PERMIT

Environmental Noise Survey

Client:	DCI
Project:	Co-operative store 71 Forestside Avenue Leigh Park PO9 5SJ
Our Reference:	83683
Date of Report:	17th February 2011

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1.0 Introduction

Noise Solutions Ltd was instructed to visit the Co-operative store to undertake environmental noise readings during the night time period to determine the background noise level of the surrounding area.

The noise readings obtained would enable a BS 4142:1997, *method for rating industrial noise affecting mixed residential and industrial areas,* noise assessment to be undertaken for the future plant selections.

Noise Solutions Ltd would also comment on any existing noise sources affecting the measurements.

2.0 Site Description and Nearest Residence

The store is located on the ground floor of a two storey building on the western side of Forestside Avenue near to the junction of Oakshott Drive.

The second floor is owned by the Co-operative store. The area that contains the main plant for the store is a small yard at the rear, on the western façade of the building, where the plant is fixed to the rear store wall.

The nearest noise sensitive property to the existing plant location is a terraced block of residential properties at the rear of the store, but line of sight protection is supplied by a two metre high wall running down the boundary of the rear of store yard area. This property is approximately 15m from the nearest plant item.

The surrounding area is flat and comprises of mainly residential two storey properties.

3.0 Noise Measurement Equipment

Manned noise readings were obtained using a Svan 949 type1 real time analyser, serial no 12262, with condensing microphone type SV22, serial no 4012444.

The meter was calibrated before and after the survey using a Svantek SV30A

Class 1L Acoustical Calibrator, serial number 10847,with a level of 114 dB at 1000 Hz applied to the measurement equipment. The readings were found not to have deviated.

The meter and calibrator used in the survey was verified by Acoustic Calibration Services Ltd and certificates of calibration, number 13036 and 13037, issued 6th April 2009, complying with the requirements of laboratory accreditation of the United Kingdom Accreditation Service (UKAS).

4.0 Measuring Position

The representative measuring position used for background noise levels, was located along Oakshott Drive to the east of the store location.

The existing store plant was not audible at this position and we consider it to be representative of the background noise affecting the residents if the existing plant was turned off.

In accordance with BS 4142:1997, to minimise the influence of reflections, the measurements were taken at least 3.5m from any reflecting surface other than the ground with a microphone height of 1.5m.

5.0 Noise Measurement Period

The period of measurement at night for background noise levels was between 01.00 and 02.00 hours on Wednesday 16th February 2011.

The weather during the survey period was cloudy, little or no wind, dry with good road conditions. The temperature was between 0°C and 5°C.

6.0 Noise Level Measurements

We have taken broadband noise levels and the data shown below is defined as follows:

$L_{Aeq,T}$	The "A" weighted equivalent continuous noise level
$L_{A90,T}$	The "A" weighted level exceeded for 90% of sample period
$L_{A10,T}$	The "A" weighted level exceeded for 10% of sample period
$L_{Amax,T}$	The "A" weighted maximum level measured during the survey period.

7.0 Results

We consider the measurements to be typical of background levels in the area of the nearest residential properties.

The measuring position was mainly affected by intermittent local and constant distant road traffic, and local residence.

The lowest measured background noise level was 31dB $L_{A90(10\ min)}$.

The full set of measured dBA levels are given in Appendix 1.

APPENDIX 1

Measured environmental noise readings, dB(A)

Time		L_{Max}	L_{eq}	L_{10}	L_{90}
Wednesday 16th February 2011	01:00 - 01:10	51.2	40.0	42.0	35.1
	01:10 - 01:20	55.0	42.5	48.0	32.5
	01:20 - 01:30	49.2	41.6	46.5	31.8
	01:30 - 01:40	50.2	38.2	39.9	31.0
	01:40 - 01:50	58.4	41.8	46.5	30.6
	01:50 - 02:00	49.8	37.1	42.2	31.2


Store plant area
Co-operative store
Measurement position
71 Forestside Ave, Havant, PO9 5, UK
Block of residential flats
Nearest noise sensitive receptors
© 2011 Infoterra Ltd & Bluesky
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Imagery Date: Apr 21, 2007
50°52'14.63" N
0°58'21.76" W
elev 29 m
Eye alt 189 m