

30 July 2025

Project No.: P01640



E-LAB Consulting
Level 11, 117 York St
Sydney NSW 2000

Re: Novus On Victoria

DISCIPLINE - Acoustic

SUBJECT PREMISES – 410 – 416 Victoria Avenue, Chatswood

RE: Mid-rise & Rooftop Mechanical Plant Noise Assessment – Novus on Victoria: Acoustics & Vibration

INTRODUCTION

E-LAB Consulting have prepared this addendum letter to the Noise and Vibration Impact Assessment Report Revision 3 by E-LAB Consulting, dated 03 April 2025 (NVIA) in order to provide an acoustic assessment for the proposed mid-rise and rooftop plant at the Novus on Victoria development located at 410 – 416 Victoria Avenue, Chatswood.

This assessment has been based on preliminary equipment layouts provided by JHA. Final equipment selections are not yet available, and will be confirmed as part of future detailed design post-SSDA.

EXTERNAL NOISE EMISSIONS CRITERIA

The NSW EPA's Noise Policy for Industry (NPI) 2017 has been implemented to assess the potential noise impacts of mechanical plant and equipment, as well as other industrial noise sources on the surrounding receiver catchments.

The external noise emission requirements as per the NPI have been extracted from Section 6.4 of the NVIA Report. Table 1 presents the project noise trigger levels (PNTLs) for each period at each receiver catchment (RCs) as noted in Figure 1 that shall be applied in the assessment of mechanical plant noise impacts on surrounding receiver catchments.

Table 1: Project noise trigger levels (PNTL) to be applied to each surrounding receiver catchment

RECEIVER CATCHMENT	RECEIVER TYPE	TIME OF DAY	PROJECT NOISE TRIGGER LEVEL - $L_{Aeq,15min}$ dB(A)
RC1 – RC4, RC9	Residential – Urban	Day	58
		Evening	48
		Night	43dB(A) L_{eq} and 65dB(A) L_{max}
RC5 – RC8	Commercial	When in use	63

Figure 1: Acoustic site plan identifying the surrounding noise-sensitive receivers and noise monitoring locations



Table 2 identifies the primary noise sensitive receivers surrounding the project, and discusses potential noise impacts associated with mechanical plant.

Table 2: Summary of nearby noise sensitive receiver catchments

RECEIVER	DESCRIPTION	COMMENT
RC1 (Residential)	1 Post Office Lane (Metro Spire Tower) – 40 storey residential approx. 50m west of site boundary 69 Albert Avenue (Metro View Tower) – 29 storey residential approx. 60m west/south-west of site boundary	- Noise sensitive residences are located a minimum 50m (where laterally closer than 50m, residential receivers are at a significantly lower elevation). - Considering the above, project noise trigger levels are expected to be achievable. - If necessary to comply with the requirements of the NPfI, additional acoustic mitigation measures identified in Table 3 can be implemented to further mitigate any acoustic impacts.
RC2 (Residential)	39 Victor Street – 8 Storey Residential approx. 35m South of site boundary	
RC3 (Residential)	436 Victoria Avenue (Metro Grand Tower) – 42 storey residential approx. 100m west of site boundary	

RECEIVER	DESCRIPTION	COMMENT
RC4 (Residential)	2A/2B Help Street (The Regency) – 29 storey mixed use/residential dual tower approx. 90m north of site boundary	
RC9 (Residential)	31 Victor Street (Sebel) – 28 storey residential/hotel approx. 50m south of site boundary	
RC5 (Commercial)	Post Office Lane – Approx. 3 storey retail stores, immediately adjacent to site boundary	- Commercial receivers will be subject to a project noise trigger level of 63dB(A) $L_{eq}(15min)$. - Although located adjacent to the project site, due to the elevation difference a minimum separation of 50m from the Level 23 plant room and 120m from the rooftop plant is expected to the tallest floor of each nearby commercial receiver. - Considering the above, project noise trigger levels are expected to be achievable. - If necessary to comply with the requirements of the NPfI, additional acoustic mitigation measures identified in Table 3 can be implemented to further mitigate any acoustic impacts.
RC6 (Commercial)	Corner of Victoria Avenue and Victor Street – Approx. 6 storey Westfield shopping centre, approx.. 10m East of site boundary	
RC7 (Commercial)	Corner of Victoria Avenue and Victor Street – Approx. 3 storey retail stores, approx 15m north of site boundary	

MID-RISE & ROOFTOP PLANT NOISE ASSESSMENT AND MITIGATION MEASURES

A preliminary assessment of the noise generated by the proposed mid-rise and rooftop plant has been conducted to determine compliance with the environmental noise emission criteria.

Based on preliminary equipment layouts provided by JHA, a summary of mechanical plant serving the development is provided in Table 3 along with potential mitigation measures that could be implemented during the design development stage if required.

Table 3: Summary of mechanical plant and equipment

LEVEL	ELEVATION	EQUIPMENT TYPE	POTENTIAL MITIGATION MEASURES (IF REQUIRED)
Level 23	North	Stair Pressurisation intake fan rooms x 2	Internally lined ducting or attenuator.
	North	Mechanical condenser water pressure break plant room	Acoustic louvres to plant room façade openings.
	South	Stair Pressurisation relief exhaust fan rooms x 2	Internally lined ducting or attenuator.

LEVEL	ELEVATION	EQUIPMENT TYPE	POTENTIAL MITIGATION MEASURES (IF REQUIRED)
Level 45	North	Stair Pressurisation intake fan rooms x 2	Internally lined ducting or attenuator.
	North	Mechanical condenser water & hot water pump room	Acoustic louvres to plant room façade openings.
	East	Fire pump room (2 x full duty pumps – exhaust discharge to roof)	Plant only operates during fire mode.
	South	Cold water pump (duplex inline vertical multistage pump)	Acoustic louvres to plant room façade openings.
Level 46	North	Lobby supply intake fan rooms x 2	Internally lined ducting or attenuator.
	North-East	Mechanical hot water heat pumps (vertical discharge)	Discharge attenuator to heat pumps.
	East	Mechanical cooling towers (vertical discharge)	Discharge attenuator to cooling towers.
	South	Stair Pressurisation relief exhaust fan rooms x 2	Internally lined ducting or attenuator.
	South	Hydraulic hot water heat pumps (4 x 35kW units vertical discharge)	Treatment not likely required for relatively lower sound power level hydraulic plant with vertical discharge (no adjacent overlooking noise sensitive receivers).
	Roof	Vertical Discharge – Fire pump room exhaust, retail kitchen exhaust, waste room exhausts	For non-emergency plant (limited to axial fan exhaust), internally lined ducting or attenuator.

CONCLUSION

Based on the information presented above, noise generated by the mid-rise & rooftop plant and equipment is expected to be capable of compliance with the project noise trigger levels at nearby noise sensitive receivers.

The nearest and most affected noise sensitive receivers are identified in Table 2, including comments on distance separation between noise sensitive receivers and the proposed plant.

If required, additional mitigation measures are available (identified in Table 3). Notwithstanding, a detailed review of mechanical noise emissions and any required mitigation measures is expected to be undertaken during detailed design following the finalisation of equipment layouts, selections and operating capacities during each period of the day (Day, Evening and Night). Additionally, alternative mitigation measures could be further explored during detail design, such as (but not limited to):

- Positioning mechanical plant away from nearby noise sensitive receivers;
- Acoustic attenuators fitted to duct work;
- Screening/acoustic louvres around mechanical plant;
- Acoustic insulation within duct work;
- Acoustically insulated bends fitted to duct work; and

- Reselection of mechanical plant.

If you have any questions, please don't hesitate to contact the undersigned.

Kind Regards,

E-LAB Consulting



Artie Rattananikom | Senior Engineer

Acoustics and Vibration