JLR No.: 29803-002.1
Revision: 0

June 14, 2023

Prepared for:

WILDPINE TRAILS INC.
1202 Carp Road
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K2S 1B9

Prepared by:

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Noise Control Feasibility Study

Wildpine Trails

J.L.Richards
ENGINEERS · ARCHITECTS · PLANNERS

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1.0 INTRODUCTION

In 2023, J.L. Richards & Associates Limited (JLR) was retained by Wildpine Trails Inc (WT) to prepare a Noise Control Feasibility Study for their development known as Wildpine Trails, located in the Village of Stittsville at 37 Wildpine Court, within the City of Ottawa. The legal description of the subject property is Part of Lot 24, Concession 11 Geographic Township of Goulbourn, City of Ottawa. The purpose of this study is to assess the potential environmental noise impact on the Development, due to vehicular traffic on Stittsville Main Street. This Noise Control Feasibility Study develops a strategy for subdivision development that minimizes the reliance upon noise barriers, ventilation requirements and air conditioning as a means of addressing roadway noise and instead examines land use, roadway layout and building orientation as a principal means to mitigate roadway noise. Land use and building orientation identified in this study will then be examined in detail as part of the Noise Control Detailed Design Study prepared for the subdivision application.

This report is prepared to satisfy the Ministry of the Environment (MOE) Environmental Noise Guidelines NPC-300 and the City of Ottawa Environmental Noise Control Guidelines (approved by City Council January 2016) and in particular Part 4 Section 3.1 Noise Control Feasibility Study Requirements.

2.0 PROJECT DESCRIPTION

The proposed Wildpine Trails development is situated on a ±2.1 ha parcel of land that is bounded by existing residential to the west and south, wetlands to the north and east, as shown on Figure 1 - Location Plan. WT's proposed Wildpine Trails development consists of a four-storey apartment building composed of 94 units on the north side of Wildpine Court and 2 semi-detached units on the south side of Wildpine Court, as shown on the Site Plan provided in Appendix 'A'.

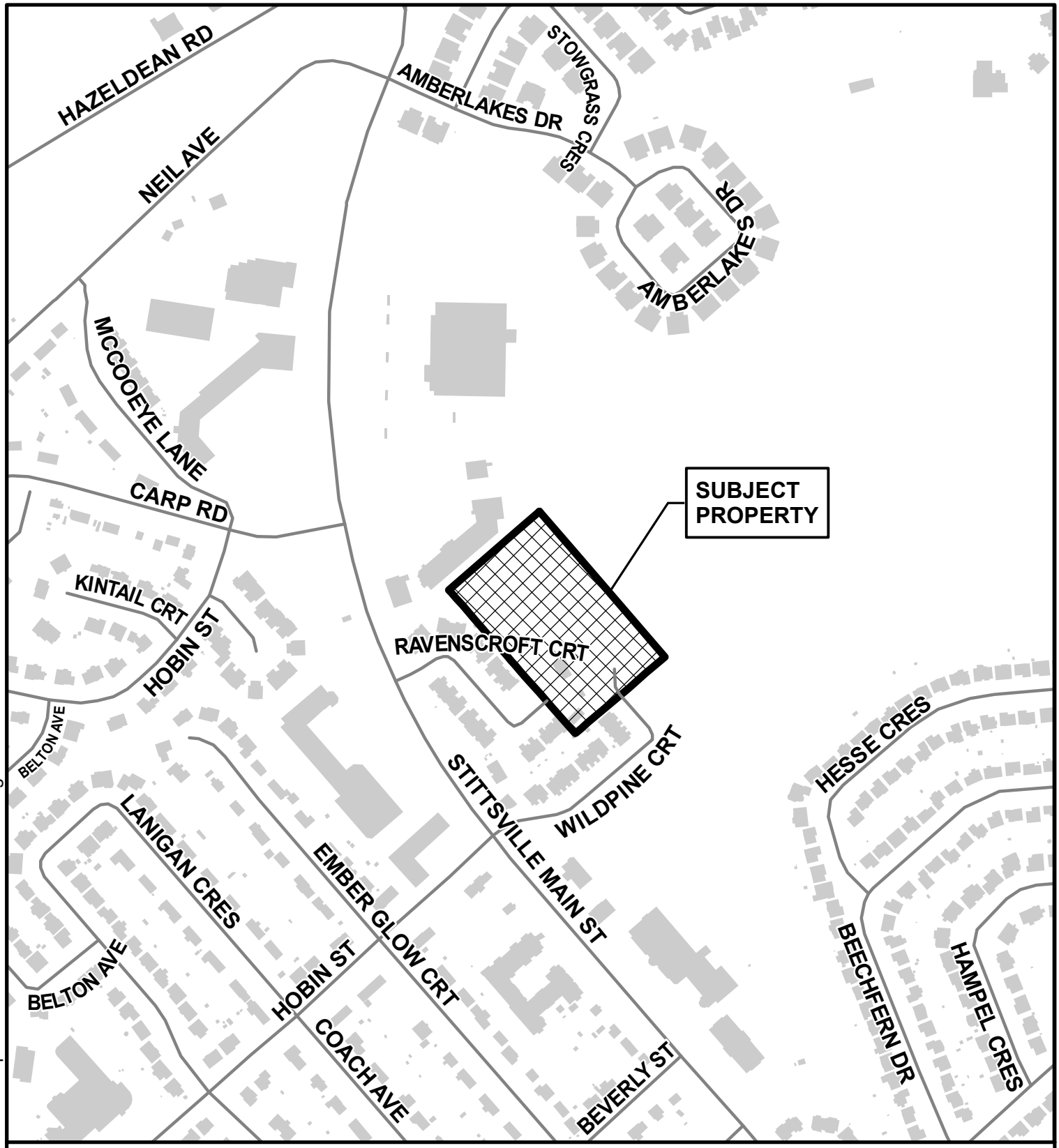
3.0 TRANSPORTATION NOISE SOURCE

The transportation noise source is Stittsville Main Street. Drawing N1 shows the location of the existing roadway in relation to the proposed development.

3.1 Transportation Sound Level Criteria

For the purpose of determining the predicted noise levels, and based on the sound level criteria established by the City of Ottawa Environmental Noise Control Guidelines (ENCG), the following will be used as the maximum acceptable sound levels (Leq) for residential development and other land uses, such as nursing homes, schools and daycare centres:

Receiver Location	Criteria	Time Period
Outdoor Living Area:	55 dBA	Daytime (0700 - 2300 hrs.)
Indoor Living/Dining Rooms (inside):	45 dBA	Daytime (0700 - 2300 hrs.)
General Office, Reception Area (inside):	50 dBA	Daytime (0700 - 2300 hrs.)



PROJECT:

WILDPINE TRAILS INC.
WILDPINE TRAILS
37 WILDPINE COURT, OTTAWA

DRAWING:

LOCATION PLAN

J.L.Richards
ENGINEERS · ARCHITECTS · PLANNERS
www.jlrichards.ca

DESIGN:	TB
DRAWN:	TB
CHECKED:	LJ
JLR #:	29803

DRAWING #:

FIGURE 1

File Location: P:\29000\29803-000 - Wildpine Trails\5-Production\1-Civil\Figures\29803-LocationPlan.mxd

Plot Date: Thursday, August 12, 2021 8:35:13 AM

Sleeping Quarters (inside): 40 dBA Nighttime (2300 - 0700 hrs.)

Outdoor Living Areas (OLA) are defined as that portion of the outdoor amenity area of a dwelling for the quiet enjoyment of the outdoor environment during the daytime period. Typically, the point of assessment in an OLA is 3.0 m from the building façade mid-point and 1.5 m above the ground within the designated OLA for each individual unit. OLAs commonly include backyards, balconies (with a minimum depth of 4 m as per NPC-300), common outdoor living areas, and passive recreational areas.

3.2 Transportation Noise Attenuation Requirements

When the sound levels are equal to or less than the specified criteria, per the City of Ottawa ENCG and/or MOE NPC-300, no noise attenuation (control) measures are required.

The following tables outline noise attenuation measures to achieve required dBA Leq for surface transportation noise, per the City of Ottawa ENCG.

Table 1: Outdoor Noise Control Measures for Surface Transportation Noise

<table>
<tr><th rowspan="2">Primary Mitigation Measure
(in order of preference)</th><th colspan="2">Secondary Mitigation Measures</th></tr>
<tr><th>Landscape Plantings and/or Non-acoustic Fence to Obscure Noise Source</th><th>Warning Clauses</th></tr>
<tr><td>Distance setback with soft ground</td><td rowspan="2">Recommended</td><td rowspan="2"></td></tr>
<tr><td>Insertion of Noise insensitive land uses between the source and receiver receptor</td></tr>
<tr><td>Orientation of buildings to provide sheltered zones in rear yards</td><td rowspan="4">Required</td><td rowspan="4">Warning Clauses necessary and to include:
- Reference to specific noise mitigation measures in the development.
- Whether noise is expected to increase in the future.
- That there is a need to maintain mitigation.</td></tr>
<tr><td>Shared outdoor amenity areas</td></tr>
<tr><td>Earth berms (sound barriers)</td></tr>
<tr><td>Acoustic barriers (acoustic barriers)</td></tr>
</table>

Table 2: Indoor Noise Control Measures for Surface Transportation Noise

<table>
<tr><th rowspan="2">Primary Mitigation Measure
(in order of preference)</th><th colspan="2">Secondary Mitigation Measures</th></tr>
<tr><th>Landscape Plantings and/or Non-acoustic Fence to Obscure Noise Source</th><th>Warning Clauses</th></tr>
<tr><td>Distance setback with soft ground</td><td rowspan="2">Recommended</td><td rowspan="2">Not necessary</td></tr>
<tr><td>Insertion of Noise insensitive land uses between the source and receiver receptor</td></tr>
</table>

Orientation of buildings to provide sheltered zones or modified interior spaces and amenity areas	Required	Warning Clauses necessary and to include: - Reference to specific noise mitigation measures in the development. - Whether noise is expected to increase in the future. - That there is a need to maintain mitigation.
Enhanced construction techniques and construction quality		
Earth berms (sound barriers)		
Indoor isolation – air conditioning and ventilation, enhanced dampening materials (indoor isolation)		

The following tables outline the noise level limits per the MOE NPC-300 and City of Ottawa ENCG.

Table 3: Outdoor Living Area (OLA) Noise Limit for Surface Transportation

Time Period	Leq (16 hr) (dBA)
16 hr., 07:00 am - 23:00	55

Table 4: Indoor Noise Limit for Surface Transportation

Type of Space	Time Period	Leq (dBA)	
		Road	Rail
Living/dining, den areas of residences, hospitals, nursing homes, schools, daycare centres, etc.	07:00-23:00	45	40
Living/dining, den areas of residences, hospitals, nursing homes, etc. (except schools or daycare centres)	23:00-07:00	45	40
Sleeping quarters	07:00-23:00	45	40
	23:00-07:00	40	35

In addition to the implementation of noise attenuation features, if required, and depending on the severity of the noise problem, warning clauses may be recommended to advise the prospective purchasers/tenants of affected units of the potential environmental noise. These warning clauses should be included in the Site Plan and Subdivision Agreements, in the Offers of Purchase and Sale, and should be registered on Title. Warning clauses may be included for any development, irrespective of whether it is considered a noise sensitive land use.

Where site measures are required to mitigate noise levels, the City of Ottawa requires that notices be placed on Title informing potential buyers and/or tenants of the site conditions. Sample templates of the notices that could be registered on Title are included in Appendix 'B' as presented in the City of Ottawa ENCG.

Detailed wording for clauses should be provided as part of a detailed Noise Impact Study to be completed in support of the Subdivision Application. Clauses are to be worded to describe the mitigation measures and noise conditions applicable where MOE and City of Ottawa noise criteria are exceeded.

3.3 Prediction of Noise Levels

3.3.1 Road Traffic Data

The following traffic data was used to predict noise levels:

Table 5: Road Traffic Data to Predict Noise Levels

	Stittsville Main Street
Total Traffic Volume (AADT)	15,000
Day/Night Split (%)	92/8
Medium Trucks (%)	7
Heavy Trucks (%)	5
Posted Speed (km/hr.)	50
Road Gradient (%)	1
Road Classification	2-Lane Urban Arterial (2-UAU)

Schedule 'E' and Annex 1 of the City of Ottawa Official Plan (May 2003) were utilized to determine the road classification and protected right-of-way. These road classifications were compared to Map 6 of the City of Ottawa Transportation Master Plan (Road Network – Urban). All findings were then compared to Table B1 (Part 4, Appendix 'B') of the City of Ottawa Environmental Noise Control Guidelines in order to determine an appropriate AADT value.

3.3.2 Noise Level Calculations (Transportation)

Noise contours for the daytime periods were developed using the MOE Road Traffic Noise Computer program STAMSON, Version 5.03.

Distances were calculated from the centre of the roadway to even 5 dBA freefield noise levels ranging from 50 dBA to 65 dBA for each of the roadways. Table 6 below presents this information. Computer printouts are included in Appendix 'C'. Drawing N1 identifies the receiver locations as contours for the calculations of the roadway freefield noise levels.

Table 6: Predicted Freefield Noise Levels and Distances from Individual Noise Sources

Roads	Contour (dBA)	OLA (Freefield) Distance (m)
		Daytime
2-UAU (Stittsville Main Street) 50 km/hr.	50	158.98
	55	79.53
	60	39.75
	65	19.85
	70	n/a

3.4 Summary of Findings (Transportation)

Wildpine Trails will result in residential units that will not be impacted by roadway traffic noise. Freefield noise levels at the property lines are estimated to be approximately 50-55 dBA as presented on Drawing N1. In addition, there is existing residential and commercial buildings between Wildpine Trails and Stittsville Main Street.

At the time this study was completed, a detailed grading plan was not available. For the purposes of this analysis, JLR assumed the topography to be flat/gentle slope.

Computer printouts are included in Appendix 'C'.

Based on the freefield noise contours, as presented on Drawing N1, no lots/units require any noise mitigation measures or warning clauses. Furthermore, a preliminary building component analysis is not required as part of this study.

4.0 CONCLUSION AND RECOMMENDATIONS

Predicted noise levels are not expected to exceed the City of Ottawa ENCG and MOE criteria for the proposed units within Wildpine Trails due to the distance between the noise source and units as well as the existing residential and commercial buildings.

Based on the freefield noise contours, as presented on Drawing N1, no lots/units require any noise mitigation measures or warning clauses.

It is recommended that the City of Ottawa accept the site plan submitted and exclude the condition for the proponent to complete a Noise Control Detailed Study as per the City of Ottawa ENCG 2016 Wildpine Trails development as well as exclude the requirement for a Detailed Building Components Study for building permits.

This report has been prepared for the exclusive use of Wildpine Trails Inc., for the stated purpose, for the named facility. Its discussions and conclusions are summary in nature and cannot be properly used, interpreted, or extended to other purposes without a detailed understanding and discussions with the client as to its mandated purpose, scope and limitations. This report was prepared for the sole benefit and use of Wildpine Trails Inc. and may not be used or relied on by any other party without the express written consent of J.L. Richards & Associates Limited.

J.L. RICHARDS & ASSOCIATES LIMITED

Prepared by:

Thomas Blais, A.Sc.T.
Senior GIS Technologist

Reviewed by:

Lee Jablonski, P.Eng.
Associate, Senior Civil Engineer

Appendix A

Site Plan

Freefield Daytime Noise Contours (Roads) – N1

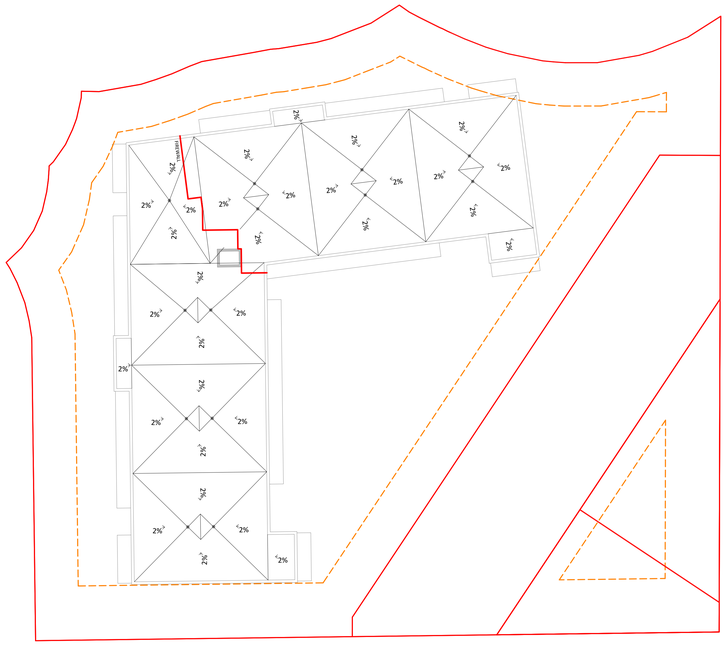
1 LEVEL P1
1 : 300

3 LEVEL 2-4
1 : 300

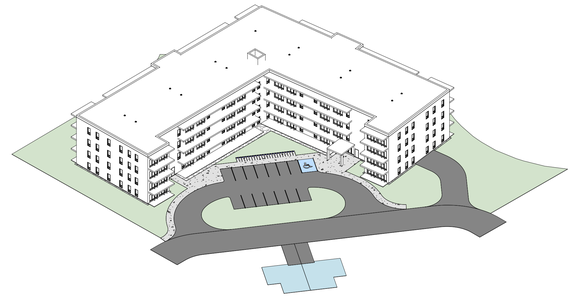
NUMBER OF PARKING		
LEVEL	NUMBER	TYPE
LEVEL P1	93	RESIDENTIAL
LEVEL P1	1	RESIDENTIAL - ADAPTED
LEVEL P1	4	VISITOR
	98	
LEVEL 1	14	VISITOR
LEVEL 1	1	VISITOR - ADAPTED
	15	
TOTAL	113	

STATISTICS - TOTAL NUMBER OF UNITS					
TYPE	NUMBER	TOTAL GROSS AREA PER TYPE	AVE. AREA	DISTRIBUTION	REQ. %
1 BED	31	19,736 ft²	637 ft²	33%	0%
1 BED + DEN	29	22,119 ft²	763 ft²	31%	0%
2 BED	34	33,526 ft²	986 ft²	36%	0%
	94	75,381 ft²	2,385 ft²		

2 LEVEL 1
1 : 300



4 ROOF
1 : 300



5 VUE STAT

PROJECT

WILDPINE DEVELOPMENT

OWNER

LATITUDE Homes

1202, CARP ROAD,
STITTSVILLE, ON K2S 1B9

ARCHITECTURAL

PMA ARCHITECTES

(418) 651-8984
INFO@PMAARCHITECTES.COM

3070, CHEMIN DES QUATRE-BOURGEOIS
QUÉBEC (QC) G1W 2K4

PMAARCHITECTES.COM

CIVIL

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1565 CARLING AVENUE, SUITE 700,
OTTAWA, ON K1Z 8R1

PLANNER

FOTENN Planning + Design

396 Cooper Street, Suite 300, Ottawa ON K2P 2H7
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SURVEYOR

ANNIS, O'SULLIVAN, VOLLEBEKK LTD.

14 CONCOURSE GATE, SUITE 500,
NEPEAN, ON K2E 7S6

ENVIROMENTAL CONSULTANT

Kilgour & Associates Ltd.
Environmental Consultants

2285, ST-LAURENT BLVD, SUITE 16C,
OTTAWA, ON K1G 4Z6

KEY PLAN

ARCHITECT SEAL

REVISIONS

NO	DESCRIPTION	DATE

NOTE

IT IS THE RESPONSIBILITY OF THE APPROPRIATE CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON THE SITE AND TO REPORT ALL ERRORS AND/OR OMISSIONS TO THE ARCHITECT. ALL CONTRACTORS MUST COMPLY WITH ALL PERTINENT CODES AND BY-LAWS. DO NOT SCALE DRAWINGS.

DO NOT USE FOR CONSTRUCTION

DATE 2023-06-13

DESIGNED P.P.

DRAWN P.P.

PROJECT No 21010

CHECKED P.M.

SHEET TITLE

STATISTICS

SHEET No

A003

C:\Users\ppomerleau\Documents\21010_A_GEN_R21_ppomerleauUW453.rvt

SITE PLAN LEGEND

EXISTING BUILDING	LOT LINE
NEW BUILDING	SETBACKS
EXISTING WETLANDS	POOLE CREEK - TOP OF BANK
7.5m BUFFER FROM FLOOD PLAIN LINE	WETLAND BOUNDARY
FIREWALL	SETBACK FROM TOP OF BANK +28 m
GRASS	SETBACK FROM TOP OF BANK +30 m
ASPHALT	SETBACK FROM WETLAND +15 m
NEW TREE	SETBACK FROM WETLAND +30 m

LOT
PIN: 04459 - 0068

LOT 1
AREA : 5660 m²

LOT 2
AREA : 709 m²

4 STORY
APARTMENT BUILDING
94 UNITS

RETAINED EXISTING TREES

DEMOLISHED TREES

UNDERGROUND
PARKING LIMITS

RAVENSCROFT COURT

STITTSVILLE MAIN STREET

WILDPINE COURT

C:\Users\ppomerleau\Documents\21010_A_GEN_R21_ppomerleauUW453.rvt

PROJECT

WILDPINE
DEVELOPMENT

OWNER

LATITUDE Homes

1202, CARP ROAD,
STITTSVILLE, ON K2S 1B9

ARCHITECTURAL

PMA ARCHITECTES

(418) 681-8984
INFO@PMAARCHITECTES.COM

3070, CHEMIN DES QUATRE-BOURGEOIS
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CIVIL

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2285, ST-LAURENT BLVD, SUITE 16C,
OTTAWA, ON K1G 4Z6

KEY PLAN

ARCHITECT SEAL

REVISIONS

NO	DESCRIPTION	DATE

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DO NOT USE FOR CONSTRUCTION

DATE 2023-06-13

DESIGNED P.P.

DRAWN P.P.

PROJECT No 21010

CHECKED P.M.

SHEET TITLE

SITE PLAN

SHEET No

A101

EXISTING COMMERCIAL

WETLAND

EXISTING RESIDENTIAL

EXISTING RESIDENTIAL

STITTSVILLE MAIN STREET
(CENTRELINE, 2-UAU, AADT 15,000)

LEGEND

CENTRELINE (STITTSVILLE MAIN STREET)

NOISE CONTOURS

- 50 dBA
- 55 dBA
- 60 dBA
- 65 dBA

PROJECT:
WILDPINE TRAILS INC.
WILDPINE TRAILS
37 WILDPINE COURT

DRAWING:
FREEFIELD DAYTIME NOISE CONTOURS (ROADS)

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J.L.Richards
ENGINEERS · ARCHITECTS · PLANNERS

DESIGN:	TB
DRAWN:	TB
CHECKED:	LJ
JLR #:	29803-002

Scale: 1:1,250

DRAWING #: N1

File Location: V:\29000\29803-002 - Wildpine Redevelopment TIS-Noise\02-Design\01-Civil\Noise\1. Noise Feasibility - June 2023\29803-002 C N1.dwg

PLOT DATE: June 14, 2023 1:50:31 PM

Appendix B

City of Ottawa Surface
Transportation Sample
Warning Clauses

City of Ottawa Environmental Noise Control Guidelines Sample Warning Clauses

Generic

Purchasers/tenants are advised that sound levels due to increasing road/rail/Light Rail/transitway traffic may occasionally interfere with some outdoor activities as the sound levels may exceed the sound level limits of the City and the Ministry of the Environment.

To help address the need for sound attenuation this development has been designed so as to provide an outdoor amenity area that is within provincial guidelines. Measures for sound attenuation could include:

- A setback of buildings from the noise source and/or
- An acoustic barrier.

To ensure that provincial sound level limits are not exceeded it is important to maintain sound attenuation features.

The acoustic barrier shall be maintained and kept in good repair by the property owner. Any maintenance, repair or replacement is the responsibility of the owner and shall be with the same material or to the same standards, having the same colour, appearance and function of the original.

Additionally this development includes trees and shrubs to screen the source of noise from occupants.

Extensive mitigation of indoor and outdoor amenity area

Purchasers/tenants are advised that despite the inclusion of noise control features in the development and within the building units, sound levels due to increasing road/rail/Light Rail/transitway traffic may, on occasion, interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the City and the Ministry of the Environment.

To help address the need for sound attenuation this development includes:

- multi-pane glass;
- double brick veneer;
- an earth berm; and
- an acoustic barrier.

To ensure that provincial sound level limits are not exceeded it is important to maintain these sound attenuation features.

The acoustic barrier shall be maintained and kept in good repair by the property owner. Any maintenance, repair or replacement is the responsibility of the owner and shall be with the same material or to the same standards, having the same colour, appearance and function of the original.

This dwelling unit has also been designed with the provision for adding central air conditioning at the occupant's discretion. Installation of central air conditioning will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the City and the Ministry of the Environment.

Additionally this development includes trees and shrubs to screen the source of noise from occupants.

No Outdoor amenity area

Purchasers/tenants are advised that sound levels due to increasing road/rail/Light Rail/transitway traffic will interfere with outdoor activities as the sound levels exceed the sound level limits of the City and the Ministry of the Environment.
To help address the need for sound attenuation this development includes:

- multi-pane glass;
- double brick veneer;
- high sound transmission class walls.

To ensure that provincial sound level limits are not exceeded it is important to maintain these sound attenuation features.
This dwelling unit has been supplied with a central air conditioning system and other measures which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the City and the Ministry of the Environment

Appendix C

Transportation Noise Source Predictions

- Detailed Predicted Freefield Noise Level Calculations

STAMSON 5.0 NORMAL REPORT Date: 10-06-2021 08:49:26
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 2uau50.te Time Period: Day/Night 16/8 hours
Description: Wildpine Trails 2UAU ff 50 dBA

Road data, segment # 1: 2-UAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 15000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: 2-UAU (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 158.98 / 158.98 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-UAU (day)

Source height = 1.50 m

ROAD (0.00 + 50.00 + 0.00) = 50.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	68.48	0.00	-17.02	-1.46	0.00	0.00	0.00	50.00

Segment Leq : 50.00 dBA

Total Leq All Segments: 50.00 dBA

↟
Results segment # 1: 2-UAU (night)

Source height = 1.50 m

ROAD (0.00 + 43.48 + 0.00) = 43.48 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	60.88	0.00	-16.10	-1.30	0.00	0.00	0.00	43.48

Segment Leq : 43.48 dBA

Total Leq All Segments: 43.48 dBA

↟

TOTAL Leq FROM ALL SOURCES (DAY): 50.00
(NIGHT): 43.48

↟
↟
STAMSON 5.0 NORMAL REPORT Date: 10-06-2021 08:47:55
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 2uau55.te Time Period: Day/Night 16/8 hours
Description: Wildpine Trails 2UAU ff 55 dBA

Road data, segment # 1: 2-UAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 15000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: 2-UAU (day/night)

```
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  79.53 / 79.53  m
Receiver height           :   1.50 / 4.50   m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00
```

Results segment # 1: 2-UAU (day)

Source height = 1.50 m

ROAD (0.00 + 55.00 + 0.00) = 55.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	68.48	0.00	-12.03	-1.46	0.00	0.00	0.00	55.00

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

Results segment # 1: 2-UAU (night)

Source height = 1.50 m

ROAD (0.00 + 48.21 + 0.00) = 48.21 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	60.88	0.00	-11.37	-1.30	0.00	0.00	0.00	48.21

Segment Leq : 48.21 dBA

Total Leq All Segments: 48.21 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.00
(NIGHT): 48.21

STAMSON 5.0 NORMAL REPORT Date: 10-06-2021 08:59:32
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 2uau60.te Time Period: Day/Night 16/8 hours
Description: Wildpine Trails 2UAU ff 60 dBA

Road data, segment # 1: 2-UAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 15000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: 2-UAU (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 39.75 / 39.75 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-UAU (day)

Source height = 1.50 m

ROAD (0.00 + 60.00 + 0.00) = 60.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	68.48	0.00	-7.03	-1.46	0.00	0.00	0.00	60.00

Segment Leq : 60.00 dBA

Total Leq All Segments: 60.00 dBA

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Results segment # 1: 2-UAU (night)

Source height = 1.50 m

ROAD (0.00 + 52.94 + 0.00) = 52.94 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	60.88	0.00	-6.65	-1.30	0.00	0.00	0.00	52.94

Segment Leq : 52.94 dBA

Total Leq All Segments: 52.94 dBA

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TOTAL Leq FROM ALL SOURCES (DAY): 60.00
(NIGHT): 52.94

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STAMSON 5.0 NORMAL REPORT Date: 10-06-2021 09:00:33
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 2uau65.te Time Period: Day/Night 16/8 hours
Description: Wildpine Trails 2UAU ff 65 dBA

Road data, segment # 1: 2-UAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 15000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00

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    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 1: 2-UAU (day/night)
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Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  19.85 / 19.85  m
Receiver height           :   1.50 / 4.50   m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00
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Results segment # 1: 2-UAU (day)
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Source height = 1.50 m

ROAD (0.00 + 65.00 + 0.00) = 65.00 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.66  68.48   0.00  -2.02  -1.46   0.00   0.00   0.00  65.00
-------------------------------------------------------------------------------

Segment Leq : 65.00 dBA

Total Leq All Segments: 65.00 dBA
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Results segment # 1: 2-UAU (night)
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Source height = 1.50 m

ROAD (0.00 + 57.67 + 0.00) = 57.67 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.57  60.88   0.00  -1.91  -1.30   0.00   0.00   0.00  57.67
-------------------------------------------------------------------------------

Segment Leq : 57.67 dBA

Total Leq All Segments: 57.67 dBA
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TOTAL Leq FROM ALL SOURCES (DAY): 65.00
(NIGHT): 57.67

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