# Application for an Amendment to the Calgary International Airport Vicinity Protection Area Regulation

### Attachments:

- Appendix I: Rationale for Application for an Amendment to the Calgary International AVPA Regulation
- Appendix II: Aerial Photo and NEF Contours Maps
- Appendix III: FFA Consultants in Acoustics and Noise Control Ltd, Aircraft Noise Assessment
- Appendix IV: Development Permit Drawings
- Appendix V: Noise Emission Acknowledgement Letter
- Appendix VI: Airport Stakeholder Letters



# APPENDIX I: Rationale for Application for an Amendment to the Calgary International AVPA Regulation

The following rationale is provided to support an application for amendment to the Calgary International Airport Vicinity Protection (AVPA) Regulation to accommodate residences in the form of an assisted living facility within the existing development on the mentioned land which is legally described as: 0010926;1;20, located at 2622 39 Avenue NE.

The Development Permit approval is subject to an amendment of the Regulations by the Minister of Municipal Affairs. City of Calgary Administration is seeking approval from City Council to proceed with an application for amendment as set out in the Regulations through a Council Resolution.

### BUILDING FOOTPRINT AND NEF CONTOURS

Currently, the specific site contains an existing hotel building. The current development permit application, DP2020-7178 proposes to change the use within the existing building to an assisted living facility containing individual dwelling units that would be operated by the senior care facility provider, Silvera For Seniors. The scope of the amendment to the AVPA Regulation is intended to be limited to the existing building located within the 30-35 Noise Exposure Forecast (NEF) contour. The areal photo in Appendix II shows the footprint of the existing building, wherein the use of residences is expressly prohibited in the Regulation due to potential noise conflicts from overhead airplanes. Appendix II includes maps of the existing NEF and proposed NEF contours (which are still subject to approval by the Province).

### CONSULTATION

The following referees were circulated an information package during the review of the Development Permit application to seek preliminary comments specific to the potential application for an exemption to the Calgary International AVPA Regulation and the following responses were received as follows:

Circulation Referee	Comments
Ward 10	No response received by the time of application.
Ward 5	No objection.
Calgary Airport Authority	No response received by the time of application.
Municipal District of Rockyview	No response received by the time of application.
City of Airdrie	No objection. Letter Received, refer to Attachment VI.
Transport Canada	No response received by the time of application.
NAV Canada	No response received by the time of application.



The site is located within the Horizon Industrial Area and there are no residents within this area and no Community Association exists.

### <u>RISKS</u>

A risk to the Calgary Airport Authority exists as the proposed development is located within the 30-35 NEF contour and will thus experience a level of noise concerns. The City of Calgary acknowledges that the assisted living facility could voice complaints regarding potential noise impacts. The applicant has provided sufficient supporting information regarding the Aircraft Noise Assessment that has determined that the proposed construction will meet the exterior acoustic insulation requirements of the current National Building Code – 2019 Alberta Edition. This does not mean that aircraft noise will not be heard within the building, or other potentially noise sensitive locations.

In Appendix V, a letter from the proponent, future landowner and senior care facility provider, Silvera For Seniors indicates their understanding, and acknowledgment that the building is within the Calgary International Airport Vicinity Protection Area, and that noise will be present.

### CONCLUSION

The City of Calgary is formally requesting an amendment to the AVPA Regulation to allow for residences within the existing development at 2622 - 39 Avenue NE for the following reasons:

- The building will be constructed to address the acoustic insulation requirements of the National Building Code – 2019 Alberta Edition. The landowner knows and understands noise emissions are expected on this site.
- 2. The approval of residences in the form of an assisted living facility will not compromise the viability of the airport and its operations.

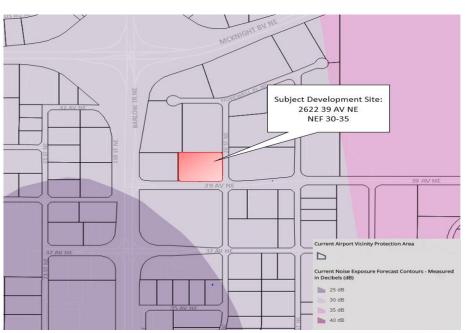


# APPENDIX II: Aerial Photo and NEF Contour Maps



Aerial Photo of subject site at 2622 39 Avenue NE.





Subject site within the existing 30-35 NEF contour.



Subject site within the proposed 30-35 NEF contour.



### APPENDIX III: FFA Consultants in Acoustics and Noise Control Ltd. Aircraft Noise Assessment

FFA

Consultants in Acoustics and Noise Control

December 01, 2020

MTA Suite 310, 625-11<sup>th</sup> Avenue SW Calgary, AB T2R 0E1

Attention: Diana Sawa, DID, BAA

#### Re: Silvera For Seniors, Lakeview Signature Inn Seniors Residence Conversion 2622 39th AVE NE Calgary - Aircraft Noise Assessment File 120-3135-01

The existing Lakeview Signature Inn located at 2622 39<sup>th</sup> AVE NE Calgary, near the Calgary International Airport in the 30-35 NEF contour area is under consideration to be converted to a seniors residence. As part of the conversion process the City of Calgary has requested an Aircraft Noise Assessment to determine if the building meets building code requirements. We have reviewed the Issued for Pricing drawings dated October 01, 2020 and the Revised August 21, 2000 Issued for Construction drawings. Based on this information we have undertaken an Acoustic Insulation Factor (AIF) analysis to determine if the exterior envelope construction will meet the exterior acoustic insulation factor requirements of the National Building Code – 2019 Alberta Edition (2019 NBC(AE)).

The revised suite layouts in the Issued for Pricing drawings dated October 01, 2020 were considered in this assessment, however, proposed changes to the common areas were not considered. Future changes to the common areas would need to be evaluated to determine compliance with the 2019 NBC(AE).

Table 1 lists the exterior building constructions as indicated in the Revised August 21, 2000 Issued for Construction drawings. This information was used to determine the type of component for the AIF analysis from the 2019 NBC(AE) if applicable. The component types used are based on our previous experience and knowledge of the sound transmission loss properties of various wall and roof systems. If a component code was not applicable the construction information was used to calculated AIF values from 1/3 octave band sound transmission loss data according to the methodology in the CHMC New Housing and Airport Noise (1981) publication.

The AIF requirements are based on the room usage, the AIF values of the various exterior building components, and their size in proportion to the room floor area. Thus, an AIF analysis may indicate that a room with a large window area relative to floor area may require that the sound transmission loss of the windows be increased, or the size of the windows be decreased. Also, if one exterior building component does not meet the required AIF value for the room, this may be acceptably offset by one or more components that exceed the requirement.

> Suite 210N, 3015 5th Avenue N.E., Calgary, Alberta T2A 6T8 Tel: (403) 508-4996 Fax: (403) 508-4998 info@ffaacoustics.com





### Consultants in Acoustics and Noise Control

#### Table 1 2622 39<sup>th</sup> AVE NE Calgary Building Exterior Components

Component	Description	Component Type Code 4 mm and 4 mm glass Interpane Spacing 13mm 4 mm and 4 mm glass Interpane Spacing 16mm	
Windows	4mm glass, 13mm airspace, 4mm glass		
Windows -Acoustic Glazing <sup>1</sup>	4mm glass, 16mm airspace, 4mm glass		
Exterior Wall – Normal Face Brick E2	4" Normal Face Brick, 1 ½" Air Space, 11 ½" Advantage Wall System: (2 ½" EPS Rigid Insulation, 6 ½" Concrete, 2 ½" EPS Rigid Insulation) 6 mil polyethylene vapour barrier, 1/2" gypsum board	EW7	
Exterior Wall – Acrylic Stucco E1	Acrylic Stucco, Cement coating o/w enforced mesh, 11 ½* Advantage Wall System: (2 ½* EPS Rigid Insulation, 6 ¼* Concrete, 2 ½* EPS Rigid Insulation) 6 mil polyethylene vapour barrier, 1/2* gypsum board	EW7	
Roof R1	Asphalt shingles, Underlay, 1/2" OSB, H-Clips, engineered wood trusses, R-40 insulation, 6mil polyethylene vapour barrier, 2 Layers 5/8" gypsum board	C2	

Notes: 1) FFA Consultants in Acoustics and Noise Control Ltd.'s understanding of the location of the acoustic glazing windows (4mm glass, 16mm airspace, 4mm glass) based on the the Revised August 21, 2000 Issued for Construction drawings are shown in figure 1 to figure 3 (attached). All other windows were assumed to be standard windows (4mm glass, 13mm airspace, 4mm glass).

The calculations for the rooms were undertaken based on the expected usage and the room types as indicated the 2019 NBC(AE). The suite living/kitchen areas were treated as living rooms, bedrooms were treated as sleeping rooms and studio suites were treated as sleeping rooms. The hearth room was treated as a living room/dining room. The large meeting rooms, sales office, assistant managers office and managers office, were treated as private offices/conference rooms/meeting rooms. The excersize room, pool, market, prefunction room, prep room, laundry room and lobby area were treated as other room type areas. The room sizes were obtained from the Issued for Pricing drawings dated October 01, 2020.

Based on our understanding of the room layouts, window and exterior constructions, the AIF calculations for 2622 39th AVE NE Calgary indicate that window upgrades will be required for some bedrooms. The required window assembly upgrades are provided in Table 2 and the upgrade locations have been indicated in Figures 1 to 3 (attached).



FFA

### Consultants in Acoustics and Noise Control

Table 2 2622 39th AVE NE Calgary Exterior Upgrades

Exterior opgrades				
Room	Exterior Upgrades			
Sleeping Rooms Highlighted in Purple in Figures 1 to 3 (attached)	<ul> <li>Upgrade window to 4mm glass -16mm air space -4mm glass assembly.</li> <li>OR</li> <li>Upgrade window to 6mm glass -14mm air space – 5mm glass assembly</li> </ul>			
Sleeping Rooms Highlighted in red in Figures 1 to 3 (attached)	<ul> <li>Upgrade window to 6mm glass – 14mm air space - 5m glass assembly</li> </ul>			

#### Summary

An AIF analysis was carried out for the conversion of the existing Lakeview Signature Inn located at 2622 39<sup>th</sup> AVE NE Calgary to a senior residence. The AIF calculations indicate that exterior window upgrades are required in multiple sleeping rooms in order to meet the 2019 NBC(AE) requirements. The upgraded window assemblies are provided in Table 2 and the locations where the upgrades are required are marked in figure 1 to figure 3 (attached).

The findings of this analysis do not mean that aircraft noise will not be heard in the building.

We trust this provides you with the information you require. If you require additional information or have any questions, please contact the undersigned.

Sincerely,

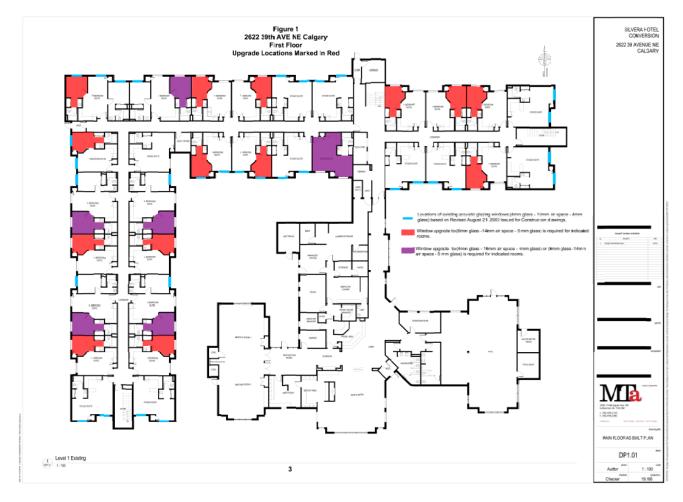
FFA Consultants in Acoustics and Noise Control Ltd. APEGA Permit to Practice P 06780



Matthew C. Faszer, P.Eng.

Enclosed: Figures 1 to 3







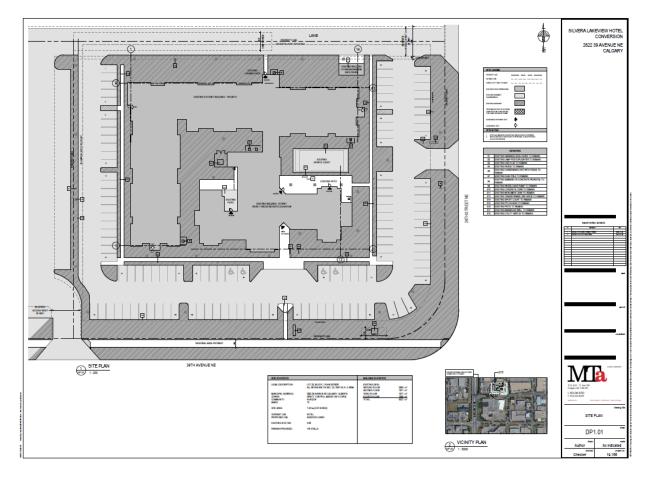




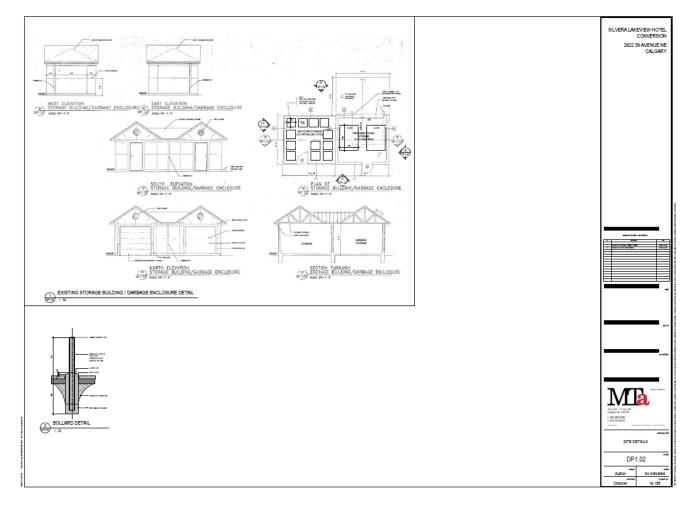




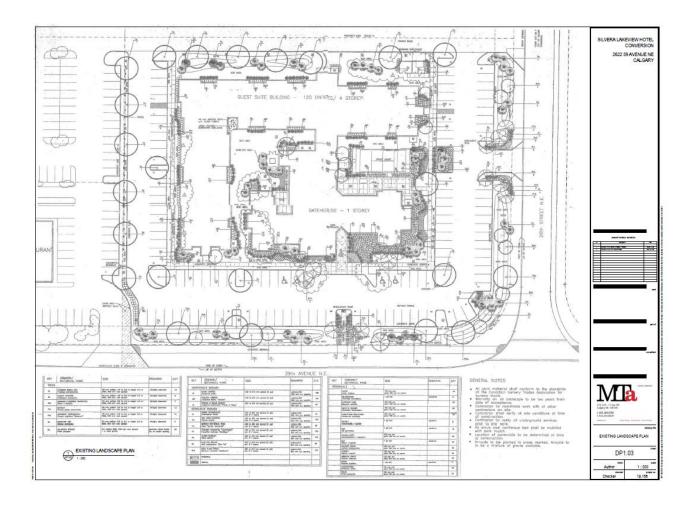
## **APPENDIX IV: Development Permit Drawings**



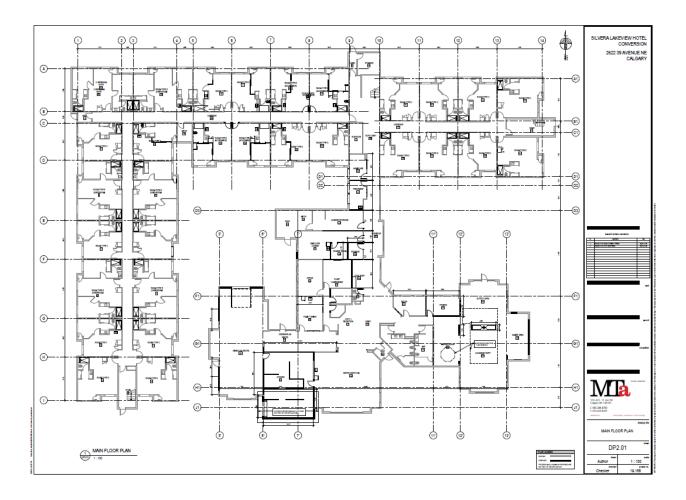




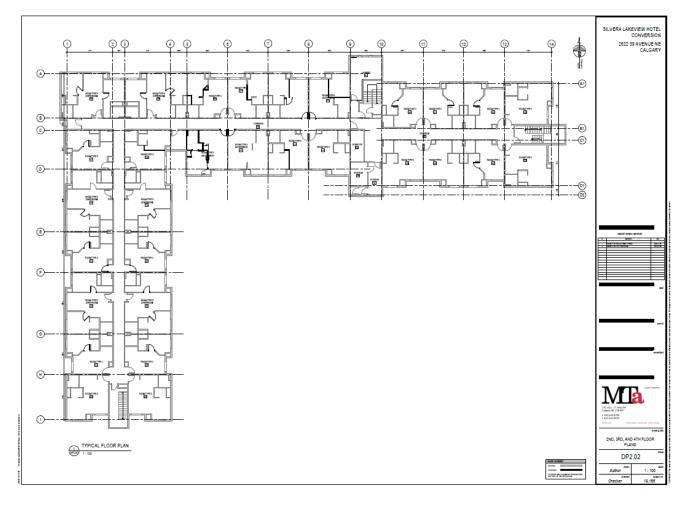














### **APPENDIX V: Noise Emission Acknowledgement Letter**

SILVERA

January 21, 2021

Via Email & Courier

The City of Calgary Dino Kasparis, Planner Community Planning North Planning & Development dino.kasparis@calgary.ca Floor 5, 800 Macleod Trail S.E. Calgary, Alberta

RE: Silvera For Seniors, Project Horizon Property 2622 - 39 Avenue, NE Calgary, Alberta

As requested, we are confirming that Silvera for Seniors will be taking ownership of the subject property located at 2622 39 AV NE.

All parties signed herein hereby acknowledge and understand the building is within the Calgary International Airport Vicinity Protection Area and the occupants of the building are directly susceptible to risks of noise emission levels that are typically higher than other locations.

Sincerely,

SILVERA FOR SENIORS

You Kelite

Lorne Robertson Chief Development Officer

Live with us. Work with us. Invest in us.

Suite 804, 7015 Macleod Trail SW, Calgary, AB T2H 2K6 T 403.276.5541 F 403.276.9152 silvera.ca



### Appendix VI: Airport Stakeholder Letters

				A TOTA	for you	
					OFPORTUNITY	
	January 8, 202	21				
	RE:	Response to Intermu Application No: DP20	nicipal Circulation of De 020-7178	velopment Permit		
	Dear Sir/Mad	am,				
	mentioned De		tion in response to your r	is completed its review of the above- equest for comments, recommendations		
	Comments:					
	deve exem	City of Airdrie Planning & i lopment permit applicat uption as the proposed dev rdrie boundary.	ion, nor with the prop	osed Noise Exposure F	orecast (NEF)	
	2. The l this supp	Planning & Development D DP application to share ortive transit, nearby ar	knowledge on hotel co menities, etc.). Please fe	nversion considerations	(site context,	
	3. The	prunen@airdrie.ca) in this Planning & Development	Department assumes that			
		ences on the subject parc ct a small portion of the SE		EF 25-30 contour change	(which would	
		d on previous experien lopment Department wou				
		lopment Permit: a. Review the <u>Design &amp;</u> minimum standards i	Technical Guidelines: Alber required by the Province			
	1	housing in Alberta. b. Review the <u>Alberta Soc</u>			-	
			chnical info about each typ			
	If you have an	y questions or comments, j	please do not hesitate to co	ntact me.		
	Kind regards,					
	Tega Odogu					
	Planner I Planning & De					
	CITY OF AIRD Tega.Odogu@					
	403.948.8800	(ext. 8796)				
	Genesis Place	City Hall	Tel: 403.948.8800	Parks/Public Works	Emergency Services/	
Air	East Lake Blvd NE drie, AB T4A 2K9	400 Main Street SE Airdrie, Alberta T4B 3C3	1.888.AIRDRIE	15 East Lake Hill NE Airdrie, AB T4A 2K3	Municipal Enforcement 805 Main Street SW	
	x: 403.948.0604	F: 403.948.6567		Fax: 403.948.3987	Airdrie, AB T4B 3G1	