

Palladium Resort Development Noise Impact Study (NIS)

2775 & 2785 Palladium Drive, Kanata, Ontario

Palladium Resort Development Limited Partnership

Care of: LRL Associates Limited

Noise Impact Study (NIS) - Revision 01

Reference no. 02631107.000

June 30, 2026



ENGLOBE

Palladium Resort Development Limited Partnership
Care of: LRL Associates Limited
Reference no. 02631107.000

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1 INTRODUCTION

Englobe Corp. (“Englobe”) was engaged by LRL Associates Ltd. (“LRL” or the “Client”), to prepare a Noise Impact Study (“NIS”) for a proposed new resort development (the “Project”), located between Palladium Drive and Culdaff Road (2775 & 2785 Palladium Drive) in Kanata, Ontario. The development will include a 7-storey hotel, a family entertainment centre, as well as an indoor waterpark.

This NIS is intended for submission to the City of Ottawa as part of the Project’s site plan control application. It is understood that the City considers the Project to be both noise sensitive (hotel) and a stationary noise source. Given the proximity of transportation corridors to the Project, the NIS contains an assessment of the impact of road noise on the hotel, as well as an assessment of the impact of on-site equipment noise on the surrounding community.

1.1 Facility Description

The proposed Project will feature a 7-storey hotel (including approximately 236 rooms with a gross floor area of approximately 13,000 m²), a new 2-storey family entertainment centre attached to the hotel (gross floor area of approximately 3,300 m²), a 1-storey support building attached to the entertainment centre (gross floor area of approximately 3,500 m²) and an indoor waterpark attached to both the family entertainment centre and the support building (gross floor area of approximately 6,600 m²). The land is currently vacant. The location of the Project is shown on Figure A1 provided in Appendix A.

The area surrounding the Project is made up of a mix of residential, greenspace and mixed-use land uses: under the new Zoning By-law No. 2026-50, the Project site as well as the land southeast of the Project are zoned IM (Mixed Industrial Zone), the land to the northeast of the Project is zoned NMU (Neighbourhood Mixed-Use Zone), the land southwest of the Project is zoned N3B (Neighbourhood Zone 3), the land west of the Project is zoned GRN (Greenspace Zone) and the land northwest of the Project is zoned DR (Development Reserve Zone). A zoning map is shown on Figure A2 provided in Appendix A.

The Project features a ground surface consisting primarily of grass, and the area south of the buildings consists of a paved parking lot. The topography in the area is considered flat. For the context of this NIS, the Project is assumed to operate 24 hours/day, 7 days/week - however, it is also anticipated that the waterpark and associated infrastructure will generally not be open to the public overnight.

Operations of the Project are not expected to include significant sources of vibration, and therefore a detailed vibration impact assessment is not considered at this time. This assessment considers potential noise impacts only.

The NIS is based on the Site Plan Drawing SP-A01 rev.14, dated 01 June, 2026, as well as Floor Plans A101/2/3 rev.09, each dated 30 March, 2026, prepared by McRobie Architects + Interior Designers. Furthermore, since the Project’s mechanical design is not substantially developed at the time of publishing of this NIS, a Mechanical Drawing Package for a similar project constructed in Grand Prairie, Texas was used, Issued for permit and dated 01 July 2016.

2 PART 1: STATIONARY NOISE SOURCE

Part 1 of this NIS assesses all sources of significant noise emissions located within the Project boundaries.

Predicted noise impacts to nearby noise sensitive land uses are determined based on an operating scenario that would result in predictable worst-case noise emissions from the Project. The operating scenario assessed in this case is a night-time scenario where all rooftop equipment is operating at 100% load, and all southeast-facing packaged terminal air conditioners (PTAC) associated with each southeast-facing hotel room and also operating at 100% load in heating mode (worst-case, louder than cooling mode according to available manufacturer noise level data).

2.1 Noise Sources

Based on the Mechanical Drawing Package for the similar project constructed in Grand Prairie, Texas (see Section 1.1), as well as on input from the Project Mechanical Engineer from LRL, the assumed significant noise sources associated with the Project include those listed in Table 2-1, below. Of note, these are subject to change as the design progresses and are used as a placeholder for the NIS. However, Englobe expects that similar equipment will produce comparable noise results.

Table 2-1: Significant Noise Sources Associated with the Project

Noise Source	Function and/or Label	Manufacturer	Model	Steady, Varying or Impulsive?
Delivery Trucks Idling (x2)	One (1) at northwest loading dock and one (1) at southeast loading dock	Peterbilt	379/385	Steady
Delivery Truck Movement	On-site movements to/from loading docks			
Pool Dehumidification Air Handling Units	Rooftop Pool AHU 1, 2, 3, 4, 5 (60,000 CFM each)	Daikin	CAH032GDGM ¹	Steady
Rooftop Air Handling Units	Rooftop MAU (Hotel) (15,000 CFM)	Daikin	CAH032GDGM	Steady
	Mech Electr AHU 6 (15,000 CFM)		CAH032GDGM	
	Locker Room AHU 7 (5,000 CFM)		CAH014GHGM	
	Office AHU 8 (5,000 CFM)		CAH014GHGM	
	Lobby AHU 9 (15,000 CFM)		CAH032GDGM	
	Family Centre AHU 10 (15,000 CFM)		CAH032GDGM	
	Kitchen AHU 11 (5,000 CFM)		CAH014GHGM	
	Kitchen 2 AHU 12 (5,000 CFM)		CAH014GHGM	
	Restaurant AHU 13 (5,000 CFM)		CAH014GHGM	
Exhaust Fans	Kitchen Exhaust Fan 1	Greenheck	CUE-161-VG	Steady
	Kitchen Exhaust Fan 2		CUE-161-VG	
	General Exhaust Fan 1		GB-121	
	General Exhaust Fan 2		GB-121	
	General Exhaust Fan 3		GB-121	
Packaged Terminal Air Conditioners (PTAC)	Hotel (one per room near window) Heating Mode 128 units included in the NIS	Daikin	RXB09B	Steady

¹ In absence of any available 60,000 CFM noise level data, Englobe used Daikin Model CAH032GDGM AHU Data (15,000 CFM), an increased the levels by 6dB to estimate a 4x increase in CFM (6dB represents a 4x increase in sound energy).

Of note, sources of noise typically assessed for a stationary noise source impact study are defined by the City of Ottawa’s Environmental Noise Control Guidelines “ENCG” [1], which also refers to the Ontario Ministry of the Environment, Conservation and Parks (“MECP”) Publication NPC-300 [2] in its definition. Specifically in NPC-300 [2], it is stated that “noise resulting from gathering of people at facilities such as restaurants, fairs and parks” is *not* considered part of the stationary noise source. As such, noise generated by the people themselves who are using the waterpark was not included in this NIS.

Sound power levels for each of the noise sources listed above, attached as Table B1 in Appendix B, were derived from manufacturer noise level data, attached in Appendix C. The locations of the significant noise sources are shown in Figure D1 in Appendix D.

All significant noise sources marked as “Steady” in Table 2-1 were assumed to be operating steadily and simultaneously to represent a predictable worst-case one-hour time period. For this Project, there are no significant noise sources marked as “Varying” or “Impulsive”.

2.2 Points of Reception

A Point of Reception (“POR”), as defined by ENCG [1], may be located on a property used for residential, noise sensitive commercial, or institutional purposes. All PORs are considered as representing a “plane of window”, unless it is assessed as an Outdoor Living Area (“OLA”, ex: backyard), consistent with the ENCG [1]. The nearest, worst-case PORs/OLAs are listed in Table 2-2, below.

Table 2-2: Worst-Case POR Locations Surrounding the Facility

POR / OLA №	Description	Receptor Height Above Grade [m]
OLA1	Backyard Outdoor Living Area associated with 51 Bermondsey Way	1.5
OLA2	Outdoor Living Area associated with 425 Cudaff Road (northwest side)	1.5
POR1	2-storey residence located at 51 Bermondsey Way	4.5
POR2	3-storey residence located at 2030 Leinster Circle	7.5
POR3	6-storey future residence (approved by City of Ottawa) located at 425 Cudaff Road	16.5
POR4	Future residence (not yet approved by City of Ottawa) located at 2765 Palladium Drive (POR is 4.5m above grade in centre of 1-hectare area, as required by ENCG [1])	4.5

Other nearby noise sensitive land uses are expected to experience lower noise levels than those listed in Table 2-2 due to the increased separation distance from the Project and/or acoustical “shading” due to obstructions (ie. other residential buildings). The locations of the PORs relative to the Project are shown in Figure D2 in Appendix D.

2.3 Applicable Noise Level Limits

The applicable guideline noise level limits used for this Project are contained in the City of Ottawa’s ENCG [1].

For steady and varying noise, the ENCG [1] states that the one-hour equivalent noise levels (“ $L_{EQ(1hr)}$ ”) from stationary noise sources shall not exceed the higher of either the background noise level or the limits presented in Table 2-3, below.

Table 2-3: Applicable $L_{EQ(1hr)}$ Noise Level Limits from the ENCG [1] for Steady and Varying Sounds

Outdoor Points of Receptions (OLA)			
Time of Day	Class 1 Area [dBA]	Class 2 Area [dBA]	Class 3 Area [dBA]
07:00 - 19:00	50	50	45
19:00 - 23:00	50	45	40
Plane of Window of Noise Sensitive Spaces			
Time of Day	Class 1 Area [dBA]	Class 2 Area [dBA]	Class 3 Area [dBA]
07:00 - 19:00	50	50	45
19:00 - 23:00	50	50	40
23:00 - 07:00	45	45	40

The area classification is considered to be Class 1 as defined in the ENCG [1], described as an area with an acoustical environment typical of a major population centre, where the background noise level is dominated by the activities of people, usually road traffic.

As outlined in Section 1.1, noise sources associated with the Project may be expected to operate in a worst-case condition during night-time hours - as such, assessment of compliance in the context of this NIS was undertaken for the night-time period only, assuming all significant noise sources listed in Table 2-1 are operating concurrently (including delivery trucks to account for the possibility of early-morning deliveries before 7am). For plane of window PORs, a noise level limit of 45 dBA is therefore used for this NIS, corresponding to a Class 1, night-time limit.

Per the ENCG [1], OLAs are not assessed over night-time periods. As such, for backyard OLAs, a noise level limit of 50 dBA is used for this NIS, corresponding to a Class 1, daytime limit.

2.4 Modelling and Results

2.4.1 Modelling Methodology and Assumptions

An acoustic model of the facility was prepared using *CadnaA* by Datakustik (Version 2026 MR1). The *CadnaA* program calculates noise levels surrounding a facility according to the ISO standard 9613-2, “Acoustics - Attenuation of Sound during Propagation Outdoors” [3]. The following parameters were used in the acoustic model:

- Grassy areas and fields assigned a default ground absorption of 0.90;
- The Project’s parking lot and surrounding roads are assumed to be acoustically reflective (ground absorption of 0.00);
- Maximum order of reflection of 3;
- Temperature of 10°C and relative humidity of 70%;
- Each significant piece of equipment was modelled as a point source, except for the delivery truck movements, which were modelled as a “moving point source” along a defined path, with a travel speed of 30 km/h. Four (4) trucks per hour were assumed as a worst-case scenario, resulting in one delivery truck driving to each loading once every 15-minutes in a worst-case hour;
- Topography in the area of the assessment was modelled as flat;

Sample outputs and parameters are attached as Appendix E, for reference.

2.5 Assessment Results

Predicted noise impacts at each POR are summarized in Table 2-4, with the resulting noise level plot provided as Figures D2 in Appendix D. A partial levels table is provided as part of the CadnaA outputs contained in Appendix E.

Table 2-4: Predicted Noise Levels and Resulting Compliance Review

POR No.	Location	POR Type	Predicted Noise Impact (dBA)	Noise Level Limit (dBA)	Compliant? (Y or N)
OLA1	51 Bermondsey Way (yard)	Residential	42	50	Y
OLA2	425 Culdaff Road (amenity)	Residential	46	50	Y
POR1	51 Bermondsey Way	Residential	42	45	Y
POR2	2030 Leinster Circle	Residential	36	45	Y
POR3	425 Culdaff Road	Residential	48	45	N
POR4	2765 Palladium Drive	Residential	49	45	N

Based on the results above, noise mitigation measures are required to address exceedances at POR3 and POR4. For both locations, the most significant noise source is the idling delivery truck located near the Project's southeastern loading area. As such, Englobe proposes two potential mitigation scenarios:

- Installation of a minimum 3.0m tall noise barrier around the Project's loading area, as depicted in Figure D3 in Appendix D. Noise barriers must have a minimum surface density of 20 kg/m². Additionally, noise barriers must be structurally sound, appropriately designed to withstand wind and snow loads, and constructed without cracks or surface gaps. Any gaps under the barrier that are necessary for drainage purposes should be minimized and localized so that the acoustical performance of the barrier is maintained. Noise barrier shall feature gate which shall be kept closed while truck is loading/unloading.

OR

- Implementation of a no-idling policy for all delivery trucks associated with the Project.

Predicted mitigated noise impacts at each POR are summarized in Table 2-5, with the resulting noise level plot provided as Figures D3 and D4 in Appendix D.

Table 2-5: Predicted Mitigated Noise Levels and Resulting Compliance Review

POR No.	Location	POR Type	Predicted Noise Impact (dBA) Barrier / No-Idling	Noise Level Limit (dBA)	Compliant? (Y or N)
OLA1	51 Bermondsey Way (yard)	Residential	35 / 34	50	Y / Y
OLA2	425 Culdaff Road (amenity)	Residential	41 / 39	50	Y / Y
POR1	51 Bermondsey Way	Residential	35 / 35	45	Y / Y
POR2	2030 Leinster Circle	Residential	32 / 25	45	Y / Y
POR3	425 Culdaff Road	Residential	44 / 39	45	Y / Y
POR4	2765 Palladium Drive	Residential	43 / 34	45	Y / Y

Based on the results above, both proposed mitigation solutions are predicted to result in compliance with the applicable noise level limits.

3 **PART 2: TRANSPORTATION CORRIDOR NOISE IMPACT**

As per the City of Ottawa’s ENCG [1], the following transportation corridor is assessed as part of this NIS due to its roadway classification and proximity to the Project:

- Highway 417

Of note, there are no rail corridors in proximity to the Project. Additionally, Palladium Drive, classified by the City of Ottawa as an arterial roadway, was not included as part of the NIS due to it being located outside of the 100m-or-less separation distance provided in the ENCG [1] for arterial roads (the Site Plan shows Palladium Drive as over 140m from the Project’s noise sensitive hotel).

A site visit was undertaken by Englobe staff on 02 June, 2026 in order to identify potentially significant stationary noise sources impacting the Project. No significant stationary noise sources were identified during the site visit.

3.1 Source(s) - Road Traffic Parameters

Annual Average Daily Traffic (AADT) values for Highway 417 (classified as a “Provincial Highway” road type by the City of Ottawa’s Transportation Master Plan) contained in Appendix B of the ENCG [1] were used for this NIS, along with the corresponding day/night traffic split and medium/heavy truck percentages, as summarized in Table 3-1, below.

Table 3-1: Road Traffic Data Summary

Road Segment	AADT	Day/Night %	Medium Trucks	Heavy Trucks	Speed Limit	Road Gradient
Highway 417 (Eastbound)	54,999	92 % / 8 %	7 %	5 %	110 km/h	0 %
Highway 417 (Westbound)	54,999	92 % / 8 %	7 %	5 %	110 km/h	0 %
Highway 417 Off-ramp (Eastbound)	18,333	92 % / 8 %	7 %	5 %	60 km/h	0 %
Highway 417 On-ramp (Eastbound)	18,333	92 % / 8 %	7 %	5 %	40 km/h	0 %

3.2 Critical Point(s) of Reception

Critical Points of Reception (POR) are receptors (located at the building’s plane-of-window for this Project), which are most impacted by the transportation corridor noise sources identified in this NIS. For this Project, two critical PORs exist:

- Hotel sleeping quarters facing Highway 417 (facing northwest);
- Conference room (ground level of hotel, west side).

The POR locations are shown in Figure F1, Appendix F, and summarized in Table 3-2.

Table 3-2: Critical Point(s) of Reception – Transportation Corridor Noise

Point of Reception	Location Description	POR Estimated Height Above Grade (m)
POR A	Northwest façade of the hotel facing Highway 417 (near northernmost corner) on the 7 th Floor.	19.5
POR B	Northwest façade of the hotel facing Highway 417 (near westernmost corner) on the Ground Floor.	1.5

3.3 Noise Level Criteria – Roads

The ENCG [1] provides guidelines for road traffic noise impacting sensitive developments, including noise level criteria.

3.3.1 Outdoor Noise Level Criterion

The ENCG [1] does not call for the evaluation of traffic noise impacting an outdoor amenity area associated with hotel developments.

3.3.2 Indoor Noise Level Criteria

The applicable indoor noise level criteria adopted by the ENCG [1] for road sources are given in Table 3-3, below. These are noise level limits contained in Table 2.2c of the ENCG [1].

Table 3-3: ENCG [1] Indoor Noise Level Limit – Road Noise

Type of Space	Time Period	Noise Level Limit ($L_{EQ(t)}$)
Conference Rooms	Daytime (07h00 to 23h00)	45 dBA
Sleeping Quarters of Hotels	Night-time (23h00 to 07h00 next day)	45 dBA

In addition to the noise level criteria shown in Table 3-3, the ENCG [1] indicates that noise control measures shall be developed according to NPC-300 [2]. The requirements pertaining to noise control measures given in NPC-300 [2] vary depending on the plane-of-window (outdoor) noise level, as shown in Table 3-4 and Table 3-5.

Table 3-4: NPC-300 [2] Minimum Ventilation and Warning Clause Requirements – Road Noise

Point of Assessment	Noise Level ($L_{EQ(t)}$)	Ventilation Requirements	Warning Clause
Conference Room plane-of-window ¹ Daytime (07h00 to 23h00) AND Hotel Sleeping Quarters plane-of-window ¹	$55 \text{ dBA} < L_{EQ(t)} \leq 65 \text{ dBA}$	Forced-air heating with provision for central air conditioning	Type C
Night-time (23h00 to 07h00 next day)	$65 \text{ dBA} < L_{EQ(t)}$	Central air conditioning	Type D

² Adapted from Section C7.1 of NPC-300 [2], using space types and relative noise level limits provided for supplementary noise level limits provided in Table 2.2b/c of the ENCG [1].

Table 3-5: NPC-300 [2] Minimum Building Component Requirements - Road Noise

Point of Assessment	Noise Level ($L_{EQ(t)}$)	Building Façade Requirements
Conference Room plane-of-window ¹ Daytime (07h00 to 23h00) AND Hotel Sleeping Quarters plane-of-window ¹ Night-time (23h00 to 07h00 next day)	$L_{EQ(t)} \leq 65 \text{ dBA}$	Building façade constructions compliant with the Ontario Building Code (OBC)
	$65 \text{ dBA} < L_{EQ(t)}$	Building façade constructions shall be designed such that the indoor noise level criteria are achieved

¹ Adapted from Section C7.1 of NPC-300 [2], using space types and relative noise level limits provided for supplementary noise level limits provided in Table 2.2b/c of the ENCG [1].

3.4 Noise Level Calculations

Noise level calculations were performed using TNM 3.1, the traffic noise prediction software package developed by US Federal Highway Administration and currently accepted by the MECP. The intermediate terrain between the sources and receivers was modelled as “field grass” in TNM.

Figure F1, Appendix F, shows the source-receiver distances and exposure angles for the POR. Calculation results are given in Table 3-6. Detailed results are provided in Appendix G.

Table 3-6: Calculated Noise Levels Due to Transportation Corridor Noise Sources

Point of Reception	Software Package Used	Calculated Sound Pressure Level (dBA) - Road Noise	
		Daytime (07h00 to 23h00)	Night-time (23h00 to 07h00)
POR A	TNM 3.1	N/A	53
POR B	TNM 3.1	50	N/A

3.5 Noise Control Recommendations - Transportation Corridors

Given the calculated noise levels in Table 3-6, noise control measures are recommended in order to comply with the noise level criteria given in Section 3.3. The noise control measures are discussed in the following section and summarized in Table 3-7.

Table 3-7: Summary of Recommended Noise Control Measures

Point of Reception	Noise Barrier?	Ventilation Requirements	Building Component Requirements	Warning Clause
POR A	N/A	None	Compliant with OBC	None
POR B	N/A	None	Compliant with OBC	None

3.5.1 Ventilation Requirements

Per Table 3-6, noise levels at POR A and B are expected to be below 55 dBA during night-time and daytime hours, respectively. Therefore, as outlined in Table 3-4, no ventilation or warning clause requirements are required for the proposed Project.

3.5.2 Building Component Requirements

Per Table 3-6, noise levels at POR A and B are expected to be less than (or equal to) 65 dBA during night-time and daytime hours, respectively. Therefore, as outlined in Table 3-5, building façade constructions (including exterior walls and windows) compliant with the OBC are expected to achieve the indoor noise levels required for all northwest-facing rooms.

4 CLOSURE

Based on a review of the information provided and the predicted noise levels, recommendations for noise mitigation measures have been made. With the implementation of the recommendations, we trust the foregoing will satisfy the requirements contained in the ENCG [1] and NPC-300 [2].

Yours very truly,

Englobe Corp.



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Senior Engineer - Acoustics

STATEMENT OF LIMITATIONS

The Statement of Limitations enclosed as Appendix H of this report forms an integral part of the Report.

5 REFERENCES

- [1] “Environmental Noise Control Guideline ”, City of Ottawa, 2016-2017
- [2] “Environmental Noise Guideline - Stationary and Transportation Sources - Approval and Planning”, Ontario Ministry of the Environment, Conservation and Parks, Publication NPC-300, August 2013 (Updated September 2021), PIBS 9588E
- [3] “Acoustics - Attenuation of Sound During Propagation Outdoors - Part 2: General Method of Calculation”, ISO 9613-2:1996.

Appendix A: Stationary Noise Source NIS Site and Process Figures

Figure A1: Project Location

Figure A2: Zoning Map



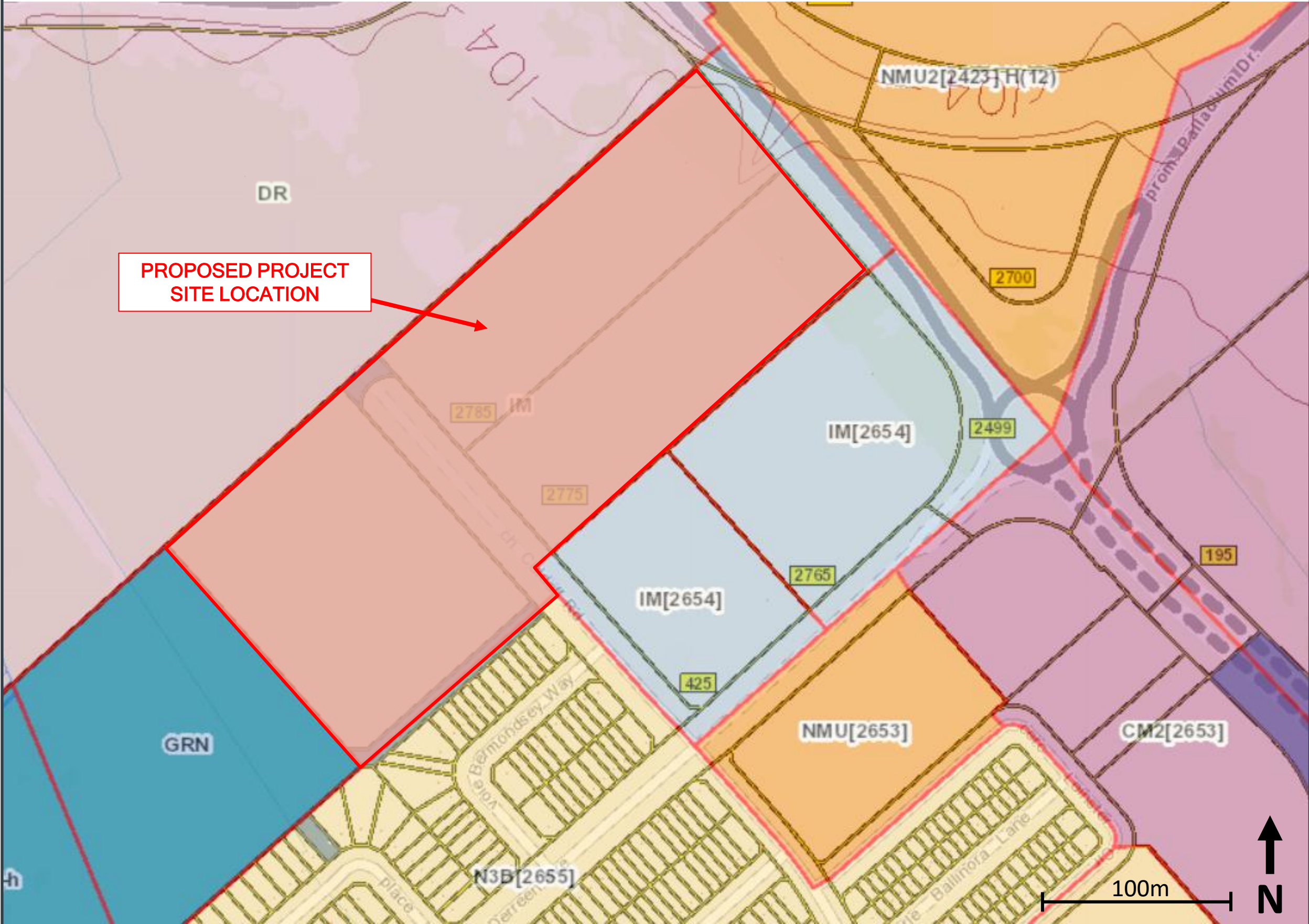
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**PROPOSED PROJECT
SITE LOCATION**

Note:
This drawing shall be read in conjunction with the associated report

0	2026/06/25	FINAL	M.V.
REVISION	DATE	ISSUE	APPROVAL
Client	Palladium Resort Development Limited Partnership		
Project Name	Palladium Resort Development Noise Impact Study (NIS)		
Report Title			
Drawing Title	Project Location		
Designed By	Scale		NTS
Drawn By	M.V.	Date	25 June 2026
Approved By	Project No.		02631107.000
Figure No.	A1		



Note:
This drawing shall be read in conjunction with the associated report

- Legend:**
- IM Mixed Industrial Zone
 - NMU Neighbourhood Mixed-Use Zone
 - CM Minor Corridor Zone 2
 - N3B Neighbourhood Zone 3
 - GRN Greenspace Zone
 - DR Development Reserve Zone

0	2026/06/25	FINAL	M.V.
REVISION	DATE	ISSUE	APPROVAL
Client	Palladium Resort Development Limited Partnership		
Project Name	Palladium Resort Development Noise Impact Study (NIS)		
Report Title			
Drawing Title	Zoning Map		
Designed By	Scale		NTS
Drawn By	M.V.	Date	25 June 2026
Approved By	Project No.		02631107.000
Figure No.	A2		

Appendix B: Stationary Noise Source NIS Tables

Table B1: Noise Source Sound Power Level Summary Table





Subject: Noise Impact Study

Project Palladium Resort Development
2775 & 2785 Palladium Drive, Kanata, ON
Ref No: 02631107.000

Table B1: Noise Source Sound Power Level Summary Table

Source Description	Sound Power Level ^[a] [dB] at Full Octave Band Centre Frequency [Hz]								Lw(A)	Source Location ^[b]	Sound Characteristics ^[c]	Noise Control Measures ^[d]	Source of Data ^[e]
	63	125	250	500	1000	2000	4000	8000					
Delivery Trucks Idling	93.8	89.2	86.5	94.1	93.3	87.2	82.8	73.6	96	O	S	U	PP/Mea
Delivery Truck Movement	89.8	87.5	91.4	90.3	89.5	86.7	79.5	69.1	94	O	S	U	PP/Mea
Pool Dehumidification Air Handling Units (60,000 CFM)	83.0	78.0	84.0	74.0	72.0	63.0	52.0	57.0	78	O	S	U	Man/Cal
Rooftop Air Handling Units (5,000 CFM)	69.0	72.0	72.0	62.0	57.0	51.0	46.0	51.0	66	O	S	U	Man
Rooftop Air Handling Units (15,000 CFM)	77.0	72.0	78.0	68.0	66.0	57.0	46.0	51.0	72	O	S	U	Man
Kitchen Exhaust Fans	68.8	77.8	71.8	72.8	69.8	64.8	58.8	59.8	75	O	S	U	Man
General Exhaust Fans	67.5	76.5	70.5	71.5	68.5	63.5	57.5	58.5	73	O	S	U	Man
Packaged Terminal Air Conditioners (PTAC)	69.5	58.5	56.5	54.5	54.5	50.5	41.5	30.5	58	O	S	U	Man

GLOSSARY:

[a] Sound power levels of noise sources do not include sound characteristic adjustments per NPC-104. Values are unadjusted, unmitigated PWLs.

[b] Source location:

O - located/installed outside the building, including on the roof

I - located/installed inside the building

[c] Sound characteristic. (NOTE: applicable penalties, such as a 5 dB penalty for tonality, is not included in the sound power levels given in Table A-2. Penalty is added in the CadnaA model)

S = Steady

Q = Quasi-Steady Impulsive

I = impulsive

B = Buzzing

T=Tonal

C = Cyclic

[d] Existing noise control measures

S = Silencer/Muffler

A = Acoustic lining, plenum

B = Barrier, berm, screening

L = Lagging

E = acoustic enclosure

O = other

U = uncontrolled

[e] Source of data

Mea = Measured

Cal = Engineering Calculations

PP = Past Project

Man = Manufacturer's Data

Appendix C:

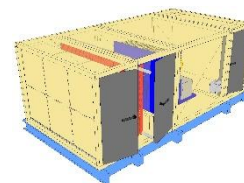
Manufacturer Noise Level Data



eNGLOBE

Technical Data Sheet

5,000 CFM AHU



Job Information		Technical Data Sheet
Job Name		
Date		
Submitted By		
Software Version		
Unit Tag		

Unit Overview						
Model Number	Air Volume cfm	Supply				
		Static Pressure		External Dimensions		
		External inWc	Total inWc	Height in	Width in	Length in
CAH014GHGM	6300	1.00	2.89	46*	64*	124

*Not including base rails, coil connectors, drain connectors and control boxes.

Unit			
Model Number:	CAH014GHGM		
Approval:	ETL Listed / ETL Listed to Canadian Safety Standards (ETL Label / ETLc Label)		
Outer Panel:	Painted 24 gauge G60 Galvanized Steel		
Liner:	24 gauge Galvanized Steel (unless noted per section)		
Insulation:	R-13 Injected Foam		
Unit Configuration:	Inline horizontal	Drive (Handling) Location:	Right
Base:	6" formed channel	Wall Thickness:	2 in
Shipping Stretch Wrap:	Yes	Altitude:	0 ft
Parts Warranty:	Standard One Year		

Combination Filter			Component: 1			Length: 22 in		Shipping Section: 1	
Access			Face Velocity			Face Area		Air Volume	
Side			403 ft/min			15.6 ft²		6300 cfm	
Portion	Type	Efficiency	Air Pressure Drop			Number of Filters	Height	Width	Depth
			Clean Air	Mean Air	Dirty Air				
Pre-Filter	Pleated	MERV 8	0.17 inWc	0.59 inWc	1.00 inWc	6	20 in	20 in	2 in
Filter	Varicel SH cartridge	MERV 13	0.41 inWc	0.95 inWc	1.50 inWc	6	20 in	20 in	12 in
Door									
Location			Width			Opening			
Drive side			18 in			Outward			
Special Options									
Filter Gauge									
Magnehelic 0-5"									

Technical Data Sheet

Hot Water Coil		Component: 2		Length: 30 in		Shipping Section: 2	
Coil Model	Total Capacity	Number of Coils	Number of Rows	Fins per Inch	Tube Diameter	Tube Spacing (Face x Row)	
5WL1003B	613651 Btu/hr	1	3	10	0.625 in	1.50 in x 1.299 in	
Air Volume	Air Temperature		Coil Air Pressure Drop	Finned Height	Finned Length	Face Area	Face Velocity
	Entering	Leaving					
	Dry Bulb	Dry Bulb					
6300 cfm	-20.0 °F	69.1 °F	0.28 inWc	36 in	51 in	12.75 ft²	494 ft/min
Fluid		Flow Rate	Pressure Drop	Velocity	Volume	Weight	
Entering	Leaving						
130.0 °F	109.9 °F						
68.50 gpm		19.60 ftHd	4.10 ft/s	6.0 gal	54.00 lb		
Connection [Data Per Coil]				Glycol Type	Min. Fin Surface Temp.	Min. Tube Wall Surface Temp.	Fouling Factor
Type	Size	Location	Material				
Threaded	1.50 in	Drive side	Carbon steel	Propylene (50%)	109.9 °F	109.9 °F	0.000
Material						Turbospiral	
Fin	Tube	Header	Case				
Aluminum .0075 in	Copper .020 in	Copper	Galv. steel	Yes			
AHRI 410 Certification							
Coil is NOT certified by AHRI							
Door							
Location		Width			Opening		
Drive side		18 in			Outward		

Supply Fan		Component: 3		Length: 48 in		Shipping Section: 3			
Fan Performance									
Air Volume	Static Pressure			Brake Horsepower	Speed		Outlet Velocity		
	External	Total	Cabinet		Operating	Maximum			
6300 cfm	1.00 inWc	2.89 inWc	0.00 inWc	4.40 BHP	1563 rpm	2403 rpm	0 ft/min		
Fan Data									
Fan Type	Blade Type / Class	Quantity of Fans	Wheel Diameter	Material Type	Number of Blades	Discharge	Motor Location		
Centrifugal - Plenum	Airfoil / 2	1	22.25 in	Aluminum	9	Axial	Behind Fan		
Motor Data									
Power	Electrical Supply	Speed	Efficiency	Enclosure	Frame Size	Supplier	Number of Poles	Lock Rotor Current	Full Load Current
7.5 HP	575/60/3 V/Hz/Phase	1750 rpm	Premium	TEFC	213 T frame	Generic	4	51.20 A	7.60 A
Fan Options									
Wheel Guard:		Provided			Seismic Restraint:		With snubbers		
Inlet Screen:		Provided			Shaft Grounding Kit:		Provided		
Isolator Type:		Spring							
VFD/Starter/Disconnect Data									
Selection Type:		External J-Box			Vendor:		Factory Standard		
Voltage:		575 v			Height x Width x Depth:		6.00 in x 6.00 in x 4.00 in		
Mounting:		Door Side			Enclosure:		NEMA 1		
Panel									
Location			Width			Opening			
Removable panels			- in			Outward			

Technical Data Sheet

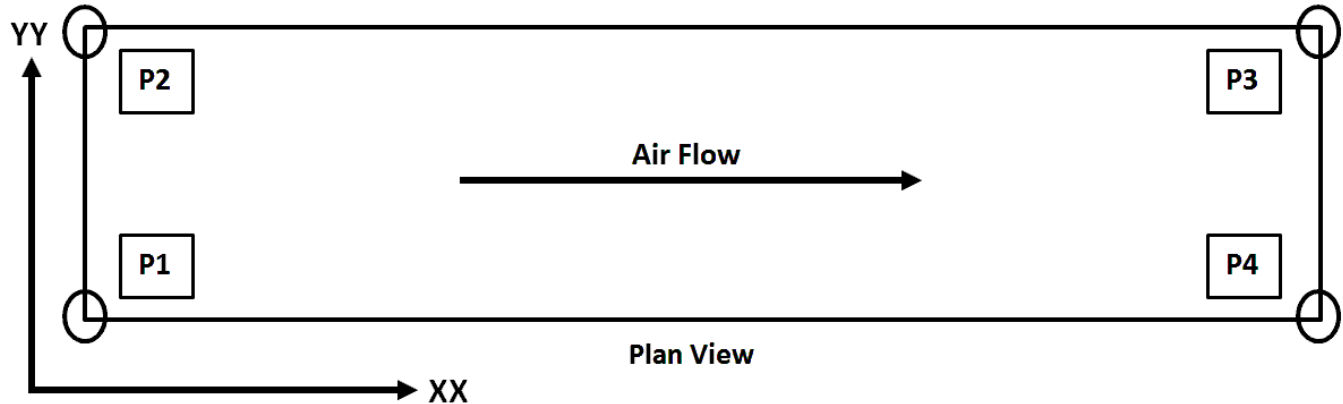
Plenum Section		Component: 4		Length: 24 in		Shipping Section: 4					
Air Pressure Drop											
0.07 inWc											
Custom Openings											
Custom Opening		Location		Width		Height		Rainhood w/Screen			
1		Top		42 in		20 in		None			
Door											
Location				Width				Opening			
Drive side				20 in				Inward			

Unit Sound Power (dB)

Type	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Radiated:	69	72	72	62	57	51	46	51
Unit Discharge:	74	72	79	73	73	73	67	60
Unit Return:	74	79	85	77	69	63	52	51

Shipping Section Details

Section	Length in	Weight lb	Corner Weights (lb)				Center of Gravity (in)		
			P1	P2	P3	P4	XX	YY	ZZ
1	22	344	80	80	92	92	12	32	25
2	30	517	164	155	94	104	11	31	25
3	48	774	216	212	171	175	21	32	22
4	24	256	64	64	64	64	12	32	23
Entire Unit	124	1891	521	508	425	438	57	32	23



NOTE: Special components aren't included in the corner weights and center of gravity data.

AHRI Certification

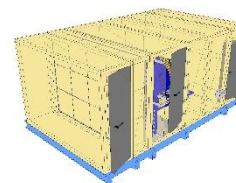


Supply fan performance is certified in accordance with the Central Station Air-Handling Unit Certification Program, which is based on AHRI Standard 430.

Notes

Standard

1. As a standalone component, unit meets or exceeds requirements of ASHRAE 90.1 - 2013. The approving authority is responsible for compliance of multi - component building systems.



Job Information		Technical Data Sheet
Job Name		
Date		
Submitted By		
Software Version		
Unit Tag		

Unit Overview						
Model Number	Air Volume cfm	Supply				
		Static Pressure		External Dimensions		
		External inWc	Total inWc	Height in	Width in	Length in
CAH032GDGM	15000	2.00	4.50	66*	92*	154

*Not including base rails, coil connectors, drain connectors and control boxes.

Unit			
Model Number:	CAH032GDGM		
Approval:	ETL Listed / ETL Listed to Canadian Safety Standards (ETL Label / ETLc Label)		
Outer Panel:	Painted 24 gauge G60 Galvanized Steel		
Liner:	24 gauge Galvanized Steel (unless noted per section)		
Insulation:	R-13 Injected Foam		
Unit Configuration:	Inline horizontal	Drive (Handling) Location:	Right
Base:	6" formed channel	Wall Thickness:	2 in
Shipping Stretch Wrap:	Yes	Altitude:	0 ft
Parts Warranty:	Standard One Year		

Access Section	Component: 1	Length: 24 in	Shipping Section: 1
Air Pressure Drop			
0.00 inWc			
Door			
Location	Width	Opening	
Drive side	20 in	Outward	

Combination Filter			Component: 2			Length: 16 in		Shipping Section: 2	
Access			Face Velocity			Face Area		Air Volume	
Front			480 ft/min			31.3 ft²		15000 cfm	
Portion	Type	Efficiency	Air Pressure Drop			Number of Filters	Height	Width	Depth
			Clean Air	Mean Air	Dirty Air				
Pre-Filter	Pleated	MERV 8	0.22 inWc	0.61 inWc	1.00 inWc	12	20 in	20 in	2 in
Filter	Varicel SH cartridge	MERV 13	0.53 inWc	1.01 inWc	1.50 inWc	12	20 in	20 in	12 in
Special Options									
Filter Gauge									
Magnehelic 0-5"									

Technical Data Sheet

Chilled Water Coil			Component: 3		Length: 36 in		Shipping Section: 3						
Coil Model	Total Capacity		Sensible Capacity		Number of Coils	Number of Rows	Fins per Inch	Tube Diameter	Tube Spacing (Face x Row)				
5WH1004C	428240 Btu/hr		341424 Btu/hr		2	4	10	0.625 in	1.50 in x 1.299 in				
Air Volume	Air Temperature				Coil Air Pressure Drop	Finned Height	Finned Length	Face Area	Face Velocity				
	Entering		Leaving										
	Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb									
15000 cfm	75.0 °F		63.0 °F		54.2 °F	53.2 °F	0.78 inWc	27 in	79 in	29.63 ft²	506 ft/min		
Water			Flow Rate		Pressure Drop		Velocity		Volume		Weight		
Entering	Leaving												
44.0 °F		54.1 °F		84.50 gpm		18.60 ftHd		5.00 ft/s		16.0 gal		141.00 lb	
Connection [Data Per Coil]							Min. Fin Surface Temp.	Min. Tube Wall Surface Temp.	Fouling Factor				
Type	Size		Location		Material								
Threaded		1.50 in		Drive side		Carbon steel						44.0 °F	
Material							Drain Pan		Drain Side				
Fin		Tube		Header		Case							
Aluminum .0075 in		Copper .020 in		Copper		Galv. steel		Stainless steel		Drive side			
AHRI 410 Certification													
		Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org											
Door													
Location				Width				Opening					
Drive side				20 in				Outward					
Supply Fan			Component: 4			Length: 54 in			Shipping Section: 4				
Fan Performance													
Air Volume	Static Pressure				Brake Horsepower	Speed			Outlet Velocity				
	External	Total		Cabinet		Operating	Maximum						
15000 cfm	2.00 inWc		4.50 inWc		0.00 inWc	17.36 BHP	1802 rpm		1981 rpm		0 ft/min		
Fan Data													
Fan Type	Blade Type / Class		Quantity of Fans		Wheel Diameter	Material Type	Number of Blades		Discharge		Motor Location		
Centrifugal - Plenum	Airfoil / 2		1		27.00 in	Aluminum	9		Axial		Behind Fan		
Motor Data													
Power	Electrical Supply	Speed	Efficiency	Enclosure	Frame Size	Supplier	Number of Poles	Lock Rotor Current	Full Load Current				
20.0 HP	575/60/3 V/Hz/Phase	1750 rpm	Premium	TEFC	256 T frame	Generic	4	116.00 A	19.20 A				
Fan Options													
Wheel Guard:			Provided			Seismic Restraint:			With snubbers				
Inlet Screen:			Provided			Shaft Grounding Kit:			Provided				
Isolator Type:			Spring										
VFD/Starter/Disconnect Data													
Selection Type:			External J-Box			Vendor:			Factory Standard				
Voltage:			575 v			Height x Width x Depth:			6.00 in x 6.00 in x 4.00 in				
Mounting:			Door Side			Enclosure:			NEMA 1				
Panel													
Location				Width				Opening					
Removable panels				- in				Outward					

Technical Data Sheet

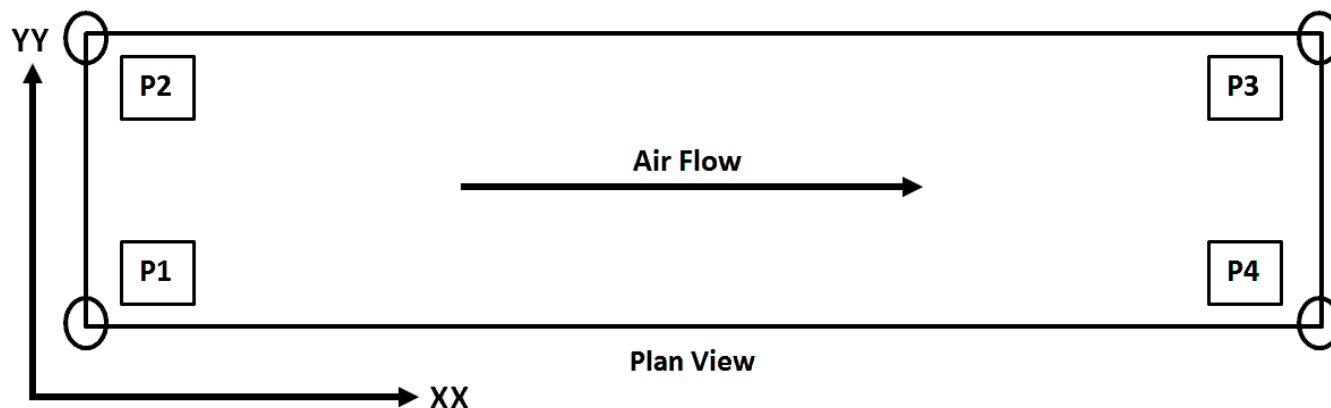
Plenum Section		Component: 5		Length: 24 in		Shipping Section: 5					
Air Pressure Drop											
0.09 inWc											
Custom Openings											
Custom Opening		Location		Width		Height		Rainhood w/Screen			
1		Top		88 in		20 in		None			
Door											
Location				Width				Opening			
Drive side				20 in				Inward			

Unit Sound Power (dB)

Type	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Radiated:	77	72	78	68	66	57	46	51
Unit Discharge:	82	77	86	83	82	79	77	69
Unit Return:	78	77	89	75	71	67	58	51

Shipping Section Details

Section	Length in	Weight lb	Corner Weights (lb)				Center of Gravity (in)		
			P1	P2	P3	P4	XX	YY	ZZ
1	24	375	85	85	103	103	13	46	28
2	16	640	151	151	169	169	8	46	33
3	36	1209	397	380	207	225	13	45	32
4	54	1384	361	357	331	335	26	46	29
5	24	429	107	107	107	107	12	46	29
Entire Unit	154	4037	1082	1061	936	958	72	46	30



NOTE: Special components aren't included in the corner weights and center of gravity data.

AHRI Certification



Supply fan performance is certified in accordance with the Central Station Air-Handling Unit Certification Program, which is based on AHRI Standard 430.

Notes

Standard

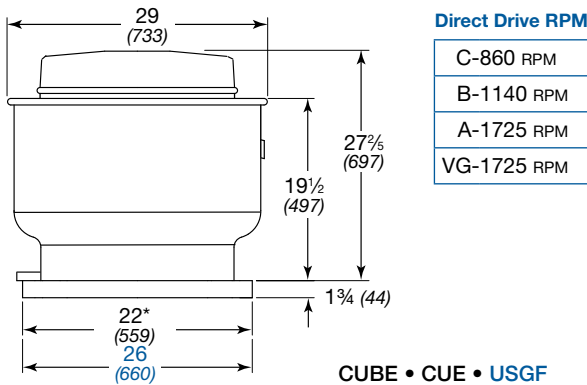
1. As a standalone component, unit meets or exceeds requirements of ASHRAE 90.1 - 2013. The approving authority is responsible for compliance of multi - component building systems.

Roof Upblast/Sidewall Exhaust

Size-160: CUBE • CUE • USGF

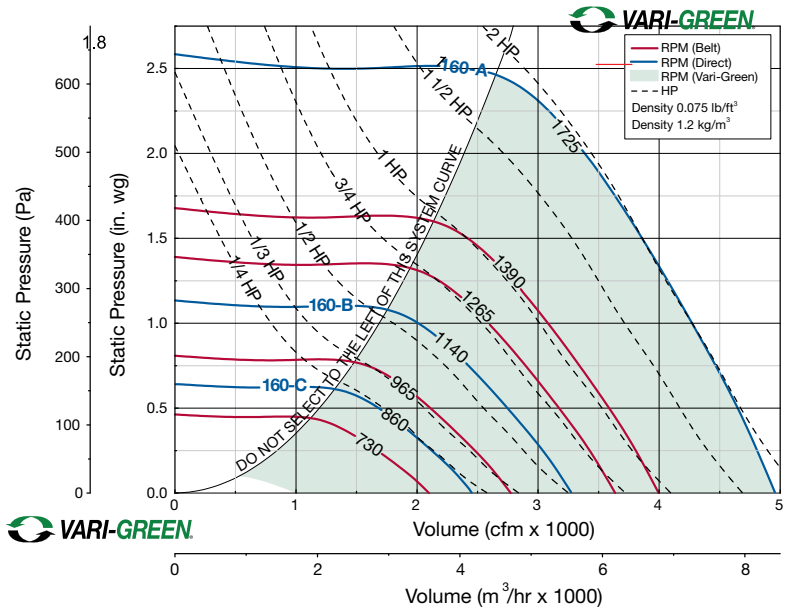
GREENHUB

ENGLOBE NOTE: MECH DESIGN BRIEF FOR TEXAS PROJECT LISTED 25 SONES (APPROX. 74dBA). USED 74 dBA IN MODEL.



All dimensions in inches (millimeters), weight in pounds (kilograms).
 ^Weight shown is largest cataloged open drip-proof motor.

With Standard Curb Cap*	CUBE	CUE	USGF
^Approximate Weight	87 (39)	90 (41)	131 (59)
Damper Size	16 x 16 (406 x 406)	N/A	N/A
Roof/Wall (without wall bracket) Opening	18½ x 18½ (470 x 470)		
Wall Opening with Wall Bracket	18 x 18 (457 x 457)	N/A	N/A
Wall Opening with a Curb Through Wall	22 x 22 (559 x 559)	N/A	N/A
* Additional curb cap sizes available, see page 2	N/A		



Motor HP		Fan	Static Pressure in Inches wg										
Belt	Direct	RPM		0	0.125	0.25	0.375	0.5	0.625	0.75	0.875	1	1.5
160													
1/4		VG-1/2	730	CFM	2098	1905	1669	1389					
				BHP	0.13	0.15	0.15	0.15					
				Sones	8.1	8	7.8	7.8					
			805	CFM	2314	2143	1937	1708	1396				
				BHP	0.18	0.20	0.20	0.20	0.19				
				Sones	9.5	9.2	8.9	8.8	8.7				
		C-1/4	860	CFM	2472	2315	2126	1918	1680				
				BHP	0.22	0.24	0.25	0.25	0.24				
				Sones	10.7	10.2	9.9	9.7	9.5				
			875	CFM	2515	2362	2177	1974	1744	1365			
				BHP	0.23	0.26	0.26	0.26	0.26	0.24			
				Sones	11	10.6	10.1	9.9	9.7	9.7			
1/3	VG-3/4	965	CFM	2774	2637	2477	2300	2109	1893	1584			
			BHP	0.31	0.34	0.35	0.35	0.35	0.34	0.33			
			Sones	12.4	12	11.5	11.2	10.8	10.6	10.6			
		1110	CFM	3191	3072	2941	2796	2641	2475	2297	1770		
			BHP	0.47	0.51	0.53	0.53	0.54	0.53	0.52	0.49		
			Sones	15	14.6	14.2	13.8	13.5	13.1	12.9	12.5		
3/4	VG-1	B-1/2 1140	CFM	3277	3161	3035	2896	2745	2587	2421	1983		
			BHP	0.51	0.55	0.57	0.57	0.58	0.58	0.57	0.55		
			Sones	15.7	15.2	14.8	14.4	14.1	13.8	13.5	13.2		
		1265	CFM	3636	3532	3426	3301	3172	3036	2894	2583	2163	
			BHP	0.70	0.74	0.77	0.78	0.79	0.79	0.79	0.78	0.75	
			Sones	18.5	18.1	17.6	17.2	16.8	16.5	16.3	15.8	15.6	
1	VG-1	1300	CFM	3737	3636	3534	3413	3290	3157	3022	2729	2357	
			BHP	0.76	0.80	0.84	0.85	0.85	0.86	0.86	0.84	0.82	
			Sones	19.1	18.7	18.3	17.9	17.5	17.2	17	16.5	16.3	
		1390	CFM	3996	3901	3806	3698	3584	3464	3340	3078	2785	2394
			BHP	0.93	0.97	1.01	1.03	1.04	1.04	1.05	1.04	1.03	1.00
			Sones	21	21	20	19.7	19.3	19	18.8	18.4	18	17.9
	VG-2	A-2 1725	CFM	4959	4882	4806	4729	4646	4554	4463	4269	4070	3855
			BHP	1.77	1.83	1.88	1.94	1.97	1.97	1.98	2.00	2.01	1.99
			Sones	30	29	29	29	28	28	27	27	27	26

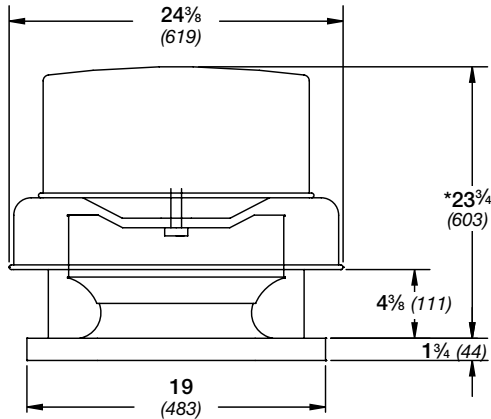
MAXIMUM BHP AT A
 GIVEN RPM = (RPM/1365)³
 MAXIMUM RPM = 1725
 TIP SPEED (ft/min) = RPM x 4.352
 MAXIMUM MOTOR FRAME SIZE = 145T
 AVERAGE DISCHARGE VELOCITY
 (FPM) = CFM/1.72

Performance certified for installation type A: Free inlet, Free outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A: Free inlet hemispherical sone levels.

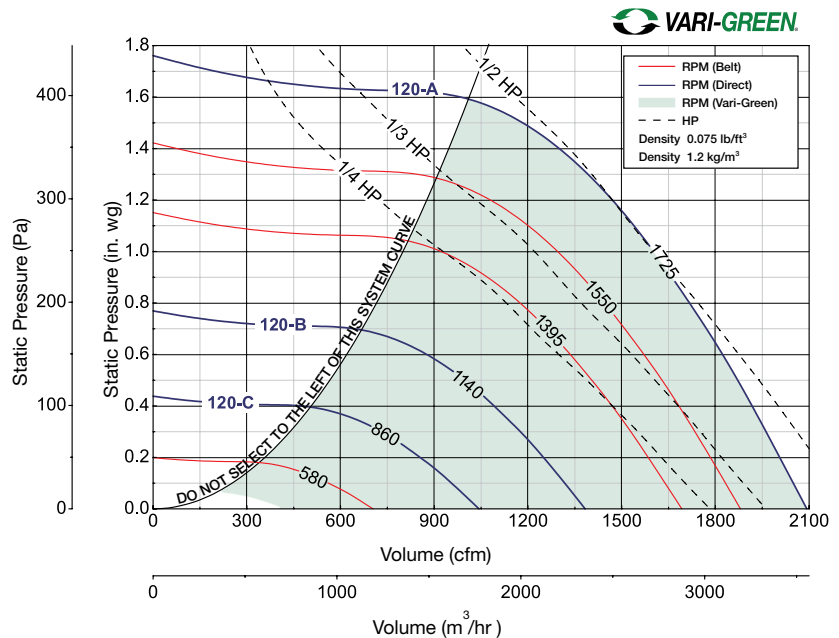
Roof Downblast Exhaust Size-120: GB • G

Previously Size- GB-121 • G-123

ENGLOBE NOTE: MECH DESIGN BRIEF FOR TEXAS
PROJECT LISTED 23 SONES (APPROX. 73dBA).
USED 73 dBA IN MODEL.



Damper Size = 12 x 12 (305 x 305)
Roof Opening = 15 1/2 x 15 1/2 (394 x 394)
Shroud Thickness = 0.051 (1.3)
Motor Cover Thickness = 0.040 (1.0)
Curb Cap Thickness = 0.064 (1.6)
^Approximate Unit Weight G/GB = 58/66 lbs. (26/30 kg)
All dimensions in inches (millimeters). *May be greater depending on motor. ^Weight shown is largest cataloged Open Drip-Proof motor.



Direct Drive RPM			
C-860 RPM	B-1140 RPM	A-1725 RPM	VG-1725 RPM

Motor HP		Fan		Static Pressure in Inches wg												
Belt	Direct	RPM		0	0.125	0.25	0.375	0.5	0.625	0.75	1	1.25	1.5			
120																
1/4	VG-1/4 VARI-GREEN  VG-1/2	580	CFM	704	515											
			BHP	0.02	0.02											
			Sones	3.2	3.3											
			720	CFM	873	735	523									
				BHP	0.03	0.04	0.04									
				Sones	4.2	4.3	4.1									
		C-1/8	860	CFM	1043	932	796	580								
				BHP	0.05	0.06	0.06	0.06								
				Sones	5.4	5.5	5.2	5.2								
		1000	CFM	1213	1119	1013	883	694								
			BHP	0.08	0.09	0.09	0.10	0.09								
			Sones	6.7	6.8	6.7	6.4	6.4								
		B-1/6	1140	CFM	1383	1300	1213	1112	993	831						
				BHP	0.12	0.13	0.14	0.14	0.14	0.14						
				Sones	8.4	8.4	8.4	8.1	7.9	7.8						
1/3		VG-1/2 VARI-GREEN  VG-1/2	1265	CFM	1535	1460	1384	1299	1204	1093	950					
				BHP	0.16	0.17	0.18	0.19	0.19	0.20	0.19					
				Sones	10.2	10.1	10.1	9.9	9.7	9.6	9.4					
	1395		CFM	1692	1625	1557	1484	1404	1315	1214	907					
			BHP	0.21	0.23	0.24	0.25	0.26	0.26	0.26	0.24					
			Sones	12.5	12.4	12.3	12.2	12.0	11.7	11.5	11.3					
	1475		CFM	1789	1726	1661	1594	1521	1441	1356	1132					
			BHP	0.25	0.27	0.28	0.29	0.30	0.31	0.31	0.31					
			Sones	13.5	13.4	13.3	13.2	13.0	12.7	12.4	12.0					
	1550		CFM	1880	1820	1759	1696	1629	1555	1475	1289	974				
			BHP	0.29	0.31	0.32	0.33	0.34	0.35	0.36	0.36	0.33				
			Sones	14.6	14.5	14.3	14.2	14.0	13.8	13.5	12.9	12.4				
	1/2		VG-1/2 VARI-GREEN  VG-1/2	1635	CFM	1983	1926	1868	1810	1747	1680	1608	1446	1231		
					BHP	0.34	0.36	0.37	0.39	0.40	0.41	0.42	0.43	0.41		
					Sones	15.9	15.8	15.6	15.4	15.3	15.0	14.8	13.9	13.4		
A-1/2				1725	CFM	2093	2038	1984	1928	1871	1810	1743	1600	1426	1180	
					BHP	0.40	0.42	0.44	0.45	0.46	0.47	0.48	0.50	0.50	0.47	
					Sones	17.4	17.2	17.0	16.8	16.7	16.4	16.2	15.5	14.9	14.0	

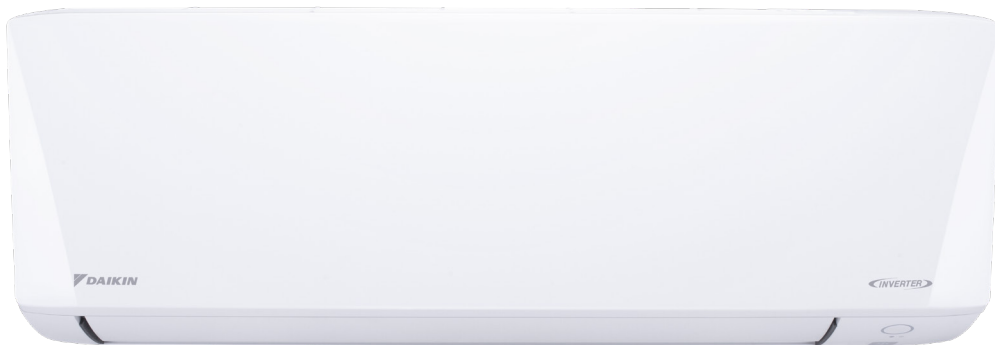
Performance certified is for installation type A: Free inlet, Free outlet. Power rating (BHP) does not include transmission losses. Performance ratings include the effects of a birdscreen. The sound ratings shown are loudness values in hemispherical sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A: free inlet hemispherical sone levels.



ENGINEERING DATA

**Inverter Split Unit Air Conditioner
Wall Mounted
Heatpump [60Hz]**

FTXB-B Series



R410A

ED5WM15R-NA23V2
Supersede : ED5WM15R-NA23V1

Specifications

PTAC Units

MODEL	INDOOR UNIT		FTXB09B RXB09B	
	OUTDOOR UNIT		Cooling	Heating
Rated Capacity (Min. ~ Max.)	kW		2.57 (1.30 - 3.00)	2.75 (1.30 - 3.80)
	Btu/h		8800 (4400 - 10200)	9400 (4400 - 13000)
Moisture Removal	gal/h		0.09	
Rated Running Current	A		3.82	3.70
Rated Power Consumption	W		800	774
EER2	Btu/h/W		11.0	N/A
SEER2			18.0	N/A
COP	W/W		N/A	3.56
HSPF2			N/A	9.0
Power Factor (Rated)			N/A	
Piping	Liquid	inch (mm)	1/4" (6.35)	
Connections	Gas	inch (mm)	3/8" (9.52)	
Refrigerant	Type		R410A	
	Charge	lbs (kg)	1.54 (0.7)	
Max. Interunit Piping Length	ft (m)		65-5/8 (20)	
Max. Interunit Height Difference	ft (m)		32-13/16 (10)	
Chargeless	ft (m)		32-13/16 (10)	
Amount of Additional Charge of Refrigerant	oz/ft (g/m)		0.21 (20)	
Drawing No.			3D143694C	
INDOOR UNIT			FTXB09B	
Front Panel Colour			WHITE	
Airflow Rate	Turbo	CFM	466	
	High	CFM	431	402
	Medium	CFM	322	
	Low	CFM	249	
	Quiet	CFM	142	219
Sound Pressure Level (H/M/L/Q)		dBA	43/36/29/19	42/35/29/25
Fan	Type		CROSS FLOW	
	Drive		DIRECT	
	Speed		3 STEPS, QUIET, AUTO, TURBO	
Fan Motor	Type		DIRECT CURRENT	
	Motor Output	W	22	
	Running Current (Rated)	A	0.10	
	Power Consumption (Rated)	W	29	
Air Direction Control			UP, DOWN, LEFT, RIGHT	
Air Filter			CATECHIN	
Dimensions (H x W x D)	inch (mm)		11-1/3 x 30-5/16 x 9-3/16 (288 x 770 x 234)	
Packaged Dimensions (H x W x D)	inch (mm)		13-7/8 x 32-3/4 x 12-3/8 (350 x 830 x 314)	
Weight	lbs (kg)		20.3 (9.2)	
Gross Weight	lbs (kg)		24.7 (11.2)	
Condensate Drain Size	inch (mm)		5/8 (16)	
Document No.			3D143550B	
OUTDOOR UNIT			RXB09B	
Casing Colour			IVORY WHITE	
Airflow Rate	High	CFM	1083	1103
Sound Pressure Level		dBA	46	48
Fan	Type		PROPELLER	
	Drive		DIRECT	
Fan Motor	Type		DIRECT CURRENT	
	Index of protection (IP)		24	
	Insulation Grade		E	
	Running Current (Rated)	A	0.60	
	Power Consumption (Rated)	W	32	
	Motor Output	W	26	
	Poles		8	
Compressor	Type		HERMETIC SWING	
	Model		1YC23AUXDA	
	Oil type		DAPHNE FVC50K	
	Oil amount	oz (cm³)	12.4 (375)	
Heat Exchanger Type			FIN TUBE	
Dimensions (H x W x D)	inch (mm)		21-11/16 x 26-1/2 x 11-3/16 (550 x 675 x 284)	
Packaged Dimensions (H x W x D)	inch (mm)		24-1/64 x 31-3/8 x 15-1/8 (610 x 801 x 384)	
Weight	lbs (kg)		55 (25)	
Gross Weight	lbs (kg)		62 (28)	
Document No.			3D143595A	

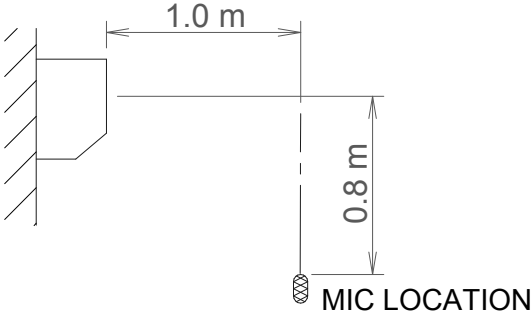
1) ALL UNITS ARE BEING TESTED ACCORDING TO AHRI 210/240 STANDARD.

2) ALL SPECIFICATIONS ARE SUBJECT TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

COOLING		HEATING	
INDOOR: 80°FDB (26.7°CDB) / 67°FWB (19.4°CWB)		INDOOR: 70°FDB (21.1°CDB)	
OUTDOOR: 95°FDB (35°CDB)		OUTDOOR: 47°FDB (8.3°CDB) / 43°FWB (6.1°CWB)	

Sound Level

Measuring Location

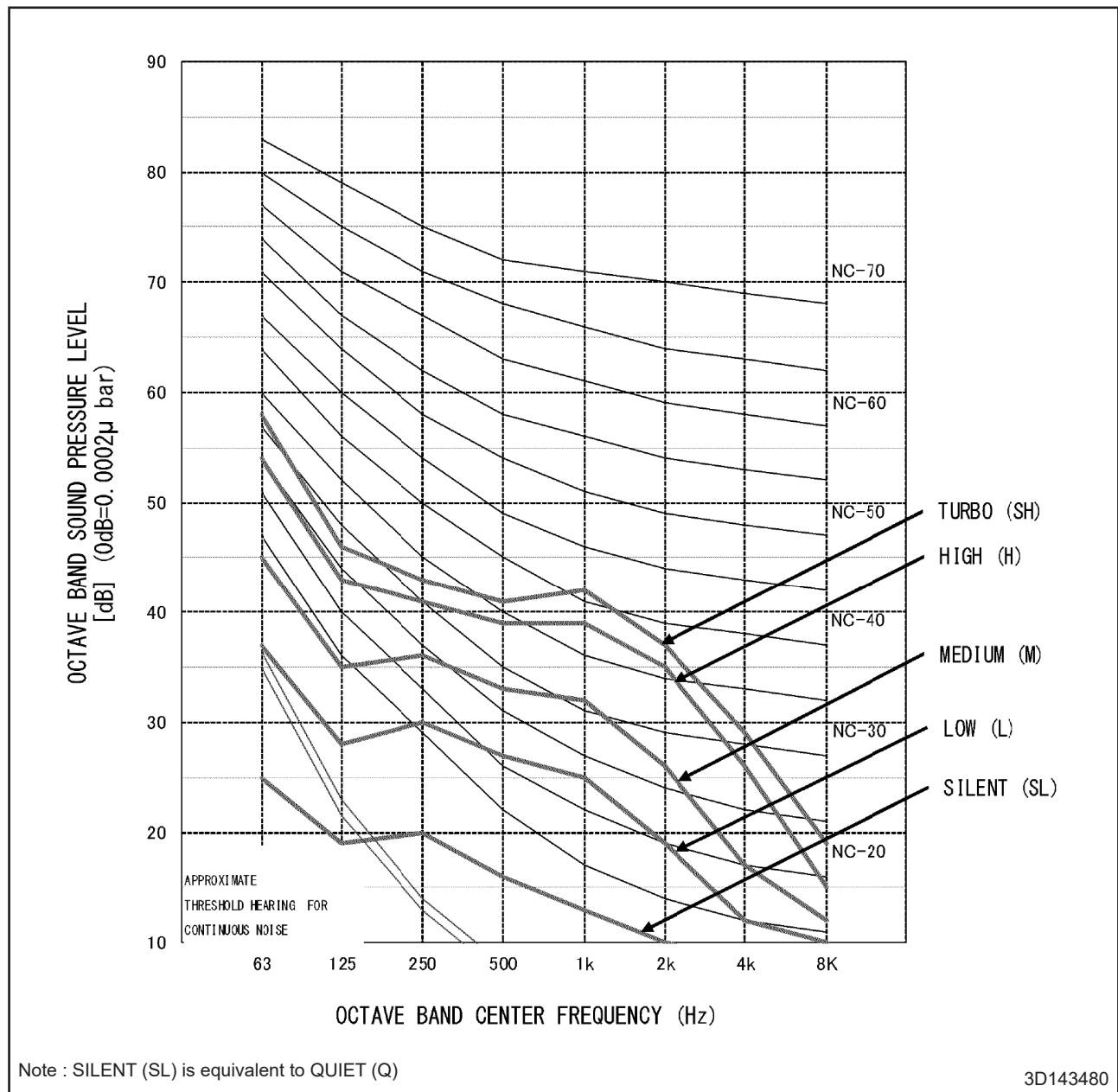
Model	Measuring Location
FTXB09B FTXB12B FTXB18B FTXB24B	 MIC LOCATION

Notes:
1. Operation sound is measured in an anechoic chamber.

Sound Pressure Level

Model	Speed	1/1 Octave A-weighted Sound Pressure Level (dB, ref 20μPa)								Overall (dBA)	Noise Criteria
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
FTXB09B (Cooling)	High	54	43	41	39	39	35	26	15	43	38
	Med	45	35	36	33	32	26	17	12	36	31
	Low	37	28	30	27	25	19	12	10	29	23
	Quiet	25	19	20	16	13	10	8	9	19	0

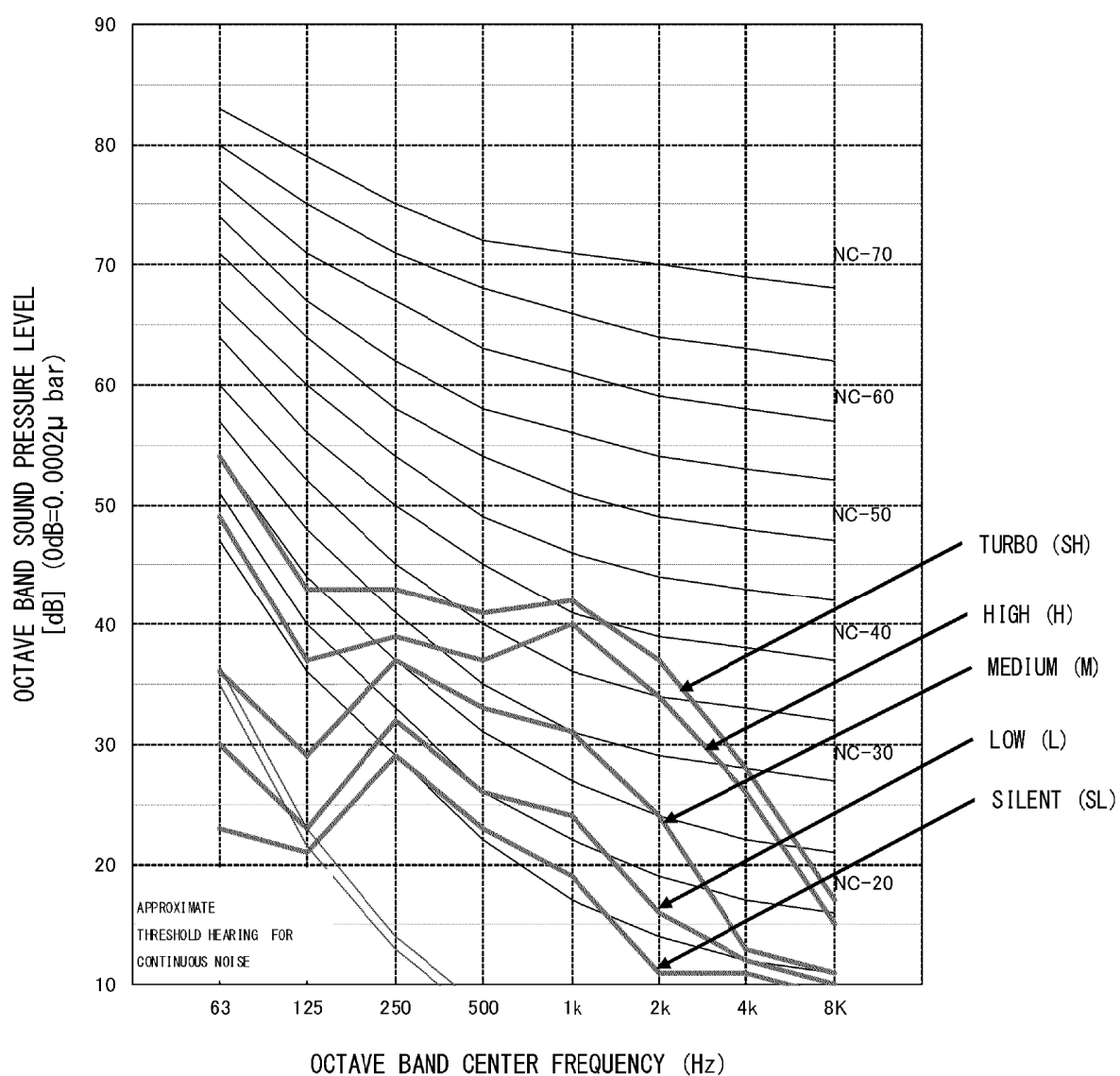
NC Curve



Sound Pressure Level

Model	Speed	1/1 Octave A-weighted Sound Pressure Level (dB, ref 20μPa)								Overall (dBA)	Noise Criteria
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
FTXB09B (Heating)	High	49	37	39	37	40	34	26	15	42	39
	Med	36	29	37	33	31	24	13	11	35	30
	Low	30	23	32	26	24	16	12	10	29	22
	Quiet	23	21	29	23	19	11	11	9	25	17

NC Curve



3D143480

Appendix D:

CadnaA Model Figures

Figure D1: Estimated Location of Noise Sources

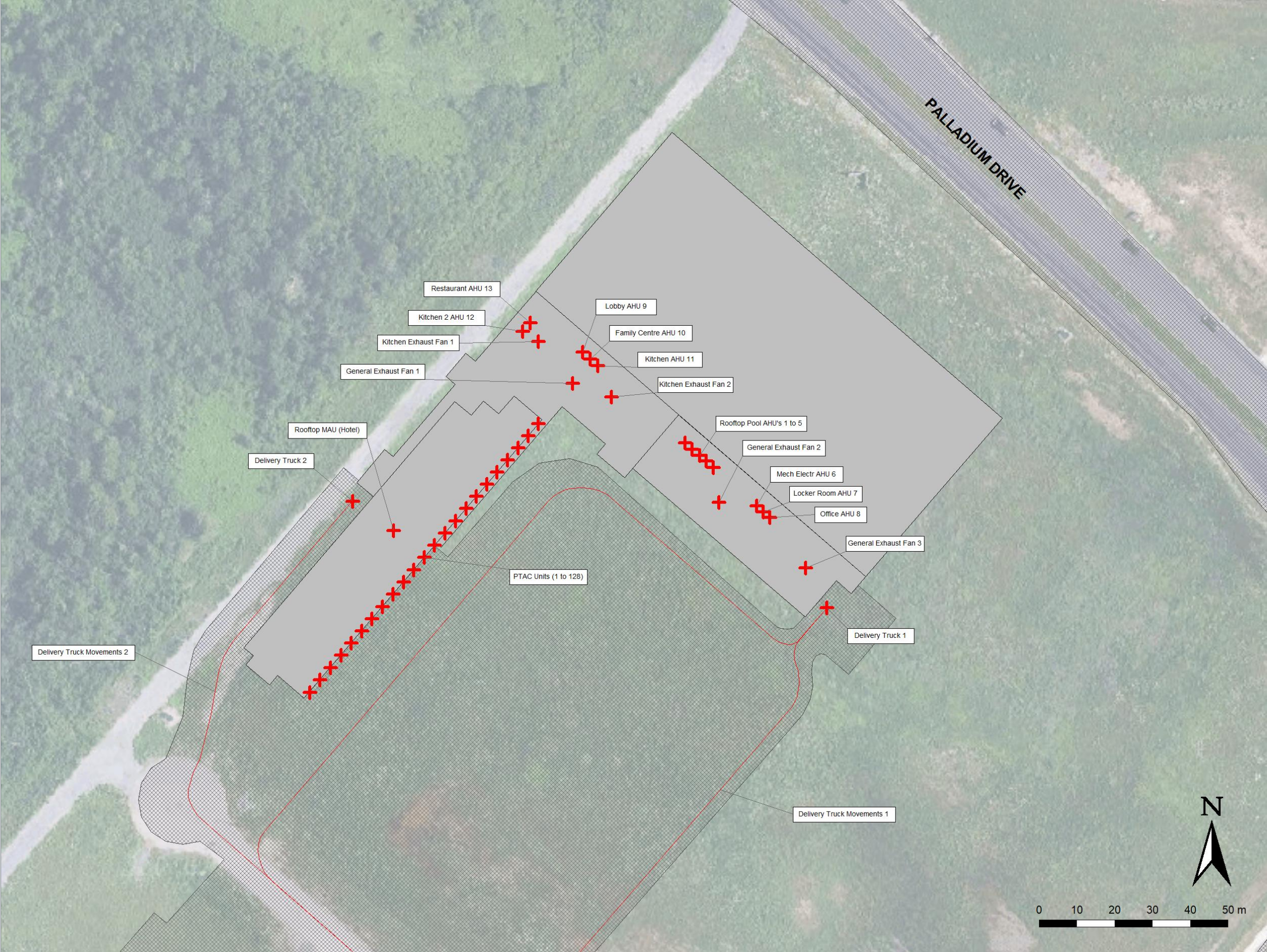
Figure D2: Predicted Noise Levels at 4.5m Above Grade

Figure D3: Predicted Noise Levels at 4.5m Above Grade - w/ Noise Barrier

Figure D4: Predicted Noise Levels at 4.5m Above Grade - w/ No-Idling Policy

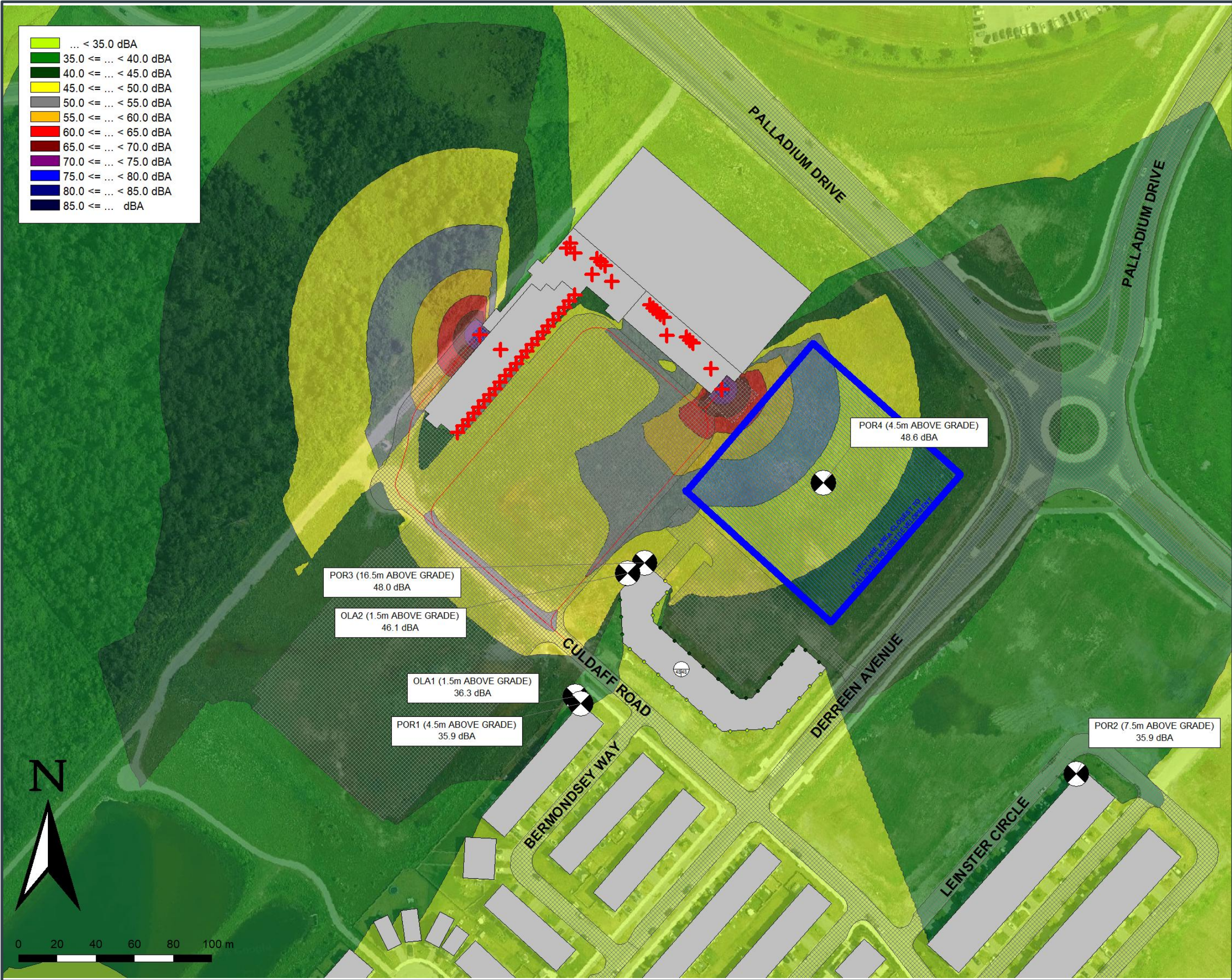


eNGLOBE



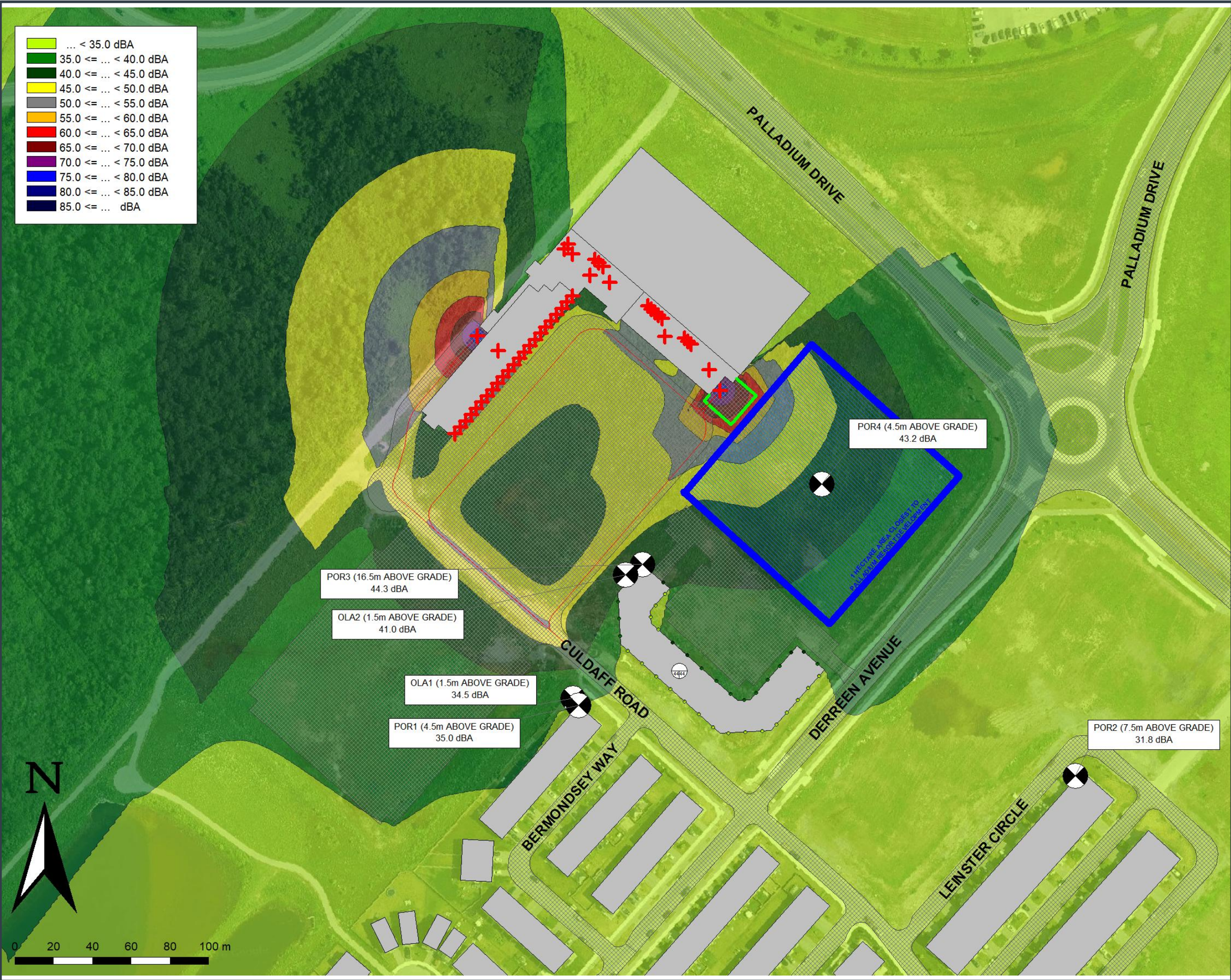
Note:
This drawing shall be read in conjunction with the associated report

0	2026/06/25	FINAL	M.V.
REVISION	DATE	ISSUE	APPROVAL
Client	Palladium Resort Development Limited Partnership		
Project Name	Palladium Resort Development Noise Impact Study (NIS)		
Report Title			
Drawing Title	Estimated Location of Noise Sources		
Designed By	Scale NTS		
Drawn By	M.V.	Date	25 June 2026
Approved By		Project No.	02631107.000
Figure No.	D1		



Note:
This drawing shall be read in conjunction with the associated report

1	2026/06/30	FINAL	M.V.
0	2026/06/25	FINAL	M.V.
REVISION	DATE	ISSUE	APPROVAL
Client Palladium Resort Development Limited Partnership			
Project Name Palladium Resort Development Noise Impact Study (NIS)			
Report Title			
Drawing Title Predicted Noise Levels at 4.5 m Above Grade			
Designed By		Scale	NTS
Drawn By		Date	30 June 2026
Approved By		Project No.	02631107.000
Figure No.		D2	



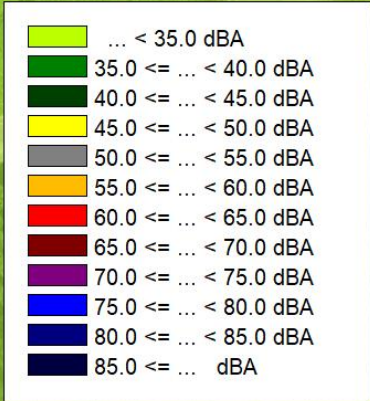


Note:
This drawing shall be read in conjunction with the associated report

Legend:

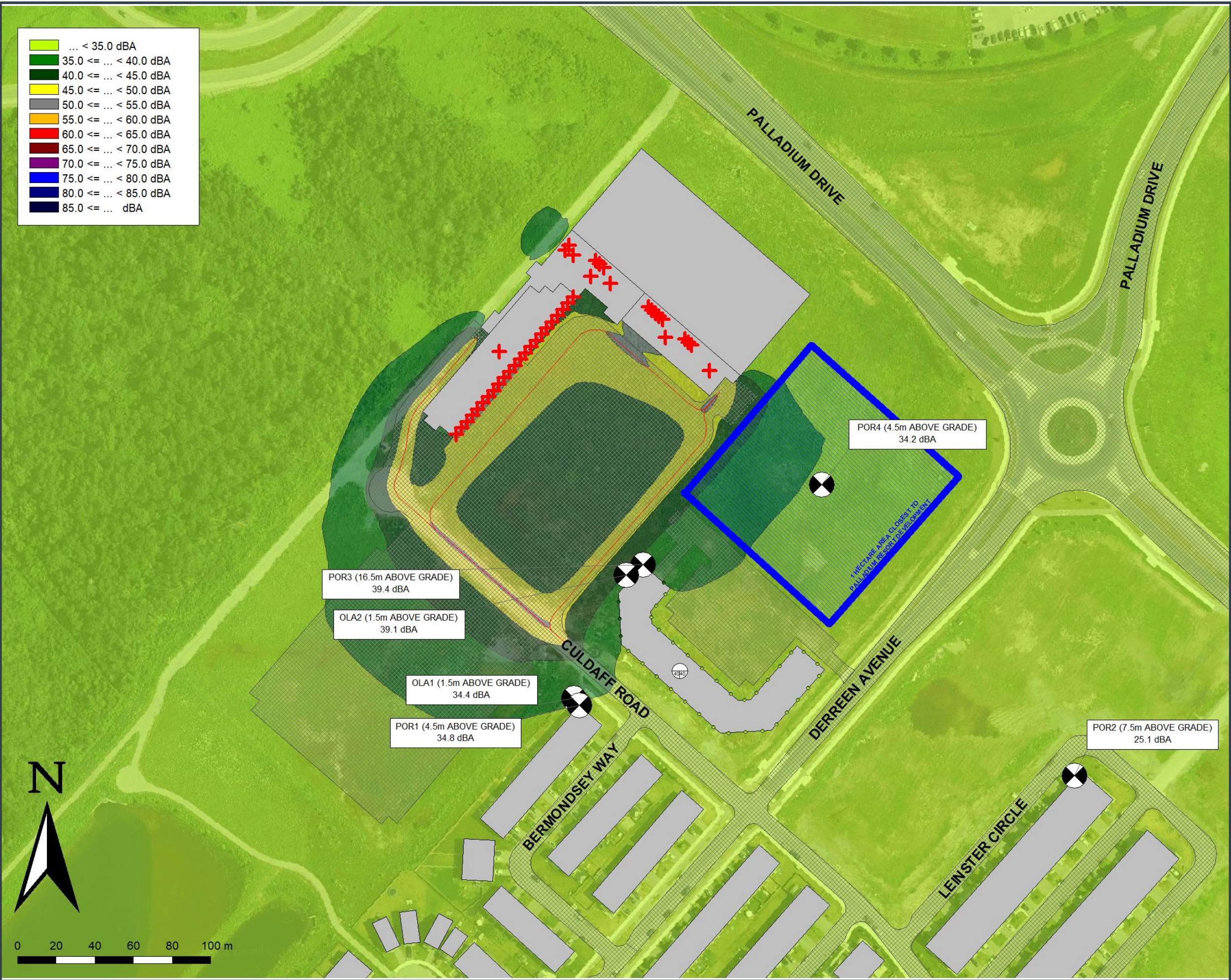
: Noise Barrier (Height = 3.0m)

0	2026/06/30	FINAL	M.V.
REVISION	DATE	ISSUE	APPROVAL
Client	Palladium Resort Development Limited Partnership		
Project Name	Palladium Resort Development Noise Impact Study (NIS)		
Report Title			
Drawing Title	Predicted Noise Levels at 4.5 m Above Grade - w/ Noise Barrier		
Designed By	Scale	NTS	
Drawn By	M.V.	Date	30 June 2026
Approved By		Project No.	02631107.000
Figure No.	D3		



Note:
This drawing shall be read in conjunction with the associated report

0	2026/06/30	FINAL	M.V.
REVISION	DATE	ISSUE	APPROVAL
Client	Palladium Resort Development Limited Partnership		
Project Name	Palladium Resort Development Noise Impact Study (NIS)		
Report Title			
Drawing Title	Predicted Noise Levels at 4.5 m Above Grade - w/ No-Idling Policy		
Designed By			Scale NTS
Drawn By	M.V.	Date	30 June 2026
Approved By			Project No. 02631107.000
Figure No.	D4		



Appendix E:

Sample CadnaA Output



eNGLOBE

Report (Palladium Resort Kanata.cna)

Calculation Configuration

Configuration	
Parameter	Value
General	
Max. Error (dB)	0.00
Max. Search Radius (m)	2000.00
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (m)	1000.00
Min. Length of Section (m)	1.00
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	6.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	3
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rcvr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613 (1996))	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Excl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (°C)	10
rel. Humidity (%)	70
Ground Absorption G	0.90
Wind Speed for Dir. (m/s)	3.0
Roads (NONE)	
Railways (NONE)	
Aircraft (NONE)	

Configuration	
Parameter	Value
Strictly acc. to AzB	

Group Day and Night

Name	Expression	Partial Sum Level (dB(A))																	
		OLA1			POR1			POR2			POR3			POR4			OLA2		
		Day	Evening	Night	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Root	!*	31.9	31.9	31.9	29.1	29.1	29.1	35.5	35.5	35.5	47.4	47.4	47.4	48.4	48.4	48.4	45.2	45.2	45.2
Idling Delivery Trucks	!00*	31.9	31.9	31.9	29.1	29.1	29.1	35.5	35.5	35.5	47.4	47.4	47.4	48.4	48.4	48.4	45.2	45.2	45.2
Mitigation (Delivery Barrier)	!01*																		

Partial Day/Night

Source			Partial Level (dB(A))																	
Name	M.	ID	OLA1			POR1			POR2			POR3			POR4			OLA2		
			Day	Evening	Night	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Delivery Truck 1		!00!S01a	31.7	31.7	31.7	28.8	28.8	28.8	35.5	35.5	35.5	47.4	47.4	47.4	48.4	48.4	48.4	45.2	45.2	45.2
Delivery Truck 2		!00!S01b	17.5	17.5	17.5	17.4	17.4	17.4	10.0	10.0	10.0	19.7	19.7	19.7	15.9	15.9	15.9	20.2	20.2	20.2
Rooftop MAU (Hotel)		S03	11.5	11.5	11.5	13.2	13.2	13.2	6.3	6.3	6.3	17.4	17.4	17.4	12.7	12.7	12.7	14.7	14.7	14.7
Rooftop Pool AHU 1		S04a	17.8	17.8	17.8	19.9	19.9	19.9	13.6	13.6	13.6	26.3	26.3	26.3	22.0	22.0	22.0	21.1	21.1	21.1
Rooftop Pool AHU 2		S04b	17.9	17.9	17.9	19.9	19.9	19.9	13.7	13.7	13.7	26.4	26.4	26.4	22.2	22.2	22.2	21.3	21.3	21.3
Rooftop Pool AHU 3		S04c	17.9	17.9	17.9	20.0	20.0	20.0	13.9	13.9	13.9	26.5	26.5	26.5	22.5	22.5	22.5	21.3	21.3	21.3
Rooftop Pool AHU 4		S04d	18.0	18.0	18.0	20.0	20.0	20.0	14.0	14.0	14.0	26.5	26.5	26.5	22.7	22.7	22.7	21.4	21.4	21.4
Rooftop Pool AHU 5		S04e	18.0	18.0	18.0	20.0	20.0	20.0	14.1	14.1	14.1	26.5	26.5	26.5	22.9	22.9	22.9	21.5	21.5	21.5
Mech Electr AHU 6		S05a	12.3	12.3	12.3	14.0	14.0	14.0	9.0	9.0	9.0	21.0	21.0	21.0	18.7	18.7	18.7	16.0	16.0	16.0
Locker Room AHU 7		S05b	5.8	5.8	5.8	7.2	7.2	7.2	2.4	2.4	2.4	14.7	14.7	14.7	12.4	12.4	12.4	9.7	9.7	9.7
Officel AHU 8		S05c	5.9	5.9	5.9	7.1	7.1	7.1	2.5	2.5	2.5	14.8	14.8	14.8	12.7	12.7	12.7	9.7	9.7	9.7
Lobby AHU 9		S05d	9.9	9.9	9.9	11.9	11.9	11.9	6.2	6.2	6.2	19.0	19.0	19.0	12.6	12.6	12.6	12.8	12.8	12.8
Family Centre AHU 10		S05e	10.0	10.0	10.0	11.9	11.9	11.9	6.4	6.4	6.4	19.2	19.2	19.2	12.8	12.8	12.8	12.8	12.8	12.8
Kitchen AHU 11		S05f	3.7	3.7	3.7	5.5	5.5	5.5	0.2	0.2	0.2	12.9	12.9	12.9	6.8	6.8	6.8	6.7	6.7	6.7
Kitchen 2 AHU 12		S05g	-4.4	-4.4	-4.4	-0.9	-0.9	-0.9	-0.8	-0.8	-0.8	12.2	12.2	12.2	5.3	5.3	5.3	5.8	5.8	5.8
Restaurant AHU 13		S05h	-1.9	-1.9	-1.9	1.8	1.8	1.8	-0.8	-0.8	-0.8	12.1	12.1	12.1	5.3	5.3	5.3	6.0	6.0	6.0
Kitchen Exhaust Fan 1		S06a	8.5	8.5	8.5	11.9	11.9	11.9	6.8	6.8	6.8	20.3	20.3	20.3	13.7	13.7	13.7	14.8	14.8	14.8
Kitchen Exhaust Fan 2		S06b	11.9	11.9	11.9	13.3	13.3	13.3	7.8	7.8	7.8	21.4	21.4	21.4	15.3	15.3	15.3	15.8	15.8	15.8
General Exhaust Fan 1		S07a	11.0	11.0	11.0	12.7	12.7	12.7	6.0	6.0	6.0	19.8	19.8	19.8	13.2	13.2	13.2	14.5	14.5	14.5
General Exhaust Fan 2		S07b	12.8	12.8	12.8	14.6	14.6	14.6	8.3	8.3	8.3	22.0	22.0	22.0	18.2	18.2	18.2	16.7	16.7	16.7
General Exhaust Fan 3		S07c	12.7	12.7	12.7	9.7	9.7	9.7	10.1	10.1	10.1	22.4	22.4	22.4	22.0	22.0	22.0	16.8	16.8	16.8
PTAC Unit 1		S08a	4.2	4.2	4.2	5.4	5.4	5.4	-3.3	-3.3	-3.3	8.0	8.0	8.0	3.1	3.1	3.1	7.8	7.8	7.8
PTAC Unit 2		S08b	4.2	4.2	4.2	5.3	5.3	5.3	-3.3	-3.3	-3.3	8.1	8.1	8.1	3.2	3.2	3.2	7.8	7.8	7.8
PTAC Unit 3		S08c	4.1	4.1	4.1	5.3	5.3	5.3	-3.4	-3.4	-3.4	8.1	8.1	8.1	3.3	3.3	3.3	7.8	7.8	7.8
PTAC Unit 4		S08d	4.1	4.1	4.1	5.2	5.2	5.2	-3.3	-3.3	-3.3	8.1	8.1	8.1	3.4	3.4	3.4	7.8	7.8	7.8
PTAC Unit 5		S08e	4.0	4.0	4.0	5.1	5.1	5.1	-3.2	-3.2	-3.2	8.1	8.1	8.1	3.5	3.5	3.5	7.7	7.7	7.7
PTAC Unit 6		S08f	3.9	3.9	3.9	5.1	5.1	5.1	-3.3	-3.3	-3.3	8.0	8.0	8.0	3.6	3.6	3.6	7.7	7.7	7.7
PTAC Unit 7		S08g	3.8	3.8	3.8	4.9	4.9	4.9	-3.3	-3.3	-3.3	8.0	8.0	8.0	3.7	3.7	3.7	7.6	7.6	7.6
PTAC Unit 8		S08h	3.8	3.8	3.8	4.8	4.8	4.8	-3.4	-3.4	-3.4	8.0	8.0	8.0	3.7	3.7	3.7	7.5	7.5	7.5
PTAC Unit 9		S08i	3.7	3.7	3.7	4.7	4.7	4.7	-3.5	-3.5	-3.5	7.9	7.9	7.9	3.8	3.8	3.8	7.5	7.5	7.5
PTAC Unit 10		S08j	3.6	3.6	3.6	4.6	4.6	4.6	-3.7	-3.7	-3.7	7.8	7.8	7.8	3.9	3.9	3.9	7.3	7.3	7.3

Source			Partial Level (dB(A))																	
Name	M.	ID	OLA1			POR1			POR2			POR3			POR4			OLA2		
			Day	Evening	Night	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
PTAC Unit 11		S08k	3.5	3.5	3.5	4.4	4.4	4.4	-3.7	-3.7	-3.7	7.8	7.8	7.8	4.0	4.0	4.0	7.2	7.2	7.2
PTAC Unit 12		S08l	3.4	3.4	3.4	4.2	4.2	4.2	-3.7	-3.7	-3.7	7.7	7.7	7.7	4.1	4.1	4.1	7.1	7.1	7.1
PTAC Unit 13		S08m	3.2	3.2	3.2	4.0	4.0	4.0	-3.8	-3.8	-3.8	7.6	7.6	7.6	4.1	4.1	4.1	7.0	7.0	7.0
PTAC Unit 14-15		S08n	7.1	7.1	7.1	8.3	8.3	8.3	-0.3	-0.3	-0.3	11.1	11.1	11.1	5.7	5.7	5.7	10.8	10.8	10.8
PTAC Unit 16-17		S08o	7.1	7.1	7.1	8.2	8.2	8.2	-0.3	-0.3	-0.3	11.1	11.1	11.1	5.9	5.9	5.9	10.8	10.8	10.8
PTAC Unit 18-19		S08p	6.9	6.9	6.9	8.1	8.1	8.1	-0.4	-0.4	-0.4	11.1	11.1	11.1	6.0	6.0	6.0	10.8	10.8	10.8
PTAC Unit 20-21		S08q	6.9	6.9	6.9	8.0	8.0	8.0	-0.4	-0.4	-0.4	11.1	11.1	11.1	6.1	6.1	6.1	10.8	10.8	10.8
PTAC Unit 22-23		S08r	6.9	6.9	6.9	7.9	7.9	7.9	-0.4	-0.4	-0.4	11.1	11.1	11.1	6.2	6.2	6.2	10.7	10.7	10.7
PTAC Unit 24-25		S08s	6.7	6.7	6.7	7.8	7.8	7.8	-0.5	-0.5	-0.5	11.1	11.1	11.1	6.3	6.3	6.3	10.7	10.7	10.7
PTAC Unit 26-27		S08t	6.6	6.6	6.6	7.7	7.7	7.7	-0.6	-0.6	-0.6	11.1	11.1	11.1	6.4	6.4	6.4	10.6	10.6	10.6
PTAC Unit 28-29		S08u	6.6	6.6	6.6	7.6	7.6	7.6	-0.8	-0.8	-0.8	11.0	11.0	11.0	6.5	6.5	6.5	10.5	10.5	10.5
PTAC Unit 30-31		S08v	6.5	6.5	6.5	7.5	7.5	7.5	-1.0	-1.0	-1.0	11.0	11.0	11.0	6.6	6.6	6.6	10.5	10.5	10.5
PTAC Unit 32-33		S08w	6.4	6.4	6.4	7.4	7.4	7.4	-1.1	-1.1	-1.1	10.9	10.9	10.9	6.7	6.7	6.7	10.3	10.3	10.3
PTAC Unit 34-35		S08x	6.3	6.3	6.3	7.2	7.2	7.2	-1.1	-1.1	-1.1	10.8	10.8	10.8	6.8	6.8	6.8	10.2	10.2	10.2
PTAC Unit 36-37		S08y	6.2	6.2	6.2	7.0	7.0	7.0	-1.1	-1.1	-1.1	10.7	10.7	10.7	6.9	6.9	6.9	10.1	10.1	10.1
PTAC Unit 38-39		S08z	6.0	6.0	6.0	6.8	6.8	6.8	-1.1	-1.1	-1.1	10.6	10.6	10.6	6.9	6.9	6.9	10.0	10.0	10.0
PTAC Unit 40-41		S08aa	5.4	5.4	5.4	6.5	6.5	6.5	-1.1	-1.1	-1.1	10.4	10.4	10.4	7.0	7.0	7.0	9.8	9.8	9.8
PTAC Unit 42-43		S08ab	5.1	5.1	5.1	6.4	6.4	6.4	-1.1	-1.1	-1.1	10.3	10.3	10.3	7.0	7.0	7.0	9.6	9.6	9.6
PTAC Unit 44-45		S08ac	4.8	4.8	4.8	6.2	6.2	6.2	-1.1	-1.1	-1.1	10.2	10.2	10.2	7.1	7.1	7.1	9.5	9.5	9.5
PTAC Unit 46-47		S08ad	4.7	4.7	4.7	6.0	6.0	6.0	-1.1	-1.1	-1.1	10.1	10.1	10.1	7.1	7.1	7.1	9.3	9.3	9.3
PTAC Unit 48-49		S08ae	4.5	4.5	4.5	5.9	5.9	5.9	-1.1	-1.1	-1.1	9.9	9.9	9.9	7.2	7.2	7.2	9.1	9.1	9.1
PTAC Unit 50-51		S08af	4.3	4.3	4.3	5.7	5.7	5.7	-1.1	-1.1	-1.1	9.8	9.8	9.8	7.2	7.2	7.2	9.0	9.0	9.0
PTAC Unit 52-53		S08ag	4.1	4.1	4.1	5.6	5.6	5.6	-1.1	-1.1	-1.1	9.7	9.7	9.7	7.2	7.2	7.2	8.8	8.8	8.8
PTAC Unit 54-55		S08ah	4.0	4.0	4.0	5.4	5.4	5.4	-1.1	-1.1	-1.1	9.5	9.5	9.5	7.2	7.2	7.2	8.5	8.5	8.5
PTAC Unit 56-57		S08ai	3.8	3.8	3.8	5.3	5.3	5.3	-1.1	-1.1	-1.1	9.3	9.3	9.3	6.8	6.8	6.8	8.3	8.3	8.3
PTAC Unit 58-59		S08aj	3.6	3.6	3.6	5.1	5.1	5.1	-1.1	-1.1	-1.1	9.1	9.1	9.1	6.2	6.2	6.2	8.2	8.2	8.2
PTAC Unit 60-61		S08ak	7.1	7.1	7.1	8.3	8.3	8.3	-0.6	-0.6	-0.6	11.1	11.1	11.1	5.7	5.7	5.7	10.8	10.8	10.8
PTAC Unit 62-63		S08al	7.0	7.0	7.0	8.2	8.2	8.2	-0.6	-0.6	-0.6	11.1	11.1	11.1	5.9	5.9	5.9	10.8	10.8	10.8
PTAC Unit 64-65		S08am	6.9	6.9	6.9	8.1	8.1	8.1	-0.7	-0.7	-0.7	11.1	11.1	11.1	6.0	6.0	6.0	10.8	10.8	10.8
PTAC Unit 66-67		S08an	6.9	6.9	6.9	8.0	8.0	8.0	-0.7	-0.7	-0.7	11.1	11.1	11.1	6.1	6.1	6.1	10.7	10.7	10.7
PTAC Unit 68-69		S08ao	6.8	6.8	6.8	7.9	7.9	7.9	-0.7	-0.7	-0.7	11.1	11.1	11.1	6.2	6.2	6.2	10.7	10.7	10.7
PTAC Unit 70-71		S08ap	6.7	6.7	6.7	7.8	7.8	7.8	-0.8	-0.8	-0.8	11.1	11.1	11.1	6.3	6.3	6.3	10.7	10.7	10.7
PTAC Unit 72-73		S08aq	6.6	6.6	6.6	7.7	7.7	7.7	-0.9	-0.9	-0.9	11.1	11.1	11.1	6.4	6.4	6.4	10.6	10.6	10.6
PTAC Unit 74-75		S08ar	6.6	6.6	6.6	7.6	7.6	7.6	-1.0	-1.0	-1.0	11.0	11.0	11.0	6.5	6.5	6.5	10.5	10.5	10.5
PTAC Unit 76-77		S08as	6.5	6.5	6.5	7.5	7.5	7.5	-1.1	-1.1	-1.1	11.0	11.0	11.0	6.6	6.6	6.6	10.4	10.4	10.4
PTAC Unit 78-79		S08at	6.4	6.4	6.4	7.4	7.4	7.4	-1.2	-1.2	-1.2	10.9	10.9	10.9	6.7	6.7	6.7	10.3	10.3	10.3
PTAC Unit 80-81		S08au	6.3	6.3	6.3	7.2	7.2	7.2	-1.2	-1.2	-1.2	10.8	10.8	10.8	6.8	6.8	6.8	10.2	10.2	10.2
PTAC Unit 82-83		S08av	6.2	6.2	6.2	7.0	7.0	7.0	-1.2	-1.2	-1.2	10.8	10.8	10.8	6.9	6.9	6.9	10.1	10.1	10.1
PTAC Unit 84-85		S08aw	6.0	6.0	6.0	6.8	6.8	6.8	-1.2	-1.2	-1.2	10.6	10.6	10.6	6.9	6.9	6.9	9.9	9.9	9.9
PTAC Unit 86-87		S08ax	5.5	5.5	5.5	6.6	6.6	6.6	-1.2	-1.2	-1.2	10.4	10.4	10.4	7.0	7.0	7.0	9.8	9.8	9.8
PTAC Unit 88-89		S08ay	5.2	5.2	5.2	6.4	6.4	6.4	-1.2	-1.2	-1.2	10.3	10.3	10.3	7.0	7.0	7.0	9.6	9.6	9.6
PTAC Unit 90-91		S08az	4.9	4.9	4.9	6.3	6.3	6.3	-1.2	-1.2	-1.2	10.2	10.2	10.2	7.1	7.1	7.1	9.5	9.5	9.5
PTAC Unit 92-93		S08ba	4.8	4.8	4.8	6.1	6.1	6.1	-1.2	-1.2	-1.2	10.1	10.1	10.1	7.1	7.1	7.1	9.3	9.3	9.3
PTAC Unit 94-95		S08bb	4.6	4.6	4.6	5.9	5.9	5.9	-1.2	-1.2	-1.2	10.0	10.0	10.0	7.2	7.2	7.2	9.2	9.2	9.2
PTAC Unit 96-97		S08bc	4.4	4.4	4.4	5.8	5.8	5.8	-1.2	-1.2	-1.2	9.8	9.8	9.8	7.2	7.2	7.2	9.0	9.0	9.0
PTAC Unit 98-99		S08bd	4.2	4.2	4.2	5.6	5.6	5.6	-1.2	-1.2	-1.2	9.7	9.7	9.7	7.2	7.2	7.2	8.8	8.8	8.8

Source			Partial Level (dB(A))																			
Name	M.	ID	OLA1			POR1			POR2			POR3			POR4			OLA2				
			Day	Evening	Night	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night		
PTAC Unit 100-101		S08be	4.1	4.1	4.1	5.5	5.5	5.5	-1.2	-1.2	-1.2	9.5	9.5	9.5	7.2	7.2	7.2	8.6	8.6	8.6		
PTAC Unit 102-103		S08bf	3.9	3.9	3.9	5.3	5.3	5.3	-1.2	-1.2	-1.2	9.3	9.3	9.3	6.8	6.8	6.8	8.4	8.4	8.4		
PTAC Unit 104-105		S08bg	3.7	3.7	3.7	5.2	5.2	5.2	-1.2	-1.2	-1.2	9.1	9.1	9.1	6.2	6.2	6.2	8.2	8.2	8.2		
PTAC Unit 106-107		S08bh	7.0	7.0	7.0	8.3	8.3	8.3	-0.6	-0.6	-0.6	11.1	11.1	11.1	5.7	5.7	5.7	10.7	10.7	10.7		
PTAC Unit 108-109		S08bi	6.9	6.9	6.9	8.1	8.1	8.1	-0.7	-0.7	-0.7	11.1	11.1	11.1	6.0	6.0	6.0	10.7	10.7	10.7		
PTAC Unit 110-111		S08bj	6.8	6.8	6.8	7.9	7.9	7.9	-0.7	-0.7	-0.7	11.1	11.1	11.1	6.2	6.2	6.2	10.6	10.6	10.6		
PTAC Unit 112-113		S08bk	6.6	6.6	6.6	7.7	7.7	7.7	-0.9	-0.9	-0.9	11.1	11.1	11.1	6.4	6.4	6.4	10.5	10.5	10.5		
PTAC Unit 114-115		S08bl	6.5	6.5	6.5	7.5	7.5	7.5	-1.1	-1.1	-1.1	11.0	11.0	11.0	6.6	6.6	6.6	10.4	10.4	10.4		
PTAC Unit 116-117		S08bm	6.3	6.3	6.3	7.2	7.2	7.2	-1.2	-1.2	-1.2	10.8	10.8	10.8	6.8	6.8	6.8	10.2	10.2	10.2		
PTAC Unit 118-119		S08bn	6.0	6.0	6.0	6.8	6.8	6.8	-1.2	-1.2	-1.2	10.6	10.6	10.6	6.9	6.9	6.9	9.9	9.9	9.9		
PTAC Unit 120-121		S08bo	5.1	5.1	5.1	6.4	6.4	6.4	-1.2	-1.2	-1.2	10.3	10.3	10.3	7.0	7.0	7.0	9.6	9.6	9.6		
PTAC Unit 122-123		S08bp	4.8	4.8	4.8	6.1	6.1	6.1	-1.2	-1.2	-1.2	10.1	10.1	10.1	7.1	7.1	7.1	9.3	9.3	9.3		
PTAC Unit 124-125		S08bq	4.4	4.4	4.4	5.8	5.8	5.8	-1.2	-1.2	-1.2	9.8	9.8	9.8	7.1	7.1	7.1	9.0	9.0	9.0		
PTAC Unit 126-127		S08br	4.0	4.0	4.0	5.5	5.5	5.5	-1.2	-1.2	-1.2	9.5	9.5	9.5	7.2	7.2	7.2	8.5	8.5	8.5		
PTAC Unit 128		S08bs	0.7	0.7	0.7	2.1	2.1	2.1	-4.2	-4.2	-4.2	6.1	6.1	6.1	3.2	3.2	3.2	5.2	5.2	5.2		
Delivery Truck Movements 2		S02b	27.4	27.4	27.4	27.7	27.7	27.7	6.7	6.7	6.7	27.9	27.9	27.9	20.6	20.6	20.6	28.7	28.7	28.7		
Delivery Truck Movements 1		S02a	31.7	31.7	31.7	31.6	31.6	31.6	19.3	19.3	19.3	36.0	36.0	36.0	29.4	29.4	29.4	37.6	37.6	37.6		

Sound Sources

Point Sources

Name	Sel.	M.	ID	Result. PWL			Lw / Li		Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.	Height		Coordinates		
				Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night					X	Y	Z
				(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)	(Hz)		(m)	(m)	(m)	(m)
Delivery Truck 1			I001S01a	96.4	96.4	96.4	Lw	Lvl02		0.0	0.0	0.0							0.0	(none)	1.50	r	1638790.39	12117325.39	1.50
Delivery Truck 2			I001S01b	96.4	96.4	96.4	Lw	Lvl02		0.0	0.0	0.0							0.0	(none)	1.50	r	1638666.52	12117353.15	1.50
Rooftop MAU (Hotel)			S03	72.3	72.3	72.3	Lw	Lvl05		0.0	0.0	0.0							0.0	(none)	1.00	g	1638677.20	12117345.51	22.00
Rooftop Pool AHU 1			S04a	78.3	78.3	78.3	Lw	Lvl04		0.0	0.0	0.0							0.0	(none)	1.00	g	1638753.40	12117368.48	4.00
Rooftop Pool AHU 2			S04b	78.3	78.3	78.3	Lw	Lvl04		0.0	0.0	0.0							0.0	(none)	1.00	g	1638755.25	12117366.79	4.00
Rooftop Pool AHU 3			S04c	78.3	78.3	78.3	Lw	Lvl04		0.0	0.0	0.0							0.0	(none)	1.00	g	1638757.13	12117365.15	4.00
Rooftop Pool AHU 4			S04d	78.3	78.3	78.3	Lw	Lvl04		0.0	0.0	0.0							0.0	(none)	1.00	g	1638758.89	12117363.66	4.00
Rooftop Pool AHU 5			S04e	78.3	78.3	78.3	Lw	Lvl04		0.0	0.0	0.0							0.0	(none)	1.00	g	1638760.73	12117362.04	4.00
Mech Electr AHU 6			S05a	72.3	72.3	72.3	Lw	Lvl05		0.0	0.0	0.0							0.0	(none)	1.00	g	1638772.06	12117352.05	4.00
Locker Room AHU 7			S05b	66.2	66.2	66.2	Lw	Lvl06		0.0	0.0	0.0							0.0	(none)	1.00	g	1638773.82	12117350.46	4.00
Officel AHU 8			S05c	66.2	66.2	66.2	Lw	Lvl06		0.0	0.0	0.0							0.0	(none)	1.00	g	1638775.50	12117348.97	4.00
Lobby AHU 9			S05d	72.3	72.3	72.3	Lw	Lvl05		0.0	0.0	0.0							0.0	(none)	1.00	g	1638726.55	12117392.15	7.00
Family Centre AHU 10			S05e	72.3	72.3	72.3	Lw	Lvl05		0.0	0.0	0.0							0.0	(none)	1.00	g	1638728.52	12117390.39	7.00
Kitchen AHU 11			S05f	66.2	66.2	66.2	Lw	Lvl06		0.0	0.0	0.0							0.0	(none)	1.00	g	1638730.61	12117388.59	7.00
Kitchen 2 AHU 12			S05g	66.2	66.2	66.2	Lw	Lvl06		0.0	0.0	0.0							0.0	(none)	1.00	g	1638710.87	12117397.54	7.00
Restaurant AHU 13			S05h	66.2	66.2	66.2	Lw	Lvl06		0.0	0.0	0.0							0.0	(none)	1.00	g	1638712.90	12117399.81	7.00
Kitchen Exhaust Fan 1			S06a	74.5	74.5	74.5	Lw	Lvl07		0.0	0.0	0.0							0.0	(none)	0.50	g	1638714.97	12117394.89	6.50
Kitchen Exhaust Fan 2			S06b	74.5	74.5	74.5	Lw	Lvl07		0.0	0.0	0.0							0.0	(none)	0.50	g	1638734.12	12117380.44	6.50
General Exhaust Fan 1			S07a	73.2	73.2	73.2	Lw	Lvl08		0.0	0.0	0.0							0.0	(none)	0.50	g	1638723.99	12117384.06	6.50
General Exhaust Fan 2			S07b	73.2	73.2	73.2	Lw	Lvl08		0.0	0.0	0.0							0.0	(none)	0.50	g	1638762.23	12117352.86	3.50
General Exhaust Fan 3			S07c	73.2	73.2	73.2	Lw	Lvl08		0.0	0.0	0.0							0.0	(none)	0.50	g	1638784.80	12117335.85	3.50
PTAC Unit 1			S08a	58.3	58.3	58.3	Lw	Lvl01		0.0	0.0	0.0							0.0	(none)	4.50	r	1638655.28	12117303.31	4.50

Name	Sel.	M.	ID	Result. PWL			Lw / Li		Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.	Height	Coordinates				
				Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night	(dB)	(Hz)		(m)	X	Y	Z	
				(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)					(m)	(m)	(m)	
PTAC Unit 2			S08b	58.3	58.3	58.3	Lw	Lvl01		0.0	0.0	0.0							0.0		(none)	4.50	r	1638657.98	12117306.52	4.50
PTAC Unit 3			S08c	58.3	58.3	58.3	Lw	Lvl01		0.0	0.0	0.0							0.0		(none)	4.50	r	1638660.72	12117309.76	4.50
PTAC Unit 4			S08d	58.3	58.3	58.3	Lw	Lvl01		0.0	0.0	0.0							0.0		(none)	4.50	r	1638663.47	12117312.96	4.50
PTAC Unit 5			S08e	58.3	58.3	58.3	Lw	Lvl01		0.0	0.0	0.0							0.0		(none)	4.50	r	1638666.15	12117316.15	4.50
PTAC Unit 6			S08f	58.3	58.3	58.3	Lw	Lvl01		0.0	0.0	0.0							0.0		(none)	4.50	r	1638668.86	12117319.31	4.50
PTAC Unit 7			S08g	58.3	58.3	58.3	Lw	Lvl01		0.0	0.0	0.0							0.0		(none)	4.50	r	1638671.58	12117322.52	4.50
PTAC Unit 8			S08h	58.3	58.3	58.3	Lw	Lvl01		0.0	0.0	0.0							0.0		(none)	4.50	r	1638674.29	12117325.70	4.50
PTAC Unit 9			S08i	58.3	58.3	58.3	Lw	Lvl01		0.0	0.0	0.0							0.0		(none)	4.50	r	1638677.04	12117328.90	4.50
PTAC Unit 10			S08j	58.3	58.3	58.3	Lw	Lvl01		0.0	0.0	0.0							0.0		(none)	4.50	r	1638679.78	12117332.12	4.50
PTAC Unit 11			S08k	58.3	58.3	58.3	Lw	Lvl01		0.0	0.0	0.0							0.0		(none)	4.50	r	1638682.53	12117335.30	4.50
PTAC Unit 12			S08l	58.3	58.3	58.3	Lw	Lvl01		0.0	0.0	0.0							0.0		(none)	4.50	r	1638685.23	12117338.50	4.50
PTAC Unit 13			S08m	58.3	58.3	58.3	Lw	Lvl01		0.0	0.0	0.0							0.0		(none)	4.50	r	1638687.93	12117341.72	4.50
PTAC Unit 14-15			S08n	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638655.28	12117303.31	7.50
PTAC Unit 16-17			S08o	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638657.98	12117306.52	7.50
PTAC Unit 18-19			S08p	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638660.72	12117309.76	7.50
PTAC Unit 20-21			S08q	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638663.47	12117312.96	7.50
PTAC Unit 22-23			S08r	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638666.15	12117316.15	7.50
PTAC Unit 24-25			S08s	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638668.86	12117319.31	7.50
PTAC Unit 26-27			S08t	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638671.58	12117322.52	7.50
PTAC Unit 28-29			S08u	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638674.29	12117325.70	7.50
PTAC Unit 30-31			S08v	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638677.04	12117328.90	7.50
PTAC Unit 32-33			S08w	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638679.78	12117332.12	7.50
PTAC Unit 34-35			S08x	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638682.53	12117335.30	7.50
PTAC Unit 36-37			S08y	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638685.23	12117338.50	7.50
PTAC Unit 38-39			S08z	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638687.93	12117341.72	7.50
PTAC Unit 40-41			S08aa	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638690.69	12117344.93	7.50
PTAC Unit 42-43			S08ab	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638693.39	12117348.08	7.50
PTAC Unit 44-45			S08ac	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638696.12	12117351.28	7.50
PTAC Unit 46-47			S08ad	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638698.82	12117354.44	7.50
PTAC Unit 48-49			S08ae	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638701.54	12117357.61	7.50
PTAC Unit 50-51			S08af	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638704.27	12117360.78	7.50
PTAC Unit 52-53			S08ag	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638706.97	12117363.93	7.50
PTAC Unit 54-55			S08ah	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638709.68	12117367.10	7.50
PTAC Unit 56-57			S08ai	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638712.42	12117370.28	7.50
PTAC Unit 58-59			S08aj	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	7.50	r	1638715.05	12117373.45	7.50
PTAC Unit 60-61			S08ak	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	13.50	r	1638655.28	12117303.31	13.50
PTAC Unit 62-63			S08al	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	13.50	r	1638657.98	12117306.52	13.50
PTAC Unit 64-65			S08am	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	13.50	r	1638660.72	12117309.76	13.50
PTAC Unit 66-67			S08an	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	13.50	r	1638663.47	12117312.96	13.50
PTAC Unit 68-69			S08ao	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	13.50	r	1638666.15	12117316.15	13.50
PTAC Unit 70-71			S08ap	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	13.50	r	1638668.86	12117319.31	13.50
PTAC Unit 72-73			S08aq	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	13.50	r	1638671.58	12117322.52	13.50
PTAC Unit 74-75			S08ar	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	13.50	r	1638674.29	12117325.70	13.50
PTAC Unit 76-77			S08as	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	13.50	r	1638677.04	12117328.90	13.50
PTAC Unit 78-79			S08at	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	13.50	r	1638679.78	12117332.12	13.50
PTAC Unit 80-81			S08au	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0		(none)	13.50	r	1638682.53	12117335.30	13.50

Name	Sel.	M.	ID	Result. PWL			Lw / Li		Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.	Height	Coordinates				
				Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night					X	Y	Z	
				(dBA)	(dBA)	(dBA)				dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)	(Hz)		(m)	(m)	(m)	(m)	
PTAC Unit 82-83			S08av	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		13.50	r	1638685.23	12117338.50	13.50
PTAC Unit 84-85			S08aw	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		13.50	r	1638687.93	12117341.72	13.50
PTAC Unit 86-87			S08ax	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		13.50	r	1638690.69	12117344.93	13.50
PTAC Unit 88-89			S08ay	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		13.50	r	1638693.39	12117348.08	13.50
PTAC Unit 90-91			S08az	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		13.50	r	1638696.12	12117351.28	13.50
PTAC Unit 92-93			S08ba	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		13.50	r	1638698.82	12117354.44	13.50
PTAC Unit 94-95			S08bb	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		13.50	r	1638701.54	12117357.61	13.50
PTAC Unit 96-97			S08bc	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		13.50	r	1638704.27	12117360.78	13.50
PTAC Unit 98-99			S08bd	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		13.50	r	1638706.97	12117363.93	13.50
PTAC Unit 100-101			S08be	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		13.50	r	1638709.68	12117367.10	13.50
PTAC Unit 102-103			S08bf	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		13.50	r	1638712.42	12117370.28	13.50
PTAC Unit 104-105			S08bg	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		13.50	r	1638715.05	12117373.45	13.50
PTAC Unit 106-107			S08bh	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		19.50	r	1638655.28	12117303.31	19.50
PTAC Unit 108-109			S08bi	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		19.50	r	1638660.72	12117309.76	19.50
PTAC Unit 110-111			S08bj	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		19.50	r	1638666.15	12117316.15	19.50
PTAC Unit 112-113			S08bk	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		19.50	r	1638671.58	12117322.52	19.50
PTAC Unit 114-115			S08bl	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		19.50	r	1638677.04	12117328.90	19.50
PTAC Unit 116-117			S08bm	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		19.50	r	1638682.53	12117335.30	19.50
PTAC Unit 118-119			S08bn	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		19.50	r	1638687.93	12117341.72	19.50
PTAC Unit 120-121			S08bo	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		19.50	r	1638693.39	12117348.08	19.50
PTAC Unit 122-123			S08bp	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		19.50	r	1638698.82	12117354.44	19.50
PTAC Unit 124-125			S08bq	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		19.50	r	1638704.27	12117360.78	19.50
PTAC Unit 126-127			S08br	61.3	61.3	61.3	Lw	Lvl01		3.0	3.0	3.0							0.0	(none)		19.50	r	1638709.68	12117367.10	19.50
PTAC Unit 128			S08bs	58.3	58.3	58.3	Lw	Lvl01		0.0	0.0	0.0							0.0	(none)		19.50	r	1638715.05	12117373.45	19.50

Line Sources

Name	Sel.	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Correction				Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.	Moving Pt. Src			
				Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night					Number		Speed	
				(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)	(Hz)			Day	Evening	Night	(km/h)
Delivery Truck Movements 2			S02b	77.9	77.9	77.9	55.0	55.0	55.0	PWL-Pt	Lvl03		0.0	0.0	0.0								0.0		(none)	4.0	4.0	4.0	30.0
Delivery Truck Movements 1			S02a	81.6	81.6	81.6	55.0	55.0	55.0	PWL-Pt	Lvl03		0.0	0.0	0.0								0.0		(none)	4.0	4.0	4.0	30.0

Geometry Line Sources

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(m)	(m)	(m)	(m)	(m)	(m)
Delivery Truck Movements 2	S02b	1.50	r	1638666.34	12117353.33	1.50	0.00
				1638635.20	12117316.61	1.50	0.00
				1638632.86	12117312.65	1.50	0.00
				1638631.60	12117309.05	1.50	0.00
				1638630.79	12117305.00	1.50	0.00
				1638629.44	12117296.90	1.50	0.00
				1638628.00	12117291.23	1.50	0.00
				1638626.56	12117285.83	1.50	0.00
				1638624.85	12117282.41	1.50	0.00

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(m)	(m)	(m)	(m)	(m)	(m)
				1638623.59	12117278.00	1.50	0.00
				1638623.59	12117275.75	1.50	0.00
				1638624.40	12117273.77	1.50	0.00
				1638626.02	12117271.07	1.50	0.00
				1638701.26	12117205.18	1.50	0.00
Delivery Truck Movements 1	S02a	1.50	r	1638704.03	12117202.72	1.50	0.00
				1638703.10	12117205.22	1.50	0.00
				1638703.17	12117207.43	1.50	0.00
				1638704.60	12117210.43	1.50	0.00
				1638707.53	12117214.15	1.50	0.00
				1638781.36	12117299.65	1.50	0.00
				1638782.60	12117302.15	1.50	0.00
				1638783.11	12117305.67	1.50	0.00
				1638782.93	12117308.48	1.50	0.00
				1638782.33	12117310.55	1.50	0.00
				1638781.91	12117311.84	1.50	0.00
				1638781.81	12117313.14	1.50	0.00
				1638781.96	12117314.23	1.50	0.00
				1638782.23	12117315.33	1.50	0.00
				1638782.65	12117316.43	1.50	0.00
				1638790.36	12117325.38	1.50	0.00
				1638782.62	12117316.38	1.50	0.00
				1638781.54	12117315.84	1.50	0.00
				1638780.37	12117315.75	1.50	0.00
				1638779.15	12117315.97	1.50	0.00
				1638777.89	12117316.42	1.50	0.00
				1638776.27	12117317.50	1.50	0.00
				1638774.25	12117319.17	1.50	0.00
				1638732.91	12117355.00	1.50	0.00
				1638730.64	12117356.14	1.50	0.00
				1638728.43	12117356.65	1.50	0.00
				1638726.05	12117356.70	1.50	0.00
				1638724.01	12117356.65	1.50	0.00
				1638722.37	12117356.31	1.50	0.00
				1638720.61	12117355.51	1.50	0.00
				1638718.96	12117354.44	1.50	0.00
				1638717.55	12117353.19	1.50	0.00
				1638643.61	12117267.23	1.50	0.00
				1638642.41	12117265.47	1.50	0.00
				1638641.90	12117263.71	1.50	0.00
				1638641.73	12117261.78	1.50	0.00
				1638642.13	12117259.69	1.50	0.00
				1638642.81	12117257.70	1.50	0.00
				1638643.61	12117256.11	1.50	0.00
				1638645.53	12117253.90	1.50	0.00
				1638710.86	12117196.86	1.50	0.00

Area Sources

Name	Sel.	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.	Moving Pt. Src		
				Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night				Number		
				(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)	(Hz)		Day	Evening	Night

Geometry Area Sources

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(m)	(m)	(m)	(m)	(m)	(m)

Vertical Area Sources

Name	Sel.	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.
				Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night			
				(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)	(Hz)	

Road

Name	Sel.	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	Surface		Gradient	Mult. Reflection		
				Day	Evening	Night	DTV	Str.class.	M			p (%)			Auto	Truck	Dist.	Dstro	Type		Drefl	Hbuild	Dist.
				(dBA)	(dBA)	(dBA)			Day	Evening	Night	Day	Evening	Night	(km/h)	(km/h)		(dB)		(%)	(dB)	(m)	(m)

Geometry Road

Name	Height		Coordinates				Dist	LSlope
	Begin	End	x	y	z	Ground	(m)	(%)
	(m)	(m)	(m)	(m)	(m)	(m)		

Receptors

Name	Sel.	M.	ID	Level Lr			Limit. Value			Land Use			Height	Coordinates		
				Day	Evening	Night	Day	Evening	Night	Type	Auto	Noise Type		X	Y	Z
				(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(m)	(m)	(m)	(m)
OLA1			R1	36.3	36.3	36.3	0.0	0.0	0.0		x	Total	1.50	r 1638715.38	12117168.34	1.50
POR1			R2	35.9	35.9	35.9	0.0	0.0	0.0		x	Total	4.50	r 1638718.20	12117164.89	4.50
POR2			R3	35.9	35.9	35.9	0.0	0.0	0.0		x	Total	7.50	r 1638971.24	12117128.88	7.50
POR3			R4	48.0	48.0	48.0	0.0	0.0	0.0		x	Total	16.50	r 1638750.84	12117236.79	16.50
POR4			R5	48.6	48.6	48.6	0.0	0.0	0.0		x	Total	4.50	r 1638842.00	12117277.80	4.50
OLA2			R6	46.1	46.1	46.1	0.0	0.0	0.0		x	Total	1.50	r 1638742.22	12117231.54	1.50

Obstacles

Barriers

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever		Height	
				left	right		horz.	vert.	Begin	End
						(m)	(m)	(m)	(m)	
Barrier 1		~	!01!Bar01						3.00	r

Geometry Barriers

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever		Height		Coordinates			
				left	right		horz.	vert.	Begin	End	x	y	z	Ground
						(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
Barrier 1		~	!01!Bar01						3.00	r	1638798.57	12117331.39	3.00	0.00
											1638808.56	12117322.71	3.00	0.00
											1638795.96	12117307.90	3.00	0.00
											1638782.10	12117320.07	3.00	0.00
											1638784.64	12117323.05	3.00	0.00

Building

Name	Sel.	M.	ID	RB	Residents	Absorption	Height
							Begin
							(m)
Res01			Res01	x	0		6.00 r
Res02			Res02	x	0		6.00 r
Res03			Res03	x	0		6.00 r
Res04			Res04	x	0		6.00 r
Res05			Res05	x	0		6.00 r
Res06			Res06	x	0		6.00 r
Res07			Res07	x	0		6.00 r
Res08			Res08	x	0		6.00 r
Res09			Res09	x	0		6.00 r
Res10			Res10	x	0		6.00 r
Res11			Res11	x	0		6.00 r
Res12			Res12	x	0		6.00 r
Res13			Res13	x	0		6.00 r
Res14			Res14	x	0		6.00 r
Res15			Res15	x	0		6.00 r
Res16			Res16	x	0		6.00 r
Res17			Res17	x	0		6.00 r
Res18			Res18	x	0		6.00 r
Res19			Res19	x	0		6.00 r
Res20			Res20	x	0		6.00 r
Res21			Res21	x	0		9.00 r
Res22			Res22	x	0		9.00 r
Support Building			Support_Building		0		3.00 r
Family Centre & Admin			Family_Centre_Admin		0		6.00 r
Hotel			Hotel		0		21.00 r
Water Park (Assumed 3 Storeys - Mech Brief)			Water_Park		0		9.00 r
425 Culdaff Residential Building			425Culdaff	x	0		18.00 r

Geometry Building

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates			
							Begin	x	y	z	Ground
							(m)	(m)	(m)	(m)	(m)
Res01			Res01	x	0		6.00 r	1638718.18	12117164.72	6.00	0.00
								1638667.52	12117106.99	6.00	0.00
								1638679.23	12117096.71	6.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates			
							Begin	x	y	z	Ground
							(m)	(m)	(m)	(m)	(m)
Res02			Res02	x	0		6.00	1638729.90	12117154.43	6.00	0.00
								1638749.83	12117139.65	6.00	0.00
								1638701.70	12117087.32	6.00	0.00
								1638712.62	12117077.27	6.00	0.00
								1638760.75	12117129.60	6.00	0.00
Res03			Res03	x	0		6.00	1638770.39	12117121.35	6.00	0.00
								1638724.56	12117068.17	6.00	0.00
								1638735.72	12117058.55	6.00	0.00
								1638781.55	12117111.74	6.00	0.00
Res04			Res04	x	0		6.00	1638659.19	12117096.66	6.00	0.00
								1638657.97	12117075.75	6.00	0.00
								1638673.81	12117074.83	6.00	0.00
								1638675.03	12117095.74	6.00	0.00
Res05			Res05	x	0		6.00	1638678.43	12117072.75	6.00	0.00
								1638715.59	12117039.08	6.00	0.00
								1638705.69	12117028.15	6.00	0.00
								1638668.53	12117061.82	6.00	0.00
Res06			Res06	x	0		6.00	1638809.95	12117093.51	6.00	0.00
								1638711.80	12116981.64	6.00	0.00
								1638722.57	12116972.19	6.00	0.00
								1638820.72	12117084.06	6.00	0.00
Res07			Res07	x	0		6.00	1638834.56	12117072.99	6.00	0.00
								1638735.49	12116960.77	6.00	0.00
								1638747.13	12116950.50	6.00	0.00
								1638846.19	12117062.72	6.00	0.00
Res08			Res08	x	0		6.00	1638831.32	12117009.10	6.00	0.00
								1638782.04	12116952.11	6.00	0.00
								1638793.32	12116942.37	6.00	0.00
								1638842.60	12116999.36	6.00	0.00
Res09			Res09	x	0		6.00	1638848.04	12117028.40	6.00	0.00
								1638863.05	12117044.49	6.00	0.00
								1638874.20	12117034.10	6.00	0.00
								1638859.20	12117018.00	6.00	0.00
Res10			Res10	x	0		6.00	1638879.78	12117017.81	6.00	0.00
								1638805.14	12116933.78	6.00	0.00
								1638816.76	12116923.46	6.00	0.00
								1638891.40	12117007.49	6.00	0.00
Res11			Res11	x	0		6.00	1638600.17	12117039.44	6.00	0.00
								1638524.06	12116953.10	6.00	0.00
								1638536.06	12116942.52	6.00	0.00
								1638612.18	12117028.85	6.00	0.00
Res12			Res12	x	0		6.00	1638548.67	12116917.71	6.00	0.00
								1638637.38	12117015.35	6.00	0.00
								1638648.67	12117005.10	6.00	0.00
								1638559.96	12116907.45	6.00	0.00
Res13			Res13	x	0		6.00	1638561.93	12116889.58	6.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates			
							Begin	x	y	z	Ground
							(m)	(m)	(m)	(m)	(m)
								1638658.82	12116996.06	6.00	0.00
								1638671.14	12116984.85	6.00	0.00
								1638574.25	12116878.37	6.00	0.00
Res14			Res14	x	0		6.00 r	1638696.33	12116962.71	6.00	0.00
								1638606.17	12116859.43	6.00	0.00
								1638616.54	12116850.38	6.00	0.00
								1638706.70	12116953.66	6.00	0.00
Res15			Res15	x	0		6.00 r	1638718.21	12116942.69	6.00	0.00
								1638628.28	12116842.05	6.00	0.00
								1638640.17	12116831.43	6.00	0.00
								1638730.10	12116932.06	6.00	0.00
Res16			Res16	x	0		6.00 r	1638653.91	12117032.50	6.00	0.00
								1638687.36	12117001.41	6.00	0.00
								1638697.76	12117012.60	6.00	0.00
								1638664.31	12117043.69	6.00	0.00
Res17			Res17	x	0		6.00 r	1638612.28	12117053.34	6.00	0.00
								1638619.46	12117038.59	6.00	0.00
								1638626.62	12117042.08	6.00	0.00
								1638619.44	12117056.83	6.00	0.00
Res18			Res18	x	0		6.00 r	1638626.30	12117058.91	6.00	0.00
								1638628.42	12117042.73	6.00	0.00
								1638636.70	12117043.81	6.00	0.00
								1638634.57	12117059.99	6.00	0.00
Res19			Res19	x	0		6.00 r	1638646.39	12117058.43	6.00	0.00
								1638638.48	12117044.04	6.00	0.00
								1638645.68	12117040.09	6.00	0.00
								1638653.58	12117054.48	6.00	0.00
Res20			Res20	x	0		6.00 r	1638654.65	12117051.36	6.00	0.00
								1638646.95	12117040.46	6.00	0.00
								1638653.37	12117035.93	6.00	0.00
								1638661.07	12117046.82	6.00	0.00
Res21			Res21	x	0		9.00 r	1638895.02	12117041.61	9.00	0.00
								1638974.82	12117131.24	9.00	0.00
								1638991.08	12117116.77	9.00	0.00
								1638911.28	12117027.14	9.00	0.00
Res22			Res22	x	0		9.00 r	1638925.59	12117008.87	9.00	0.00
								1639008.59	12117100.97	9.00	0.00
								1639024.74	12117086.41	9.00	0.00
								1638941.74	12116994.32	9.00	0.00
Support Building			Support_Building		0		3.00 r	1638739.13	12117362.25	3.00	0.00
								1638784.68	12117323.01	3.00	0.00
								1638792.81	12117332.45	3.00	0.00
								1638796.67	12117329.13	3.00	0.00
								1638800.50	12117333.57	3.00	0.00
								1638751.20	12117376.05	3.00	0.00
Family Centre & Admin			Family_Centre_Admin		0		6.00 r	1638677.04	12117364.93	6.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates			
							Begin	x	y	z	Ground
							(m)	(m)	(m)	(m)	(m)
								1638693.29	12117383.76	6.00	0.00
								1638690.84	12117385.88	6.00	0.00
								1638696.03	12117391.88	6.00	0.00
								1638698.52	12117389.73	6.00	0.00
								1638714.43	12117408.15	6.00	0.00
								1638751.76	12117375.91	6.00	0.00
								1638737.47	12117359.38	6.00	0.00
								1638730.30	12117365.58	6.00	0.00
								1638732.57	12117368.21	6.00	0.00
								1638721.27	12117377.98	6.00	0.00
								1638689.54	12117341.22	6.00	0.00
								1638673.25	12117355.32	6.00	0.00
								1638672.18	12117354.18	6.00	0.00
								1638667.60	12117358.04	6.00	0.00
								1638674.89	12117366.76	6.00	0.00
Hotel			Hotel		0		21.00	r 1638700.69	12117379.43	21.00	0.00
								1638697.46	12117375.70	21.00	0.00
								1638693.14	12117379.25	21.00	0.00
								1638638.06	12117315.04	21.00	0.00
								1638640.61	12117312.86	21.00	0.00
								1638638.56	12117310.46	21.00	0.00
								1638644.74	12117305.18	21.00	0.00
								1638646.88	12117307.69	21.00	0.00
								1638653.78	12117301.79	21.00	0.00
								1638715.92	12117374.57	21.00	0.00
								1638708.64	12117380.77	21.00	0.00
								1638704.63	12117376.07	21.00	0.00
Water Park (Assumed 3 Storeys - Mech Brief)			Water_Park		0		9.00	r 1638714.36	12117408.07	9.00	0.00
								1638749.91	12117449.60	9.00	0.00
								1638836.19	12117374.94	9.00	0.00
								1638800.49	12117333.49	9.00	0.00
425 Culdaff Residential Building			425Culdaff	x	0		18.00	r 1638750.88	12117236.64	18.00	0.00
								1638738.17	12117222.30	18.00	0.00
								1638739.53	12117195.97	18.00	0.00
								1638790.27	12117150.57	18.00	0.00
								1638816.14	12117152.04	18.00	0.00
								1638843.39	12117183.03	18.00	0.00
								1638829.55	12117195.19	18.00	0.00
								1638805.60	12117167.72	18.00	0.00
								1638799.25	12117167.38	18.00	0.00
								1638755.09	12117206.77	18.00	0.00
								1638754.75	12117213.01	18.00	0.00
								1638764.74	12117224.48	18.00	0.00

3D Reflector

Name	Sel.	M.	ID	Type	Attenuation	B	m	Height
					dB/100m	%	1/m	(m)

Geometry Absorption

Name	Sel.	M.	ID	Type	Attenuation	B	m	Height	Coordinates			
					dB/100m	%	1/m	(m)	x	y	z	Ground
									(m)	(m)	(m)	(m)

Ground Absorption

Name	Sel.	M.	ID	G
Parking Area			G01	0.0
Parking Area			G01	0.0
425 Culdaff Parking Area			G02	0.0

Geometry Absorption

Name	Sel.	M.	ID	G	Coordinates	
					x	y
					(m)	(m)
Parking Area			G01	0.0	1638617.70	12117286.00
					1638613.91	12117283.47
					1638611.38	12117279.69
					1638610.49	12117275.22
					1638611.38	12117270.75
					1638613.91	12117266.96
					1638617.70	12117264.43
					1638622.17	12117263.54
					1638626.63	12117264.43
					1638633.01	12117259.67
					1638617.87	12117243.10
					1638614.59	12117245.65
					1638549.44	12117171.19
					1638554.55	12117166.95
					1638550.20	12117162.29
					1638617.02	12117104.26
					1638620.55	12117108.37
					1638624.94	12117104.36
					1638694.32	12117185.10
					1638690.60	12117188.34
					1638695.56	12117194.45
					1638697.95	12117195.88
					1638701.48	12117196.46
					1638704.63	12117195.79
					1638708.92	12117192.26
					1638741.85	12117163.91
					1638747.10	12117169.64
					1638713.12	12117199.89
					1638711.02	12117202.28
					1638709.59	12117204.95

Name	Sel.	M.	ID	G	Coordinates	
					x	y
					(m)	(m)
					1638709.21	12117208.00
					1638709.40	12117211.15
					1638710.38	12117213.43
					1638783.99	12117297.52
					1638785.98	12117301.54
					1638786.61	12117304.87
					1638786.43	12117308.47
					1638786.52	12117311.17
					1638787.51	12117312.70
					1638788.77	12117313.35
					1638789.94	12117313.15
					1638795.97	12117308.02
					1638808.43	12117322.57
					1638794.09	12117335.09
					1638783.53	12117322.00
					1638781.53	12117320.02
					1638779.87	12117319.83
					1638778.33	12117319.97
					1638777.33	12117320.35
					1638730.59	12117362.16
					1638723.23	12117364.41
					1638715.25	12117363.19
					1638708.29	12117358.28
					1638691.31	12117338.64
					1638664.10	12117361.96
					1638628.10	12117319.41
					1638625.03	12117314.50
					1638623.39	12117307.13
					1638622.17	12117296.90
Parking Area			G01	0.0	1638649.06	12117579.48
					1638788.08	12117464.97
					1638885.63	12117375.27
					1638900.02	12117356.16
					1638913.96	12117340.65
					1638928.35	12117325.36
					1638935.32	12117314.12
					1638938.47	12117301.98
					1638938.47	12117291.19
					1638936.44	12117283.77
					1638931.05	12117272.53
					1638899.80	12117231.61
					1638858.88	12117182.60
					1638809.02	12117121.74
					1638807.65	12117120.46
					1638805.64	12117119.82
					1638803.72	12117120.01

Name	Sel.	M.	ID	G	Coordinates	
					x	y
					(m)	(m)
					1638801.90	12117121.10
					1638798.43	12117123.84
					1638745.56	12117170.86
					1638740.36	12117165.20
					1638742.91	12117163.01
					1638743.82	12117161.64
					1638744.10	12117160.36
					1638743.92	12117159.08
					1638742.36	12117156.89
					1638713.88	12117124.75
					1638684.18	12117090.84
					1638682.53	12117086.62
					1638682.35	12117081.12
					1638684.00	12117076.91
					1638686.20	12117073.79
					1638729.09	12117036.95
					1638730.96	12117034.02
					1638731.08	12117032.73
					1638730.73	12117031.09
					1638730.03	12117029.45
					1638728.62	12117028.05
					1638726.63	12117026.76
					1638723.24	12117026.06
					1638709.82	12117010.76
					1638717.24	12117004.28
					1638747.64	12117039.02
					1638742.15	12117043.52
					1638741.21	12117042.61
					1638739.98	12117041.90
					1638738.60	12117041.76
					1638737.26	12117041.73
					1638736.27	12117042.07
					1638695.24	12117078.72
					1638693.87	12117080.98
					1638693.46	12117082.92
					1638693.46	12117085.12
					1638693.69	12117086.88
					1638694.09	12117088.09
					1638695.17	12117089.72
					1638696.66	12117091.65
					1638740.67	12117141.66
					1638742.75	12117144.16
					1638743.60	12117146.88
					1638744.62	12117148.02
					1638749.10	12117152.89
					1638750.52	12117153.41

Name	Sel.	M.	ID	G	Coordinates	
					x	y
					(m)	(m)
					1638752.22	12117153.46
					1638753.64	12117153.06
					1638755.40	12117152.10
					1638756.76	12117150.46
					1638758.29	12117148.75
					1638759.31	12117145.80
					1638760.67	12117143.93
					1638794.31	12117114.49
					1638795.42	12117113.87
					1638796.22	12117113.43
					1638796.98	12117112.61
					1638797.39	12117111.58
					1638797.60	12117110.26
					1638797.67	12117109.05
					1638797.46	12117108.05
					1638745.93	12117050.19
					1638743.48	12117045.70
					1638742.17	12117043.55
					1638747.67	12117039.04
					1638803.88	12117103.29
					1638805.29	12117104.11
					1638807.18	12117104.47
					1638809.30	12117104.00
					1638842.61	12117074.45
					1638852.61	12117065.29
					1638854.03	12117063.22
					1638854.41	12117061.14
					1638854.22	12117058.97
					1638810.44	12117008.97
					1638816.76	12117003.50
					1638853.75	12117045.20
					1638855.16	12117048.69
					1638857.24	12117051.71
					1638859.22	12117053.50
					1638861.29	12117054.35
					1638863.84	12117054.16
					1638865.54	12117053.12
					1638867.43	12117051.14
					1638899.88	12117009.82
					1638906.86	12117015.29
					1638888.56	12117038.88
					1638887.81	12117041.33
					1638888.28	12117043.31
					1638889.88	12117046.05
					1638902.05	12117059.54
					1638913.47	12117072.94

Name	Sel.	M.	ID	G	Coordinates	
					x	y
					(m)	(m)
					1638969.19	12117135.38
					1638972.55	12117137.82
					1638977.13	12117139.50
					1638982.78	12117137.82
					1638999.73	12117124.08
					1639002.47	12117120.72
					1639002.78	12117118.28
					1639002.02	12117116.14
					1638913.16	12117015.84
					1638918.50	12117010.65
					1639005.22	12117107.75
					1639008.73	12117111.26
					1639011.02	12117112.17
					1639013.77	12117111.71
					1639015.60	12117110.19
					1639030.41	12117094.00
					1639032.25	12117091.41
					1639033.16	12117088.05
					1639033.16	12117086.07
					1639032.25	12117083.01
					1639029.96	12117080.11
					1638968.43	12117011.71
					1638974.99	12117006.68
					1639040.49	12117079.04
					1639043.24	12117083.47
					1639044.15	12117089.12
					1639043.09	12117093.24
					1639040.49	12117097.52
					1638985.99	12117146.22
					1638982.41	12117148.24
					1638979.08	12117149.32
					1638975.62	12117149.67
					1638971.69	12117149.20
					1638968.24	12117147.17
					1638960.14	12117138.00
					1638888.45	12117057.69
					1638887.88	12117055.42
					1638886.74	12117053.05
					1638885.23	12117051.44
					1638883.15	12117050.40
					1638880.59	12117050.02
					1638878.13	12117051.63
					1638863.16	12117067.35
					1638837.59	12117090.36
					1638815.17	12117109.53
					1638814.49	12117110.66

Name	Sel.	M.	ID	G	Coordinates	
					x	y
					(m)	(m)
					1638814.41	12117112.79
					1638814.87	12117114.98
					1638820.47	12117121.57
					1638833.42	12117136.27
					1638882.43	12117191.25
					1638890.55	12117199.52
					1638915.90	12117224.87
					1638928.58	12117238.12
					1638933.45	12117245.11
					1638941.42	12117255.83
					1638946.82	12117262.47
					1638952.75	12117267.60
					1638961.96	12117272.65
					1638966.74	12117274.24
					1638972.58	12117274.86
					1638977.54	12117274.51
					1638980.55	12117273.80
					1638986.57	12117271.23
					1638991.44	12117267.51
					1639008.26	12117251.75
					1639021.37	12117239.45
					1639035.44	12117227.14
					1639075.57	12117191.39
					1639089.74	12117208.82
					1639016.22	12117272.33
					1639010.46	12117277.86
					1639006.08	12117283.63
					1639003.54	12117289.39
					1638999.85	12117300.11
					1638997.66	12117309.67
					1638996.28	12117318.55
					1638996.40	12117327.08
					1638997.32	12117331.34
					1638999.16	12117335.38
					1639001.81	12117342.64
					1639004.00	12117348.52
					1639005.27	12117352.78
					1639005.96	12117358.78
					1639006.31	12117366.27
					1639007.23	12117375.72
					1639009.18	12117391.10
					1639013.82	12117414.55
					1639021.15	12117434.58
					1639030.68	12117456.07
					1639042.89	12117477.07
					1639054.61	12117496.12

Name	Sel.	M.	ID	G	Coordinates	
					x	y
					(m)	(m)
					1639081.96	12117534.71
					1639071.22	12117545.70
					1639049.73	12117515.66
					1639036.78	12117496.37
					1639024.08	12117474.88
					1639013.82	12117457.05
					1639004.06	12117438.00
					1638996.48	12117419.19
					1638991.11	12117399.65
					1638988.18	12117386.46
					1638983.30	12117375.23
					1638976.46	12117367.66
					1638968.89	12117362.77
					1638961.07	12117359.60
					1638951.79	12117358.62
					1638946.17	12117359.11
					1638938.85	12117361.31
					1638927.37	12117368.39
					1638916.87	12117375.96
					1638777.17	12117514.20
					1638716.08	12117582.72
425 Culdaff Parking Area			G02	0.0	1638859.05	12117182.80
					1638855.05	12117185.30
					1638847.40	12117192.09
					1638851.01	12117196.16
					1638773.43	12117266.87
					1638769.85	12117263.10
					1638768.40	12117264.48
					1638763.58	12117259.44
					1638765.13	12117257.93
					1638761.52	12117254.20
					1638767.27	12117248.63
					1638768.20	12117247.74
					1638755.08	12117232.69
					1638760.37	12117228.15
					1638776.39	12117246.63
					1638776.64	12117246.77
					1638777.00	12117246.84
					1638777.32	12117246.70
					1638777.78	12117246.38
					1638784.54	12117240.23
					1638785.26	12117238.94
					1638785.54	12117237.62
					1638785.44	12117235.73
					1638785.01	12117235.01
					1638784.72	12117234.62

Name	Sel.	M.	ID	G	Coordinates	
					x	y
					(m)	(m)
					1638781.47	12117237.48
					1638762.23	12117215.45
					1638766.49	12117211.66
					1638763.14	12117207.90
					1638799.86	12117174.42
					1638803.31	12117178.21
					1638807.00	12117174.84
					1638829.02	12117199.76
					1638850.98	12117180.01
					1638853.25	12117176.55
					1638853.20	12117175.75

Contour Lines

Geometry Contour Line

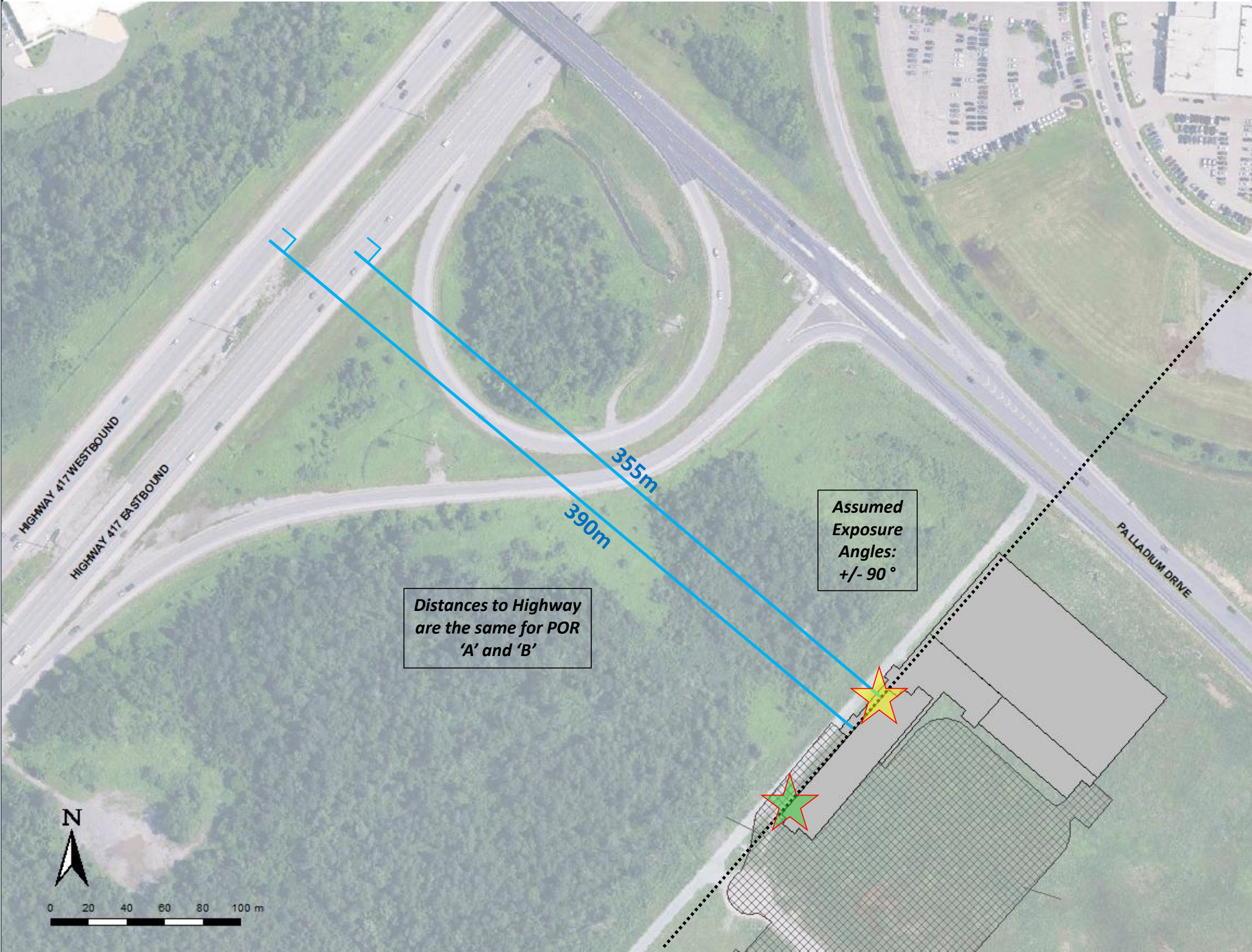
Name	Sel.	M.	ID	OnlyPts	Height		Coordinates		
					Begin	End	x	y	z
					(m)	(m)	(m)	(m)	(m)

Appendix F: Transportation Corridor NIS Figures

Figure F1: Transportation Corridor Noise Impact Details



eNGLOBE



Note:
This drawing shall be read in conjunction with the associated report

Legend:

-  : Point of Reception POR 'A'
-  : Point of Reception POR 'B'

0	2026/06/25	FINAL	M.V.
REVISION	DATE	ISSUE	APPROVAL
Client	Palladium Resort Development Limited Partnership		
Project Name	Palladium Resort Development Noise Impact Study (NIS)		
Report Title			
Drawing Title	Transportation Corridor Noise Impact Details		
Designed By	Scale		NTS
Drawn By	M.V.	Date	25 June 2026
Approved By	Project No.		02631107.000
Figure No.	F1		

Appendix G: Transportation Corridor NIS Results



eNGLOBE

REPORT: **INPUT TRAFFIC FOR TNM VEHICLES (LAeq)**

TNM VERSION: 3.2.8741.34338 REPORT DATE: 25 June 2026

CALCULATED WITH: TNM v3.2.8741.34338 CALCULATION DATE: 25/06/2026 1:52:09 PM

CASE: Palladium Resort Development ORGANIZATION: Englobe Corp

PATH: ANALYSIS BY: Martin Villeneuve

CALCULATION SEQUENCE NUMBER: TNM SERIAL NUMBER:

PROJECT/CONTRACT: Palladium Resort Development

Roadway Name	Road Segment		Auto		Medium Truck		Heavy Truck		Bus		Motorcycle		
	Start Point		Total	Percent	Speed	Percent	Speed	Percent	Speed	Percent	Speed	Percent	Speed
	Name	No.	Volume										
			[Veh/hr]	[%]	[km/h]	[%]	[km/h]	[%]	[km/h]	[%]	[km/h]	[%]	[km/h]
Highway 417 (Eastbound)- 3Lanes	Point-0	0	3162	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-4	3	3162	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-5	4	3162	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-1	1	3162	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-6	5	3162	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-7	6	3162	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-3	2	3162	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
Highway 417 (Westbound)- 3Lanes	Point-8	7	3162	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-9	8	3162	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-11	9	3162	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-13	10	3162	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-15	11	3162	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-17	12	3162	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-19	13	3162	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0

Roadway Name	Road Segment		Auto		Medium Truck		Heavy Truck		Bus		Motorcycle		
	Start Point		Total Volume	Percent	Speed	Percent	Speed	Percent	Speed	Percent	Speed		
	Name	No.		[Veh/hr]	[%]	[km/h]	[%]	[km/h]	[%]	[km/h]			
Highway 417 (Eastbound Offramp)- 1Lane	Point-20	14	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-21	15	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-23	16	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-25	17	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-27	18	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-29	19	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-31	20	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-33	21	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-35	22	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-37	23	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-39	24	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-41	25	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-43	26	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-45	27	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-47	28	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-49	29	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-51	30	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-53	31	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-55	32	1054	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
Highway 417 (Eastbound Onramp)- 1Lane	Point-56	33	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-57	34	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-59	35	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0

Roadway Name	Road Segment		Auto		Medium Truck		Heavy Truck		Bus		Motorcycle		
	Start Point		Total Volume	Percent	Speed	Percent	Speed	Percent	Speed	Percent	Speed	Percent	Speed
	Name	No.											
			[Veh/hr]	[%]	[km/h]	[%]	[km/h]	[%]	[km/h]	[%]	[km/h]	[%]	[km/h]
Highway 417 (Eastbound Onramp)- 1Lane	Point-61	36	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-63	37	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-65	38	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-67	39	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-69	40	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-71	41	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-73	42	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-75	43	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-77	44	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-79	45	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-81	46	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-83	47	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-85	48	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-87	49	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-89	50	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-91	51	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-93	52	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-95	53	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-97	54	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-99	55	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
Point-101	56	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0	
Point-103	57	1054	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0	

REPORT:

Results: Sound Levels - No Barrier Objects

TNM VERSION

3.2.8741.34338

REPORT DATE:

25 June 2026

CALCULATED WITH:

TNM v3.2.8741.34338

CALCULATION DATE:

25/06/2026 1:52:09 PM

CASE:

Palladium Resort
Development

ORGANIZATION:

Englobe Corp

UNITS:

Metric

ANALYSIS BY:

Martin Villeneuve

DEFAULT GROUND TYPE:

FieldGrass

PROJECT/CONTRACT

Palladium Resort Development

ATMOSPHERICS:

20°C, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels				
Name	No.	Nb. R.R.	Existing LAeq dBA	LAeq		Increase over Existing		Type of Impact
				Calc.	Absolute Criterion	Calc.	Relative Criterion	
				dBA	dBA	dBA	dBA	
Hotel (Conference Room - Main Floor)	1	1	---	50.3	0.0	---	---	Sound Level

REPORT:	INPUT TRAFFIC FOR TNM VEHICLES (LAeq)		
TNM VERSION:	3.2.8741.34338	REPORT DATE:	25 June 2026
CALCULATED WITH:	TNM v3.2.8741.34338	CALCULATION DATE:	25/06/2026 3:32:55 PM
CASE:	Palladium Resort Development	ORGANIZATION:	Englobe Corp
PATH:		ANALYSIS BY:	Martin Villeneuve
CALCULATION SEQUENCE NUMBER:		TNM SERIAL NUMBER:	
		PROJECT/CONTRACT:	Palladium Resort Development

Roadway Name	Road Segment		Auto		Medium Truck		Heavy Truck		Bus		Motorcycle		
	Start Point		Total	Percent	Speed	Percent	Speed	Percent	Speed	Percent	Speed	Percent	Speed
	Name	No.	Volume										
			[Veh/hr]	[%]	[km/h]	[%]	[km/h]	[%]	[km/h]	[%]	[km/h]	[%]	[km/h]
Highway 417 (Eastbound)- 3Lanes	Point-0	0	550	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-4	3	550	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-5	4	550	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-1	1	550	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-6	5	550	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-7	6	550	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-3	2	550	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
Highway 417 (Westbound)- 3Lanes	Point-8	7	550	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-9	8	550	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-11	9	550	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-13	10	550	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-15	11	550	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-17	12	550	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0
	Point-19	13	550	88.0	110	7.0	110	5.0	110	0.0	0	0.0	0

Roadway Name	Road Segment		Auto		Medium Truck		Heavy Truck		Bus		Motorcycle		
	Start Point		Total Volume	Percent	Speed	Percent	Speed	Percent	Speed	Percent	Speed	Percent	Speed
	Name	No.		[Veh/hr]	[%]	[km/h]	[%]	[km/h]	[%]	[km/h]	[%]	[km/h]	
Highway 417 (Eastbound Offramp)- 1Lane	Point-20	14	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-21	15	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-23	16	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-25	17	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-27	18	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-29	19	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-31	20	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-33	21	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-35	22	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-37	23	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-39	24	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-41	25	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-43	26	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-45	27	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-47	28	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-49	29	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-51	30	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-53	31	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
	Point-55	32	183	88.0	60	7.0	60	5.0	60	0.0	0	0.0	0
Highway 417 (Eastbound Onramp)- 1Lane	Point-56	33	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-57	34	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-59	35	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0

Roadway Name	Road Segment		Auto		Medium Truck		Heavy Truck		Bus		Motorcycle		
	Start Point		Total Volume	Percent	Speed	Percent	Speed	Percent	Speed	Percent	Speed	Percent	Speed
	Name	No.		[Veh/hr]	[%]	[km/h]	[%]	[km/h]	[%]	[km/h]	[%]	[km/h]	
Highway 417 (Eastbound Onramp)- 1Lane	Point-61	36	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-63	37	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-65	38	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-67	39	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-69	40	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-71	41	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-73	42	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-75	43	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-77	44	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-79	45	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-81	46	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-83	47	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-85	48	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-87	49	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-89	50	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-91	51	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-93	52	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-95	53	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-97	54	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
	Point-99	55	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0
Point-101	56	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0	
Point-103	57	183	88.0	40	7.0	40	5.0	40	0.0	0	0.0	0	

REPORT:

Results: Sound Levels - No Barrier Objects

TNM VERSION

3.2.8741.34338

REPORT DATE:

25 June 2026

CALCULATED WITH:

TNM v3.2.8741.34338

CALCULATION DATE:

25/06/2026 3:32:55 PM

CASE:

Palladium Resort
Development

ORGANIZATION:

Englobe Corp

UNITS:

Metric

ANALYSIS BY:

Martin Villeneuve

DEFAULT GROUND TYPE:

FieldGrass

PROJECT/CONTRACT

Palladium Resort Development

ATMOSPHERICS:

20°C, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing LAeq dBA						
				LAeq		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Hotel (Hotel Room - Top Floor)	1	1	---	53.3	0.0	---	---	Sound Level	

Appendix H: Statement of Limitations



eNGLOBE

STATEMENT OF LIMITATIONS

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