April 8th, 2016

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

Attention: **Mr. Wally Dubyk. C.E.T.**
Project Manager, Infrastructure Approvals

Dear Sir:

Reference: **261-277 King Edward Avenue & 260 Murray Street**
Transportation Overview – Site Plan Control Application
Our File No. 112078

1.0 INTRODUCTION

The following Transportation Overview has been prepared in support of a Site Plan Control application for a residential mixed-use development located at 261-277 King Edward Avenue and 260 Murray Street. This Transportation Overview will identify any transportation impacts associated with the proposed development.

This Transportation Overview provides a description of the proposed development, summarizes the existing conditions in the vicinity of the subject site, and calculates the projected number of trips to be generated during the weekday AM and PM peak hours. The on-site design, vehicular circulation and provisions for non-auto modes of transportation (including possible TDM strategies) have also been analyzed as part of this Transportation Overview.

2.0 PROPOSED DEVELOPMENT

The subject site is located on the east side of King Edward Drive between Murray Street and Clarence Street. The site has an area of approximately 1,262m^2, and is currently vacant. The subject site is zoned Traditional Mainstreet (TM) under the City of Ottawa *Zoning By-law* (ZBL), which permits the proposed uses.

The proposed development consists of a six storey mixed use building containing a total of 31 rental apartment units and 4,520 square feet of ground floor retail. The proposed development is to be serviced through two underground parking garages with accesses on Clarence Street and Murray Street. The Clarence Street parking garage will consist of 10 parking spaces and will be used for commercial parking as well as for visitor parking for the residents. The Murray Street parking garage will consist of 20 parking spaces and will be used for residents of the building.

A site plan for the proposed development is included with this Transportation Overview as **Appendix A**.

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3.0 EXISTING CONDITIONS

Murray Street is a local roadway along the north edge of the subject site with a two lane undivided urban cross section. Murray Street runs on an east-west alignment and terminates approximately 10m west of the proposed development and just east of King Edward Avenue. Sidewalks are provided on both sides of Murray Street and on-street parking is permitted along both sides of the roadway.

Clarence Street is a local roadway along the south edge of the subject site with a two lane undivided urban cross section. Clarence Street runs on an east-west alignment between Sussex Drive and Beausoleil Drive. Sidewalks are provided on both sides of Clarence Street and on-street parking is permitted on the south side of the roadway.

Nelson Street is a local roadway east of the subject site with a two lane undivided urban cross section. Nelson Street runs on a north-south alignment and terminates in a cul-de-sac just north of Murray Street. Sidewalks are provided on both sides of Nelson Street and on-street parking is permitted on the east side of the roadway.

King Edward Avenue is an arterial roadway west of the subject site with a six lane divided urban cross section. Sidewalks are provided on both sides of King Edward Avenue and parking is permitted during off peak hours on both sides of the roadway.

The Nelson Street/Murray Street and Nelson Street/Clarence Street intersections operate under two way stop control, maintaining free flow conditions along Nelson Street. The King Edward Avenue/Clarence Street intersection is restricted to right-in right-out movements and operates under side street stop control, maintaining free flow conditions along King Edward Avenue.

4.0 TRIP GENERATION

Trips generated by the proposed development have been estimated using relevant peak hour trip generation rates identified in the *Institute of Transportation Engineers (ITE) Trip Generation Manual 9th Edition*.

The estimated peak hour vehicle trips generated by the proposed development during the weekday AM and PM peak hours are summarized in **Table 1** below.

Table 1: Trip Generation

Land Use	ITE Code	Units or GFA (s.f.)	AM Peak (vph[1])			PM Peak (vph)		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Apartment	220	31	3	13	16	13	7	20
Specialty Retail[2]	826	4,520	2	2	4	6	7	13
		TOTAL	**5**	**15**	**20**	**19**	**14**	**33**

1. vph = vehicles per hour
2. No data for the AM peak hour of adjacent street traffic. Rate approximated using the AM to PM proportion of the Shopping Center land use (Code 820)

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5.0 TRANSPORTATION IMPACTS

The theoretical capacity of Murray Street, Nelson Street and Clarence Street (two way local roadways) is estimated at 400 vehicles per hour per lane. The theoretical capacity of King Edward Avenue (two way arterial roadway within the CBD with frequent signals and at grade intersections) is estimated at 800 vehicles per hour per lane, yielding a northbound capacity of 2,400 vehicles per hour during peak hours. The projected trips generated by the proposed development are marginal compared to the overall capacity of the study area roadways.

A site visit was conducted on March 9th, 2016 during the AM peak to review the traffic operations at the surrounding intersections. It was observed that the Nelson Street/Murray Street, Nelson Street/Clarence Street and King Edward Avenue/Clarence Street intersections were operating at an acceptable level of service with minimal delays.

The marginal increase in traffic volumes attributable to the additional trips generated by the proposed development is not anticipated to have any significant impact on the operating conditions at the surrounding intersections.

6.0 PROVISIONS FOR NON-AUTO MODES

OC Transpo bus stop #2320 and #2321 are located within a walking distance of 400m of the subject site. These bus stops provide service to OC Transpo route 1, which travels between the Greenboro transit station and the Ottawa-Rockcliffe area.

Sidewalks will be depressed and continuous across the vehicular accesses. A pedestrian walkway will be provided along the east edge of the building between Murray Street and Clarence Street.

Bicycle parking will be provided in accordance with the requirements of the City of Ottawa *Zoning By-law* (ZBL). The minimum bicycle parking requirements are summarized in **Section 7.2** below.

7.0 ON-SITE DESIGN

7.1 Proposed Access

The proposed development is to be serviced through two underground parking garages with accesses on Clarence Street and Murray Street.

The Murray Street parking garage will consist of 20 parking spaces and will be used for residents of the building. The Murray Street access is located 3m from the eastern property line and 1m from the western property line. The City's *Private Approach By*-law identifies the minimum spacing between a private approach and any property line is 3m and a waiver of the private approach by-law will be required. The nearest access to the east is approximately 10m from the proposed access, and the nearest driveway to the west is approximately 2m from the proposed access. The Murray Street access has a curb-to-curb width of approximately 6m.

The Clarence Street parking garage will consist of 10 parking spaces and will be used for commercial parking as well as for visitor parking for the residents. The Clarence Street access is

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located approximately 3m from the eastern property line and has a curb-to-curb width of approximately 3.6m.

The City's ZBL identifies a minimum driveway width of 3m for parking lots with less than 20 spaces and 6m for parking lots with more than 20 spaces within the TM zone. The two underground parking garage driveways conform to the minimum widths identified in the City's ZBL.

7.2 On-Site Parking and Loading

The subject site is located in Area B of Schedule one to the City of Ottawa ZBL. Minimum parking space rates for the proposed development are identified in the following table.

Table 2: Parking Requirement

Land Use	Zoning By-law Rate	Parking Requirement	Proposed Parking
Vehicle Parking			
Residential Parking (Occupant)	0.5 spaces per dwelling unit	16 spaces	20 spaces
Residential Parking (Visitor)	0.2 spaces per dwelling unit over 12 units	4 spaces	4 spaces
Retail Parking	2.5 spaces per 100m^2 of GFA over first 150m^2 GFA	7 spaces	6 spaces
	TOTAL	**27 spaces**	**30 spaces**
Bicycle Parking			
Residential Parking	0.5 spaces per dwelling unit	16 spaces	16 spaces
Retail Parking	1 per 250m^2 of GFA	2 spaces	2 spaces
	TOTAL	**18 spaces**	**18 spaces**

Based on the foregoing table, the ZBL identifies a requirement to provide 27 vehicle parking spaces and 18 bicycle parking spaces. Twenty parking spaces are provided in the parking garage accessed from Murray Street, exceeding the requirement for residents of the building. Ten parking spaces are provided for visitor/retail parking in the parking garage accessed from Clarence Street. A minor variance to the City's ZBL will be required to reduce the number of retail parking spaces required by one vehicle parking space.

Six of the bicycle parking spaces will be provided at-grade in a secured area on the east side of the building, while the remaining twelve will be provided in the parking garage accessed off Clarence Street. The proposed bicycle parking for the proposed development meets the minimum requirements identified in the City's ZBL.

The City's ZBL identifies that no loading space is required for a retail development with less than 1000m^2 of GFA in the TM zone. Based on the foregoing, no loading space has been provided for this development.

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8.0 TRANSPORTATION DEMAND MANAGEMENT

The City of Ottawa has developed a comprehensive Transportation Demand Management (TDM) strategy as part of its efforts to reduce automobile dependency. TDM measures can reduce transportation infrastructure requirements by encouraging people to change their travel mode, timing or destination.

The proposed development generally conforms to the City's TDM principles by providing easy access for non-auto travel modes.

9.0 CONCLUSIONS AND RECOMMENDATIONS

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

- The projected trips generated by the proposed development are marginal compared to the overall capacity of the study area roadways.
- The marginal increase in traffic volumes attributable to the trips generated by the proposed development is not anticipated to have any significant impact on the operating conditions at the surrounding intersections.
- The Murray Street access is located 3m from the eastern property line and 1m from the western property line. Minimum spacing for a private approach from any property line is 3m and a waiver of the private approach by-law will be required.
- The two underground parking garage driveways conform to the minimum widths identified in the City's ZBL.
- A minor variance to the City's ZBL will be required to reduce the number of retail parking spaces required by one vehicle parking space.
- The proposed bicycle parking for the proposed development meets the minimum requirements identified in the City's ZBL.
- The City's ZBL identifies that in the TM zone, no loading space is required for a retail development with less than 1000m^2 of GFA. Based on the foregoing, no loading space has been provided on-site.
- The proposed development generally conforms to the City's TDM principles by providing easy access for non-auto travel modes.

Yours truly,

NOVATECH

Prepared by:

B. Byvelds

Brad Byvelds, B. Eng.
E.I.T.

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APPENDIX A

PROPOSED SITE PLAN

ZONING REVIEW & STATISTICS

MUNICIPALITY: OTTAWA
MUNICIPAL ADDRESS: 275 KING EDWARD AVENUE
REGISTERED OWNER: CLAUDE LAUZON GROUP LTD.
LOT AREA = 1,262.3 sq.m. (13,587 sq.ft.) (0.31 acres)

ZONING ANALYSIS:
OTTAWA
ZONING BY-LAW 2008-250
ZONE: TM / TM12
PROPOSED USE: 6-STOREY MIXED-USE DEVELOPMENT

BUILDING AREAS	(SQ.M.)	(SQ.FT.)
ABOVE GRADE:		
GROUND FLOOR	837	9,012
SECOND FLOOR	817	8,793
THIRD FLOOR	817	8,793
FOURTH FLOOR	817	8,793
FIFTH FLOOR	579	6,237
SIXTH FLOOR	568	6,109
TOTAL (ABOVE GRADE):	4,435	47,737
PARKING (BELOW GRADE):		
PARKING LEVEL 1	1,024	11,023
PARKING LEVEL 2	1,024	11,023
TOTAL (BELOW GRADE):	2,048	22,046
TOTAL GROSS FLOOR AREA	6,483	47,737

APARTMENT UNIT STATS:

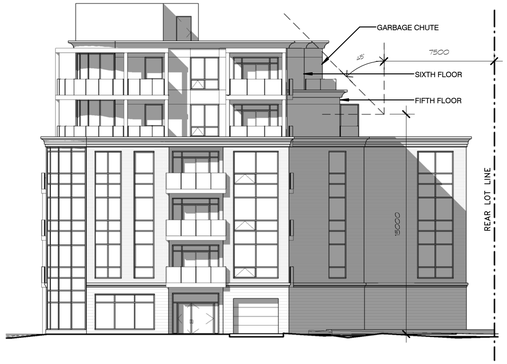
	1-BEDROOM UNITS	2-BEDROOM UNITS	TOTAL UNIT COUNTS
2nd FLOOR	3	4	7
3rd FLOOR	3	4	7
4th FLOOR	3	4	7
5th FLOOR	2	3	5
6th FLOOR	2	3	5
TOTAL	13	18	31

AMENITY AREA NOTES:

REQUIRED AREA
31 UNITS @ 6 sq.m./UNIT = 186 sq.m.
COMMUNAL = 50% OF TOTAL = 93 sq.m.

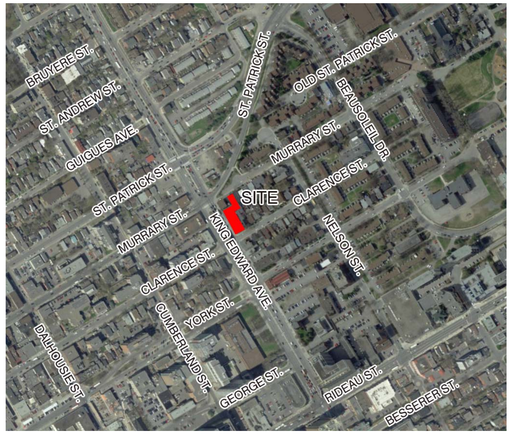
PROVIDED AREA

COMMUNAL AREA	
REAR YARD	2,417 SQ.FT (225 SQ.M.)
PRIVATE (BALCONIES)	2,717 SQ.FT (252 SQ.M.)
TOTAL	5,134 SQ.FT (477 SQ.M.)



3 / A100 SOUTH ELEVATION
SCALE 1 : 192

PERFORMANCE STANDARD	BY-LAW REQUIREMENT	PROVIDED
TRADITIONAL MAINSTREET ZONE REQUIREMENTS (SECTION 197)		
Front yard setback (King Edward)	• 1st four storeys = Max. 2m • Above 4th storey = Min. 2m more than setback of 1st four storeys	• 1st - 4th storeys = 0.3 m • 5th - 6th storeys = 2.3 m
Interior side yard setback	• Abutting residential zone = Min. 3m • Other cases = Max. 3m	• Abutting residential zone= 3.0 m, 3.8 m • Other cases = 0.6 m, 2.4 m
Corner side yard setback (Clarence & Murray)	• 1st four storeys = Min. 3 m • Above 4th storey = Min. 2 m more than setback of 1st four storeys	• 1st - 4th storeys: - Clarence St. = 3.0 m - Murray St. = 3.0 m • 5th - 6th storeys: - Clarence St. = 5.0 m - Murray St. = N/A
Rear yard setback	• Abutting residential zone = Min. 7.5 m	• **1.9 m for portion near Murray St.**
Building height	• Max. 20 m, but no more than 6 storeys • No part of a building on a lot with a rear lot line abutting an R1, R2, R3 or R4 Zone may project above a 45 degree angular plane measured at a height of 15 m from a point 7.5m from the rear lot line, projecting upwards toward the front lot line	• 6 storeys (19.5m) & **4 storey bay (13.1m) on Murray St.** • **Portion of cornice projects 1.2m into angular plane**
Landscaped area	• Abutting a residential zone: 3m, may be reduced to 1 m where a minimum 1.4 m high opaque fence is provided	• 1.9m & 3.0m landscape area (soft + hard) with 1.4m high fence
Glazing along King Edward	• 50%	• 56%
PARKING & LOADING PROVISIONS (SECTIONS 100 - 113)		
Residential parking	0.5 spaces/dwelling unit x 31 units = 16 spaces	20 spaces
Visitors' parking	0.2 spaces/unit (over 12 units) = 4 spaces	4 spaces
Parking for ground floor commercial in TM zone	(0 spaces/1st 150 m^2) + (2.5 spaces/100m^2 over 1st 150m^2) = [(420m^2 – 150m^2) x (2.5 spaces/100m^2)] = 7 spaces	**6 spaces**
Driveway Width	• In TM zone: - Min. 3.0 m leading to less than 20 spaces - Min. 6.0 m leading to 20 or more spaces	• Clarence St. = 3.6m • Murray St. = 6.0m
Aisle Width	6.7 m (two-way traffic)	• 6.7 m
Bicycle parking	• Residential: 0.5 spaces/D.U. = 16 spaces • Retail: 1 space/250m^2 retail = 2 spaces • Total = 18 spaces	18 spaces
Bicycle parking space dimensions	• Vertical: Length = 1.5m; Width = 0.5m • Horizontal: Length = 1.8m; Width = 0.6m	1.8m x 0.6m (Horizontal)
Bicycle parking aisle width	• Min. 1.5m	1.5m
Loading Space	In TM Zone, no loading space required for each retail use with a GFA < 1,000 m^2 (0 required)	0 loading spaces
AMENITY AREA (SECTION 137)		
Amenity Area	• Total (6 m^2 / d.u.) = 186 m^2 • Communal (50% of total) = 93 m^2	• Total = 477 m^2 • Communal = 225 m^2 • Private = 252 m^2



1 / A100 LOCATION PLAN
SCALE N.T.S.

LEGAL DESCRIPTION:

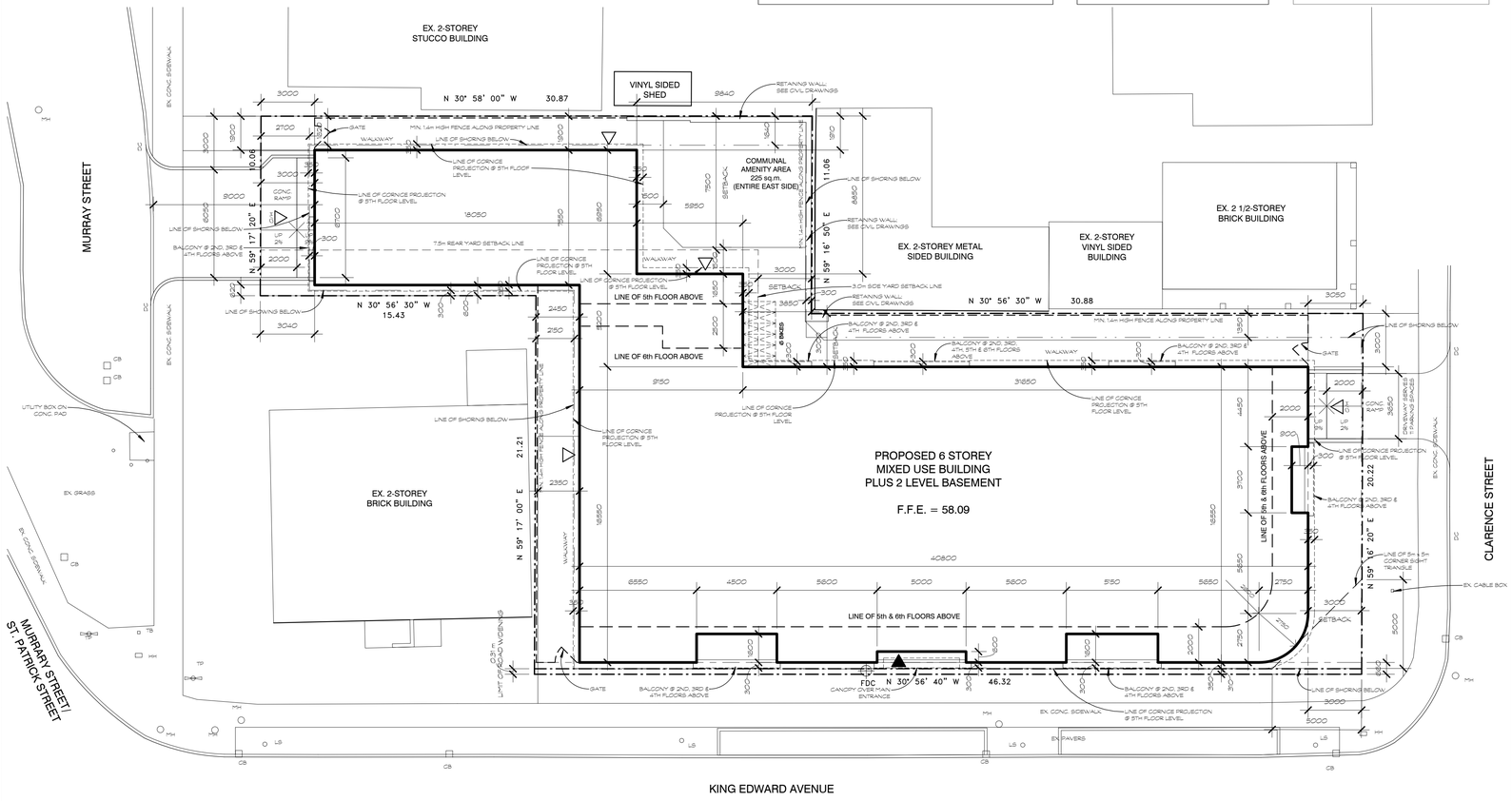
PART OF LOTS B and 7
NORTH CLARENCE STREET
(FORMERLY PARRY STREET)
REGISTERED PLAN 43586

CITY OF OTTAWA

PREPARED BY
ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
SEPTEMBER 9, 2014

LEGEND:

CB	= CATCH BASIN
DC	= DEPRESSED CURB
FH	= FIRE HYDRANT
FDC	= FIRE DEPARTMENT CONNECTION
HH	= HAND HOLE
LS	= LIGHT STANDARD
MH	= MAN HOLE
TB	= TRAFFIC BOX
TP	= TRAFFIC LIGHT POST
▲	= PRINCIPAL ENTRANCE
△	= EXIT DOOR
△ O/H	= OVERHEAD DOOR
△	= WITH NUMBERS, DENOTES REVISION



2 / A100 SITE PLAN
SCALE 1 : 150
0 1.5 3 6 9 12 15 METRES

Registered Owner:
CLAUDE LAUZON GROUP LTD
274 DALHOUSIE STREET
OTTAWA, ONTARIO, K1N 7E6
Tel: (613) 241-1600 x224
Fax:
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Geotechnical Engineer:
INSPECSOL INC.
179 COLONNADE ROAD, SUITE 400
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Landscape Architect:
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Surveyor:
ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
14 CONCOURSE GATE, SUITE 500
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Tel: (613) 727-0850
Fax: (613) 727-1079
e-mail:

NOTES:

Contractor shall check and verify all dimensions on site and report any discrepancies to the Architect before proceeding.

plot scale 1:1

SHEET SIZE: ARCH D (24"x36")

no. revision date

north nord

kwc
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detail no. 1 / A1 détail no.
sheet no. feuille no.

project
projet

MIXED-USE BUILDING

275 KING EDWARD AVE.
OTTAWA, ON.

designed by / conçu par TB/LK
approved by / approuvé par
drawn by / dessiné par AK
project no. / no. du projet 1611 LKA
date 07 APRIL 2016
scale as noted
drawing / dessin

SITE PLAN

revision / révision
sheet no. / no. de la feuille **A100**