Unit 2
One Port Street
Manchester

Plant Sound
Commissioning Report
1605/PSC1

5 August 2026

For:

The Wilco Test Ltd

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Spinningfields Manchester M3 3EB

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Plant Sound Assessment Report
1605/PSC1

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1.0 Introduction

Lighthouse Acoustics has been appointed by The Wilco Test Ltd to visit site to undertake commissioning measurements of atmospheric plant sound emissions in order to demonstrate compliance with the requirements of the Landlord and Local Authority.

The commissioning methodology and results are presented in this report.

2.0 Objectives

To visit site to undertake commissioning measurements of atmospheric sound emissions from the installed items of building services plant to the nearest noise sensitive receptors in order to demonstrate compliance with the requirements of the Landlord and Local Authority.

3.0 Qualifications

The commissioning visit and report has been undertaken by Robin Wood of Lighthouse Acoustics who has over 25 years experience in acoustic consultancy. Qualifications include BEng (Hons) in Electroacoustics, Member of the Institute of Acoustics (MIOA), Member of the Association of Noise Consultants (ANC) and Member of the ANC Pre-Completion Testing Registration Scheme.

4.0 Site Description

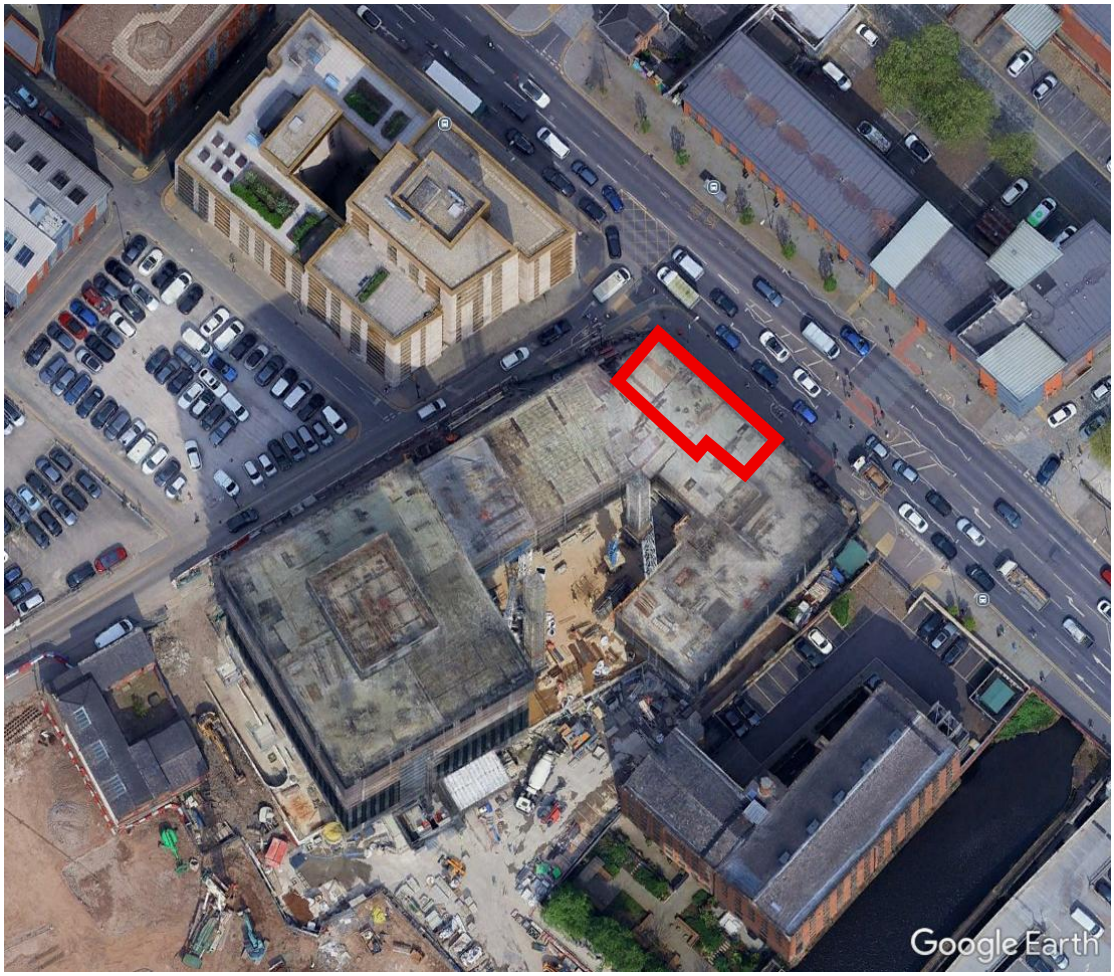
Unit 2 is situated at ground floor level to the northern corner of One Port Street, Manchester and adjoins Unit 3 and service corridors at ground floor level with residential apartments above at 1st floor level.

One Port Street, Manchester is bound by Great Ancoats Street (A665) to the north east, residential apartments to the south east (Avro), residential apartments (The Joinery) and commercial premises (Sam's Yard) to the south west and Port Street to the north west. Residential apartments are also situated to the north east of the site opposite Great Ancoats Street (MM2) and to the north west of the site opposite Port Street (The Astley).

The installed items of building services plant are situated within Unit 2 with air intakes and exhausts ducted to high level louvres in the north east and north west facades.

The nearest affected noise sensitive receptors are the windows of the development itself at 1st floor and the residential apartments situated to the north east of the site opposite Great Ancoats Street (MM2) and to the north west of the site opposite Port Street (The Astley).

The site plan below indicates the extent of the site and the surrounding environment.



Site plan indicating the extent of the site and the surrounding environment

5.0 Landlord Requirements

The Port Street Retail Unit Shell Specification for Unit 2 dated 19 January 2026 states the following in Section 4 Acoustics:

> *"4.1 General*
>
> *Noise generated in a retail unit or a retail unit plant space must not result in noise levels which may cause a statutory noise nuisance.*
>
> *4.2 Design and operational Requirements*
>
> *In accordance with the Planning Approval (MCC Planning Ref: 132489/FO/2021) the Tenant must ensure that the fit-out design and occupation of the unit complies with the relevant Conditions. The Tenant will need to submit the relevant information to the Landlord and the Local Authority for approval. The reports referenced in the Planning Conditions are available upon request.*

The relevant planning Conditions are:

Condition 15b – Acoustic insulation for externally mounted equipment"

6.0 Local Authority Requirements

Condition 15b of MCC Planning Application number 132489/FO/2021 states the following:

"15) Prior to occupation of

(b The ground floor commercial units

a scheme for the acoustic insulation of any externally mounted ancillary equipment associated with the development to ensure that it achieves a background noise level of 5dB below the existing background (La90) at the nearest noise sensitive location shall be submitted to and approved in writing by the City Council as local planning authority in order to secure a reduction in the level of noise emanating from the equipment. The approved scheme shall be completed before the premises is occupied and a verification report submitted for approval by the City Council as local planning authority and any non compliance suitably mitigated in accordance with an agreed scheme prior to occupation. The approved scheme shall remain operational thereafter."

7.0 Environmental Sound Survey

The Fisher Acoustics, Environmental Noise Study, Report Reference: PR0665-REP01A-MPF, dated 3 December 2021 details the environmental noise survey undertaken at the development and the subsequent results.

Plant noise limits are provided based on the results of the environmental noise survey which are to be achieved at the nearest residential receptors to Unit 2 as detailed in the table below.

Location	**Rating Noise Level Limit L_{Aeq} (dB)**	
	Daytime (07:00–23:00)	**Night-time (23:00–07:00)**
Proposed Development, Great Ancoats Street Elevation	53	42
Proposed Development, Port Street Elevation	46	40
MM2, Great Ancoats Street	53	42
The Astley, Port Street	49	42

8.0 Plant Sound Emission Measurements

8.1 Measurements

The requirements are for L_{Aeq} atmospheric plant sound emission levels to achieve 5dB below the typical L_{A90} background noise level at the nearest noise sensitive receptors.

Since it is not possible to demonstrate this by measurement of atmospheric plant sound emission levels at the nearest noise sensitive receptors, measurements were undertaken at a distance of 0.5m from the air intake and exhaust louvres in the north east and north west facades in order to obtain the individual contributions. This data will subsequently be used to calculate the cumulative atmospheric plant sound emission levels at the nearest noise sensitive receptors.

Measurements were undertaken between 21:00 and 23:00 hours on Monday 3 August 2026. The measurements were undertaken of the L_{Aeq} sound pressure levels over periods of 1 minute (due to steady noise). Atypical noises were excluded as far as reasonably possible.

All building services systems were understood to be operational at the design duties for the duration of the measurements.

8.2 Weather Conditions

During the commissioning visit survey period there was a gentle easterly breeze (<5m/s) and the sky was scattered cloud. There was no rainfall and road surfaces were dry. The temperature was approximately 12°C.

The weather conditions during the survey period were therefore considered to be suitable for undertaking measurements of sound levels.

8.3 Equipment

The following equipment was used to undertake the sound level measurements.

Equipment	Manufacturer	Model	Serial No.	Calibration Date
Class 1 Sound Level Meter	Bruel & Kjaer	2250	2626230	01/11/2024
Preamplifier	Bruel & Kjaer	ZC-0032	21309	01/11/2024
Microphone	Bruel & Kjaer	4189	2621208	04/11/2024
Class 1 Sound Calibrator	Casella	120/1	3864878	05/11/2025

Field calibration checks were performed on the sound level meter prior to and on completion of the survey and were found to be within acceptable tolerance limits.

The results of the atmospheric plant sound emission level measurements are presented in the table below.

Plant Item	Location	Measured L_{Aeq} at 0.5m (dB)
Fresh Air Louvre 1No. MVHR Unit	High Level Louvre North West Facade	62
Exhaust Air Louvre 1No. MVHR Unit	High Level Louvre North West Facade	70
Exhaust Air Louvre 1No. Kitchen Extract Fan	High Level Louvre North East Facade	64
Exhaust Air Louvre 1No. Pot Wash Extract Fan & 1No. Toilet Extract Fan	High Level Louvre North East Facade	59

A review of the one third octave band noise data for the above measurements indicates that they are unlikely to be considered to emit tonal noise.

8.4 Assessment

8.4.1 Operating Hours

It is understood that the installed items of building services plant have the potential to operate between 09:00 and 23:00 hours, 7 days a week.

In order to undertake a worst case assessment, it is assumed that the installed items of building services plant will operate for the full 1 hour daytime assessment period.

8.4.2 Nearest Noise Sensitive Receptors

The nearest affected noise sensitive receptors are understood to be the windows of the development itself at 1st floor and the residential apartments situated approximately 27m to the north east of the site opposite Great Ancoats Street (MM2) and approximately 16m to the north west of the site opposite Port Street (The Astley).

8.5 Calculation

The table below details the calculated cumulative L_{Ar} rating levels for the installed items of building services plant at the nearest noise sensitive receptors based on the measured L_{Aeq} levels at 0.5m along with the rating noise level limits and the differences between them.

Descriptor	Noise Sensitive Receptor			
	North East (One Port Street)	North West (One Port Street)	North East (MM2)	North West (The Astley)
Rating Level $L_{Ar,Tr}$ at Receptor (dB)	53	58	31	41
Rating Noise Level Limit $L_{Ar,Tr}$ at Receptor (dB)	53	46	53	49
Difference (dB)	0	+12	-21	-8

The calculated cumulative L_{Ar} rating levels for the installed items of building services plant at the nearest noise sensitive receptors achieve the rating noise level limits with the exception of the North West (One Port Street) receptor when an exceedance of 12 dB is calculated.

Upon inspection on-site it was noted that the previously specified atmospheric silencer had not been installed to the exhaust of the 1No. MVHR Unit. It is understood that this silencer has been ordered and is due to be installed, following which photographic evidence of the installation will be forwarded to demonstrate compliance.

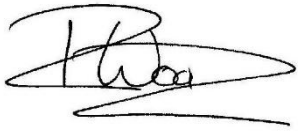
Once the atmospheric silencer has been installed to the exhaust of the 1No. MVHR Unit the rating noise level limit at the North West (One Port Street) receptor shall be achieved.

The assessment therefore indicates that atmospheric plant sound emissions from the installed items of building services plant are likely to have a low impact at the nearest noise sensitive receptors whilst achieving the requirements of the Landlord and Local Authority for the daytime period.

9.0 Conclusion

A site visit has been made to undertake commissioning measurements of atmospheric sound emissions from the installed items of building services plant to the nearest noise sensitive receptors in order to demonstrate compliance with the requirements of the Landlord and Local Authority.

The measurements indicate that once the atmospheric silencer has been installed to the exhaust of the 1No. MVHR Unit, atmospheric plant sound emissions from the installed items of building services plant are likely to have a low impact at the nearest noise sensitive receptors whilst achieving the requirements of the Landlord and Local Authority for the daytime period.



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