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Our Reference: 103456-VAN-LET-0001-00
28/01/2021

Mr Patrick Marfleet

London Borough of Camden,
2nd Floor,
5 Pancras Square
c/o Town Hall,
Judd Street
London
WC1H 9JE

RE: 7ABC BAYHAM STREET, SECTION 73 NOISE REVIEW

Dear Sir,

Regarding the recently submitted Section 73 application relating to 7 ABC Bayham Street: we have been engaged by Thomas Bailey of 4 King's Terrace and Dan Goldschmied of 2 & 4 King's Terrace to complete a review of the application, and supporting documentation, with respect to potential noise and vibration impacts arising from the proposed amendments.

Our main comment arising from this review pertains to two aspects of the proposed amendments, viz:

1. The new dedicated Ground Floor office entrance way to the north of the site; and
2. Proposed Plant Rooms at Ground Level and Level 1.

The dedicated office entrance way to the north of the site

We note that this leads to the stairwell/courtyard area directly adjacent to Kings Terrace. During development of the original consented scheme, it was agreed that this courtyard area would be permanently glazed over. This glazing offered some degree of acoustic screening to protect the amenity of the external residential terrace areas at the properties on Kings Terrace from noise generated by people congregating in proposed development's courtyard.

A noise assessment considering the potential impact of this courtyard was carried out during the planning stages of the original development, and concluded that there was a risk of nuisance if that courtyard were to be left open (Vanguardia report no.: VC-102839-EN-RP-0001).

It is not clear from the drawings presented in the design and access report associated with the Section 73 Application whether that glazing is still in place (although annotations on the consented scheme drawings refer to "excessive glazing" there is no corresponding note in the proposed drawings to indicate whether this has been removed).

We ask that the glazing proposed in the original scheme be retained and that this be confirmed in the drawings relating to the amended scheme.

Proposed Plant Rooms at Ground Level and Level 1

We note that Condition 21 attached to the original planning consent deals with noise from plant and equipment and states:

Noise levels at a point 1 metre external to sensitive facades shall be at least 10dB(A) less than the existing background measurement (LA90), expressed in dB(A) when all plant/equipment (or any part of it) is in operation unless the plant/equipment hereby permitted will have a noise that has a distinguishable, discrete continuous note (whine, hiss, screech, hum) and/or if there are distinct impulses (bangs, clicks,

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clatters, thumps), then the noise levels from that piece of plant/equipment at any sensitive façade shall be at least 15dB(A) below the LA90, expressed in dB(A).

This condition, as written, seeks to mitigate the impact of air-borne noise from building services plant/equipment at the external façade of the nearby noise sensitive properties. It does not however include provision for limiting air-borne noise, structure-borne noise, or structure-borne vibration being radiated into the properties adjoining the respective proposed plant rooms through the various shared structural elements.

Details of the equipment intended to be installed within these rooms, as provided by the supporting documents attached to Section 73 application, are limited: the drawings reviewed simply indicate a sub-station located on the ground floor, and generator located on the first floor.

A sub-station would commonly indicate the presence of some form of power transformer. These items typically produce a tonal noise spectrum at twice the supply frequency of the alternating current (50 Hz in the UK) producing a noise spectrum with peaks at 100 Hz and harmonics thereof. While the noise produced is not typically high in level, the frequency characteristics mean it can be poorly contained by standard building envelope construction elements if not considered at the design stage.

Depending on the type and specification of the generator, this item has the potential to produce high levels of internal noise and vibration within the plant room that could then be transferred to the neighbouring premises.

It is also noted that air source heat pumps are proposed under the amended scheme. Assuming these units are to be installed to the exterior of the building, they will be subject to the requirements of Condition 21, limiting impact on the neighbouring properties facades. However, no information has been made available regarding steps being taken to ensure Condition 21 is complied with.

Given the lack of available information at present, and the clear potential for an adverse noise and/or vibration impact on the neighbouring properties, we believe that an updated noise and vibration assessment should be carried out by the developer to assess the impact of the new plant rooms and to determine appropriate mitigation, to protect existing internal noise levels within the properties adjacent to the development. The updated noise assessment would allow the need for additional conditions attached to the Section 73, ensuring internal noise and vibration levels within the Kings Terrace properties are not adversely impacted, to be assessed.

An appropriate assessment would consider the sound insulation properties of the relevant building elements, as well as the potential impacts from air-borne noise and structure-borne noise and vibration. The updated noise and vibration assessment should also demonstrate how the amended scheme intends to comply with the existing planning condition pertaining to plant noise (Condition 21).

In summary we have the following concerns regarding the proposed amended scheme with regards noise and vibration:

- It is unclear whether the glazing over the north courtyard area is to be retained. Given that this aspect was previously considered to have provided some noise protection to the neighbouring residences, we ask for clarification that this glazing be retained, and that this be confirmed on the plans associated with the proposed amended scheme.
- Given the potentially noisy equipment being installed within the proposed plant room, and the particularly sensitive location of that plant room (located as it is adjacent to party walls with the neighbouring residences) we feel an updated noise and vibration assessment is required to assess the impact of

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the proposed plant on internal noise and vibration levels within the neighbouring properties.

- The updated noise and vibration assessment should also demonstrate how the newly proposed air source heat pumps will comply with the existing planning conditions pertaining to plant noise (Condition 21).

I trust the concerns outlined above are clear, but if you wish to discuss the issue further please don't hesitate to get in contact.

Yours Faithfully,



REUBEN DITCHBURN
PRINCIPAL CONSULTANT
VANGUARDIA LIMITED

