

MPF/PR0669/L03

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Pat Weightman
Renaker Build Limited
NQ Building
47 Bengal Street
Ancoats
Manchester
M4 6BB

Flint Glass Works
64 Jersey Street
Manchester M4 6JW

0161 605 0905 
info@fisheracoustics.co.uk 
www.fisheracoustics.co.uk 

Dear Pat

CROWN STREET PHASE 2, PLANNING CONDITION 95

I write to confirm the results of sound breakout measurements conducted at Crown Street Primary School, Manchester. The measurements have been conducted to determine the allowable internal activity noise levels within the potentially noise-producing area of the school such that residential amenity can be maintained.

INTRODUCTION

The planning approval for Crown Street, Phase 2 includes a condition which requires that post-completion noise measurements are carried out in relation to internal activity noise egress from the school.

Fisher Acoustics Ltd has been commissioned by Renaker Limited to measure the levels of noise breakout from the school to external areas, and to advise on compliance with the requirements of the planning approval for the development.

PLANNING CONDITION

Planning Condition 95 (Phase C -Building C3) of the Planning Approval for Crown Street, Phase II (Planning Application number 126668/FO/2020, dated 3 August 2020) states:

- Prior to first occupation of Phase C, the educational facility building 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.

Upon completion of Phase C of the development a verification report to validate that the work undertaken throughout Phase C 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 has 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.

POTENTIAL NOISE GENERATING SPACE WITHIN THE SCHOOL

The only space within school that may generate higher than 'domestic' levels of noise is the school hall. The hall is a double height space located on the first floor of the building. Figure 1 identifies the position of the school hall in relation to the surrounding residential buildings, labelled C1, C2, C4 and C5

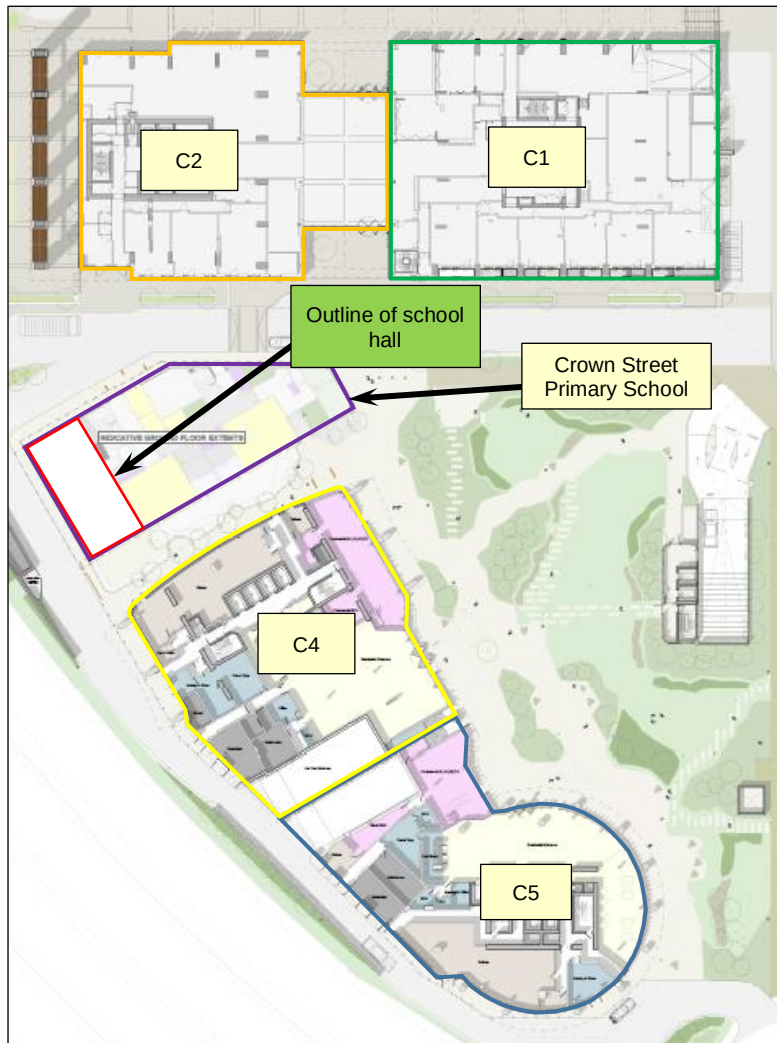


Figure 1: Location of school hall relative to surrounding buildings

ENVIRONMENTAL NOISE CRITERIA

The environmental noise study submitted as part of the Reserved Matters application for Crown Street Primary School (planning reference 133516/MO/2022) detailed the results of an environmental noise survey and 3D acoustic modelling studies to determine the prevailing noise levels at the nearest residential receptors to the school. From the noise study, the allowable daytime free-field noise levels at the nearest residential façades due to music noise egress from the school hall to comply with the guidance of Manchester City Council was determined and identified in the report.

With reference to Figure 1 above, the residential apartments within Building C4 are the nearest noise sensitive receptors to the school hall. Table 1 identifies the applicable noise limits.

Location/period	Sound Pressure Level (dB Leq) @ Octave Band Centre Frequency (Hz)						
	63	125	250	500	1k	2k	4k
Crown Street Building C4 (daytime)	51	47	45	43	47	40	27

Table 1: Maximum recommended external noise levels at apartments due to activity noise egress from school hall

NOISE EGRESS FROM HALL

The sound breakout level from the school hall has been measured. The measurements involved the generation of a high sound level in the hall using a broadband noise and the measurement of the resultant noise level external to the hall. The ambient external noise level in the absence of breakout noise from the hall was also measured.

Figure 2 identifies the external measurement location. The measurement microphone was located 3 metres from the external wall of the hall and at a height of 7m to achieve a line of sight to the hall windows that is representative of that to the nearest apartment windows.

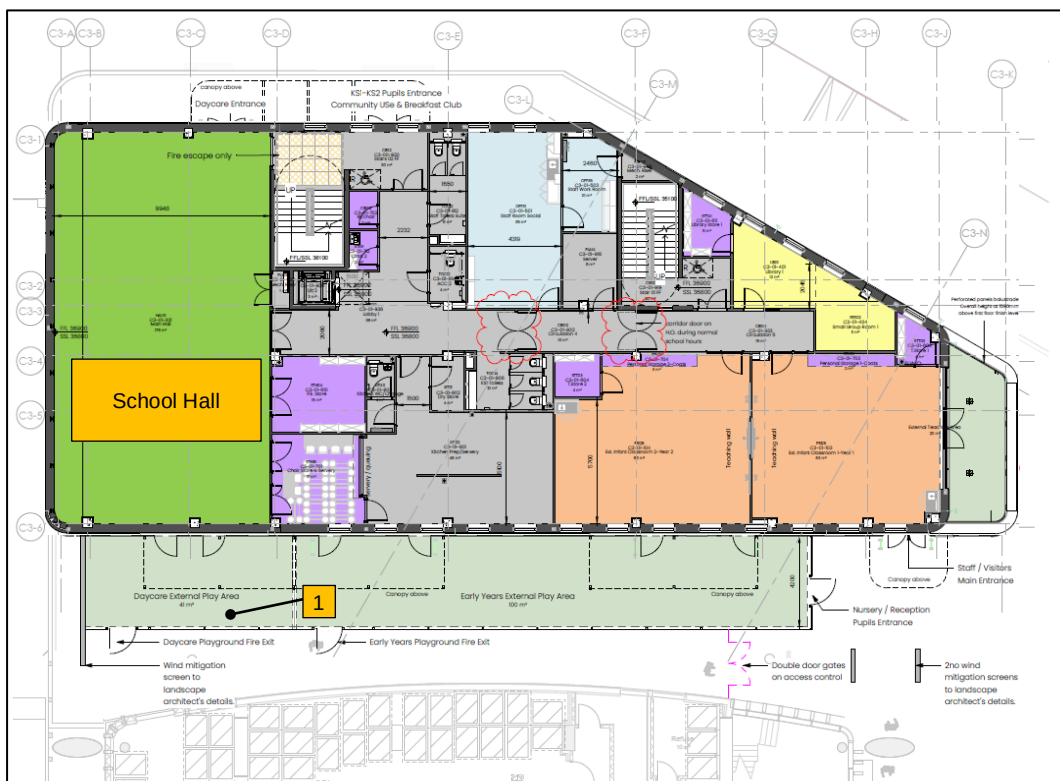


Figure 2: Crown Street school, Level 1 floor plan and external measurement location

Although a high internal noise level of 92dB LAeq was generated in the hall during the measurements, the resultant external noise level could not be cleanly measured above the typical road traffic noise levels external to the apartments at C4. Therefore the derived noise breakout levels are considered to be an overestimate of the levels of noise breakout from the hall. It is worth noting that a noise level of 92dB LAeq is much higher than would be generated in the school hall during any proposed activity.

From the measurements, the allowable noise levels within the hall to ensure compliance with the external noise limits identified in Table 1 have been determined.

Table 2 identifies the maximum music noise levels that could be generated in the hall without exceeding the noise limits given in Table 1.

Location	Sound Pressure Level (dB) @ Octave Band Centre Frequency (Hz)						
	63	125	250	500	1k	2k	4k
Hall	79	85	87	74	87	74	68

Table 2: Maximum allowable noise levels in Crown Street school hall re noise egress

The allowable noise levels identified in Table 2 are equivalent to an overall noise level of 88 dB LAeq and are greater than the expected maximum activity and music noise levels within the school hall. Therefore no disturbance of the residents of the closest residential properties would be expected due to noise propagation from the school hall.

CONCLUSION

With reference to the assessments detailed above, compliance with the requirements of condition 95 of the planning approval for Crown Street, C3, Manchester is expected, such that the school will be able to operate as intended whilst maintaining residential amenity at residential receptors.

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