

FL010050

Proposed Co-Operative Store

22 – 26 Cricklewood,
Cricklewood,
Brondesbury, London. NW2 3HD.

Acoustic Selection Criterion Report

February 2015

flumpit Ltd

Flumpit Ltd

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Version Control

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Authorisation

Report Prepared By:	Rhys Scrivener	Date:	24th February 2015
Report Checked By:	--	Date:	--
Report Approved By:	Rhys Scrivener	Date:	24th February 2015

1. EXECUTIVE SUMMARY

1.1. Instruction

Flumpit Ltd has been instructed by BJA Refrigeration Consulting Engineers Ltd to undertake an environmental noise survey at the proposed Co-operative located at 24 – 26 Cricklewood Broadway in Brondesbury in London to determine the specification in terms noise to allow the selection of the refrigeration and air conditioning equipment.

1.2. Key Locations

Key Location	Latitude	Longitude	Description of Location
Plant Area	51.553186	-0.210489	At the rear of the site in a dedicated plant area
Assessment Position	51.553163	-0.210531	Residential Properties at the rear of the store

1.3. Maximum Noise Levels

Proposed Equipment	07:00 – 23:00 (Day Time) 32°C Ambient		23:00 – 07:00 (Night Time) 25°C Ambient	
All Plant	L_{WA} 67 dB	L_{P(10)} 36 dB	L_{WA} 56 dB	L_{P(10)} 25 dB

Sound Power Level (L_{WA}) - Sound Pressure Level at 10m (L_{P(10)}) British Standard 13487: 2003 including Annex C.

1.4. Background Noise Levels

Background Noise Level	07:00 – 23:00 (Day Time) 32°C Ambient	23:00 – 07:00 (Night Time) 25°C Ambient
	L_{A90, 16 hours} 49 dB	L_{A90, 8 hours} 41 dB

Background Noise Levels as defined in British Standard 4142:1997. Reference Level of $2 \times 10^{-5} \text{Nm}^{-2}$.

1.5. Proposed British Standard 4142:1997 Assessment

BS 4142: 1997	07:00 – 23:00 (Day Time) 32°C Ambient	23:00 – 07:00 (Night Time) 25°C Ambient
Rating Noise Level	L_{Aeq,1 hours} 49 dB	L_{Aeq,15 minutes} 38 dB
Background Noise Level	L_{A90, 1 hours} 49 dB	L_{A90, 15 minutes} 41 dB
Assessment	-0 dB (Below Low Impact)	-3 dB (Below Low Impact)

1.6. Required Noise Control Measures

Noise Control Element	Description of Works included to Achieve the BS 4142:2014 Assessment
Refrigeration Condenser	Located within a dedicated yard at the rear of the store.
Air Conditioning Unit	Is likely to require AC Unit enclosure and low noise condenser. Internal Pack
Screening	Not effective in this location
Other	The proposed plant area at the rear is surrounded by residential. This is a very sensitive site in terms of noise. Local Authority will require at least -3 dB at night if not lower. Will need very careful design consideration to make it work on the noise side of things.

2. SITE LAYOUT

2.1. Key Locations



Plant Area	51.553186	-0.210489	At the rear of the site in a dedicated plant area
Assessment Position	51.553163	-0.210531	Residential Properties at the rear of the store
Background Position	51.553485	-0.210440	At the side of the store within Rondu Road

2.2. Key Photographs



View on Front of Store



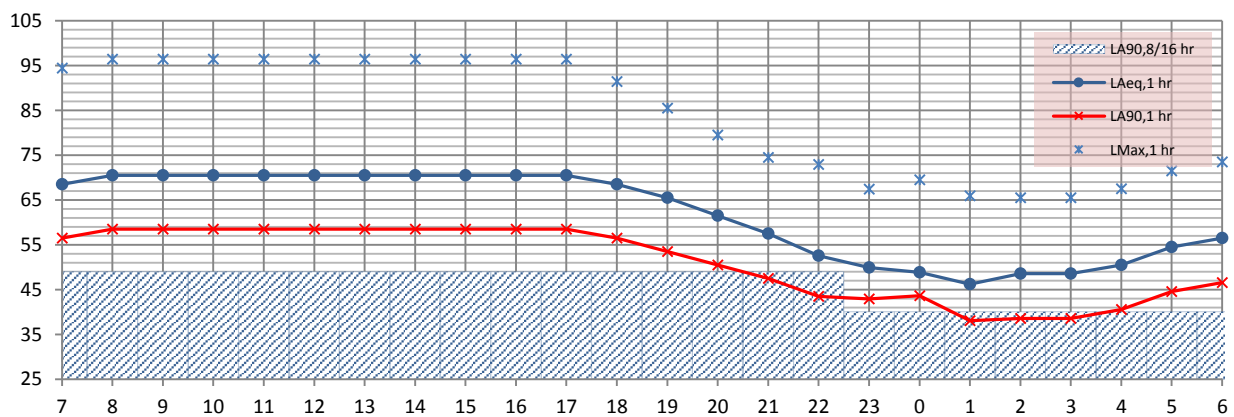
Side of Building – Louvres at high level on Ground Floor

3. BACKGROUND NOISE LEVELS

3.1. 22:00 on Saturday 22nd February 2015 to 02:00 on Sunday 23rd February 2015

Time Period	L _{Max}	Minimum 5 minute			1 Hour			Day and Night		
		L _{Aeq,5 min}	L _{A10, 5 min}	L _{A90, 5 min}	L _{Aeq, 1 hour}	L _{A10, 1 hour}	L _{A90, 1 hour}	L _{Aeq, t}	L _{A10, t}	L _{A90, 16hours}
07:00 – 08:00	94	64	66	54	68	74	56	68	73	49
08:00 – 09:00	96	66	68	56	70	76	58			
09:00 – 10:00	96	66	68	56	70	76	58			
10:00 – 11:00	96	66	68	56	70	76	58			
11:00 – 12:00	96	66	68	56	70	76	58			
12:00 – 13:00	96	66	68	56	70	76	58			
13:00 – 14:00	96	66	68	56	70	76	58			
14:00 – 15:00	96	66	68	56	70	76	58			
15:00 – 16:00	96	66	68	56	70	76	58			
16:00 – 17:00	96	66	68	56	70	76	58			
17:00 – 18:00	96	66	68	56	70	76	58			
18:00 – 19:00	91	64	66	54	68	74	56			
19:00 – 20:00	85	61	63	51	65	71	53			
20:00 – 21:00	79	57	59	47	61	65	50			
21:00 – 22:00	74	54	56	43	57	59	47			
22:00 – 23:00	72.9	50.6	52.0	40.0	52.6	55.9	43.5			
23:00 – 00:00	67.4	47.3	49.3	42.1	49.9	54.3	42.9			
00:00 – 01:00	69.5	46.5	48.2	40.6	48.8	49.3	43.6			
01:00 – 02:00	65.9	45.2	49.7	40.0	46.2	47.7	38.0			
02:00 – 03:00	66	46	48	35	49	51	39	51	56	40
03:00 – 04:00	66	46	48	35	49	51	39			
04:00 – 05:00	68	48	50	37	51	53	41			
05:00 – 06:00	72	52	54	41	55	57	45			
06:00 – 07:00	74	54	56	43	57	59	47			

Sound Pressure Levels, dB. Reference level of $2 \times 10^{-5} \text{ Nm}^{-2}$



END OF REPORT