



Acoustic Consultancy Report

Environmental Noise Survey

Report Prepared For
Axa Real Estate Investment
Saffron Hill

Date

15 May 2007

Report Reference

52776/3/1/2

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Project	Saffron Hill	Date	15 May 2007

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1. Introduction

The proposed development of the site located at Saffron Hill is to include the provision of new mechanical ventilation plant.

The Lee Cunningham Partnership has been commissioned to conduct an environmental survey in order to obtain statistical noise data and establish the local background noise levels at the site. This information will be used in accordance with relevant British Standards and codes of good design practice to set noise rating levels at the nearest affected premises.

Details of the proposed plant installation shall be reviewed and recommendations for necessary noise mitigation provided where necessary. The guidance contained within this report is given on the basis that the operational period of the mechanical plant may potentially be continuous over the 24 hour period.

2. Site description

The site layout together with measurement positions are shown in the drawing contained in Appendix A.

3. Local Noise Climate

The predominant noise within the area came from traffic passing on Saffron Hill and St Cross Street with distant traffic noise from Farringdon Road.

4. Measurements

The noise monitoring commenced on 11th May 2007, and continued until the 14th of May 2007. The measurement period was considered sufficient to establish the lowest background noise levels corresponding to the operational period of the plant.

The site plan contained in Appendix A identifies the approximate measurement positions.

A photographic record of the development site and surrounding areas was obtained for future reference as necessary.

5. Results

The measured statistical spectral and broad-band sound pressure levels are shown within Appendix B. The lowest representative background noise levels obtained being as follows:

Table 1: Lowest Measured Background Noise Levels dB re 2×10^{-5} Pa

Measurement Position	Daytime LA90(07:00-23:00)	Night LA90(23:00-07:00)
MP1	45	42

6. Evaluation of Design Criteria

6.1. Residential Design Criteria

Consideration must be given to any policy requirements of the Local Authority.

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The site lies within the boundary of Camden. Camden Borough Council has a policy of limiting the noise from any plant to 5dB below the lowest background noise level at 1m from the nearest noise sensitive window.

The rating level shall therefore be: -

Rating Level = $L_{A90,T} - 5$ dB

6.2. Design Rating Levels

The design rating levels to be adopted for this project are set out in the table below.

Table 2: Design Rating Levels dB re 2×10^{-5} pa

Receiver premises	Approximate distance	Rating Level (Day) $L_{A,T}$ (07:00-23:00)	Rating Level (Night) $L_{A,T}$ (23:00-07:00)
Residential on Saffron Hill	17m	40	37

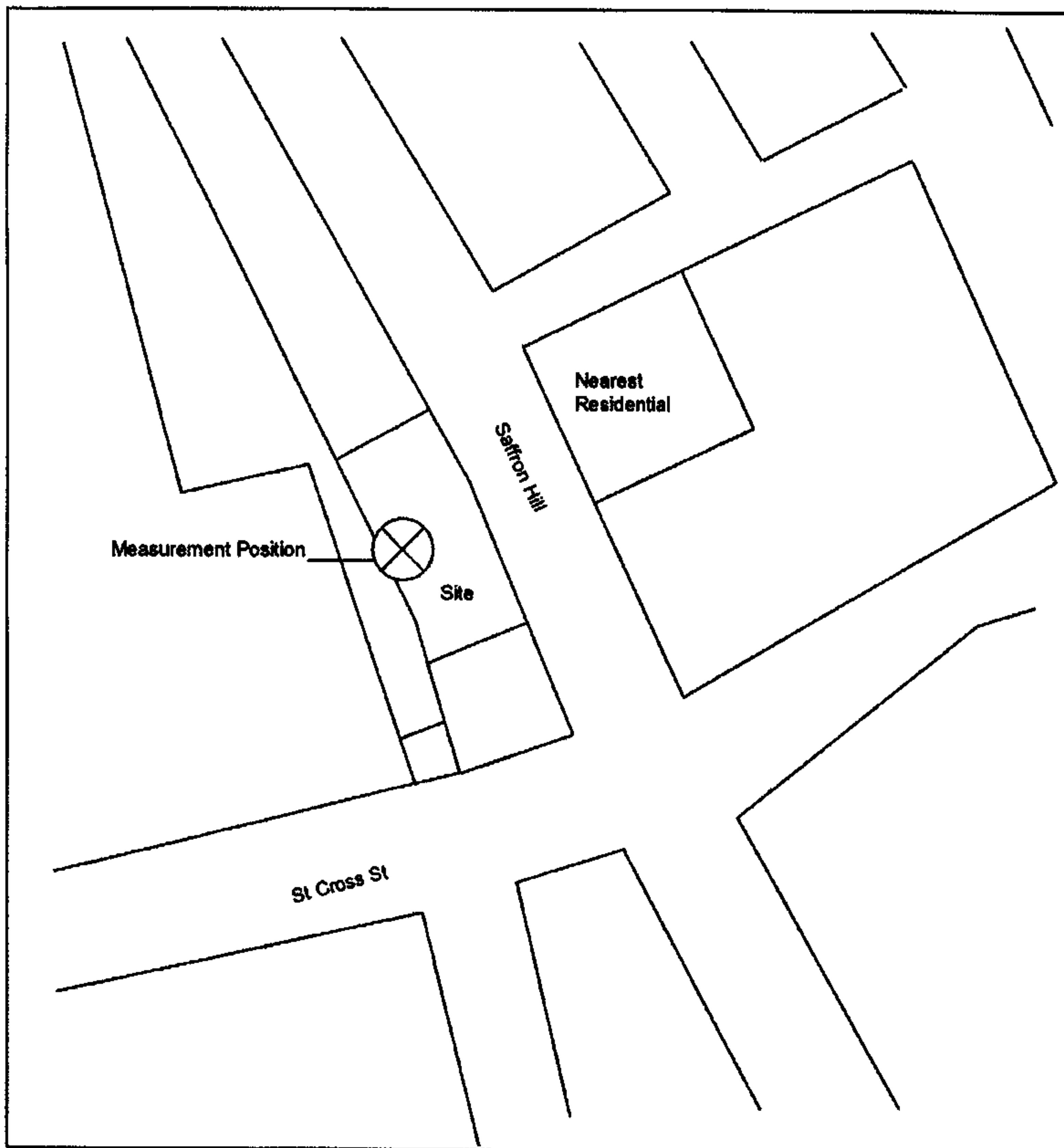
7. Conclusion

An environmental noise survey has been undertaken in order to establish the existing background noise levels local to the site generally in accordance with the method contained within BS4142:1997. Design rating levels have been provided, which should be applied to ensure any new mechanical plant complies with the relevant guidelines.

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Appendix A: Site Plan



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Appendix B: Measurement Data

Sound pressure level measurements were obtained using the following instrumentation complying with the Type 1 specification of IEC 651(1979) Amend.1 and IEC 804(1985) Amend 2:

Svantek 959 Sound Level Meter

Calibration checks were made prior to and after completion of measurements using a Brüel & Kjær Type 4231 calibrator complying with Class 1 of IEC 942 (1988), calibration level 94.0 dB, ± 0.3 dB, @ 1.0 kHz. All acoustic instrumentation carried current manufacturer's certificates of conformance.

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Date	Time	Copy Band Capacity (MB)								Total
		32	64	128	256	512	1K	2K	4K	
10/05/07	12:05'38	56	54	51	49	46	41	32	22	51
10/05/07	12:10'08	57	54	51	49	46	41	33	22	51
10/05/07	12:25'08	57	54	51	49	46	42	33	22	51
10/05/07	12:40'08	56	54	51	49	46	41	31	21	51
10/05/07	12:55'08	56	53	50	48	45	40	31	21	50
10/05/07	13:10'08	56	53	51	48	45	40	31	21	50
10/05/07	13:25'08	56	53	50	48	46	42	33	22	51
10/05/07	13:40'08	57	54	51	49	46	42	34	23	51
10/05/07	13:55'08	57	54	50	48	45	41	33	22	51
10/05/07	14:10'08	57	53	50	48	44	41	33	22	50
10/05/07	14:25'08	56	53	50	48	46	43	36	27	51
10/05/07	14:40'08	57	54	51	48	45	41	33	23	51
10/05/07	14:55'08	57	54	51	48	45	41	33	22	51
10/05/07	15:10'08	57	54	50	48	46	43	35	26	51
10/05/07	15:25'08	57	54	51	49	48	45	38	29	53
10/05/07	15:40'08	57	53	50	48	45	41	33	22	50
10/05/07	15:55'08	56	53	50	47	44	40	32	21	50
10/05/07	16:10'08	56	53	50	47	45	41	32	22	50
10/05/07	16:25'08	56	53	49	47	44	40	32	22	50
10/05/07	16:40'08	56	53	49	47	44	39	30	21	49
10/05/07	16:55'08	55	52	48	46	43	38	29	21	48
10/05/07	17:10'08	56	53	49	47	44	39	30	21	49
10/05/07	17:25'08	55	53	49	47	43	39	30	21	49
10/05/07	17:40'08	55	53	49	46	43	38	29	21	48
10/05/07	17:55'08	55	53	49	46	43	38	29	21	48
10/05/07	18:10'08	56	53	49	46	43	38	29	21	48
10/05/07	18:25'08	56	53	49	46	43	38	29	21	48
10/05/07	18:40'08	55	53	49	46	43	37	29	21	48
10/05/07	18:55'08	55	53	49	46	43	37	28	21	48
10/05/07	19:10'08	55	52	48	44	41	36	26	21	47
10/05/07	19:25'08	55	53	48	44	42	37	27	21	47
10/05/07	19:40'08	55	52	48	45	42	36	27	21	47
10/05/07	19:55'08	54	52	48	44	42	37	27	21	47
10/05/07	20:10'08	54	51	48	44	41	36	26	21	47
10/05/07	20:25'08	54	51	48	45	42	37	28	21	47
10/05/07	20:40'08	54	51	47	44	42	37	28	21	47
10/05/07	20:55'08	53	51	48	44	41	36	27	21	47
10/05/07	21:10'08	53	51	48	44	41	36	28	21	46
10/05/07	21:25'08	53	50	47	44	42	38	29	21	47
10/05/07	21:40'08	52	50	47	43	41	38	29	21	47
10/05/07	21:55'08	52	50	46	43	40	35	26	21	45
10/05/07	22:10'08	52	50	46	42	40	35	26	21	45
10/05/07	22:25'08	52	50	46	42	41	36	27	21	46
10/05/07	22:40'08	52	50	46	42	41	36	26	21	46
10/05/07	22:55'08	52	49	46	42	40	35	26	21	45
10/05/07	23:10'08	52	50	46	42	40	35	26	21	45
10/05/07	23:25'08	52	49	46	42	40	36	27	21	45
10/05/07	23:40'08	51	48	45	41	40	35	26	21	44
10/05/07	23:55'08	51	48	45	41	39	34	25	21	44
11/05/07	00:10'08	51	48	45	40	39	33	24	21	44
11/05/07	00:25'08	51	48	45	41	40	35	26	21	44
11/05/07	00:40'08	51	47	45	41	40	37	30	23	45
11/05/07	00:55'08	51	48	45	40	39	35	27	21	44
11/05/07	01:10'08	51	47	45	40	39	34	24	21	44

Date	Time	Barometric Pressure (inches Hg)								
		50	47	44	40	38	33	23	21	43
11/05/07	01:25'08	50	47	44	40	38	33	23	21	43
11/05/07	01:40'08	49	47	44	39	38	32	23	21	43
11/05/07	01:55'08	50	47	44	39	38	32	23	21	43
11/05/07	02:10'08	50	47	44	39	38	32	22	21	42
11/05/07	02:25'08	50	47	44	40	38	32	22	21	43
11/05/07	02:40'08	49	47	44	40	38	33	23	21	43
11/05/07	02:55'08	50	47	44	40	38	33	23	21	43
11/05/07	03:10'08	50	47	45	40	38	33	22	21	43
11/05/07	03:25'08	50	47	45	40	38	32	22	21	43
11/05/07	03:40'08	50	47	45	41	39	35	25	21	44
11/05/07	03:55'08	52	49	47	44	43	38	29	21	47
11/05/07	04:10'08	52	50	48	45	43	38	27	21	47
11/05/07	04:25'08	52	50	47	44	42	37	26	21	47
11/05/07	04:40'08	52	49	47	44	42	37	25	21	47
11/05/07	04:55'08	51	48	46	43	41	35	24	21	46
11/05/07	05:10'08	52	49	47	44	42	36	24	21	46
11/05/07	05:25'08	52	49	47	43	41	35	23	21	46
11/05/07	05:40'08	53	50	48	45	42	35	23	21	47
11/05/07	05:55'08	52	49	47	43	41	34	22	21	46
11/05/07	06:10'08	53	50	48	44	41	35	23	21	46
11/05/07	06:25'08	54	51	48	44	42	36	24	21	46
11/05/07	06:40'08	54	51	48	44	41	35	24	21	46
11/05/07	06:55'08	54	51	48	44	42	35	24	21	47
11/05/07	07:10'08	55	52	49	45	42	36	25	21	48
11/05/07	07:25'08	56	53	49	46	43	37	27	21	48
11/05/07	07:40'08	56	53	49	46	43	37	27	21	48
11/05/07	07:55'08	56	53	49	47	44	39	28	21	49
11/05/07	08:10'08	59	63	56	52	48	42	31	21	54
11/05/07	08:25'08	57	55	51	49	46	41	30	21	51
11/05/07	08:40'08	57	54	51	48	45	41	31	21	51
11/05/07	08:55'08	57	54	50	48	45	40	31	21	50
11/05/07	09:10'08	56	53	50	48	45	41	31	21	50
11/05/07	09:25'08	56	53	50	47	45	40	31	21	50
11/05/07	09:40'08	56	53	50	48	45	40	31	21	50
11/05/07	09:55'08	56	53	49	47	44	40	30	21	49
11/05/07	10:10'08	56	54	50	48	45	41	32	21	50
11/05/07	10:25'08	56	53	50	48	45	41	33	22	51
11/05/07	10:40'08	57	53	50	48	45	40	32	21	50
11/05/07	10:55'08	56	53	50	47	44	40	31	21	49
11/05/07	11:10'08	56	53	50	48	45	41	32	21	50
11/05/07	11:25'08	57	54	51	48	45	40	32	21	50
11/05/07	11:40'08	58	54	52	49	46	41	33	21	51
11/05/07	11:55'08	58	55	52	50	46	41	33	21	52
11/05/07	12:10'08	59	55	52	50	46	41	33	21	52
11/05/07	12:25'08	59	55	52	49	46	41	32	21	51
11/05/07	12:40'08	59	55	53	50	46	41	32	21	52
11/05/07	12:55'08	59	55	52	50	46	41	32	21	52
11/05/07	13:10'08	59	55	53	50	46	41	32	21	52
11/05/07	13:25'08	59	55	52	50	46	41	32	21	52
11/05/07	13:40'08	58	54	52	49	45	40	32	21	51
11/05/07	13:55'08	59	54	52	49	45	40	31	21	51
11/05/07	14:10'08	58	54	52	49	45	39	31	21	50
11/05/07	14:25'08	59	55	52	49	46	41	32	21	51
11/05/07	14:40'08	59	55	52	50	46	41	32	21	52

DTG	TID	Delta Band (km) to Delta (dB)								L
		30	120	200	300	180	240	310	360	
11/05/07	14:55'08	59	55	52	49	46	41	33	21	51
11/05/07	15:10'08	59	55	52	49	45	40	32	21	51
11/05/07	15:25'08	59	55	52	49	45	41	32	21	51
11/05/07	15:40'08	60	55	53	50	46	40	32	21	51