



- Background Ventilation: Minimum 3l/s per person, and internal noise level of 35dB(A), irrespective of ventilation strategy.
- Rapid Ventilation: Minimum 8l/s per person, and internal noise level of 40dB(A) for passive system, or 35dB(A) for mechanical system.
- Comfort Ventilation: For thermal cooling on the hottest days. No particular ventilation rate but would need to be somewhat higher than for rapid ventilation, and no particular internal noise criterion is required. Doors and windows may be opened irrespective of external noise climate.

3.3.3 We would add that, under the comfort ventilation scenario, there may be a clear requirement for the acoustic design to exceed Building Regulation requirements such that the room remains a functioning teaching space.

3.4 Alternative Performance Standards (Derogations)

- 3.4.1 Alternative performance standards (APS) can be considered to those set out in BB93 where there are conflicts in the design with health and safety needs and educational or environmental requirements. This is set out under section 1.2.1 of BB93. Cost saving is not one of the justifiable reasons for APS's.
- 3.4.2 Where APS's are to be proposed, there is a need to define what the justifications are and what the implications of these will be for the school. Agreement by the school and then by Building Control would make such a derogation acceptable under BB93 and Approved Document E (2003).
- 3.4.3 Any APS should be avoided where the design can be fully compliant, although they can be suggested to balance the needs of the school and accommodate elements in the design. This still requires good acoustic standards to be maintained as far as possible.

4 Noise Survey Methodology and Instrumentation

4.1 Methodology and Instrumentation

- 4.1.1 In order to establish the existing noise climate at the site an attended noise survey was undertaken. Measurements were taken between 0900 and 1300 on Monday 20th January 2013 at two measurements locations as shown on attached site plan 13/4286/R1/SP1 and detailed below:
- MP1 – Façade measurement position located 1m from the existing playground wall to the west of the site at 1.5m above local ground level.
- 4.1.2 Measurements were made in the L_{Amax} , L_{Aeq} , L_{A1} and L_{A90} indices (see the Glossary of Acoustic Terms for an explanation of the noise units used).



4.1.3 Noise Measurements were performed using the equipment listed in the table below.

Item	Manufacturer	Type
Sound Level Analyser	Rion	NL-52
Acoustic Calibrator	Rion	NC-74
Weatherproof windshield	Rion	WS-15

T1 Equipment used during attended noise survey.

4.1.4 The microphone was fitted with a windshield and the sound level meter was calibrated before and after the survey to ensure a consistent and acceptable level of accuracy was maintained throughout.

4.1.5 The weather conditions throughout the noise survey were overcast, dry and cold with a light breeze.

4.2 Noise Survey Results

4.2.1 The results of the noise survey are shown in attached schedule 13/4286/R1/SCH2.

4.2.2 The measured octave band noise levels used in our assessment are shown in the table below:

	L_{Aeq,T} Octave Band Centre Frequency (Hz)						dBA
	125	250	500	1k	2k	4k	
MP1	58	57	53	54	51	42	58

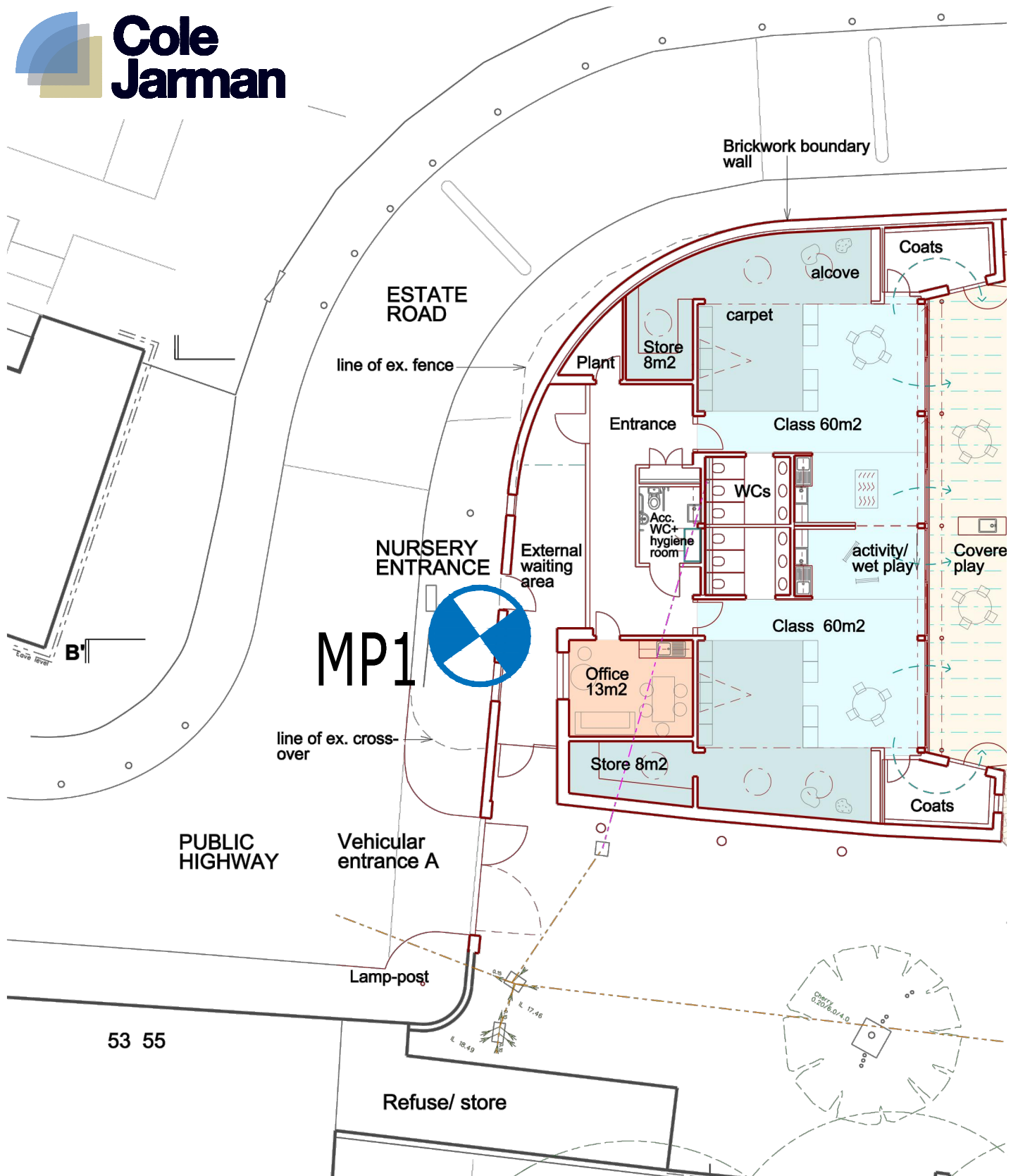
T2 Noise levels used in the assessment

5 External Building Fabric

5.1 Façade noise Exposure

5.1.1 Based on the results of the survey, the noise levels incident on façades around the new building have been calculated. The measurement position was representative of the western façade of the proposed building so no corrections have been applied here. Noise levels at the eastern façade of the building have been calculated by correcting the measured levels for screening loss and distance attenuation.

5.1.2 The proposed development will comprise two nursery classrooms an office, store rooms and WC's. The only noise sensitive spaces will be the classrooms and the office.



Title: Site plan showing noise measurement position

Figure 13/4286/SP1

Project: Richard Cobden Nursery

Date: April 2014

Revision: -

Scale: Not to scale

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Noise Survey Results

Measurement Position 1

Period	L_{Aeq}	L_{Amax}	L_{A90}
1300-1400	64 ⁱ	87	52
1400-1500	59	79	53
1400-1500	57	68	52
1500-1600	56	73	48

ⁱ Measurement affected by police sirens