles turning left out of the access are anticipated to encroach into the sidewalk to turn left out of the proposed access, however this is anticipated to be infrequent.

1.0 INTRODUCTION

This Transportation Impact Assessment (TIA) has been prepared in support of a Site Plan Control application for The Grove at Greystone. The site currently forms part of 375 Deschâtelets Avenue, with an individual municipal address to be determined. The subject site forms part of the Greystone Village subdivision and is located northeast of the Deschâtelets Avenue/De Mazenod Avenue intersection. The subject site is surrounded by the following:

- the existing Deschâtelets building to the north;
- Deschâtelets Avenue and residential development to the south;
- future residential development to the east; and
- parkland to the west.

An aerial photo of the subject site is provided in **Figure 1**. A concept plan for the Greystone Village subdivision is included in **Appendix A**.

Figure 1: Aerial Photo of Subject Site



2.0 PROPOSED DEVELOPMENT

The proposed development consists of a three-storey stacked townhouse block containing 18 residential units. An underground parking lot containing 20 parking spaces will be provided with access along Deschâtelets Avenue. The proposed development is anticipated to commence construction in 2019 with anticipated build-out and occupancy in 2021. The proposed site plan is included in **Appendix B**.

3.0 SCREENING AND SCOPING

3.1 Screening Form

The City's 2017 TIA Guidelines identify three triggers for completing a TIA report, including trip generation, location, and safety. The criteria for each trigger are outlined in the City's TIA Screening Form.

The proposed development does not satisfy the trip generation and location trigger, however it does satisfy the safety trigger for completing a TIA. As the proposed development only satisfies the safety trigger, the scope of the TIA will be limited to the Design Review component and is not required to address the Network Impact component of the TIA guidelines. A copy of the TIA screening form is included in **Appendix C**.

3.2 Existing and Planned Conditions

As identified above, the subject site forms part of the Greystone Village subdivision. A Community Transportation Study (CTS) was prepared by Novatech in January 2015 in support of the Greystone Village Draft Plan. This CTS provided a review of the existing and planned conditions in the vicinity of the subdivision, and performed intersection analysis for the following intersections:

- Main Street/des Oblats Avenue
- Main Street/Hazel Street
- Main Street/Clegg Street
- Clegg Street/Greystone Access (Telmon Street)

As the Greystone Village CTS was prepared within the last five years, the existing and planned conditions have not changed since the submission. As such, a further review of the existing and planned conditions in the vicinity of the subject site has not been completed as part of this report.

3.3 Study Area and Time Periods

As the proposed development does not satisfy the trip generation trigger for completing a TIA, intersection analysis is not required as part of this report. Deschâtelets Avenue will be included in the boundary street MMLOS review.

3.4 Exemptions Review

As the proposed development only satisfies the safety trigger, the scope of the TIA will be limited to the Design Review component and is not required to address the Network Impact component of the TIA guidelines. A review of applicable exemptions from the Design Review component for the subject site are shown in **Table 1**.

Table 1: TIA Exemptions

Module	Element	Exemption Criteria	Exemption Applies
Design Review Component			
4.1 Development Design	4.1.2 Circulation and Access	• Only required for site plans	No
	4.1.3 New Street Networks	• Only required for plans of subdivision	Yes
4.2 Parking	4.2.1 Parking Supply	• Only required for site plans	No
	4.2.2 Spillover Parking	• Only required for site plans where parking supply is 15% below unconstrained demand	Yes

4.0 FORECASTING

The proposed development consists of 18 residential units. Trips generated by the proposed development have been estimated using the Residential Condominium/Townhouse land use (LU 230) in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition. Person trips were calculated using an ITE trip to person trip factor of 1.42, consistent with the Greystone Village CTS. The person trips generated by the proposed development are summarized in the following table.

Table 2: Person Trip Generation

Land Use	ITE Code	Units/ GFA	AM Peak (PPH)			PM Peak (PPH)		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Condominium/ Townhouse	230	18	3	16	19	14	7	21

Based on the foregoing, the proposed development is anticipated to generate 19 person trips during the AM peak hour and 21 person trips during the PM peak hour.

The modal shares for the proposed development are anticipated to be consistent with the modal shares proposed in the Greystone Village CTS. The projected person trips by modal share are summarized below.

Table 3: Person Trips by Modal Share

Travel Mode	Modal Share	AM Peak			PM Peak		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Total Person Trips		3	16	19	14	7	21
Auto Driver	40%	1	6	7	5	3	8
Auto Passenger	10%	0	2	2	1	1	2
Transit	25%	1	4	5	4	2	6
Non-Auto	25%	1	4	5	4	1	5

Based on the foregoing, the proposed development is anticipated to generate 7 vehicle trips during the AM peak hour and 8 vehicle trips during the PM peak hour. Trips generated by the proposed development were included in the overall traffic generated by the Greystone Village CTS.

5.0 ANALYSIS

5.1 Development Design

Pedestrian facilities will be provided between all residential dwelling entrances and the sidewalk along Deschâtelets Avenue as well as the parkland to the west.

OC Transpo bus stops #7638 and #7639 are currently located along Main Street south of the Hazel Street intersection. These bus stops serve OC Transpo Route 5 and Route 16. OC Transpo Route 5 is a local route that travels between the Rideau Centre and the Billings Bridge transit station. OC Transpo Route 16 is a local route that travels between St. Paul University and Britannia Park. Both OC Transpo Route 5 and Route 16 provide all day service, seven days a week. As development progresses within the Greystone Village subdivision, OC Transpo Route 16 will travel east on Hazel Street, north on Deschâtelets Avenue, and west on des Oblats Avenue. A new bus stop will be located in the southeast corner of the des Oblats Avenue/Deschâtelets Avenue intersection.

OC Transpo staff have advised the following transit service will be provided following the introduction of Light Rail Transit in the City of Ottawa.

- A new transit Route 55 will be introduced with regular service (15 to 20 minute headways), and will replace the existing Route 101. The new route will start in the west end, connect to the three Ottawa Hospitals, as well as Greenfield Avenue, Mann Avenue, Lees Transit Station, Lees Avenue, and Main Street/Smyth Road to Elmvale Aces.
- Route 5 will not change.
- The Main Street section of Route 16 will not change.

Bicycle parking for the proposed development will be provided in accordance with the City of Ottawa's Zoning By-law (ZBL), and will be located indoors. Bicycle parking requirements are described further in Section 5.2 below.

A review of the Transportation Demand Management (TDM) – *Supportive Development Design and Infrastructure Checklist* has been conducted. A copy of the TDM checklist is included in **Appendix D**. All required TDM-supportive design and infrastructure measures in the TDM checklist are met.

Fire access to the proposed development will occur along Deschâtelets Avenue as well as through the fire access route within the park adjacent to the western frontage of the site.

5.2 Parking

The subject site is located in Area B of Schedule 1 and Area X of Schedule 1A to the City of Ottawa's ZBL. Minimum vehicular and bicycle parking rates for the proposed development are identified in the ZBL, and are summarized in the following table.

Table 4: Parking Requirement

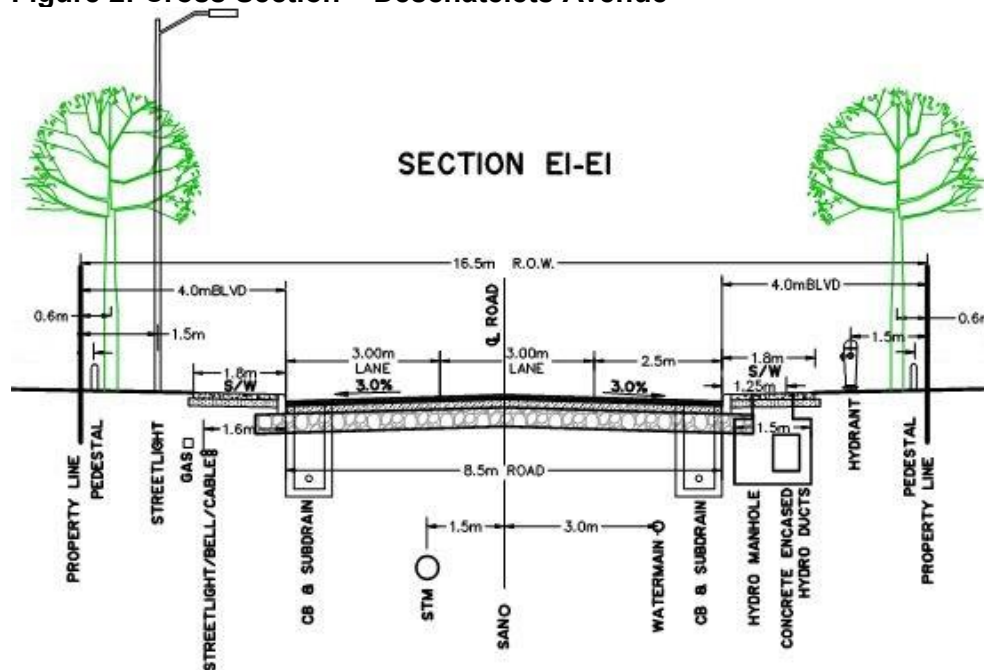
Land Use	Rate	Units	Requirement
Vehicle Parking			
Apartment	0.5 spaces per unit in excess of 12 (Resident)	18	3
	0.1 spaces per unit in excess of 12 (Visitor)		1
Total Required			4
Total Provided			20
Bicycle Parking			
Apartment	0.5 spaces per unit	18	9
Total Required			9
Total Provided			9

Based on the foregoing table, the vehicular and bicycle parking provided is in accordance with the minimum requirements identified in the ZBL.

5.3 Boundary Streets

This section provides a review of the boundary streets using complete streets principles. The Multi-Modal Level of Service (MMLOS) guidelines produced by IBI Group in October 2015 were used to evaluate the LOS of all roadway segments for each mode of transportation. Schedule B of the City of Ottawa’s Official Plan indicates Deschâtelets Avenue is located in the General Urban Area. The cross section for des Deschâtelets Avenue is shown in **Figure 2**.

Figure 2: Cross Section – Deschâtelets Avenue



5.3.1 Pedestrian Level of Service (PLOS)

Exhibit 4 of the MMLOS guidelines has been used to evaluate the existing segment PLOS within the project limits. Exhibit 22 of the MMLOS guidelines suggests a target PLOS C for local roadways in the General Urban Area. The results of the segment PLOS analysis is summarized in the following table.

Table 5: PLOS Segment Analysis

Sidewalk Width	Boulevard Width	Avg. Daily Curb Lane Traffic Volume	Presence of On-Street Parking	Operating Speed ¹	Segment PLOS
<i>Deschâtelets Avenue (North Side)</i>					
1.8m	-	≤3000 vpd	No	40km/hr	B
<i>Deschâtelets Avenue (South Side)</i>					
1.8m	-	≤3000 vpd	Yes	40km/hr	B

5.3.2 Bicycle Level of Service (BLOS)

Exhibit 11 of the MMLOS guidelines has been used to evaluate the existing segment BLOS along des Oblats Avenue. Exhibit 22 of the MMLOS guidelines suggests a target BLOS B for local bicycle routes in the General Urban Area.

Table 6: BLOS Segment Analysis

Road Class	Bike Route	Type of Bikeway	Travel Lanes	Centerline Markings	Operating Speed	Segment BLOS
<i>Deschâtelets Avenue</i>						
Local	Local	Mixed Traffic	2	N/A	40km/hr	A

5.3.3 Transit Level of Service (TLOS)

Deschâtelets Avenue is a local roadway that is not identified as part of the City’s Rapid Transit and Transit Priority Network in the TMP. As such, Exhibit 22 of the MMLOS guidelines does not suggest a target TLOS for Deschâtelets Avenue.

5.3.4 Truck Level of Service (TkLOS)

Deschâtelets Avenue is a local roadway that is not identified as a truck route. As such, Exhibit 22 of the MMLOS does not identify a target TkLOS for Deschâtelets Avenue.

5.3.5 Auto LOS

Exhibit 22 of the MMLOS guidelines suggests a target Auto LOS D in the General Urban Area. The lane capacity along Deschâtelets Avenue is estimated at 400 vehicles per hour per lane based on the City’s guidelines for the TRANS long-range transportation model. Figure 8 of the Greystone Village CTS suggests a two-way total of approximately 170 vehicles access the subdivision at Hazel Street. These traffic volumes are anticipated to dissipate within the subdivision, and only a smaller

portion will cross the subject site along Deschâtelets Avenue. Based on the foregoing, it is anticipated that Deschâtelets Avenue will operate with an Auto LOS A.

5.3.6 MMLOS Summary

A summary of the results of the segment MMLOS analysis is provided in the following table.

Table 7: Segment MMLOS Summary

Segment		Deschâtelets Avenue
Pedestrian	Sidewalk Width	1.8m
	Boulevard Width	0m
	AADT	≤3000 vpd
	On-Street Parking	No (South)/Yes (North)
	Operating Speed	40km/hr
	Level of Service	B
	Target	C
Cyclist	Number of Travel Lanes (Per Direction)	1
	Type of Bikeway	Mixed Traffic
	Operating Speed	40km/hr
	Level of Service	A
	Target	B
Auto	Level of Service	A
	Target	D

Based on the foregoing, Deschâtelets Avenue meets the target PLOS, BLOS and Auto LOS for the General Urban Area.

5.4 Access Design

The proposed development will be served by one all-movement access along Deschâtelets Avenue. The proposed access will be 6.0m in width, and is located 27m from the existing western property line and 43m from the existing eastern property line. The proposed driveway is planned to be shared between the proposed development and the future development to the east. As this will be a shared driveway in the future, no driveways are anticipated to be developed along Deschâtelets Avenue in the vicinity of the proposed development.

The width and location of the proposed access conform to the requirements of the City’s Zoning By-law and Private Approach By-law. It is noteworthy that the proposed eastern property line shown on the site plan is conceptual, and will be developed through a future severance application. The City’s Private Approach By-law identifies a minimum distance of 3.0m between an access and the property line. If the property line is developed within 3.0m of the proposed access, a waiver to the Private Approach By-law will be required at that time.

A review of turning sight distance was completed at the proposed access. Transportation Association of Canada (TAC) Geometric Design Guidelines Table 9.9.4 and Table 9.9.6 identify the minimum intersection sight distance for a vehicle to turn either left or right from a stopped position. The

foregoing TAC tables suggest a sight distance of 85m looking right, to turn left, and a sight distance of 75m looking left, to turn right, based on a design speed of 40km/hr (posted 30km/hr). The sight distance looking left and right from the proposed access is shown in **Figure 3**.

The sight distance looking left, to turn right out of the access is governed by the Deschâtelets Avenue/Scholastic Drive intersection and is approximately 55m. This does not meet the minimum requirements identified in TAC, however vehicles turning left or right onto Deschâtelets Avenue from Scholastic Drive are anticipated to turn at a slower speed. If a lower design speed of 30km/hr is applied, TAC suggests a minimum sight distance of 55m looking left, to turn right. Based on the foregoing, and since the proposed access and westbound vehicles along Deschâtelets Avenue are anticipated to be low in volume, the sight distance to turn right from the proposed access is anticipated to be sufficient.

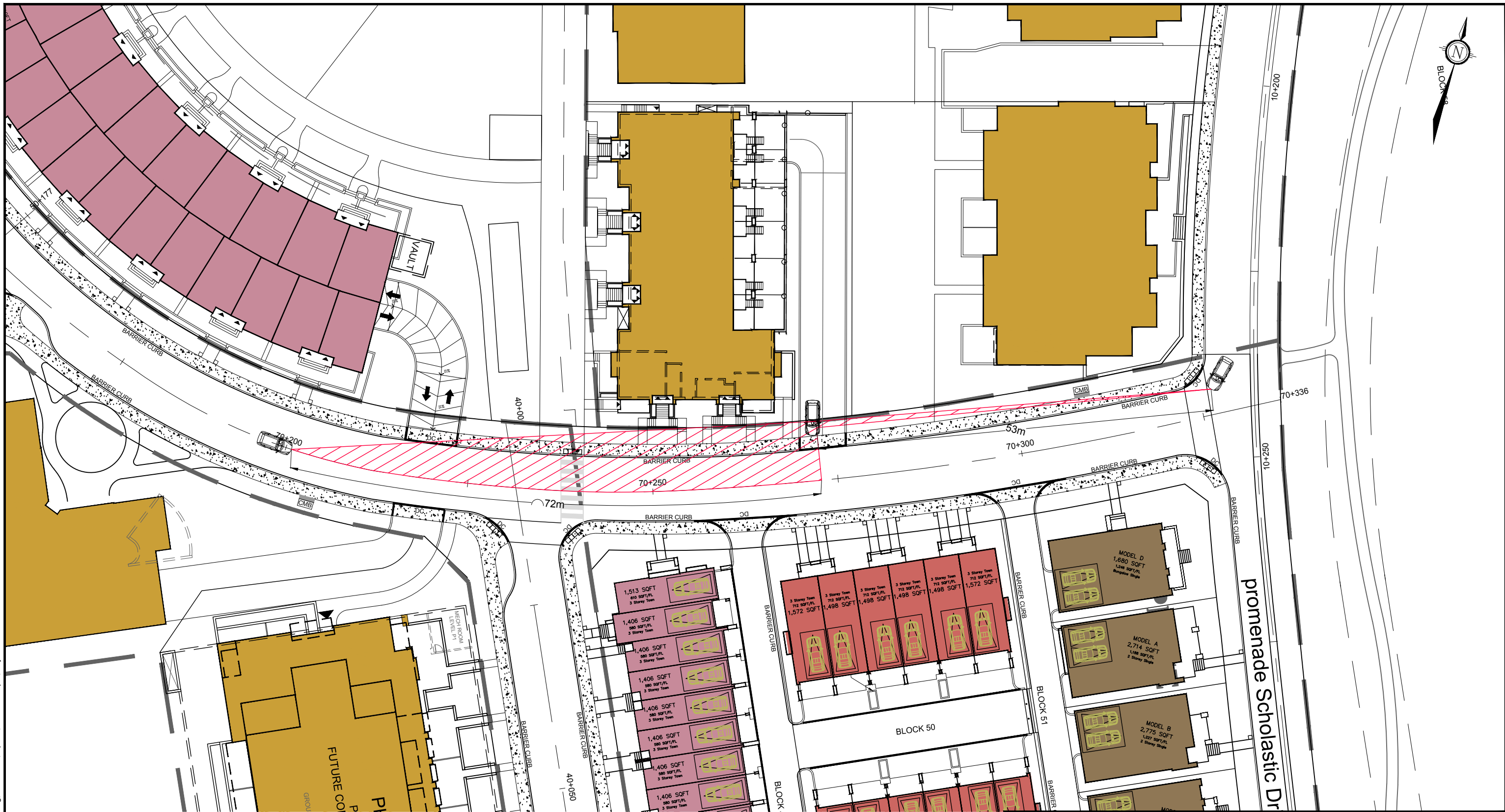
The stairs leading to the residential unit obstruct the sight distance looking right, to turn left out of the access, and limit the sight distance to approximately 70m. To achieve the minimum sight distance identified in TAC, drivers are required to encroach into the sidewalk, as shown in **Figure 4**. It is noteworthy that the majority of traffic departing the site will be destined to Main Street. It is anticipated that drivers will exit right out of the access to connect to either Hazel Street or des Oblats Avenue to depart the subdivision. As the southern leg of the Deschâtelets Avenue/Scholastic Drive intersection is one-way northbound operation, vehicles exiting left from the proposed access will be forced to travel northbound on Scholastic Drive to des Oblats Avenue to depart the subdivision. This is a more circuitous route to depart the subdivision, and is anticipated to be infrequent. Based on the foregoing, vehicles turning left out of the access are anticipated to encroach into the sidewalk to turn left out of the proposed access, however this is anticipated to be infrequent.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the foregoing, the conclusions and recommendations of this TIA can be summarized as follows:

- The proposed development is anticipated to generate 7 vehicle trips during the AM peak hour and 8 vehicle trips during the PM peak hour. Trips generated by the proposed development were included in the overall traffic generated by the Greystone Village CTS.
- Pedestrian facilities will be provided between all residential dwelling entrances and the sidewalk along Deschâtelets Avenue as well as the parkland to the west.
- As development progresses within the Greystone Village subdivision, OC Transpo Route 16 will travel east on Hazel Street, north on Deschâtelets Avenue, and west on des Oblats Avenue. A new bus stop will be located in the southeast corner of the des Oblats Avenue/Deschâtelets Avenue intersection.
- OC Transpo staff have advised that a new transit Route 55 will be introduced along Main Street following the implementation of Light Rail Transit in the City of Ottawa.
- A review of the Transportation Demand Management (TDM) – *Supportive Development Design and Infrastructure Checklist* has been conducted. All required TDM-supportive design and infrastructure measures in the TDM checklist are met.

C:\Temp\AcPublish_2344114025 - Sight Distance.dwg, FIGURE 3, Apr 25, 2018 - 1:02pm, bbyvelds



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**GREYSTONE VILLAGE -
 ORCHARD FLATS**

SIGHT DISTANCE

SCALE 1 : 500

DATE APR 2018 JOB 114025 FIGURE FIGURE 3

C:\Temp\AcPublish_23441114025 - Sight Distance.dwg, FIGURE 4, Apr 25, 2018 - 1:02pm, bbyveldts



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**GREYSTONE VILLAGE -
 ORCHARD FLATS**

**SIGHT DISTANCE -
 ENCROACHMENT**

SCALE 1 : 500

DATE APR 2018 JOB 114025 FIGURE 4

- Fire access to the proposed development will occur along Deschâtelets Avenue as well as through the fire access route within the park adjacent to the western frontage of the site.
- The vehicular and bicycle parking provided is in accordance with the minimum requirements identified in the ZBL.
- Deschâtelets Avenue meets the target PLOS, BLOS and Auto LOS for the General Urban Area.
- The proposed development will be served by one all-movement access along Deschâtelets Avenue. The proposed access will be 6.0m in width, and is located 27m from the existing western property line and 43m from the existing eastern property line. The proposed driveway is planned to be shared between the proposed development and the future development to the east. As this will be a shared driveway in the future, no driveways are anticipated to be developed along Deschâtelets Avenue in the vicinity of the proposed development.
- The width and location of the proposed access conform to the requirements of the City's Zoning By-law and Private Approach By-law.
- The proposed eastern property line shown on the site plan is conceptual, and will be developed through a future severance application. The City's Private Approach By-law identifies a minimum distance of 3.0m between an access and the property line. If the property line is developed within 3.0m of the proposed access, a waiver to the Private Approach By-law will be required at that time.
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- The stairs leading to the residential unit obstruct the sight distance looking right, to turn left out of the access, and limit the sight distance to approximately 70m. To achieve the minimum sight distance identified in TAC, drivers are required to encroach into the sidewalk. It is noteworthy that the majority of traffic departing the site will be destined to Main Street. Vehicles turning left out of the access are anticipated to encroach into the sidewalk to turn left out of the proposed access, however this is anticipated to be infrequent.

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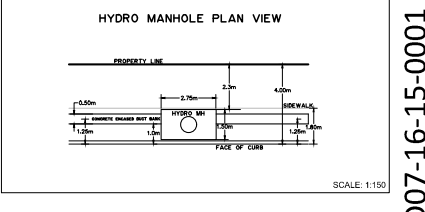
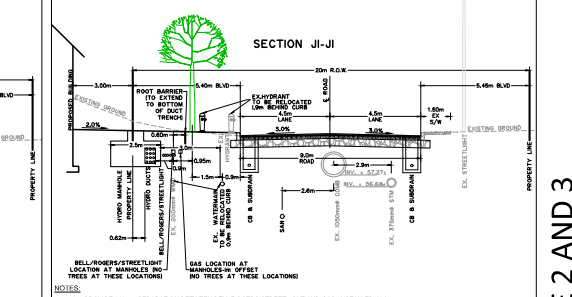
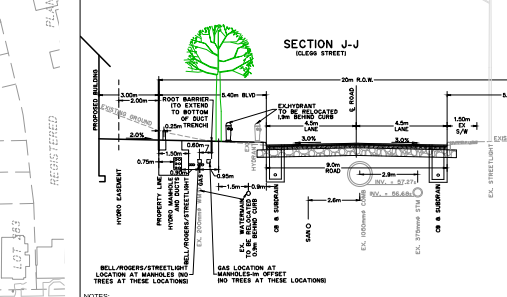
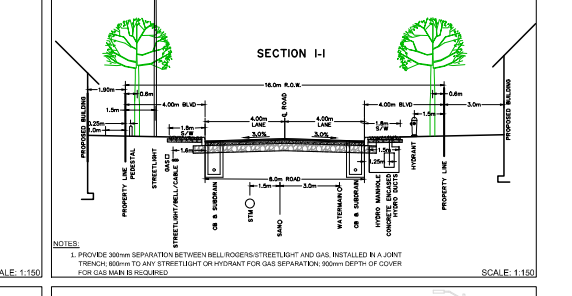
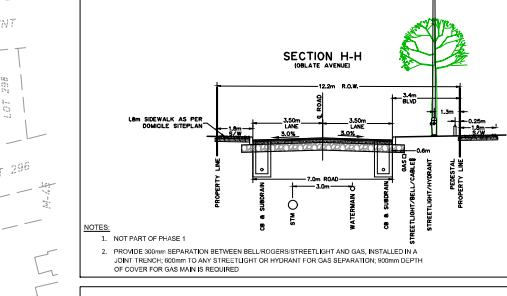
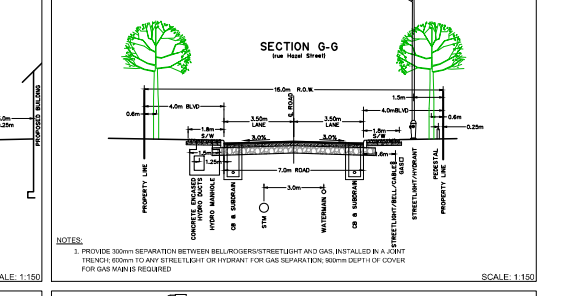
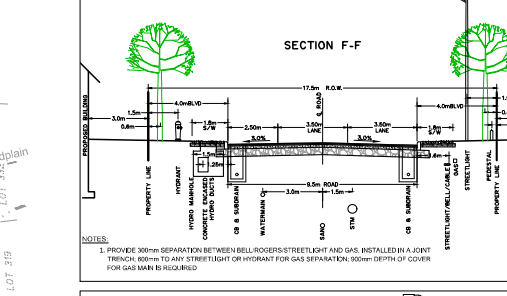
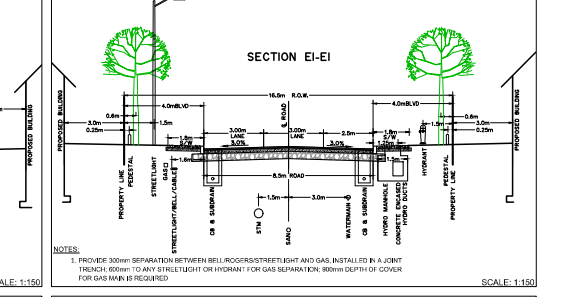
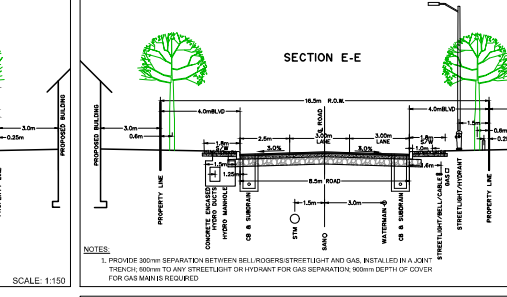
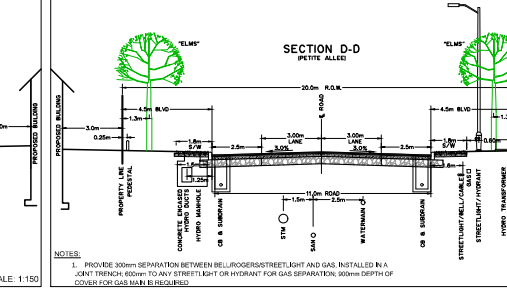
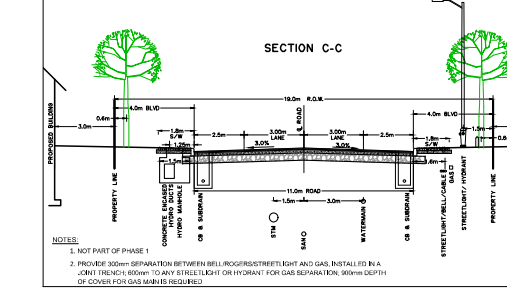
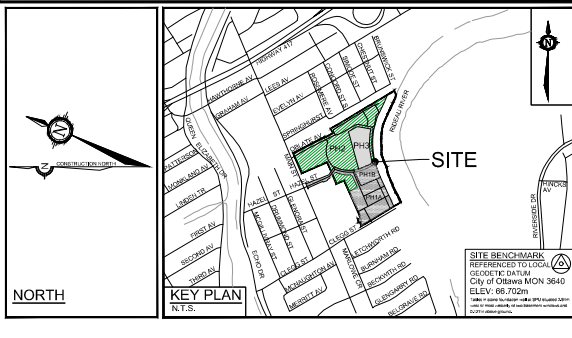
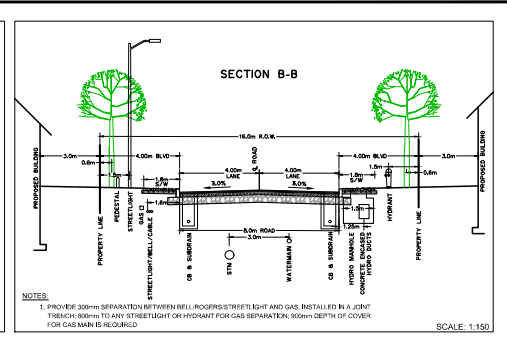
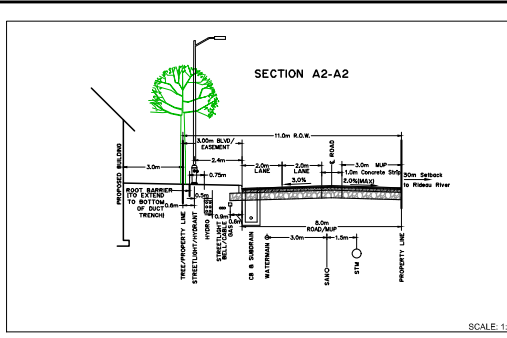
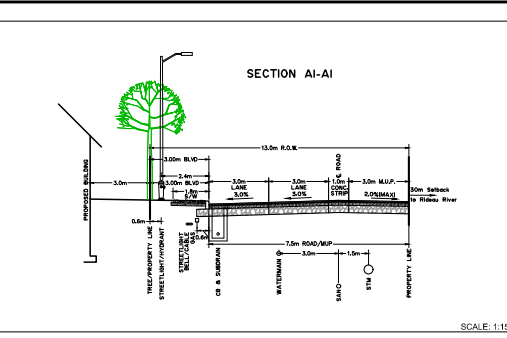
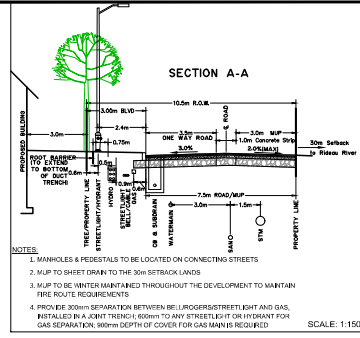
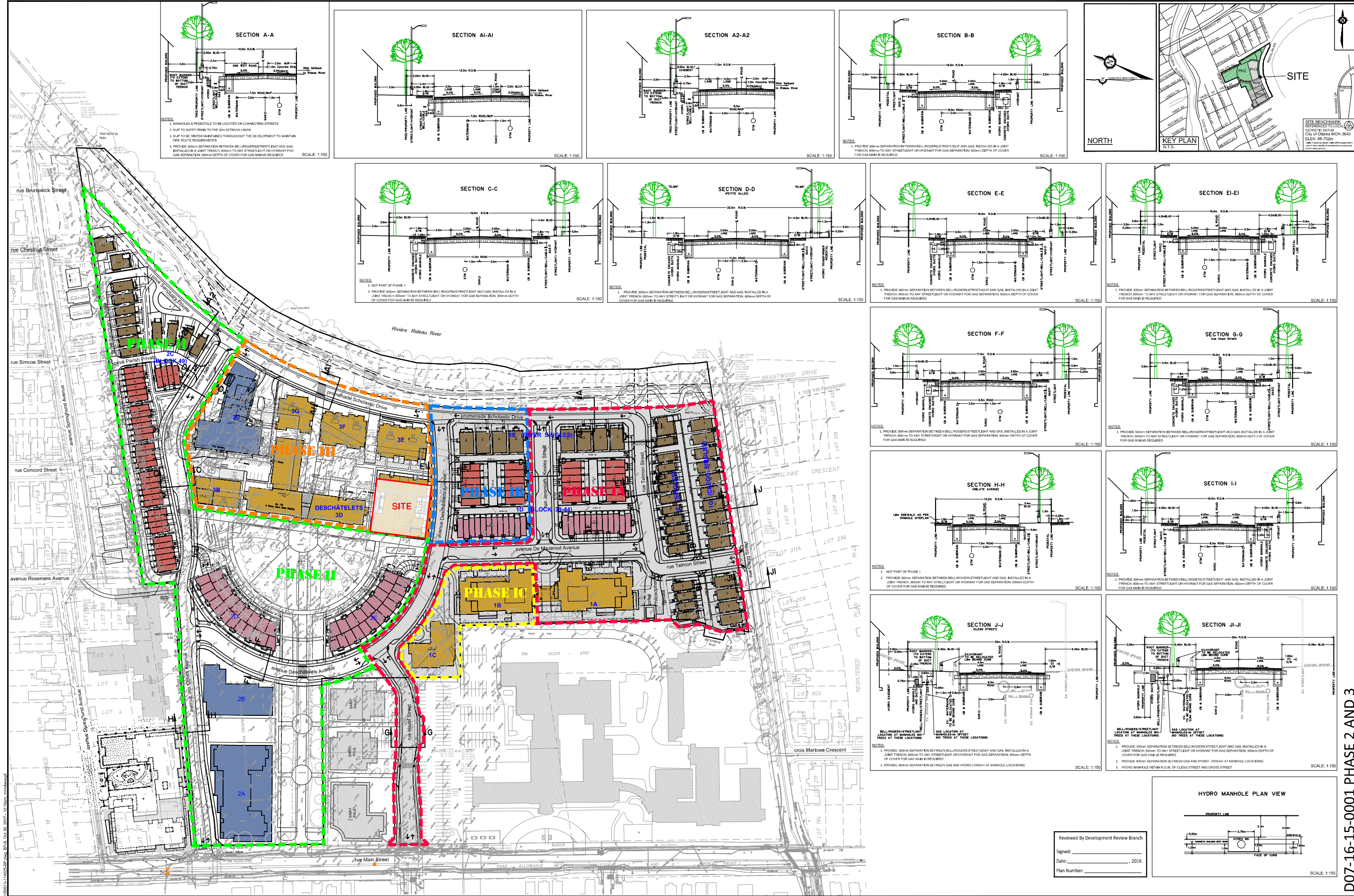
Prepared by:



Brad Byvelds, P. Eng.
Project Coordinator | Transportation/Traffic

APPENDIX A

Greystone Village Concept Plan



NOTE:
 THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

NO.	REVISION	DATE	BY
7.	ISSUED FOR INFORMATION	OCT 30/17	JAG
6.	ISSUED FOR CONSTRUCTION	JUL 6/17	JAG
5.	FOR INFORMATION PURPOSES ONLY	JUN 8/17	MSP
4.	REVISED AS PER CITY COMMENTS AND ISSUED FOR E.C.A.	MAY 28/17	JAG
3.	ISSUED FOR TENDER	APR 19/17	JAG
2.	RE-ISSUED AS PER CITY COMMENTS	MAR 8/17	JAG
1.	ISSUED FOR CITY OF OTTAWA REVIEW	NOV 21/16	JAG

SCALE	REVISION	DATE	BY
1:1000			

Reviewed By Development Review Branch
 Signed: _____
 Date: _____, 2016
 Plan Number: _____

FOR REVIEW ONLY

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CITY OF OTTAWA
 GREYSTONE VILLAGE
 OLD OTTAWA EAST - 175 MAIN STREET

DRAWING NAME
CROSS SECTION PLAN WITH ROAD
PHASE 2 AND 3

PROJECT NO.: 114425-00
 REV: 7
 DRAWING NO.: 114425-BP-B

D07-16-15-0001 PHASE 2 AND 3

APPENDIX B

Proposed Site Plan

APPENDIX C

TIA Screening Form

City of Ottawa 2017 TIA Guidelines Screening Form

1. Description of Proposed Development

Municipal Address	Part of 375 Deschatelets Avenue. Municipal address TBD (Location shown on attached Greystone Village Concept Plan)
Description of Location	Within Greystone Village subdivision, northeast of the Deschâtelets Avenue/De Mazenod Avenue intersection
Land Use Classification	Residential
Development Size (units)	18 Units
Development Size (m ²)	N/A
Number of Accesses and Locations	One access along Deschâtelets Avenue, 0.9m from northern property line
Phase of Development	1
Buildout Year	2021

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.

Land Use Type	Minimum Development Size
Single-family homes	40 units
Townhomes or apartments	90 units
Office	3,500 m ²
Industrial	5,000 m ²
Fast-food restaurant or coffee shop	100 m ²
Destination retail	1,000 m ²
Gas station or convenience market	75 m ²

** If the development has a land use type other than what is presented in the table above, estimates of person-trip generation may be made based on average trip generation characteristics represented in the current edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual.*

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

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, Rapid Transit or Spine Bicycle Networks?		X
Is the development in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone?*		X

**DPA and TOD are identified in the City of Ottawa Official Plan (DPA in Section 2.5.1 and Schedules A and B; TOD in Annex 6). See Chapter 4 for a list of City of Ottawa Planning and Engineering documents that support the completion of TIA).*

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

4. Safety Triggers

	Yes	No
Are posted speed limits on a boundary street are 80 km/hr or greater?		X
Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway?	✓	
Is the proposed driveway 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 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.

5. Summary

	Yes	No
Does the development satisfy the Trip Generation Trigger?		X
Does the development satisfy the Location Trigger?		X
Does the development satisfy the Safety Trigger?	✓	

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).

APPENDIX D

Transportation Demand Management Checklists

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 (<i>see 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 (<i>see 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 (<i>see 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 checked="" 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"/> N/A
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 checked="" 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 type="checkbox"/> N/A
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"/>
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"/>
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 checked="" 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 checked="" 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"/>
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 checked="" 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 checked="" type="checkbox"/>
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 checked="" 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 checked="" type="checkbox"/>