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Jack Quayle

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15/09/2026

Dear Jack,

DOWNTOWN VICTORIA NORTH – INDOOR AMBIENT NOISE LEVELS

Introduction

Condition 19(b) of planning consent reference 131708/F/2021 requires that a verification report is submitted to demonstrate that indoor ambient noise levels due to road traffic within residential premises at Downtown Victoria North comply with the requirements of BS8233:2014.

The methodology was based on that agreed with Manchester City Council (MCC) on a number of previous schemes.

In summary, measurements are made in the daytime, and in bedrooms, noise levels are corrected by the difference between the daytime and night-time noise levels measured at the time of the original noise survey, to determine the noise levels which would be experienced at night (when noise levels are lower).

It should also be noted that many measurements were affected by construction noise both within and external to the buildings, and as such the reported indoor ambient noise levels represent a worst-case.

Noise levels were generally measured with mechanical services switched off; the verification measurements are required to demonstrate compliance with planning condition 19a, which explicitly refers to external noise only (see highlighted text below).

> *"19) Notwithstanding the Noise Assessment (DBX Acoustics) stamped as received by the City Council, as Local Planning Authority, on the 20 September 2021, prior to the first occupation of the development a scheme for* ***acoustically insulating the proposed residential accommodation against noise from the local traffic network*** *shall be submitted for approval in writing by the City Council, as Local Planning Authority. The approved noise insulation scheme shall be completed before the first occupation of the development.*

Noise survey data must include measurements taken during a rush-hour period and night time to determine the appropriate sound insulation measures necessary. The following noise criteria will be required to be achieved:

- *Bedrooms (night time - 23.00 - 07.00) 30 dB LAeq (individual noise events shall not exceed 45 dB LAmax,F by more than 15 times)*
- *Living Rooms (daytime - 07.00 - 23.00) 35 dB LAeq*

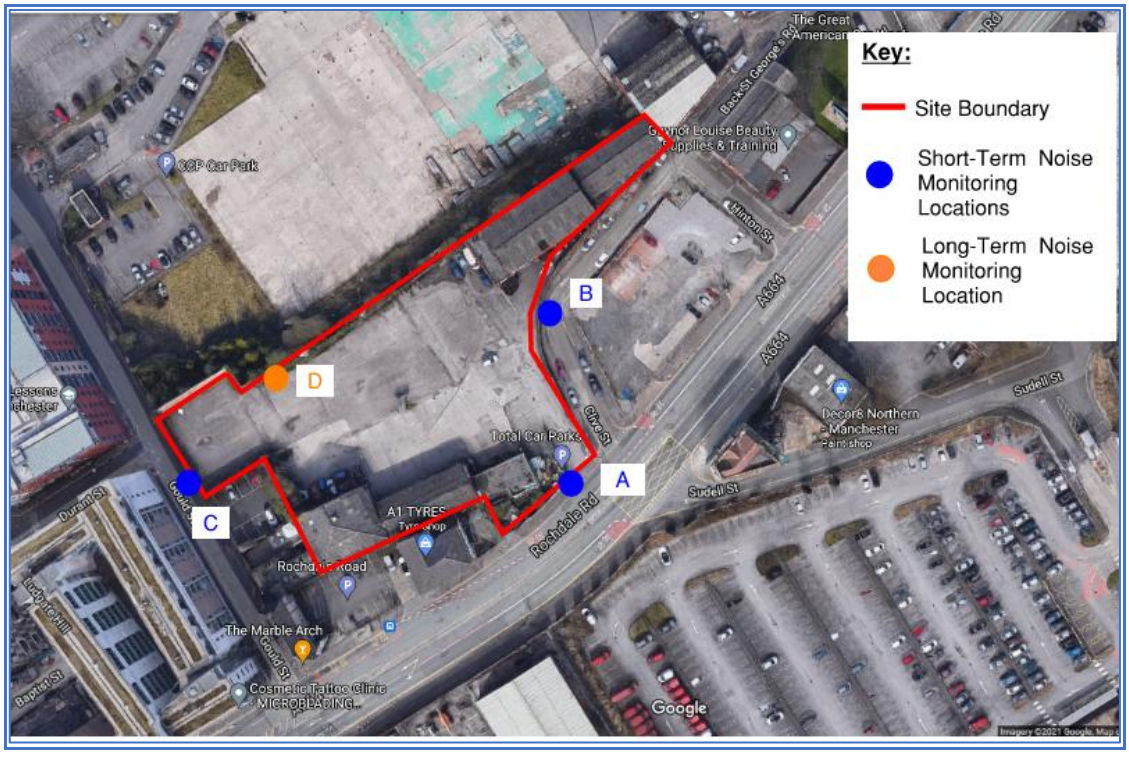
External Noise Levels

A number of noise surveys were undertaken by dBx Acoustics on various dates in 2021.

The results of these surveys have been detailed in a number of dBx Acoustics reports relating to this scheme; the original planning report, against which permission was originally granted was dBx Acoustics reference *21043 - 87 Rochdale Road R01B, dated 25th August 2021.*

An unattended environmental noise survey was undertaken between Thursday 1st July 2021 and Monday 4th July 2021, at Location D indicated on Figure 1, below. Additional short term attended measurements were undertaken at three locations on Tuesday 18th May 2021 and Thursday 20th May 2021, at Locations A-C indicated on Figure 1, below.

Figure 1: Noise Monitoring Locations



Measurements were made during the day, evening, and night-time periods (including rush hour periods) in order to establish the worst case for noise impact upon the site.

The dominant noise source at this site is road traffic on Rochdale Road. Contributions from road traffic on surrounding road networks and train/tram movements to and from Victoria train station were also observed.

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The results of the surveys were used to create a noise model of the site using Soundplan 8.2 modelling software, to predict the noise levels affecting the various elevations of the proposed buildings.

The results of the acoustic modelling have been used to categorize the facades of the proposed residential dwellings in terms of their noise exposure as identified in Figure 2.

Figure 2: Indicative Façade Categories

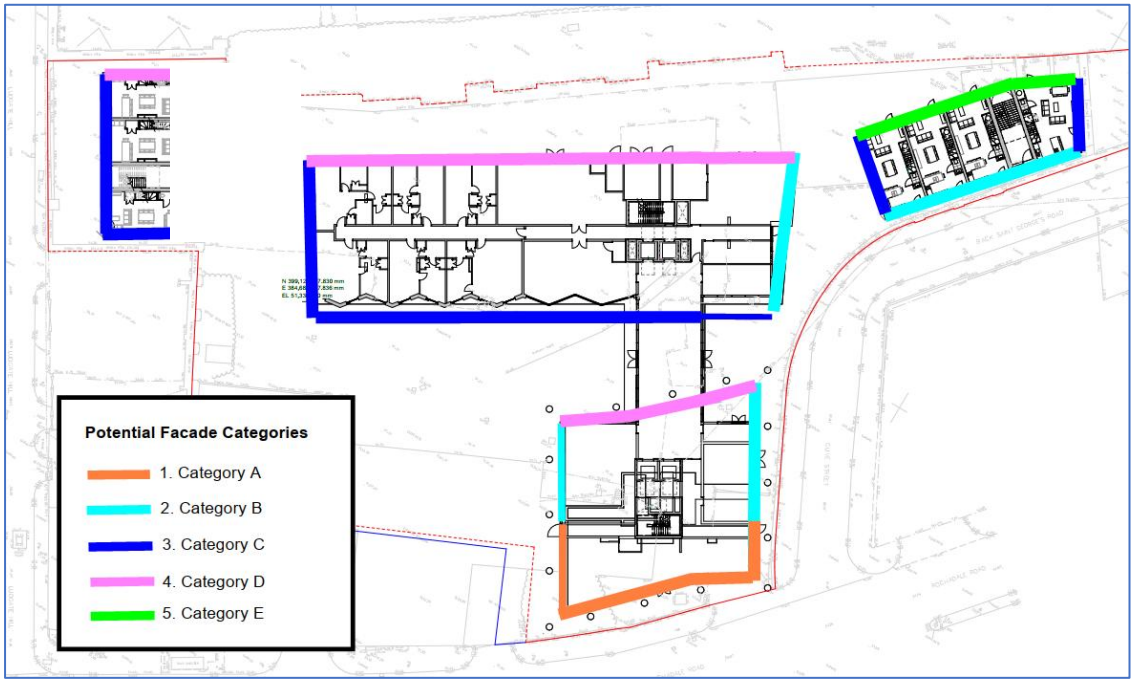


Table 1, below, presents the predicted daytime and night-time noise levels used for the noise ingress assessments.

Table 1: Predicted Typical Worst-case External Noise Levels at Facades

Facade	Predicted Daytime Ambient Noise Level (dB $L_{Aeq,16\ hours}$)	Predicted Night-time Ambient Noise Level (dB $L_{Aeq,8\ hours}$)	Predicted Night-time Maximum Noise Level (dB $L_{AFMax,8\ hours}$)
Category A	73	71	84
Category B	67	65	78
Category C	62	59	72
Category D	55	52	67
Category E	47	43	57

On this basis, the differences between the daytime and night-time noise levels are shown in Table 2, below.

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Table 2 – Differences Between Dytime and Night-time Noise Levels

Facade	Daytime Ambient ($dBL_{Aeq,16h}$)	Night-time Ambient ($dBL_{Aeq,8h}$)	Night-time Maximum ($dBL_{AFMax,8h}$)	Difference, Ambient, dB	Difference, Maximum, dB
Category A	73	71	84	-2	+11
Category B	67	65	78	-2	+11
Category C	62	59	72	-3	+10
Category D	55	52	67	-3	+12
Category E	47	43	57	-4	+10
			Average	**-3**	**+11**

As can be seen, ambient noise levels are typically around **3dB** lower at night than in the day; and maximum noise levels are typically around **11dB** higher.

The measurement results are presented in the Table 3, below; night-time noise levels have been calculated using the corrections detailed in Table 2, above.

Table 3 – Measured Indoor Noise Levels

Block	Room	Indoor Ambient Noise Level Day, $dBL_{Aeq,T}$	Indoor Ambient Noise Level Night, $dBL_{Aeq,T}$	Indoor Maximum Noise Level Night, $dBL_{Amax,F}$
1	106 Bed	29	26	40
	106 Living	29		
	109 Bed	26	23	37
	207 Living	32		
	211 Bed	26	23	37
	212 Bed 1	31	28	42
	212 Bed 2	35	32	46
	301 Living	30		
1	302 Bed 2	35	32	46
	307 Bed	31	28	42
	307 Living	30		
	313 Bed	35	32	46

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Block	Room	Indoor Ambient Noise Level Day, $dBL_{Aeq,T}$	Indoor Ambient Noise Level Night, $dBL_{Aeq,T}$	Indoor Maximum Noise Level Night, $dBL_{Amax,F}$
	402 Bed 1	35	32	46
	403 Bed 2	33	30	44
	409 Living	27		
	411 Bed 1	31	28	42
	411 Bed 2	29	26	40
	412 Bed 1	35	32	46
	412 Bed 2	32	29	43
	507 Living	31		
	509 Bed 1	35	32	46
	510 Bed 1	31	28	42
	512 Bed 1	32	29	43
	513 Bed 1	29	26	40
	513 Bed 2	30	27	41
	601 Living	30		
	602 Bed	30	27	41
	603 Bed 2	33	30	44
	607 Living	35		
	610 Bed 1	32	29	43
	613 Bed 2	32	29	43
1	702 Bed 2	33	30	44
	703 Bed	27	24	38
	707 Bed	32	29	43
	709 Bed	29	26	40
	709 Living	33		
	711 Bed	27	24	38
	711 Bed 2	29	26	40

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Block	Room	Indoor Ambient Noise Level Day, $dBL_{Aeq,T}$	Indoor Ambient Noise Level Night, $dBL_{Aeq,T}$	Indoor Maximum Noise Level Night, $dBL_{Amax,F}$
	807 Living	34		
	809 Bed	32	29	43
	809 Bed 2	35	32	46
	810 Bed 2	35	32	46
	811 Bed	27	24	38
	905 Bed	35	32	46
	909 Living	35		
	912 Bed 1	35	32	46
2	10-21 Bed 1	35	32	46
	10-23 Bed 1	31	28	42
	10-26 Bed	28	25	39
	10-26 Living	34		
	11-25 Bed	35	32	46
	11-25 Bed	35	32	46
	11-25 Bed 2	35	32	46
	11-27 Bed	35	32	46
2	11-28 Bed 1	35	32	46
	12-22 Bed 2	35	32	46
	141 Bedroom 2	32	29	43
	143 Bedroom	35	32	46
	150 Bedroom	32	29	43
	151 Bedroom	28	25	39
	152 Bedroom	31	28	42
	153 Bed	32	29	43
	153 Living	31		

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Block	Room	Indoor Ambient Noise Level Day, $dBL_{Aeq,T}$	Indoor Ambient Noise Level Night, $dBL_{Aeq,T}$	Indoor Maximum Noise Level Night, $dBL_{Amax,F}$
	157 Bed	34	31	45
	157 Living	30		
	160 Bed	35	32	46
	162 Bed	31	28	42
	164 Bed	31	28	42
	166 Bed	27	24	38
	167 Bed	34	31	45
	167 Bed 2	31	28	42
	174 Bed	30	27	41
	176 Bed	32	29	43
3	B3 U1 Bed 3	33	30	44
4	B4 U1 Bed 1	33	30	44
	B4 U5 Bed 3	27	24	38

It can be seen that the vast majority of noise limits are met in all rooms. In some rare cases, the predicted night-time noise level is exceeded by no more than 2dB. This is within measurement tolerance, and typical variance in road traffic noise levels. Furthermore, given all measurements were undertaken on a busy construction site (and hence were affected by construction noise), all noise levels will reduce in normal conditions.

On this basis, it is considered that Planning Condition 19b can be discharged.

Yours Sincerely,



Ben Tomlin

Associate, dBx Acoustics Ltd

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