

From: Complete Sustainability Solutions Ltd

Date: 17/08/2022

Subject: Barlow Moor Road – Discharge of Condition 9 (application ref

Complete Sustainability Solutions (CSS) has been appointed to provide technical input to support an application to discharge Condition 9 attached to a consented residential development at 421 Barlow Moor Road in Chorlton, Manchester (application reference 124237/FO/2019).

The development comprises 39 apartments spread across two buildings: one five storey and one three storeys. The development site is located to the layout is identified in Figure 1, while the development layout is identified in Figure 2.

Figure 1 – Development Site Boundary (approx.)



Figure 2 –Development Layout



Planning Condition 9 states:

“9) Before the development is occupied a scheme for acoustically insulating the proposed residential accommodation against noise from Barlow Moor Road and the local traffic network shall be submitted to and approved in writing by the City Council as local planning authority. There may be other actual or potential sources of noise which require consideration on or near the site, including any local commercial / industrial premises. The approved noise insulation scheme shall be completed before any of the dwelling units are occupied.

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 L_{Amax} by more than 15 times)

Living Rooms (daytime - 07.00 - 23.00) 35 dB LAeq

Gardens and terraces (daytime) 55 dB LAeq

Reason - To secure a reduction in noise from traffic and other sources in order to protect future residents from noise disturbance pursuant to policy DM1 of the Core Strategy and saved UDP policy DC26."

Assessment

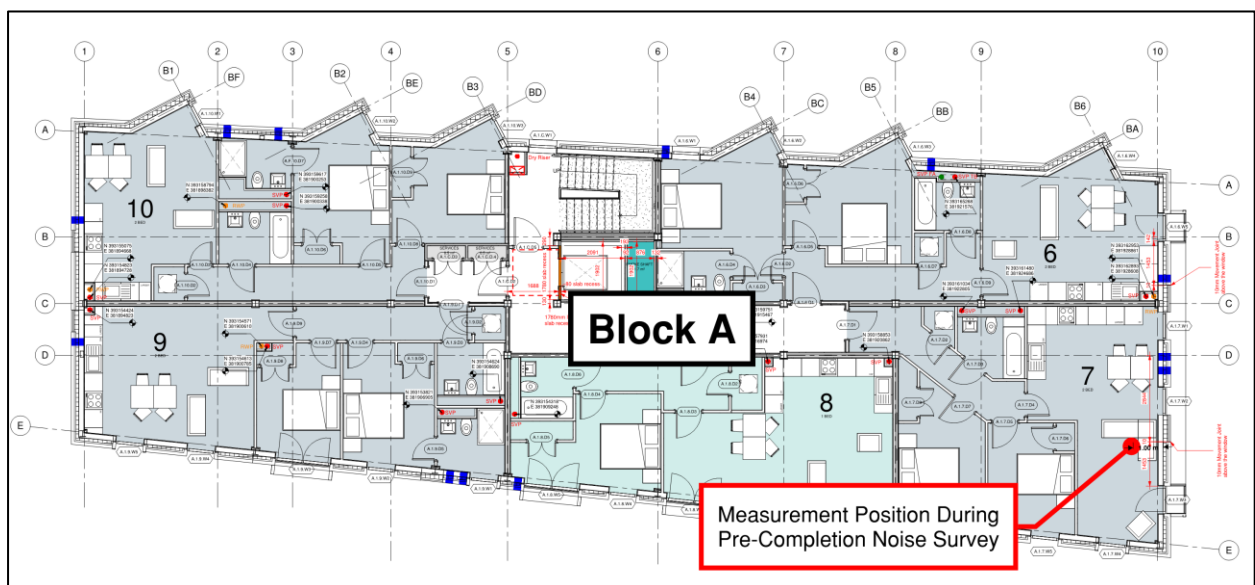
A noise impact assessment was submitted with the initial application in November 2019 (CSS report reference CSS1051). The assessment identified road traffic noise from Barlow Moor Road as the dominant noise source across the site. No additional noise sources (i.e. commercial or industrial sources) were identified during the baseline noise survey.

CSS report CSS1051 presented details of a 24-hour baseline noise survey undertaken adjacent to the Barlow Moor Road elevation of the site. Drawing on the results of the survey, the assessment made recommendations for minimum sound insulation performance specifications for glazing and ventilators in the facades of the proposed residential blocks. The performance specifications provided in the report were designed to ensure the internal noise level limits outlined in Condition 9 would be achieved.

It is understood, however, that the ventilation strategy for the development was subsequently amended to exclude trickle ventilators in the building façade, and that mechanical ventilation with heat recovery (MVHR) was installed, which is a more robust solution from an acoustic perspective in that it removes what is typically the lowest performing element (i.e. the ventilators).

To demonstrate that internal noise level limits satisfy the requirements outlined in Condition 9, a pre-completion noise survey has been undertaken within the worst affected dwellings (i.e. those closest to Barlow Moor Road). The measurement position adopted during the pre-completion survey is identified in Figure 3.

Figure 3 – Pre-Completion noise survey measurement position



The pre-completion noise survey was undertaken in the closest habitable space to Barlow Moor Road from 14:00 on Friday 5th August until 07:00 on Monday 8th August 2022.

The survey period was selected to capture noise levels in the absence of construction activities on the site (i.e. Friday afternoon and the full weekend period). Measurement equipment was established at 1 m from the living room window of Apartment 7 overlooking Barlow Moor Road (i.e. the worst affected plot). The window of the apartment was closed, and mechanical ventilation equipment was understood to be running at typical duties. The noise survey was undertaken using the Class 1 specification noise measurement equipment detailed in Table 1.

Table 1: Measurement Equipment

Equipment	Make and Model	Serial Number	Calibration Due Date
Sound Level Meter	SVAN 971	80344	26/05/2024
Microphone	ACO 7052E	69566	
Preamp	SV18	71577	
Calibrator	01dB-Stell Cal 21	34675335	14/02/2023

Weather conditions during the survey were conducive to environmental noise monitoring, it being dry with negligible wind throughout. The results of the survey are summarised in Table 2.

Table 2 – Summary of sound pressure levels measured during pre-completion testing in Apartment 7

Description	Start Time	Period (T)	Measured Sound Pressure Levels (dB)	
			L _{Aeq,T}	L _{AFmax} ¹
Friday Daytime	05/08/2022 13:00	10-hours	31	-
Friday Night	05/08/2022 23:00	8-hours	22	40
Saturday Daytime	06/08/2022 07:00	16-hours	31	-
Saturday Night	06/08/2022 23:00	8-hours	25	41
Sunday Daytime	07/08/2022 07:00	16-hours	27	-
Sunday Night	07/08/2022 23:00	8-hours	22	44
¹ 10 th loudest discreet event during night time periods				

The sound pressure levels presented in Table 2 during the pre-completion testing confirm that internal noise levels in the worst affected dwelling are compliant with the requirements outlined in Condition 9. It is therefore suggested that Condition 9 may be discharged.

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