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F2-FAC-A180-Rp-XX-005 P01

MPF/PR0660/L10

21 September 2026

Phillip Dorin
Renaker Build Ltd
1st Floor
NQ Building
47 Bengal Street
Manchester
M4 6BB

Dear Phil

Plot F2, GREAT JACKSON STREET MANCHESTER, PLANNING CONDITION 23

I write to confirm the results of sound transfer measurements conducted between the amenity areas and residential apartments at Plot F2, Great Jackson Street, Manchester. The measurements have been conducted to respond to condition 23b of the planning permission for the development and to demonstrate that the amenity areas will not affect residential amenity.

INTRODUCTION

The planning permission for Plot F, Great Jackson Street includes a condition for each phase of the development which requires that post-completion noise measurements are carried out in relation to internal activity noise transfer and activity noise egress from the residential amenity areas within each building.

Fisher Acoustics Ltd has been commissioned by Renaker Build Ltd to measure the levels of noise breakout and transfer from the Plot F2 amenity spaces to the apartments above and to external areas, and to advise on compliance with the requirements of the planning permission for the development.

PLANNING CONDITION

Planning condition 23 of the Planning Approval for Plot F2 Great Jackson Street (planning application number 143143/JO/2025, dated 9 June 2025) states:

> *23) a) The residential amenity areas, including any gymnasium, within Phase 1 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 first occupation of the premises within Phase 1.*
>
> *Where entertainment noise is proposed the LAeq (entertainment noise) shall be controlled to 5dB below the LA90 (without entertainment noise) in each octave band 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 shall be controlled so as not to exceed (in habitable rooms) 47dB and 41dB (Leq,5min), respectively.*

b) Prior to occupation of Phase 1 of the development a verification report to validate that the work undertaken throughout Phase 1 of the development conforms to the recommendations and requirements in the approved acoustic consultant's report shall be submitted to and approved in writing by the City Council as local planning authority. The verification report shall include post completion testing to confirm that acceptable criteria have been met. Any instances of non-conformity with the recommendations in the report shall be detailed along with any measures required to ensure compliance with the agreed noise criteria and timescales for the implementation of those measures.

Reason - To safeguard the amenities of the occupiers of the building and occupiers of nearby properties, pursuant to policies SP1 and DM1 of the Core Strategy.

Fisher Acoustics' report 'Plot F2, Great Jackon Street, Manchester, Amenity Noise Impact Assessment', report reference F2-FAC-A180-RP-XX-002 P02 dated 11 June 2026 has been submitted to Manchester City Council in response to condition 23a. This letter report responds to condition 23b.

RESIDENTIAL AMENITY SPACES

The location of the residential amenity spaces within Plot F2 are identified in Figures 1 and 2. In particular, the residents lounge is located on the ground floor as identified in Figure 1 and the club lounge, golf simulator, gym, gym studio, multi-use suite and content creation room are located on Level 1 as identified in Figure 2. All of the identified spaces are provided with ceiling level speakers with the exception of the content creation room.

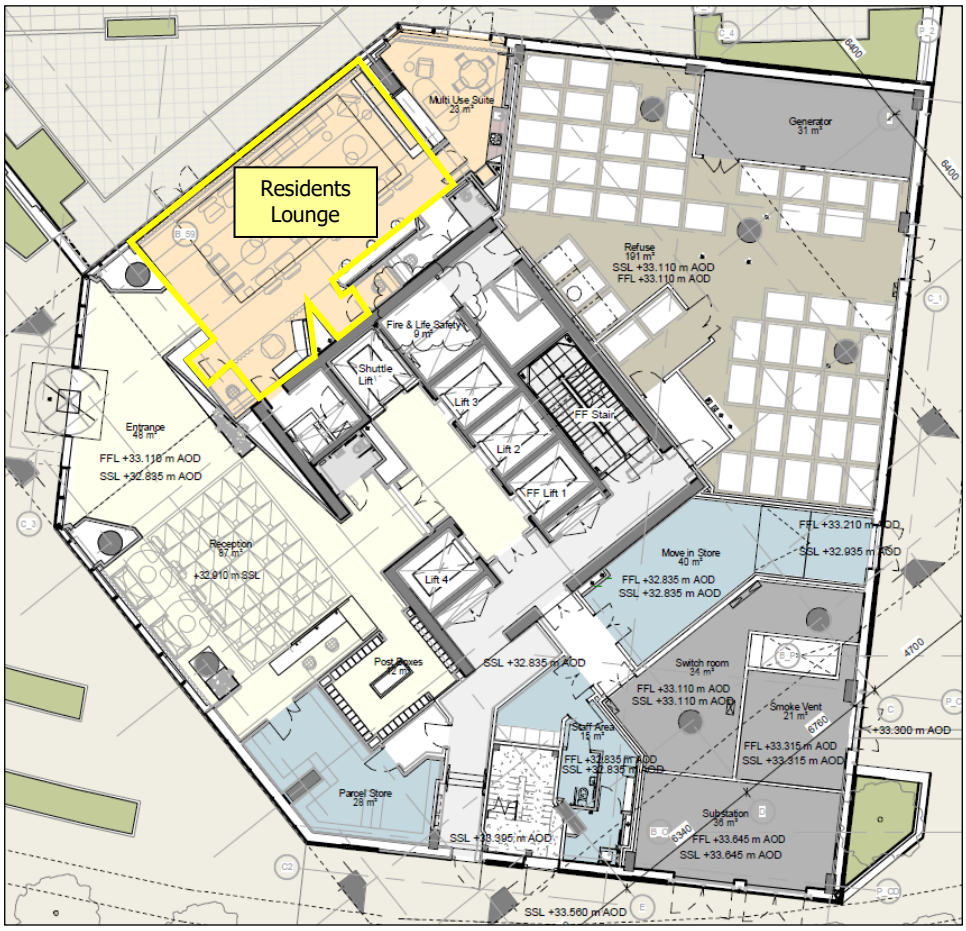


Figure 1: Location of residents lounge – Ground Floor, Plot F2 Great Jackson Street

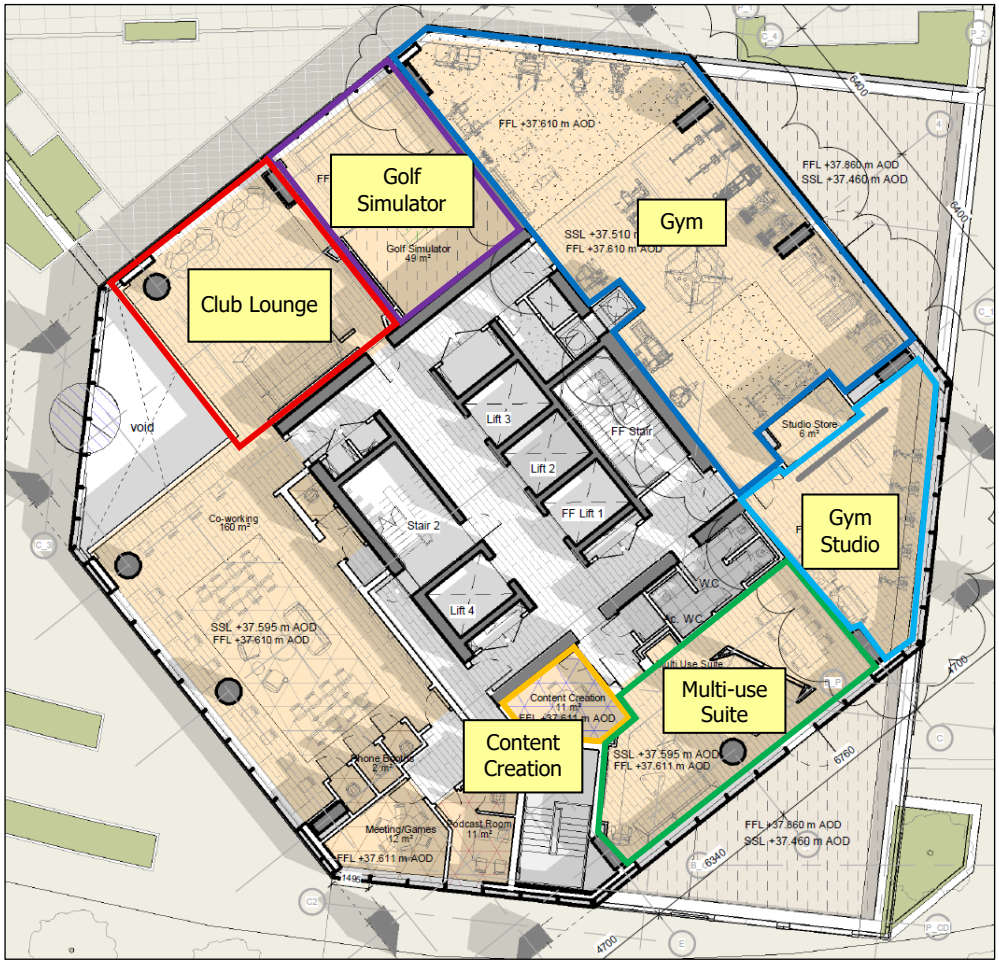


Figure 2: Location of club lounge, golf simulator, gym, gym studio multi-use suite and content creation – Level 1, Plot F2 Great Jackson Street

INTERNAL NOISE TRANSFER - AIRBORNE NOISE

The lowest floor level on which residential apartments are located is Level 2, directly above the Level 1 amenity spaces. There is therefore the possibility of internal noise transfer between the amenity spaces and the apartments above via the separating floor.

As stated in condition 23, internal noise levels at structurally adjoined residential properties in the 63 Hz and 125 Hz octave frequency bands shall be controlled so as not to exceed (in habitable rooms) 47 dB and 41 dB (Leq,5min), respectively

Planning condition 23 does not stipulate allowable noise levels at frequency bands above 125 Hz. However, section 3.7.1.2 'Entertainment Venues' of 'Planning & Noise, Technical Guidance' issued by Manchester City Council in October 2022 states that in relation to entertainment noise 'the [NR15] curve may be too stringent at mid and higher frequencies'. It is therefore suggested that at frequency bands above 125 Hz, the allowable noise level in apartments due to activity noise from adjoining amenity spaces lies between NR15 and NR20.

With reference to the above, in order to comply with the requirements of condition 23, it is recommended that the internal noise levels within an apartment due solely to music replay in the amenity spaces do not exceed the values given in Table 1.

Location	Sound Pressure Level (dB Leq) @ Octave Band Centre Frequency (Hz)						
	63	125	250	500	1k	2k	4k
Apartments above amenity spaces	47	41	26	20	17	15	12

Table 1: Maximum recommended noise levels in residential apartments due to music replay in amenity spaces

The sound level difference between the amenity spaces in question and the apartments directly above each space has been measured. From the measurements, the maximum allowable activity noise levels in the amenity spaces, including music replay, to comply with the noise limits in Table 1 have been determined.

Table 2 identifies the maximum music noise levels that could be generated in the amenity spaces without exceeding the noise limits given in Table 1. The overall dB(A) level of the identified sound spectrum is provided for information only.

Location	Sound pressure level (dB Leq) @ Octave Band Centre Frequency (Hz)							dB(A)
	63	125	250	500	1k	2k	4k	
Club Lounge	90	90	84	86	93	93	88	97
Golf Simulator	85	91	83	86	94	93	86	98
Main Gym	85	85	74	74	79	88	85	91
Gym Studio	82	96	84	89	96	94	88	100
Level 1 Multi-use Suite	83	93	84	86	92	95	91	99
Content Creation	82	102	94	96	99	97	93	103

Table 2: Maximum allowable noise levels in Plot F2 amenity spaces re internal noise transfer

The allowable octave band noise levels identified in Table 2 for the various amenity spaces would allow relatively high levels of music noise to be accommodated, appropriate for each intended room use.

Reference must also be made to the section below relating to noise egress.

NOISE EGRESS FROM RESIDENTS LOUNGE, CLUB LOUNGE, GOLF SIMULATOR, GYM, GYM STUDIO AND MULTI-USE SUITE

Condition 23(a) requires that external noise levels at the closest noise sensitive receptors due to activity noise breakout from the amenity spaces are at least 5 dB below the background (L_{A90}) noise levels at the nearest noise sensitive location. The nearest noise sensitive location in relation to noise breakout from each amenity space is the apartment within Plot F2 that is located directly above each amenity space.

The maximum allowable external noise limits at the Plot F2 facades are reproduced in Table 3. Compliance with the noise levels in Table 3 would also achieve compliance with the applicable noise limits at other noise sensitive locations in the vicinity of Plot F2 due to the greater distances to the other locations.

Period	Sound Pressure Level (dB Leq) @ Octave Band Centre Frequency (Hz)						
	63	125	250	500	1k	2k	4k
Plot F2 Daytime (0700 to 2300)	58	52	50	48	49	43	34
Plot F2 Night-time (2300 to 0700)	47	40	40	40	45	36	22

Table 3: Maximum allowable external music noise levels due to Plot F2 amenity spaces

Sound breakout from the amenity spaces that have an external façade has been measured on site by Fisher Acoustics. In particular, sound breakout from the amenity spaces to the open window/purge panel of the apartment directly above each space has been measured. From the measurements, the allowable internal noise levels to ensure compliance with the external noise limits identified in Table 3 have been determined.

Table 4 identifies the maximum music noise levels that could be generated in the identified amenity spaces without exceeding the noise limits given in Table 3.

Location	Sound pressure level (dB Leq) @ Octave Band Centre Frequency (Hz)							dB(A)
	63	125	250	500	1k	2k	4k	
Ground Floor Residents Lounge (07:00 to 23:00)	84	88	92	90	89	87	79	93
Ground Floor Residents Lounge (23:00 to 07:00)	73	76	82	82	85	80	67	87
Level 1 Multi-use Suite (07:00 to 23:00)	86	94	99	93	93	90	92	99
Level 1 Multi-use Suite (23:00 to 07:00)	75	82	89	85	89	83	80	91
Golf Simulator (07:00 to 23:00)	87	90	94	92	89	83	85	94
Golf Simulator (23:00 to 07:00)	76	78	84	84	85	76	73	88
Club Lounge (07:00 to 23:00)	87	90	94	92	89	83	85	94
Club Lounge (23:00 to 07:00)	76	78	84	84	85	76	73	88
Main Gym (07:00 to 23:00)	86	91	93	91	84	80	82	92
Main Gym (23:00 to 07:00)	75	79	83	83	80	73	70	84
Gym Studio (07:00 to 23:00)	88	93	101	90	87	83	86	95
Gym Studio (23:00 to 07:00)	77	81	91	82	83	76	74	87

Table 4: Maximum allowable noise levels in Plot F2 amenity spaces re noise egress

Given compliance with the noise limits given in Table 4, it is expected that the amenity spaces within the development will be able to operate as intended without causing disturbance to existing and future residential receptors.

It will be noted that the allowable daytime internal noise levels detailed in Table 4 are typically greater than those in Table 2. The applicable internal noise limits for the club lounge, golf simulator, gym, gym studio and multi-use suite are the lower of the values in Tables 2 and 4.

For ease of reference, Table 5 identifies the maximum allowable noise levels in the amenity spaces, taking into account internal noise transfer to the apartments above and noise egress to the apartments above.

Location	Sound pressure level (dB Leq) @ Octave Band Centre Frequency (Hz)							dB(A)
	63	125	250	500	1k	2k	4k	
Ground Floor Residents Lounge (07:00 to 23:00)	84	88	92	90	89	87	79	93
Ground Floor Residents Lounge (23:00 to 07:00)	73	76	82	82	85	80	67	87
Level 1 Multi-use Suite (07:00 to 23:00)	83	93	84	86	92	90	91	97
Level1 Multi-use Suite (23:00 to 07:00)	75	82	84	85	89	83	80	91
Golf Simulator (07:00 to 23:00)	85	90	83	86	89	83	85	93
Golf Simulator (23:00 to 07:00)	76	78	83	84	85	76	73	88
Club Lounge (07:00 to 23:00)	87	90	84	86	89	83	85	93
Club Lounge (23:00 to 07:00)	76	78	84	84	85	76	73	88
Main Gym (07:00 to 23:00)	85	85	74	74	79	80	82	87
Main Gym (23:00 to 07:00)	75	79	74	74	79	73	70	82
Gym Studio (07:00 to 23:00)	82	93	84	89	87	83	86	92
Gym Studio (23:00 to 07:00)	77	81	84	82	83	76	74	86
Content Creation (07:00 to 23:00)	82	102	94	96	99	97	93	103
Content Creation (23:00 to 07:00)	82	102	94	96	99	97	93	103

Table 5: Maximum allowable noise levels in the Plot F2 amenity spaces re noise breakout & noise transfer

The control amplifiers for the amenity loudspeakers are to be housed within a locked cabinet which is only accessible by the building management. The building management will have access to an ipad-installed control app. The app is used to turn the control amplifiers on and off and will also control the output of the control amplifier up to the noise limits advised in Table 5. The noise limit set within the control app will not allow the building staff to exceed the advised maximum allowable sound levels.

Therefore, compliance with the requirements of condition 23 are fully expected in relation to both noise transfer to the residential accommodation above the amenity spaces and noise breakout to external receptors.

INTERNAL NOISE TRANSFER - IMPACT NOISE FROM GYM

Fisher Acoustics' report 'Plot F2, Great Jackon Street, Manchester, Amenity Noise Impact Assessment', submitted in response to condition 23a, states that the resilient floor coverings installed in the gym are expected to achieve maximum impact sound levels (Lmax) in the residential studios above the gym due to the typical dropping of free weights (e.g. 20 kg dumbbells dropped from a height of 500 mm) that are approximately 3dB greater than the recommended maximum night time 'G20' impact sound levels identified in the guidance document 'ProPG: Gym Acoustics Guidance', published in March 2023.

Measurements of the impact noise levels in the living room and bedroom of apartment F2.02.11 directly above the gym have been undertaken, involving the repeated dropping of a 20 kg kettlebell onto the gym floor coverings from a height of 500 mm and the measurement of the subsequent noise level in the apartment rooms above.

The flooring installed in the weights area of the gym is as follows:

- 40 mm thick Sportec Style Tile on 25 mm Sylomer SR42 on 25 mm Sylomer SR28

Figure 3 shows the approximate location employed for the weight drop tests. The drop location represents the closest location of a free weights bench to a structural shear wall close to the free weight benches and thus the assessment includes the vertical transmission of impact noise via the shear wall.

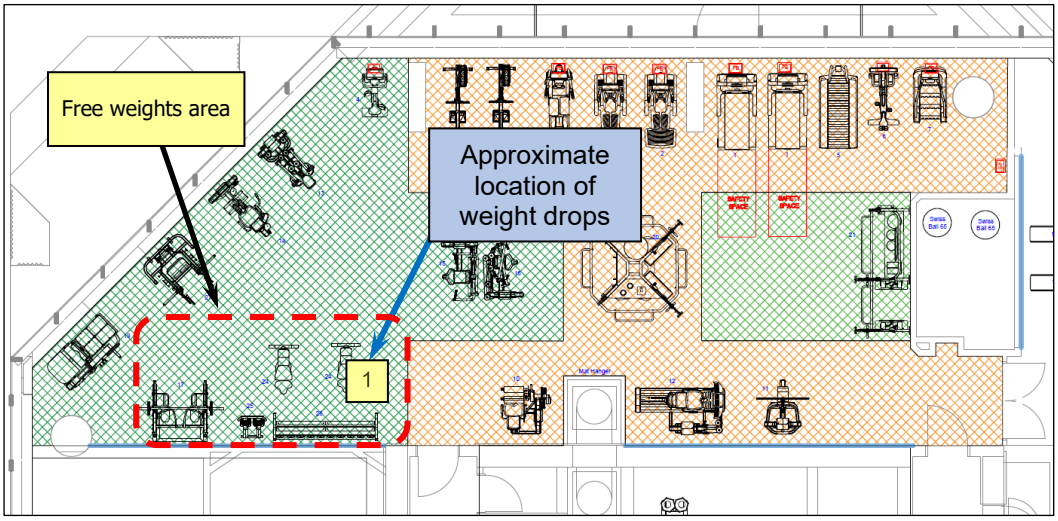


Figure 3: Approximate location of weight drops – F2 Great Jackson Street Gym, Level 1

TESTING METHODOLOGY

The 'maximum' (Lmax) noise levels generated in the apartment rooms above by the repeated dropping of a 20 kg kettlebell on each floor covering was measured.

The rooms in apartment F2.02.11 were unfurnished at the time of the measurements. Furnishings will reduce the reverberation time of the room, which will in turn reduce the resultant noise levels in the room. The measured noise levels have therefore been corrected to determine the expected noise levels upon furnishing of the rooms using the relationship:

$$\text{dB correction} = 10 \text{ Log } (T_{complete}) / (T_{tested})$$

where $T_{complete}$ = expected reverberation time in fully furnished room
T_{tested} = measured reverberation time in room as tested

Table 6 identifies the applicable dB correction for the apartment bedroom and living room under test.

Room	One-third Octave Band Centre Frequency (Hz)														
	<63	**80**	**100**	**125**	**160**	**200**	**250**	**315**	**400**	**500**	**630**	**800**	**1k**	**1.25k**	**1.6k**
Bedroom, assumed when furnished	-	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Bedroom, as tested	0.8	1.1	0.6	1.3	1.4	0.8	0.7	0.6	0.4	0.5	0.6	0.8	0.7	0.8	0.8
dB correction	**1.9**	**3.3**	**0.7**	**4.0**	**4.4**	**2.3**	**1.5**	**0.6**	**0.0**	**0.3**	**1.0**	**2.2**	**1.5**	**1.8**	**1.9**
Living Room, assumed when furnished	-	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Living Room, as tested	0.4	0.8	0.9	0.7	1.0	1.2	1.3	1.2	1.3	1.1	1.0	1.3	1.5	1.6	1.6
dB correction	**0.0**	**0.0**	**0.0**	**0.0**	**3.0**	**3.9**	**4.2**	**3.9**	**4.0**	**3.5**	**3.2**	**4.2**	**4.7**	**5.0**	**4.9**

Table 6: Derivation of noise reduction following full furnishing of bedroom and living room

**Correction applied if measured RT is greater than Actual when complete*

TEST RESULTS

Figure 4 shows the typical measured maximum noise level (Lfmax) in the living room of apartment F2.02.11 directly above the gym due to 20 kg kettlebell drops on the installed floor covering and also identifies the G20 curve from the ProPG document. Figure 4 also shows the typical 'ambient' maximum Lfmax noise levels measured in the room in the absence of noise from the gym. These ambient maximum noise levels were due to external road traffic with the windows/purge panels closed.

The typical 'ambient' maximum Lfmax noise levels measured in the room in the absence of noise from the gym are also plotted on the charts. These ambient maximum noise levels were due to external road traffic with the windows/purge panels closed.

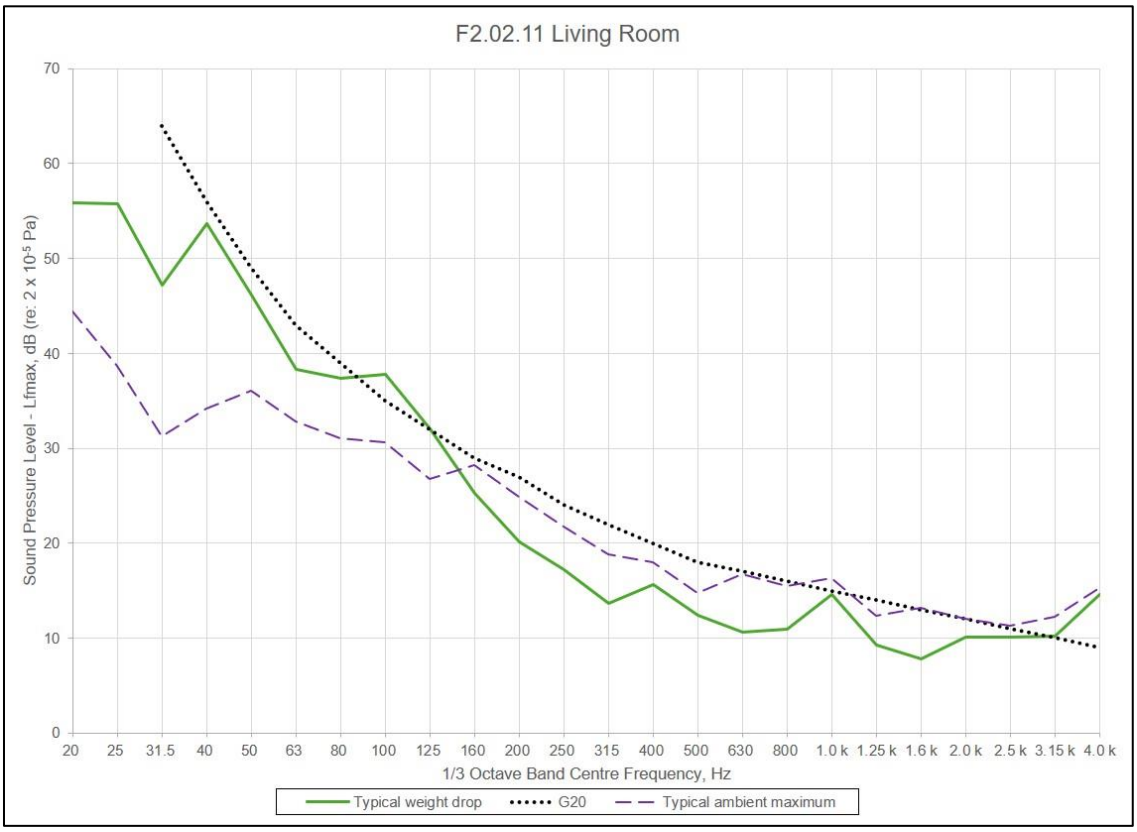


Figure 4: Measured gym impact noise levels in F2.02.11 Living Room - 20kg kettlebell

It can be seen that the measured noise levels in the living room exceed the G20 curve in only one 1/3 octave band by 3 dB. This is not a significant excess. The exceedance of the curve at 4 kHz was not due to the gym weight drops and is typical of the maximum measured noise level in the absence of noise from the gym.

Figure 5 shows the measured typical maximum noise levels (Lfmax) in the bedroom of apartment F2.02.11 directly above the gym due to kettlebell drops onto the installed floor covering and also identifies the G20 curve from the ProPG document. Figure 5 also shows the typical 'ambient' maximum Lfmax noise levels measured in the room in the absence of noise from the gym.

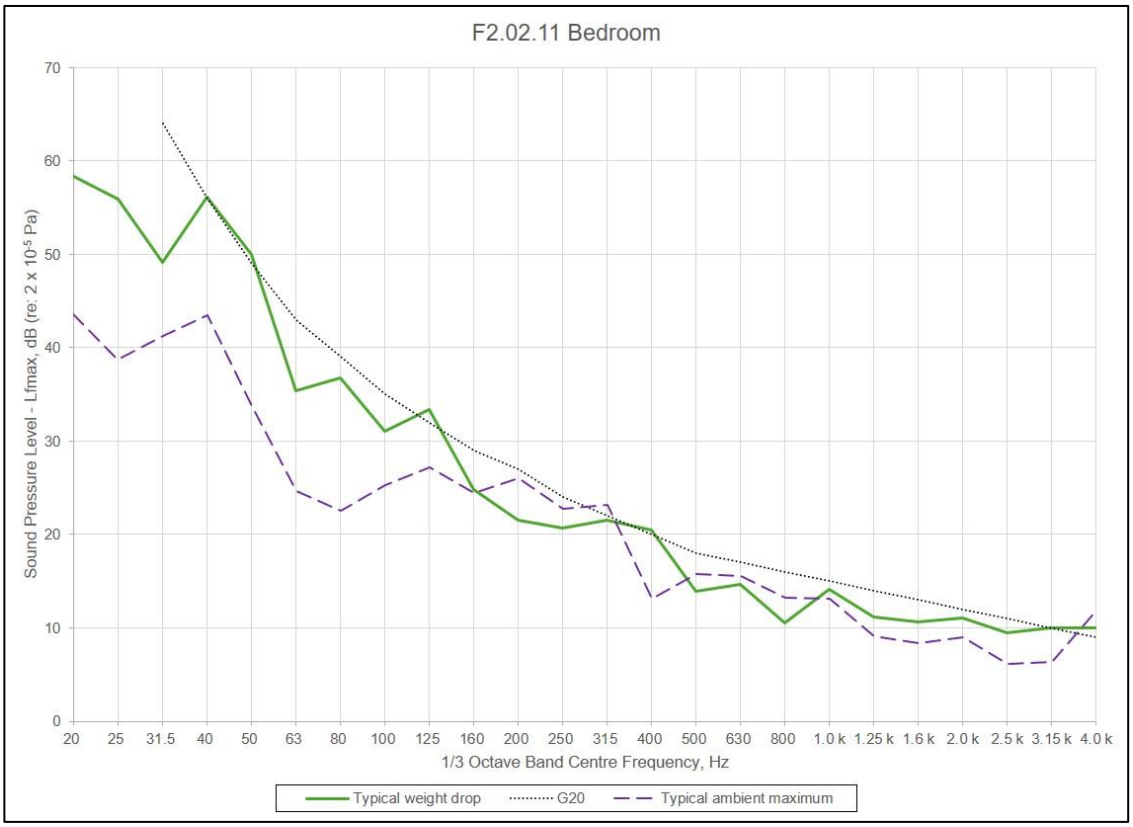


Figure 5: Measured gym impact noise levels in D2.04.010 Living Room - 20kg kettlebell

It can be seen that the measured noise levels exceed the G20 curve in only one two 1/3 octave bands by a maximum of 1.5 dB. Such an excess is considered insignificant.

It is considered that the measured impact noise levels are consistent with the maintenance of residential amenity and therefore compliant with the requirements of planning condition 23.

It should also be noted that the gym at Plot F2 is for the sole use of residents. Therefore users of the gym are expected to be instructed in the safe use of weights such that the dropping of free weights is minimised as far as possible.

CONCLUSION

With reference to the assessments detailed above, compliance with the requirements of condition 23 of the planning permission for Plot F2, Great Jackson Street is expected, such that the amenity spaces within the development will be able to operate as intended whilst maintaining residential amenity at residential receptors both within and external to the building.

If there are any aspects that you would like to discuss, please do not hesitate to contact the undersigned.

Yours sincerely



MATT FISHER BEng(Hons) CEng MIOA
For and on behalf of Fisher Acoustics Limited