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4829 Abbott Street East, Ottawa Block 123 – Trailview Subdivision

Noise Impact Assessment Report

4829 Abbott Street East, Ottawa, ON Block 123 – Trailview Subdivision

Noise Impact Assessment Report

Prepared By:

NOVATECH

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> Novatech File: 110037 Ref: R-2025-27

Submitted: June 13, 2025



June 13, 2025

City of Ottawa Development Review West - Planning, Development and Building Services Department 110 Laurier Street West, 4th Floor Ottawa, ON, K1P 1J1

Attention: Nishant Dave, Planner I

Reference: 4829 Abbott Street East, Ottawa, ON

Block 123 – Trailview Subdivision Noise Impact Assessment Report Novatech File No.: 110037-05 City File No.: PC2024-0509

Please find enclosed the 'Noise Impact Assessment Report' for the above-noted development located at 4829 Abbott Street East in the City of Ottawa. This report is being submitted in support of a site plan application for the proposed development.

This report evaluates the environmental impact of noise from traffic and assesses the feasibility of mitigation measures to attenuate noise to acceptable levels.

Please contact the undersigned should you have any questions or comments on this report.

Yours truly,

NOVATECH

Alex McAuley, P.Eng.

Senior Project Manager | Land Development Engineering

cc: Pierre Bernier, SPB Developments

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1.0 INTRODUCTION

Novatech has been retained to prepare a Noise Impact Assessment Report on behalf of SPB Developments Inc. (Developer) to assess the impact of noise from traffic for the proposed site at 4829 Abbott Street East within the City of Ottawa. This site is also known as Block 123 within the previously approved Trailview Subdivision. A Noise Impact Assessment Report (Novatech R-2018-007) was previously accepted by the City for the subdivision. The report is in support of a site plan application for the subject development and to predict and mitigate excess noise. **Figure 1 - Key Plan** below shows the site location.



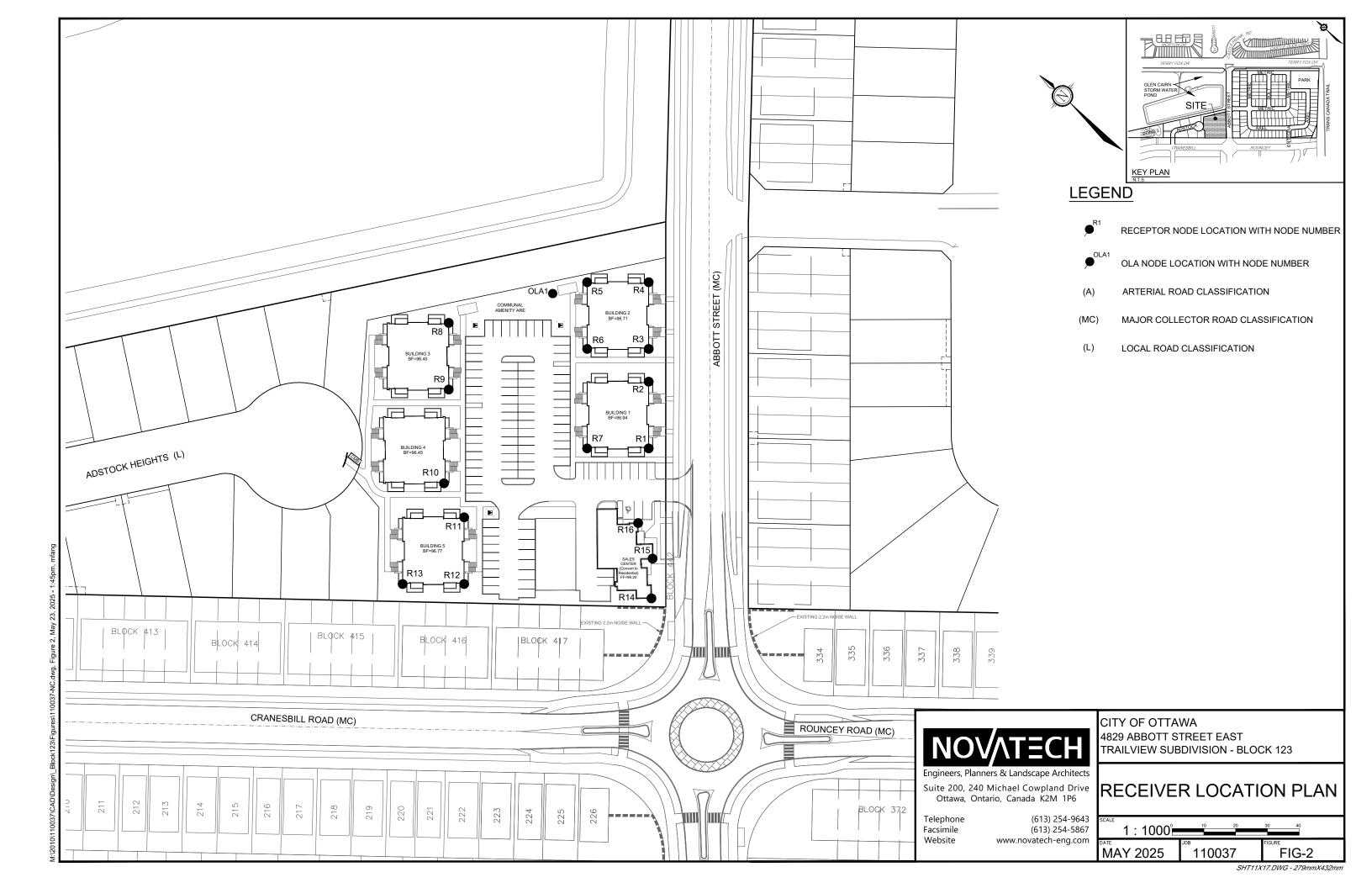
The Subject Site has an area of 0.81ha, and the proposed development will comprise of 5 apartment buildings, containing 12 units each (60 units total), with surface parking stalls and an amenity area. In the future, the existing sales center will be converted to a site management office and a dwelling unit. The site plan features and locations of all nodes used to confirm the noise levels are included in **Figure 2 – Receiver Location Plan**.

Each apartment building will consist of 4 units per floor / level, including the basement units which will be located partially below grade. For this report, the basement level is considered the first floor. Refer to Architects Plans located in **Appendix A**.

The Outdoor Living Area (OLA) noise level that needs to be considered is the designated private communal amenity area, selected 1.5m above finished grade. The balconies for each unit are less than 4m depth and are not considered OLAs per the City's guidelines (ENCG).

The Indoor Living Areas (ILE's) noise levels are considered:

- First Floor for all Buildings, both daytime and nighttime are selected 1.5m above the first floor (FF) grade.
- Second Floor for all Buildings, both daytime and nighttime are selected 1.5m above the second-floor grade, which is 4.90m above FF total.



- Third Floor for all Buildings, both daytime and nighttime are selected 1.5m above the third-floor grade, which is 8.30m above FF total
- Existing Sales Center converted to residential, both daytime and nighttime are selected 1.5m above the first floor (FF) grade.

This report follows recommendations of the City of Ottawa's Environmental Noise Control Guidelines (ENCG) 2016 and MOEE NPC-300 Environmental Noise Guideline.

2.0 NOISE CRITERIA, NOISE SOURCES AND NOISE ATTENATION METHODS

The City of Ottawa criteria for noise from aircraft, roads, transitways, and railways is outlined in Tables 2.2a: Sound Level Limit for Outdoor Living Areas – Road and Rail, Table 2.2b: Sound Level Limit for Indoor Living Areas Road and Rail, and Table 2.2c: Supplementary Sound Level Limits for Indoor Spaces – Road and Rail of the ENCG. The maximum suggested sound levels for outdoor and indoor living areas between 7am and 11pm are 55 dBA and 45 dBA, respectively. The maximum suggested sound levels for indoor bedrooms is 40 dBA between 11pm and 7am. For reference, Tables 2.2a, 2.2b and 2.2c of the ENCG are included in Appendix B.

OLA and ILE receivers are defined as:

- OLA: The outdoor living area is provided for the quiet enjoyment of the outdoor environment during the day-time period. These amenity areas are typically backyards, gardens, shared terraces and patios of a substantial size.
- **ILE**: The indoor living area is provided for the quiet enjoyment of the living/dining and sleeping quarters within a dwelling, during both the day-time and night-time periods.

The noise level criteria are summarized in **Table 1**:

Table 1: Noise Level Criteria

Time Period		Receiver Location	Noise Level Criteria (Leq)
Daytime	(07:00 – 23:00)	OLA	55 dBA
Daytime	(07:00 – 23:00)	ILE - living/ dining rooms	45 dBA
Nighttime	(23:00 – 07:00)	ILE - sleeping quarters	40 dBA

For modelling purposes, predicted noise levels for ILE's are taken at the Plane of Window (POW) with noise attenuation being provided by the building envelope. This will be discussed further in the following sections of this report.

2.1 Noise Sources

The City of Ottawa Official Plan stipulates that a noise study shall be prepared when a new development is proposed within 100 metres of an arterial, major collector or collector roadway, or a rapid-transit corridor.

There are no railway, airport, or stationary noise sources that affect this site. This report considers noise from traffic on urban major collector Abbott Street, Cranesbill Road, and Rouncey Road. To simplify the Noise Analysis, Rouncey Road is considered the extension of Cranesbill Road. All other sources of noise are located beyond the limits of consideration as outlined in Section 2.1 of the **ENCG**. Refer to **Appendix B** for the excerpt from the Official Plan. **Table 2** below outlines the road noise sources for the site.

	Abbott St.	Cranesbill Rd / (Rouncey Rd).
Roadway Classification	2-Lane Urban Major Collector	2-Lane Urban Major Collector
Annual Average Daily Traffic (AADT)	12,000 vehicles/day	12,000 vehicles/day
Day/Night Split (%)	92/8	92/8
Medium Trucks (%)	7	7
Heavy Trucks (%)	5	5
Posted Speed	50 km/hr	50 km/hr

Table 2: Traffic and Roadway Parameters

2.2 Methods for Noise Attenuation

When OLA or ILE sound levels are predicted to be approximately equal to or less than the maximum suggested levels in ENCG (**Table 1**), attenuation measures are not required. If the predicted noise levels are found to exceed the limits, noise mitigation and /or warning clauses are required. Warning clauses are discussed in Section 2.2.3. The City of Ottawa's preferred noise mitigation methods are:

- Increasing the amount of soft ground between the noise sources and noise receptor,
- Inserting noise insensitive land between the noise source and the noise receptor,
- Orientate the building to provide shelter to noise sensitive areas,
- Install acoustic (noise) barriers,
- Install air conditioning and forced air ventilation, and
- Enhance construction techniques and construction quality.

2.2.1 Noise Barrier Requirements

Acoustic (noise) barriers are typically the most effective noise mitigation measure listed in Section 2.2. However, acoustic barriers are also typically visually unappealing and expensive to install and maintain. Acoustic barriers are typically only considered when all other noise mitigation techniques listed in Section 2.2 are not sufficient to reduce predicted noise levels below the maximum allowable. Only noise mitigation measures that are economically and administratively feasible will be considered.

Acoustic barriers, if required, must conform to Part 3 of the City of Ottawa's Environmental Noise Control Guidelines (2016), and include the following characteristics:

- Minimum height of 2.2m
- Maximum height of 2.5m, unless approved by the City
- Located 0.30m inside the private property line
- Have a surface mass density of not less than 20kg/sq.m
- Have no holes or gaps.

2.2.2 Ventilation Requirements

A forced air heating system with provision for a central air conditioning system is required if the POW daytime noise level is between 55 dBA and 65 dBA and/or the nighttime noise level is between 50 dBA and 60 dBA.

The installation of a central air conditioning system is required when the daytime noise level exceeds 65 dBA and/or the nighttime noise level exceeds 60 dBA.

2.2.3 Warning Clauses

When predicted noise levels exceed the specified criteria, the City of Ottawa and the MOE recommend warning clauses be registered as a notice on title and incorporated into the lease/rental/sale agreements to warn potential purchaser/buyers/tenants of the possible elevated noise levels.

Typical warning clauses should be registered as shown below. Warning clauses are extracted from **Part 4**, **Appendix A the City of Ottawa ENCG** and excerpts have been provided in **Appendix B** of this report. As stated in the City of Ottawa ENCG, due to the variation of noise impacts for any given site, it may be necessary to amend the example warning clauses to recognize the site conditions in each development.

Type A

"Purchasers/tenants are advised that sound levels due to increasing road traffic may occasionally interfere with some outdoor activities as the sound levels may exceed the sound level limits of the City and 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 and indoor environment that is within provincial guidelines. Measures for sound attenuation include:

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, if a tolerance of 5 dBA is being considered in some areas, it is recommended an additional noise clause be registered on title and incorporated into the agreement of purchase and sales:

Type B

"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 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 by up to 5 dBA."

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

An acoustic barrier

Type C

"Purchasers/tenants are advised that sound levels due to increasing road traffic may occasionally interfere with some outdoor activities as the sound levels may exceed the sound level limits of the City and 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 and indoor environment that is within provincial guidelines. Measures for sound attenuation may include:

- Multi-pane glass
- Double brick veneer

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

"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"

Type D

"Purchasers/tenants are advised that sound levels due to increasing road traffic may occasionally interfere with some outdoor activities as the sound levels may exceed the sound level limits of the City and 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 and indoor environment that is within provincial guidelines. Measures for sound attenuation may include:

- 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 sound attenuation features."

"This dwelling unit has also 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"

For units with multiple types of warning clauses, similar/identical wording can be combined as to not duplicate wording/information.

2.2.4 Building Component Assessment

When plane of window noise levels exceeds 65 dBA (daytime) or 60 dBA (nighttime) the exterior cladding system of the building envelope must be acoustically assessed to ensure indoor sound criteria are achieved. This includes analysis of the exterior wall, door, and/or glazing system specifications as appropriate.

The NRC research document entitled "Acoustic Insulation Factor: A Rating for the Insulation of Buildings against Noise (June 1980, JD Quirt)" is used to assess the building components and the required acoustic insulation factor (AIF). This method is recognized by the City of Ottawa.

The required AIF is based on the Outside L_{eq} , Indoor L_{eq} required, and the number of exterior façade components.

Minimum Required AIF = Outside L_{eq} – Indoor L_{eq} + 10 log₁₀ (Number of Components) + 2dB

Where, N = Number of components (walls and windows)

L = Sound Level expressed on a common decibel scale.

2.3 Summary of Attenuation Requirements

Table 3 below summarizes the required noise attenuation measures and warning clauses should sound criteria be exceeded. Excerpts from the MOE NPC-300 and City of Ottawa ENCG documents are included in **Appendix B** for reference.

Table 3: Noise Attenuation Measure Requirements

Accessment		Outdoor	Indoor Contr	ol Measures	
Assessment Location	L _{eq} (dBA)	Control Measures	Ventilation Requirements	Building Components	Warning Clause
	Less than 55	None required	N/A	N/A	None required
Outdoor Living Area (OLA)	Between 55 and 60	Control measures (barriers) may not be required but should be considered	N/A	N/A	Required if resultant L _{eq} exceeds 55 dBA Type A* or Type B**
	More than 60	Barriers required	N/A	N/A	Required if resultant L _{eq} exceeds 55 dBA Type A* or Type B**
	Less than 55	N/A	None Required	None Required	None Required
Plane of Living Room Window	Between 55 and 65	N/A	Forced air heating with provision for central air conditioning	None Required	Required Type C
(POW)	More Than 65	N/A	Central Air Conditioning	Acoustical performance of the windows and walls should be specified	Required Type D
	Less than 50	N/A	None Required	None Required	None Required
Plane of Bedroom Window	Between 50 and 60	N/A	Forced air heating with provision for central air conditioning	None Required	Required Type C
(POW)	More than 60	N/A	Central Air Conditioning	Acoustical performance of the windows and walls should be specified	Required Type D

^{*}Type A warning clause refers to units requiring a noise barrier that mitigates noise below 55dBA.

3.0 PREDICTED NOISE LEVELS

Noise levels were analyzed using Version 5.03 of the STAMSON computer program. The predicted noise levels are listed in **Table 4 and Table 5** bellow.

Table 4: Simulation Results – Outdoor Living Areas

Receiver	Calculated Nois 7:00-23	, ,	Outdoor Mitigation
Location*	Un-attenuated	Attenuated	Method
OLA 1	53.48	-	N/A

^{*}Locations found on Figure 2 – Receiver Location Plan

^{**}Type B warning clause refers to units requiring a noise barrier but is technically or economically not feasible to reduce levels below 55dBA and a tolerance of up to 5dBA can be granted by the City.

From **Table 4**, Noise level of OLA1 is lower than 55 dBA and therefore no attenuated measures are required. Refer to **Appendix D** for noise calculations.

Table 5: Simulation Results – Plane of Window (Indoor Living Area)

Receiver Location*	Predicted Noise Level 7:00-23:00 (dBa) Un-attenuated	Predicted Noise Level 23:00-7:00 (dBa) Un-attenuated	Mitigation Method
R1 (1 st Floor)	64.39	56.79	Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C
R1 (2 nd Floor)	64.72	57.12	 Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C
R1 (3 rd Floor)	65.08	57.48	 Installation of Central Air Conditioning Warning Clauses Type D Building Façade Analysis
R2 (1 st Floor)	64.36	56.76	 Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C
R2 (3 rd Floor)	64.98	57.38	 Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C
R3 (1 st Floor)	64.35	56.75	 Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C
R3 (3 rd Floor)	64.97	57.37	 Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C
R4 (1 st Floor)	64.35	56.75	 Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C
R4 (3 rd Floor)	64.97	57.37	 Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C
R5 (1 st Floor)	56.26	48.66	 Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C
R5 (3 rd Floor)	57.48	49.88	 Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C
R6 (3 rd Floor)	54.54	46.94	None Required

Table 5 (Continued): Simulation Results – Plane of Window (Indoor Living Area)

Receiver Location*	Predicted Noise Level 7:00-23:00 (dBa) Un-attenuated	Predicted Noise Level 23:00-7:00 (dBa) Un-attenuated	Mitigation Method
R7 (1 st Floor)	55.75	48.16	Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C
R7 (3 rd Floor)	58.49	50.90	 Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C
R8 (3 rd Floor)	53.61	46.01	None Required
R9 (3 rd Floor)	54.07	46.48	None Required
R10 (3 rd Floor)	54.98	47.88	None Required
R11 (2 nd Floor)	53.89	46.29	None Required
R11 (3 rd Floor)	55.16	47.56	 Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C
R12 (2 nd Floor)	54.97	47.37	None Required
R12 (3 rd Floor)	60.23	52.63	 Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C
R13 (2 nd Floor)	52.53	44.94	None Required
R13 (3 rd Floor)	59.46	51.86	 Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C
R14	64.37	56.77	 Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C
R15	64.91	57.31	 Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C
R16	62.53	54.93	 Installation of Forced Heating with provision for Central Air Conditioning Warning Clauses Type C

^{*}Locations found on Figure 2 – Receiver Location Plan

Based on the results above in **Table 5**, we recommend:

- Installation of Central Air Conditioning and the inclusion of Noise Warning Clause Type D
 be registered as a notice on title and incorporated into the lease/rental/sale agreements
 of 1 unit, which is Building1D Third Floor. Building Façade Analysis is also required for it.
- Installation of Forced Air Heating with provision for Central Air Conditioning and the inclusion of Noise Warning Clause Type C be registered as a notice on title and incorporated into the lease/rental/sale agreements of 20 units, which includes:
 - ➤ Building 1: 1B&1C 6 units from first to third floor; 1D 2 units from first to second floor.
 - ➤ Building 2, 2A, 2B&2D 9 units from first to third floor.
 - ➤ Building 5, 5B, 5C&5D 3 units for third floor.
- Installation of Forced Air Heating with provision for Central Air Conditioning and the inclusion of Noise Warning Clause Type C be registered as a notice on title and incorporated into the lease/rental/sale agreements of existing Sales Center which will be converted to residential

Refer to Figure 3 – Noise Attenuation Measures Plan for all proposed noise mitigation measures. Refer to Appendix D for noise calculations.

4.0 BUILDING FAÇADE ANALYSIS

As outlined in Section 2.2.4, the City of Ottawa ENCG requires that the exterior cladding system of the building envelope be reviewed when noise levels exceed minimum requirements outlined in **Table 3.** Per **Table 5**, R1 third Floor is the only unit need to be assessed due to the Day-time noise exceeds the limits. The Acoustical Insulation Factor (AIF) method recognized by the City of Ottawa is used to assess the wall and window requirements.

The AIF is used as a measure of the reduction of outdoor noise provided by the elements of the outer surface of a building. The difference between the indoor noise criterion and the outdoor noise level establishes the acoustical insulation requirement for the exterior shell. The exterior shell is comprised of primarily two components; windows and walls (patio doors are treated as windows).

Mathematically, this AIF can be expressed as:

Required AIF =
$$L_{eq}$$
 (Outside) – L_{eq} (Inside) + 10 log_{10} (N) +2dBA

Where, N = Number of components; L = Sound Level expressed on a common decibel scale.

The required AIF and building façade analysis R1 (Third Floor) are calculated as follows:

AIF Residential(day) = 65.11 dBA - 45 dBA + 10log(2) dBA + 2dBA = 25 dBA

Tables from the document entitled "Acoustic Insulation Factor: A Rating for the Insulation of Buildings Against Outdoor Noise", produced by the Division of Building Research, National Research Council of Canada, June 1980 (J.D. Quirt) were used to assess the exterior facade against the required AIF. This reference material is included in **Appendix C**.

To assess the façade against the required AIF respective Leq values, the number of components in a wall, the calculated required AIF, percentage of window to room areas and exterior wall to room areas are required. Exterior facade analysis data is presented in **Tables 6**.

Description

Residential Livingroom

Number and Type of Components
Forming Building Envelope.

Percentage of Window Area to
Total Floor Area of Room.

Percentage of Wall Area to Total
Floor Area of Room.

Residential
Livingroom

2 – Windows and
Exterior Walls

35%

68%

Table 6: Exterior Façade Analysis Data - R1 - Third Floor

Architect floor and elevation plans were reviewed to calculate the window and wall to floor ratios (as seen above). The architect plans are included in **Appendix A**.

Using the percentage of window area to room area, and the required acoustical insulation factor (AIF), **Table 5** in **Appendix C** was used to identify the various window assemblies needed to satisfy the required AIF. Similarly, **Table 6.3** in **Appendix C** was used to select the typical wall assembly needed to satisfy the required AIF.

Table 7 below summarizes the results of the analysis requiring assemblies to mitigate the indoor noise levels.

Table 7: Selected Window and Wall Assemblies to Meet Maximum Attenuation Requirements

Description	AIF	Double Pane Window Assembly Options	Typical Wall Assembly
R1 (Building 1D) Third Floor	25	2 mm – 6 mm – 2 mm	EW1

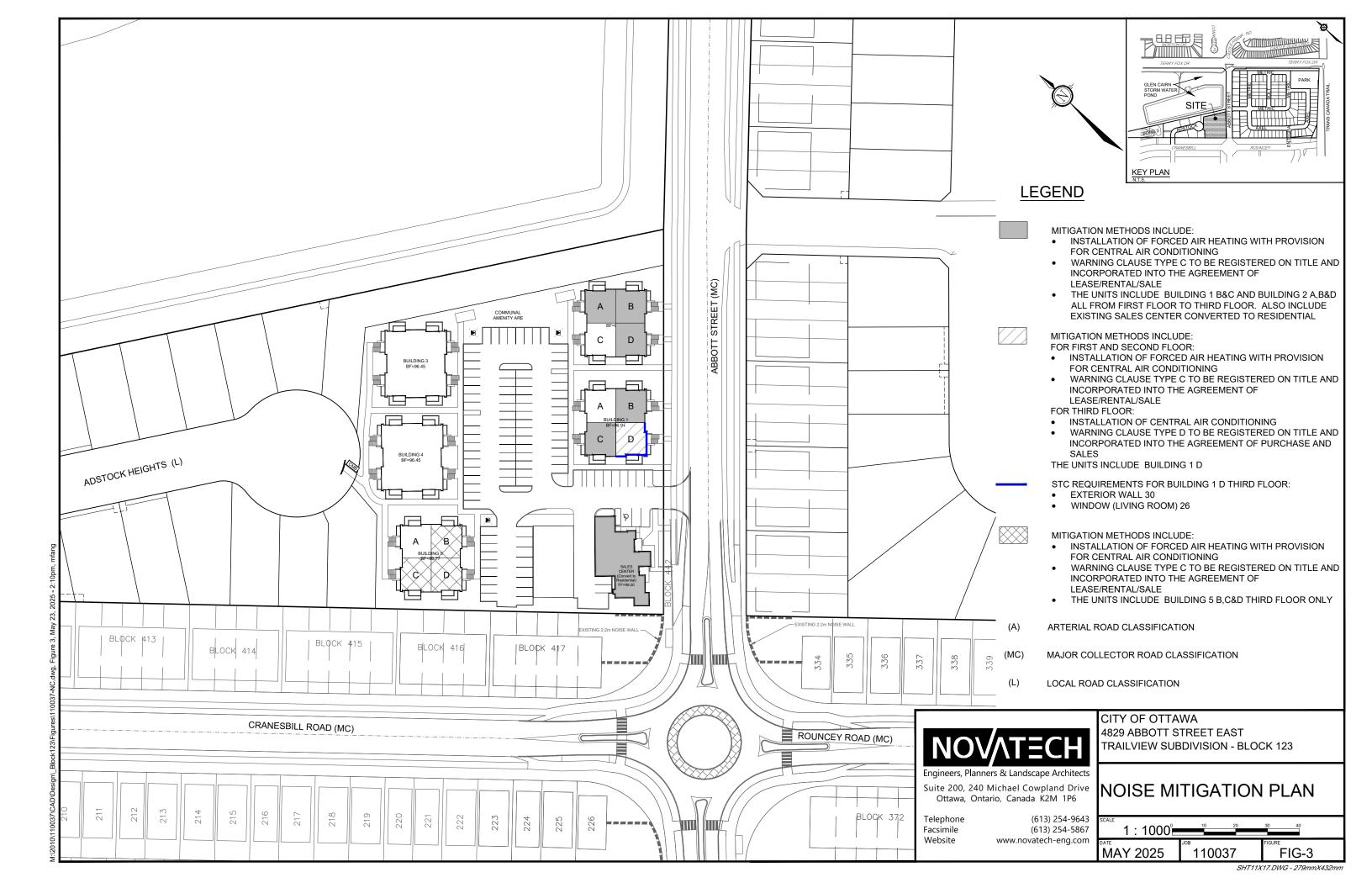
Notes:

- I. Refer to **Appendix C** for calculations for walls and windows.
- II. EW1 type wall consisting of 12.7mm gypsum board, vapour barrier, 38x89mm studs with 50mm (or thicker) mineral wool or glass fibre batts in inter-stud cavities.
- III. "2 mm 6 mm 2 mm" denotes 2 mm glass, 6 mm air space and 2 mm glass

Table 11 and 12 in **Appendix C** were used to convert the AIF values to Sound Transmission Class (STC) values. The STC results for selected analyzed units are summarized in **Table 8** bellow. Window and wall assemblies should meet the STC values as a minimum.

Table 8: Equivalent Sound Transmission Class, STC Values

		Windows		Walls	
	AIF	Conversion	STC	Conversion	STC
R1 (Building 1D) Third Floor	25	STC-1 = AIF	26	STC-5= AIF	30



5.0 CONCLUSION

This report recommends are depicted on **Figure 3 – Noise Attenuation Measures Plan**:

- Building 1, all 1B and 1C first to third floor 6 Units, and first and second floor for 1D 2 Units; Building 2, all 2A, 2B, and 2D first to third floor 9 Units; Building 5, all third floor for 5B, 5C, and 5D 3 Units
 - > The inclusion of Forced Air Heating with provision for Central Air Conditioning
 - Warning Clause Type C to be registered as a notice on title and incorporated into the lease/rental/sale agreements.
- Existing Sales Center converted to residential:
 - > The inclusion of Forced Air Heating with provision for Central Air Conditioning
 - Warning Clause Type C to be registered as a notice on title and incorporated into the lease/rental/sale agreements.
- Building 1, Third Floor of 1D:
 - The inclusion of Central Air Conditioning
 - Warning Clause Type D to be registered as a notice on title and incorporated into the lease/rental/sale agreements
 - Minimum requirement acoustically selected exterior wall (EW1) and meet a sound transmission rating, STC of 30
 - Minimum requirement acoustically selected double pane (2mm-6mm-2mm) windows and meet a sound transmission rating, STC of 26.
- Building components compliant with the Ontario Building Code will be sufficient for the remaining exterior walls and windows within the subject site except that were specified above.

NOVATECH

Report By:

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Reviewed By:

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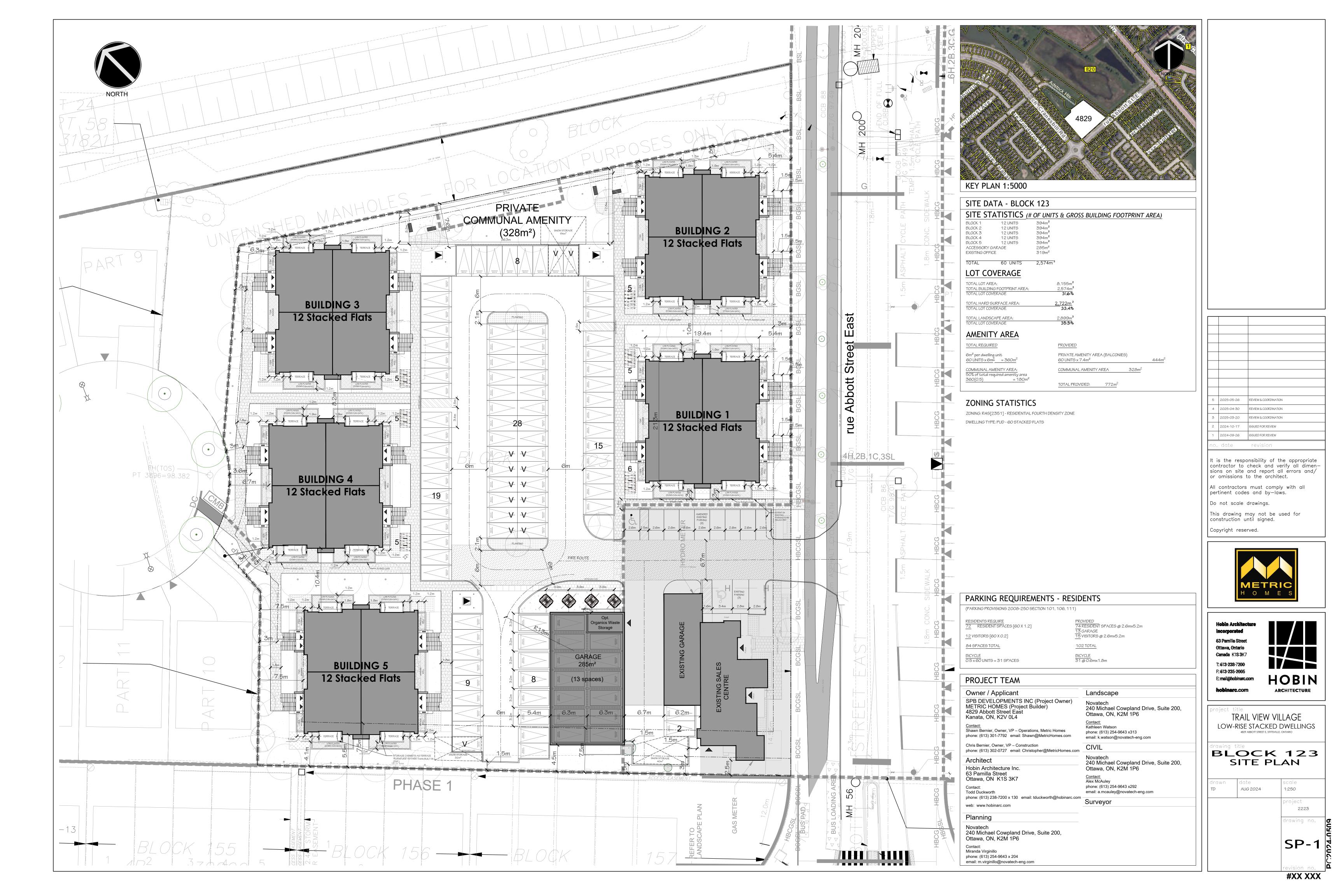
Senior Manager Land Development Engineering

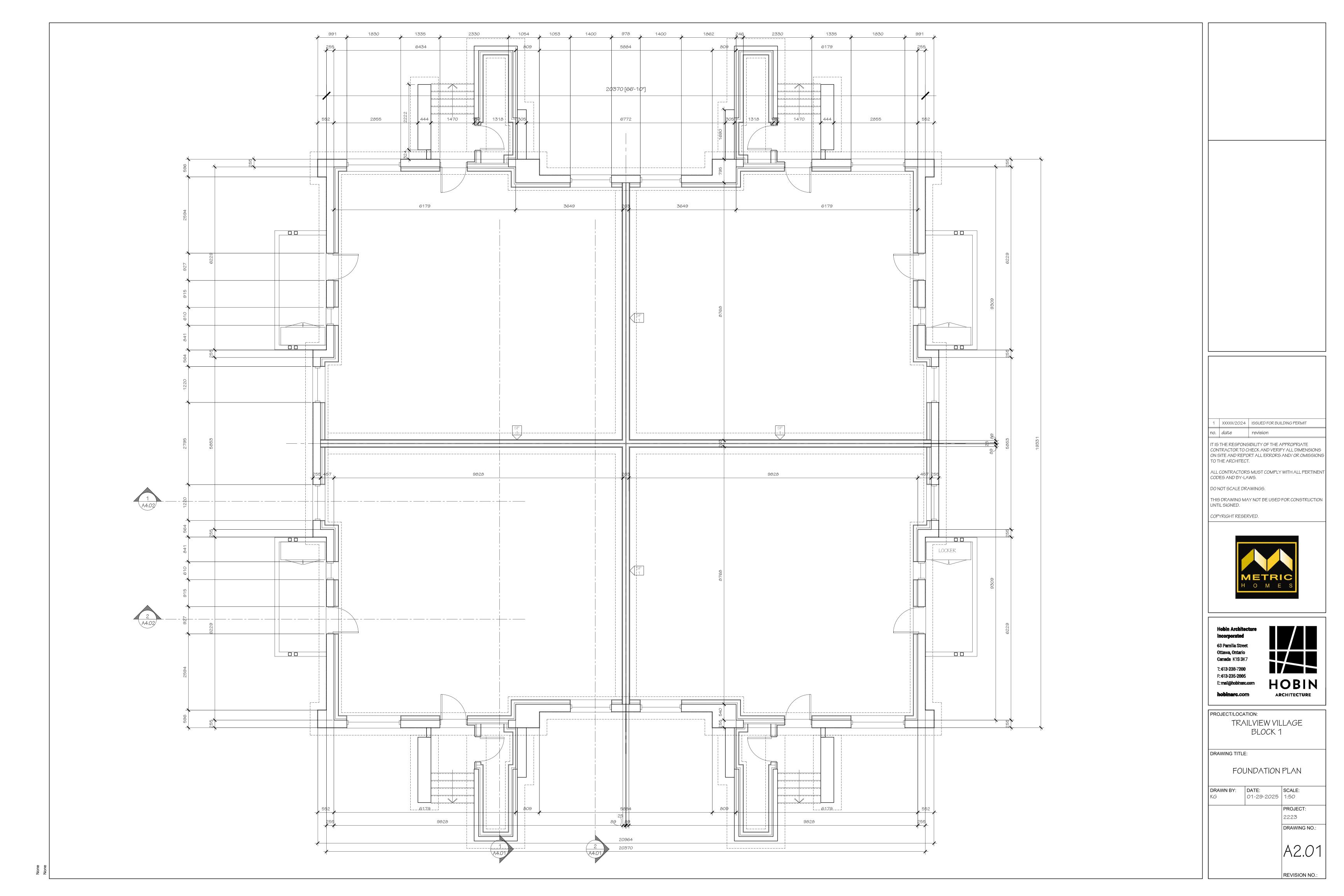
ROFESSIONAL A.P

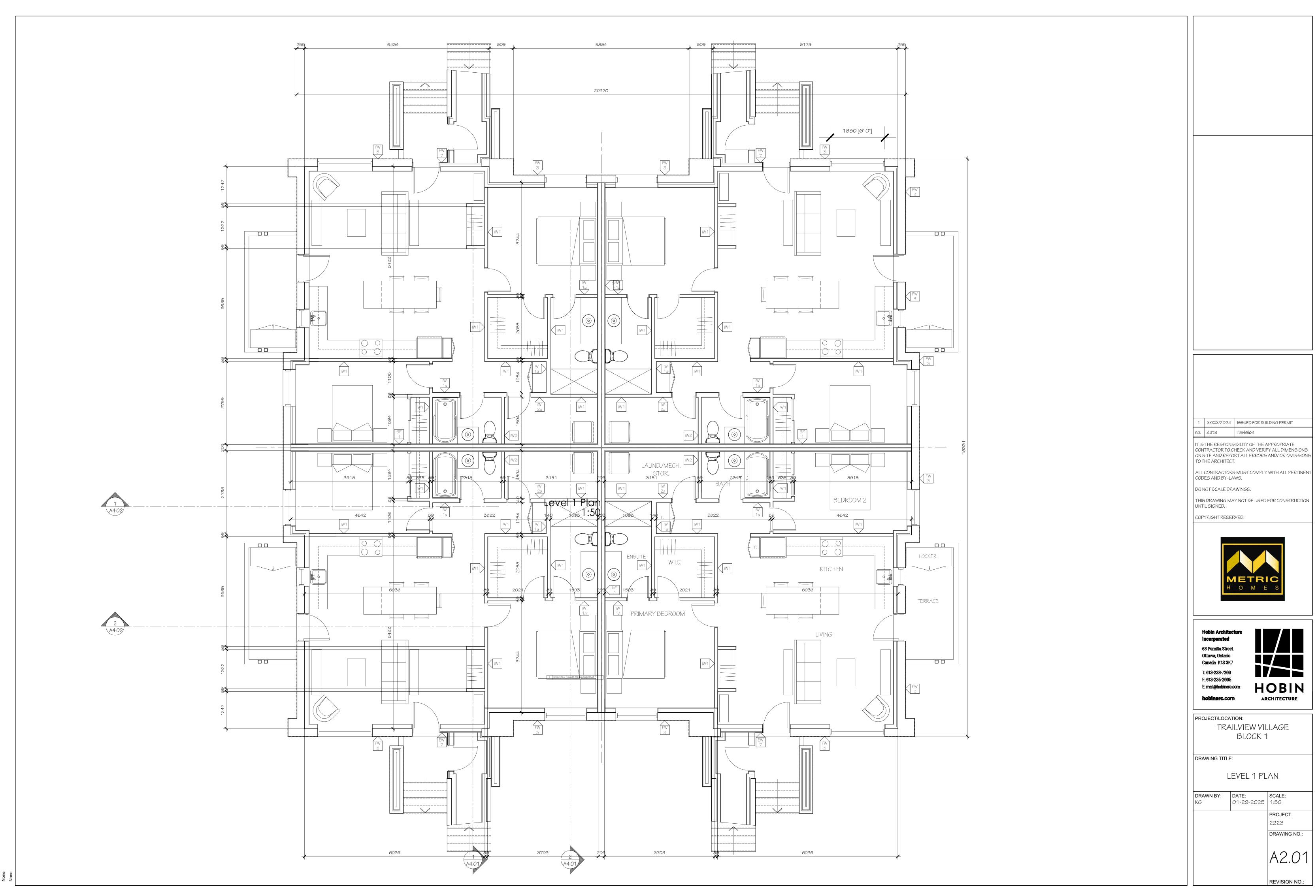
POLINCE OF ONTP

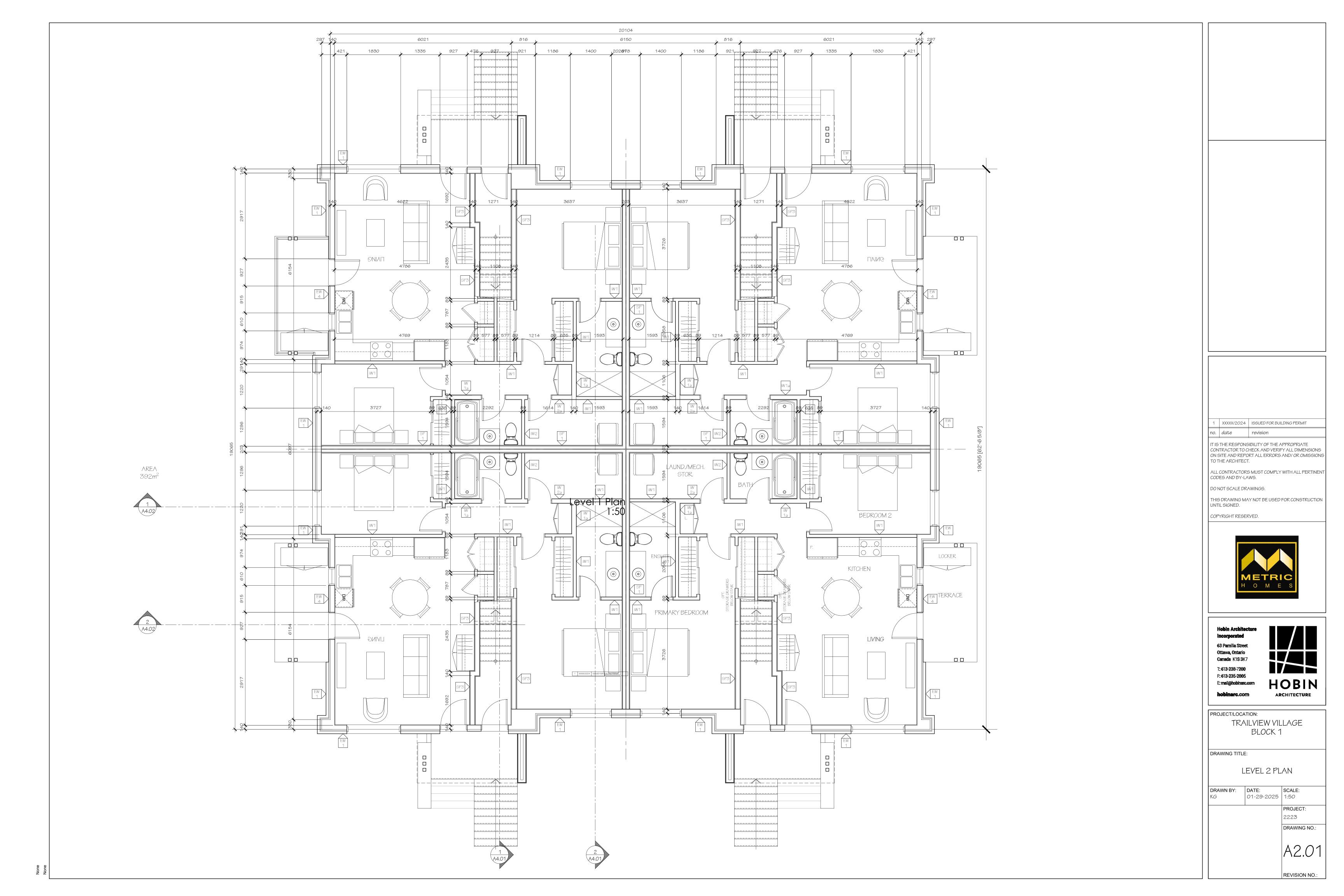
APPENDIX A:

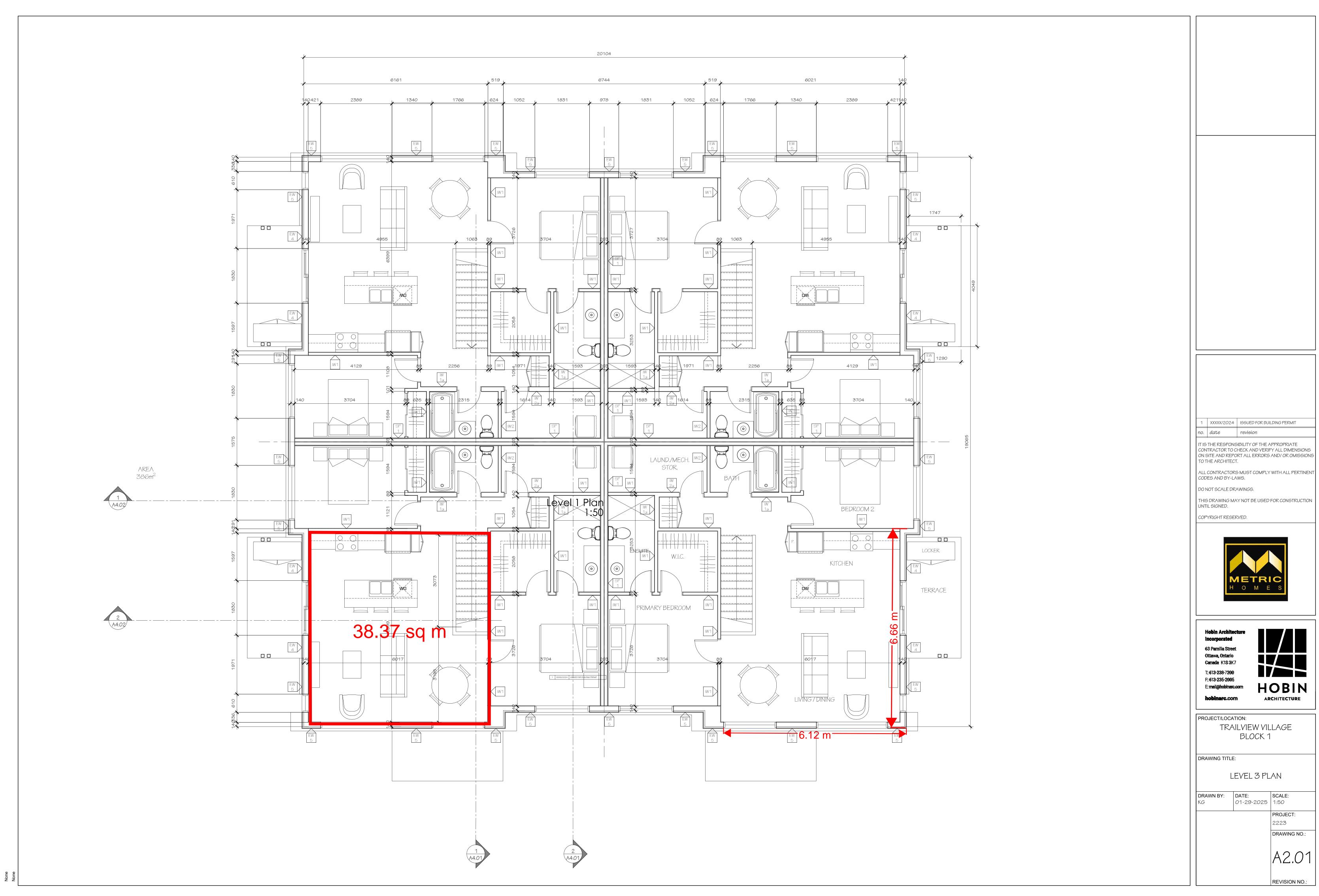
ARCHITECTS PLANS

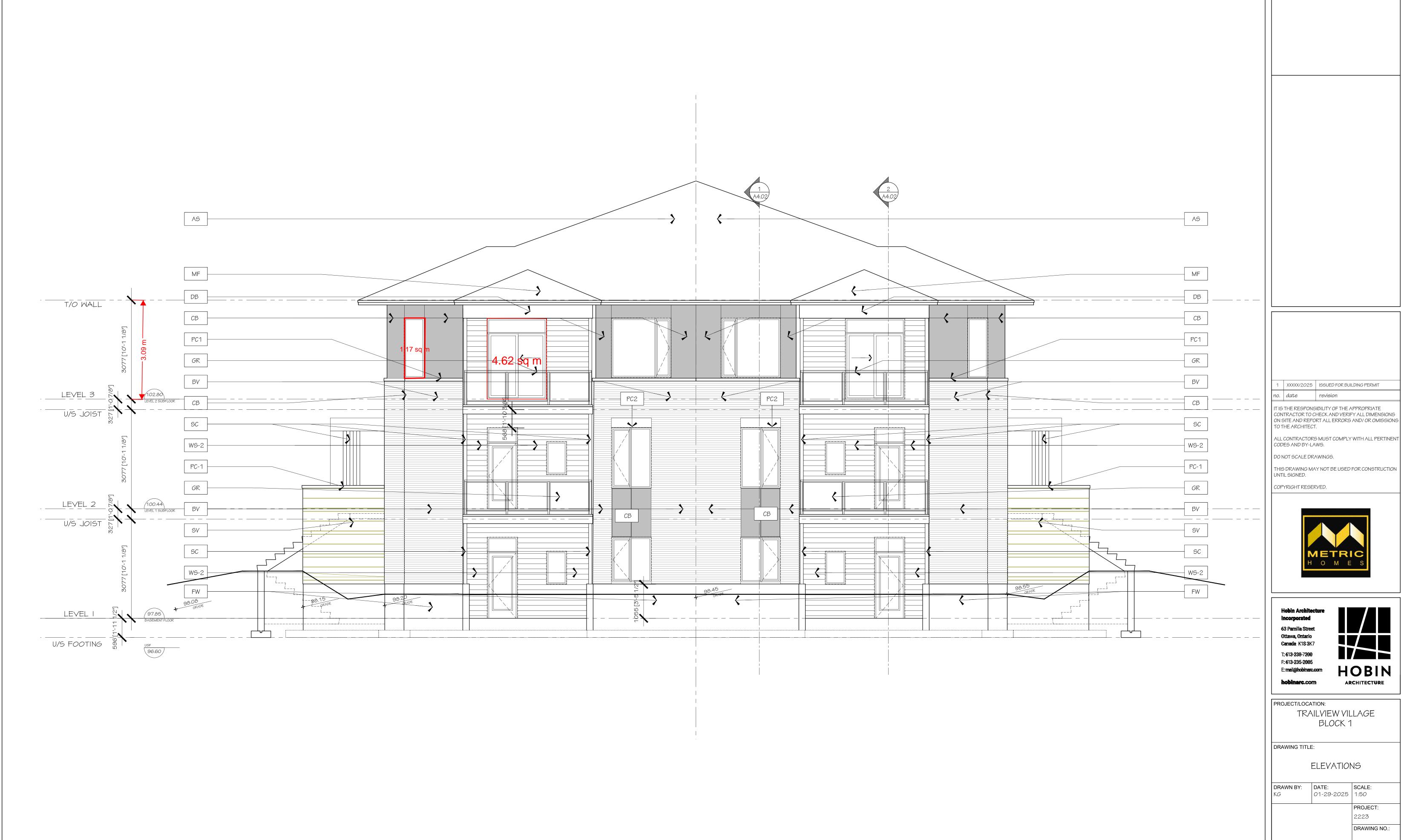












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HOBIN ARCHITECTURE

	DRAWN BY : K <i>G</i>	DATE: 01-29-2025	SCALE : 1:50			
			PROJECT: 2223			
			DRAWING NO.:			
			A3.01			



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HOBIN E: mail@hobinarc.com hobinare.com ARCHITECTURE

PROJECT/LOCATION: TRAILVIEW VILLAGE BLOCK 1

DRAWING TITLE:

ELEVATIONS

	DRAWN BY:	DATE:	SCALE:
	KG	01-29-2025	1:50
L			
			PROJECT:
			2223
			DRAWING NO.:
			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \





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HOBIN ARCHITECTURE

PROJECT/LOCATION:

TRAILVIEW VILLAGE

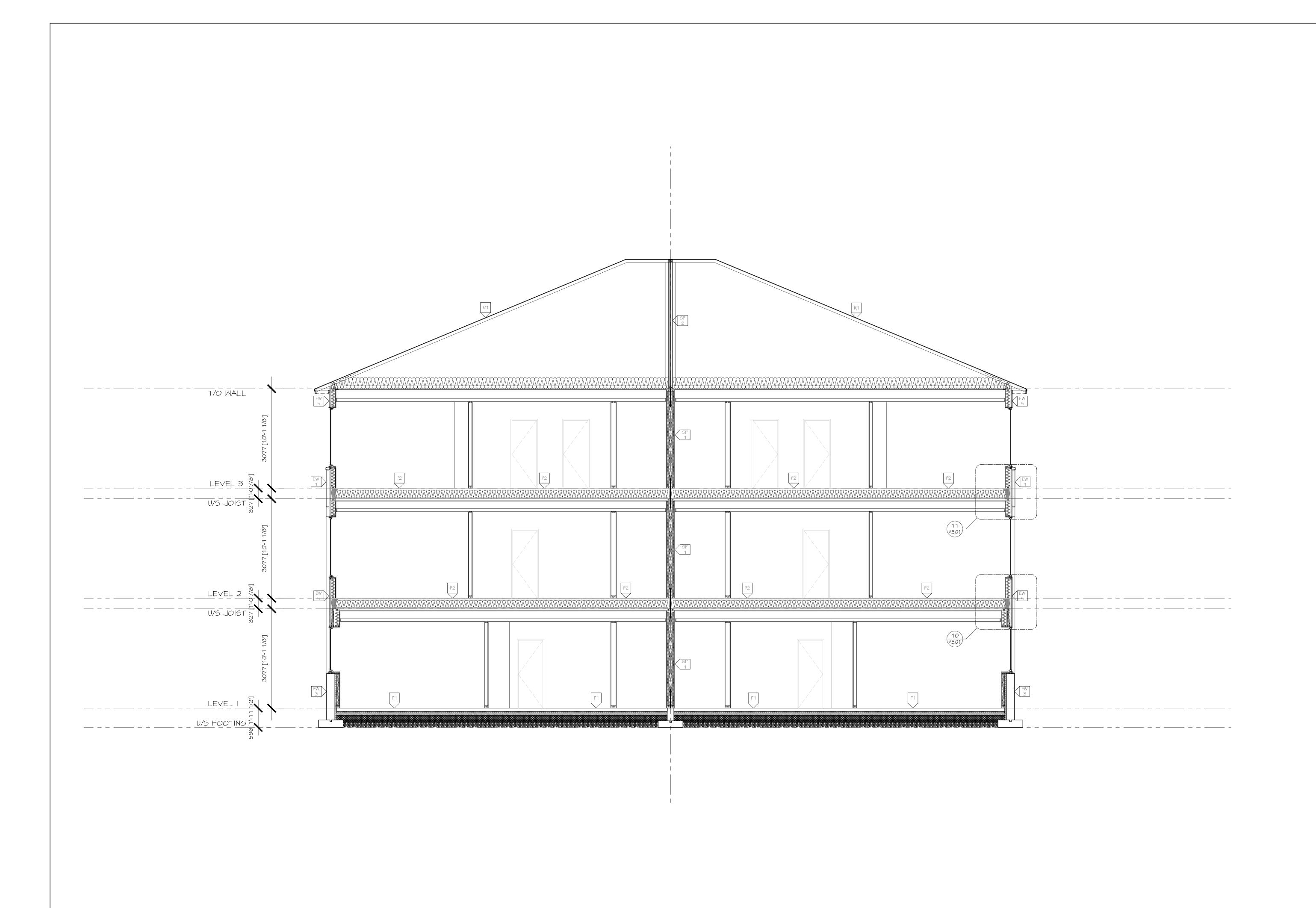
BLOCK 1

hobinare.com

DRAWING TITLE:

ELEVATIONS

DRAWN BY:	DATE:	SCALE:			
KG	01-29-2025	1:50			
	•	PROJECT:			
		2223			
		DRAWING NO.:			
		A3.04			
		1, 10.0			



1 XXXXX/2024 ISSUED FOR BUILDING PERMIT

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IT IS THE RESPONSIBILITY OF THE APPROPRIATE CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON SITE AND REPORT ALL ERRORS AND/ OR OMISSIONS TO THE ARCHITECT.

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HOBIN ARCHITECTURE

PROJECT/LOCATION:

TRAILVIEW VILLAGE

BLOCK 1

DRAWING TITLE:

BUILDING SECTIONS

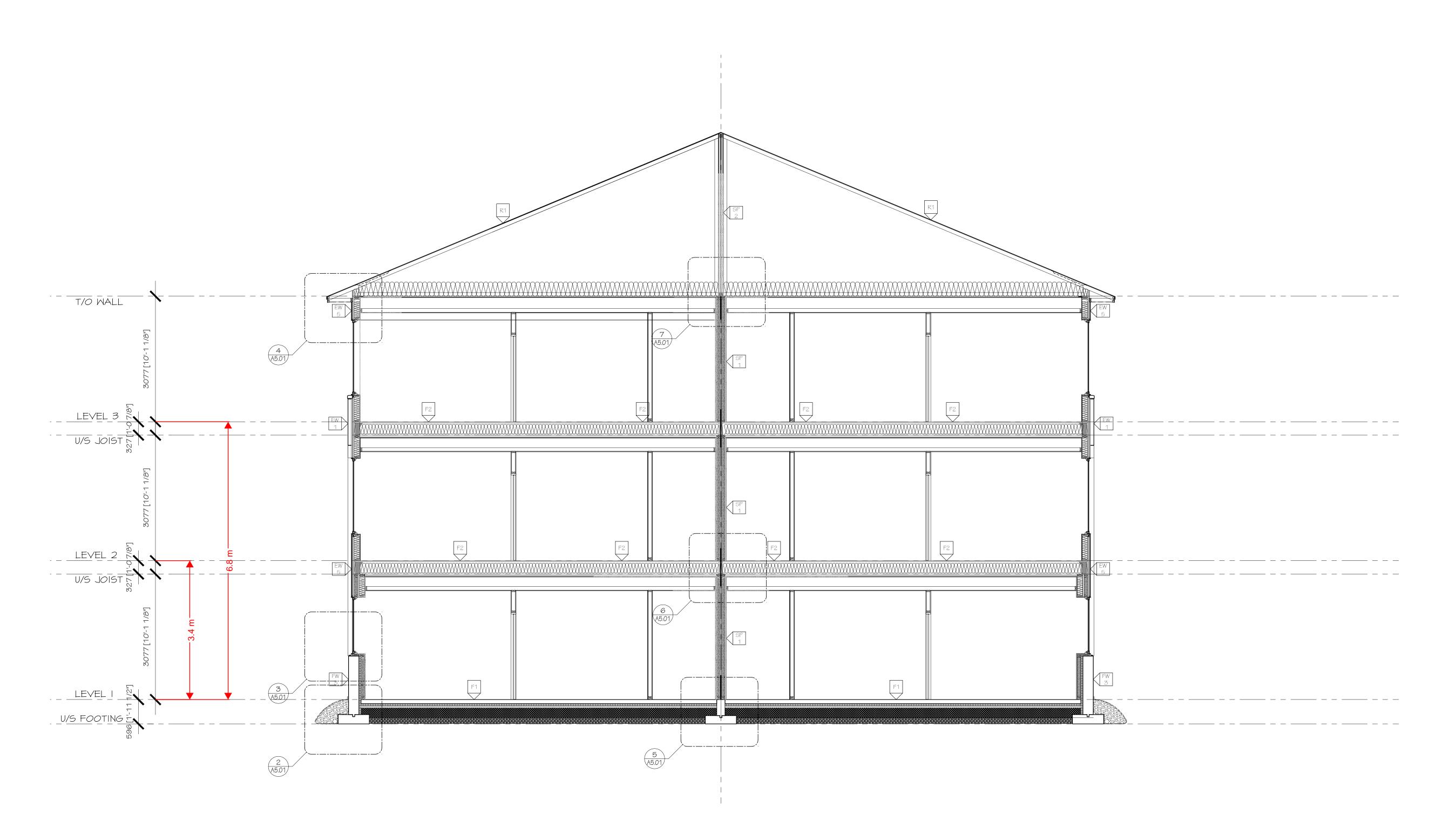
DRAWN BY: DATE: SCALE: 1:50

PROJECT: 2223

DRAWING NO.:

REVISION NO.:

None



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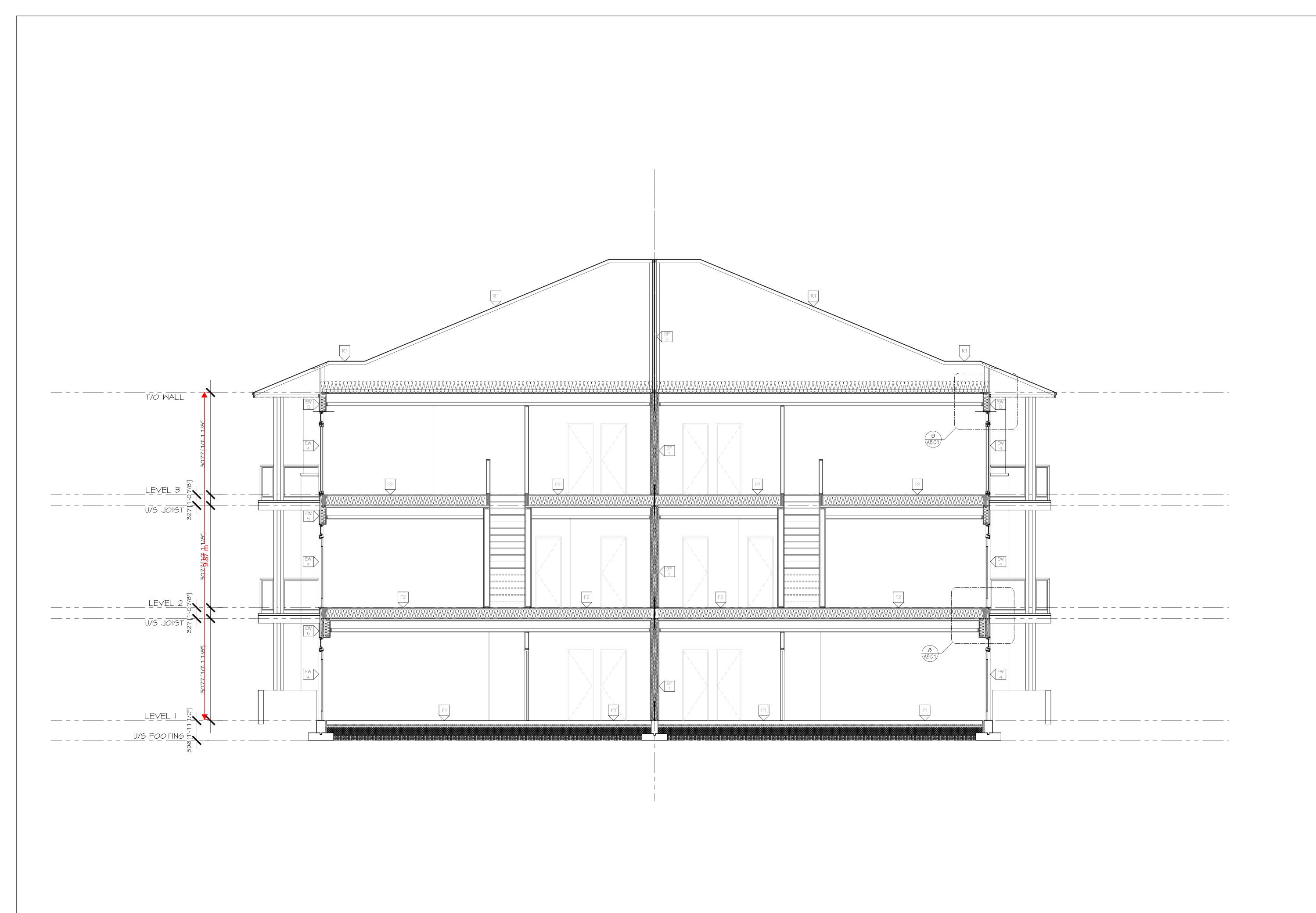
TRAILVIEW VILLAGE BLOCK 1

DRAWING TITLE:

BUILDING SECTIONS

DRAWN BY: KG	DATE: 01-29-2025	SCALE : 1:50
		PROJECT:
		2223
		DRAWING NO

A4.03



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HOBIN ARCHITECTURE

PROJECT/LOCATION:
TRAILVIEW VILLAGE

BLOCK 1

DRAWING TITLE:

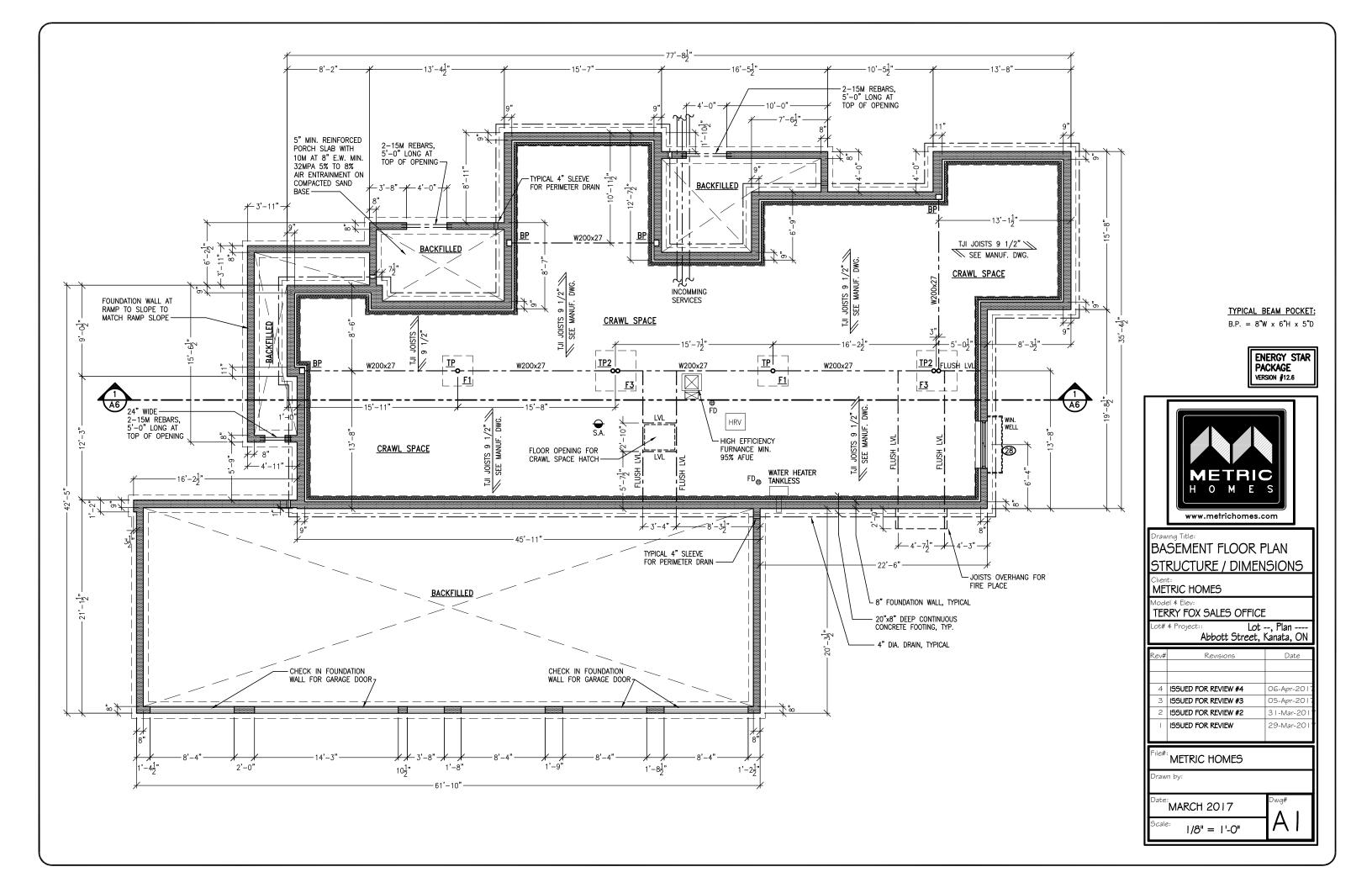
BUILDING SECTIONS

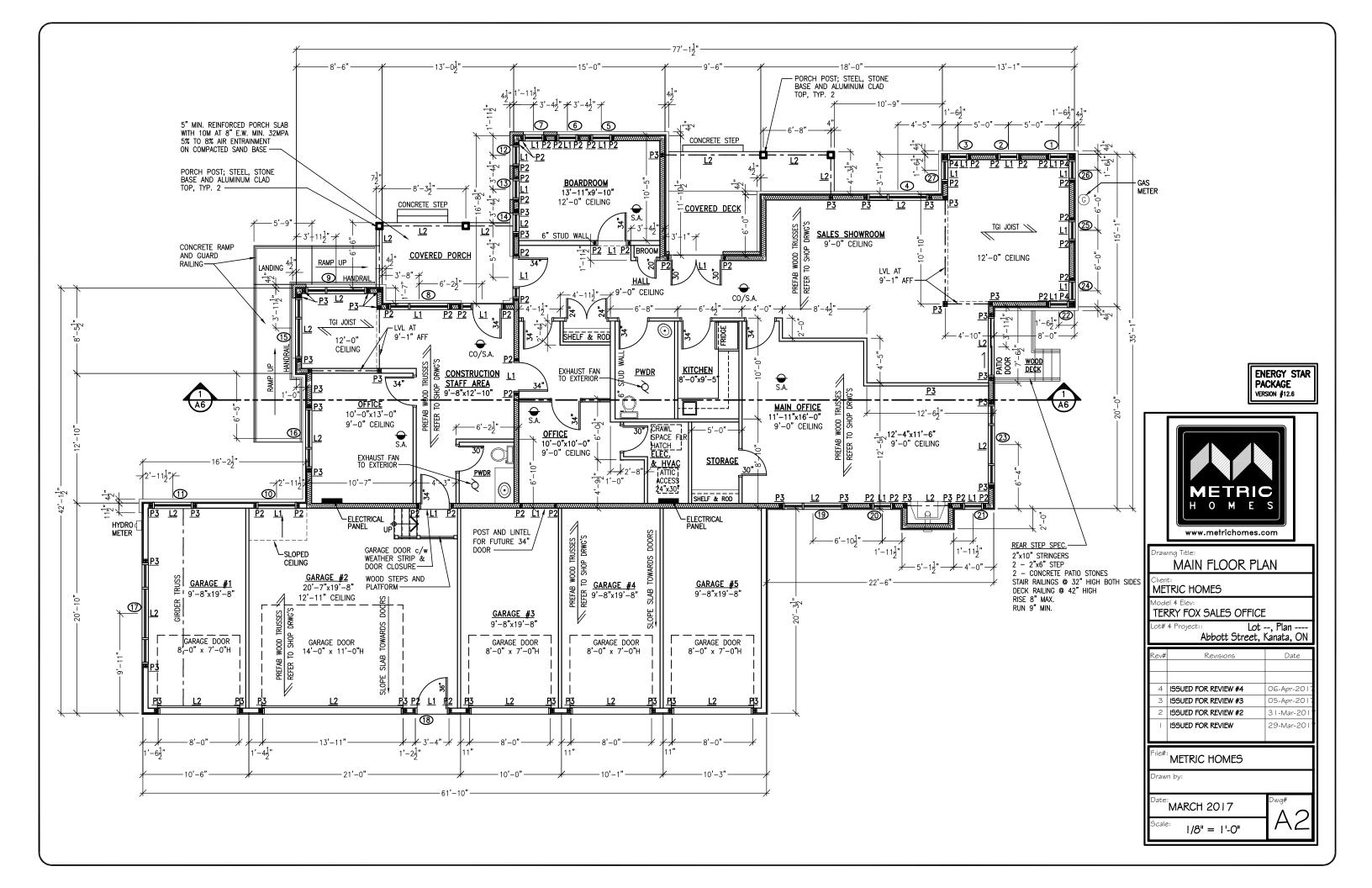
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PROJECT: 2223

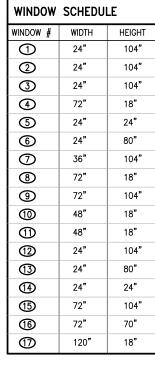
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14.04

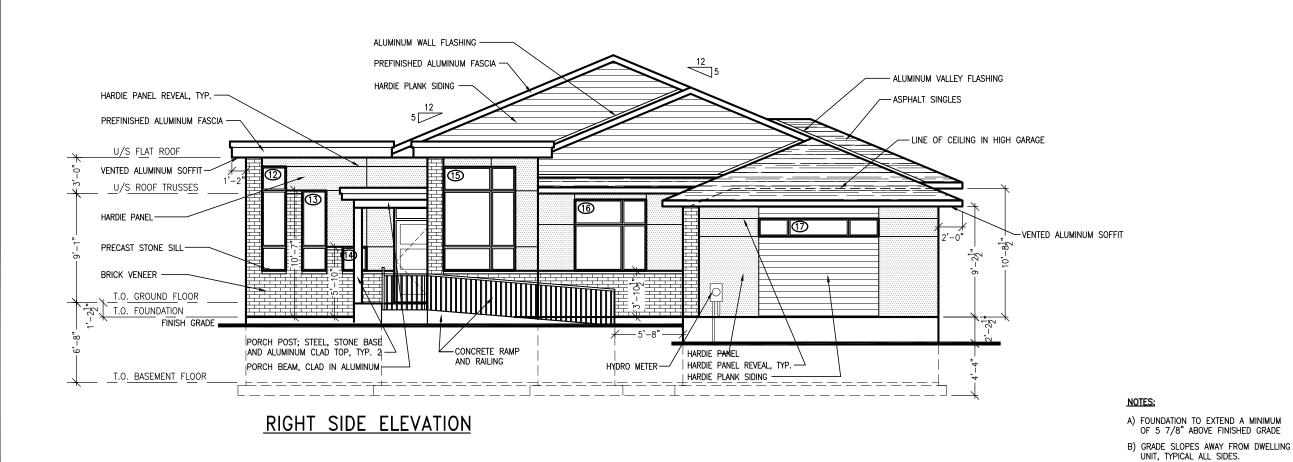








ENERGY STAR PACKAGE VERSION #12.6





Drawing Title:
FRONT AND RIGHT SIDE
ELEVATIONS

METRIC HOMES

Model \$ Elev: TERRY FOX SALES OFFICE

Lot# \$ Project:: Lot --, Plan ---Abbott Street, Kanata, ON

Ш	Rev#	Revisions	Date
	4	ISSUED FOR REVIEW #4	06-Apr-201
	3	ISSUED FOR REVIEW #3	05-Apr-201
	2	ISSUED FOR REVIEW #2	31-Mar-201
	- 1	ISSUED FOR REVIEW	29-Mar-20 I

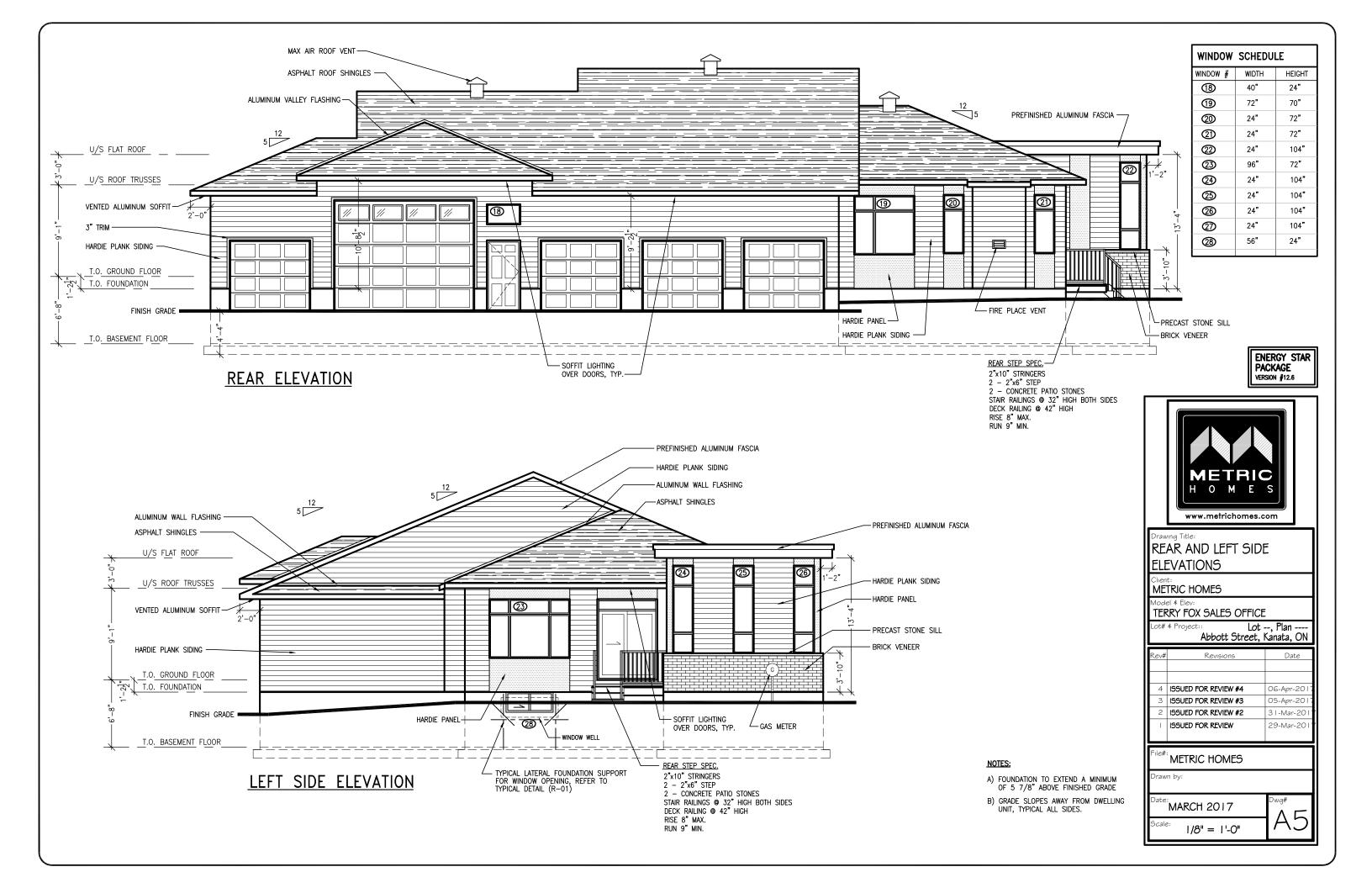
METRIC HOMES

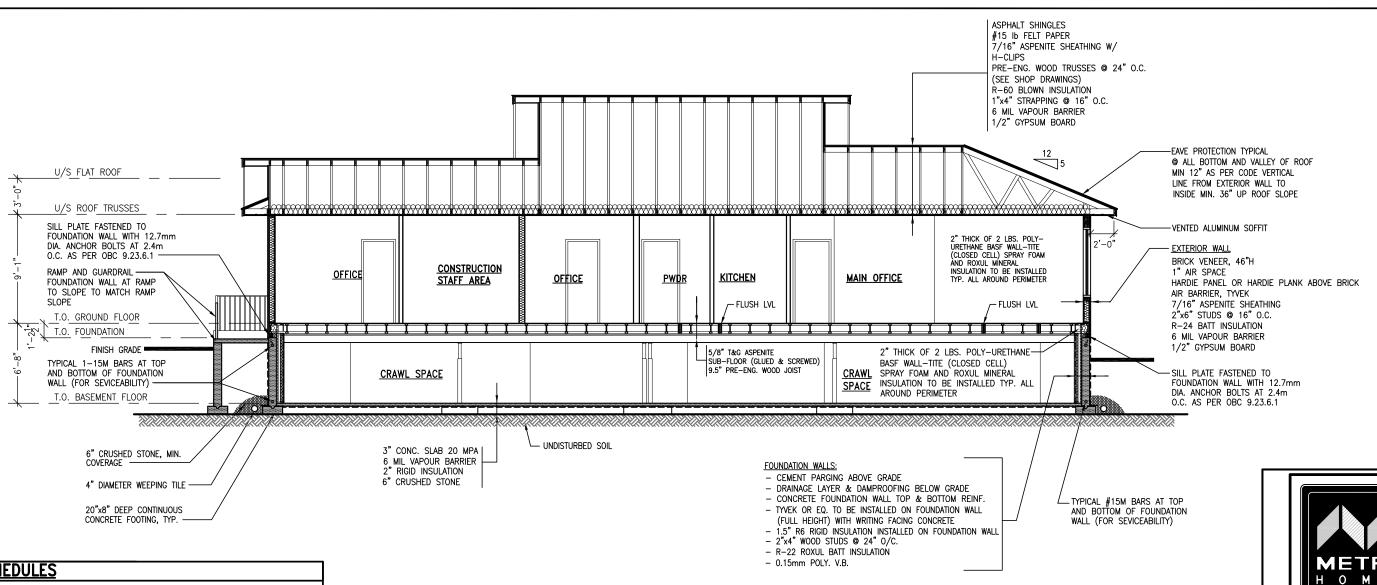
rawn by:

MARCH 2017

1/8" = 1'-0"

- A4





SCHEDULES

A) ALL BEAMS TO HAVE A MINIMUM END BEARING OF 3 1/2"

B) ALL POINT LOADS TO BE CARRIED DOWN TO THE FOUNDATION OR SUPPORING MEMBER.

WOO	D POST SCHEDULE
TAG	DESCRIPTION
<u>P2</u>	2 −2"x4" OR 2"x6" STUDS
<u>P3</u>	3 −2"x4" OR 2"x6" STUDS
<u>P4</u>	4 −2"x4" OR 2"x6" STUDS
<u>P5</u>	5 -2"x4" OR 2"x6" STUDS

CTEEL TELEBOOT COLLEBULE

21FF	STEEL TELEPOST SCHEDULE		
TAG	DESCRIPTION		
<u>IP</u>	3" DIA. ADJUSTABLE STEEL TELEPOST CAN/CGSB 7.2		
TP2	2 -3" DIA. ADJUSTABLE STEE TELEPOST CAN/CGSB 7.2		
<u>TP3</u>	3 -3" DIA. ADJUSTABLE STEEL TELEPOST CAN/CGSB 7.2		
<u>TP4</u>	3" SQUARE. x 3/16" STEEL HSS POST		

WOOD LINTEL SCHEDULE			
TAG	TAG DESCRIPTION		
<u>L1</u>	2 -2"x10"		
<u>L2</u>	3 −2"x10"		
<u>L3</u>	3 -2"x8"		
<u>L4</u>	2 −1 3/4"x11 7/8" LVL, 1.8E		
L5	3 -1 3/4"x11 7/8" LVL, 1.8E		

NOTE: INSTALL TYPICAL L1 ABOVE ALL WINDOWS UNLESS OTHERWISE NOTED

PAD FOOTING SCHEDULE		
TAG	DESCRIPTION	
<u>F1</u>	36"x36" x8" CONCRETE PAD W/ 4-15M REBARS EACH WAY	
<u>F2</u>	36"x48" x8" CONCRETE PAD W/ 5-15M REBARS SHORT WAY W/ 4-15M REBARS LONG WAY	
<u>F3</u>	48"x48" x8" CONCRETE PAD W/ 5-15M REBARS EACH WAY	
<u>F4</u>	60"x36" x8" CONCRETE PAD W/ 6-15M REBARS SHORT WAY W/ 4-15M REBARS LONG WAY	
<u>F5</u>	24"x24" x8" CONCRETE PAD W/ 3-15M REBARS EACH WAY	

STEEL	STEE	STEEL BRICK LINTEL SCHEDULE		
В 7.2	TAG	DESCRIPTION		
ABLE STEEL	BL1	4" x 3-1/2" x 5/16"		
B 7.2	<u>BL2</u>	5" x 3-1/2" x 5/16"		
ABLE STEEL B 7.2	<u>BL3</u>	4" x 3-1/2" x 3/8"		
	BL4	5" x 3-1/2" x 3/8"		
6"	<u>BL5</u>	6" x 4" x 3/8"		

PROVIDE MINIMUM 5 7/8" END BEARING FOR STEEL LINTELS

INSTALL TYPICAL 3½"x 3½"x ¼" STEEL ANGLE TO SUPPORT MASONRY VENEER OVER ALL OPENINGS UNLESS OTHERWISE NOTED

DRAWING NOTES:

PLANS AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. E.&O.E.

ALL MEASUREMENTS ARE APPROXIMATE. ACTUAL USABLE FLOOR SPACE MAY VARY FROM STATED FLOOR AREA.

GENERAL NOTES:

THE CONTRACTOR MUST OBTAIN A CONSTRUCTION PERMIT BEFORE STARTING ANY WORK.

TRADES ARE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE GENERAL CONTRACTOR

DO NOT SCALE DRAWINGS.

ALL WORK SHALL COMPLY TO THE LOCAL AND THE ONTARIO BUILDING CODE.

ALL DIMENSIONS ARE FROM FACE OF WOOD STUDS

ALL CONCRETE (EXCEPT GARAGE SLAB AND PORCH SLAB) IS TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2900 PSI (20 MPA) AFTER 28 DAYS. GARAGE AND PORCH SLABS TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4650 PSI (32 MPA) COMPLETE WITH 5% - 8% AIR ENTRAINMENT.

ROOF TRUSSES SHALL BE PRE-ENGINEERED AND PREFABRICATED TO SUPPORT 1.74 KPA (36 PSF) SNOW LOAD AND APPROPRIATE DEAD LOAD.

- ALL GUARDS ARE TO BE CONSTRUCTED IN ACCORDANCE - STEEL BEAM & ANGLES TO BE PRIME PAINTED WITH 9.8.8, SB-7, 900mm (2'-11") IF LESS THAN 1800mm (5' -11") ABOVE THE ADJACENT GRADE OR 1070mm (3' -6") FOR ALL OTHERS.

- SMOKE AND CO ALARMS ARE TO BE INSTALLED AS PER OBC 9.10.19.3 & 9.33.4.2. SMOKES ARE TO BE INTERCONNECTED AS PER OBC 9.10.19.5.

TYPICAL INTERIOR PARTITION WALL ASSEMBLY:

- 1/2" GYPSUM BOARD SHEATHING - 2"x4" WOOD STUD WALL AT 16" O.C.

- 1/2" GYPSUM BOARD SHEATHING

GARAGE NOTES:

- DOOR TO HOUSE TO BE INSULATED METAL c/w SELF CLOSER, POSITIVE LATCHING & WEATHERSTRIPED

WALLS BETWEEN GARAGE & DWELLING SPACE TO HAVE FIRE RETARDANT GYPSUM BOARD c/w TAPED JOINTS AND PERIMETER CAULKING FOR A TIGHT AIR AND GAS FUME SEAL

- 4" POURED CONCRETE FLOOR @32 Mpa w/ 5% AIR ENTRAPMENT ON 6" SAND FILL ON UNDISTURBED SOIL. SLOPE FLOOR 2% TO O.H. DOOR.

MAIN BATHROOM:

REINFORCE WALLS ADJACENT TO TOILET AND TUB FOR FUTURE INSTALLATION OF GRAB BARS AS PER OBC 9.5.2.3.

STAIR SPECIFICATIONS:

- INTERIOR STEPS SHALL CONFORM TO O.B.C. 9.8

- MAX RISF = 7 7/8 - MIN. RUN = 8 1/2"

- MIN TRFAD = 9 1/4'

- RAIL AT 34" FROM VERTICAL LINE OF STAIRS

- GUARDS @ 36" HEIGHT OF LANDING

- MIN. 6'-5" HEADROOM

BASEMENT NOTES:

- MIN. SOIL BEARING CAPACITY TO BE 75 KPa TO BE CONFIRMED ON SITE

FLOOR:

- 3" POURED CONC. 20MPa ON
- 0.15mm POLY. V.B. ON
- 8" CRUSHED STONE FILL ON UNDISTURBED SOIL

FOUNDATION WALLS:

- CEMENT PARGING ABOVE GRADE

- DRAINAGE LAYER & DAMPROOFING BELOW GRADE

ENERGY STAR

PACKAGE VERSION #12.6

- CONCRETE FOUNDATION WALL TOP & BOTTOM REINF. - TYVEK TO BE INSTALLED ON FOUNDATION WALL

(FULL HEIGHT) WITH WRITING FACING CONCRETE

- 2"x4" WOOD STUDS @ 24" 0/C.

- R-20 BATT INSULATION TO 6" OFF FLOOR SLAB

- 0.15mm POLY. V.B. (6 mil), (STAPLE ONLY)

MASONRY VENEER WALLS:

- TIES ARE TO HAVE A MAXIMUM VERTICAL SPACING OF 500mm (19 3/4") AND A MAXIMUM HORIZONTAL SPACING OF 600mm (23 5/8")
- THRU-WALL FLASHINGS ARE TO BE AT THE BASE OF ALL WALLS.
- WEEP HOLES AT A MAXIMUM SPACING OF 800mm (2'-7") APART AND AT THE BOTTOM OF EVERY CAVITY.



SECTION, NOTES \$ SCHEDULES

METRIC HOMES

TERRY FOX SALES OFFICE

Lot --, Plan -Abbott Street, Kanata, ON

	_	
Rev#	Revisions	Date
4	ISSUED FOR REVIEW #4	06-Apr-2017
3	ISSUED FOR REVIEW #3	05-Apr-2017
2	ISSUED FOR REVIEW #2	31-Mar-201
I	ISSUED FOR REVIEW	29-Mar-201

METRIC HOMES

MARCH 2017

1/8" = 1'-0"



	4000 411 111 01 11 7
Noise Impact Assessment Report	4829 Abbott Street East
APPENDIX B:	
EXCERPTS FROM THE CITY OF OTTAWA ENVIRONMENTAL NO GUIDELINES; THE MOE'S NPC-300; THE CITY OF OTTAWA'S C	





ENVIRONMENTAL NOISE CONTROL GUIDELINES:Introduction and Glossary

January 2016

Visit us: Ottawa.ca/planning Visitez-nous: Ottawa.ca/urbanisme





Table 2.2a: Sound Level Limit for Outdoor Living Areas - Road and Rail

(from NPC-300, 2013 Table C-1)

Time Period

Required Leq (16) (dBA)

16-hour, 07:00 – 23:00

Table 2.2b: Sound Level Limit for Indoor Living Areas Road and Rail

(from NPC-300, 2013 Table C-2)

,		Require	ed Leq (dBA)
Type of Space	Time Period	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 23:00 - 07:00	45 40	40 35

The Province also provides for supplementary indoor sound level limits for land uses not generally considered noise sensitive (see Table 2.2c below). These good practice design objectives should be addressed in any noise study prepared for the City. These supplementary sound level limits are based on the windows and doors to an indoor space being closed.

Table 2.2c: Supplementary Sound Level Limits for Indoor Spaces - Road and Rail (adapted from NPC-300 Table C-9)

		Require	ed L _{eq} (dBA)
Type of Space	Time Period	Road	Rail
General offices, reception areas, retail stores, etc.	16 hours between 07:00 – 23:00	50	45
Theatres, places of worship, libraries, individual or semi- private offices, conference rooms, reading rooms, etc.	16 hours between 07:00 – 23:00	45	40
Sleeping quarters of hotels/motels	8 hours between 23:00 – 07:00	45	40
Sleeping quarters of residences, hospitals, nursing/retirement homes, etc.	8 hours between 23:00 – 07:00	40	35

Environmental Noise Control Guidelines Part 1: Land Use Planning

Visit us: Ottawa.ca/planning Visitez-nous: Ottawa.ca/urbanisme





Appendix B: Table of Traffic and Road Parameters To Be Used For Sound Level Predictions

Row Width (m)	Implied Roadway Class	AADT Vehicles/Day	Posted Speed Km/Hr	Day/Night Split %	Medium Trucks %	Heavy Trucks % ¹
NA ²	Freeway, Queensway, Highway	18,333 per lane	100	92/8	7	5
37.5-44.5	6-Lane Urban Arterial-Divided (6 UAD)	50,000	50-80	92/8	7	5
34-37.5	4-Lane Urban Arterial-Divided (4-UAD)	35,000	50-80	92/8	7	5
23-34	4-Lane Urban Arterial-Undivided (4-UAU)	30,000	50-80	92/8	7	5
23-34	4-Lane Major Collector (4-UMCU)	24,000	40-60	92/8	7	5
30-35.5	2-Lane Rural Arterial (2-RAU)	15,000	50-80	92/8	7	5
20-30	2-Lane Urban Arterial (2-UAU)	15,000	50-80	92/8	7	5
20-30	2-Lane Major Collector (2-UMCU)	12,000	40-60	92/8	7	5
30-35.5	2-Lane Outer Rural Arterial (near the extremities of the City) (2-RAU)	10,000	50-80	92/8	7	5
20-30	2-Lane Urban Collector (2-UCU)	8,000	40-50	92/8	7	5

¹ The MOE Vehicle Classification definitions should be used to estimate automobiles, medium trucks and heavy trucks.

 $^{^{2}% \}left(1-1\right) =0$ The number of lanes is determined by the future mature state of the roadway.

Environmental Noise Guideline

Stationary and Transportation Sources – Approval and Planning

Publication NPC-300



Table C-10 Supplementary Indoor Aircraft Noise Limits (Applicable over 24-hour period)

Type of Space	Indoor NEF/NEP*
General offices, reception areas, retail stores, etc.	15
Individual or semi-private offices, conference rooms, etc.	10
Living/dining areas of residences, sleeping quarters of hotels/motels, theatres, libraries, schools, daycare centres, places of worship, etc.	5
Sleeping quarters of residences, hospitals, nursing/retirement homes, etc.	0

^{*} The indoor NEF/NEP values listed in Table C-10 are not obtained from NEF/NEP contour maps. The values are representative of the indoor sound levels and are used as assessment criteria for the evaluation of acoustical insulation requirements.

C7 Noise Control Measures

The following sections provide MOE guidance for appropriate noise control measures. These sections constitute requirements that are applied to MOE approvals for stationary sources. This information is also provided as guidance which land use planning authorities may consider adopting.

The definition in Part A describes the various types and application of noise control measures. All the noise control measures described in the definition are appropriate to address the impact of noise of transportation sources (road, rail and aircraft) on planned sensitive land uses. Only some of the noise control measures described in the definition are appropriate to address the noise impact of stationary sources on planned sensitive land uses.

C7.1 Road Noise Control Measures

C7.1.1 Outdoor Living Areas

If the 16-Hour Equivalent Sound Level, L_{eq} (16) in the OLA is greater than 55 dBA and less than or equal to 60 dBA, noise control measures may be applied to reduce the sound level to 55 dBA. If measures are not provided, prospective purchasers or tenants should be informed of potential noise problems by a warning clause Type A.

If the 16-Hour Equivalent Sound Level, L_{eq} (16) in the OLA is greater than 60 dBA, noise control measures should be implemented to reduce the level to 55 dBA. Only in cases where the required noise control measures are not feasible for technical, economic or administrative reasons would an excess above the limit (55 dBA) be acceptable with a warning clause Type B. In the above situations, any excess above the limit will not be acceptable if it exceeds 5 dBA.

C7.1.2 Plane of a Window – Ventilation Requirements

C7.1.2.1 Daytime Period, 07:00 – 23:00 Hours

Noise control measures may not be required if the $L_{eq}(16)$ daytime sound level in the plane of a bedroom or living/dining room window is less than or equal to 55 dBA. If the sound level in the plane of a bedroom or living/dining room window is greater than 55 dBA and less than or equal to 65 dBA, the dwelling should be designed with a provision for the installation of central air conditioning in the future, at the occupant's discretion. Warning clause Type C is also recommended.

If the daytime sound level in the plane of a bedroom or living/dining room window is greater than 65 dBA, installation of central air conditioning should be implemented with a warning clause Type D. In addition, building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the sound level limits in Table C-2. The location and installation of the outdoor air conditioning device should comply with sound level limits of Publication NPC-216, Reference [32], and guidelines contained in Environmental Noise Guidelines for Installation of Residential Air Conditioning Devices, Reference [6], or should comply with other criteria specified by the municipality.

C7.1.2.2 Nighttime Period, 23:00 - 07:00 Hours

Noise control measures may not be required if the L_{eq} (8) nighttime sound level in the plane of a bedroom or living/dining room window is less than or equal to 50 dBA. If the sound level in the plane of a bedroom or living/dining room window is greater than 50 dBA and less than or equal to 60 dBA, the dwelling should be designed with a provision for the installation of central air conditioning in the future, at the occupant's discretion. Warning clause Type C is also recommended.

If the nighttime sound level in the plane of a bedroom or living/dining room window is greater than 60 dBA, installation of central air conditioning should be implemented, with a warning clause Type D. In addition, building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the sound level limits in Table C-2. The location and installation of the outdoor air conditioning device should comply with sound level limits of Publication NPC-216, Reference [32], and guidelines contained in Environmental Noise Guidelines for Installation of Residential Air Conditioning Devices, Reference [6], or should comply with other criteria specified by the municipality.

C7.1.3 Indoor Living Areas – Building Components

If the nighttime sound level outside the bedroom or living/dining room windows exceeds 60 dBA or the daytime sound level outside the bedroom or living/dining area windows exceeds 65 dBA, building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the

sound level limits in Table C-2. The acoustical performance of the building components (windows, doors and walls) should be specified.

C7.2 Rail Noise Control Measures

C7.2.1 Outdoor Living Areas

Whistle noise is not included in the determination of the outdoor daytime sound level due to railway trains. All the provisions of Section C7.1.1 apply also to noise control requirements for rail noise.

C7.2.2 Plane of a Window – Ventilation Requirements

Whistle noise is not included in the determination of the sound level in the plane of a window. All the provisions of Section C7.1.2 apply also to noise control requirements for rail noise.

C7.2.3 Indoor Living Areas – Building Components

The sound level, L_{eq} , during the daytime (16-hour) and nighttime (8-hour) periods is determined using the prediction method STEAM, Reference [34], immediately outside the dwelling envelope. Whistle noise is included in the determination of the sound level.

If the nighttime sound level outside the bedroom or living/dining room windows exceeds 55 dBA or the daytime sound level outside the bedroom or living/dining area windows exceeds 60 dBA, building components including windows, walls and doors, where applicable, need to be designed so that the indoor sound levels comply with the sound level limits in Table C-2. The acoustical performance of the building components (windows, doors and walls) needs to be specified.

In addition, the exterior walls of the first row of dwellings next to railway tracks are to be built to a minimum of brick veneer or masonry equivalent construction, from the foundation to the rafters when the rail traffic L_{eq} (24-hour), estimated at a location of a nighttime receptor, is greater than 60 dBA, and when the first row of dwellings is within 100 metres of the tracks.

C7.3 Combination of Road and Rail Noise

The noise impact in the OLA and in the plane of a window, and the requirements for outdoor measures, ventilation measures and warning clauses, should be determined by combining road and rail traffic sound levels.

The assessment of the indoor sound levels and the resultant requirement for the acoustical descriptors of the building components should be done separately for road

In Class 4 areas, where windows for noise sensitive spaces are assumed to be closed, the use of central air conditioning may be acceptable if it forms an essential part of the overall building designs.

C7.9 Verification of Noise Control Measures

It is recommended that the implementation of noise control measures be verified by qualified individuals with experience in environmental acoustics.

C8 Warning Clauses

The use of warning clauses or easements in respect of noise are recommended when circumstances warrant. Noise warning clauses may be used to warn of potential annoyance due to an existing source of noise and/or to warn of excesses above the sound level limits. Direction on the use of warning clauses should be included in agreements that are registered on title to the lands in question. The warning clauses would be included in agreements of Offers of Purchase and Sale, lease/rental agreements and condominium declarations. Alternatively, the use of easements in respect of noise may be appropriate in some circumstances. Additional guidance on the use of noise warning clauses is provided in Section C7.1.1, Section C7.1.2.1, Section C7.1.2.2, Section C7.3 and Section C7.4.

C8.1 Transportation Sources

The following warning clauses may be used individually or in combination:

TYPE A: (see Section C7.1.1)

"Purchasers/tenants are advised that sound levels due to increasing road traffic (rail traffic) (air traffic) may occasionally interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment."

TYPE B: (see Section C7.1.1 and Section C7.4)

"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 traffic (rail traffic) (air traffic) may on occasions interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment."

TYPE C: (see Section C7.1.2.1, Section C7.1.2.2 and Section C7.4)

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

TYPE D: (see Section C7.1.2.1, Section C7.1.2.2 and Section C7.4)

"This dwelling unit has been supplied with a central air conditioning system 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 Municipality and the Ministry of the Environment."

C8.2 Stationary Sources

It is not acceptable to use warning clauses in place of physical noise control measures to identify an excess over the MOE sound level limits. Warning clause (Type E) for stationary sources may identify a potential concern due to the proximity of the facility but it is not acceptable to justify exceeding the sound level limits.

TYPE E: (see Section C7.6)

"Purchasers/tenants are advised that due to the proximity of the adjacent industry (facility) (utility), noise from the industry (facility) (utility) may at times be audible."

C8.3 Class 4 Area Notification

TYPE F: (see Section B9.2 and Section C4.4.2)

"Purchasers/tenants are advised that sound levels due to the adjacent industry (facility) (utility) are required to comply with sound level limits that are protective of indoor areas and are based on the assumption that windows and exterior doors are closed. This dwelling unit has been supplied with a ventilation/air conditioning system which will allow windows and exterior doors to remain closed."





Appendix A: Warning Clauses

Under the Official Plan and this guideline warning clauses may be required to be incorporated into development through development agreements, registration on title and inclusion in Agreements of Purchase and Sale. This requirement may be included in any development, regardless of whether it is considered a noise sensitive land use.

A warning clause provides recognition for the City, Province landowner or tenants that noise may be a concern, that noise may be audible at times or even quite loud, and, depending on the type of development, provincial guidelines for noise may be exceeded. Warning clauses also recognize that environmental noise is a potential health hazard that does impact people and neighbourhoods. It is for this reason that, unless a non-noise sensitive land use is established, a warning clause should also include noise mitigation.

A warning clause is not considered a form of noise mitigation. It is not acceptable therefore to use warning clauses in place of physical noise control measures to identify an excess over the MOE or City noise limits. The reason for a warning clause on all development is twofold. Firstly, it is important to note that a land use that although the development may not be considered noise sensitive it may include employees or tenants that are personally sensitive to noise. A warning clause provides protection against complaints to the ministry of Environment should provincial guidelines be exceeded. Secondly, a warning clause on title could obviate the need for a new noise study in the future. In a redevelopment scenario the warning clause would provide recognition of the extent noise conditions.

Given the variation in potential intensity and impact of noise it will often be necessary to amend warning clauses to recognize the site specific conditions in each development. Final wording of any warning clause is to be approved by the City.

The following subsections provide example text to be adapted into warning clauses.





Surface Transportation Warning Clauses

Table A1 Surface Transportation Warning Clauses

Type	Example	Notes
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.	The generic warning clause outlines that MOE sound levels may be exceeded but the indoor environment and outdoor amenity areas are within guidelines.
	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 include: • A setback of buildings from the noise source and • An acoustic barrier.	Mitigation measures are described including urban design features. Mention is also made of landscaping to screen the development visually from the source of noise.
	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	"Purchasers/tenants are advised that despite the inclusion of noise control features in the development and within the building units,	The warning clause makes reference to MOE sound levels

Environmental Noise Control Guidelines Part 4: Technical Requirements For Environmental Noise Control Studies And Implementation

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Table A1 Surface Transportation Warning Clauses

Type Example Notes

outdoor amenity area

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. being exceeded from time to time and that there are sound attenuation features and landscaping within the development that should be maintained.

An option for air conditioning is noted as well as landscaping to screen the source of noise.





Table A1 Surface Transportation Warning Clauses

Type	Example	Notes
	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.	This warning clause notes that only an indoor environment is being provided for.
	To help address the need for sound attenuation this development includes:	
	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	

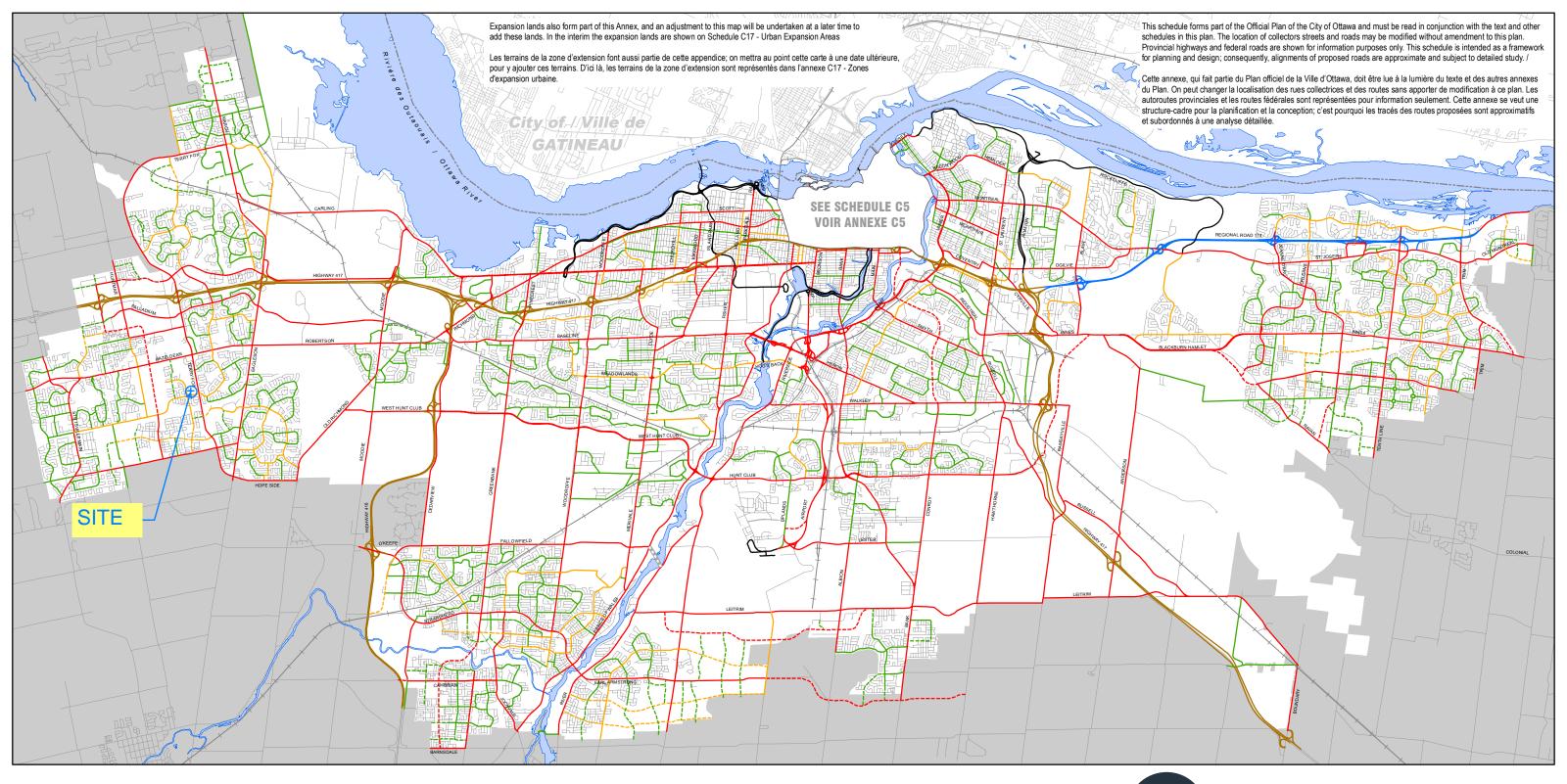
Stationary Source Warning Clauses

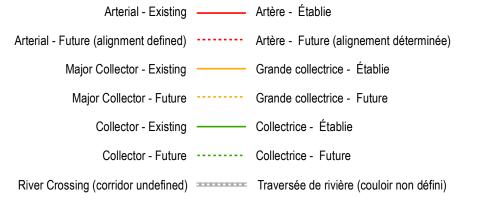
The Province notes that it is not acceptable to use warning clauses in place of physical noise control measures to identify an excess over the MOE sound level limits for stationary sources. The generic warning clause for stationary sources (called Type E in NPC-300) may identify a potential concern due to the proximity of the facility but it is not possible to justify exceeding the sound level limits.

The wording of the generic stationary noise warning clause may also be used as the basis for new development adjacent to areas licensed for mineral aggregate extraction.

Environmental Noise Control Guidelines Part 4: Technical Requirements For Environmental Noise Control Studies And Implementation

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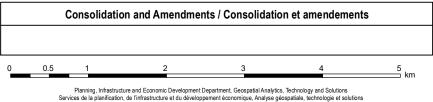




Official Plan / Plan officiel

Schedule C4 - Urban Road Network Annexe C4 Réseau routier urbain

> Approved on November 4, 2022 Approuvé le 4 novembre 2022



APPENDIX C

Acoustic Insulation Factor Tables

Table 6.3 - Acoustic Insulation Factor for Various Types of Exterior Wall

Percentage	of	exte	rior	wall	ar	ea to	o to	tal i	loor	area	of ro	o ôta	Type of
nade of page 11 and complete the Coll streets and	16	20	25	32	40	50	63	80	100	125	160		Exterior Wall
Acoustic	20	20	0.7	5.6	٥٢	0.1			THE OWNER WHITE AN	330 (44)			
Insulation	39	38	37	36	35	34	<u>33</u>	32	31	30	29	_25	EW1
	41	40	39	38	37	36	35	34	33	32	31		EW2
Factor	44	43	42	41	40	39	38	37	36	35	34		EW3
	47	46	45	44	43	42	41	40	39	38	37.		EW4
	48	47	46	45	44	43	42	41	40	39	38		EWIR
	49	48	47	46	45	44	43	42	41	40	39		EW2R
	50	49	48	47	46	45	44	43	42	41	40		EW3R
	55	54	53	52	51	50	49	48	47	46	45		EW5
	56	55	54	53	52	51	50	49	48	47	46		EW4R
	58	57	56	55	54	53	52	51	50	49	48		EW6
	59	58	57	56	55	54	53	52	53	50	49		EW7 or EW5R
	63	62	61	60	59	58	57	56	55	54	53		EW8

Source: National Research Council, Division of Building Research, December 1980. Explanatory Notes :

Where the calculated percentage wall area is not presented as a column heading, the nearest percentage column in the table should be used.

The common structure of walls EWI to EW5 is composed of 12.7 mm gypsum board, vapour barrier, and 38 x 89 mm studs with 50 mm (or thicker) mineral wool or glass fibre batts in inter-stud cavities.

3) EW1 denotes exterior wall as in Note 2), plus sheathing, plus wood siding or metal siding and fibre backer board.

EW2 denotes exterior wall as in Note 2), plus rigid insulation (25-30 mm), and wood siding or metal siding and fibre backer board.

EW3 denotes simulated mansard with structure as in Note 2), plus sheathing, $28 \times 89 \text{ mm}$ framing, sheathing, and asphalt roofing material.

EW4 denotes exterior wall as in Note 2), plus sheathing and 20 mm stucco.

EW5 denotes exterior wall as in Note 2), plus sheathing, 25 mm air space, 100 mm brick veneer.

EW6 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 100 mm back-up block, 100 mm face brick.

EW7 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 140 mm back-up block, 100 mm face brick.

EW8 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 200 mm concrete.

R signifies the mounting of the interior gypsum board on resilient clips.

An exterior wall conforming to rainscreen design principles and composed of 12.7 mm gypsum board, 100 mm concrete block, rigid insulation (25-50 mm), $25~\mathrm{mm}$ air space, and $100~\mathrm{mm}$ brick veneer has the same AIF as EW6.

An exterior wall described in EWl with the addition of rigid insulation (25-50 mm) between the sheathing and the external finish has the same AIF as EW2.

TABLE 12: Approximate conversion from STC to AIF for exterior walls:

Exterior wall area expressed as percentage of room floor area	Acoustic Insulation Factor (AIF)
200	STC-10
160	STC-9
125	STC-8
100	STC-7
80	STC-6
63	STC-5
50	STC-4
40 .	STC-3
32	STC-2
25	STC-1
20	STC
16	STC+1
12.5	STC+2
. 10	STC+3
8	

Note: For area percentages not listed in the table use the nearest listed value.

Example: For a wall whose area = 120% of room floor area and STC = 48 the AIF is 48 - 8 = 40.

STC = AIF+5= 25+1 = 30dBa

Acoustic Insulation Factor for Various Types of Windows TABLE 5:

ing	3ma, 3mm and 6mm glass	ls in mm (5)		34				9,6	6,10	21.9	6,20	6,30	5,40	6,50	6,65	6,80	6,100	
Triple Glazing	3mm, 3mm and 3mm, 3mm, 6mm	Interpene spacings in mm (5)	:				9'9	6,30	6,15	6,20	6,30	6,40	6,50	6,65	6,80	6,100		
אווייא	6mm and 6mm glass						9	13	16	20	24	30	37	50	70	06	100	125
glase thic	Sma and 6mm glass	n mm (3)					vo,	13	16	20	25	32	40	53	7.5	95	310	135
Double glazing of indicated glass thickness	fara and	Interpane spacing in mm		I		49	13	16	20	25	32	40	20	63	08	100	125	150
s glazing of	Jum and Jum glass	Interpan			1 0	13	91	20	25	32	40	50	63	80	100	1.25	1.50	9
Double	Zam and Zam glass		VS	13	15	1,0	22	82	10	42	20	63	90	700	1.25	150		
Single	glazing	Thickness	Zera		Smm	்ஸ்ர், 6மா		9450 (4)		1 Znim (4)								
room (1)	08		. 22	23	24	25	36	72	28	58	30	31	32	33	34	35	36	37
07 70	63		23	*2	25	36	12	28	53	30	Ţ	32	33	34	10	2	37	38
69	50	(2)	23	25	56	27	28	29	30	31	32	33	€D ††	50 50	36	3.1	8	39
20	04	(AIR)	25	56	27	30	53	30	31	32	(F)	34	en In	36	76	33	33	40
flo	32	E IS	26	27.	28	29.	30	31	32	33	36	S S	36	3.7	38	33	60	41
total floor area	23	000	27	82	29	30	31	32	33	34	35	36	33	80	39	40	4,1	42
	2	uo	2	29	30	31	32	33	S.	33	36	37	8	39	40	#	₹ 0	43
6643	16	11at	29	30	31	32	33	60 60	E	36	37	(D)	39	00	41	10	in T	**
percentage of	7	Inst	30	m.	32	33	en en	ED M	S. S.	37	38	39	40	41	2	43	♥	45
e De	2	Agoustic Insulation Factor	31	32	33	3	ED.	36	37	38	39	90	\$	42	43	44	45	46
	ස	Acou	32	33	9	35	36	37	38	39	40	41	18	43	44	4.5	46	8 47
4	9		33	34	60	36	37	36	39	40	2 41	42	43	5 44	5 45	46	3 47	8
Window area as	27		5 34	9	35	37	38	39	1 40	2 1	3 42	8. 43	5 44	6 45	7 46	47	9 48	50 49
Wir			35	36	37	88	39	40	#	42	43	₹	45	46	47	4 00	4	2

Source: National Research Council, Division of Building Research, June 1980.

1) Where the calculated percentage window area is not presented as a column heading, the meanest percentage column in the table values

2) AIF data listed in the table are for well-fitted weatherstripped units that can be opened. The AIF values apply only when the

If the interpance spacing or glass thinkness for a specific Couble glazed window is not listed in the table, the nearest listed windows are closed. For windows fixed and sealed to the frame, add three (3) to the AIF given in the table. Ê

The AIF ratings for 9mm and 12mm glass are for laminated glass unly; for solid glass subtract two (2) from the AIF values listed in the table. 4

If the interpane spacings for a specific triple-glased window are not listed in the table, use the listed case whose combined 25

slightly different performance for some manufacturers' products. If laboratory sound transmission loss date (conforming to ASTM apacings are nearest the actual combined apacing. The AIF data listed in the table are for typical windows, but details of glaus mounting, window seals, etc. may result in test method B-90): are aveilable, these should be used to calculate the Azz. (9

TABLE 11: Approximate conversion from STC to AIF for windows and doors:

Window (or door) area expressed as percentage of room factor (AIF) 80 STC-5 63 STC-4 50 STC-2 32 STC-1 25 STC-1 25 STC+1 16 STC+2 12.5 STC+3 10 STC+5 6.3 STC+5 5 STC+6 5 STC+7 5 STC+8	1		
80 STC-5 63 STC-4 50 STC-3 40 STC-2 32 STC-1 25 STC 20 STC+1 16 STC+2 12.5 STC+3 10 STC+4 8 STC+5 6.3 STC+6 5 STC+7		area expressed as percentage of room	Insulation Factor
	en de la completation de la company de l	80 63 50 40 32 25 20 16 12.5 10 8 6.3	STC-5 STC-4 STC-3 STC-2 STC-1 STC STC+1 STC+2 STC+3 STC+4 STC+5 STC+6 STC+7

Note: For area percentages not listed in the table use the nearest listed value.

Examples: For a window whose area = 20% of the room floor area and STC = 32 the AIF is 32 + 1 = 33.

For a window whose area = 60% of the room floor area and STC = 29 the AIF is 29 - 4 = 25.

STC = AIF+1 = 25+1 = 26dBa

4829 Abbott Street East

APPENDIX D

Sound Level Calculations

STAMSON 5.0 SUMMARY REPORT Date: 19-02-2025 14:40:35

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola1.te Time Period: Day/Night 16/8 hours

Description: Outdoor Amenity Area - OLA1

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

Angle1 Angle2 : -79.00 deg 78.00 deg Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 48.00 / 48.00 m Receiver height : 1.50 / 1.50

Topography : 2 (Flat/gentle slope; with barrier)

: -18.00 deg : 10.50 m Barrier angle1 Angle2 : 78.00 deg

Barrier height

Barrier receiver distance: 10.00 / 10.00 m

Source elevation : 97.50 m Receiver elevation : 97.80 m Barrier elevation : 99.40 m Reference angle : 0.00

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

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000 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 # 2: Abbott (day/night)

Angle1 Angle2 : 78.00 deg 85.00 deg Wood depth : 0 (No woods.)
No of house rows : 1 / 0
Surface : 1 (Absorptive

(Absorptive ground surface)

Receiver source distance : 48.00 / 48.00 m Receiver height : 1.50 / 1.50 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : 81.00 deg Angle2 : 85.00 deg
Barrier height : 6.00 m

2 (Flat/gentle slope; with barrier)

Barrier receiver distance : 3.00 / 3.00 m

Source elevation : 97.50 m Receiver elevation : 97.80 m Barrier elevation : 99.13 m Reference angle : 0.00

Road data, segment # 3: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000 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 # 3: Cranesbill (day/night)

: -90.00 deg -9.00 deg Angle1 Angle2

```
Wood depth : 0 (No woods.)
No of house rows : 2 / 2
House density : 20 %
Surface : 1 (Absorptive
                                         (Absorptive ground surface)
Receiver source distance : 137.00 / 137.00 m
Receiver height : 1.50 / 1.50 m
                                 2 (Flat/gentle slope; with barrier)
Topography
Barrier angle1 : -90.00 deg Angle2 : -13.00 deg Barrier height : 10.50 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation
                        : 97.80 m
Barrier elevation : 99.40 m
                     : 0.00
Reference angle
Road data, segment # 4: Cranesbill (day/night)
_____
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000
    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 # 4: Cranesbill (day/night)
Angle1 Angle2 : -9.00 deg 16.00 deg Wood depth : 0 (No woods
Wood depth :
No of house rows :
                                        (No woods.)
                                 0 / 0
Surface
                         :
                                         (Absorptive ground surface)
                                 1
Receiver source distance : 137.00 / 137.00 m
Receiver height : 1.50 / 1.50 m
Topography : 2 (Flat/gentle slope;
Barrier angle1 : -9.00 deg Angle2 : 16.00 deg
Barrier height : 6.00 m
                                     (Flat/gentle slope; with barrier)
Barrier receiver distance : 105.00 / 105.00 m
Source elevation : 98.50 m
Receiver elevation : 97.80 m
Barrier elevation : 99.08 m
Reference angle : 0.00
```

Road data, segment # 5: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000
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 # 5: Cranesbill (day/night)

Angle1 Angle2 : 16.00 deg 65.00 deg Wood depth : 0 (No woods.)

No of house rows : 1 / 1 House density : 20 %

Surface : 1 (Absorptive ground surface)

Receiver source distance : 137.00 / 137.00 m Receiver height : 1.50 / 1.50 m

Topography : 2 (Flat/gentle slope; with barrier)

Barrier angle1 : 16.00 deg Angle2 : 65.00 deg

Barrier height : 10.50 m

Barrier receiver distance : 3.00 / 3.00 m

Source elevation : 98.50 m Receiver elevation : 97.80 m Barrier elevation : 99.40 m Reference angle : 0.00

♠

Result summary (day)

	!	source	!	Road	!	Total
	!	height	!	Leq	!	Leq
	!	(m)	!	(dBA)	!	(dBA)
1.Abbott	!	1.50	-+- !	53.23	-+- !	53.23
2.Abbott	!	1.50	!	36.16	!	36.16
<pre>3.Cranesbill</pre>	!	1.50	!	37.24	!	37.24
4.Cranesbill	!	1.50	!	31.35	!	31.35

<pre>5.Cranesbill</pre>	!	1.50 !	31.92	! 31.92
	+	+		+
	To	otal		53.48 dBA

Result summary (night)

		source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Abbott 3.Cranesbill 4.Cranesbill 5.Cranesbill	! ! ! !	1.50 1.50 1.50 1.50 1.50	! ! ! !	45.63 29.35 29.64 23.75 24.32	!!!!!!!	45.63 29.35 29.64 23.75 24.32
	T	otal	+-		+-	45.89 dBA

^

TOTAL Leq FROM ALL SOURCES (DAY): 53.48

(NIGHT): 45.89

♠

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STAMSON 5.0 SUMMARY REPORT Date: 31-03-2025 09:21:48

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r11.te Time Period: Day/Night 16/8 hours

Description: R1 - First Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

Angle1 Angle2 : -83.00 deg 87.00 deg Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 19.00 / 19.00 m Receiver height : 1.50 / 1.50

Topography 1 (Flat/gentle slope; no barrier)

Reference angle 0.00

Road data, segment # 2: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

50 km/h Posted speed limit : 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): 12000 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 # 2: Cranesbill (day/night)
-----
Angle1 Angle2 : -90.00 deg -4.00 deg
Wood depth : 0 (No woods.
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive
                                                (No woods.)
                                                  (Absorptive ground surface)
Receiver source distance : 90.00 / 90.00 m
Receiver height : 1.50 / 1.50 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : -90.00 deg Angle2 : -35.00 deg
Barrier height : 6.00 m
                                        2 (Flat/gentle slope; with barrier)
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation : 99.73 m
Barrier elevation : 99.40 m
Reference angle : 0.00
Road data, segment # 3: Cranesbill (day/night)
_____
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000
     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 # 3: Cranesbill (day/night)
-----
Angle1 Angle2 : -4.00 deg 10.00 deg Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive
                                                  (Absorptive ground surface)
Receiver source distance : 90.00 / 90.00 m
Receiver height : 1.50 / 1.50 m
```

```
: 2
: -4.00 deg
Topography
                                        (Flat/gentle slope; with barrier)
Barrier angle1
                                        Angle2 : 10.00 deg
Barrier height
                       : 4.00 m
Barrier receiver distance : 23.00 / 23.00 m
Source elevation : 98.50 m
Receiver elevation : 99.73 m
Barrier elevation : 99.20 m
                     ·
: 0.00
Reference angle
Road data, segment # 4: Cranesbill (day/night)
-----
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000
    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 # 4: Cranesbill (day/night)
-----
Angle1 Angle2 : 10.00 deg 52.00 deg Wood depth : 0 (No woods
Wood depth : 0
No of house rows : 0 / 0
                                        (No woods.)
                                0 / 0
Surface
                                1
                                        (Absorptive ground surface)
Receiver source distance : 90.00 / 90.00 m
Receiver height : 1.50 / 1.50
Topography : 2 (F
Topography : 2 (-1.75)

Barrier angle1 : 10.00 deg Angle2 : 52.00 deg

Barrier height : 6.00 m
                                        (Flat/gentle slope; with barrier)
Barrier receiver distance: 57.00 / 57.00 m
Source elevation : 98.50 m
Receiver elevation : 99.73 m
Barrier elevation : 99.08 m
Reference angle : 0.00
Road data, segment # 5: Cranesbill (day/night)
-----
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
```

Heavy truck volume : 552/48 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): 12000 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 # 5: Cranesbill (day/night)

: 52.00 deg 74.00 deg Angle1 Angle2 Wood depth : 0 : 1 / 1 (No woods.)

No of house rows 1 / 1 No of house rows House density 20 %

Surface 1 (Absorptive ground surface)

Receiver source distance : 90.00 / 90.00 m Receiver height : 1.50 / 1.50

Topography : 2 (Flat/gentle slope; Barrier angle1 : 52.00 deg Angle2 : 74.00 deg Barrier height : 10.50 m (Flat/gentle slope; with barrier) Topography 2

Barrier receiver distance : 3.00 / 3.00 m

Source elevation : 98.50 m Receiver elevation : 99.73 m Barrier elevation : 99.55 m : 99.55 m : 0.00 Reference angle

Result summary (day)

	! ! !	source height (m)	! ! !	Road Leq (dBA)	!!	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill 4.Cranesbill 5.Cranesbill	! ! ! !	1.50 1.50 1.50 1.50 1.50	!!!!!!	64.31 46.29 35.30 36.90 30.26	!!!!!!	64.31 46.29 35.30 36.90 30.26
	+-	 Total	.+-		-+-	64.39 dBA

	! ! !	source ! height ! (m) !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill 4.Cranesbill 5.Cranesbill	!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!	1.50 ! 1.50 ! 1.50 ! 1.50 ! 1.50 !	56.71 38.69 27.70 29.30 22.66	! ! ! !	56.71 38.69 27.70 29.30 22.66
	+-	- Total		-+-	56.79 dBA

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TOTAL Leq FROM ALL SOURCES (DAY): 64.39 (NIGHT): 56.79

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STAMSON 5.0 SUMMARY REPORT Date: 07-03-2025 14:38:06

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r12.te Time Period: Day/Night 16/8 hours

Description: R1 - Second Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

Angle1 Angle2 : -83.00 deg 87.00 deg Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 19.00 / 19.00 m Receiver height : 4.90 / 4.90

Topography 1 (Flat/gentle slope; no barrier)

Reference angle 0.00

Road data, segment # 2: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

50 km/h Posted speed limit : 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): 12000 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 # 2: Cranesbill (day/night)
-----
Angle1 Angle2 : -90.00 deg 10.00 deg Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive)
                                                 (No woods.)
                                                  (Absorptive ground surface)
Receiver source distance : 90.00 / 90.00 m
Receiver height : 4.90 / 4.90 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : -90.00 deg Angle2 : -35.00 deg
Barrier height : 6.00 m
                                         2 (Flat/gentle slope; with barrier)
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation : 99.40 m
Barrier elevation : 99.40 m
Reference angle : 0.00
Road data, segment # 3: Cranesbill (day/night)
_____
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000
     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 # 3: Cranesbill (day/night)
-----
Angle1 Angle2 : 10.00 deg 52.00 deg Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive)
                                                 (No woods.)
                                                   (Absorptive ground surface)
Receiver source distance : 90.00 / 90.00 m
```

Receiver height : 4.90 / 4.90 m

```
: 2
: 10.00 deg
Topography
                                           (Flat/gentle slope; with barrier)
Barrier angle1
                                           Angle2 : 52.00 deg
Barrier height
                        : 6.00 m
Barrier receiver distance : 57.00 / 57.00 m
Source elevation : 98.50 m
Receiver elevation : 99.40 m
Barrier elevation : 99.08 m
Reference angle : 0.00
Road data, segment # 4: Cranesbill (day/night)
-----
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000
    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 # 4: Cranesbill (day/night)
-----
Angle1 Angle2 : 52.00 deg 74.00 deg Wood depth : 0 (No woods
                                           (No woods.)
No of house rows : 1 /
House density : 20 %
Surface : 1
                                 1 / 1
                                           (Absorptive ground surface)
Receiver source distance : 90.00 / 90.00 m
Receiver height : 4.90 / 4.90 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : 52.00 deg Angle2 : 74.00 deg
Barrier height : 10.50 m
                                            (Flat/gentle slope; with barrier)
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation : 99.40 m
Barrier elevation : 99.40 m
Reference angle : 0.00
Result summary (day)
```

	! ! !	source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1 Abbott	+-	1 50	+-	64.57	-+-	64.57
1.Abbott	!	1.50	!	64.57	!	64.57
<pre>2.Cranesbill</pre>	!	1.50	!	49.60	ļ	49.60
<pre>3.Cranesbill</pre>	!	1.50	!	40.00	!	40.00
4.Cranesbill	!	1.50	!	31.14	!	31.14
	+-		+-		-+-	
	64.72 dBA					

Result summary (night)

	! ! !	source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill 4.Cranesbill	!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!	1.50 1.50 1.50 1.50	!!!	56.97 42.00 32.40 23.54	!!!	56.97 42.00 32.40 23.54
	+-	 Total	-+-		-+-	57.12 dBA

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TOTAL Leq FROM ALL SOURCES (DAY): 64.72 (NIGHT): 57.12

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STAMSON 5.0 SUMMARY REPORT Date: 22-05-2025 11:30:40

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r1.te Time Period: Day/Night 16/8 hours

Description: R1 - Third Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000
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: Abbott (day/night)

Angle1 Angle2 : -83.00 deg 87.00 deg Wood depth : 0 (No woods.)

No of house rows : 0 / 0

Surface : 1 (Absorptive ground surface)

Receiver source distance : 19.00 / 19.00 m Receiver height : 8.30 / 8.30 m

Topography : 1 (Flat/gentle slope; no barrier)

Reference angle : 0.00

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Road data, segment # 2: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000 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 # 2: Cranesbill (day/night)
-----
Angle1 Angle2 : -90.00 deg -4.00 deg Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive)
                                                (No woods.)
                                                 (Absorptive ground surface)
Receiver source distance : 90.00 / 90.00 m
Receiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : -90.00 deg Angle2 : -35.00 deg
Barrier height : 6.00 m
                                        2 (Flat/gentle slope; with barrier)
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation : 96.94 m
Barrier elevation : 99.40 m
Reference angle : 0.00
Road data, segment # 3: Cranesbill (day/night)
_____
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000
    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 # 3: Cranesbill (day/night)
-----
Angle1 Angle2 : -4.00 deg 10.00 deg Wood depth : 0 (No woods. No of house rows : 0 / 0 Surface : 1 (Absorptive
                                                (No woods.)
                                                  (Absorptive ground surface)
Receiver source distance : 90.00 / 90.00 m
Receiver height : 8.30 / 8.30 m
```

```
: 2
: -4.00 deg
Topography
                                       (Flat/gentle slope; with barrier)
Barrier angle1
                                       Angle2 : 10.00 deg
Barrier height
                       : 4.00 m
Barrier receiver distance : 23.00 / 23.00 m
Source elevation : 98.50 m
Receiver elevation : 96.94 m
Barrier elevation : 99.20 m
                     ·
: 0.00
Reference angle
Road data, segment # 4: Cranesbill (day/night)
-----
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000
    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 # 4: Cranesbill (day/night)
-----
Angle1 Angle2 : 10.00 deg 52.00 deg Wood depth : 0 (No woods
Wood depth : 0
No of house rows : 0 / 0
                                       (No woods.)
Surface
                               1
                                       (Absorptive ground surface)
Receiver source distance : 90.00 / 90.00 m
Receiver height : 8.30 / 8.30 Topography : 2 (F
Topography : 2 (-1.75)

Barrier angle1 : 10.00 deg Angle2 : 52.00 deg

Barrier height : 6.00 m
                                       (Flat/gentle slope; with barrier)
Barrier receiver distance : 57.00 / 57.00 m
Source elevation : 98.50 m
Receiver elevation : 96.94 m
Barrier elevation : 99.08 m
                     : 99.08 m
: 0.00
Reference angle
Road data, segment # 5: Cranesbill (day/night)
-----
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
```

Heavy truck volume : 552/48 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): 12000 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 # 5: Cranesbill (day/night)

: 52.00 deg 74.00 deg Angle1 Angle2 Wood depth : 0 : 1 / 1 (No woods.)

No of house rows No of house rows House density 20 %

Surface 1 (Absorptive ground surface)

Receiver source distance : 90.00 / 90.00 m Receiver height : 8.30 / 8.30

(Flat/gentle slope; with barrier) Topography 2

Barrier angle1 : 52.00 deg Angle2 : 74.00 deg
Barrier height : 10.50 m

Barrier receiver distance : 3.00 / 3.00 m

Source elevation : 98.50 m Receiver elevation : 96.94 m Barrier elevation : 99.55 m : 99.55 m : 0.00 Reference angle

Result summary (day)

	! ! !	source height (m)	!!!	Road Leq (dBA)	!!!	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill 4.Cranesbill 5.Cranesbill	! ! !	1.50 1.50 1.50 1.50 1.50	! ! !	64.85 50.75 45.08 41.64 31.78	!!!!!!	64.85 50.75 45.08 * 41.64 31.78
		 Total	+-		+-	65.08 dBA

Result summary (night)

	•	source ! height ! (m) !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill 4.Cranesbill 5.Cranesbill	! ! ! !	1.50 ! 1.50 ! 1.50 ! 1.50 ! 1.50 !	57.25 43.15 37.48 34.04 24.18	!	57.25 43.15 37.48 * 34.04 24.18
	+ T	+ otal		-+-	57.48 dBA

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TOTAL Leq FROM ALL SOURCES (DAY): 65.08 (NIGHT): 57.48

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STAMSON 5.0 SUMMARY REPORT Date: 07-03-2025 13:41:55

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r21.te Time Period: Day/Night 16/8 hours

Description: R2 - First Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000
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: Abbott (day/night)

Angle1 Angle2 : -83.00 deg 87.00 deg Wood depth : 0 (No woods.)

No of house rows : 0 / 0

Surface : 1 (Absorptive ground surface)

Receiver source distance : 19.00 / 19.00 m Receiver height : 1.50 / 1.50 m

Topography : 1 (Flat/gentle slope; no barrier)

Reference angle : 0.00

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Road data, segment # 2: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000 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 # 2: Cranesbill (day/night)
-----
Angle1 Angle2 : -90.00 deg -1.00 deg Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive
                                         (Absorptive ground surface)
Receiver source distance : 110.00 / 110.00 m
Receiver height : 1.50 / 1.50 m

Topography : 2 (Flat/gentle slope; with barrier)

Barrier angle1 : -90.00 deg Angle2 : -29.00 deg

Barrier height : 6.00 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation : 99.40 m
Barrier elevation : 99.40 m
Reference angle : 0.00
Result summary (day)
                     ! source ! Road ! Total
                     ! height ! Leq ! Leq
                   ! (m) ! (dBA) ! (dBA)
-----
 1.Abbott ! 1.50 ! 64.31 ! 64.31
2.Cranesbill ! 1.50 ! 44.54 ! 44.54
-----
                                               64.36 dBA
                      Total
Result summary (night)
______
                     ! source ! Road ! Total
                     ! height ! Leq ! Leq
                    ! (m) ! (dBA) ! (dBA)
-----+----+-----
 1.Abbott ! 1.50 ! 56.71 ! 56.71
2.Cranesbill ! 1.50 ! 36.94 ! 36.94
-----
```

56.76 dBA

Total

1

TOTAL Leq FROM ALL SOURCES (DAY): 64.36 (NIGHT): 56.76

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STAMSON 5.0 SUMMARY REPORT Date: 22-05-2025 12:25:19

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r2.te Time Period: Day/Night 16/8 hours

Description: R2 - Third Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

Angle1 Angle2 : -83.00 deg 87.00 deg Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 19.00 / 19.00 m Receiver height : 8.30 / 8.30

Topography 1 (Flat/gentle slope; no barrier)

Reference angle 0.00

Road data, segment # 2: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

50 km/h Posted speed limit : 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): 12000 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 # 2: Cranesbill (day/night)
-----
Angle1 Angle2 : -90.00 deg -1.00 deg Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive
                                         (Absorptive ground surface)
Receiver source distance : 110.00 / 110.00 m
Receiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope; with barrier)

Barrier angle1 : -90.00 deg Angle2 : -29.00 deg

Barrier height : 6.00 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation : 96.94 m
Barrier elevation : 99.40 m
Reference angle : 0.00
Result summary (day)
                     ! source ! Road ! Total
                     ! height ! Leq ! Leq
                   ! (m) ! (dBA) ! (dBA)
-----
 1.Abbott ! 1.50 ! 64.85 ! 64.85
2.Cranesbill ! 1.50 ! 49.79 ! 49.79
-----
                      Total
                                               64.98 dBA
Result summary (night)
______
                     ! source ! Road ! Total
                     ! height ! Leq ! Leq
                    ! (m) ! (dBA) ! (dBA)
-----+----+-----
 1.Abbott ! 1.50 ! 57.25 ! 57.25
2.Cranesbill ! 1.50 ! 42.19 ! 42.19
-----
```

57.38 dBA

Total

TOTAL Leq FROM ALL SOURCES (DAY): 64.98 (NIGHT): 57.38

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STAMSON 5.0 SUMMARY REPORT Date: 07-03-2025 13:52:03

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r31.te Time Period: Day/Night 16/8 hours

Description: R3 - First Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

Angle1 Angle2 : -83.00 deg 87.00 deg Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 19.00 / 19.00 m Receiver height : 1.50 / 1.50

Topography 1 (Flat/gentle slope; no barrier)

Reference angle 0.00

Road data, segment # 2: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

50 km/h Posted speed limit : 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): 12000 Percentage of Annual Growth : 0.00

```
Number of Years of Growth : 0.00 Medium Truck % of Total Volume : 7.00
                                               : 5.00
     Heavy Truck % of Total Volume
     Day (16 hrs) % of Total Volume : 92.00
Data for Segment # 2: Cranesbill (day/night)
-----
Angle1 Angle2 : -90.00 deg -1.00 deg Wood depth : 0 (No woods No of house rows : 1 / 1 House density : 20 % Surface : 1 (Absorptive
                               : 0 (No woods.)
                                                  (Absorptive ground surface)
Receiver source distance : 120.00 / 120.00 m
Receiver height : 1.50 / 1.50 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : -90.00 deg Angle2 : -26.00 deg
Barrier height : 6.00 m
                                         2 (Flat/gentle slope; with barrier)
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation : 99.40 m
Barrier elevation : 99.40 m
Reference angle : 0.00
Road data, segment # 3: Cranesbill (day/night)
-----
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000
     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 # 3: Cranesbill (day/night)
-----
Angle1 Angle2 : -1.00 deg 61.00 deg
Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive
                                              (Absorptive ground surface)
Receiver source distance : 120.00 / 120.00 m
```

```
Receiver height : 1.50 / 1.50 m

Topography : 2 (Flat/gentle slope; with barrier)

Barrier angle1 : -1.00 deg Angle2 : 61.00 deg

Barrier height : 10.50 m
Barrier receiver distance: 10.00 / 10.00 m
Source elevation : 98.50 m
Receiver elevation : 99.40 m
Barrier elevation : 99.40 m
Reference angle : 0.00
Road data, segment # 4: Cranesbill (day/night)
-----
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000
     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 # 4: Cranesbill (day/night)
-----
Angle1 Angle2 : 61.00 deg 69.00 deg Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive
                                  : 0 (No woods.)
                                  :
                                                         (Absorptive ground surface)
Receiver source distance : 120.00 / 120.00 m
Receiver height : 1.50 / 1.50 m

Topography : 2 (Flat/gentle slope; with barrier)

Barrier angle1 : 61.00 deg Angle2 : 69.00 deg

Barrier height : 10.50 m
Barrier receiver distance : 22.00 / 22.00 m
Source elevation : 98.50 m
Receiver elevation : 99.40 m
Barrier elevation : 99.40 m
Reference angle : 0.00
Result summary (day)
```

	! ! !	source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
<pre>1.Abbott 2.Cranesbill 3.Cranesbill 4.Cranesbill</pre>	! ! !	1.50 1.50 1.50 1.50	! ! !	64.31 43.54 33.55 27.17	!	64.31 43.54 33.55 27.17
	+-	Total	+-		-+-	64.35 dBA

↑ Result summary (night)

	! ! !	source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill 4.Cranesbill	!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!	1.50 1.50 1.50 1.50	!!!!!!	56.71 35.94 25.95 19.57	!	56.71 35.94 25.95 19.57
		Total	- + -		-+-	56.75 dBA

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TOTAL Leq FROM ALL SOURCES (DAY): 64.35 (NIGHT): 56.75

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STAMSON 5.0 SUMMARY REPORT Date: 22-05-2025 12:41:28

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r3.te Time Period: Day/Night 16/8 hours

Description: R3 - Third Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000
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: Abbott (day/night)

Angle1 Angle2 : -83.00 deg 87.00 deg Wood depth : 0 (No woods.)

No of house rows : 0 / 0

Surface : 1 (Absorptive ground surface)

Receiver source distance : 19.00 / 19.00 m Receiver height : 8.30 / 8.30 m

Topography : 1 (Flat/gentle slope; no barrier)

Reference angle : 0.00

lack

Road data, segment # 2: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000 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 # 2: Cranesbill (day/night)
-----
Angle1 Angle2 : -90.00 deg -1.00 deg Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive)
                                : 0 (No woods.)
                                                    (Absorptive ground surface)
Receiver source distance : 120.00 / 120.00 m
Receiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : -90.00 deg Angle2 : -26.00 deg
Barrier height : 6.00 m
                                           2 (Flat/gentle slope; with barrier)
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation : 96.71 m
Barrier elevation : 99.40 m
Reference angle : 0.00
Road data, segment # 3: Cranesbill (day/night)
-----
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000
     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 # 3: Cranesbill (day/night)
-----
Angle1 Angle2 : -1.00 deg 61.00 deg
Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive
                                                (Absorptive ground surface)
Receiver source distance : 120.00 / 120.00 m
```

```
Receiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope; with barrier)

Barrier angle1 : -1.00 deg Angle2 : 61.00 deg

Barrier height : 10.50 m
Barrier receiver distance: 10.00 / 10.00 m
Source elevation : 98.50 m
Receiver elevation : 96.71 m
Barrier elevation : 99.40 m
Reference angle : 0.00
Road data, segment # 4: Cranesbill (day/night)
-----
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000
     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 # 4: Cranesbill (day/night)
-----
Angle1 Angle2 : 61.00 deg 69.00 deg Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive)
                                  : 0 (No woods.)
                                                          (Absorptive ground surface)
Receiver source distance : 120.00 / 120.00 m
Receiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : 61.00 deg Angle2 : 69.00 deg
Barrier height : 10.50 m
                                              2 (Flat/gentle slope; with barrier)
Barrier receiver distance : 22.00 / 22.00 m
Source elevation : 98.50 \text{ m} Receiver elevation : 96.71 \text{ m}
Barrier elevation : 99.40 m
Reference angle : 0.00
```

Result summary (day)

	! ! !	source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill 4.Cranesbill	! ! ! !	1.50 1.50 1.50 1.50	!!!!!!	64.85 48.87 35.57 31.33	!!!!!	64.85 48.87 35.57 31.33
	+-	Total	+-		-+-	64.97 dBA

↑ Result summary (night)

	! ! !	source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill 4.Cranesbill	!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!	1.50 1.50 1.50 1.50	! ! !	57.25 41.27 27.97 23.73	! !	57.25 41.27 27.97 23.73
	+-	Total			-+-	57.37 dBA

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TOTAL Leq FROM ALL SOURCES (DAY): 64.97 (NIGHT): 57.37

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STAMSON 5.0 SUMMARY REPORT Date: 25-02-2025 15:58:23

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r41.te Time Period: Day/Night 16/8 hours

Description: R4 - First Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

Angle1 Angle2 : -85.00 deg 88.00 deg Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 19.00 / 19.00 m Receiver height : 1.50 / 1.50

Topography 1 (Flat/gentle slope; no barrier)

Reference angle 0.00

Road data, segment # 2: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

50 km/h Posted speed limit : 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): 12000 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 # 2: Cranesbill (day/night)
-----
Angle1 Angle2 : -90.00 deg -1.00 deg Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive
                                         (Absorptive ground surface)
Receiver source distance : 142.00 / 142.00 m
Receiver height : 1.50 / 1.50 m

Topography : 2 (Flat/gentle slope; with barrier)

Barrier angle1 : -90.00 deg Angle2 : -22.00 deg

Barrier height : 6.00 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation : 99.40 m
Barrier elevation : 99.40 m
Reference angle : 0.00
Result summary (day)
                     ! source ! Road ! Total
                     ! height ! Leq ! Leq
                   ! (m) ! (dBA) ! (dBA)
-----
 1.Abbott ! 1.50 ! 64.33 ! 64.33
2.Cranesbill ! 1.50 ! 41.78 ! 41.78
-----
                                                64.35 dBA
                      Total
Result summary (night)
______
                     ! source ! Road ! Total
                     ! height ! Leq ! Leq
                    ! (m) ! (dBA) ! (dBA)
-----+----+-----
 1.Abbott ! 1.50 ! 56.73 ! 56.73
2.Cranesbill ! 1.50 ! 34.18 ! 34.18
-----
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56.75 dBA

Total

TOTAL Leq FROM ALL SOURCES (DAY): 64.35 (NIGHT): 56.75

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STAMSON 5.0 SUMMARY REPORT Date: 06-03-2025 10:31:00

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r4.te Time Period: Day/Night 16/8 hours

Description: R4 - Third Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

Angle1 Angle2 : -85.00 deg 88.00 deg Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 19.00 / 19.00 m Receiver height : 8.30 / 8.30

Topography 1 (Flat/gentle slope; no barrier)

Reference angle 0.00

Road data, segment # 2: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

50 km/h Posted speed limit : 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): 12000 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
    Heavy Truck % of Total Volume : 5.00 Day (16 hrs) % of Total Volume : 92.00
Data for Segment # 2: Cranesbill (day/night)
-----
Angle1 Angle2 : -90.00 deg -1.00 deg Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive
                                        (Absorptive ground surface)
Receiver source distance : 142.00 / 142.00 m
Receiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : -90.00 deg Angle2 : -22.00 deg
Barrier height : 6.00 m
                                 2 (Flat/gentle slope; with barrier)
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation : 99.40 m
Barrier elevation : 99.40 m
Reference angle : 0.00
Result summary (day)
                    ! source ! Road ! Total
                    ! height ! Leq ! Leq
                   ! (m) ! (dBA) ! (dBA)
-----
 1.Abbott ! 1.50 ! 64.88 ! 64.88
2.Cranesbill ! 1.50 ! 48.25 ! 48.25 *
-----
                                               64.97 dBA
                     Total
  * Bright Zone !
Result summary (night)
_____
                    ! source ! Road ! Total
                    ! height ! Leq ! Leq
                   ! (m) ! (dBA) ! (dBA)
-----
 1.Abbott ! 1.50 ! 57.28 ! 57.28
2.Cranesbill ! 1.50 ! 40.65 ! 40.65 *
-----+----+-----
                      Total
                                                57.37 dBA
```

```
* Bright Zone !

TOTAL Leq FROM ALL SOURCES (DAY): 64.97
(NIGHT): 57.37
```

STAMSON 5.0 SUMMARY REPORT Date: 26-02-2025 10:42:35

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r51.te Time Period: Day/Night 16/8 hours

Description: R5 - First Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000
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: Abbott (day/night)

Angle1 Angle2 : -81.00 deg 0.00 deg Wood depth : 0 (No woods.)

No of house rows : 0 / 0

Surface : 1 (Absorptive ground surface)

Receiver source distance : 38.00 / 38.00 m Receiver height : 1.50 / 1.50 m

Topography : 1 (Flat/gentle slope; no barrier)

Reference angle : 0.00

lack

Road data, segment # 2: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000 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 # 2: Cranesbill (day/night) -----Angle1 Angle2 : 0.00 deg 21.00 deg Wood depth : 0 (No woods No of house rows : 0 / 0 Surface : 1 (Absorptive : 0 (No woods.) (Absorptive ground surface) Receiver source distance : 142.00 / 142.00 m Receiver height : 1.50 / 1.50 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : 0.00 deg Angle2 : 21.00 deg
Barrier height : 6.00 m : 2 (Flat/gentle slope; with barrier) Barrier receiver distance : 109.00 / 109.00 m Source elevation : 98.50 m Receiver elevation : 99.40 m Barrier elevation : 99.08 m Reference angle : 0.00 Road data, segment # 3: Cranesbill (day/night) -----Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000 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 # 3: Cranesbill (day/night) -----Angle1 Angle2 : 21.00 deg 65.00 deg
Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive ground surface)

Receiver source distance : 142.00 / 142.00 m Receiver height : 1.50 / 1.50 m $\,$

: 2 (Flat/gentle slope) : 21.00 deg Angle2 : 65.00 deg Topography (Flat/gentle slope; with barrier) Barrier angle1
Barrier height

: 10.50 m

Barrier receiver distance: 17.00 / 17.00 m

Source elevation : 98.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m Reference angle : 0.00

Result summary (day)

	! ! !	source height (m)	!!!	Road Leq (dBA)	!!!	Total Leq (dBA)	
1.Abbott 2.Cranesbill 3.Cranesbill	! ! !	1.50 1.50 1.50	!	56.23 31.19 31.64	!	56.23 31.19 31.64	
		Total			т-	56.26 dBA	4

56.26 dBA Iotal

Result summary (night)

	! ! !	source height (m)	!!!	Road Leq (dBA)	!!!	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill	! ! !	1.50 1.50 1.50	!	48.63	!!	48.63 23.59 24.04
	+ T	otal	-+-		-+-	48 66 dRA

48.66 dBA Total

TOTAL Leq FROM ALL SOURCES (DAY): 56.26

(NIGHT): 48.66

STAMSON 5.0 SUMMARY REPORT Date: 06-03-2025 11:06:57

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r5.te Time Period: Day/Night 16/8 hours

Description: R5 - Third Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000
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: Abbott (day/night)

Angle1 Angle2 : -81.00 deg 0.00 deg Wood depth : 0 (No woods.)

No of house rows : 0 / 0

Surface : 1 (Absorptive ground surface)

Receiver source distance : 38.00 / 38.00 m Receiver height : 8.30 / 8.30 m

Topography : 1 (Flat/gentle slope; no barrier)

Reference angle : 0.00

lack

Road data, segment # 2: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000 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 # 2: Cranesbill (day/night) -----Angle1 Angle2 : 0.00 deg 21.00 deg Wood depth : 0 (No woods No of house rows : 0 / 0 Surface : 1 (Absorptive : 0 (No woods.) (Absorptive ground surface) Receiver source distance : 142.00 / 142.00 m Receiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : 0.00 deg Angle2 : 21.00 deg
Barrier height : 6.00 m : 2 (Flat/gentle slope; with barrier) Barrier receiver distance : 109.00 / 109.00 m Source elevation : 98.50 m Receiver elevation : 99.40 m Barrier elevation : 99.08 m Reference angle : 0.00 Road data, segment # 3: Cranesbill (day/night) -----Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000 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 # 3: Cranesbill (day/night) -----Angle1 Angle2 : 21.00 deg 65.00 deg
Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive ground surface)

Receiver source distance : 142.00 / 142.00 m Receiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope; Barrier angle1 : 21.00 deg Angle2 : 65.00 deg Barrier height : 10.50 m (Flat/gentle slope; with barrier)

Barrier receiver distance: 17.00 / 17.00 m

Source elevation : 98.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m Reference angle : 0.00

Result summary (day)

	! ! !	source height (m)	!!!	Road Leq (dBA)	!!!	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill	! ! !	1.50 1.50 1.50	-+- ! !	57.36 36.32 40.22	!	57.36 36.32 40.22
		Total				57.48 dBA

Result summary (night)

	! ! !	source height (m)	! ! !	Road Leq (dBA)	!!	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill	! ! !	1.50 1.50 1.50	!!!	49.76 28.73 32.62	!	49.76 28.73 32.62
	+-	Total	-+-		-+-	49.88 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 57.48

(NIGHT): 49.88

STAMSON 5.0 SUMMARY REPORT Date: 06-03-2025 11:31:57

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r6.te Time Period: Day/Night 16/8 hours

Description: R6 - Third Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

0.00 deg Angle1 Angle2 86.00 deg

Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 39.00 / 39.00 m Receiver height : 8.30 / 8.30

Topography 2 (Flat/gentle slope; with barrier)

: 28.00 deg : 10.50 m Barrier angle1 Angle2: 86.00 deg

Barrier height

Barrier receiver distance : 3.00 / 3.00

Source elevation : 97.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m Reference angle : 0.00

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

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 Heavy truck volume : 552/48 veh/TimePeriod * 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): 12000
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 # 2: Cranesbill (day/night)

Angle1 Angle2 : -90.00 deg -63.00 deg Wood depth : 0 (No woods.)

House density :
Surface :
Receiver source 1 / 1 20 %

(Absorptive ground surface) 1

Receiver source distance : 120.00 / 120.00 m Receiver height : 8.30 / 8.30 m

: 2 (Flat/gentle slope; with barrier) : -90.00 deg Angle2 : -63.00 deg : 6.00 m Topography

Barrier angle1

Barrier height

Barrier receiver distance : 3.00 / 3.00 m

Source elevation : 98.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m : 0.00 Reference angle

Road data, segment # 3: Cranesbill (day/night) -----

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000 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 # 3: Cranesbill (day/night) _____

```
Angle1
       Angle2 : -63.00 deg
                                     0.00 deg
Wood depth
                             0
                                     (No woods.)
No of house rows
                             1 / 1
House density
                             20 %
                                     (Absorptive ground surface)
Surface
                             1
Receiver source distance : 120.00 / 120.00 m
Receiver height : 8.30 / 8.30
Topography
                                     (Flat/gentle slope; with barrier)
                     : -63.00 deg
Barrier angle1
                                     Angle2: 0.00 deg
                : 10.50 m
Barrier height
Barrier receiver distance: 10.00 / 10.00 m
Source elevation
                 : 98.50 m
Receiver elevation
                     : 99.40 m
Barrier elevation
                      : 99.40 m
Reference angle
                      : 0.00
Road data, segment # 4: Cranesbill (day/night)
Car traffic volume : 9715/845
                              veh/TimePeriod
Medium truck volume : 773/67
                              veh/TimePeriod *
                    552/48
Heavy truck volume :
                              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): 12000
   Percentage of Annual Growth :
                                      0.00
   Number of Years of Growth
                                      0.00
   Medium Truck % of Total Volume
                                  : 7.00
                                   : 5.00
   Heavy Truck % of Total Volume
   Day (16 hrs) % of Total Volume : 92.00
Data for Segment # 4: Cranesbill (day/night)
       Angle2
Angle1
                           0.00 deg
                                     26.00 deg
Wood depth
                             0
                                     (No woods.)
                             0 / 0
No of house rows
                     :
Surface
                             1
                                     (Absorptive ground surface)
Receiver source distance : 120.00 / 120.00 m
Receiver height : 8.30 / 8.30
                                     (Flat/gentle slope; with barrier)
Topography
                              2
                   : 0.00 deg
                                     Angle2 : 26.00 deg
Barrier angle1
                : 6.00 m
Barrier height
Barrier receiver distance: 88.00 / 88.00 m
Source elevation : 98.50 m
Receiver elevation
                      : 99.40 m
```

: 99.08 m

Barrier elevation

Road data, segment # 5: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000 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 # 5: Cranesbill (day/night)

Angle1 Angle2 : 26.00 deg 68.00 deg Wood depth : 0 (No woods.)

No of house rows : 1 / 1

House density : 20 %

Surface : 1 (Absorptive

(Absorptive ground surface)

Receiver source distance : 120.00 / 120.00 m Receiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope; with barrier)

Barrier angle1 : 26.00 deg Angle2 : 68.00 deg

Barrier height : 10.50 m

Barrier receiver distance: 17.00 / 17.00 m

Source elevation : 98.50 m Receiver elevation : 99.40 m
Barrier elevation : 99.40 m
Reference angle : 0.00

Result summary (day)

	! ! !	source height (m)	!!!	Road Leq (dBA)	!!!	Total Leq (dBA)
1.Abbott 2.Cranesbill	! !	1.50 1.50	!	53.76 42.07	-+- ! !	53.76 42.07
3.Cranesbill	!	1.50	!	40.87	!	40.87

	•	 otal	+	54.54 dBA
	•	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	40.55 !	
4.Cranesbill	!	1.50 !	38.43 !	38.43

Result summary (night)

	! ! !	source ! height ! (m) !	Road Leq (dBA)	!!	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill 4.Cranesbill 5.Cranesbill	! ! ! !	1.50 ! 1.50 ! 1.50 ! 1.50 ! 1.50 !	46.16 34.47 33.27 30.83 32.95	!!!!!	46.16 34.47 * 33.27 30.83 32.95
Total					46.94 dBA

♠

TOTAL Leq FROM ALL SOURCES (DAY): 54.54 (NIGHT): 46.94

♠

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STAMSON 5.0 SUMMARY REPORT Date: 31-03-2025 10:39:49

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r71.te Time Period: Day/Night 16/8 hours

Description: R7 - First Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000 Percentage of Annual Growth : 0.00 Number of Years of Growth 0.00 Medium Truck % of Total Volume Heavy Truck % of Total Volume : 7.00 : 5.00 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Abbott (day/night)

0.00 deg Angle1 Angle2 78.00 deg Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 39.00 / 39.00 m Receiver height : 1.50 / 1.50

Topography : 2 (Flat/gentle slope; with barrier)

: 56.00 deg : 4.00 m Barrier angle1 Angle2 : 78.00 deg

Barrier height

Barrier receiver distance : 7.00 / 7.00

Source elevation : 97.50 m Receiver elevation : 99.73 m Barrier elevation : 99.20 m Reference angle : 0.00

Road data, segment # 2: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 Heavy truck volume : 552/48 veh/TimePeriod * veh/TimePeriod *

Posted speed limit : 50 km/h Road gradient : 1 %

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

```
24 hr Traffic Volume (AADT or SADT): 12000
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 # 2: Abbott (day/night)

Angle1 Angle2 : 78.00 deg 86.00 deg Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive

(Absorptive ground surface)

Receiver source distance : 39.00 / 39.00 m Receiver height : 1.50 / 1.50 m

Topography : 2 (Flat/gentle slope; with barrier)

Barrier angle1 : 81.00 deg Angle2 : 86.00 deg

Barrier height : 6.00 m

Barrier receiver distance : 3.00 / 3.00 m

Source elevation : 98.50 m
Receiver elevation : 99.73 m
Barrier elevation : 99.08 m
Reference angle : 0.00

Road data, segment # 3: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000 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 # 3: Cranesbill (day/night)

Angle1 Angle2 : -90.00 deg -44.00 deg

```
Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive
                                         (Absorptive ground surface)
Receiver source distance : 90.00 / 90.00 m
Receiver height : 1.50 / 1.50 m
                         :
                                 2 (Flat/gentle slope; with barrier)
Topography
Barrier angle1 : -90.00 deg Angle2 : -44.00 deg Barrier height : 6.00 m
Barrier receiver distance: 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation
                         : 99.73 m
Barrier elevation
                        : 99.40 m
                     : 0.00
Reference angle
Road data, segment # 4: Cranesbill (day/night)
_____
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000
    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 # 4: Cranesbill (day/night)
-----
Angle1 Angle2 : -44.00 deg -7.00 deg Wood depth : 0 (No woods
woou depth : 0

No of house rows : 0 / 0

Surface : 1
                                         (No woods.)
                                         (Absorptive ground surface)
Receiver source distance : 90.00 / 90.00 m
Receiver height : 1.50 / 1.50 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : -36.00 deg Angle2 : -13.00 deg
Barrier height : 4.00 m
                                         (Flat/gentle slope; with barrier)
Barrier receiver distance: 25.00 / 25.00 m
Source elevation : 98.50 m
Receiver elevation : 99.73 m
Barrier elevation : 99.20 m
Reference angle : 0.00
```

```
Road data, segment # 5: Cranesbill (day/night)
-----
Car traffic volume : 9715/845 veh/TimePeriod
                   773/67
552/48
Medium truck volume :
                             veh/TimePeriod
Heavy truck volume :
                             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):
   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 # 5: Cranesbill (day/night)
-----
                 : -7.00 deg
       Angle2
Angle1
                                   41.00 deg
Wood depth
                            0
                                   (No woods.)
No of house rows
                            0 / 0
Surface
                                   (Absorptive ground surface)
                            1
Receiver source distance : 90.00 / 90.00 m
Receiver height : 1.50 / 1.50
Topography
                            2
                                   (Flat/gentle slope; with barrier)
                  : -7.00 deg
Barrier angle1
                                   Angle2 : 41.00 deg
Barrier height
                     : 6.00 m
Barrier receiver distance : 57.00 / 57.00 m
Source elevation
                     : 98.50 m
Receiver elevation
                     : 99.73 m
Barrier elevation
                     : 99.08 m
                     : 0.00
Reference angle
Road data, segment # 6: Cranesbill (day/night)
-----
Car traffic volume : 9715/845
                             veh/TimePeriod
Medium truck volume : 773/67
Heavy truck volume : 552/48
                             veh/TimePeriod
                             veh/TimePeriod
Posted speed limit :
                   50 km/h
                     1 %
Road gradient
Road pavement
                      1 (Typical asphalt or concrete)
                :
```

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

24 hr Traffic Volume (AADT or SADT): 12000

```
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 # 6: Cranesbill (day/night)

Angle1 Angle2 : 41.00 deg 73.00 deg Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %

Surface (Absorptive ground surface) 1

Receiver source distance : 90.00 / 90.00 m Receiver height : 1.50 / 1.50 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : 41.00 deg Angle2 : 73.00 deg
Barrier height : 10.50 m

(Flat/gentle slope; with barrier)

Barrier receiver distance : 3.00 / 3.00 m

Source elevation : 98.50 m
Receiver elevation : 99.73 m
Barrier elevation : 99.55 m
Reference angle : 0.00

Result summary (day)

	! ! !	source height (m)	! ! ! +-	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott	!	1.50	!	55.20	!	55.20
2.Abbott	!	1.50	!	38.94	!	38.94
<pre>3.Cranesbill</pre>	!	1.50	İ	35.71	!	35.71
4.Cranesbill	!	1.50	!	44.17	!	44.17
<pre>5.Cranesbill</pre>	!	1.50	İ	37.14	!	37.14
6.Cranesbill	!	1.50	!	31.91	!	31.91
	-+-		+-		+-	

55.75 dBA Total

Result summary (night)

!	source height (m)	!	Leq	!	Leq
:	1.50	:		:	47.61

2.Abbott	!	1.50 !	31.34 !	31.34
<pre>3.Cranesbill</pre>	!	1.50 !	28.11 !	28.11
4.Cranesbill	!	1.50 !	36.57 !	36.57
5.Cranesbill	!	1.50 !	29.54 !	29.54
6.Cranesbill	!	1.50 !	24.31 !	24.31
	+		+	
	To	otal		48.16 dBA

^

TOTAL Leq FROM ALL SOURCES (DAY): 55.75 (NIGHT): 48.16

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STAMSON 5.0 SUMMARY REPORT Date: 06-03-2025 11:36:53

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r7.te Time Period: Day/Night 16/8 hours

Description: R7 - Third Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

0.00 deg Angle1 Angle2 86.00 deg Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 39.00 / 39.00 m Receiver height : 8.30 / 8.30

Topography : 2 (Flat/gentle slope; with barrier)

: 81.00 deg : 6.00 m Barrier angle1 Angle2 : 86.00 deg

Barrier height

Barrier receiver distance : 3.00 / 3.00

Source elevation : 97.50 m Receiver elevation : 99.40 m Barrier elevation : 99.08 m Reference angle : 0.00

Road data, segment # 2: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 Heavy truck volume : 552/48 veh/TimePeriod * veh/TimePeriod *

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

```
24 hr Traffic Volume (AADT or SADT): 12000
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 # 2: Cranesbill (day/night)

```
Angle1 Angle2 : -90.00 deg 7.00 deg
Wood depth
                : 0 (No woods.)
```

Wood depth .
No of house rows :
House density :
Surface : 1 / 1 20 %

1 (Absorptive ground surface)

Receiver source distance : 90.00 / 90.00 m Receiver height : 8.30 / 8.30

: 2 (Flat/gentle slope; with barrier) : -90.00 deg Angle2 : -44.00 deg : 6.00 m Topography

Barrier angle1

Barrier height

Barrier receiver distance : 3.00 / 3.00 m

Source elevation : 98.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m : 0.00 Reference angle

Road data, segment # 3: Cranesbill (day/night) -----

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000 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 # 3: Cranesbill (day/night)
_____
```

```
Angle1
      Angle2 : 7.00 deg
                                    41.00 deg
                                    (No woods.)
Wood depth
                             0
No of house rows
                             0 / 0
Surface
                                    (Absorptive ground surface)
                             1
Receiver source distance : 90.00 / 90.00 m
Receiver height : 8.30 / 8.30 m
                             2 (Flat/gentle slope; with barrier)
Topography
Barrier angle1
                   : 7.00 deg Angle2 : 41.00 deg
                 : 6.00 m
Barrier height
Barrier receiver distance : 57.00 / 57.00 m
Source elevation : 98.50 m
                     : 99.40 m
Receiver elevation
Barrier elevation
                     : 99.08 m
                  : 0.00
Reference angle
Road data, segment # 4: Cranesbill (day/night)
_____
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000
   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 # 4: Cranesbill (day/night)
Angle1 Angle2 : 41.00 deg 73.00 deg
Wood depth
                                    (No woods.)
                          0
No of house rows
                            1 / 1
                          20 %
House density
                     :
Surface
                             1
                                    (Absorptive ground surface)
Receiver source distance : 90.00 / 90.00 m
Receiver height : 8.30 / 8.30
               : 2 (Flat/gentle slope;
: 41.00 deg Angle2 : 73.00 deg
: 10.50 m
                                    (Flat/gentle slope; with barrier)
Topography
Barrier angle1
Barrier height
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation
                     : 99.40 m
```

: 99.40 m

Barrier elevation

Reference angle : 0.00

Result summary (day)

	! ! !	source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill 4.Cranesbill	! ! !	1.50 1.50 1.50 1.50	! ! !	57.31 51.59 42.69 37.74	!!!!	57.31 * 51.59 * 42.69 37.74
		Total	Τ-		т-	58.49 dBA

Result summary (night)

	! ! !	source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill 4.Cranesbill	! ! !	1	!!!!!	49.72 43.99 35.09 30.15	!!	49.72 * 43.99 * 35.09 30.15
		Total	т-		Τ-	50.90 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.49

(NIGHT): 50.90

STAMSON 5.0 SUMMARY REPORT Date: 06-03-2025 12:54:17

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r8.te Time Period: Day/Night 16/8 hours

Description: R8 - Third Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 Percentage of Annual Growth : 0.00 Number of Years of Growth 0.00 Medium Truck % of Total Volume Heavy Truck % of Total Volume : 7.00 : 5.00 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Abbott (day/night)

Angle1 Angle2 : -73.00 deg 17.00 deg Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 82.00 / 82.00 m Receiver height : 8.30 / 8.30

Topography : 2 (Flat/gentle slope; with barrier)

: -16.00 deg : 10.50 m Barrier angle1 Angle2 : 11.00 deg

Barrier height

Barrier receiver distance: 44.00 / 44.00 m

Source elevation : 97.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m Reference angle : 0.00

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

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

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

24 hr Traffic Volume (AADT or SADT): 12000 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 # 2: Abbott (day/night)

Angle1 Angle2 : 17.00 deg 63.00 deg Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive

(Absorptive ground surface)

Receiver source distance : 82.00 / 82.00 m Receiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope; with barrier)

Barrier angle1 : 17.00 deg Angle2 : 43.00 deg

Barrier height : 10.50 m

Barrier receiver distance: 44.00 / 44.00 m

Source elevation : 97.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m Reference angle : 0.00

Road data, segment # 3: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000 Percentage of Annual Growth : 0.00 Number of Years of Growth : 0.00 : 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 # 3: Abbott (day/night) -----

Angle1 Angle2 : 63.00 deg 82.00 deg

```
Wood depth : 0 (No woods.)
No of house rows : 3 / 3
House density
                          20 %
Surface
                      :
                                    (Absorptive ground surface)
                            1
Receiver source distance : 82.00 / 82.00 m
Receiver height : 8.30 / 8.30 m
                     : 2 (Flat/gentle slope; with barrier)
Topography
Barrier angle1 : 63.00 deg Angle2 : 82.00 deg Barrier height : 6.00 m
Barrier receiver distance: 3.00 / 3.00 m
Source elevation : 97.50 m
                     : 99.40 m
Receiver elevation
Barrier elevation
                     : 99.08 m
                  : 0.00
Reference angle
Road data, segment # 4: Cranesbill (day/night)
_____
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000
   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 # 4: Cranesbill (day/night)
_____
Angle1 Angle2 : -90.00 deg -28.00 deg
Wood depth
                                    (No woods.)
                      : 0
No of house rows
                            2 / 2
House density
                            20 %
Surface
                             1
                                    (Absorptive ground surface)
Receiver source distance : 128.00 / 128.00 m
Receiver height : 8.30 / 8.30 m
              : 2 (Flat/gentle slope;
: -90.00 deg Angle2 : -46.00 deg
: 10.50 m
                                    (Flat/gentle slope; with barrier)
Topography
Barrier angle1
Barrier height
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation
                     : 99.40 m
Barrier elevation : 99.40 m
```

Road data, segment # 5: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h Road gradient :

1 %1 (Typical asphalt or concrete) Road pavement

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

24 hr Traffic Volume (AADT or SADT): 12000 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 # 5: Cranesbill (day/night)

Angle1 Angle2 : -28.00 deg -6.00 deg Wood depth : 0 (No woods Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive

: Surface 1 (Absorptive ground surface)

Receiver source distance : 128.00 / 128.00 m Receiver height : 8.30 / 8.30 m

: Topography 2 (Flat/gentle slope; with barrier)

Barrier angle1 : -28.00 deg Angle2 : -6.00 deg
Barrier height : 6.00 m

Barrier receiver distance: 98.00 / 98.00 m

Source elevation : 98.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m : 0.00 Reference angle

Road data, segment # 6: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000
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 # 6: Cranesbill (day/night)

Angle1 Angle2 : -6.00 deg 0.00 deg Wood depth : 0 (No woods.)

No of house rows : 1 /
House density : 20 %
Surface : 1 1 / 1

(Absorptive ground surface)

Receiver source distance : 128.00 / 128.00 m Receiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope Barrier angle1 : -6.00 deg Angle2 : 0.00 deg Barrier height : 10.50 m (Flat/gentle slope; with barrier)

Barrier receiver distance : 62.00 / 62.00 m

Source elevation : 98.50 m Receiver elevation : 99.40 m
Barrier elevation : 99.40 m
Reference angle : 0.00

Result summary (day)

	! ! !	source height (m)	!!!	Road Leq (dBA)	!!!	Total Leq (dBA)	
1.Abbott 2.Abbott 3.Abbott 4.Cranesbill 5.Cranesbill 6.Cranesbill	! ! !	1.50 1.50 1.50 1.50 1.50	! ! ! !	51.56 46.47 40.66 44.01 36.80 28.40	!	51.56 46.47 40.66 44.01 36.80 28.40	*
	+ T	otal	+-		-+-	53.61	dBA

Result summary (night)

!	source	!	Road	!	Total
!	height	!	Leq	!	Leq
!	(m)	!	(dBA)	!	(dBA)

<pre>1.Abbott</pre>	!	1.50 !	43.96 !	43.96
2.Abbott	!	1.50 !	38.87 !	38.87
<pre>3.Abbott</pre>	!	1.50 !	33.06 !	33.06 *
4.Cranesbill	!	1.50 !	36.41 !	36.41
<pre>5.Cranesbill</pre>	!	1.50 !	29.20 !	29.20
<pre>6.Cranesbill</pre>	!	1.50 !	20.80 !	20.80
	+			
	To	otal		46.01 dBA

♠

TOTAL Leq FROM ALL SOURCES (DAY): 53.61 (NIGHT): 46.01

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STAMSON 5.0 SUMMARY REPORT Date: 06-03-2025 13:12:08 MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r9.te Time Period: Day/Night 16/8 hours

Description: R9 - Third Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 Percentage of Annual Growth : 0.00 Number of Years of Growth 0.00 Medium Truck % of Total Volume Heavy Truck % of Total Volume : 7.00 : 5.00 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Abbott (day/night)

Angle1 Angle2 : -74.00 deg -2.00 deg Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 82.00 / 82.00 m Receiver height : 8.30 / 8.30

Topography : 2 (Flat/gentle slope; with barrier)

: -38.00 deg : 10.50 m Barrier angle1 Angle2 : -11.00 deg

Barrier height

Barrier receiver distance: 44.00 / 44.00 m

Source elevation : 97.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m Reference angle : 0.00

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

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

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

24 hr Traffic Volume (AADT or SADT): 12000 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 # 2: Abbott (day/night)

Angle1 Angle2 : -2.00 deg 57.00 deg Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive

(Absorptive ground surface)

Receiver source distance : 82.00 / 82.00 m Receiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope; with barrier)

Barrier angle1 : -2.00 deg Angle2 : 23.00 deg

Barrier height : 10.50 m

Barrier receiver distance: 44.00 / 44.00 m

Source elevation : 97.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m Reference angle : 0.00

Road data, segment # 3: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000 Percentage of Annual Growth : 0.00 Number of Years of Growth : 0.00 : 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 # 3: Abbott (day/night) -----

Angle1 Angle2 : 57.00 deg 82.00 deg

```
Wood depth : 0 (No woods.)
No of house rows : 3 / 3
House density
                           20 %
Surface
                      :
                                    (Absorptive ground surface)
                            1
Receiver source distance : 82.00 / 82.00 m
Receiver height : 8.30 / 8.30 m
                             2 (Flat/gentle slope; with barrier)
Topography
Barrier angle1 : 57.00 deg Angle2 : 82.00 deg Barrier height : 6.00 m
Barrier receiver distance: 3.00 / 3.00 m
Source elevation : 97.50 m
                     : 99.40 m
Receiver elevation
Barrier elevation
                     : 99.08 m
                  : 0.00
Reference angle
Road data, segment # 4: Cranesbill (day/night)
_____
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000
   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 # 4: Cranesbill (day/night)
-----
Angle1 Angle2 : -90.00 deg -68.00 deg
Wood depth
                                    (No woods.)
                      : 0
No of house rows
                            2 / 2
House density
                            20 %
Surface
                             1
                                    (Absorptive ground surface)
Receiver source distance : 107.00 / 107.00 m
Receiver height : 8.30 / 8.30 m
              : 2 (Flat/gentle slope;
: -90.00 deg Angle2 : -68.00 deg
: 10.50 m
                                    (Flat/gentle slope; with barrier)
Topography
Barrier angle1
Barrier height
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation
                     : 99.40 m
Barrier elevation : 99.40 m
```

Road data, segment # 5: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h Road gradient :

1 %1 (Typical asphalt or concrete) Road pavement

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

24 hr Traffic Volume (AADT or SADT): 12000 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 # 5: Cranesbill (day/night)

Angle1 Angle2 : -68.00 deg -34.00 deg Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive

(Absorptive ground surface)

Receiver source distance : 107.00 / 107.00 m Receiver height : 8.30 / 8.30

: 2 (Flat/gentle slope; with barrier) : -68.00 deg Angle2 : -51.00 deg : 6.00 m Topography

Barrier angle1

Barrier height

Barrier receiver distance: 16.00 / 16.00 m

Source elevation : 98.50 m Receiver elevation : 99.40 m Barrier elevation : 99.08 m : 0.00 Reference angle

Road data, segment # 6: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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:

```
Percentage of Annual Growth : 0.00
     Number of Years of 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 # 6: Cranesbill (day/night)
Angle1 Angle2 : -34.00 deg -8.00 deg
. -54.00 deg
...ou uepth : 0
No of house rows : 0 / 1
House density : 20 %
Surface : 1
Receiver come
                                                 (No woods.)
                                                   (Absorptive ground surface)
Receiver source distance : 107.00 / 107.00 m
Receiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : -34.00 deg Angle2 : -8.00 deg
Barrier height : 6.00 m
                                                   (Flat/gentle slope; with barrier)
Barrier receiver distance: 74.00 / 74.00 m
Source elevation : 98.50 m
Receiver elevation : 99.40 m
Barrier elevation : 99.08 m
                            : 0.00
Reference angle
Road data, segment # 7: Cranesbill (day/night)
-----
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *
Posted speed limit : 50 km/h
                             1 %
Road gradient :
Road pavement
                       : 1 (Typical asphalt or concrete)
* Refers to calculated road volumes based on the following input:
     24 hr Traffic Volume (AADT or SADT): 12000
     Percentage of Annual Growth : 0.00
    Medium Truck % of Total Volume : 5.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00
Data for Segment # 7: Cranesbill (day/night)
Angle1 Angle2 : -8.00 deg 0.00 deg Wood depth : 0 (No woods No of house rows : 1 / 1
                                                   (No woods.)
```

24 hr Traffic Volume (AADT or SADT): 12000

House density : 20 % Surface : 1 (Absorptive ground surface)

Receiver source distance : 107.00 / 107.00 m Receiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope; with barrier)

Barrier angle1 : -8.00 deg Angle2 : 0.00 deg

Barrier height : 10.50 m

Barrier receiver distance : 40.00 / 40.00 m

Source elevation : 98.50 m
Receiver elevation : 99.40 m
Barrier elevation : 99.40 m
Reference angle : 0.00

Result summary (day)

	!	source	!	Road	!	Total	
	!	height	!	Leq	!	Leq	
	!	(m)	!	(dBA)	!	(dBA)	
	·+-		-+- ·		+-		
1.Abbott	!	1.50	!	49.91	!	49.91	
<pre>2.Abbott</pre>	!	1.50	!	49.08	ļ	49.08	
<pre>3.Abbott</pre>	!	1.50	!	42.13	!	42.13	*
4.Cranesbill	!	1.50	!	40.01	!	40.01	
<pre>5.Cranesbill</pre>	!	1.50	!	45.98	!	45.98	*
<pre>6.Cranesbill</pre>	!	1.50	!	39.78	!	39.78	
7.Cranesbill	!	1.50	!	30.71	!	30.71	
	+-		-+-		+-		
		Total				54.07	dBA

Result summary (night)

	! ! !	source ! height ! (m) !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott	!	1.50 !	42.31	!	42.31
2.Abbott	!	1.50 !	41.49	!	41.49
3.Abbott	!	1.50 !	34.53	!	34.53 *
4.Cranesbill	!	1.50 !	32.41	!	32.41
5.Cranesbill	!	1.50 !	38.38	!	38.38 *
6.Cranesbill	!	1.50 !	32.18	!	32.18
<pre>7.Cranesbill</pre>	!	1.50 !	23.12	!	23.12
	-+-	+	 	+-	

Total 46.48 dBA TOTAL Leq FROM ALL SOURCES (DAY): 54.07 (NIGHT): 46.48

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STAMSON 5.0 SUMMARY REPORT Date: 07-03-2025 13:31:32

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r10.te Time Period: Day/Night 16/8 hours

Description: R10 - Third Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

Angle1 Angle2 : -72.00 deg 43.00 deg

Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 84.00 / 84.00 m Receiver height : 8.30 / 8.30

Topography : 2 (Flat/gentle slope; with barrier)

: -55.00 deg : 10.50 m Barrier angle1 Angle2 : -9.00 deg

Barrier height

Barrier receiver distance: 45.00 / 45.00 m

Source elevation : 97.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m Reference angle : 0.00

Road data, segment # 2: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

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

24 hr Traffic Volume (AADT or SADT): 12000 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 # 2: Abbott (day/night)

Angle1 Angle2 : 43.00 deg 79.00 deg Wood depth : 0 (No woods.)
No of house rows : 3 / 0
Surface : 1 (Absorptive

(Absorptive ground surface)

Receiver source distance : 84.00 / 84.00 m Receiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope; with barrier)

Barrier angle1 : 43.00 deg Angle2 : 79.00 deg

Barrier height : 6.00 m

Barrier receiver distance : 5.00 / 5.00 m

Source elevation : 97.50 m Receiver elevation : 99.40 m Barrier elevation : 99.08 m Reference angle : 0.00

Road data, segment # 3: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000 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 # 3: Cranesbill (day/night)

Angle1 Angle2 : -90.00 deg -49.00 deg

```
Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive
                                         (Absorptive ground surface)
Receiver source distance : 77.00 / 77.00 m
Receiver height : 8.30 / 8.30 m
                                 2 (Flat/gentle slope; with barrier)
Topography
Barrier angle1 : -90.00 deg Angle2 : -62.00 deg Barrier height : 6.00 m
Barrier receiver distance: 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation
                         : 99.40 m
Barrier elevation
                        : 99.40 m
                     : 0.00
Reference angle
Road data, segment # 4: Cranesbill (day/night)
_____
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000
    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 # 4: Cranesbill (day/night)
-----
Angle1 Angle2 : -49.00 deg -32.00 deg Wood depth : 0 (No woods.)
wood depth :
No of house rows :
Surface :
                                         (No woods.)
                                 0 / 0
                                         (Absorptive ground surface)
                                 1
Receiver source distance : 77.00 / 77.00 m
Receiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : -49.00 deg Angle2 : -32.00 deg
Barrier height : 6.00 m
                                     (Flat/gentle slope; with barrier)
Barrier receiver distance: 45.00 / 45.00 m
Source elevation : 98.50 m
Receiver elevation : 99.40 m
Barrier elevation : 99.08 m
Reference angle : 0.00
```

Road data, segment # 5: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000
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 # 5: Cranesbill (day/night)

Angle1 Angle2 : -32.00 deg 73.00 deg Wood depth : 0 (No woods.)

No of house rows : 1 / 1 House density : 20 %

Surface : 1 (Absorptive ground surface)

Receiver source distance : 77.00 / 77.00 mReceiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope; with barrier)

Barrier angle1 : -32.00 deg Angle2 : 49.00 deg

Barrier height : 10.50 m

Barrier receiver distance: 10.00 / 10.00 m

Source elevation : 98.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m Reference angle : 0.00

•

Result summary (day)

	!!!	source height (m)	!!!	Road Leq (dBA)	!!!	Total Leq (dBA)
1.Abbott	!	1.50	. .	52.11	!	52.11
2.Abbott	!	1.50	!	44.19	!	44.19 *
Cranesbill	!	1.50	!	47.48	!	47.48 *
4.Cranesbill	!	1.50	!	41.46	!	41.46

5.Cranesbill	!	1.50 !	47.51 !	47.51
	+	+		
	To	otal		54.98 dBA

Result summary (night)

	! ! !	source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Abbott 3.Cranesbill 4.Cranesbill 5.Cranesbill	! ! ! !	1.50 1.50 1.50 1.50 1.50	!!!!!!!!	44.51 40.50 39.88 33.86 39.91	!!!!!!	44.51 40.50 * 39.88 * 33.86 39.91
Total						47.88 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 54.98

(NIGHT): 47.88

STAMSON 5.0 SUMMARY REPORT Date: 06-03-2025 13:50:52 MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r112.te Time Period: Day/Night 16/8 hours

Description: R11 - Second Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

Angle1 Angle2 : -77.00 deg 39.00 deg Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 78.00 / 78.00 m Receiver height : 4.90 / 4.90

Topography : 2 (Flat/gentle slope; with barrier)

: -62.00 deg : 10.50 m Barrier angle1 Angle2 : -20.00 deg

Barrier height

Barrier receiver distance: 40.00 / 40.00 m

Source elevation : 97.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m Reference angle : 0.00

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

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

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

```
24 hr Traffic Volume (AADT or SADT): 12000
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 # 2: Abbott (day/night)

```
Angle1 Angle2 : 39.00 deg 82.00 deg
Wood depth
                : 0
                           (No woods.)
```

3 / 3 No of house rows / د 20 % House density

Surface (Absorptive ground surface) 1

Receiver source distance : 78.00 / 78.00 m Receiver height : 4.90 / 4.90

: 2 (Flat/gentle slope; : 39.00 deg Angle2 : 82.00 deg : 6.00 m Topography (Flat/gentle slope; with barrier)

Barrier angle1

Barrier height

Barrier receiver distance : 5.00 / 5.00 m

Source elevation : 97.50 m Receiver elevation : 99.40 m Barrier elevation : 99.08 m : 0.00 Reference angle

Road data, segment # 3: Cranesbill (day/night) -----

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000 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 # 3: Cranesbill (day/night) _____

```
Angle1
       Angle2 : -90.00 deg
                                     -52.00 deg
                             0
                                     (No woods.)
Wood depth
No of house rows
                             1 / 1
House density
                            20 %
                                     (Absorptive ground surface)
Surface
                             1
Receiver source distance : 67.00 / 67.00 m
Receiver height : 4.90 / 4.90
Topography
                                     (Flat/gentle slope; with barrier)
                             2
                     : -90.00 deg
Barrier angle1
                                     Angle2 : -65.00 deg
                : 6.00 m
Barrier height
Barrier receiver distance : 3.00 / 3.00
                                       m
Source elevation
                 : 98.50 m
Receiver elevation
                     : 99.40 m
                      : 99.40 m
Barrier elevation
Reference angle
                      : 0.00
Road data, segment # 4: Cranesbill (day/night)
Car traffic volume : 9715/845
                              veh/TimePeriod
Medium truck volume : 773/67
                              veh/TimePeriod *
                     552/48
Heavy truck volume :
                              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): 12000
   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 # 4: Cranesbill (day/night)
       Angle2
                 : -52.00 deg
Angle1
                                     0.00 deg
Wood depth
                             0
                                     (No woods.)
                             0 / 0
No of house rows
Surface
                             1
                                     (Absorptive ground surface)
Receiver source distance : 77.00 / 77.00 m
Receiver height : 4.90 / 4.90
                                     (Flat/gentle slope; with barrier)
Topography
                             2
                   : -52.00 deg
                                     Angle2: 0.00 deg
Barrier angle1
                : 6.00 m
Barrier height
Barrier receiver distance: 34.00 / 34.00 m
Source elevation : 98.50 m
Receiver elevation
                      : 99.40 m
```

: 99.40 m

Barrier elevation

Reference angle : 0.00

↑ Result summary (day)

	! ! !	source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Abbott 3.Cranesbill 4.Cranesbill	! ! !	1.50 1.50 1.50 1.50	! ! !	32.03	!!!	52.05 44.37 45.97 42.43
Total						53.89 dBA

Result summary (night)

	! ! !	source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Abbott 3.Cranesbill 4.Cranesbill	! ! ! !	1.50	!!!!	44.45 36.77 38.37 34.83	!	44.45 36.77 38.37 34.83
Total					46.29 dBA	

1

TOTAL Leq FROM ALL SOURCES (DAY): 53.89

(NIGHT): 46.29

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STAMSON 5.0 SUMMARY REPORT Date: 06-03-2025 13:47:49

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r11.te Time Period: Day/Night 16/8 hours

Description: R11 - Third Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

Angle1 Angle2 : -77.00 deg 39.00 deg Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 78.00 / 78.00 m Receiver height : 8.30 / 8.30

Topography : 2 (Flat/gentle slope; with barrier)

: -62.00 deg : 10.50 m Barrier angle1 Angle2 : -20.00 deg

Barrier height

Barrier receiver distance: 40.00 / 40.00 m

Source elevation : 97.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m Reference angle : 0.00

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

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

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

```
24 hr Traffic Volume (AADT or SADT): 12000
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 # 2: Abbott (day/night)

```
Angle1 Angle2 : 39.00 deg 82.00 deg
Wood depth
                : 0
                           (No woods.)
```

3 / 3 No of house rows 20 % House density

Surface (Absorptive ground surface) 1

Receiver source distance : 78.00 / 78.00 m Receiver height : 8.30 / 8.30

: 2 (Flat/gentle slope; with barrier) : 39.00 deg Angle2 : 82.00 deg : 6.00 m Topography

Barrier angle1

Barrier height

Barrier receiver distance : 5.00 / 5.00 m

Source elevation : 97.50 m Receiver elevation : 99.40 m Barrier elevation : 99.08 m : 0.00 Reference angle

Road data, segment # 3: Cranesbill (day/night) -----

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000 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 # 3: Cranesbill (day/night)
_____
```

```
Angle1
       Angle2 : -90.00 deg
                                     -52.00 deg
                             0
                                     (No woods.)
Wood depth
No of house rows
                             1 / 1
House density
                            20 %
                                     (Absorptive ground surface)
Surface
                             1
Receiver source distance : 67.00 / 67.00 m
Receiver height : 8.30 / 8.30
Topography
                                     (Flat/gentle slope; with barrier)
                              2
                     : -90.00 deg
Barrier angle1
                                     Angle2 : -65.00 deg
                 : 6.00 m
Barrier height
Barrier receiver distance : 3.00 / 3.00
                                       m
Source elevation
                 : 98.50 m
Receiver elevation
                     : 99.40 m
                      : 99.40 m
Barrier elevation
Reference angle
                      : 0.00
Road data, segment # 4: Cranesbill (day/night)
Car traffic volume : 9715/845
                              veh/TimePeriod
Medium truck volume : 773/67
                              veh/TimePeriod *
                     552/48
Heavy truck volume :
                              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): 12000
   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 # 4: Cranesbill (day/night)
       Angle2
                 : -52.00 deg
Angle1
                                     0.00 deg
Wood depth
                             0
                                     (No woods.)
                             0 / 0
No of house rows
Surface
                             1
                                     (Absorptive ground surface)
Receiver source distance : 77.00 / 77.00 m
Receiver height : 8.30 / 8.30
                                     (Flat/gentle slope; with barrier)
Topography
                             2
                   : -52.00 deg
                                     Angle2: 0.00 deg
Barrier angle1
                : 6.00 m
Barrier height
Barrier receiver distance: 34.00 / 34.00 m
Source elevation : 98.50 m
Receiver elevation
                      : 99.40 m
```

: 99.40 m

Barrier elevation

Reference angle : 0.00

♠ Result summary (day)

	! ! !	source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Abbott 3.Cranesbill 4.Cranesbill	!!!	1.50 1.50 1.50 1.50	! ! !	52.90 45.42 47.88 47.97	!!!!	52.90 45.42 * 47.88 * 47.97
Total						55.49 dBA

Result summary (night)

	! ! !	source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)	
1.Abbott 2.Abbott 3.Cranesbill 4.Cranesbill	! ! !	1.50 1.50 1.50 1.50	!!!	45.30 37.82 40.29 40.37	!!!!	45.30 37.82 40.29 40.37	*
Total						47.89	dBA

1

TOTAL Leq FROM ALL SOURCES (DAY): 55.49 (NIGHT): 47.89

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STAMSON 5.0 SUMMARY REPORT Date: 06-03-2025 14:00:25

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r122.te Time Period: Day/Night 16/8 hours

Description: R12 - Second Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

Angle1 Angle2 : -77.00 deg 18.00 deg Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 78.00 / 78.00 m Receiver height : 4.90 / 4.90

Topography : 2 (Flat/gentle slope; with barrier)

: -68.00 deg : 10.50 m Barrier angle1 Angle2 : -36.00 deg

Barrier height

Barrier receiver distance: 44.00 / 44.00 m

Source elevation : 97.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m Reference angle : 0.00

Road data, segment # 2: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Road pavement : 1 (Typical asphalt or concrete)

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

```
24 hr Traffic Volume (AADT or SADT): 12000
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 # 2: Abbott (day/night)

```
Angle1 Angle2 : 18.00 deg 82.00 deg
Wood depth
                : 0
                           (No woods.)
```

3 / 3 No of house rows / د 20 % House density

Surface (Absorptive ground surface) 1

Receiver source distance : 78.00 / 78.00 m Receiver height : 4.90 / 4.90

: 2 (Flat/gentle slope; : 18.00 deg Angle2 : 82.00 deg : 6.00 m Topography (Flat/gentle slope; with barrier)

Barrier angle1

Barrier height

Barrier receiver distance : 5.00 / 5.00 m

Source elevation : 97.50 m Receiver elevation : 99.40 m Barrier elevation : 99.08 m : 0.00 Reference angle

Road data, segment # 3: Cranesbill (day/night) -----

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000 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 # 3: Cranesbill (day/night) _____

```
Angle1
       Angle2 : -90.00 deg
                                     -74.00 deg
                                     (No woods.)
Wood depth
                             0
No of house rows
                             1 / 1
House density
                            20 %
                                     (Absorptive ground surface)
Surface
                             1
Receiver source distance : 46.00 / 46.00 m
Receiver height : 4.90 / 4.90
Topography
                                     (Flat/gentle slope; with barrier)
                             2
                     : -90.00 deg
Barrier angle1
                                     Angle2 : -74.00 deg
                : 6.00 m
Barrier height
Barrier receiver distance : 3.00 / 3.00
                                       m
Source elevation
                 : 98.50 m
Receiver elevation
                     : 99.40 m
                      : 99.40 m
Barrier elevation
Reference angle
                      : 0.00
Road data, segment # 4: Cranesbill (day/night)
Car traffic volume : 9715/845
                              veh/TimePeriod
Medium truck volume : 773/67
                              veh/TimePeriod *
                     552/48
Heavy truck volume :
                              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): 12000
   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 # 4: Cranesbill (day/night)
       Angle2
                 : -74.00 deg
Angle1
                                     79.00 deg
Wood depth
                             0
                                     (No woods.)
                             0 / 0
No of house rows
Surface
                             1
                                     (Absorptive ground surface)
Receiver source distance : 46.00 / 46.00 m
Receiver height : 4.90 / 4.90
                                     (Flat/gentle slope; with barrier)
Topography
                             2
                   : -74.00 deg
                                     Angle2 : 79.00 deg
Barrier angle1
                : 6.00 m
Barrier height
Barrier receiver distance: 14.00 / 14.00 m
Source elevation : 98.50 m
Receiver elevation
                      : 99.40 m
```

: 99.08 m

Barrier elevation

Reference angle : 0.00

↑ Result summary (day)

	! ! !	source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Abbott 3.Cranesbill 4.Cranesbill	! ! !	1.50 1.50 1.50 1.50	!!!!!!	32.10	!!!!!	51.46 45.92 42.44 50.69
	+-	Total	+-		-+-	54.97 dBA

Result summary (night)

	! ! !	source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Abbott 3.Cranesbill 4.Cranesbill	! ! !	1.50 1.50 1.50 1.50	!!!!	43.86 38.32 34.84 43.09	!!!!	43.86 38.32 34.84 43.09
		Total			т-	47.37 dBA

1

TOTAL Leq FROM ALL SOURCES (DAY): 54.97

(NIGHT): 47.37

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STAMSON 5.0 SUMMARY REPORT Date: 06-03-2025 13:56:56

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r12.te Time Period: Day/Night 16/8 hours

Description: R12 - Third Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

Angle1 Angle2 : -77.00 deg 18.00 deg Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 78.00 / 78.00 m Receiver height : 8.30 / 8.30

Topography 2 (Flat/gentle slope; with barrier)

: -68.00 deg : 10.50 m Barrier angle1 Angle2 : -36.00 deg

Barrier height

Barrier receiver distance: 44.00 / 44.00 m

Source elevation : 97.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m Reference angle : 0.00

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

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000 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 # 2: Abbott (day/night)

Angle1 Angle2 : 18.00 deg 82.00 deg Wood depth : 0 (No woods.)

3 / 3 No of house rows 20 % House density

Surface (Absorptive ground surface) 1

Receiver source distance : 78.00 / 78.00 m Receiver height : 8.30 / 8.30

: 2 (Flat/gentle slope; with barrier) : 18.00 deg Angle2 : 82.00 deg : 6.00 m Topography

Barrier angle1

Barrier height

Barrier receiver distance : 5.00 / 5.00 m

Source elevation : 97.50 m Receiver elevation : 99.40 m Barrier elevation : 99.08 m : 0.00 Reference angle

Road data, segment # 3: Cranesbill (day/night) -----

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000 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 # 3: Cranesbill (day/night) _____

```
Angle1
       Angle2 : -90.00 deg
                                     -74.00 deg
                                     (No woods.)
Wood depth
                             0
No of house rows
                             1 / 1
House density
                            20 %
                                     (Absorptive ground surface)
Surface
                             1
Receiver source distance : 46.00 / 46.00 m
Receiver height : 8.30 / 8.30
Topography
                                     (Flat/gentle slope; with barrier)
                             2
                     : -90.00 deg
Barrier angle1
                                     Angle2 : -74.00 deg
                : 6.00 m
Barrier height
Barrier receiver distance : 3.00 / 3.00
                                       m
Source elevation
                 : 98.50 m
Receiver elevation
                     : 99.40 m
                      : 99.40 m
Barrier elevation
Reference angle
                      : 0.00
Road data, segment # 4: Cranesbill (day/night)
Car traffic volume : 9715/845
                              veh/TimePeriod
Medium truck volume : 773/67
                              veh/TimePeriod *
                     552/48
Heavy truck volume :
                              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): 12000
   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 # 4: Cranesbill (day/night)
       Angle2
                 : -74.00 deg
Angle1
                                     79.00 deg
Wood depth
                             0
                                     (No woods.)
                             0 / 0
No of house rows
Surface
                             1
                                     (Absorptive ground surface)
Receiver source distance : 46.00 / 46.00 m
Receiver height : 8.30 / 8.30
                                     (Flat/gentle slope; with barrier)
Topography
                             2
                   : -74.00 deg
                                     Angle2 : 79.00 deg
Barrier angle1
                : 6.00 m
Barrier height
Barrier receiver distance: 14.00 / 14.00 m
Source elevation : 98.50 m
Receiver elevation
                      : 99.40 m
```

: 99.08 m

Barrier elevation

Reference angle : 0.00

↑ Result summary (day)

	! ! !	source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Abbott 3.Cranesbill 4.Cranesbill	! ! ! !	1.50 1.50 1.50 1.50	! ! !	52.28 47.61 44.84 59.02	! ! !	52.28 47.61 * 44.84 * 59.02 *
		Γotal				60.23 dBA

* Bright Zone !

♠ Result summary (night)

52.63 dBA

Total

* Bright Zone !

TOTAL Leq FROM ALL SOURCES (DAY): 60.23 (NIGHT): 52.63

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SUMMARY REPORT STAMSON 5.0 Date: 06-03-2025 14:08:06

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r132.te Time Period: Day/Night 16/8 hours

Description: R13 - Second Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

: Road pavement 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

Angle1 Angle2 : 0.00 deg 80.00 deg

: 0 (No woods.) Wood depth

No of house rows :
House density :
Surface : 3 / 3 20 %

Surface (Absorptive ground surface) 1

Receiver source distance : 97.00 / 97.00 m Receiver height : 4.90 / 4.90 m

Topography 2 (Flat/gentle slope; with barrier)

Barrier angle1 : 13.00 deg Angle2 : 80.00 deg Barrier height : 6.00 m

Barrier receiver distance: 13.00 / 13.00 m

Source elevation : 97.50 m : 99.40 m Receiver elevation Barrier elevation : 99.08 m Reference angle : 0.00

Road data, segment # 2: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h

Road gradient : Road pavement : 1 %

1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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 # 2: Cranesbill (day/night)

Angle1 Angle2 : -90.00 deg -78.00 deg (No woods.)

Wood depth : 0
No of house rows : 1 / 1
House density : 20 %
Surface : 1

(Absorptive ground surface)

Receiver source distance : 46.00 / 46.00 m Receiver height : 4.90 / 4.90 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : -90.00 deg Angle2 : -78.00 deg
Barrier height : 6.00 m

(Flat/gentle slope; with barrier)

Barrier receiver distance : 3.00 / 3.00 m

Source elevation : 98.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m Reference angle : 0.00

Road data, segment # 3: Cranesbill (day/night) -----

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000 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 # 3: Cranesbill (day/night)

Angle1 Angle2 : -78.00 deg 78.00 deg Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive

1 (Absorptive ground surface)

Receiver source distance : 46.00 / 46.00 m Receiver height : 4.90 / 4.90 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : -78.00 deg Angle2 : 78.00 deg
Barrier height : 6.00 m

(Flat/gentle slope; with barrier)

Barrier receiver distance : 14.00 / 14.00 m

Source elevation : 98.50 m Receiver elevation : 99.40 m Barrier elevation : 99.08 m Reference angle : 0.00

Result summary (day)

	! ! !	source height (m)	!!!	Road Leq (dBA)	!!!	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill	! ! !	1.50 1.50 1.50	-+- ! ! !	46.50 41.31 50.83	-+- ! !	46.50 41.31 50.83
		Total				52.53 dBA

Result summary (night) _____

	! ! !	source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill	!	1.50 1.50 1.50	! ! !	38.90 33.72 43.23		38.90 33.72 43.23
	+-	Total	-+-		-+-	44.94 dBA

TOTAL Leg FROM ALL SOURCES (DAY): 52.53

(NIGHT): 44.94

SUMMARY REPORT Date: 06-03-2025 14:05:24 STAMSON 5.0

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r13.te Time Period: Day/Night 16/8 hours

Description: R13 - Third Floor

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

: Road pavement 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

Angle1 Angle2 : 0.00 deg 80.00 deg

: 0 (No woods.) Wood depth

No of house rows : House density : Surface : 3 / 3 20 %

(Absorptive ground surface) 1

Receiver source distance : 97.00 / 97.00 m Receiver height : 8.30 / 8.30 m

Topography 2 (Flat/gentle slope; with barrier)

Barrier angle1 : 13.00 deg Angle2 : 80.00 deg Barrier height : 6.00 m

Barrier receiver distance: 13.00 / 13.00 m

Source elevation : 97.50 m : 99.40 m Receiver elevation Barrier elevation : 99.08 m Reference angle : 0.00

Road data, segment # 2: Cranesbill (day/night)

-----Car traffic volume : 9715/845 veh/TimePeriod *

Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h

1 %

Road gradient : Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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 # 2: Cranesbill (day/night)

Angle1 Angle2 : -90.00 deg -78.00 deg (No woods.)

Wood depth : 0
No of house rows : 1 / 1
House density : 20 %
Surface : 1

(Absorptive ground surface)

Receiver source distance : 46.00 / 46.00 m Receiver height : 8.30 / 8.30 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : -90.00 deg Angle2 : -78.00 deg
Barrier height : 6.00 m

2 (Flat/gentle slope; with barrier)

Barrier receiver distance : 3.00 / 3.00 m

Source elevation : 98.50 m Receiver elevation : 99.40 m Barrier elevation : 99.40 m Reference angle : 0.00

Road data, segment # 3: Cranesbill (day/night) -----

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000 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 # 3: Cranesbill (day/night)

```
Angle1 Angle2 : -78.00 deg 78.00 deg Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive)
                                                       (No woods.)
                                                        (Absorptive ground surface)
Receiver source distance : 46.00 / 46.00 m
Receiver height : 8.30 / 8.30
Topography : 2 (F
Barrier angle1 : -78.00 deg An
Barrier height : 6.00 m
                                                        (Flat/gentle slope; with barrier)
                                                      Angle2 : 78.00 deg
Barrier receiver distance: 14.00 / 14.00 m
Source elevation : 98.50 m
Receiver elevation : 99.40 m
Barrier elevation : 99.08 m
Reference angle : 0.00
Result summary (day)
                           ! source ! Road ! Total
                           ! height ! Leq ! Leq
                          ! (m) ! (dBA) ! (dBA)

      1.Abbott
      !
      1.50 !
      47.51 !
      47.51 *

      2.Cranesbill
      !
      1.50 !
      43.03 !
      43.03 *

      3.Cranesbill
      !
      1.50 !
      59.07 !
      59.07 *

-----+----
                             Total
                                                                59.46 dBA
   * Bright Zone !
Result summary (night)
                           ! source ! Road ! Total
                           ! height ! Leq ! Leq
                          ! (m) ! (dBA) ! (dBA)
 -----
 1.Abbott ! 1.50 ! 39.91 ! 39.91 * 2.Cranesbill ! 1.50 ! 35.43 ! 35.43 * 3.Cranesbill ! 1.50 ! 51.47 ! 51.47 *
```

51.86 dBA

-----Total

^{*} Bright Zone !

TOTAL Leq FROM ALL SOURCES (DAY): 59.46 (NIGHT): 51.86

STAMSON 5.0 SUMMARY REPORT Date: 27-03-2025 15:42:24

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r14.te Time Period: Day/Night 16/8 hours

Description: R14 - Sales Center 1

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000
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: Abbott (day/night)

Angle1 Angle2 : -85.00 deg 87.00 deg Wood depth : 0 (No woods.)

No of house rows : 0 / 0

Surface : 1 (Absorptive ground surface)

Receiver source distance : 19.00 / 19.00 m Receiver height : 1.50 / 1.50 m

Topography : 1 (Flat/gentle slope; no barrier)

Reference angle : 0.00

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Road data, segment # 2: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000 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 # 2: Cranesbill (day/night)
-----
Angle1 Angle2 : -90.00 deg -63.00 deg Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive
                                                   (No woods.)
                                                     (Absorptive ground surface)
Receiver source distance : 41.00 / 41.00 m
Receiver height : 1.50 / 1.50 m

Topography : 2 (Flat/gentle slope; with barrier)

Barrier angle1 : -90.00 deg Angle2 : -63.00 deg

Barrier height : 6.00 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation : 99.20 m
Barrier elevation : 99.40 m
Reference angle : 0.00
Road data, segment # 3: Cranesbill (day/night)
-----
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000
     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 # 3: Cranesbill (day/night)
-----
Angle1 Angle2 : -63.00 deg 29.00 deg Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive
                                                    (No woods.)
                                                     (Absorptive ground surface)
Receiver source distance : 90.00 / 90.00 m
Receiver height : 1.50 / 1.50 m Topography : 2 (Flat/gentle slope; with barrier)
```

```
Barrier angle1 : -63.00 deg Angle2 : 29.00 deg Barrier height : 2.20 m
Barrier receiver distance : 3.00 / 3.00
Source elevation : 98.50 m
                    : 99.20 m
Receiver elevation
                      : 99.40 m
Barrier elevation
Reference angle
                      : 0.00
Road data, segment # 4: Cranesbill (day/night)
_____
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod *
Heavy truck volume : 552/48 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): 12000
   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
   Number of Years of Growth
   Day (16 hrs) % of Total Volume : 92.00
Data for Segment # 4: Cranesbill (day/night)
-----
Angle1 Angle2 : 29.00 deg
                                    81.00 deg
wood depth : 0
No of house rows : 0 /
Surface : 0
                                      (No woods.)
                              0 / 0
                                      (Absorptive ground surface)
Receiver source distance : 90.00 / 90.00 m
Receiver height : 1.50 / 1.50
               : 2 (Flat/gentle slope;
: 29.00 deg Angle2 : 81.00 deg
: 6.00 m
                              2 (Flat/gentle slope; with barrier)
Topography
Barrier angle1
Barrier height
Barrier receiver distance : 10.00 / 10.00 m
Source elevation
                  : 98.50 m
                     . שכ.טכ m
: 99.20 m
Receiver elevation
Barrier elevation : 99.08
                      : 99.08 m
Result summary (day)
______
                  ! source !
                                Road ! Total
                  ! height ! Leq ! Leq
```

	!	(m)	!	(dBA)	!	(dBA)
1.Abbott	!	_,,,	!	64.32	!	64.32
2.Cranesbill	!		!	38.04	•	38.04
<pre>3.Cranesbill 4.Cranesbill</pre>	: !	1.50 1.50	! !	43.00 36.55	•	43.00 36.55
	+		•			
	Т	otal				64.37 dBA

Result summary (night)

		source height (m)	! ! !	Road Leq (dBA)	! ! !	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill 4.Cranesbill	! ! !	1.50 1.50 1.50 1.50	!!!!!!	56.72 30.45 35.40 28.95	!	56.72 30.45 35.40 28.95
	+ T	otal	- + -		-+-	56.77 dBA

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TOTAL Leq FROM ALL SOURCES (DAY): 64.37 (NIGHT): 56.77

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STAMSON 5.0 SUMMARY REPORT Date: 28-03-2025 10:48:21

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r15.te Time Period: Day/Night 16/8 hours

Description: R15 - Sales Center 2

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

Angle1 Angle2 : -85.00 deg 87.00 deg Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 18.00 / 18.00 m Receiver height : 1.50 / 1.50

Topography 1 (Flat/gentle slope; no barrier)

Reference angle 0.00

Road data, segment # 2: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

50 km/h Posted speed limit : 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): 12000 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 # 2: Cranesbill (day/night)
-----
Angle1 Angle2 : -90.00 deg -52.00 deg Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive
                              : 0 (No woods.)
                                                   (Absorptive ground surface)
Receiver source distance : 55.00 / 55.00 m
Receiver height : 1.50 / 1.50 m

Topography : 2 (Flat/gentle slope; with barrier)

Barrier angle1 : -90.00 deg Angle2 : -52.00 deg

Barrier height : 6.00 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 98.50 m
Receiver elevation : 99.20 m
Barrier elevation : 99.30 m
Reference angle : 0.00
Road data, segment # 3: Cranesbill (day/night)
-----
Car traffic volume : 9715/845 veh/TimePeriod *
Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000
    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 # 3: Cranesbill (day/night)
-----
Angle1 Angle2 : -52.00 deg 0.00 deg Wood depth : 0 (No woods No of house rows : 0 / 0 Surface : 1 (Absorpts
                                                  (No woods.)
                                                   (Absorptive ground surface)
Receiver source distance : 55.00 / 55.00 m
Receiver height : 1.50 / 1.50 m
Topography : 2 (Flat/gentle slope; with barrier)
```

Barrier angle1 : -16.00 deg Angle2 : 0.00 deg Barrier height : 2.20 m

Barrier receiver distance : 3.00 / 3.00 m

Source elevation : 98.50 m
Receiver elevation : 99.20 m
Barrier elevation : 98.66 m
Reference angle : 0.00

Result summary (day)

	! height ! L	doad ! Total .eq ! Leq IBA) ! (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill	! 1.50 ! ! 1.50 ! ! 1.50 !	64.71 ! 64.71 37.44 ! 37.44 51.26 ! 51.26
	Total	64.91 dBA

lotal

Result summary (night)

	! ! !	source height (m)	! ! !	Road Leq (dBA)	!!	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill	! ! !	1.50 1.50 1.50	!!!	29.84	! ! !	57.11 29.84 43.66
		Total	Τ-		т-	57.31 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 64.91

(NIGHT): 57.31

STAMSON 5.0 SUMMARY REPORT Date: 28-03-2025 13:56:55

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r16.te Time Period: Day/Night 16/8 hours

Description: R16 - Sales Center 3

Road data, segment # 1: Abbott (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 veh/TimePeriod *

Posted speed limit : 50 km/h 1 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 12000 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: Abbott (day/night)

Angle1 Angle2 : -84.00 deg 87.00 deg Wood depth 0 (No woods.)

No of house rows 0 / 0

Surface (Absorptive ground surface) 1

Receiver source distance : 23.00 / 23.00 m Receiver height : 1.50 / 1.50

: Topography 2 (Flat/gentle slope; with barrier)

: 56.00 deg : 4.00 m Barrier angle1 Angle2 : 87.00 deg

Barrier height

Barrier receiver distance : 3.00 / 3.00

Source elevation : 97.50 m : 99.20 m Receiver elevation : 99.20 m Barrier elevation Reference angle : 0.00

Road data, segment # 2: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 Heavy truck volume : 552/48 veh/TimePeriod * 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): 12000
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 # 2: Cranesbill (day/night)

Angle1 Angle2 : -90.00 deg -44.00 deg Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive

(Absorptive ground surface)

Receiver source distance : 65.00 / 65.00 m Receiver height : 1.50 / 1.50 m

Topography : 2 (Flat/gentle slope;
Barrier angle1 : -90.00 deg Angle2 : -44.00 deg
Barrier height : 6.00 m

2 (Flat/gentle slope; with barrier)

Barrier receiver distance : 3.00 / 3.00 m

Source elevation : 98.50 m
Receiver elevation : 99.20 m
Barrier elevation : 99.40 m
Reference angle : 0.00

Road data, segment # 3: Cranesbill (day/night)

Car traffic volume : 9715/845 veh/TimePeriod * Medium truck volume : 773/67 veh/TimePeriod * Heavy truck volume : 552/48 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): 12000 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 # 3: Cranesbill (day/night)

: -44.00 deg -33.00 deg Angle1 Angle2

```
Wood depth : 0 (No woods.)

No of house rows : 0 / 0

Surface : 1 (Absorptive ground surface)

Receiver source distance : 65.00 / 65.00 m

Receiver height : 1.50 / 1.50 m

Topography : 2 (Flat/gentle slope; with barrier)

Barrier angle1 : -44.00 deg Angle2 : -41.00 deg

Barrier height : 2.20 m

Barrier receiver distance : 3.00 / 3.00 m

Source elevation : 98.50 m

Receiver elevation : 99.20 m

Barrier elevation : 98.66 m

Reference angle : 0.00
```

T		
Result	summary	(day)

	! ! !	source height (m)	!!!	Road Leq (dBA)	!!!	Total Leq (dBA)
1.Abbott 2.Cranesbill 3.Cranesbill	! ! !	1.50 1.50 1.50	! ! !	36.91	! ! !	62.47 36.91 43.32
		 Total	-+-		-+-	62.53 dBA

Result summary (night)

	!	source	!	Road	!	Total
	!	height	!	Leq	!	Leq
	!	(m)	!	(dBA)	!	(dBA)
1.Abbott	!	1.50		21.07		54.87
2.Cranesbill	!	1.50	!		!	29.31
3.Cranesbill	!	1.50	!		!	35.72
	+-	 Total	-+-		-+-	54.93 dBA

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TOTAL Leq FROM ALL SOURCES (DAY): 62.53 (NIGHT): 54.93

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