

80-90 South Hill Park

Preliminary ASHP Noise Assessment & Control Strategy

Proposed Noise Control

The proposed installation comprises one ASHP per dwelling for No. 82 to 90 South Hill Park and two for No.80. The units are currently proposed to be located adjacent to the party walls in two clusters of two units and one cluster of three units. The positioning of the units near to the centre of the roof avoids a line of site from the windows of the nearest neighbouring building (92 South Hill Park) which will reduce the level of ASHP noise received.

Each group of ASHPs will be enclosed by acoustic louvre screens which will help contain the emitted noise and reduce the levels reaching the neighbouring buildings and the rooflights of No.80 to 90.

It is recognised that the existing roof build-up provides minimal noise insulation. It is therefore proposed to upgrade the roof by adding two layers of high-density board (e.g. cement particle board) to increase its mass and mineral wool insulation between the joists to dampen cavity resonances (in addition to separate measures to upgrade the thermal insulation).

A new structure is to be formed above the existing roof level on which the ASHPs will be mounted. This structure will be supported on anti-vibration pads on the top of the masonry separating walls to avoid the transmission of any vibration from the ASHPs to the lightweight roof or building structure.

Noise Level Assessment

Approximate noise levels from the ASHPs have been predicted within the rooms on the 2nd floor of 80-90 South Hill Park and at the windows of the neighbouring properties as set out below. These are based on a typical ASHP unit with a noise output in the middle of the range of the main manufacturers. Depending on the particular ASHPs installed, the actual levels could be slightly higher or lower.

Location	Noise Level	Assessment
2 nd floor bedrooms	<20 dB(A)	Very low noise, typically inaudible.
2 nd floor stairwells & bathrooms (closed skylights)	20-25 dB(A)	Low noise, just audible.
2 nd floor stairwells & bathrooms (open skylights)	30-35 dB(A)	Gentle whirring noise - audible but not particularly intrusive. Less than a typical bathroom extract fan
At windows of neighbouring properties	≤28 dB(A)	Meets Camden Council noise criteria (10dB below night-time background noise). Unlikely to be noticeable or cause any disturbance.

The reported levels have been calculated on the basis that ASHPs have been installed to provide heating to all of the six units in the block and are running simultaneously (i.e. worst case). In the event that any of the dwelling did not have ASHPs installed, the noise levels they would receive from the ASHPs at their neighbours' properties would be slightly lower by approximately 3dB.