

Project

MECD
Noise from Catering Units
Discharge of Planning Condition 25 of
permission 122203/JO/2018

Prepared for

Balfour Beatty
MECD
University of Manchester
Balfour Beatty Project Office
York Street
Manchester M1 7HE

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Client:	Balfour Beatty
Client Address:	MECD University of Manchester Balfour Beatty Project Office York Street Manchester M1 7HE
Author:	Sam Finch LLB (Hons)
Checker:	Heulwen Peters BSc (Hons) MIOA
Additional information:	

Version History

Version	Date	Comments	Approved by
PI	21/11/2023	-	Heulwen Peters BSc (Hons) MIOA

Summary

Balfour Beatty Ltd have appointed SRL Technical Services Limited to do noise measurements of catering and food and drink units at MECD, Manchester, to support the discharge of Planning Condition 25 of permission ref: I22203/JO/2018. The condition states:

The food and drink units shall be acoustically insulated in accordance with a scheme which must be submitted to and approved in writing by the City Council as Local Planning authority. The implementation of these approved works must be confirmed within a Verification Report to be submitted to and approved in writing by the City Council as Local Planning Authority prior to occupation of any part of the development. The approved measures shall remain in situ whilst the use or development is in operation. For the avoidance of doubt any changes to the approved the structure are prohibited at any time without written approval of the planning authority.

Prior to completing noise survey and assessment work, SRL liaised with Lisa Jones at Manchester City Council (MCC) to confirm MCCs expectations on what information was needed to discharge condition 25.

Following this liaison, SRL have completed attended measurements of noise inside and outside food and drinks units at MECD during peak operational periods.

The subjective noise from the catering units is very low and it is either inaudible or barely audible directly outside the MECD building.

We have demonstrated by measurement and assessment that noise from the food and drink units is substantially lower than the background noise level at the nearest sensitive receptor based on a worst case assessment of noise. I consider therefore that the requirements of planning condition 25 have been met and the condition should be discharged.

Contents

Summary.....	3
Contents.....	4
1.0 Introduction.....	5
2.0 Noise Survey	7
3.0 Assessment	9
Appendix A - Survey Details	11
Appendix B – Survey Data.....	12

1.0 Introduction

SRL Technical Services Limited have been appointed by Balfour Beatty Ltd to help discharge condition 25 of permission ref 122203/JO/2018. Condition 25 states:

The food and drink units shall be acoustically insulated in accordance with a scheme which must be submitted to and approved in writing by the City Council as Local Planning authority. The implementation of these approved works must be confirmed within a Verification Report to be submitted to and approved in writing by the City Council as Local Planning Authority prior to occupation of any part of the development. The approved measures shall remain in situ whilst the use or development is in operation. For the avoidance of doubt any changes to the approved the structure are prohibited at any time without written approval of the planning authority.

Prior to attending site, SRL liaised with Lisa Jones of Manchester City Council. Lisa Jones provided the following guidance for the discharge of the condition (email received 16/10/2023).

Thank you for your email. It was my colleague who did the initial response for this application and the condition suggested to planning was as follows:

NSEI

The premises shall be acoustically insulated and treated to limit the break out of noise in accordance with a noise study of the premises and a scheme of acoustic treatment that has been submitted to and approved in writing by the City Council as local planning authority. The scheme shall be implemented in full before the use commences or as otherwise agreed in writing by the City Council as local planning authority.

Where entertainment noise is proposed the L_{Aeq} (entertainment noise) should be controlled to 10dB below the L_{A90} (without entertainment noise) at the facade of the nearest noise sensitive location, and internal noise levels at structurally adjoined residential properties in the 63Hz and 125Hz octave frequency bands should be controlled so as not to exceed (in habitable rooms) 42dB and 36dB, respectively.

Reason - To safeguard the amenities of the occupiers of the building and occupiers of nearby properties.

A partial acoustic report has been prepared which demonstrates the ambient noise climate in the locality but the above assessment has not yet been made in relation to the data already gathered.

As per the wording of condition 26 [condition 26 in original condition 111758/FO/2016/C1, now renumbered as condition 25 in permission 122203/JO/2018] we would need to see the above in relation to the food and drink units specifically. This would relate to outbreak via the facade, at the nearest noise sensitive premises. Yes, there would be a requirement to provide a verification report to confirm that the above is met.

There are three food and drink units within the development site. These are illustrated in Figures 2 and 3 of this report and are:

- Collaborate Café (Ground floor – Open 8AM – 5PM)
- Change Café (Ground floor – Open 8:30AM – 3:30PM)
- Connect Café (2nd floor – Open 8AM – 4PM)

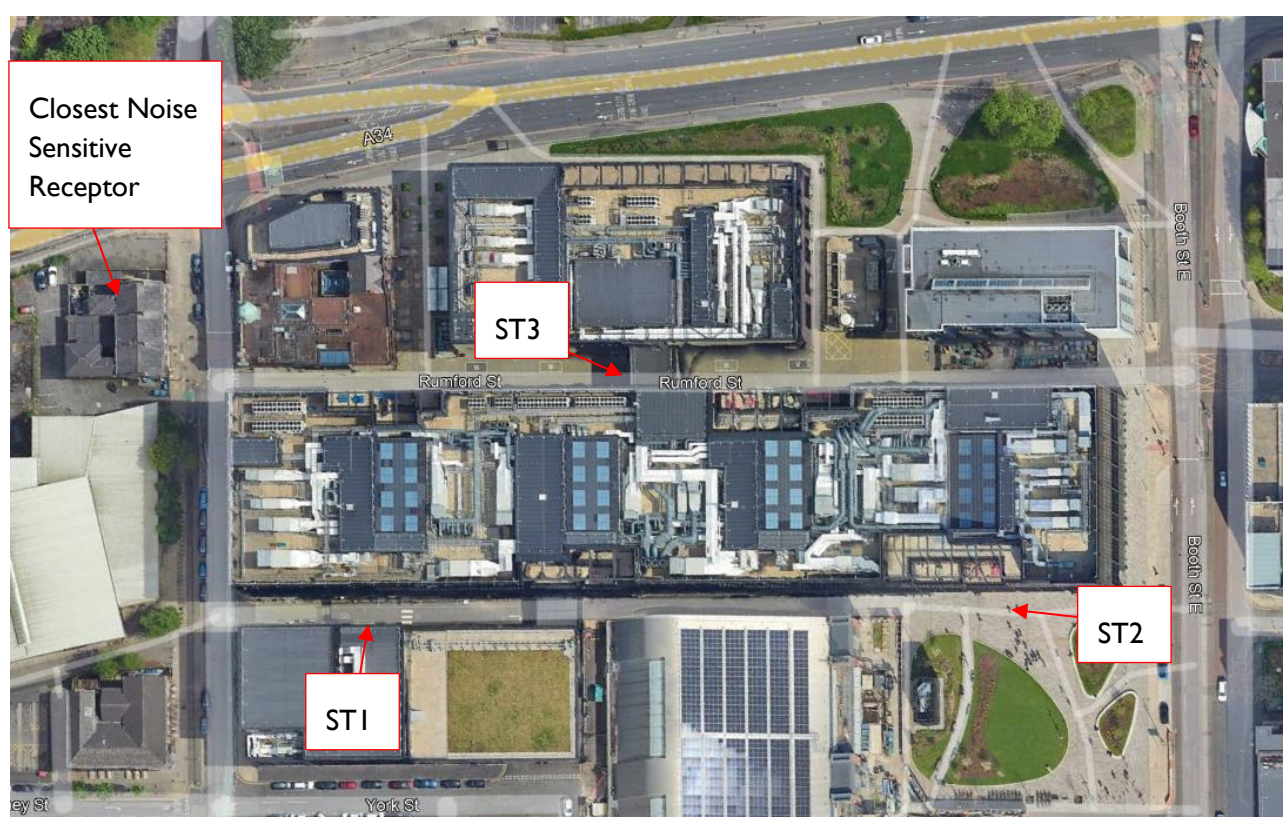
None of these units generate any entertainment noise or play amplified music.

SRL has visited the site and cafes during midday lunchtime period (when they were busiest) to measure internal noise levels in the catering units, and at the closest locations outside the building. This report details the results of our survey.

2.0 Noise Survey

SRL Technical Services Ltd attended site on 9th November 2023 to take internal and external attended measurements at and outside of the three food and drinks units. External measurement positions are shown below in Figure 1. Internal measurement positions are shown in Figures 2 and 3.

Figure 1 – Site location and external measurement positions



Measurement Position	Measurement Position Description
ST1	Approximately 5m from the West façade.
ST2	Approximately 10m from the West façade.
ST3	Approximately 10m from the East façade.

Figure 2 – Internal measurement positions – Ground Floor.

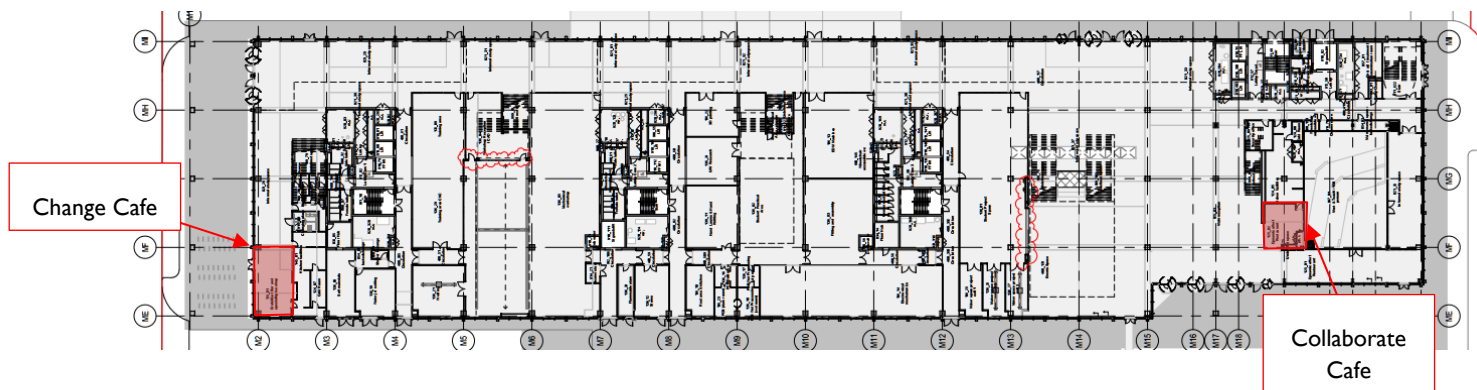
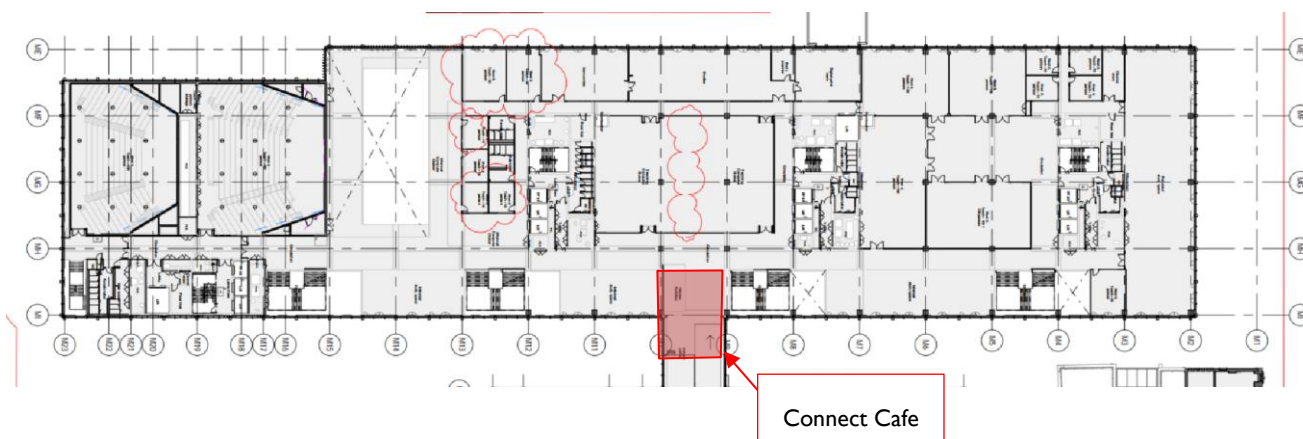


Figure 3 - Internal measurement positions – Level 02.



Five 1-minute measures were taken at each location between 12:30 and 13:30 on 9th November 2023.

3.0 Assessment

No numeric criterion has been given for noise from food and drink units where entertainment noise is not present. However, if entertainment noise were present, the criterion would be that the L_{Aeq} from entertainment noise should be controlled to 10dB below the background noise level (L_{A90}) at the façade of the nearest noise sensitive location. It is therefore proposed that if this numerical criterion is demonstrated for all noise from catering units, then the requirements of planning condition 25 have clearly been satisfied.

Table I below shows the worst case internal noise levels measured inside the food and drinks units in comparison to the free-field noise levels measured outside the units when they are operating.

Table I – Measured and Predicted Noise Levels

Café	Internal Noise Level (dBA L_{Aeq})	External Noise Level (dBA L_{Aeq})	Is café noise audible externally?	Predicted Noise Level at Noise Sensitive Receptors (dBA) *	Typical External Noise Level Outside (dBA L_{A90})	Level difference
Change Café	61	58	Slightly audible	<20	57	At least 36 dB below lowest daytime L_{A90}
Collaborate Café	66	61	No	<15	58	At least 41 dB below lowest daytime L_{A90}
Connect Cafe	63	57	No	<27	56	At least 29 dB below lowest daytime L_{A90}

* Where café noise was audible, it was taken to be at least equal to the L_{Aeq} measured at the external measurement position. This level has been extrapolated to the nearest sensitive receptor. It is likely that this is a pessimistic assessment and noise levels are lower than predicted.

Where noise from the café was inaudible, it must be at least 10 dB below the L_{Aeq} measured at the external measurement position. A level 10 dB below the L_{Aeq} has been extrapolated to the nearest sensitive receptor. It is likely that this is a pessimistic assessment and noise levels are lower than predicted.

As can be seen, noise from the food and drink units is substantially lower than the background noise level at the nearest sensitive receptor based on a worst case assessment of noise. I consider therefore that the requirements of planning condition 25 have been met and the condition should be discharged.

The subjective noise from the catering units is very low and it is either inaudible or barely audible directly outside the MECD building.

Appendix A - Survey Details

A1. Location of Survey

Manchester

A2. Date & Time of Survey

9th November 2023 12:30 – 13:30

A3. Personnel Present During Survey

Sam Finch (SRL)

A4. Weather Conditions during Survey

Varied weather conditions, spots of rain.

A5. Instrumentation

HTI - Red

Description	SRL No.	Make	Type	S/N
Sound Level Analyzer	859	Brüel & Kjær	2250	3007927
Microphone	457	Brüel & Kjær	4189	2771929
Calibrator	693	Brüel & Kjær	4231	2412357

A6. Calibration Procedure

Before and after the survey the measurement apparatus was check calibrated to an accuracy of ± 0.3 dB using the type 4231 Sound Level Calibrator. The Calibrator produces a sound pressure level of 93.8 dB re 2×10^{-5} Pa at a frequency of 1 kHz.

Appendix B – Survey Data

Location	Position	Date and Time	Elapsed Time	L _{Aeq}	L _{AF90.0}	L _{AFmax}
Change Café	Inside	09/11/2023 12:35	00:00:30	59	56	71
		09/11/2023 12:36	00:00:30	60	57	68
		09/11/2023 12:37	00:00:30	54	51	60
		09/11/2023 12:38	00:00:30	54	51	63
		09/11/2023 12:39	00:00:30	61	61	63
	Outside	09/11/2023 12:42	00:00:30	57	55	60
		09/11/2023 12:43	00:00:30	59	58	63
		09/11/2023 12:44	00:00:30	58	57	61
		09/11/2023 12:44	00:00:30	60	59	64
		09/11/2023 12:45	00:00:30	58	56	61
Collaborate Café	Inside	09/11/2023 12:49	00:00:30	66	62	71
		09/11/2023 12:49	00:00:30	65	62	76
		09/11/2023 12:50	00:00:30	64	61	75
		09/11/2023 12:51	00:00:30	65	62	73
		09/11/2023 12:52	00:00:30	65	62	73
	Outside	09/11/2023 12:54	00:00:30	61	58	64
		09/11/2023 12:54	00:00:30	63	61	71
		09/11/2023 12:55	00:00:30	61	58	68
		09/11/2023 12:55	00:00:30	59	57	64
		09/11/2023 12:56	00:00:30	60	58	64
Connect Café	Inside	09/11/2023 13:01	00:00:30	62	59	70
		09/11/2023 13:01	00:00:30	61	59	67
		09/11/2023 13:02	00:00:30	61	58	73
		09/11/2023 13:03	00:00:30	62	58	76
		09/11/2023 13:04	00:00:30	63	61	68
	Outside	09/11/2023 13:08	00:00:30	59	56	65
		09/11/2023 13:09	00:00:30	56	56	62
		09/11/2023 13:09	00:00:30	56	54	60
		09/11/2023 13:10	00:00:30	62	55	77
		09/11/2023 13:10	00:00:30	57	54	66

Acoustics

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Our specialist services to monitor and assess noise, vibration, dust, air quality and odour employ the latest technology to provide remote access to data, helping to address issues quickly and to protect our clients.

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Ensuring noise and vibration does not exceed agreed levels is an important part of our environmental management services, using state-of-the-art technology to access real-time data remotely, to enable swift remedial action if required.

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As part of our portfolio of environmental monitoring services, we offer specialist advice on the adverse impact of dust and odour across a range of projects including construction, waste handling and mineral extraction.

Sustainability

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