

ACOUSTIC COMMISSIONING REPORT

Sexy Fish, Spinningfields, Manchester

Client: Caprice Holdings Limited
Project: Sexy Fish, Spinningfields, Manchester
ACA Ref: 211004-R009
Report date: July 10, 2024
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Acoustic Commissioning Assessment of Installed Mechanical Services Equipment

Following installation of mechanical services equipment at Sexy Fish, Spinningfields, Manchester, ACA Acoustics have visited site to undertake commissioning testing.

It is understood that Manchester City Council require the installed mechanical plant to not exceed a rating level 5dB below the measured background sound level when assessed in accordance with the methodology of BS 4142:2014+A1:2019.

Although BS 4142:2014+A1:2019 specifically advises that the methodology is suitable to assess the impacts on dwellings or premises used for residential purposes, Manchester City Council have advised that they consider commercial offices as being noise sensitive and will require adherence to the same criteria. ACA Acoustics have therefore assessed the sound levels from the installed plant at the nearest and most sensitive windows as shown in Figure 1 below.

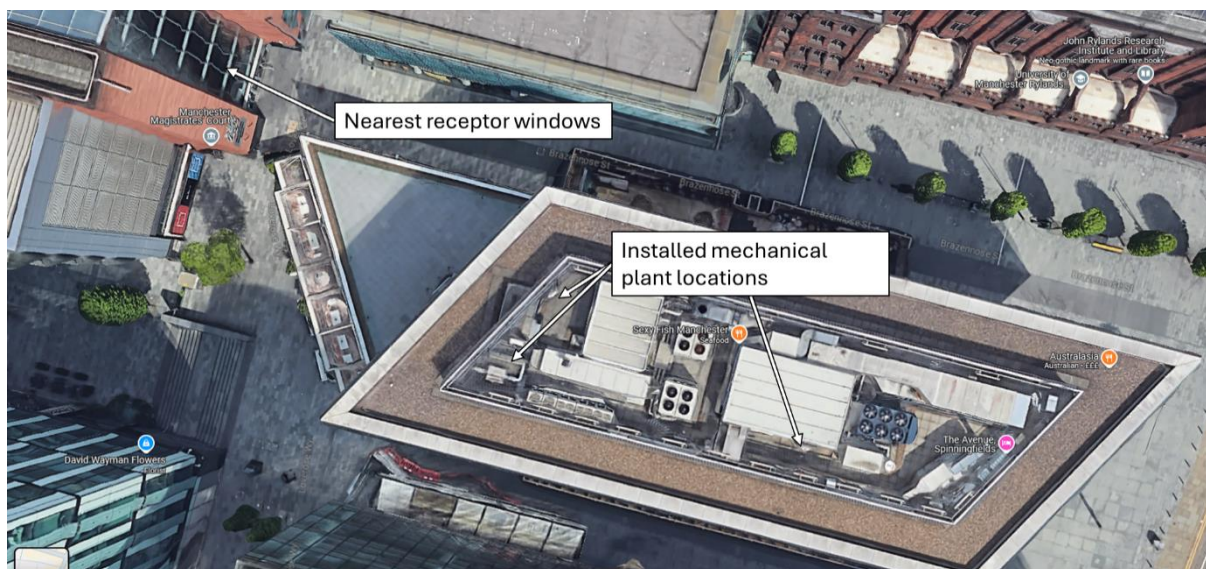


Figure 1: Sound level survey measurement location

In accordance with ACA Acoustics' report reference 211004-R008, the measured background sound level during the restaurant opening time is LA90 53dB. The criterion for the main plant is set at L_A 48dB.

Alfie Morgan of ACA Acoustics visited site to undertake the commissioning survey during the night of the 4th July 2024. Sound levels were measured at a position to the front of offices of the Magistrates Court at

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Spinningfields, overlooking the development site. Sound levels were measured while the plant was operating, and after the plant powered off at 00:00 hours.

Description	Sound level survey	Equipment description	Level at receptor
Installed equipment operating measured at nearest receptor (Magistrates Court Offices)	4 th July 2024	All equipment powered on 23:30 hours	LAeq 54dB LA90 53dB
		All equipment powered off 00:30 hours	LAeq 54dB LA90 53dB

Table 1: Measured sound level survey results

Assessment of the calculated rating levels in accordance with BS 4142:2014+A1:2019 is provided in Table 2 below.

Description	All Equipment Operating	Relevant Clause	Commentary
Measured ambient sound level at receptor	LAeq 54dB		All equipment operating as witnessed by ACA Acoustics' consultant at 23:30 hours
Measured residual sound level at receptor	LAeq 54dB		All equipment powered off at 00:30 hours
Calculated specific sound level to receptor	LAeq 44dB	7.1 7.3.6	Measured residual sound level subtracted from the measured ambient sound level
Background sound level	LA90 53dB	8.1.3 8.3	Measured representative background sound level.
Acoustic feature correction	0dB	9.2	The calculated specific sound levels do not indicate any tonal/impulsivity/intermittency component and the specific sound level is significantly below the residual sound level.
Rating level	LAr 44dB	9.2	
Excess of rating level over background sound level	-9dB	11	Assessment indicates low likelihood of adverse impact

Table 2: BS 4142:2014+A1:2019 Assessment

BS 4142:2014+A1:2019 requires an assessment to consider the context of the development as well as adhering to numerical values. Considering the calculated numerical value of the specific sound, allowing a reduction through partially open windows of 15dBA, as recommended in BS 8233:2014, sound levels

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inside the neighbouring offices due to the proposed new equipment will be approximately 29dBA (44dBA – 15dBA). This is below guideline criteria for a good standard of amenity within commercial offices, set out in BS 8233:2014.

Additionally, the proposals involve new items of mechanical equipment being introduced to an area with other commercial and retail uses in the vicinity. In this scenario, the change in acoustic character, and subsequent potential for loss of amenity, is lower than if, say, there were no other similar businesses in the area. In addition, the new plant is likely to be much quieter than existing site plant.

The author considers that the context of the assessment further lowers slightly the initial estimate of the impact, and that sound levels from the new mechanical equipment should not be detrimental to the amenity of any occupiers in the vicinity.

Measured rating levels with the plant operating are significantly below the measured background sound levels and comfortably achieve the requirements of Manchester City Council.