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ACOUSTIC MEASUREMENT REPORT

for

C.K.F.T Solicitors

with regard to proposed development at:

Hampstead High Street, Hampstead

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011306/HHC/PPG24-BS4142/gmc

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Acoustic Survey

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Acoustic Survey

Notes to the Report

Author

This report is written by Gavin Cantley, principal of the firm of building services engineers, Stream Environmental. The author has fifteen years experience in various fields of acoustics, including projects in building acoustics (reverberation design and control, noise transmission control, and studio design); HVAC noise control; Planning Noise issues; Measurement, reporting and advice; Marine Engine and environment noise; and Electroacoustics.

Employer

This report is commissioned in relation to the proposed redevelopment of the existing property for commercial usage, and the possibility of noise arising from additional air conditioning units causing complaints from the occupants of housing in the area.

Scope of Evidence

This investigation is directed at determining what, if any, planning implemented constructional noise control measures in the proposed development are necessary to satisfy the local authorities requirements, and to demonstrate the relationship of existing levels to the levels required for compliance with this standard.

The specific noise source which is considered in this report consists of air conditioning noise only, although the general environmental noise level will of course be represented in the measured results.

The noise source will be present only during the hours of daytime, not during times expected to be set aside for leisure.

For this report, the background noise level was recorded at the site of the proposed new air conditioning equipment. The background noise is fairly typical of an urban area inside a metropolis, and includes a mix of meteorological, light and heavy vehicle, and domestic noise sources.

The actual recordings made are available in calibrated form as digital audio on 44.1 kHz CDR, 48 kHz DAT cassette or on Hi-MD for audible assessment or other examination, if required.

Standards

This report, and the measurements detailed therein, are carried out in accordance with the requirements of PPG24, BS4142, and the dictates of good engineering and measurement practice.

Site Description

As can be seen from inspection of the site, the building is typical of the area, comprising period building stock generally converted from the original uses to commercial space.

The proposed installation site is shielded from the high street, which is the dominant noise source by a substantial margin, and is largely shielded from that source by existing dwellings.

Measurement Methodology

The site measurements were made using the equipment specified in the following section.

Calibration is checked and noted, and the instruments set up in location.

Measurement and recording direct to DAT are commenced in parallel. This ensures that both optimum accuracy

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is obtained, and authenticated digital recordings are available for any subsequent analysis or audio examination.

Subsequent laboratory analysis is completed and printed, with results copied to the report.

The report final draft is checked against the site measurement print out data, and the conclusions verified.

The information contained in this document is warranted to be factually correct, relevant and appropriate, to the best knowledge and belief of the undersigned. The user of this information is deemed to be responsible to ensure that the information is applied in its true context.

Signed

GAVIN CANTLEY

Date

for **STREAM ENVIRONMENTAL**

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Original Calibration Laboratory Number
Calibration Check (Stream Lab)Serial No: 1539721
0174 (NAMES)
28 November 2003Brüel & Kjær 4230 calibrator
Original Calibration Laboratory Number
Calibration Check (Stream Lab)Serial No: 723957
0174 (NAMES)
28 November 2003

Brüel & Kjær 4230 Calibrator

Serial No: 1103452

Brüel & Kjær 1625 Octave filter

Serial No: 1259114

Brüel & Kjær 2143 Analyser
Calibration CheckSerial No: 1562311
28 November 2003Sony TCD-D7 portable DAT recorder
Calibration CheckSerial No: 73683
28 November 2003Sony DTC-A8 rackmounted DAT machine
Calibration CheckSerial No: 4502271
28 November 2003**SLM Settings:****Weighting:**Linear (to DAT)
'A' for Analysis**Bandpass:**

20 Hz - 20 kHz

Detector:

RMS Fast

Incidence:

Random

Calibration:

Acoustic 93.8 dB

Internal 94.0 dB

-0.1 dB

Note:

Microphone KO

All figures are decibels, relative to 20 μ Pa

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Ambient noise: 30 minutes

PROJECTED NOISE LEVEL

Manufacturers declared noise level for the units proposed is 46dB'A' at 1 metre.

Correction for four units + 10(log 4)

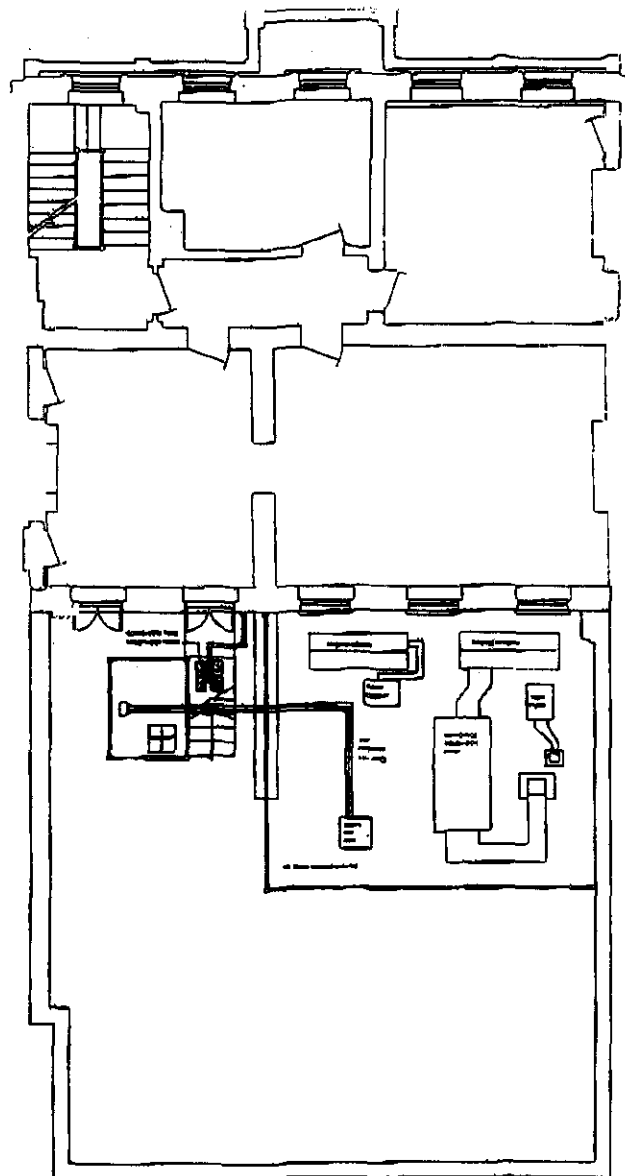
Deduction for distance (at least 24m to nearest residential unit) -10(log 24/1) 13.8dB

Resultant air conditioning unit noise 38.3 dB

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PROPOSED CONDENSING UNIT LAYOUT FIRST FLOOR
BARCLAYS BUILDING 28 HAMPSTEAD HIGH STREET
AMC BUILDING SERVICES MOBILE: 0187 684 1947
DRAWING NO. AC-02A DEC. 2006

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Recommendations

Summary

The air conditioning noise levels to be produced by the proposed plant are in excess of 7 dB below the existing ambient level and the development is therefore recommended as it stands at present.