TECHNICAL MEMO

Our Ref: **5976_001m_3-0_jb**

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SUBJECT: SAFFRON HOUSE PLANT REPLACEMENT

1 INTRODUCTION

Anderson Acoustics Ltd was commissioned by Avison Young to advise on an acoustic assessment associated with the proposed development at Saffron House, 6-10 Kirby Street, London

Saffron House is an existing office use building in the London Borough of Camden (LBC). The scope of this report is associated with the replacement of external plant and the associated enclosure at 4th floor level..

This technical note addresses the potential noise impact of such replacement.

2 SITE DETAILS

Saffron House is located within the London Borough of Camden and comprises five upper levels with a building entrance from Saffron Hill at lower ground floor level and a separate entrance from Kirby Street at upper ground floor level.

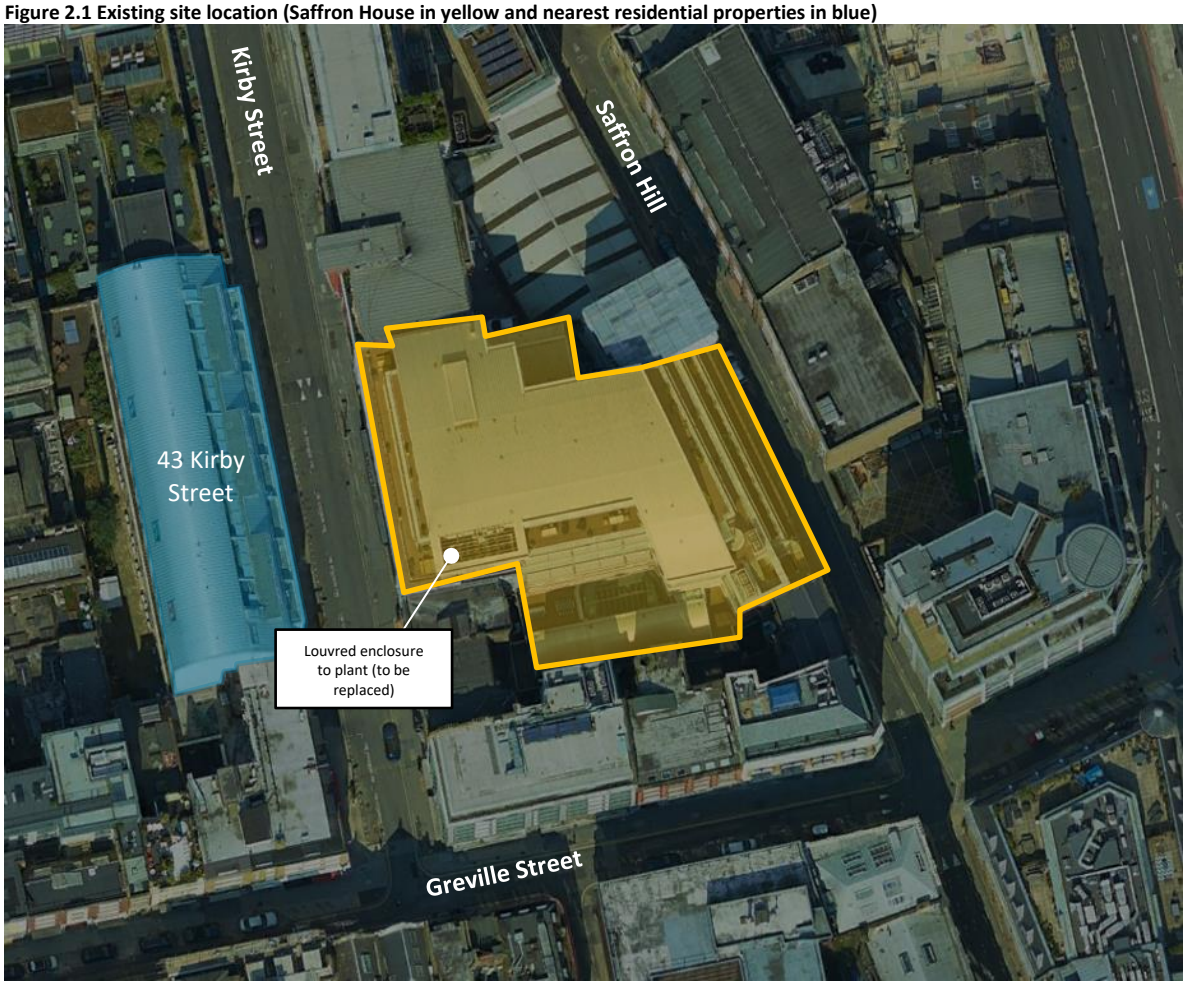
The surrounding buildings are a mix of commercial and residential.

Figure 2.1 shows the site in its wider context with the plant compound in question located towards the south west corner of the site.

The nearest sensitive receptor to the plant compound is a student accommodation building at 36-43 Kirby Street at a distance of approximtely16 m.

The proposal is to replace the existing plant and the louvred enclosure panels that surround the plant.

Figure 2.1 Existing site location (Saffron House in yellow and nearest residential properties in blue)



3 ASSESSMENT OF IMPACT

3.1 Local Authority Policy

Anderson Acoustics has liaised with Camilla Castro-Llach (Environmental Health Officer at LBC) on January 18th 2023 to understand Camden's stance regarding replacement plant.

Camilla advised that Camden does not have a standard procedure for replacement plant, and that it should first be established if there have been any noise-related complaints linked to the operation of the plant being replaced.

Camilla undertook this search on our behalf and found no complaints linked to existing plant serving 6-10 Kirby Street (Saffron House).

Given there have been co complaints, Camilla advised that she could see no issues in gaining consent on noise grounds, provided it can be demonstrated the replacement plant is 10 dB quieter than the existing plant and provided the acoustic enclosure mitigating noise emissions remains.

This would align with Camden Policy A1, with these measures resulting in no noise impact and thus protecting the amenity of the communities and neighbours.

3.2 Assessment

Currently, there is a single chiller within the louvred enclosure on the fourth floor. The model is a Carrier 30GX-298 with a published sound power level of 104dB L_w.

The existing louvres which form the plant enclosure are shown in Figure 3.1. They were observed to be 300mm wide single bank acoustic louvres, however the exact level of published sound reduction provided by the louvres is not known.

Figure 3.1 Current plant enclosure

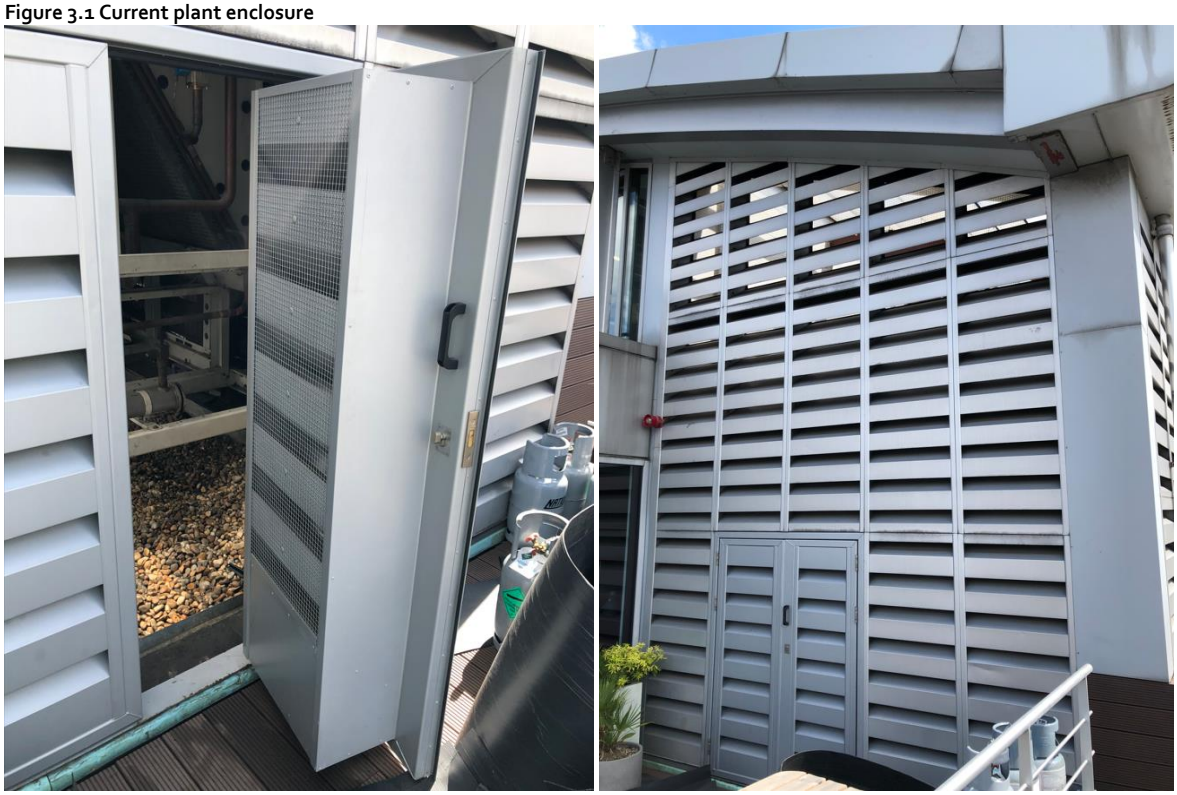


Table 3.1 presents the proposed items of plant to be installed within the enclosure to replace the current plant and corresponding octave band sound power levels as published in the manufacturers data sheets.

Table 3.1: Sound power level of plant within fourth floor enclosure

Location	Quantity	Octave Band Centre Frequency (Hz)								dB(A)
		63	125	250	500	1k	2k	4k	8k	
Daikin REYQ16U	1	94	90	85	85	77	75	73	70	86
Daikin REYQ20U	1	96	87	87	88	81	76	75	70	88
Trane Flex II S 135	5	93	89	85	81	78	76	70	65	84
Overall		102	97	94	92	87	84	80	76	94

In addition to the plant, the acoustic louvres are to be replaced. The replacement louvres will also be single bank, 300mm wide acoustic louvres, therefore the performance (which has been quoted as providing 17-22dB R_w) is assumed to be at least as good as those being replaced.

Given the combined sound power level of all proposed plant within the fourth floor enclosure is 10dB less than existing plant and provided the acoustic louvres are of a similar performance to those being replaced, the expectations advised by the London Borough of Camden, in relation to replacement plant, should be met.