P1652/L08/SJF

3 December 2018

Ms Amanda Daly
Mount Anvil Ltd
140 Aldersgate Street
London

sol
acoustics

[redacted]

Dear Amanda,

Kidderpore Avenue
Acoustics, Kidderpore Hall Condensers

Following our various correspondence, please now find details of our summary acoustic assessment of the proposed 4 no. Toshiba type MCY-MHP0505HT-E units, to be externally sited (each within bespoke, full Environ acoustic enclosure unit) as shown on A&Q Architects drawings, such that the minimum distance between any acoustically enclosed condenser unit and any noise sensitive flat façade is 7 metres.

It is proposed that all four units shall only ever run in "night time set back mode" during any night time hours, as defined by BS4142: 2014 et al as occurring between 23:00 hours and 07:00 hours.

Each condenser unit, as acoustically enclosed and when operating at full speed (i.e. not in night time set back mode) emits a noise level of 33dB(A) when measured at a distance of 1 metre from any enclosure surface.

The night time set back, cooling mode only reduces the condenser plant source level from 58dB(A) when measured at a distance of 1 metre from the unenclosed unit, to a level of 50dB(A) at 1 metre, meaning there is an overall attenuation resultant from cooling only and night time set back of 7dB in overall A-weighted terms. This means that the corresponding acoustic enclosure noise output is reduced by a pro-rata degree, to 26dB(A) when measured at a distance of 1 metre

Taking attenuation due to distance (7 metres) and cumulative operation of all four units into account, the resultant, free field noise arising at the nearest, worst affected flat façades during daytime operation (all at maximum speed) is 22dB(A). For night time set back, with all four units operating simultaneously (i.e. worst case), this reduces to 15dB(A) at the nearest flat façade.

It will be noted that the 22dB(A) and 15dB(A) worst case daytime and night time free field nearest flat façade noise levels due to proposed acoustically enclosed condensers operation, for daytime and night time respectively, are negligible in acoustic terms. (For reference, the typical night time background noise climate is c.40dB L_{A90}, as per Sol Acoustics' report ref. P1652-REP01-SJF dated 27 October 2015, appended to this letter for ease of reference). It will be appreciated that where the worst case, total anticipated Specific Noise Level for all four condenser units is at least 20-25dB below background noise level, then in BS4142: 2014 assessment terms this represents a positive indication of no adverse impact due to noise.

In conclusion, therefore, it is the case that the current proposed acoustic mitigation to the proposed 4 no. condenser units, comprising of full bespoke Environ acoustic enclosures, vibration isolation pads to all units and night time set back operation in all instances, 7 days per week, as between 23:00 hours and 07:00 hours, should be regarded as acceptable.

I trust that the above and attached information will be of assistance, and we now await further instructions from Mount Anvil in respect of this matter.

Yours sincerely
For and on behalf of Sol Acoustics Limited

[redacted]

SIMON FERENCZI MIOA
Managing Director