



Sound Insulation Test 577-579 Wilbraham Rd Chorlton Manchester M21 9AH.

Prepared for:

DJL Construction
Office 3
Sandbank Estates
Longridge
Preston
PR3 2AJ.

July 2025



1. Introduction

- 1.1. Martin Environmental Solutions has been commissioned to undertake an acoustic insulation assessment in line with BS140-4, BS140-7 and Building Regulations Approved Document E.
- 1.2. The tests were undertaken on the 28th July 2025.

Description of the building

- 1.3. The building tested forms a converted three-storey building, the upper floors have been converted to residential apartments three separate apartments per floor. A sound insulation test has been requested to show compliance with the requirements of the Building Regulations, Part E.

Company Details

- 1.5. Martin Environmental Solutions has been operating for the last fourteen years undertaken among other work acoustic projects and building insulation testing. The test was undertaken by Neil Martin, who is a chartered member of the CIEH and member of the Institute of Acoustic and holds the IOA Diploma in Acoustic and Noise Control.

2. The Test

- 2.1. The testing was undertaken in line with the requirements of the Building Regulation Approved Document E, BS 140-4 airborne sound and 140-7 impact sound.
- 2.2. The construction method was the same throughout the building as such testing was undertaken between the second to second and second to first floors. The rooms were complete at the time of the testing. The rooms tested consisted of adjoining bedrooms.
- 2.3. The tests consisted of an airborne and impact sound insulation test between the party structures. The rooms were complete at the time of the testing; no furniture was present.
- 2.4. The equipment used consisted of the following:
- a. Cirrus, CR:171B, Class 1 Optimus sound level meters, serial number G0664292,
 - b. Cirrus, CR:515 Calibrator, serial number 65564
 - c. Cesva, BP012 Omnidirectional sound source, serial number T244752
 - d. Cesva, AP602 Amplified equalized noise generator, serial number T242200
 - e. Cesva, MI006 Tapping machine, serial number T242902.

The sound level meter was field calibrated before and after the measurements and no significant variation was recorded.

- 2.5. The full result and certificates are provided within Appendix 1. The table below provides the single figure results for both sets of tests.

	R_w, sound reduction index	D_n, normalized level difference)	D_{nT}, standardized level difference	L_{nTw}, standardized level difference
Apartment 6 second floor to Apartment 5, second floor	60(-2;-6)	60(-2;-6)	61(-2;-6)	-
Apartment 6 second floor to Apartment 3, first floor	52(-1;-4)	51(-1;-5)	52(-1;-5)	55
Reference Levels			>43	<64



3. Results

- 3.1. The results of the insulation tests have confirmed that separating structure between the properties exceeds the requirements of the Building Regulations.

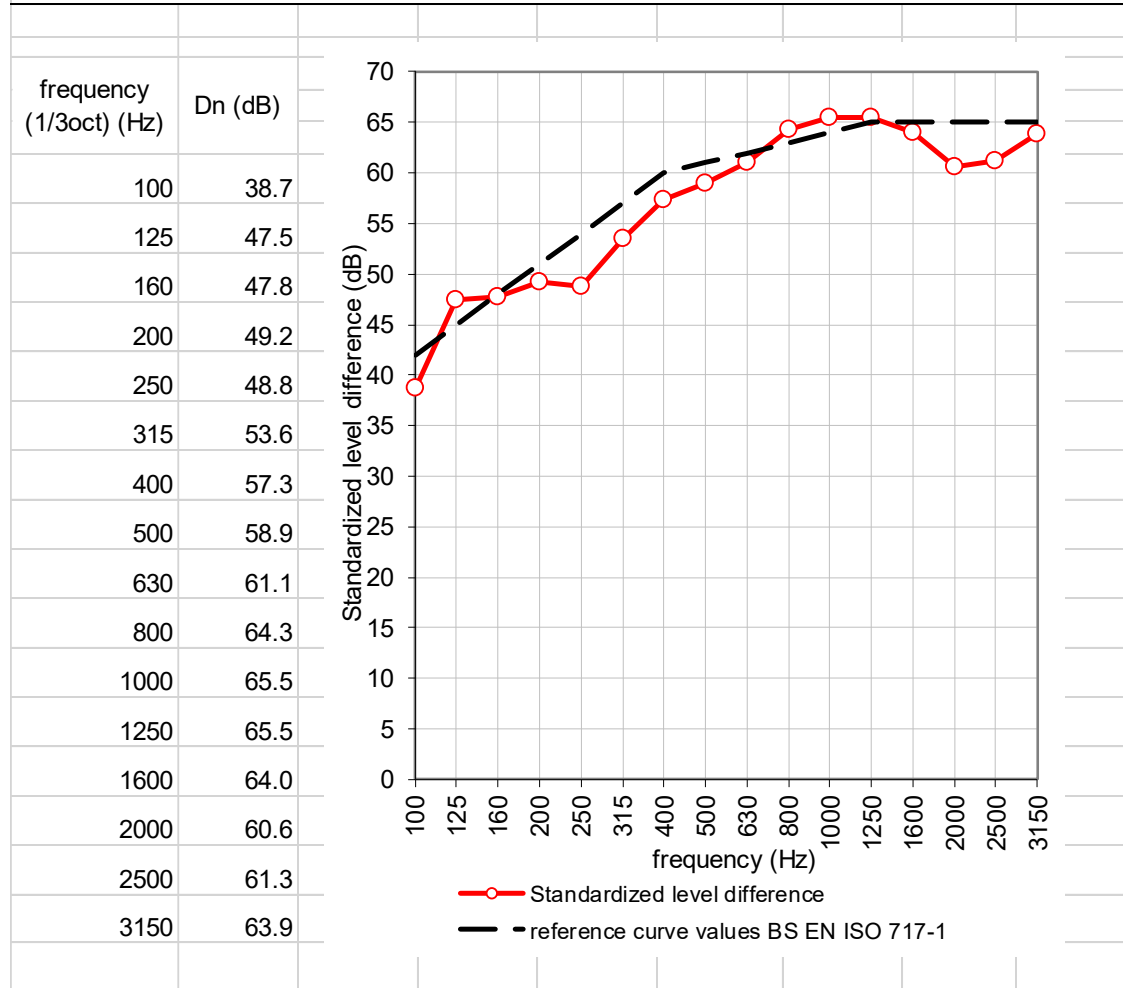
- 3.2. As such the structures pass the Building Regulations Document E requirements.

Appendix 1 – Results and certificates

Second floor to Second floor
Airborne Sound

Apparent sound reduction index according to ISO 140-4 Field measurements of airborne sound insulation between rooms

Client	577-579 Wilbraham Road, Manchester	Date of test:	28 July 2025
Description and identification of the building construction and test arrangement, direction of measurement: Three Storey Conversion, 2nd floor apartment 6 to second floor apartment 5			



Rating according to BS EN ISO 717-1: DnTw = 61 -6 dB(CTr)

Company name: Martin Environmental Solutions	Person Responsible: Neil Martin MIOA
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Second floor to First floor
Airborne Sound

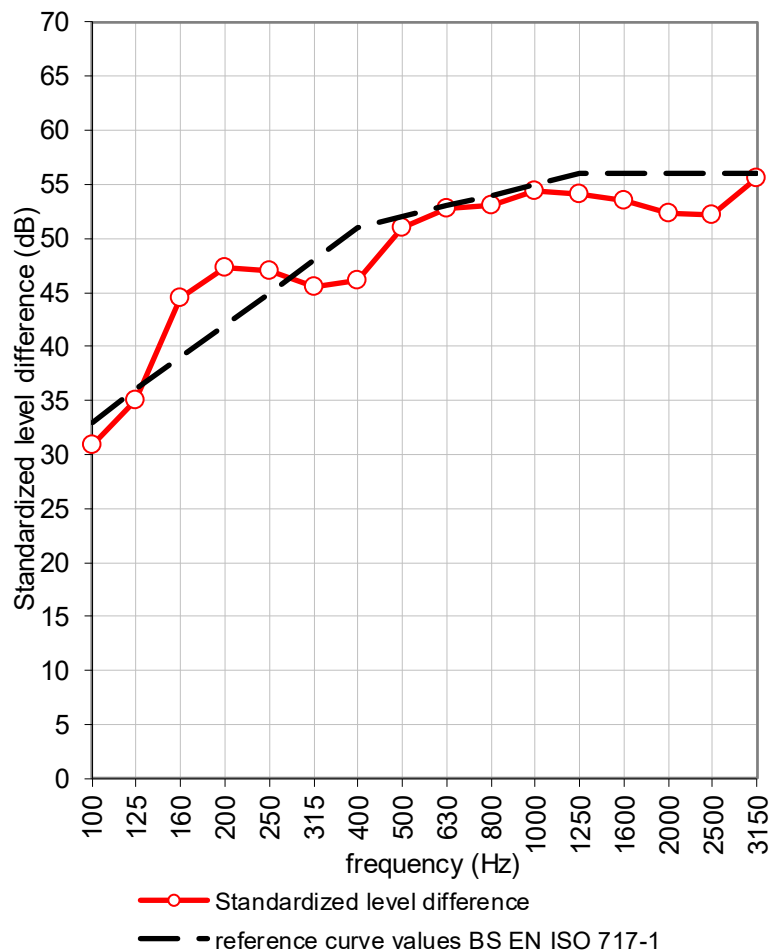
Apparent sound reduction index according to ISO 140-4 Field measurements of airborne sound insulation between rooms

Client 577-579 Wilbraham Road, Manchester

Date of test: 28 July 2025

Description and identification of the building construction and test arrangement, direction of measurement: Three Storey Conversion, 2nd floor apartment 6 to first floor apartment 3

frequency (1/3oct) (Hz)	Dn (dB)
100	30.9
125	35.0
160	44.4
200	47.3
250	47.0
315	45.5
400	46.1
500	50.9
630	52.7
800	53.1
1000	54.4
1250	54.1
1600	53.5
2000	52.3
2500	52.1
3150	55.5



Rating according to BS EN ISO 717-1: DnTw = 52 -5 dB(CTr)

Company name:
Martin Environmental Solutions

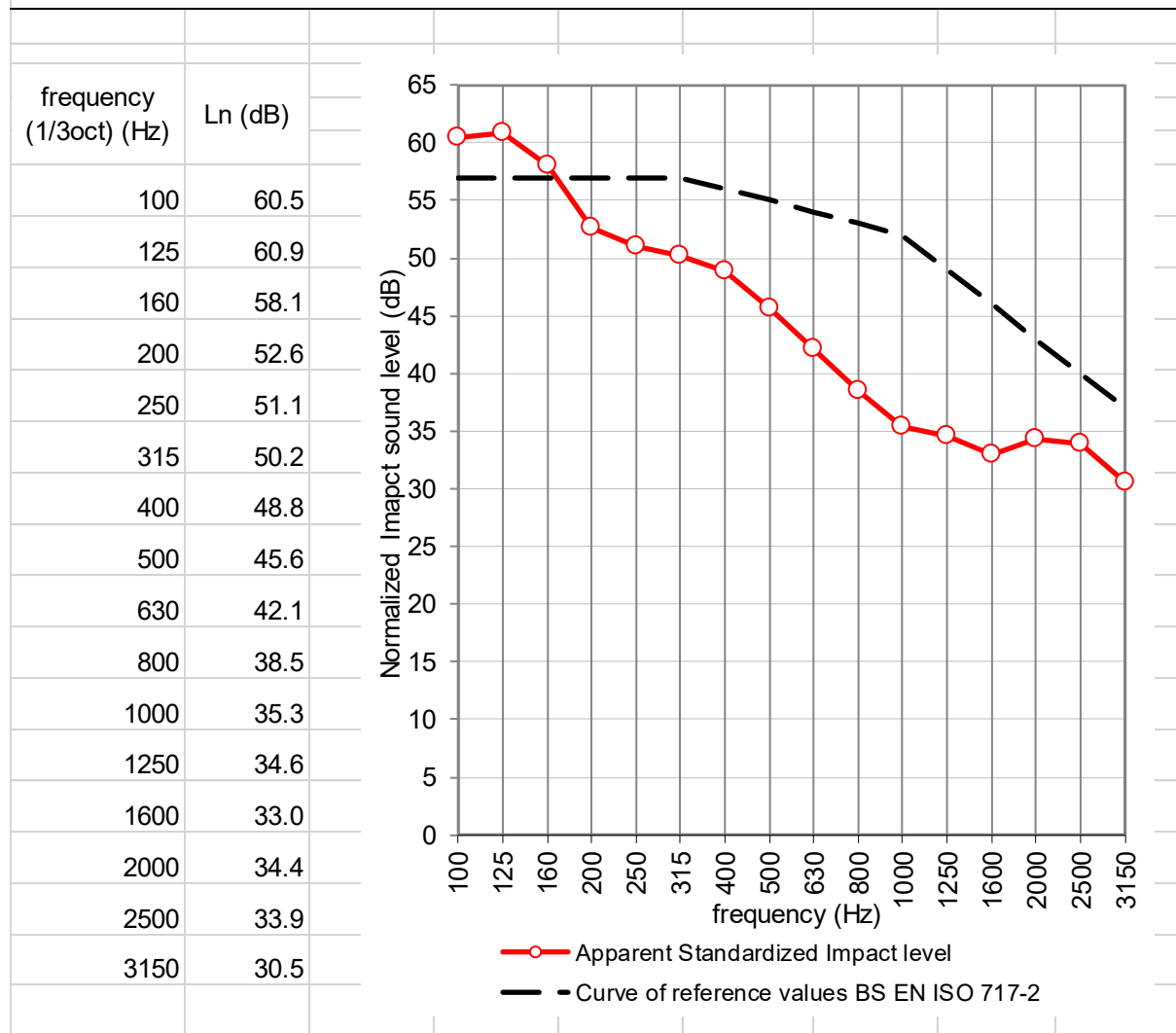
Person Responsible:
Neil Martin MIOA

Impact sound

Apparent sound reduction index according to ISO 140-7 Field measurements of impact sound insulation between rooms

Client	577-579 Wilbraham Road, Manchester	Date of test:	28 July 2025
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Description and identification of the building construction and test arrangement, direction of measurement: Three Storey Conversion, 2nd floor apartment 6 to first floor apartment 3



Rating according to BS EN ISO 717-1:LnTw = 55 dB

Company name: Martin Environmental Solutions

Person Responsible: Neil Martin MIOA