



Acoustic Survey and Assessment for Proposed change of use to residential dwelling of the former Plough Inn, 475 Oldham Road, Rochdale, OL16 4TD.

Prepared for:

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1. Introduction

- 1.1. Martin Environmental Solutions has been commissioned to undertake an acoustic survey and assessment to support a planning application for a change of use to residential dwellings of the Former Plough Inn, 475 Oldham Road Rochdale OL16 4TD.

Site Location and Context

- 1.2. The development site is situated to the east of the busy A671 Oldham Road and on the corner with Argyle Street. To the north is an open fenced off site, housing to the east and to the south on the far side of the road a takeaway with accommodation above. Further residential properties lie on the far side of Oldham to the west.
- 1.3. An aerial Photograph is enclosed in Figure 1, together with a proposed layout drawing in Figure 2.
- 1.4. The report has been produced to clarify the potential impact on the proposed development and to identify mitigation measures if required to ensure the development is appropriate in terms of noise impact.



2. Policy and Guidance

- 2.1. The impact of noise can be a material consideration in the determination of planning applications. The planning system has the task of guiding development to the most appropriate locations. It is recognised that on occasions it will be difficult to reconcile some land uses, such as housing, hospitals, or schools, with other activities that generate high levels of noise. However, the planning system is tasked to ensure that, wherever practicable, noise-sensitive developments are separated from major sources of noise (such as road, rail and air transport and certain types of industrial development).
- 2.2. The Government's publication of the National Planning Policy Framework (NPPF), updated in September 2023, states that planning policies and decisions should prevent new and existing development from contributing to or being put at unacceptable risk from, of being adversely affected by unacceptable levels of noise pollution.
- 2.3. The Government have also issued the Noise Policy Statement for England (NPSE). The NPSE clarifies the Government's underlying principles and aims in relation to noise and sets a vision to promote good health and a good quality of life through the effective management of noise while having regard to the Government's sustainable development strategy. The NPSE aims to mitigate and minimise adverse impacts on health and quality of life through the effective management and control of noise.
- 2.4. The NPSE introduces the following terms, although no sound levels are given to represent these, many authorities have identified the sound level criteria in line with the World Health Organisation, BS8233:2014 and BS4142: 2014 levels. The terms introduced by the NPSE are:
- NOEL – No Observed Effect Level (<30dB(A) inside <50dB(A) outside, 10dB below background)
- LOAEL – Lowest Observed Adverse Effect Level (30-35dB(A) inside 50-55dB(A) outside, background to +5dB)
- SOAEL – Significant Observed Adverse Effect Level (>35dB(A) inside, >55dB(A) outside, >+10dB above background)
- 2.5. The sound levels within the brackets of the previous paragraph are those determined as appropriate levels to indicate the relevant effect levels represented by the NPSE.



- 2.6. Other commonly used examples of standards utilised by Local Planning authorities for the consideration of noise impacts include comparison of the likely noise levels to be experienced at a development, with levels that have been recommended by the World Health Organisation (WHO) as Guidelines for the prevention of Community Noise Annoyance and within BS8233: 2014.
- 2.7. The WHO recommended noise levels for outdoor amenity areas (gardens) that should not be exceeded are 55dB(A) $L_{Aeq,16hr}$ in order to avoid 'Serious Community Annoyance' or 50dB(A) $L_{Aeq,16hr}$ to avoid 'Moderate Community Annoyance' during the day. For indoor levels WHO set 35dB(A) $L_{Aeq,16hr}$ during the day to prevent Moderate Annoyance and 30 dB(A) $L_{Aeq,8hr}$ at night to prevent sleep disturbance.
- 2.8. The WHO guidance also recommends that maximum sound levels at night should not regularly exceed 45dB(A) within bedrooms to prevent sleep disturbance. Regularly is considered to be more than 10 times during any 8-hour night-time period.
- 2.9. BS 8233:2014 'Guidance on sound insulation and noise reduction for buildings' also specifies desirable noise levels to be achieved inside dwellings.
- 2.10. BS 8233:2014 'Sound insulation and noise reduction for buildings – Code of Practice' also specifies desirable noise levels to be achieved inside dwellings. BS 8233 presents two levels, the first between the hours of 07:00 – 23:00 and the second between 23:00 -07:00.
- 2.11. The daytime period suggests internal noise levels of 35dB $L_{Aeq,16hr}$, for resting in living rooms and bedrooms while for night-time a level of 30dB $L_{Aeq,8hr}$ is recommended. Criteria for external areas mirrors that within the WHO guidance.
- 2.12. In addition, the 'ProPG Planning & Noise, Professional Practice Guidance on Planning & Noise, New Residential Development' provides a 4-staged approach to undertaking a risk assessment in relation to anticipated sound levels at new residential development and the provision of mitigation measures. The guidance is principally aimed at sites exposed predominantly to noise from transportation sources.

2.13. The first stage consists of an initial noise risk assessment, based on indicative day and night-time *noise* levels. Simply put, the higher the ambient noise in an area the greater the impact. The levels given are shown below although it should be noted that these are in excess of both the WHO and BS 8233: 2014 guidance.

Noise Risk Category*	Potential Effect if Unmitigated	Pre-Planning Application Guidance
0 – Negligible $L_{Aeq,16hr} < 50dB$ $L_{Aeq,8hr} < 40dB$	May be noticeable but no adverse effect on health and quality of life	In this category the development is likely to be acceptable from a noise perspective, nevertheless a good acoustic design process is encouraged to improve the existing environment and/or safeguard against possible future deterioration and to protect any designated tranquil areas. A noise assessment may be requested to demonstrate no adverse impact from noise. Application need not normally be delayed on noise grounds.
1 – Low $L_{Aeq,16hr} 50-63dB$ $L_{Aeq,8hr} 40-55dB$	Adverse effect on health and quality of life	In this category the development may be refused unless a good acoustic design process is followed and is demonstrated via a Level 1 Acoustic Design Statement which confirms how the adverse impacts of noise on the new development will be mitigated and minimised and that a significant adverse impact will not arise in the finished development. Planning conditions and other measures to control noise may be required.
2 – Medium $L_{Aeq,16hr} 63-69dB$ $L_{Aeq,8hr} 55-60dB$ $L_{AFmax} > 80dB^{**}$	Significant adverse effect on health and quality of life	In this category the development is likely to be refused unless good acoustic design process is followed and is demonstrated via a Level 2 Acoustic Design Statement which confirms how the adverse impacts of noise on the new development will be mitigated and minimised, and clearly demonstrates that a significant adverse noise impact will not arise in the finished development. Planning conditions and other measures to control noise will normally be required.
3 – High $L_{Aeq,16hr} > 69dB$ $L_{Aeq,8hr} > 60dB$ $L_{AFmax} > 80dB^{**}$	Unacceptable adverse effect of health and quality of life	In this category the development is very likely to be refused on noise grounds, even if a good acoustic design process is followed and is demonstrated via a Level 2 Acoustic Design Statement. Applicants are advised to seek expert advice on possible mitigation measures. Advice on the circumstances when the refusal of a new housing on noise grounds should normally be anticipated is included in the ProPG.

2.14. Stage 2, consists of a full assessment of the prevailing ambient noise and requires 4 elements to be considered:

- I. Element 1 – Good Acoustic Design
- II. Element 2 – Internal Noise Level Guidelines
- III. Element 3 – External Amenity Area Noise Assessment
- IV. Element 4 – Assessment of Other Relevant Issues

2.15. A good acoustic design is implicit in meeting the requirements of the NPPF and can help to resolve many potential acoustic issues.



2.16. Details of the criteria considered suitable are provided above for both internal and external sound levels. Element 4 includes such issues as local and national policy, likely occupants, wider planning objectives.



3. The Assessment

The development

3.1 The proposed development consists of the subdivision of the property into six apartments.

3.2 Figure 2 below provides an overview of the proposed development.

Existing Situation.

3.3 In order to obtain representative background sound levels for the area on site monitoring was undertaken over the 3rd and 4th April 2024.

3.4 A Cirrus Optimus Green sound level meter was utilised for the monitoring. The meter was placed over 1m from the first-floor façade overlooking the busy Oldham Road.

3.5 The meter was field calibrated at the start and end of the monitoring period with no significant variation and full laboratory calibration certificates are available on request.

3.6 The weather during the monitoring was generally dry with little to no wind <5m/s. a light shower was experienced on the afternoon of the first day. This is not considered to have adversely impacted on the resulting measurements, although the road surface was wet increasing sound levels slightly, representing a worse-case scenario.

3.7 The full results are shown in Appendix A, with a summary in the tables below.

Start Time	End Time	Duration	L _{Aeq}	L _{A90}	L _{AMax}
03/04/2024 16:00	03/04/2024 23:00	06:59:59	72.5	61.4	101
03/04/2024 23:00	04/04/2024 07:00	08:00:00	68.1	42.0	95.0
04/04/2024 07:00	04/04/2024 19:00	12:00:01	73.4	63.3	111.9

3.8 Background sound levels were dominated by passing traffic to the front of the site with night-time maximum sound levels regularly exceeded at identified at 84.9dB(A).

3.9 Given a 15dB attenuation¹ for an open window the sound levels to be experienced by the future occupants are above those identified within the guidance documents detailed in section 2 of the report. Therefore, further mitigation measures are required.

¹ BS8233: 2014; Guidance on sound insulation and noise reduction for buildings



- 3.10 A “more rigorous” calculation has been undertaken in accordance with Annex G of BS8233:2014. This takes into account the attenuation offered by the full façade of the building and not just the glazing element. The external walls being solid stone blocks, an inner stud wall will be formed for additional insulation and will provide additional attenuation however this has not been included in the calculations.
- 3.11 These calculations, reproduced in Appendix B for day, night and night-time maximum sound level for each of the proposed bedrooms and the daytime levels for each living room/kitchen.
- 3.12 The calculations confirm that a standard 6/12/6 double glazing unit which will provide a sound reduction, $R_w(C;C_{tr})$, of 33(-1;-3) when closed will be adequate to protect the internal environment of the proposed dwellings from the external prevailing sound level. Resulting in internal sound levels significantly below those recommended in the above guidance.
- 3.13 In order to be able to keep windows closed additional ventilation provision must be made for the property. As such it is recommended that a ventilation system is used incorporating acoustic trickle ventilators for all windows to habitable rooms to the proposed properties. The ventilators must achieve a similar or better performance to the windows when open and a number of suitable models are available from suppliers including the Greenwood DN Vent providing 34dB (C_{tr}) attenuation or the Titon, Trimvent Select S13 Ventilator providing 33dB (C_{tr}) attenuation. Other models and manufacturers are available.
- 3.14 Care must be taken to ensure that windows are well fitted and gaps between the window frame and the brick work are minimised. Where gaps do occur, these should be filled with a suitable acoustic material, not expandable foam. The window frame should be sealed across the full depth of the frame and not just around the edges. This will ensure that sound does not ‘leak’ around the edge of the frame.
- 3.15 It is recommended that the same specification be used for all habitable rooms in the dwelling with those at the rear experiencing slightly lower sound levels than those at the front where the monitoring was undertaken. The inclusion of the standard double



glazed windows and alternative ventilation will ensure adequate protection for all of the proposed apartments.

Internal sound transfer

3.16 It is also important to ensure no adverse impact will be experienced between the proposed units. As such a specification detail has been produced and is replicated in Appendix C for the dividing walls and floor/ceiling structures. The inclusion of the identified specifications, or equivalent will ensure no adverse impact is experienced between units and will exceed the building regulations Part E requirements.



4 Conclusion

- 4.1 On-site monitoring has identified existing background sound levels will result in an adverse impact on the proposed development. As such additional mitigation measures are required.
- 4.2 These have been identified as standard double-glazing units with trickle window vents to ensure a suitable level of ventilation is achieved.
- 4.3 The inclusion of the above mitigation measures to all habitable rooms will ensure that the internal and external sound levels are acceptable and will result in a No Observe Effect on the future residents in line with the Noise Policy Statement for England.
- 4.4 As such the development will meet the objectives of the National Planning Policy Framework in ensuring that no significant adverse impact is experienced by the future residents. The development is therefore considered to be acceptable in terms of noise.

Figure 1 – Aerial Photograph



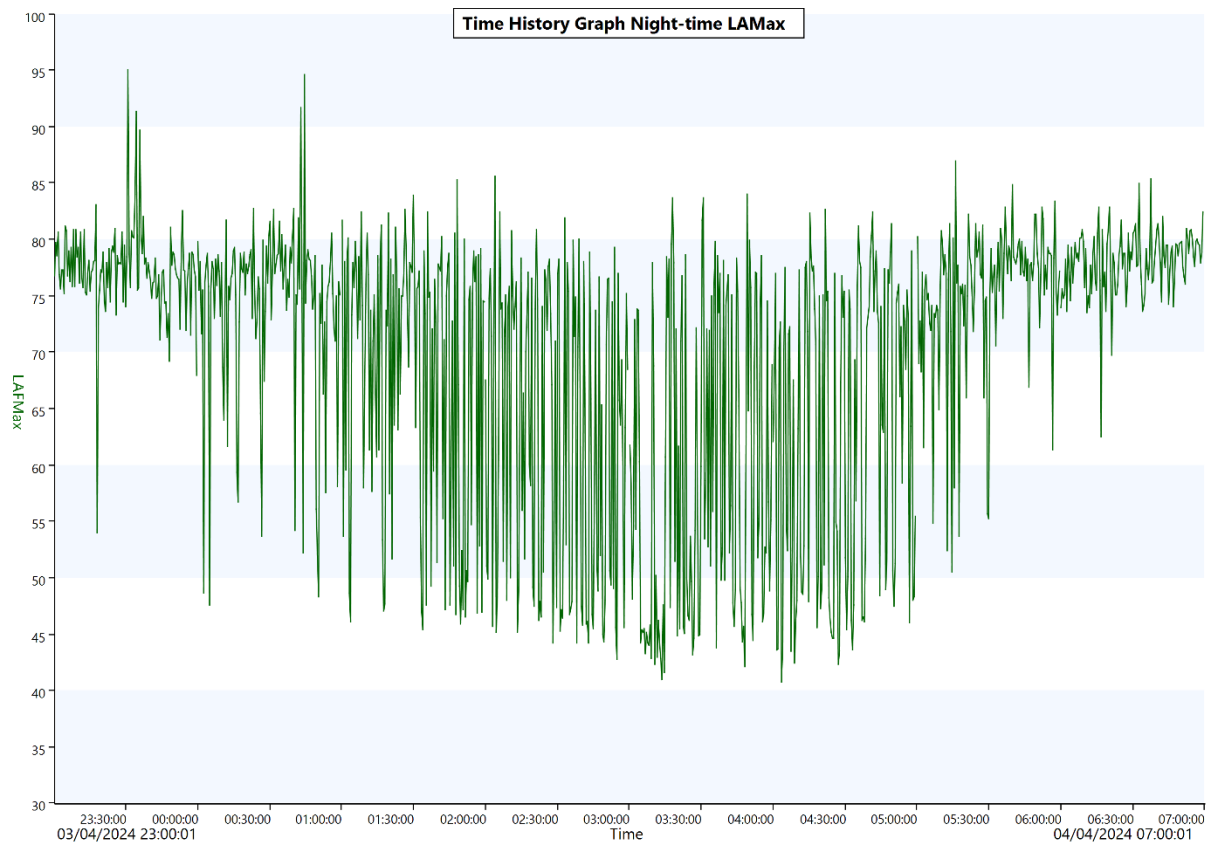
Figure 2 – Proposed Layout Plan





Appendix A – Full Monitoring Results

Time	L _{Aeq} (dB)	L _{AMax} (dB)	L _{A90} (dB)
03/04/2024 16:00	72.1	84.2	64.6
03/04/2024 17:00	73.6	98.5	66.0
03/04/2024 18:00	73.6	101.0	65.0
03/04/2024 19:00	73.0	93.3	62.6
03/04/2024 20:00	71.5	87.7	59.5
03/04/2024 21:00	71.8	88.7	57.9
03/04/2024 22:00	70.9	84.1	55.8
03/04/2024 23:00	70.6	95.0	51.5
04/04/2024 00:00	68.9	94.6	46.6
04/04/2024 01:00	65.9	85.2	43.1
04/04/2024 02:00	63.4	85.6	40.8
04/04/2024 03:00	62.5	84.0	39.9
04/04/2024 04:00	63.8	82.6	40.5
04/04/2024 05:00	69.1	86.9	46.3
04/04/2024 06:00	71.6	85.3	55.8
04/04/2024 07:00	73.4	87.8	62.9
04/04/2024 08:00	72.6	84.7	62.2
04/04/2024 09:00	75.5	105.2	62.4
04/04/2024 10:00	72.0	90.1	61.9
04/04/2024 11:00	73.4	104.4	62.3
04/04/2024 12:00	71.7	84.4	63.4
04/04/2024 13:00	72.2	92.8	63.4
04/04/2024 14:00	72.0	92.5	63.1
04/04/2024 15:00	72.0	85.0	63.3
04/04/2024 16:00	76.5	111.9	63.8
04/04/2024 17:00	72.0	85.9	64.9
04/04/2024 18:00	73.8	100.3	65.6



Appendix B – Break-In Calculations

Ground Floor Bedroom

Daytime

	Description	Single figure rating	Octave band frequency Hz						
			63	125	250	500	1000	2000	4000
LAeq	LAeq daytime	73.4	73.6	67.6	65	66	70.4	67.9	57.2
Lff		68.9	69.1	63.1	60.5	61.5	65.9	63.4	52.7
Dn,e	2500EAW.AC1 - Greenwood	45	30	41	40	36	47	43	46
Rwi	6/12/6 glazing	35	23	25	21	35	42	41	40
Rew	Solid stone	56	37	40	44	51	58	63	68
Rrr	Slate, 100mm insulation, 15mm pl	54	17	35	45	52	57	57	59
internal level			48.4	28.4	26.6	20.8	15.7	15.8	3.3
A-weighting			-26.2	-16.1	-8.6	-3.2	0	1.2	1
Internal A-weight		25.9	22.2	12.3	18.0	17.6	15.7	17.0	4.3

Night-time

	Description	Single figure	Octave band frequency Hz						
			63	125	250	500	1000	2000	4000
LAeq	LAeq daytime	68.1	66.6	60.7	59.5	60.8	65.9	61.4	50.2
Lff		63.6	62.1	56.2	55	56.3	61.4	56.9	45.7
Dn,e	2500EAW.AC1 - Greenwood	45	30	41	40	36	47	43	46
Rwi	6/12/6 glazing	35	23	25	21	35	42	41	40
Rew	Solid stone	56	37	40	44	51	58	63	68
Rrr	Slate, 100mm insulation, 15mm plaster	54	17	35	45	52	57	57	59
internal level			41.4	21.5	21.1	15.6	11.2	9.3	-3.7
A-weighting			-26.2	-16.1	-8.6	-3.2	0	1.2	1
Internal A-weight		19.9	15.2	5.4	12.5	12.4	11.2	10.5	-2.7

Night-time L_{AMax}

	Description	Single figure rating	Octave band frequency Hz						
			63	125	250	500	1000	2000	4000
LAeq	LAeq daytime	84.9	87.6	80.8	76.2	75.5	76.1	74.9	70.4
Lff		80.4	83.1	76.3	71.7	71	71.6	70.4	65.9
Dn,e	2500EAW.AC1 - Greenwood	45	30	41	40	36	47	43	46
Rwi	6/12/6 glazing	35	23	25	21	35	42	41	40
Rew	Solid stone	56	37	40	44	51	58	63	68
Rrr	Slate, 100mm insulation, 15mm pl	54	17	35	45	52	57	57	59
internal level			62.4	41.6	37.8	30.3	21.4	22.8	16.5
A-weighting			-26.2	-16.1	-8.6	-3.2	0	1.2	1
Internal A-weight		38.0	36.2	25.5	29.2	27.1	21.4	24.0	17.5



Ground Floor Living Room Day

	Description	Single figure rating	Octave band frequency Hz						
			63	125	250	500	1000	2000	4000
LAeq	LAeq daytime	73.4	73.6	67.6	65	66	70.4	67.9	57.2
Lff		68.9	69.1	63.1	60.5	61.5	65.9	63.4	52.7
Dn,e	2500EAW.AC1 - Greenwood	45	30	41	40	36	47	43	46
Rwi	6/12/6 glazing	35	23	25	21	35	42	41	40
Rew	Solid stone	56	37	40	44	51	58	63	68
Rrr	Slate, 100mm insulation, 15mm pl	54	17	35	45	52	57	57	59
internal level			48.4	28.4	26.6	20.8	15.7	15.8	3.3
A-weighting			-26.2	-16.1	-8.6	-3.2	0	1.2	1
Internal A-weight		25.9	22.2	12.3	18.0	17.6	15.7	17.0	4.3

First Floor Bedroom

Daytime

	Description	Single figure rating	Octave band frequency Hz						
			63	125	250	500	1000	2000	4000
LAeq	LAeq daytime	73.4	73.6	67.6	65	66	70.4	67.9	57.2
Lff		68.9	69.1	63.1	60.5	61.5	65.9	63.4	52.7
Dn,e	2500EAW.AC1 - Greenwood	45	30	41	40	36	47	43	46
Rwi	6/12/6 glazing	35	23	25	21	35	42	41	40
Rew	Solid stone	56	37	40	44	51	58	63	68
Rrr	Slate, 100mm insulation, 15mm pl	54	17	35	45	52	57	57	59
internal level			48.7	28.5	26.7	20.8	15.8	15.9	3.3
A-weighting			-26.2	-16.1	-8.6	-3.2	0	1.2	1
Internal A-weight		26.1	22.5	12.4	18.1	17.6	15.8	17.1	4.3

Night-time

	Description	Single figure rating	Octave band frequency Hz						
			63	125	250	500	1000	2000	4000
LAeq	LAeq daytime	68.1	66.6	60.7	59.5	60.8	65.9	61.4	50.2
Lff		63.6	62.1	56.2	55	56.3	61.4	56.9	45.7
Dn,e	2500EAW.AC1 - Greenwood	45	30	41	40	36	47	43	46
Rwi	6/12/6 glazing	35	23	25	21	35	42	41	40
Rew	Solid stone	56	37	40	44	51	58	63	68
Rrr	Slate, 100mm insulation, 15mm pl	54	17	35	45	52	57	57	59
internal level			41.7	21.6	21.2	15.6	11.3	9.4	-3.7
A-weighting			-26.2	-16.1	-8.6	-3.2	0	1.2	1
Internal A-weight		20.0	15.5	5.5	12.6	12.4	11.3	10.6	-2.7



Night-time L_{AMax}

	Description	Single figure rating	Octave band frequency Hz						
			63	125	250	500	1000	2000	4000
LAeq	LAeq daytime	84.9	87.6	80.8	76.2	75.5	76.1	74.9	70.4
Lff		80.4	83.1	76.3	71.7	71	71.6	70.4	65.9
Dn,e	2500EAW.AC1 - Greenwood	45	30	41	40	36	47	43	46
Rwi	6/12/6 glazing	35	23	25	21	35	42	41	40
Rew	Solid stone	56	37	40	44	51	58	63	68
Rrr	Slate, 100mm insulation, 15mm pl	54	17	35	45	52	57	57	59
internal level			62.7	41.7	37.9	30.3	21.5	22.9	16.5
A-weighting			-26.2	-16.1	-8.6	-3.2	0	1.2	1
Internal A-weight		38.2	36.5	25.6	29.3	27.1	21.5	24.1	17.5

First floor Living Room Daytime

	Description	Single figure rating	Octave band frequency Hz						
			63	125	250	500	1000	2000	4000
LAeq	LAeq daytime	73.4	73.6	67.6	65	66	70.4	67.9	57.2
Lff		68.9	69.1	63.1	60.5	61.5	65.9	63.4	52.7
Dn,e	2500EAW.AC1 - Greenwood	45	30	41	40	36	47	43	46
Rwi	6/12/6 glazing	35	23	25	21	35	42	41	40
Rew	Solid stone	56	37	40	44	51	58	63	68
Rrr	Slate, 100mm insulation, 15mm pl	54	17	35	45	52	57	57	59
internal level			48.9	28.3	26.0	20.2	15.2	15.2	2.7
A-weighting			-26.2	-16.1	-8.6	-3.2	0	1.2	1
Internal A-weight		25.9	22.7	12.2	17.4	17.0	15.2	16.4	3.7



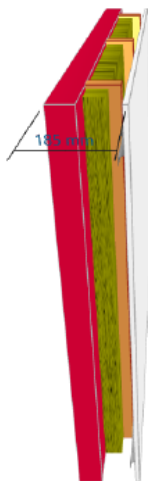
Appendix C – Proposed Specifications for dividing structures.

Sound Insulation Prediction (v10.0.3)

Program copyright Marshall Day Acoustics 2017 | Margin of error is generally within $R_w \pm 3$ dB

Date: 11/04/2024

Job Name:



R_w 60 dB

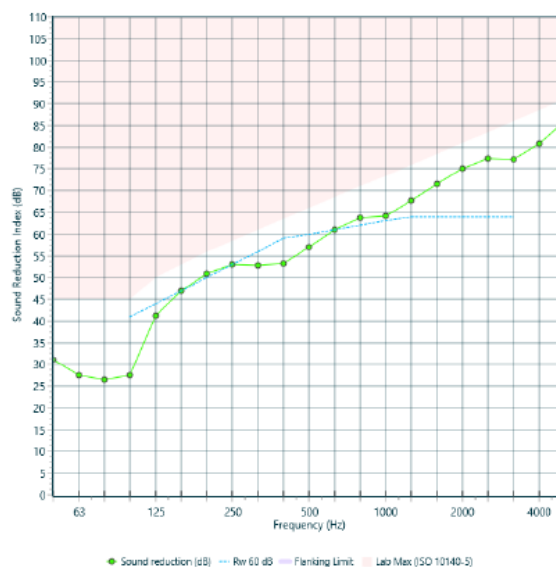
C -5 dB

Ctr -13 dB

System description

Panel 1 1 x 70 mm Brick
Frame Timber stud + Resilient rail/bar (90 mm x 45 mm), Stud spacing 600 mm, Cavity Width 102 mm + 60 mm Fibreglass (10kg/m³) 60mm
Panel 2 1 x 12.5 mm Gyproc Wallboard 12.5mm
Details Panel Size 2.7 m x 4.0 m, Partition surface mass = 121 kg/m², Mass-air-mass resonant frequency = 60 Hz

freq.(Hz)	R(dB)	Roct (dB)
50	31	
63	28	28
80	27	
100	28	
125	41	32
160	47	
200	51	
250	53	52
315	53	
400	53	
500	57	56
630	61	
800	64	
1000	64	65
1250	68	
1600	71	
2000	75	74
2500	77	
3150	77	
4000	81	80
5000	86	

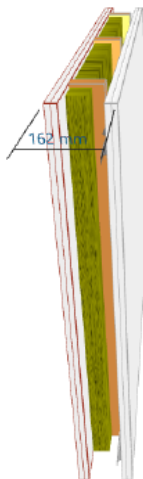


Sound Insulation Prediction (v10.0.3)

Program copyright Marshall Day Acoustics 2017 | Margin of error is generally within $R_w \pm 3$ dB

Date: 11/04/2024

Job Name:



R_w 58 dB

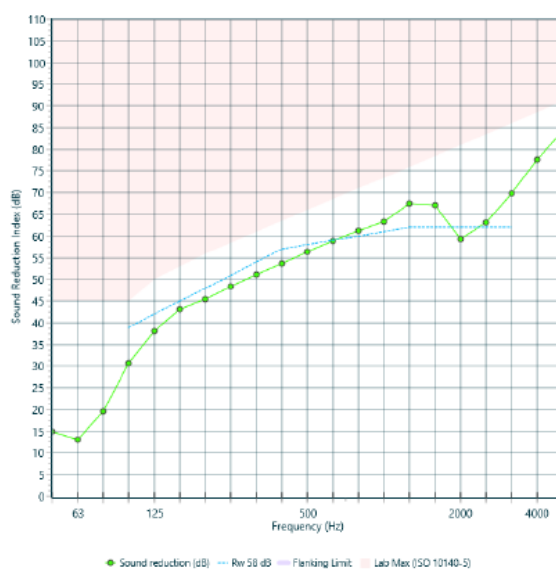
C -3 dB

Ctr -9 dB

System description

Panel 1 2 x 15 mm Gyproc SoundBloc 15mm
 Frame Timber stud + Resilient rail/bar (90 mm x 45 mm), Stud spacing 600 mm, Cavity Width 102 mm + 60 mm Fibreglass (10kg/m³) 60mm
 Panel 2 2 x 15 mm Gyproc SoundBloc 15mm
 Details Panel Size 2.7 m x 4.0 m, Partition surface mass = 51 kg/m², Mass-air-mass resonant frequency = 46 Hz

freq.(Hz)	R(dB)	Roct (dB)
50	15	
63	13	15
80	20	
100	31	
125	38	35
160	43	
200	45	
250	48	48
315	51	
400	54	
500	56	56
630	59	
800	61	
1000	63	63
1250	67	
1600	67	
2000	59	62
2500	63	
3150	70	
4000	78	74
5000	84	

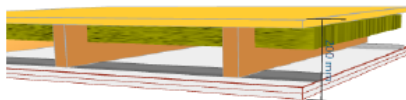


Sound Insulation Prediction (v10.0.3)

Program copyright Marshall Day Acoustics 2017 | Margin of error is generally within $R_w \pm 3$ dB

Date: 11/04/2024

Job Name:



R_w 56 dB

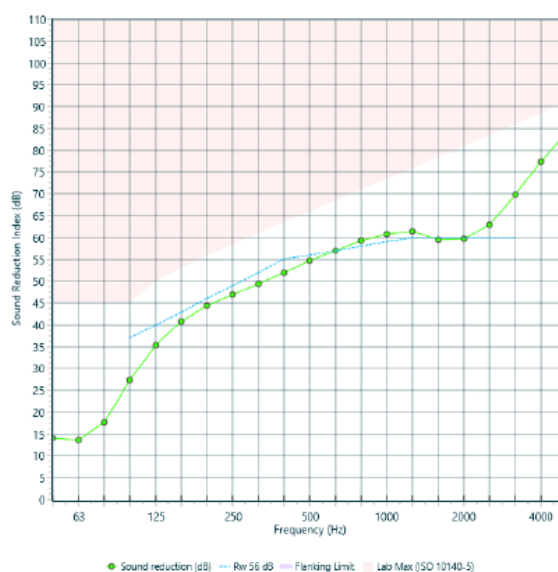
C -3 dB

Ctr -10 dB

System description

Panel 1 1 x 20 mm Flooring Particle Board
Frame Solid Joist with resilient rail (132 mm x 45 mm), Stud spacing 600 mm, Cavity Width 150 mm + 60 mm Fibreglass (10kg/m³) 60mm
Panel 2 2 x 15 mm Gyproc SoundBloc 15mm
Details Panel Size 2.7 m x 4.0 m, Partition surface mass = 40 kg/m², Mass-air-mass resonant frequency = 45 Hz

freq.(Hz)	R(dB)	Roct (dB)
50	14	
63	14	15
80	18	
100	27	
125	35	31
160	41	
200	44	
250	47	46
315	49	
400	52	
500	55	54
630	57	
800	59	
1000	61	60
1250	61	
1600	59	
2000	60	60
2500	63	
3150	70	
4000	77	74
5000	84	



- Key No. 2594 | Initials:info | File Name:insul



Appendix D - Report Author Details

This report has been produced by Neil Martin, BSc (Hons), PGDip, CEnvH MCIEH, MIOA.

Neil is the principal acoustic consultant at Martin Environmental Solutions Ltd, a consultancy company specialising in Environmental Health disciplines including environmental noise assessment and control. He holds a Bachelor's degree in Environmental Health and Diploma in Acoustics. He is a Chartered Member of the Chartered Institute of Environmental Health and a Full member of the Institute of Acoustics.

Neil has over 20 years' experience working within a Local Authority Environmental Health setting, principally in the Environmental Protection and Public Health areas and has been working as an acoustic consultant since 2011.

Since its formation, Martin Environmental Solutions has advised and assisted many groups including residents, developers and local authorities about the problems of noise and vibration in the environment and the possible solutions. Neil also acts as an expert witness in the area of acoustics.