3 - 6 Spring Place

Spring Place Ltd

Noise & Vibration Assessment

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CONTENTS

1 INTRODUCTION

1.1 Proposals are in place to develop the site at 3-6 Spring Place into flexible office floorspace with flexible café restaurant and event space. The site is currently occupied by a vehicle servicing garage which will be demolished.

1.2 To support the planning application for this development a noise impact assessment has been undertaken and is presented in this document.

1.3 As part of the assessment an external noise survey has been carried out at the site and the findings of this survey have been considered in the context of appropriate noise criteria and standards relevant to the development and guidance provided by the London Borough of Camden. Recommendations have been provided, which when adopted within the development, will enable the criteria and standards to be achieved.

1.4 Chapter 2 of this report considers the guidance on noise intrusion and noise emission relevant to the project. An external noise survey required for the assessment is presented in Chapter 3, whilst Chapters 4 and 5 present the assessments of noise intrusion and noise emission respectively. Vibration is discussed separately in Chapter 6.

1.5 Measurement data from the noise survey are presented in Appendix A. A completed copy of the London Borough of Camden's self-certified acoustic report checklist is included in Appendix B.

2 CRITERIA & GUIDANCE

2.1 LOCAL AUTHORITY REQUIREMENTS

2.1.1 The London Borough of Camden's policy for addressing noise and vibration when considering planning applications is set down in *Policy DP28 - Noise and Vibration* within the *Camden Development Policies, 2010-2025, Local Development Framework*.

2.1.2 The guidance provided within Policy DP28 states:

> *The Council will seek to ensure that noise and vibration is controlled and managed and will not grant planning permission for:*
>
> *a) development likely to generate noise/pollution; or*
>
> *b) development sensitive to noise in locations with noise pollution, unless appropriate attenuation measures are provided.*
>
> *Development that exceeds Camden's Noise and Vibration Thresholds will not be permitted. The Council will only grant permission for plant or machinery if it can be operated without cause harm to amenity and does not exceed our noise thresholds.*

2.1.3 The proposed development at Spring Place is generally considered insensitive to noise as it is a commercial office development and not a residential or educational building. Consequently, the objective standards imposed by the London Borough of Camden concerning noise intrusion are not strictly relevant to this development. These standards have however been included in Table 2.1 below for information.

Table A: Noise levels on residential sites adjoining railways and roads at which planning permission will not be granted

Noise description and location of measurement	Period	Time	Sites adjoining railways	Sites adjoining roads
Noise at 1 metre external to a sensitive façade	Day	0700-1900	74 dB L_{Aeq} 12h	72 dB L_{Aeq} 12h
Noise at 1 metre external to a sensitive façade	Evening	1900-2300	74 dB L_{Aeq} 4h	72 dB L_{Aeq} 4h
Noise at 1 metre external to a sensitive façade	Night	2300-0700	66 dB L_{Aeq} 8h	66 dB L_{Aeq} 8h

Table B: Noise levels on residential streets adjoining railways and roads at and above which attenuation measures will be required

Noise description and location of measurement	Period	Time	Sites adjoining railways	Sites adjoining roads
Noise at 1 metre external to a sensitive façade	Day	0700-1900	65 dB L_{Aeq} 12h	62 dB L_{Aeq} 12h
Noise at 1 metre external to a sensitive façade	Evening	1900-2300	60 dB L_{Aeq} 4h	57 dB L_{Aeq} 4h
Noise at 1 metre external to a sensitive façade	Night	2300-0700	55 dB L_{Aeq} 1h	52 dB L_{Aeq} 1h
Individual noise events several times an hour	Night	2300-0700	>82 dB L_{Amax} (S time weighting)	>82 dB L_{AMAX} (S time weighting)

Table 2.1: Noise intrusion standards advised by London Borough of Camden

2.1.4 As it is a commercial development, noise intrusion standards have been selected on the basis of good practice guidance on noise intrusion into offices as set down in British Council for Offices : *Guide to Specification 2014* and BS 8233 : 2014 *Guidance on sound insulation and noise reduction for buildings.*

2.1.5 The London Borough of Camden can be expected to impose conditions, should they grant planning permission, which control the level of noise emission from fixed building services plant. The objective standards they require for noise emission are set down in the Table 2.2, taken from Policy DP28.

Table E: Noise levels from plant and machinery at which planning permission will not be granted

Noise description and location of measurement	Period	Time	Noise level
Noise at 1 metre external to a sensitive façade	Day, evening and night	0000-2400	5dB(A) <LA90
Noise that has a distinguishable discrete continuous note (whine, hiss, screech, hum) at 1 metre external to a sensitive façade.	Day, evening and night	0000-2400	10dB(A) <LA90
Noise that has distinct impulses (bangs, clicks, clatters, thumps) at 1 metre external to a sensitive façade.	Day, evening and night	0000-2400	10dB(A) <LA90
Noise at 1 metre external to sensitive façade where LA90>60dB	Day, evening and night	0000-2400	55dBL_{Aeq}

Table 2.2: Noise emission standards advised by London Borough of Camden

2.1.6 Although not specifically referenced, the manner in which the Authority require any acoustic character of the noise emission to be accounted for is similar to the methodology set down in BS 4142 : 1997. Consequently, other aspects of the methodology in BS 4142 : 1997 have been considered in the noise emission assessment presented here.

2.2 BS 4142

2.2.1 BS 4142 : 1997 *Method for rating industrial noise affecting mixed residential and industrial areas,* provides guidance on the assessment of the likelihood of complaints relating to noise. The standard presents a method of rating noise levels by comparing the noise level of the new source (the specific noise level) with that of the existing background noise level in the area in the absence of the new source (the background noise level).

2.2.2 The rating method according to BS 4142 accounts for unusual acoustic features such as a whine, hiss, impulsive or irregular noise by the addition of a single 5 dB correction to the specific noise level. The corrected specific noise level is the rating level.

2.2.3 The BS 4142 rating is determined by arithmetically subtracting the background noise level from the rating level. A difference of around +10 dB or more indicates that complaints relating to noise are likely. A difference of +5 dB is said to be of marginal significance. If the rating is more than 10 dB below the measured background noise level it is a positive indication that complaints are unlikely.

2.2.4 BS 4142 : 1997 was revised in 2014 and the latest edition BS 4142 : 2014 presents an entirely different assessment methodology and now rates the impact of the noise as opposed to the likelihood of complaint. Given Policy DP28 has limits based upon the former edition, BS 4142 : 2014 has not been considered further in this assessment.

2.3 ENVIRONMENTAL PROTECTION ACT 1990

2.3.1 In addition to meeting the Local Authority's requirements, it must also be considered that there is always the potential that neighbours may take direct noise nuisance action under the provisions of the Environmental Protection Act 1990, if they believe they have been subjected to noise nuisance. Usually if any Conditions to Planning concerning noise emission are complied with, the risk of such action is satisfactorily minimised.

2.4 CONCLUSION

2.4.1 From the guidance presented above it is considered inappropriate to review the prevailing external noise climate at the site in the light of the guideline levels in Table 2.1 as the development is not considered sensitive to noise. Instead noise intrusion will be assessed on the basis of the guidance provided by British Council for Offices and guidance in BS 8233.

2.4.2 Noise emission limits will be established on the basis of the limits advised in Table 2.2 using the methodologies set down in BS 4142.

3 EXTERNAL NOISE SURVEY

3.1 INTRODUCTION

3.1.1 In order to inform the acoustic design of the proposed office development an external noise survey was undertaken at two locations at the site. The data from this survey have been used to assess both noise intrusion into the proposed offices as well as noise emission from building services plant associated with the development.

3.2 MEASUREMENT METHODOLOGY

3.2.1 Continuous, unattended noise level measurements were conducted at a single location on the roof of the existing building to the rear of the site. The measurement microphone was about 3m from the nearside railway track and about 2m above the roof and track level in free field conditions.

3.2.2 Additional attended measurements were also undertaken in Spring Place as a secure measurement location was not available here. These measurements were made in free-field conditions about 1.2m above the pavement.

3.2.3 The measurement locations are shown superimposed upon an aerial view of the existing site in Figure 3.1.

3.2.4 The unattended measurements on the roof were undertaken between 11:20 on Tuesday 9 August through to 11:00 on Thursday 11 August 2016. Statistical and spectral data were recorded continuously throughout the measurement period in 10-minute samples.

3.2.5 The attended measurements at street level were undertaken between 11:15 and 12:55 on Thursday 11 August 2016. Statistical and spectral data were recorded continuously throughout this measurement period in 5-minute samples.

3.2.6 The following equipment was used for the noise survey:

Equipment	Type	Serial No.
Norsonic 139	Environmental Noise Meter	1392774
Norsonic 1218	Microphone protection system	12182517
Bruel & Kjaer 4231	Calibrator	2291098

Table 3.1: Noise measurement equipment

3.2.7 The calibration of the sound level meter and associated microphone were checked prior to and on completion of the measurement period in accordance with recommended practice. No significant drift in calibration occurred during the measurement period. The accuracy of the calibrator can be traced to National Physical Laboratory Standards.

3.2.8 The weather conditions throughout the measurement period were dry with a gentle to moderate breeze. The weather conditions are not considered to have had a detrimental influence on the measurement results.

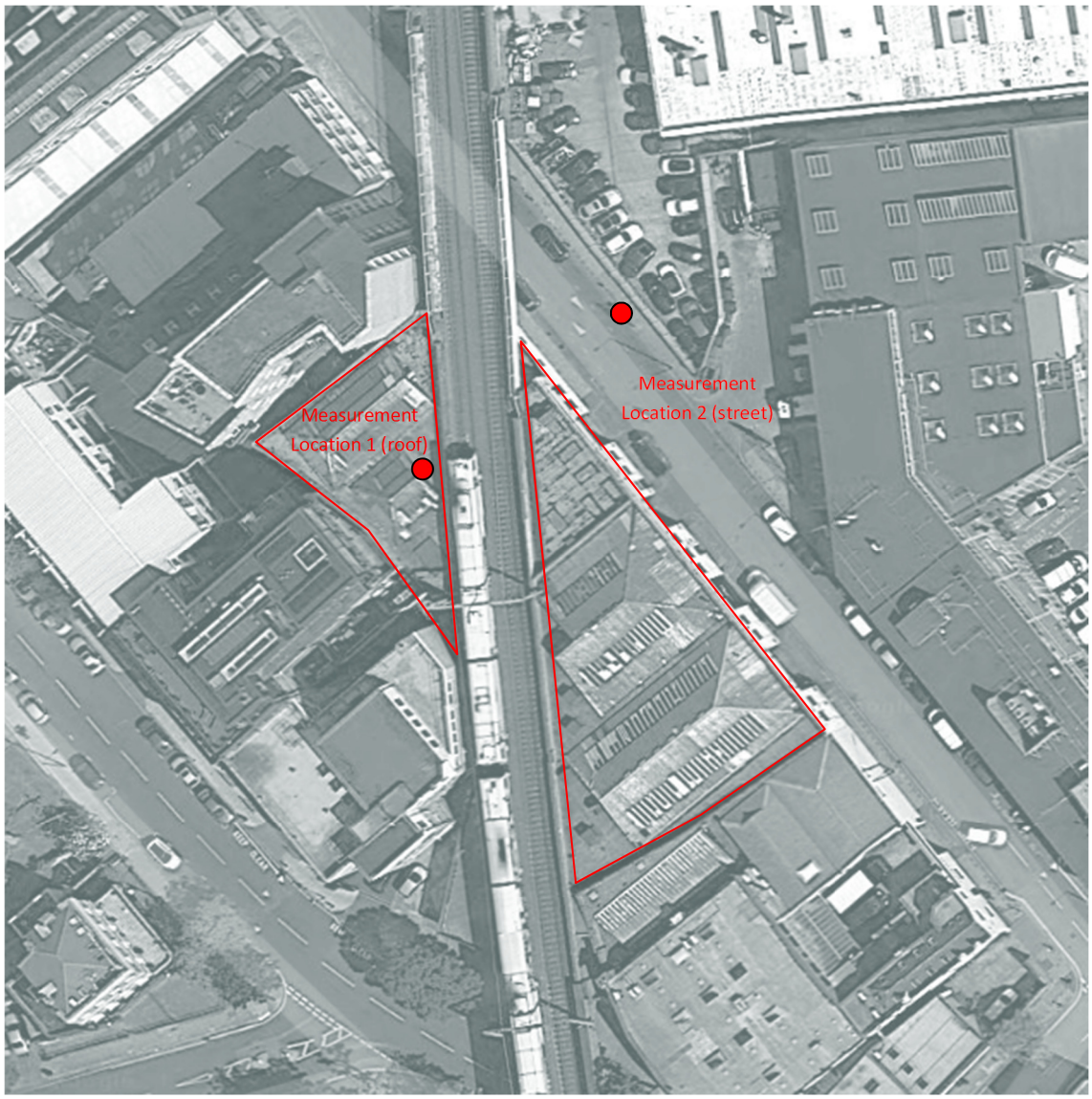

Image courtesy of Google Maps

Figure 3.1: Existing site plan showing measurement locations

3.3 MEASUREMENT RESULTS

3.3.1 The measurement results are presented in Appendix A. Graphs showing the time histories for the measurements at the two locations are presented in Figure 3.2 and Figure 3.3.

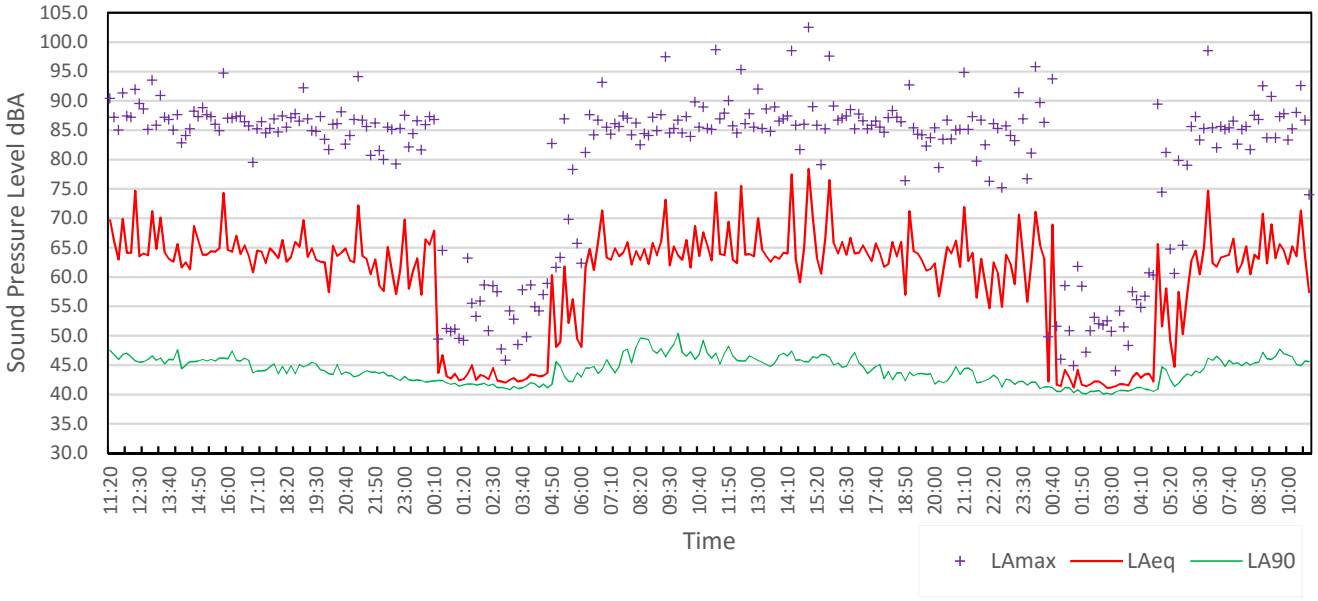

Figure 3.2: External noise levels, rooftop location

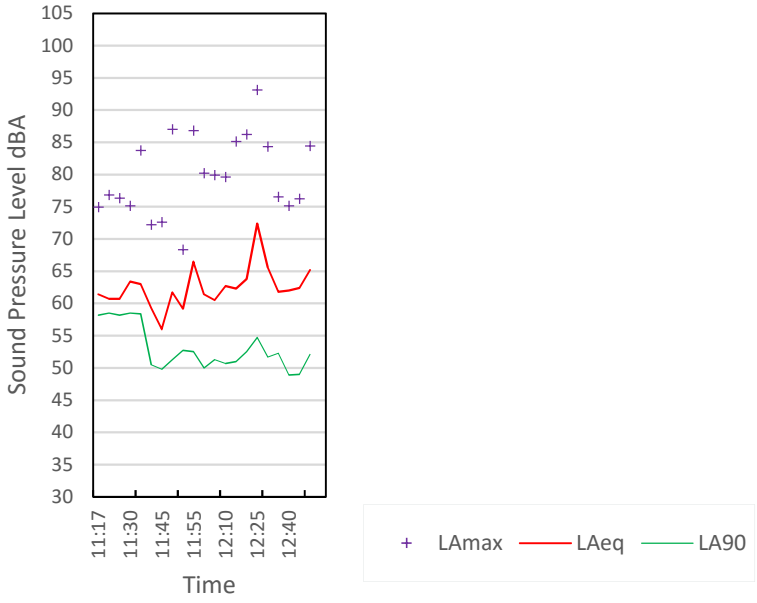

Figure 3.3: External noise levels, street location

3.3.2 The lowest measured background noise levels typically expected to occur during the daytime, evening and night-time at the nearest noise sensitive properties around the development are set down in Table 3.2. These have been determined from the survey data and are considered representative of the underying background noise levels at the facades of the residential properties overlooking the site.

Time Period	Background noise level)
Daytime (07:00-19:00)	42 dB $L_{A90,10min}$
Evening (19:00-23:00)	42 dB $L_{A90,10min}$
Night-time (23:00-07:00)	41 dB $L_{A90,10min}$

All values are sound pressure levels in dB re: $2x10^{-5}$Pa

Table 3.2: Measured background noise levels

3.4 COMMENTARY

3.4.1 Noise levels at the proposed development site are influenced predominantly by trains passing through the site and road traffic on Spring Place.

3.4.2 Based on the current Overground timetables from Transport for London there are about 140 Overground train movements on this line between 8am and 6pm on a weekday. This does not include freight movements which occur about ten times a day. Trains pass more than once every 5 minutes during the daytime and increase in frequency towards the late afternoon. There are also signals nearby and freight trains were observed to come to a stop on the viaduct at times. This activity is particularly noisy with the squeal from the train's brakes.

3.4.3 Maximum noise levels on Spring Place are lower than towards the rear of the site and are influenced by the noise of road traffic and vehicles and activity in the nearby Camden Council, Holmes Road depot. There is also noise from the railway as trains pass over the bridge over Spring Place, and some activity noise from the existing vehicle servicing garage.

3.4.4 It is considered that the measurement data is representative of both the highest noise levels typically encountered at the site during the daytime and also the quietest levels likely to be experienced overnight for both weekdays and weekends.

4 EXTERNAL NOISE INTRUSION

4.1 CRITERIA

4.1.1 There are no regulations which set specific acoustic standards for an office space, however in order to promote the creation of effective office spaces the British Council for Offices (BCO) have published their *Guide to Specification 2014.* This document provides guidance regarding office design and presents standards for external noise intrusion which have been deemed suitable for an office environment.

4.1.2 Consideration has also been given to the desire of the developer of 3-6 Spring Place, for a less traditional office environment, however in the absence of specific objective standards the guidance within the BCO document is considered a suitable starting point for considering external noise intrusion.

4.1.3 Guide to Specification recommends that when averaged over a typical working day of eight hours, noise intrusion should be controlled to a level of NR38 $L_{eq,8hr}$ within a speculative office environment. In addition, L_{AFmax} noise levels in open plan offices should not regularly exceed 55dB.

4.2 REFERENCE NOISE LEVELS

4.2.1 In order to assess the level of noise intrusion into the new development, reference noise spectra for use in façade calculations have been determined from the measurement data and these are presented in Table 4.1.

Daytime 07:00-19:00	Frequency Hz						
	63	125	250	500	1000	2000	4000
Spring Place elevation $L_{eq,10min}$	74.5	73.2	66.4	62.7	66	66.6	65.4
Spring Place elevation $L_{Fmax,10min}$	91.3	78.8	73	74	83.4	81	70.8
Rear elevation $L_{eq,10min}$	73.9	72	68.2	67.4	67.1	62.2	56
Rear elevation $L_{Fmax,10min}$	94.1	88.6	85.9	89.4	87	80.4	72.9

All values are sound pressure levels in dB re: $2x10^{-5}$Pa

Table 4.1: Rreference noise levels for use in façade sound insulation assessments

4.3 REQUIRED FAÇADE PERFORMANCE

4.3.1 Based on achieving the external noise intrusion limits in 4.1.3, the required sound insulation performance of the façades for the development have been established using the relevant reference noise levels in Table 4.1. Preliminary, minimum sound reduction indices are set down in Table 4.2.

	Frequency Hz						
	63	125	250	500	1000	2000	4000
Spring Place elevation	24	26	31	36	44	46	56
Elevations facing railway	27	29	36	42	50	50	62

All values are sound reduction indices, *R,* measured in accordance with BS EN ISO 10140-2

Table 4.2: Required façade sound reduction indices

4.3.2 The proposed façade constructions have not yet been finalised, however where large areas of curtain walling or glazing are proposed, the required sound insulation performance should be achievable with substantial double glazed units. To Spring Place this would typically require a glazing configuration such as 8mm laminate glass / 22mm cavity / 10mm glass. Upper floors on elevations facing the railway will require a glazing configuration such as 12mm laminate glass / 22mm cavity / 12mm laminate glass. Alternative glazing configurations may also be appropriate.

5 NOISE EMISSION

5.1 CRITERIA

5.1.1 The London Borough of Camden require noise emission to be controlled in line with the limits set down in Table E of Policy DP28 and presented in Table 2.2 of this report. For non-specific building services plant the noise emission should be controlled to 5dBA below the background noise level, however, if this plant noise includes some acoustic feature such as a distinctive tone or impulsive character, then the limit is made more onerous and reduced to 10dB below the underlying background noise level.

5.2 BUILDING SERVICES EQUIPMENT

5.2.1 The principal items of noise generating plant associated with the development will be VRF condensing units and kitchen, restaurant, toilet and office ventilation plant. Six VRF condesning units are to be located on the 5th floor roof in a compound on the Spring Place elevation of the building. A further unit is to be located in a compound at ground level to the north west of the site in conjunction with some ventilation plant. Other ventilation plant will be located internally but will have intakes and discharges at roof level. Details of the current plant proposals and locations are provided elsewhere in documents accompanying the planning application.

5.2.2 Specific plant selections have yet to be finalised, however, noise level data for the VRF condensing units currently proposed are set down in Table 5.1

PURY-EP550 YSLM-A Heat Pump	Frequency						dBA
	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	
Normal operation	71	67	63	57	51	45	65
Low noise operation	59	53	50	44	41	37	52

All values are sound pressure levels measured at 1m under anechoic conditions in dB re: $2x10^{-5}$Pa
Values relate to one unit operating at full duty.

Table 5.1: VRF condensing unit noise levels

5.2.3 The VRF condensing units are usually operated in the normal operating mode but can be used in the low noise mode if the demand on the plant reduces.

5.2.4 Ventilation plant selections serving the offices, kitchen and restaurant will be finalised in later design stages, however, it is proposed that this plant is all selected so that the noise emission at 1m from the air intakes, discharges and exposed ductwork or fan casings is limited to 50dBA at 1m. The kitchen extract fan will be limited to 60dBA at 1m.

5.3 BACKGROUND NOISE LEVELS

5.3.1. The London Borough of Camden do not specify a particular assessment duration for establishing background noise levels or the noise emission limit for building services equipment. The measurement data obtained from the survey was recorded in 10 minute samples as this provides a good balance between detail and quantity of data over a 48 hour measurement period. The methodology in BS 4142 : 1997, however, requires that a 5 minute assessment period be used at night and an hourly period be used during the daytime. In practice it is expected that the difference in noise level between these two sample periods at night is negligible and unlikely to be more than 1dB. During the daytime the lowest $L_{A90,10min}$ will be lower than the lowest $L_{A90,1hr}$ and so using this lower value in any assessment will give a more conservative estimate of the likely noise impact.

5.3.2 The lowest background noise levels, as reported in Table 3.2 are considered to be suitable for setting noise emission limits from the building services plant serving the development and the lowest of these has been taken as 41dB L_{A90}.

5.4 NOISE EMISSION LIMITS

5.4.1 The requirement on noise emission in Policy DP28, is a limit of 5dB below the the underlying background noise level. Based on the lowest measured background noise levels of 42dB L_{A90} during the daytime and 41dB L_{A90} overnight, noise emission limits have been determined and are set down in Table 5.2.

5.4.2 These limits assume that the proposed building services plant does not have any particular acoustic feature or distinctive character. The plant proposed and described in Section 5.2.1 is not considered to possess any acoustic features.

Time Period	Rear of properties in Grafton Road	Rear of properties at 7 Spring Lane
Daytime (07:00-23:00)	37 dB $L_{Aeq,1hr}$	37 dB $L_{Aeq,1hr}$
Night-time (23:00-07:00)	36 dB $L_{Aeq,5min}$	36 dB $L_{Aeq,5min}$

All values are sound pressure levels in dB re: $2x10^{-5}$Pa

Table 5.2: Noise emission limits for all building services plant operating simultaneously

5.5 NEAREST NOISE SENSITIVE NEIGHBOURS

5.5.1 The nearest noise sensitive façades to the proposed development site are considered to be the rear of the properties at 110-114 and 116 Grafton Road and 7 Spring Place. These properties have rear elevations which overlook the site. The VRF condensing unit and ventilation plant located at ground level to the north west of the site will be about 5m away from the nearest noise sensitive windows at 116 Grafton Road and 7 Spring Place.

5.5.2 For the roof top plant compound, the nearest noise sensitive facades are expected to be on the upper floors of the property at 110-114 Grafton Road on the opposite side of the railway from the compound. At its closest, this plant will be about 30m from these facades.

5.6 NOISE EMISSION LEVELS

5.6.1 When the six VRF condensing units located in the compound on the fifth floor roof are operating simultaneously at full duty, in conjunction with the ventilation plant at this level, the predicted noise level at the nearest noise sensitive façade is 33dBA. This takes account of the beneficial screening provided by the rest of the 5th floor accommodation.

5.6.2 The kitchen extract fan will not benefit from this additional screening but the predicted noise level from this at the nearest noise sensitive façade will be 34dBA.

5.6.3 The plant compound containting the single VRF unit and ventilation plant at ground level to the rear of the site is about 5m from the residential neighbours. The predicted noise level from this unit, when operating at full duty, in conjunction with the ventilation plant also located in this compound, if unattenuated is 51dBA at the residential facade.

5.6.4 When compared with the noise emission limits in Table 5.2 it can be seen that noise attenuation measures will be required to the ground floor compound to control the noise emission. These noise control measures will be in the form of attenuated louvres or similar at least 300mm deep and absorptive treatment within the compound which will together reduce the noise from the plant by at least 15dBA.

5.7 COMMENTARY

5.7.1 The noise emission limits determined at the residential facades are relatively onerous as a result of the quiet periods between train movements on the viaduct. Despite this, the noise from the VRF condensing units and ventilation plant located on the 5th floor roof which are about 30m away from the noise sensitive neighbours will be lower than the anticipated noise emission limits of London Borough of Camden.

5.7.2 In order to achieve the noise emission limits from the plant located at ground level, it will be necessary to provide attenuation in the form of acoustic louvres and absorptive treatments to control, in particular, the noise from the VRF condensing unit. The noise emission limits are then expected to be readily achieved.

6 VIBRATION

6.1 CRITERIA

6.1.1 The London Borough of Camden have advised maximum vibration levels which should not be exceeded at residential sites. These are set down in *Policy DP28 - Noise and Vibration* within the *Camden Development Policies, 2010-2025 Local Development Framework, and repeated in Table 6.1 below.*

Table C: Vibration levels on residential sites adjoining railways and roads at which planning permission will not be granted

Vibration description and location of measurement	Period	Time	Vibration levels
Vibration inside critical areas such as a hospital operating theatre	Day, evening and night	0000-2400	0.1 VDV ms-1.75
Vibration inside dwellings	Day and evening	0700-2300	0.2 to 0.4 VDV ms-1.75
Vibration inside dwellings	Night	2300-0700	0.13 VDV ms-1.75
Vibration inside offices	Day, evening and night	0000-2400	0.4 VDV ms-1.75
Vibration inside workshops	Day, evening and night	0000-2400	0.8 VDV ms-1.75

Table 6.1: Vibration standards advised by London Borough of Camden

6.1.2 The commercial office development proposed for 3-6 Spring Place is far less sensitive to vibration than a residential development and the standard advised by London Borough of Camden for offices in residential developments reflects this.

6.1.3 It is important to understand that the criterion of $0.4ms^{-1.75}$ VDV does not result in vibration being imperceptible. The VDV, or vibration dose value, considers the level and regularity of sources of intermittent vibration averaged over a particular period. Fewer vibration events with a greater magnitude may have a similar VDV to more vibration events with a lower magnitude.

6.1.4 The VDV can be used to consider the likelihood of disturbance from vibration and guidance in BS 6472- 1 : 2008 provides some direction on this. For example, a VDV of $0.4ms^{-1.75}$ may be quite acceptable in an office during the daytime but would give rise to adverse comment in a bedroom overnight.

6.2 COMMENTARY

6.2.1 Site visits have been made on a number of occasions to 3-6 Spring Place whilst Overground and freight trains were passing on the viaduct. No vibration was perceptible from these train passes either at ground level below or to the side of the viaduct, or at roof level of the existing building within a couple of meters of the tracks.

6.2.2 This is not surprising as any vibration energy generated by the trains will be transferred down through the viaduct with some attenuation before propagating in the ground. This is unlike railway tracks laid at grade which can induce high levels of vibration within the ground to either side of the tracks. Consequently, as the new development is not supported directly off the existing viaduct the levels of vibration from trains is expected to remain the same as for the current buildings on site.

6.2.3 Vibration levels are therefore expected to be sufficiently low in the new development that they will be generally imperceptible and would therefore be expected to be in line with the standards for offices in residential developments advised by the London Borough of Camden.

7 CONCLUSIONS

7.1 A noise impact assessment has been undertaken for the proposed co-worker office development at the vehicle servicing garage at 3-6 Spring Place. As part of this assessment a noise survey has been undertaken at two locations about the proposed development site. This information is essential for determining the levels of noise ingress into the development and the limits to noise emission.

7.2 Consideration has been given to available guidance from London Borough of Camden and other sources and appropriate criteria for noise intrusion established for the offices. It is highlighted that the development is not residential in nature and the objective external noise level limits advised within *Policy DP28 - Noise and Vibration* are not strictly applicable. The office is, however, to be designed in accordance with good practice and in line with standards set down in BS 8233 : 2014.

7.3 The required sound insulation performances for the various facades of the development have been established based on the findings of the survey. It is concluded that if these sound insulation performance specifications are achieved, noise intrusion into the development will be controlled to acceptable levels.

7.4 Noise emission from fixed building services equipment associated with the development has also been considered in line with guidance advised by London Borough of Camden. Noise emission limits have been set on the basis of the lowest measured background noise levels at the site. These limits are not to be exceeded at the nearest noise sensitive facades to the development. These have been identified as residential properties to the rear of the site.

7.5 Based on the current building services proposals the noise emission limits determined in the assessment have been shown to be achieved, thus satisfying the anticipated requirements of the London Borough of Camden.

7.6 Although the office is to be developed adjacent to a railway viaduct, the levels of vibration currently experienced at the site are imperceptible and this is accounted for by the fact the railway is on a viaduct and not at grade. It is therefore concluded that the levels of vibration within the development will be commensurate with the commercial office development and the criteria identified within Policy DP28 for offices within residential accommodation.

APPENDIX A - NOISE LEVEL DATA

A selection of the measured noise level data are presented in the tables in this appendix. The full set of data are available in electronic form on request.

All values are sound pressure levels in dB re $2x10^{-5}$Pa.

Time	L_{Amax}	L_{Aeq}	L_{A10}	L_{A90}	L_{Amin}
11:20 - 11:30	90.4	69.7	60.4	47.5	45.6
11:30 - 11:40	87.2	66.1	53.2	46.8	44.8
11:40 - 11:50	85.0	63.0	52.9	46.0	43.9
11:50 - 12:00	91.3	69.9	66.6	46.8	45.4
12:00 - 12:10	87.4	64.1	54.4	47.0	45.2
12:10 - 12:20	87.2	64.1	53.3	46.4	44.0
12:20 - 12:30	91.9	74.7	76.2	45.7	43.6
12:30 - 12:40	89.5	63.5	50.1	45.5	43.6
12:40 - 12:50	88.6	64.0	51.7	45.6	43.7
12:50 - 13:00	85.1	63.7	54.8	46.0	44.0
13:00 - 13:10	93.5	71.2	70.6	46.6	44.9
13:10 - 13:20	85.8	64.8	53.4	45.8	43.6
13:20 - 13:30	90.9	70.1	69.7	46.2	44.3
13:30 - 13:40	87.2	64.2	52.2	45.2	43.0
13:40 - 13:50	86.8	63.1	52.0	46.0	44.1
13:50 - 14:00	85.0	62.6	57.1	45.9	44.4
14:00 - 14:10	87.6	65.6	52.7	47.6	45.9
14:10 - 14:20	82.8	61.6	49.8	44.4	42.3
14:20 - 14:30	84.1	62.5	50.1	45.0	42.8
14:30 - 14:40	85.2	61.3	51.7	45.6	43.8
14:40 - 14:50	88.2	68.7	70.4	45.6	43.6
14:50 - 15:00	87.3	66.3	54.2	45.7	44.2
15:00 - 15:10	88.8	63.8	54.7	46.0	44.4
15:10 - 15:20	87.6	63.8	53.6	45.7	44.2
15:20 - 15:30	87.3	64.4	57.4	46.0	43.7
15:30 - 15:40	86.0	64.3	57.4	45.7	43.7
15:40 - 15:50	84.9	64.9	67.0	46.2	44.6
15:50 - 16:00	94.7	74.3	71.5	46.2	44.4
16:00 - 16:10	87.0	64.6	53.3	46.1	44.3
16:10 - 16:20	87.0	64.3	55.1	47.4	44.8
16:20 - 16:30	87.3	67.0	56.8	45.8	43.9
16:30 - 16:40	87.4	63.9	52.8	45.7	43.7
16:40 - 16:50	86.4	65.4	55.2	46.2	44.4
16:50 - 17:00	85.7	63.5	56.8	45.8	42.5
17:00 - 17:10	79.5	60.8	51.1	43.7	41.9
17:10 - 17:20	85.2	64.5	51.6	44.0	42.4
17:20 - 17:30	86.4	64.3	51.8	44.0	42.0
17:30 - 17:40	84.5	62.4	54.6	44.1	41.2
17:40 - 17:50	85.3	64.9	54.8	44.7	42.6
17:50 - 18:00	86.9	64.1	55.0	45.2	42.3
18:00 - 18:10	84.7	63.2	51.5	43.5	41.3
18:10 - 18:20	87.4	66.3	55.1	44.8	42.3
18:20 - 18:30	85.5	62.6	52.7	43.5	40.6
18:30 - 18:40	87.1	63.4	54.2	44.9	43.4
18:40 - 18:50	87.8	66.0	51.6	43.5	42.0
18:50 –19:00	86.5	65.1	55.1	45.1	43.2
19:00 - 19:10	92.2	69.7	67.4	44.7	43.0
19:10 - 19:20	86.9	63.4	54.0	45.0	43.3
19:20 - 19:30	84.9	64.9	54.0	45.5	43.8
19:30 - 19:40	84.8	62.9	51.8	45.2	43.3
19:40 - 19:50	87.3	62.6	52.7	44.2	42.7
19:50 - 20:00	83.4	62.5	50.7	44.0	42.5
20:00 - 20:10	81.7	57.4	51.6	43.5	41.9
20:10 - 20:20	86.0	65.3	52.4	43.4	41.9
20:20 - 20:30	86.1	63.6	56.1	45.1	43.4
20:30 - 20:40	88.1	64.1	50.5	43.4	41.5
20:40 - 20:50	82.6	64.9	69.4	43.8	41.6
20:50 - 21:00	84.1	62.8	50.0	43.6	41.8
21:00 - 21:10	86.8	62.5	49.1	43.0	41.4
21:10 - 21:20	94.1	72.2	70.7	43.2	41.5
21:20 - 21:30	86.7	63.6	49.7	43.7	42.1
21:30 - 21:40	85.6	63.1	55.2	44.0	42.4
21:40 - 21:50	80.7	60.5	59.1	43.8	42.2
21:50 - 22:00	86.2	63.0	49.0	43.8	42.4
22:00 - 22:10	81.5	58.5	52.4	43.6	41.6
22:10 - 22:20	80.0	57.6	51.2	43.8	41.7
22:20 - 22:30	85.5	65.1	52.1	43.2	42.1
22:30 - 22:40	85.1	61.0	46.3	43.2	41.9
22:40 - 22:50	79.2	57.1	46.7	42.7	41.4
22:50 - 23:00	85.3	61.3	49.1	42.4	40.8
23:00 - 23:10	87.5	69.8	62.3	43.1	41.7
23:10 - 23:20	82.1	58.0	45.9	42.5	41.0
23:20 - 23:30	84.4	61.1	45.4	42.4	41.4
23:30 - 23:40	86.6	63.2	46.7	42.5	41.5
23:40 - 23:50	81.6	57.0	44.8	42.4	41.4
23:50 - 00:00	85.9	66.4	61.9	42.1	40.5

Time	L_{Amax}	L_{Aeq}	L_{A10}	L_{A90}	L_{Amin}
00:00 - 00:10	87.3	65.5	56.4	42.2	41.1
00:10 - 00:20	86.8	67.9	71.0	42.3	40.1
00:20 - 00:30	49.4	43.7	44.8	42.4	41.2
00:30 - 00:40	64.5	46.7	47.1	42.4	41.3
00:40 - 00:50	51.2	43.1	44.1	42.0	40.7
00:50 - 01:00	50.7	42.7	43.7	41.7	40.3
01:00 - 01:10	51.1	43.5	44.5	41.9	40.7
01:10 - 01:20	49.5	42.4	43.4	41.4	40.1
01:20 - 01:30	49.2	42.6	43.6	41.6	40.1
01:30 - 01:40	63.2	43.5	44.2	41.8	40.4
01:40 - 01:50	55.5	45.0	46.6	41.8	40.6
01:50 - 02:00	53.3	42.5	43.3	41.6	40.6
02:00 - 02:10	55.9	43.3	44.2	41.7	40.2
02:10 - 02:20	58.6	43.1	43.8	41.9	39.9
02:20 - 02:30	50.8	42.6	43.5	41.5	40.0
02:30 - 02:40	58.5	44.5	45.7	41.7	40.6
02:40 - 02:50	57.5	42.4	43.5	41.2	40.0
02:50 - 03:00	47.7	42.2	43.3	41.2	40.2
03:00 - 03:10	45.8	42.0	43.2	41.0	40.0
03:10 - 03:20	54.2	42.5	43.9	40.8	39.7
03:20 - 03:30	52.8	42.8	44.0	41.4	39.8
03:30 - 03:40	48.5	42.2	43.2	41.0	40.0
03:40 - 03:50	57.8	42.4	43.4	41.1	39.8
03:50 - 04:00	49.8	42.7	43.7	41.5	40.4
04:00 - 04:10	58.6	43.4	44.4	42.0	40.2
04:10 - 04:20	54.9	43.3	44.2	41.8	40.5
04:20 - 04:30	54.2	43.1	44.5	41.2	40.1
04:30 - 04:40	57.0	43.2	43.9	41.8	40.4
04:40 - 04:50	58.9	43.7	44.6	41.1	39.8
04:50 - 05:00	82.7	60.3	50.0	41.7	40.5
05:00 - 05:10	61.6	48.1	49.4	45.6	44.1
05:10 - 05:20	63.3	48.9	52.0	44.8	42.6
05:20 - 05:30	86.9	61.8	63.8	43.1	41.5
05:30 - 05:40	69.8	52.2	49.8	42.2	40.8
05:40 - 05:50	78.3	56.2	46.7	42.2	40.5
05:50 –06:00	65.7	49.4	51.0	43.7	41.1
06:00 - 06:10	62.3	48.1	51.2	43.0	41.6
06:10 - 06:20	81.2	61.7	56.2	44.5	41.2
06:20 - 06:30	87.6	64.8	56.3	44.5	42.2
06:30 - 06:40	84.2	61.2	51.9	44.8	42.4
06:40 - 06:50	86.7	66.0	54.8	43.6	40.8
06:50 - 07:00	93.1	71.3	69.2	44.3	42.2
07:00 - 07:10	85.5	63.3	56.0	45.9	43.5
07:10 - 07:20	84.3	62.9	53.5	44.7	43.0
07:20 - 07:30	86.1	64.9	52.5	43.7	42.3
07:30 - 07:40	85.6	63.5	54.5	44.8	42.6
07:40 - 07:50	87.4	64.2	53.4	47.4	44.2
07:50 - 08:00	87.0	65.9	57.1	47.7	44.5
08:00 - 08:10	84.2	62.1	52.2	45.4	43.2
08:10 - 08:20	86.2	64.4	54.4	48.1	43.9
08:20 - 08:30	82.5	62.9	57.2	49.6	48.4
08:30 - 08:40	84.4	64.8	59.0	49.5	48.0
08:40 - 08:50	84.1	62.2	54.8	49.3	47.6
08:50 - 09:00	87.2	65.8	56.5	47.5	45.4
09:00 - 09:10	84.9	63.7	60.4	47.0	44.4
09:10 - 09:20	87.6	66.0	56.2	47.8	45.9
09:20 - 09:30	97.5	73.2	69.2	46.4	44.8
09:30 - 09:40	84.5	62.0	54.9	47.6	45.7
09:40 - 09:50	85.3	65.2	58.7	48.6	45.8
09:50 - 10:00	86.7	63.7	53.5	50.4	49.1
10:00 - 10:10	84.5	62.9	55.6	47.2	44.8
10:10 - 10:20	87.3	66.3	55.2	46.5	44.4
10:20 - 10:30	83.9	61.6	54.4	47.3	45.3
10:30 - 10:40	89.8	68.7	65.7	46.0	44.4
10:40 - 10:50	85.5	63.6	54.7	46.8	45.3
10:50 - 11:00	88.9	67.6	68.3	49.2	47.2
11:00 - 11:10	85.3	65.4	57.5	47.0	45.1
11:10 - 11:20	85.1	62.8	52.6	46.2	44.3
11:20 - 11:30	98.7	74.4	74.6	47.0	45.1
11:30 - 11:40	86.9	63.9	51.0	45.2	43.5
11:40 - 11:50	87.9	63.7	53.2	47.0	45.4
11:50 - 12:00	90.0	69.4	68.8	48.2	46.2

Table A1: Location 1, Statistical data, 9-10 August 2016

Time	L_{Amax}	L_{Aeq}	L_{A10}	L_{A90}	L_{Amin}
12:00 - 12:10	85.7	63.0	52.0	46.6	44.4
12:10 - 12:20	84.5	62.4	51.4	45.8	44.3
12:20 - 12:30	95.3	75.5	77.3	45.7	44.1
12:30 - 12:40	86.1	63.8	54.1	45.7	44.4
12:40 - 12:50	87.8	63.9	53.5	46.6	44.5
12:50 - 13:00	85.5	63.5	57.2	46.2	44.3
13:00 - 13:10	92.0	70.0	71.3	45.8	44.2
13:10 - 13:20	85.3	64.6	55.1	45.5	43.9
13:20 - 13:30	88.6	63.5	51.1	45.1	43.3
13:30 - 13:40	84.8	62.6	51.5	44.8	42.9
13:40 - 13:50	88.9	63.5	56.3	45.4	43.5
13:50 - 14:00	86.5	63.1	54.3	46.7	44.7
14:00 - 14:10	86.9	64.1	54.7	47.0	44.9
14:10 - 14:20	87.4	64.0	55.5	46.6	44.8
14:20 - 14:30	98.5	77.5	63.5	47.4	46.2
14:30 - 14:40	85.8	62.9	54.9	45.8	44.0
14:40 - 14:50	81.7	59.1	53.4	45.9	44.4
14:50 - 15:00	86.0	65.1	55.7	45.6	44.0
15:00 - 15:10	102.5	78.4	69.8	45.6	43.7
15:10 - 15:20	89.0	70.1	75.4	46.4	44.2
15:20 - 15:30	85.8	63.3	55.3	46.2	43.4
15:30 - 15:40	79.1	60.6	56.7	46.8	44.6
15:40 - 15:50	85.2	66.6	70.1	46.8	44.8
15:50 - 16:00	97.6	76.5	68.1	46.3	44.0
16:00 - 16:10	89.1	65.8	53.7	45.0	43.0
16:10 - 16:20	86.7	64.0	54.8	45.4	43.5
16:20 - 16:30	87.0	66.0	56.6	44.6	42.6
16:30 - 16:40	87.4	63.8	53.0	44.8	42.5
16:40 - 16:50	88.5	66.7	56.8	46.2	44.3
16:50 - 17:00	85.2	64.0	58.3	47.1	44.2
17:00 - 17:10	87.7	64.1	58.0	45.4	42.6
17:10 - 17:20	86.6	65.4	55.1	44.7	42.7
17:20 - 17:30	85.2	63.9	54.5	43.6	41.2
17:30 - 17:40	85.8	62.7	56.0	44.2	42.1
17:40 - 17:50	86.5	65.7	54.8	44.8	42.3
17:50 - 18:00	85.5	64.0	57.5	45.1	41.3
18:00 - 18:10	84.6	61.7	52.7	42.7	41.1
18:10 - 18:20	87.1	62.2	54.1	43.9	42.1
18:20 - 18:30	88.3	66.0	54.2	42.5	40.7
18:30 - 18:40	87.2	63.5	55.0	43.7	41.6
18:40 - 18:50	86.4	66.0	51.9	43.7	41.9
18:50 –19:00	76.4	57.0	52.9	42.3	40.5
19:00 - 19:10	92.7	71.2	71.4	43.8	42.0
19:10 - 19:20	85.4	64.4	54.5	43.2	40.8
19:20 - 19:30	84.3	64.0	58.1	43.5	41.1
19:30 - 19:40	84.2	62.8	55.5	43.6	41.6
19:40 - 19:50	82.3	61.1	53.9	43.4	41.9
19:50 - 20:00	83.7	61.4	53.7	43.5	41.6
20:00 - 20:10	85.4	62.3	55.1	41.8	40.0
20:10 - 20:20	78.6	56.7	49.2	42.3	40.7
20:20 - 20:30	83.4	60.9	53.0	42.0	40.3
20:30 - 20:40	86.7	65.1	53.7	42.3	40.8
20:40 - 20:50	83.5	64.0	62.7	43.3	40.5
20:50 - 21:00	85.0	66.2	61.5	44.7	42.0
21:00 - 21:10	85.1	61.7	53.5	43.4	40.9
21:10 - 21:20	94.8	71.9	65.4	44.4	42.4
21:20 - 21:30	85.1	62.7	53.9	44.5	42.8
21:30 - 21:40	87.3	64.1	52.2	44.0	42.3
21:40 - 21:50	79.7	56.5	48.8	42.0	40.2
21:50 - 22:00	86.7	63.1	47.0	42.1	40.7
22:00 - 22:10	82.5	58.8	47.5	42.4	40.6
22:10 - 22:20	76.3	54.7	49.2	42.7	41.0
22:20 - 22:30	86.1	62.5	54.5	43.3	41.0
22:30 - 22:40	85.3	60.7	48.8	42.7	40.9
22:40 - 22:50	75.2	54.9	48.0	41.3	40.1
22:50 - 23:00	85.7	63.8	49.7	42.6	41.1
23:00 - 23:10	84.1	62.2	45.9	42.4	41.2
23:10 - 23:20	83.2	58.8	44.1	41.7	40.4
23:20 - 23:30	91.4	70.6	62.6	42.2	40.7
23:30 - 23:40	86.9	63.5	45.8	42.2	41.1
23:40 - 23:50	76.7	55.8	47.3	41.6	40.2
23:50 - 00:00	81.1	62.6	63.0	42.1	40.8

Time	L_{Amax}	L_{Aeq}	L_{A10}	L_{A90}	L_{Amin}
00:00 - 00:10	95.8	71.1	60.5	42.1	40.5
00:10 - 00:20	89.7	65.5	65.3	41.0	39.7
00:20 - 00:30	86.3	63.2	60.0	41.3	39.8
00:30 - 00:40	49.8	42.2	43.0	41.3	40.3
00:40 - 00:50	93.7	68.9	53.1	41.1	39.8
00:50 - 01:00	51.6	41.6	42.4	40.5	39.0
01:00 - 01:10	46.0	41.4	42.1	40.5	39.2
01:10 - 01:20	58.5	44.2	45.3	41.2	39.8
01:20 - 01:30	50.8	42.8	44.3	41.1	39.8
01:30 - 01:40	44.9	41.2	42.0	40.3	39.2
01:40 - 01:50	61.8	44.2	43.7	40.8	39.7
01:50 - 02:00	58.4	41.6	42.3	40.2	38.7
02:00 - 02:10	47.2	41.4	42.5	40.1	38.8
02:10 - 02:20	50.8	41.7	42.7	40.5	39.3
02:20 - 02:30	53.1	42.2	43.5	40.5	39.4
02:30 - 02:40	52.0	42.2	43.6	40.7	39.2
02:40 - 02:50	51.8	41.7	43.1	40.1	38.3
02:50 - 03:00	52.5	41.1	41.8	40.2	39.1
03:00 - 03:10	50.7	41.2	42.0	40.0	39.0
03:10 - 03:20	44.0	41.4	42.3	40.4	38.9
03:20 - 03:30	54.2	41.8	42.6	40.7	38.8
03:30 - 03:40	51.5	41.7	42.7	40.7	39.5
03:40 - 03:50	48.3	41.5	42.2	40.6	39.2
03:50 - 04:00	57.5	43.0	43.9	40.8	39.4
04:00 - 04:10	56.1	43.7	45.8	41.2	39.8
04:10 - 04:20	54.8	42.8	43.9	41.2	39.5
04:20 - 04:30	56.7	43.4	44.0	40.9	39.6
04:30 - 04:40	60.7	43.5	43.2	40.8	39.4
04:40 - 04:50	60.3	42.2	42.6	40.5	38.8
04:50 - 05:00	89.4	65.6	45.9	40.9	39.4
05:00 - 05:10	74.4	51.6	50.4	44.7	42.3
05:10 - 05:20	81.2	58.1	50.1	44.2	42.3
05:20 - 05:30	64.7	49.1	52.4	42.5	39.9
05:30 - 05:40	60.6	44.7	46.5	41.4	39.8
05:40 - 05:50	79.8	57.5	46.5	41.9	40.3
05:50 –06:00	65.4	50.3	53.6	42.8	41.2
06:00 - 06:10	79.0	57.3	56.4	43.5	41.9
06:10 - 06:20	85.6	62.8	52.7	43.2	41.1
06:20 - 06:30	87.3	64.5	54.2	44.0	41.7
06:30 - 06:40	83.3	60.5	53.9	43.7	42.2
06:40 - 06:50	85.3	65.0	53.4	44.4	42.4
06:50 - 07:00	98.5	74.7	68.7	46.2	44.6
07:00 - 07:10	85.4	62.4	54.9	45.8	43.2
07:10 - 07:20	82.0	61.8	55.8	46.5	45.5
07:20 - 07:30	85.6	63.3	53.1	45.8	44.1
07:30 - 07:40	85.1	63.5	58.2	44.8	42.7
07:40 - 07:50	85.4	63.8	52.6	45.8	42.0
07:50 - 08:00	86.5	66.5	55.9	45.2	43.5
08:00 - 08:10	82.6	60.8	54.2	45.4	43.1
08:10 - 08:20	85.1	62.3	52.3	44.9	42.9
08:20 - 08:30	85.6	65.2	55.8	45.5	43.6
08:30 - 08:40	81.7	60.5	51.4	45.0	43.6
08:40 - 08:50	87.5	63.8	55.0	45.4	43.6
08:50 - 09:00	86.8	63.1	55.6	45.5	44.0
09:00 - 09:10	92.5	70.8	66.4	47.2	45.4
09:10 - 09:20	83.7	62.3	51.2	46.1	44.7
09:20 - 09:30	90.7	69.0	65.3	46.0	44.6
09:30 - 09:40	83.7	63.2	61.8	46.5	44.0
09:40 - 09:50	87.3	65.6	58.7	47.7	45.7
09:50 - 10:00	87.8	64.5	54.4	46.9	45.0
10:00 - 10:10	83.3	62.2	52.7	46.7	45.0
10:10 - 10:20	85.2	65.2	51.3	46.4	44.1
10:20 - 10:30	88.0	63.5	51.7	45.1	43.5
10:30 - 10:40	92.6	71.3	65.5	44.9	43.2
10:40 - 10:50	86.7	63.4	51.7	45.7	43.9
10:50 - 11:00	74.0	57.4	53.9	45.6	44.1

Table A2: Location 1, Statistical data, 10-11 August 2016

Time	L_{Amax}	L_{Aeq}	L_{A10}	L_{A90}	L_{Amin}
11:15 - 11:20	74.9	61.4	63.6	58.2	57.6
11:20 - 11:25	76.8	60.7	61.0	58.5	57.7
11:25 - 11:30	76.3	60.7	62.5	58.2	57.2
11:30 - 11:35	75.1	63.4	67.1	58.5	57.8
11:35 - 11:40	83.7	63.0	65.6	58.4	57.0
11:40 - 11:45	72.2	59.3	62.3	50.5	47.5
11:45 - 11:50	72.6	56.0	58.7	49.8	47.3
11:50 - 11:55	87.0	61.7	63.1	51.3	47.8
11:55 - 12:00	86.8	66.5	68.9	52.5	49.4
12:00 - 12:05	80.2	61.4	64.9	50.0	48.3
12:05 - 12:10	79.9	60.5	63.2	51.3	49.4
12:10 - 12:15	79.6	62.7	65.0	50.7	49.0
12:15 - 12:20	85.1	62.3	65.1	51.0	48.7
12:20 - 12:25	86.2	63.8	64.8	52.5	49.1
12:25 - 12:30	93.1	72.4	74.2	54.7	49.3
12:30 - 12:35	84.3	65.6	69.7	51.7	48.8
12:35 - 12:40	76.5	61.8	65.5	52.3	49.0
12:40 - 12:45	75.1	62.0	66.4	48.9	46.5
12:45 - 12:50	76.2	62.4	66.4	49.0	47.1
12:50 - 12:55	84.4	65.2	65.7	52.1	48.1

Table A3: Location 2, Statistical data, 11 August 2016

	Frequency Hz								Frequency Hz							
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
11:20 - 11:30	67.1	63.0	65.3	66.4	64.1	59.3	63.6	54.2	85.1	80.8	81.8	85.0	85.1	77.6	88.9	78.8
11:30 - 11:40	61.2	59.0	60.0	62.8	60.2	53.1	56.6	61.3	82.4	79.8	81.6	86.7	83.6	74.0	80.6	85.9
11:40 - 11:50	60.8	59.1	58.4	61.3	59.5	51.5	46.0	44.1	79.8	78.7	78.8	83.3	82.5	73.3	69.1	69.6
11:50 - 12:00	73.0	71.3	68.4	67.8	66.0	59.8	54.7	46.2	92.2	95.0	91.0	87.1	88.6	82.1	75.4	68.9
12:00 - 12:10	62.6	61.0	60.4	62.7	60.6	52.8	47.3	38.3	82.6	80.5	81.5	85.7	84.9	76.0	69.4	59.9
12:10 - 12:20	62.8	59.6	59.4	62.8	60.4	53.0	48.4	40.3	82.8	80.7	81.7	86.1	84.4	75.0	69.3	64.0
12:20 - 12:30	68.7	69.6	70.4	66.7	65.4	65.0	67.3	71.5	82.7	83.0	84.9	86.3	83.6	83.4	87.2	92.5
12:30 - 12:40	60.6	57.9	58.1	62.3	59.4	50.9	46.2	47.6	79.2	77.9	79.6	89.0	84.8	75.7	69.5	73.6
12:40 - 12:50	61.5	58.6	59.6	62.5	60.6	52.7	46.8	37.7	81.2	78.3	81.7	87.0	85.7	75.5	68.4	59.4
12:50 - 13:00	72.1	63.7	62.5	60.9	59.7	54.2	49.5	40.8	96.8	86.1	86.6	80.5	83.1	74.8	69.5	62.2
13:00 - 13:10	72.0	71.0	70.9	69.0	66.2	62.5	58.0	54.5	93.4	93.0	91.0	89.9	89.8	86.0	79.7	74.9
13:10 - 13:20	62.6	60.6	61.8	63.3	60.7	52.9	51.1	51.6	82.5	78.8	81.9	83.6	83.8	71.6	74.5	79.1
13:20 - 13:30	68.3	65.2	62.9	62.9	59.9	57.5	67.5	55.8	84.6	80.0	80.8	81.9	82.7	79.2	89.9	79.5
13:30 - 13:40	62.6	59.8	60.4	62.4	61.0	52.9	49.2	44.9	81.2	80.5	82.3	85.8	85.0	74.6	70.9	68.1
13:40 - 13:50	61.9	59.1	59.0	61.3	59.9	52.0	48.1	45.3	81.7	79.1	81.8	83.5	85.2	73.7	70.4	70.4
13:50 - 14:00	62.2	59.0	59.9	61.2	58.5	51.5	46.6	38.0	82.7	79.3	82.6	83.5	81.9	71.8	67.1	61.6
14:00 - 14:10	62.2	59.4	59.7	63.0	60.5	53.1	55.5	59.1	82.5	80.2	82.1	86.7	84.4	74.3	78.7	84.1
14:10 - 14:20	60.6	58.4	57.5	59.7	56.9	50.5	49.8	51.5	79.8	77.8	79.0	80.8	80.7	70.7	73.2	76.0
14:20 - 14:30	61.7	59.7	59.8	61.5	58.2	51.3	46.6	41.5	82.5	81.1	82.1	83.2	81.5	72.0	68.2	67.6
14:30 - 14:40	61.6	58.9	59.6	60.1	56.9	49.6	45.6	40.0	82.4	80.3	81.7	83.7	82.2	71.4	69.0	66.2
14:40 - 14:50	69.2	67.1	67.7	66.5	63.9	60.1	55.3	50.0	91.0	86.7	88.0	85.0	85.9	78.4	74.5	75.4
14:50 - 15:00	63.7	61.9	61.8	64.9	62.7	54.9	50.9	47.6	84.0	82.1	82.3	86.0	84.3	75.5	71.0	69.8
15:00 - 15:10	62.1	60.2	58.9	61.3	58.4	53.2	54.4	54.3	79.7	79.5	79.4	87.5	84.0	74.7	78.3	78.1
15:10 - 15:20	60.8	59.0	59.1	62.2	60.2	52.8	49.2	46.1	81.3	79.6	81.7	86.3	84.8	75.2	70.6	69.6
15:20 - 15:30	62.0	59.4	59.9	62.6	60.9	52.8	50.9	50.4	81.5	79.5	82.2	85.2	84.8	74.4	75.9	77.8
15:30 - 15:40	62.5	59.7	59.4	62.5	60.6	53.5	50.4	49.5	80.6	79.8	81.4	83.6	83.7	71.8	71.5	73.0
15:40 - 15:50	68.3	65.4	62.5	62.3	60.2	55.2	54.0	52.3	83.8	80.4	81.7	82.5	81.8	75.7	79.5	80.5
15:50 - 16:00	68.2	67.6	67.9	66.8	65.1	63.8	70.8	65.2	84.6	81.3	82.5	85.4	85.3	82.6	93.1	87.0
16:00 - 16:10	62.4	60.1	60.1	63.3	61.0	53.4	48.4	43.0	81.6	80.1	82.0	85.7	84.2	73.9	68.7	66.9
16:10 - 16:20	61.9	59.3	59.1	62.3	60.7	53.2	49.8	50.2	81.4	80.8	80.9	85.4	84.4	73.3	72.1	72.8
16:20 - 16:30	63.9	61.3	62.2	65.3	62.7	55.4	54.2	56.2	82.5	79.2	82.0	85.6	84.8	74.4	76.2	80.3
16:30 - 16:40	61.6	59.2	59.2	62.2	60.4	52.0	49.4	49.6	81.2	80.5	81.3	85.2	85.0	74.3	72.2	73.0
16:40 - 16:50	63.4	61.4	61.5	63.8	61.1	54.0	51.3	52.3	84.1	81.3	81.9	83.9	83.4	74.2	75.6	77.1
16:50 - 17:00	63.7	61.4	60.7	61.5	59.3	54.0	49.6	47.6	82.5	80.1	81.5	83.7	82.9	74.2	70.5	70.3
17:00 - 17:10	60.8	59.1	59.5	59.0	56.1	51.7	45.6	35.5	78.5	78.2	82.9	80.3	76.9	70.4	64.3	54.0
17:10 - 17:20	63.4	61.4	62.0	63.2	60.1	53.8	50.8	47.4	82.3	80.5	82.5	84.2	83.2	74.0	70.7	69.5
17:20 - 17:30	61.6	59.5	59.2	62.7	59.1	53.0	52.1	53.8	79.7	78.2	79.1	84.2	82.2	76.2	75.5	76.8
17:30 - 17:40	61.7	59.7	59.9	61.2	58.0	51.1	48.2	45.7	82.0	79.6	82.2	82.9	81.7	71.4	70.1	68.9
17:40 - 17:50	65.0	61.3	60.8	63.3	60.6	53.7	50.1	53.0	80.7	80.3	81.7	84.0	83.0	73.5	74.0	82.6
17:50 - 18:00	62.6	60.8	61.1	62.7	59.2	53.0	51.9	51.2	81.3	79.3	82.4	85.3	84.0	73.3	73.9	74.5
18:00 - 18:10	60.4	58.5	59.1	61.0	58.7	51.8	52.7	54.2	80.9	79.5	82.0	82.2	82.4	73.3	76.9	78.3
18:10 - 18:20	62.7	61.5	62.4	64.3	62.4	55.3	53.3	54.7	81.5	79.7	82.7	86.0	84.9	73.9	76.7	79.2
18:20 - 18:30	61.0	59.3	59.5	61.0	58.5	52.6	48.6	46.3	80.5	80.9	82.0	84.8	82.2	72.9	72.6	72.7
18:30 - 18:40	62.0	59.7	59.6	61.4	59.6	53.4	49.7	47.9	80.7	79.2	81.7	85.6	84.7	73.6	70.6	70.7
18:40 - 18:50	62.9	61.1	61.8	64.6	62.4	54.6	50.6	47.8	81.2	81.0	82.1	86.4	84.7	74.7	71.0	72.0
18:50 –19:00	61.3	59.6	59.8	63.1	59.7	53.2	54.1	57.5	80.1	79.2	80.8	84.8	83.9	73.5	78.2	80.8
19:00 - 19:10	73.4	73.9	68.0	65.7	65.4	62.0	55.1	48.3	95.3	96.9	89.6	88.3	89.1	85.1	77.4	70.2
19:10 - 19:20	61.1	59.7	59.4	62.3	59.4	52.3	47.3	38.7	81.3	81.1	82.1	85.5	83.6	75.2	69.0	61.4
19:20 - 19:30	63.2	61.3	62.3	64.0	60.3	53.7	49.5	42.1	81.8	80.0	82.6	83.7	81.4	72.6	69.5	63.5
19:30 - 19:40	60.7	58.5	59.0	61.6	58.5	52.1	49.0	48.1	81.2	79.1	81.6	83.5	82.2	73.0	75.1	78.3
19:40 - 19:50	59.9	58.7	57.8	60.1	57.4	50.6	52.6	54.8	78.6	79.3	79.4	85.0	83.5	73.8	76.1	79.1
19:50 - 20:00	61.5	59.4	60.3	61.1	57.7	51.5	48.1	44.7	82.3	81.1	82.5	81.8	80.7	70.6	73.7	74.2
20:00 - 20:10	55.0	53.0	52.7	57.2	51.5	47.2	41.2	32.5	73.7	72.2	73.1	83.0	73.0	68.7	62.2	53.2
20:10 - 20:20	61.9	60.4	61.3	63.7	61.7	54.2	50.6	49.1	79.7	79.5	81.6	83.9	83.8	72.7	72.7	73.7
20:20 - 20:30	62.1	59.9	59.8	62.1	60.0	52.4	48.0	44.6	80.3	80.0	82.9	84.2	83.8	72.7	70.5	71.8
20:30 - 20:40	59.1	57.7	58.4	61.6	59.0	51.2	53.8	57.0	79.2	78.4	81.1	87.1	84.4	72.0	78.1	81.8
20:40 - 20:50	64.9	64.1	63.6	62.3	59.0	57.9	52.6	42.9	80.2	80.0	82.6	81.2	79.0	79.9	74.1	63.5
20:50 - 21:00	60.2	58.4	59.1	61.5	58.8	52.1	47.0	40.8	79.5	79.8	81.3	83.3	81.9	72.4	68.2	67.7
21:00 - 21:10	58.2	57.0	58.2	60.9	59.4	50.3	47.0	43.6	79.8	80.1	81.6	84.9	84.7	72.8	69.6	69.3
21:10 - 21:20	73.0	72.4	69.0	66.0	69.3	64.0	59.1	54.6	96.3	93.4	92.3	89.4	92.8	85.8	81.3	78.3
21:20 - 21:30	60.5	58.8	59.2	62.3	60.0	52.7	48.3	40.6	83.0	80.5	83.3	85.9	84.2	74.3	69.6	66.2
21:30 - 21:40	64.4	62.9	61.4	61.2	58.7	52.7	50.0	44.1	85.1	85.6	82.3	84.3	82.5	72.0	70.7	67.5
21:40 - 21:50	61.8	59.9	60.2	58.5	55.4	52.1	47.2	35.8	82.1	78.2	82.2	79.2	76.9	71.2	67.0	56.6
21:50 - 22:00	60.2	58.5	59.2	61.7	59.0	52.6	47.8	40.8	81.6	80.3	83.3	85.1	83.1	74.1	69.2	65.3
22:00 - 22:10	57.9	56.7	57.8	56.7	53.4	46.8	47.3	47.1	78.3	77.6	79.4	79.0	77.7	68.6	72.1	70.7
22:10 - 22:20	57.0	54.3	52.7	57.0	52.2	47.8	41.7	33.3	77.3	76.0	74.2	80.8	73.1	69.6	62.8	54.4
22:20 - 22:30	69.2	62.9	64.1	62.8	60.5	55.7	52.7	49.2	91.7	83.5	85.1	83.3	82.9	76.9	76.1	72.4
22:30 - 22:40	58.0	56.6	57.7	59.2	57.8	49.6	46.1	44.0	79.5	78.3	80.9	82.6	82.8	75.5	70.6	71.2
22:40 - 22:50	57.8	53.3	51.8	56.2	52.1	47.9	41.8	32.9	77.9	74.5	73.4	80.2	74.5	70.5	62.4	54.0
22:50 - 23:00	59.2	57.8	59.0	58.5	55.2	51.1	53.1	49.7	79.1	78.8	82.3	81.7	79.4	73.2	79.7	75.6
23:00 - 23:10	67.2	73.5	67.1	65.3	65.7	61.7	59.4	55.7	81.8	88.9	83.6	85.7	85.2	76.8	80.1	80.9
23:10 - 23:20	58.3	53.7	51.9	57.1	53.4	47.5	41.5	33.0	79.3	76.3	73.7	81.1	78.1	69.9	62.7	54.3
23:20 - 23:30	58.5	56.6	58.9	60.1	56.6	49.3	45.3	40.8	79.7	78.4	82.0	83.6	80.8	70.8	67.6	66.5
23:30 - 23:40	60.1	58.3	59.2	61.8	59.7	52.5	47.7	40.0	80.7	80.2	83.4	85.1	84.4	75.1	69.2	64.5
23:40 - 23:50	55.7	52.2	51.1	56.7	51.3	46.8	41.6	32.4	74.5	73.3	73.6	83.0	73.8	68.2	62.4	54.7
23:50 - 00:00	72.6	67.6	64.0	62.0	62.0	59.0	55.3	51.1	92.7	87.6	84.4	82.2	82.4	79.4	78.8	78.5

Table A4: Location 1, Statistical data, 9 August 2016

	Frequency Hz								Frequency Hz							
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
00:00 - 00:10	70.2	66.6	61.8	63.6	60.6	56.7	53.0	43.4	87.4	83.1	84.1	86.2	84.0	74.7	71.7	71.6
00:10 - 00:20	76.7	72.5	68.0	65.6	61.8	58.3	56.2	50.3	99.3	90.5	86.4	84.6	83.0	78.7	78.3	74.5
00:20 - 00:30	53.0	46.0	43.5	41.5	39.3	34.0	25.2	17.2	68.7	55.4	48.5	46.6	46.0	42.9	39.9	33.2
00:30 - 00:40	53.2	47.8	46.5	45.7	42.1	35.1	25.3	16.9	65.6	60.2	61.6	64.2	61.5	49.9	35.7	23.9
00:40 - 00:50	51.6	45.3	43.0	41.1	38.4	33.6	25.4	17.0	65.5	54.3	48.6	47.5	47.6	45.5	38.1	32.7
00:50 - 01:00	51.3	45.1	42.6	40.9	38.0	33.5	24.4	16.8	60.7	50.2	48.9	45.5	46.3	49.0	34.4	25.7
01:00 - 01:10	50.9	45.5	43.0	41.3	39.3	33.8	25.2	16.7	65.8	56.4	50.1	47.8	49.7	44.6	37.0	25.4
01:10 - 01:20	50.2	44.9	42.4	40.6	37.9	32.5	24.6	17.0	63.0	52.5	51.3	50.3	46.4	41.0	42.8	31.9
01:20 - 01:30	52.7	45.2	42.6	40.6	37.9	32.9	24.5	16.8	67.8	54.5	54.0	49.5	46.0	40.8	36.6	22.2
01:30 - 01:40	52.6	45.3	43.0	41.3	39.2	33.9	25.5	16.9	66.4	52.0	54.0	61.9	61.0	51.6	39.3	33.1
01:40 - 01:50	54.6	50.7	47.2	43.3	39.3	33.7	25.5	17.1	69.1	65.8	62.5	55.7	52.3	49.6	38.1	31.0
01:50 - 02:00	49.9	44.8	42.5	40.7	38.0	32.6	24.5	16.6	58.6	54.4	55.9	52.2	48.1	42.1	37.9	23.6
02:00 - 02:10	51.0	45.2	42.9	40.8	38.1	34.5	31.3	22.3	65.3	52.5	50.5	50.9	51.5	50.4	52.3	41.6
02:10 - 02:20	50.6	45.2	43.2	41.0	38.1	33.9	29.6	21.2	61.3	51.5	49.3	53.2	47.3	52.3	55.0	48.4
02:20 - 02:30	50.1	45.0	42.6	40.5	37.8	33.4	27.1	18.4	60.9	54.4	46.1	46.8	45.0	45.1	45.6	34.5
02:30 - 02:40	51.1	44.8	43.2	41.8	39.5	35.7	33.5	28.8	66.2	55.1	56.3	58.1	53.3	51.9	53.7	50.7
02:40 - 02:50	51.0	46.0	43.7	40.3	37.4	32.5	24.2	16.5	66.7	63.3	60.4	55.6	51.6	44.5	35.8	34.0
02:50 - 03:00	52.3	45.3	43.1	40.4	37.3	32.2	24.0	16.7	68.6	60.0	50.0	44.1	41.6	38.1	28.5	23.2
03:00 - 03:10	49.9	44.2	42.3	40.2	37.3	32.0	23.6	16.5	61.6	49.3	46.3	43.2	41.5	39.7	27.9	20.0
03:10 - 03:20	50.7	46.2	43.4	40.5	37.4	32.9	25.1	16.6	58.6	64.5	57.1	53.8	52.9	50.9	45.0	34.8
03:20 - 03:30	49.9	44.8	43.0	40.9	38.2	33.1	26.0	16.9	62.3	53.2	52.2	49.2	52.2	45.2	42.9	25.1
03:30 - 03:40	51.8	44.7	42.3	40.3	37.5	32.4	24.9	16.8	71.7	59.6	49.0	46.4	47.0	40.6	40.6	32.0
03:40 - 03:50	50.3	44.6	42.5	40.5	37.7	32.8	24.3	16.8	60.6	53.5	48.8	55.2	55.2	48.6	39.4	27.1
03:50 - 04:00	49.5	44.4	42.6	40.6	38.0	33.3	26.0	17.0	69.1	52.3	46.6	45.6	47.5	45.7	43.4	29.2
04:00 - 04:10	50.8	45.5	43.1	41.2	38.8	34.2	27.0	19.0	62.9	57.7	52.4	55.1	57.2	49.7	47.2	37.5
04:10 - 04:20	51.6	45.4	42.9	41.3	38.5	34.1	27.0	18.5	66.9	57.7	52.5	52.0	49.2	48.3	47.4	37.3
04:20 - 04:30	51.0	45.0	42.8	40.7	38.3	34.1	26.6	18.1	63.1	55.4	49.1	49.8	50.6	49.3	45.9	36.8
04:30 - 04:40	51.3	45.5	43.1	40.8	38.1	34.4	28.4	19.2	67.9	52.0	49.2	45.5	46.4	51.7	53.7	27.4
04:40 - 04:50	52.7	44.2	42.2	40.4	39.7	35.3	27.6	17.0	66.0	55.9	57.1	53.8	57.2	52.9	46.3	34.4
04:50 - 05:00	70.9	63.4	60.9	57.7	55.2	51.0	48.0	39.5	96.9	87.3	84.3	81.9	79.5	72.1	69.2	63.8
05:00 - 05:10	52.9	48.3	45.6	44.3	43.9	40.2	35.2	28.7	64.9	59.4	55.1	53.7	57.5	55.9	56.8	52.7
05:10 - 05:20	53.8	49.3	45.5	43.4	44.2	42.6	37.2	27.6	66.5	58.2	54.0	52.7	56.0	57.5	57.8	54.4
05:20 - 05:30	65.9	60.8	58.5	59.1	56.0	54.1	52.0	49.5	83.9	77.1	76.8	78.7	77.6	79.5	81.4	82.1
05:30 - 05:40	56.2	53.4	52.2	51.2	47.4	42.0	30.1	16.8	71.2	69.7	69.7	70.5	65.1	62.8	47.1	33.5
05:40 - 05:50	57.4	53.7	51.5	55.6	50.1	47.5	41.8	33.2	78.5	76.2	72.5	79.5	72.2	68.6	62.1	53.1
05:50 –06:00	55.7	50.5	49.4	48.2	44.3	39.9	29.5	20.1	67.7	65.5	66.6	66.8	60.5	52.0	48.3	38.7
06:00 - 06:10	55.5	51.5	48.6	46.5	42.8	38.6	31.4	24.3	65.8	66.4	63.3	62.8	58.3	55.5	48.7	54.7
06:10 - 06:20	68.8	61.2	58.4	59.1	56.4	54.0	50.3	45.5	92.3	85.0	79.1	81.3	76.7	76.0	72.1	70.3
06:20 - 06:30	71.3	63.7	61.1	62.7	60.8	55.9	50.3	41.2	95.3	85.4	83.0	86.6	84.5	76.5	69.4	61.5
06:30 - 06:40	59.0	57.7	59.6	60.2	56.7	49.6	45.4	36.3	80.4	79.1	82.2	82.7	80.8	70.9	68.3	62.1
06:40 - 06:50	62.8	61.1	62.5	64.8	62.1	54.7	50.0	43.0	81.8	79.7	83.2	85.3	83.6	75.2	70.5	70.6
06:50 - 07:00	74.4	71.6	68.1	68.2	66.9	62.5	58.7	61.0	95.4	92.2	89.6	91.0	89.9	84.5	84.7	91.7
07:00 - 07:10	61.2	59.0	59.8	62.2	59.2	52.6	47.7	39.3	81.8	79.9	82.6	84.4	82.9	72.1	68.6	62.8
07:10 - 07:20	60.4	58.8	59.6	62.2	58.3	51.9	47.3	40.1	81.4	79.6	82.3	83.3	81.2	72.4	70.1	68.6
07:20 - 07:30	62.1	60.3	62.4	63.7	60.9	54.0	49.3	40.3	80.5	78.8	83.5	84.5	83.8	73.0	68.5	61.1
07:30 - 07:40	62.2	60.0	59.6	62.1	59.3	53.7	48.7	42.1	79.7	79.7	81.6	84.2	83.4	72.9	69.2	66.7
07:40 - 07:50	61.3	59.2	60.6	63.1	60.6	52.9	48.1	40.7	81.9	79.4	83.2	86.2	84.5	73.8	70.1	67.0
07:50 - 08:00	63.8	61.7	62.7	64.8	61.6	55.3	50.3	42.0	82.1	79.6	82.5	86.0	83.8	75.5	69.0	67.0
08:00 - 08:10	61.5	58.8	59.6	61.0	57.8	50.9	46.5	37.4	78.8	79.1	81.1	84.6	80.5	70.2	66.6	58.4
08:10 - 08:20	63.5	65.5	61.7	63.1	60.0	53.6	48.6	40.6	80.9	80.0	82.0	85.3	83.5	75.2	68.6	59.4
08:20 - 08:30	63.2	63.0	59.9	62.4	57.6	51.9	47.1	40.7	78.9	78.3	79.6	81.8	80.5	70.0	69.5	66.7
08:30 - 08:40	65.2	66.2	64.2	64.1	59.8	53.3	47.3	39.0	83.0	82.7	82.8	84.0	80.5	72.8	68.6	64.6
08:40 - 08:50	61.4	62.3	58.7	61.4	57.7	50.6	45.9	39.1	78.9	77.8	79.3	83.2	80.6	70.3	66.5	62.0
08:50 - 09:00	63.1	62.2	62.5	64.7	61.6	54.8	49.9	40.5	81.0	78.7	84.6	85.7	84.3	75.0	69.6	60.2
09:00 - 09:10	64.3	59.7	60.6	62.0	59.1	54.0	49.6	38.7	82.4	80.1	83.4	83.9	81.3	71.5	67.7	60.8
09:10 - 09:20	64.9	62.0	62.6	65.0	62.0	54.9	49.8	40.5	82.2	81.6	82.2	86.7	84.2	75.5	69.4	60.0
09:20 - 09:30	74.8	75.7	70.7	70.0	69.5	64.4	58.8	50.2	93.7	100.2	97.6	93.7	93.5	89.7	84.5	76.7
09:30 - 09:40	61.6	58.9	59.4	60.9	57.9	51.6	47.2	37.7	80.2	79.2	81.6	83.3	82.1	72.3	68.3	59.0
09:40 - 09:50	63.8	65.0	62.6	63.9	61.1	54.1	49.5	41.7	81.2	79.5	82.3	84.5	82.4	72.2	70.7	66.9
09:50 - 10:00	61.8	63.3	59.7	61.9	59.5	52.3	52.2	52.0	80.5	79.4	81.8	84.6	84.6	73.7	78.1	78.6
10:00 - 10:10	63.0	63.6	61.1	61.6	58.1	52.4	47.7	40.3	81.7	80.7	84.1	83.5	80.9	72.0	68.6	67.2
10:10 - 10:20	63.3	60.9	62.1	65.1	62.6	54.9	50.9	45.5	81.2	79.8	82.5	86.5	84.6	74.7	73.6	74.8
10:20 - 10:30	61.4	59.1	58.8	59.8	57.8	51.7	47.9	42.3	79.5	78.3	81.6	82.4	81.9	71.4	69.1	67.8
10:30 - 10:40	75.0	71.4	68.1	65.6	63.3	61.0	55.6	53.0	96.8	94.0	91.0	86.2	85.0	83.4	76.7	74.9
10:40 - 10:50	63.8	59.5	60.0	62.1	59.9	53.4	48.1	39.8	80.5	79.7	82.5	83.6	83.4	75.8	69.0	59.5
10:50 - 11:00	73.7	69.7	66.7	64.4	62.9	58.4	55.6	52.4	95.3	87.2	88.4	86.8	86.0	80.4	77.9	76.3
11:00 - 11:10	74.0	66.2	63.6	63.6	60.8	55.5	51.3	42.9	98.5	88.4	85.7	83.6	81.3	75.8	70.7	63.2
11:10 - 11:20	61.4	58.4	59.6	61.9	58.5	51.6	46.7	37.6	80.4	79.2	81.4	84.3	82.5	72.8	68.3	59.7
11:20 - 11:30	67.0	65.6	67.6	67.0	65.6	62.6	71.6	61.6	82.7	79.5	83.1	83.6	82.9	84.2	97.6	87.3
11:30 - 11:40	61.3	59.1	59.5	62.6	60.4	52.6	47.8	43.3	82.6	80.5	82.9	85.3	84.3	75.6	70.6	69.4
11:40 - 11:50	62.4	60.0	59.4	62.1	60.1	53.0	48.5	42.9	81.9	81.0	82.7	86.5	85.5	75.3	69.5	67.5
11:50 - 12:00	73.6	71.0	67.1	67.1	65.6	59.9	55.1	49.9	92.2	93.6	87.5	85.4	87.2	81.5	75.7	70.7

Table A5: Location 1, L_{eq} and L_{max} frequency data, 10 August 2016

	Frequency Hz								Frequency Hz							
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
12:00 - 12:10	61.9	59.0	59.1	62.0	59.1	51.8	47.6	41.3	81.8	79.6	81.8	84.6	83.0	73.1	70.1	67.1
12:10 - 12:20	61.3	58.7	59.3	60.8	58.1	51.8	49.4	47.4	79.4	79.3	81.5	83.1	81.6	71.5	72.2	72.3
12:20 - 12:30	70.4	68.3	71.0	67.6	64.5	64.1	70.2	72.1	86.3	82.1	87.5	84.8	84.6	81.3	94.3	94.7
12:30 - 12:40	61.1	58.8	58.1	61.6	58.8	51.6	54.6	53.7	79.4	79.1	79.2	85.0	82.4	73.0	78.4	76.5
12:40 - 12:50	61.6	59.6	59.5	62.4	60.6	52.7	48.5	41.9	81.6	80.3	83.0	86.8	84.4	74.8	69.4	65.0
12:50 - 13:00	61.0	59.5	59.7	61.9	59.5	51.5	50.1	50.5	79.8	79.3	81.0	83.6	83.1	71.7	73.0	73.6
13:00 - 13:10	72.5	69.8	70.1	66.0	66.5	60.5	56.2	52.9	96.2	91.6	88.7	84.5	90.9	82.1	77.4	74.4
13:10 - 13:20	64.2	63.6	62.2	62.9	60.3	54.5	49.6	43.6	82.6	85.7	82.1	83.9	81.9	73.7	68.4	68.3
13:20 - 13:30	61.2	58.8	58.1	61.9	58.7	51.2	51.7	52.1	79.7	79.2	79.6	87.7	83.8	74.8	76.2	77.9
13:30 - 13:40	61.7	59.2	59.3	61.5	58.6	51.7	47.1	38.2	83.1	81.7	82.6	83.8	82.6	72.7	69.2	60.5
13:40 - 13:50	62.5	59.4	59.7	62.1	59.8	52.5	47.9	42.8	81.9	78.5	81.9	87.8	85.7	75.0	69.9	67.7
13:50 - 14:00	62.0	58.9	59.2	61.6	59.5	52.0	47.8	45.9	80.7	79.3	82.0	84.6	84.4	73.3	69.4	69.9
14:00 - 14:10	62.5	60.0	60.0	62.7	60.5	53.0	47.8	44.1	82.9	80.0	82.2	85.1	84.2	76.2	69.7	68.8
14:10 - 14:20	63.0	60.8	60.0	62.7	60.1	52.7	48.6	45.2	83.4	81.6	82.9	86.3	84.8	74.9	69.7	68.4
14:20 - 14:30	72.3	78.0	71.9	66.7	65.2	63.0	75.7	63.2	90.0	94.7	88.5	86.8	84.8	82.3	97.5	84.1
14:30 - 14:40	61.7	60.7	59.8	61.6	59.1	52.3	47.4	39.8	81.8	80.8	82.3	85.1	82.9	73.2	68.3	61.4
14:40 - 14:50	58.6	54.4	53.0	57.9	54.7	49.6	41.7	33.3	77.3	75.4	73.5	80.5	77.5	76.5	62.7	54.1
14:50 - 15:00	62.2	61.0	62.0	63.9	61.3	53.5	49.7	49.0	80.4	79.1	82.5	83.6	84.1	72.8	69.2	70.5
15:00 - 15:10	72.1	66.9	63.7	62.8	61.0	62.4	75.8	72.0	93.3	82.3	82.3	83.6	82.6	85.0	100.0	96.5
15:10 - 15:20	71.5	70.0	70.2	68.1	65.5	61.0	54.5	47.6	93.0	90.1	92.9	86.0	87.0	82.2	73.7	71.7
15:20 - 15:30	62.1	59.7	59.5	62.1	59.6	51.9	47.1	45.5	80.7	80.6	81.2	83.8	83.4	72.8	68.1	69.6
15:30 - 15:40	62.9	60.1	59.2	58.6	55.7	51.5	48.1	40.4	79.7	77.2	80.1	77.5	76.1	70.0	69.4	67.1
15:40 - 15:50	67.8	66.2	64.4	64.4	61.6	56.4	54.7	55.9	86.3	84.0	82.8	83.5	82.6	73.8	77.3	81.6
15:50 - 16:00	68.2	69.4	67.4	65.2	63.4	63.2	73.9	69.6	84.7	84.9	81.9	84.0	82.9	81.7	96.5	89.7
16:00 - 16:10	63.2	60.5	60.3	64.6	62.1	53.9	48.9	45.7	81.1	80.6	82.0	87.9	86.0	75.9	70.5	68.8
16:10 - 16:20	61.2	58.7	59.5	62.6	60.3	52.8	48.0	45.1	81.5	81.3	81.4	85.4	84.5	74.4	70.5	68.8
16:20 - 16:30	64.2	62.0	63.1	64.7	61.9	55.0	51.1	48.9	82.7	80.9	82.3	85.5	84.4	73.7	70.5	71.8
16:30 - 16:40	61.5	59.0	59.7	62.7	60.1	52.1	47.3	44.5	81.5	80.5	82.3	86.1	84.4	73.9	68.9	67.4
16:40 - 16:50	64.8	62.5	62.3	65.4	63.0	55.2	50.5	48.8	84.5	81.2	82.3	87.4	84.7	74.9	70.6	70.8
16:50 - 17:00	65.4	63.7	61.0	63.0	59.7	53.0	48.5	42.9	82.5	81.7	81.8	84.4	82.4	72.8	68.5	65.3
17:00 - 17:10	61.9	61.4	60.6	62.3	60.6	53.2	49.3	47.6	81.5	79.8	82.3	86.3	85.0	74.2	70.3	70.1
17:10 - 17:20	62.0	60.7	61.8	64.2	61.1	53.5	50.7	51.9	81.3	80.3	82.4	85.4	83.8	73.3	71.8	76.3
17:20 - 17:30	61.7	60.1	59.3	62.2	59.1	52.3	52.2	53.6	80.0	78.9	80.2	83.2	81.4	72.9	75.5	76.5
17:30 - 17:40	61.9	60.0	60.2	61.7	58.5	51.8	47.5	38.9	81.7	80.6	81.9	85.2	82.5	73.8	68.1	61.4
17:40 - 17:50	63.5	61.4	61.8	64.3	61.8	54.4	50.7	50.7	83.1	80.3	81.9	85.4	83.8	75.8	70.4	73.5
17:50 - 18:00	62.6	61.1	59.8	62.3	59.7	53.1	50.1	50.7	80.7	79.1	78.9	83.7	82.3	73.4	73.0	74.2
18:00 - 18:10	60.3	58.2	59.3	60.4	57.5	50.4	46.4	45.2	81.8	81.3	82.1	83.1	81.7	73.7	70.4	71.1
18:10 - 18:20	61.4	59.6	58.5	60.7	57.4	52.2	48.4	47.5	80.7	79.0	80.5	85.9	82.5	75.7	71.7	70.7
18:20 - 18:30	64.0	62.3	62.4	64.9	61.8	54.9	50.8	47.3	82.7	80.5	82.5	86.8	85.4	75.5	70.1	70.4
18:30 - 18:40	60.8	59.9	60.0	62.2	59.6	52.3	47.9	44.8	80.4	79.6	81.8	85.6	84.2	74.0	69.6	67.6
18:40 - 18:50	63.0	61.2	62.2	64.4	62.3	54.7	50.9	49.5	82.2	80.5	82.6	85.1	83.9	75.1	71.5	73.2
18:50 –19:00	59.4	56.6	55.5	54.1	51.1	50.3	46.0	37.7	78.8	77.8	73.8	75.2	70.9	69.6	65.3	56.2
19:00 - 19:10	74.0	72.8	70.3	68.2	66.5	62.6	57.8	53.2	95.1	94.9	89.1	88.8	89.5	85.1	78.4	76.3
19:10 - 19:20	62.9	61.8	61.9	62.8	60.5	53.8	49.5	45.8	81.9	80.4	82.1	83.6	83.2	72.9	70.0	69.8
19:20 - 19:30	62.7	61.2	61.2	62.8	59.1	53.4	49.9	46.2	81.2	80.0	82.9	83.1	80.6	74.1	71.4	68.1
19:30 - 19:40	63.1	59.4	59.4	61.7	58.1	51.2	49.1	47.4	80.4	79.1	81.3	82.2	81.2	70.8	73.2	73.0
19:40 - 19:50	60.6	58.8	58.6	58.6	54.7	50.1	53.0	50.7	79.6	78.3	82.7	80.2	78.3	70.2	77.0	75.1
19:50 - 20:00	62.0	59.8	59.9	60.4	55.9	50.7	48.8	43.3	81.1	79.7	82.4	82.0	78.9	72.2	75.6	71.2
20:00 - 20:10	59.7	58.6	58.4	60.5	58.6	51.0	48.6	46.0	80.4	80.5	81.0	83.3	83.5	73.5	73.2	71.0
20:10 - 20:20	58.6	55.0	53.3	55.0	51.9	47.6	42.9	32.3	78.6	76.2	75.5	77.9	75.2	69.2	65.2	51.8
20:20 - 20:30	59.5	58.3	57.7	59.0	56.6	50.3	49.5	49.6	78.9	79.0	79.0	81.5	80.1	70.4	76.3	75.0
20:30 - 20:40	62.0	60.7	61.1	63.7	61.2	54.1	50.2	49.2	81.2	80.1	83.0	84.9	83.3	76.0	70.9	71.1
20:40 - 20:50	65.3	63.0	62.0	61.9	58.6	54.3	54.2	46.1	83.1	82.6	82.6	82.3	80.6	74.7	80.6	75.3
20:50 - 21:00	64.9	62.1	59.7	60.0	56.0	62.4	58.0	46.2	81.9	77.7	80.6	81.9	77.3	82.9	80.8	67.5
21:00 - 21:10	59.7	57.8	59.2	60.6	57.5	49.9	45.6	38.2	79.8	78.0	82.0	83.8	82.2	72.3	68.4	61.8
21:10 - 21:20	71.9	72.2	68.8	67.0	68.6	64.0	58.5	52.2	94.1	92.1	89.1	90.3	92.0	86.3	79.7	73.3
21:20 - 21:30	62.1	59.5	60.1	60.9	58.9	52.9	48.3	39.1	81.5	80.4	82.4	83.1	82.7	74.8	68.9	63.9
21:30 - 21:40	63.7	61.6	60.7	62.6	60.2	53.5	49.2	39.6	82.7	80.6	82.2	86.1	84.7	74.8	69.4	62.1
21:40 - 21:50	54.9	51.9	50.9	56.0	51.1	46.4	42.4	32.3	73.2	69.7	72.4	80.8	73.0	67.7	65.2	52.0
21:50 - 22:00	58.5	57.6	58.7	61.9	59.3	51.7	48.3	43.8	80.0	79.7	82.2	84.4	84.1	73.5	72.9	68.7
22:00 - 22:10	56.8	55.7	56.4	57.4	55.0	47.3	45.2	42.6	78.5	77.6	79.6	81.2	79.8	70.2	69.7	66.5
22:10 - 22:20	58.1	55.4	51.2	51.3	50.7	46.6	43.2	37.0	78.0	78.1	70.6	72.0	75.7	67.3	65.7	69.9
22:20 - 22:30	60.9	59.5	59.1	61.0	58.9	51.6	47.3	38.8	79.5	80.1	80.8	84.5	83.7	72.9	68.5	64.1
22:30 - 22:40	57.4	56.4	56.3	59.2	57.2	48.5	45.1	42.6	78.9	79.1	78.9	84.0	83.2	73.3	69.7	67.4
22:40 - 22:50	57.9	54.0	52.3	51.3	49.7	48.2	43.8	32.6	77.4	74.8	74.2	72.4	72.5	68.9	65.2	59.4
22:50 - 23:00	74.2	68.2	62.5	61.4	59.2	53.9	49.6	45.3	95.0	91.1	83.1	84.5	82.5	74.5	74.6	71.8
23:00 - 23:10	61.1	58.6	59.7	61.3	57.6	51.8	46.9	37.7	81.8	79.7	82.4	82.4	81.1	72.5	68.9	59.6
23:10 - 23:20	55.5	52.8	51.9	57.6	54.8	47.6	41.6	33.3	75.8	75.0	72.8	81.1	82.0	68.8	62.4	53.9
23:20 - 23:30	67.2	72.7	66.0	63.7	64.0	62.4	60.3	66.7	82.2	90.5	82.8	81.0	78.6	76.9	78.0	92.6
23:30 - 23:40	60.1	58.7	59.5	62.0	60.0	52.9	48.5	42.1	81.9	80.6	83.0	84.6	84.9	75.9	71.5	67.0
23:40 - 23:50	55.2	52.7	51.9	50.4	53.1	47.8	44.8	29.6	72.5	71.7	75.2	70.3	76.1	67.5	64.8	50.0
23:50 - 00:00	68.6	67.3	63.6	61.6	56.3	51.7	46.7	37.2	84.2	84.3	81.9	82.5	75.9	68.9	66.6	59.1

Table A6: Location 1, L_{eq} and L_{max} frequency data, 10 August 2016

	Frequency Hz								Frequency Hz							
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
00:00 - 00:10	73.6	70.9	68.7	67.8	66.9	62.7	59.5	54.5	93.5	90.6	90.5	90.8	92.5	88.7	86.2	83.2
00:10 - 00:20	69.8	69.2	63.9	60.4	56.1	54.9	57.8	60.1	85.8	90.2	83.7	81.2	76.8	74.7	84.3	89.6
00:20 - 00:30	73.8	67.1	64.7	60.2	57.8	53.1	48.1	40.0	100.5	91.5	91.1	82.3	81.5	74.4	68.8	62.7
00:30 - 00:40	49.6	45.6	42.5	40.3	38.0	31.4	23.6	16.6	61.5	52.4	48.3	45.4	44.4	46.7	36.4	25.7
00:40 - 00:50	71.3	69.4	67.4	64.7	64.9	60.9	55.9	51.6	95.5	93.3	94.7	89.6	89.7	85.9	80.3	74.0
00:50 - 01:00	49.1	44.7	41.9	39.9	37.1	31.2	23.3	16.2	63.1	49.8	49.5	47.5	47.5	45.6	37.6	26.9
01:00 - 01:10	49.7	44.9	41.9	39.5	36.9	30.8	23.3	16.2	66.8	55.5	52.7	44.1	42.2	37.9	35.2	21.9
01:10 - 01:20	51.4	46.6	44.9	42.9	39.7	32.0	23.7	16.5	65.4	59.7	62.1	59.6	52.2	43.6	35.6	24.2
01:20 - 01:30	49.3	45.1	42.9	40.4	38.9	32.7	24.4	16.4	61.8	51.1	54.4	49.1	46.5	45.3	37.0	25.4
01:30 - 01:40	50.1	44.8	41.6	39.3	36.8	30.5	23.0	16.3	63.3	51.8	49.2	43.1	41.8	35.6	29.2	22.5
01:40 - 01:50	50.8	46.6	44.4	43.2	39.6	32.0	23.8	16.3	66.3	62.6	62.0	63.0	57.4	50.8	43.8	27.2
01:50 - 02:00	48.9	44.5	41.8	39.5	37.2	31.7	24.4	16.6	58.1	48.3	46.7	49.2	54.7	53.7	45.9	28.9
02:00 - 02:10	48.7	44.7	41.8	39.5	37.1	30.8	23.1	16.2	60.7	50.0	46.4	44.9	45.0	41.0	30.8	23.7
02:10 - 02:20	49.8	44.7	42.0	39.5	37.4	31.6	24.3	16.3	64.6	51.8	48.6	44.2	49.4	46.2	39.1	26.8
02:20 - 02:30	47.8	44.1	41.7	39.3	38.0	33.2	27.6	16.4	61.6	51.2	46.2	45.0	50.2	47.3	45.2	26.3
02:30 - 02:40	48.1	44.3	41.7	39.6	38.6	31.9	25.2	16.2	61.2	51.8	49.2	43.4	49.8	44.6	40.0	21.6
02:40 - 02:50	49.3	44.9	42.1	39.2	37.4	32.8	23.4	16.4	62.7	51.0	51.4	48.0	47.9	49.9	31.5	23.6
02:50 - 03:00	49.0	44.2	41.6	39.0	36.9	30.3	22.7	16.1	59.5	49.9	46.8	45.8	48.2	48.7	30.5	25.1
03:00 - 03:10	48.8	44.5	41.6	39.2	36.9	30.6	23.0	16.2	62.9	51.0	45.1	43.8	50.0	42.9	30.8	21.6
03:10 - 03:20	47.9	43.9	41.6	39.5	37.2	30.7	23.1	16.2	57.7	48.1	44.8	42.3	40.6	35.0	27.7	18.7
03:20 - 03:30	51.9	45.0	41.8	39.5	37.5	31.7	24.2	16.7	77.2	66.4	53.5	46.9	45.7	47.7	35.9	27.0
03:30 - 03:40	47.8	44.2	41.6	39.4	37.9	31.9	23.4	16.3	57.2	47.8	45.6	42.8	47.5	46.2	36.2	23.1
03:40 - 03:50	48.7	44.7	41.7	39.4	37.5	30.5	23.1	16.1	62.1	50.2	45.8	44.9	44.0	42.7	38.0	22.5
03:50 - 04:00	51.2	46.1	42.6	39.6	38.9	33.9	27.8	16.7	73.6	55.2	54.5	52.2	56.4	51.8	46.2	33.3
04:00 - 04:10	53.4	47.2	44.9	40.3	38.6	35.5	27.3	17.9	62.7	56.6	59.3	46.9	50.5	53.0	44.4	36.6
04:10 - 04:20	53.2	46.8	42.4	39.8	38.0	34.6	25.4	17.2	61.1	53.8	48.1	47.3	49.3	51.2	38.2	27.3
04:20 - 04:30	54.0	46.8	42.2	39.7	39.2	34.6	29.2	17.8	63.5	54.0	49.6	47.9	54.3	50.4	48.2	34.3
04:30 - 04:40	51.1	44.9	41.9	39.6	39.4	35.9	28.1	16.4	63.2	51.1	48.9	47.8	58.5	55.1	49.5	25.8
04:40 - 04:50	50.7	43.7	41.5	39.6	38.1	32.9	25.7	16.5	66.3	53.8	50.8	47.6	58.4	52.7	46.1	24.1
04:50 - 05:00	70.7	76.1	64.2	60.7	59.7	56.7	55.4	45.0	96.4	102.5	89.4	86.5	84.2	81.5	81.0	72.1
05:00 - 05:10	59.0	56.6	55.5	48.1	44.9	41.9	36.6	28.1	82.3	81.1	82.5	71.7	61.7	61.0	55.0	45.8
05:10 - 05:20	57.1	53.7	52.5	55.5	55.5	48.0	43.2	32.1	76.8	74.3	76.1	79.9	79.5	66.7	62.8	53.2
05:20 - 05:30	51.6	46.3	43.5	41.8	45.1	42.8	38.3	25.6	65.1	54.3	53.3	50.8	60.5	62.6	56.0	53.8
05:30 - 05:40	49.9	44.1	42.0	41.2	40.3	37.7	30.8	20.1	60.1	49.7	48.3	48.0	55.8	56.6	43.5	36.8
05:40 - 05:50	56.4	53.7	53.0	54.2	54.5	48.1	43.1	36.0	76.3	75.0	74.4	76.3	77.7	69.8	65.1	57.1
05:50 –06:00	56.0	52.5	51.6	48.5	44.3	41.0	33.7	22.6	66.7	66.5	67.3	64.3	59.4	61.8	57.5	49.2
06:00 - 06:10	66.7	59.2	56.8	54.2	51.3	50.2	46.6	37.2	92.6	83.4	76.9	75.1	73.7	73.8	70.6	61.6
06:10 - 06:20	70.0	63.0	59.3	60.9	58.4	54.0	49.5	41.3	94.0	87.9	80.0	84.8	82.2	76.4	73.0	70.0
06:20 - 06:30	61.6	60.6	60.7	62.9	60.9	54.0	48.6	39.0	82.2	81.4	82.6	85.7	84.4	75.5	69.9	61.2
06:30 - 06:40	59.5	58.4	59.5	59.3	56.5	49.0	45.1	36.0	79.3	77.9	81.5	81.4	80.7	70.9	67.6	59.0
06:40 - 06:50	63.0	61.1	61.9	63.9	60.9	54.4	49.8	42.1	80.6	79.7	82.1	84.6	82.2	73.2	72.2	71.3
06:50 - 07:00	74.8	72.9	69.1	68.1	72.0	64.7	64.6	60.4	96.9	95.7	91.5	90.8	97.4	87.8	91.0	85.7
07:00 - 07:10	59.9	59.0	59.7	61.1	58.3	51.6	47.7	40.3	79.4	79.1	82.1	84.0	82.9	72.5	68.0	61.7
07:10 - 07:20	62.5	60.6	59.7	60.1	56.8	53.1	49.1	45.3	79.5	78.2	80.0	80.7	79.0	71.6	70.2	68.7
07:20 - 07:30	60.5	58.3	59.6	62.2	59.3	52.3	48.2	42.1	80.6	79.1	81.9	84.5	83.0	73.3	72.7	68.5
07:30 - 07:40	61.8	60.2	60.6	62.5	58.9	53.6	48.7	39.4	80.6	80.2	81.9	84.7	81.9	72.7	68.6	61.4
07:40 - 07:50	64.6	60.2	59.9	63.0	59.5	52.2	47.8	42.0	82.6	81.4	83.0	84.6	81.9	72.8	70.6	72.3
07:50 - 08:00	66.1	62.0	62.4	64.9	63.0	55.7	50.8	43.5	81.7	81.5	82.6	85.2	83.7	74.8	69.4	73.5
08:00 - 08:10	60.7	58.5	58.5	59.6	56.0	50.8	46.5	37.0	79.5	78.5	80.2	81.9	78.3	69.9	66.0	57.5
08:10 - 08:20	61.7	58.7	59.4	61.0	58.3	51.8	47.5	39.4	80.2	78.5	82.0	83.5	82.7	72.4	68.9	63.9
08:20 - 08:30	62.7	61.0	61.0	64.2	61.0	54.0	50.0	43.1	80.1	79.0	80.7	84.5	83.1	73.2	71.5	67.5
08:30 - 08:40	62.0	59.6	60.3	59.0	54.9	50.9	46.6	37.8	82.9	79.9	84.3	80.7	77.2	70.4	66.9	65.8
08:40 - 08:50	62.8	59.0	59.7	62.7	59.7	51.7	48.1	43.6	79.7	77.7	82.6	87.5	82.6	71.7	71.2	68.8
08:50 - 09:00	61.7	59.2	58.3	62.1	58.7	52.8	47.6	38.2	79.7	80.3	81.4	85.7	83.7	75.8	68.9	59.4
09:00 - 09:10	73.9	72.0	68.2	67.4	67.1	62.2	56.0	46.7	95.3	92.9	90.4	89.1	88.8	84.7	77.6	69.0
09:10 - 09:20	62.4	59.5	60.1	61.5	57.1	51.7	46.7	37.6	82.4	80.4	83.2	82.4	80.2	71.3	68.0	59.0
09:20 - 09:30	70.8	68.1	66.9	66.4	64.9	59.3	56.2	53.9	95.2	90.6	88.0	85.2	87.8	82.1	84.9	84.7
09:30 - 09:40	63.0	59.6	59.0	60.5	59.3	54.0	51.2	47.6	80.4	77.9	78.9	81.9	82.2	73.1	75.7	71.7
09:40 - 09:50	63.6	61.0	61.8	63.9	61.4	54.6	53.3	49.4	81.3	79.7	83.7	85.3	84.2	73.4	78.2	74.7
09:50 - 10:00	61.0	59.2	59.9	62.4	60.8	55.4	50.0	43.8	80.6	79.7	82.0	84.8	85.4	79.8	72.5	69.6
10:00 - 10:10	62.0	59.7	59.6	60.7	57.6	52.7	48.1	38.9	83.2	81.2	82.1	83.0	79.8	71.8	68.4	62.5
10:10 - 10:20	63.8	61.4	62.5	64.1	60.7	54.2	50.4	44.1	82.8	79.8	83.5	84.3	82.5	73.1	74.1	68.6
10:20 - 10:30	60.3	58.2	58.7	61.7	58.6	51.6	52.7	52.8	78.4	77.4	80.5	86.8	83.6	74.3	76.7	76.5
10:30 - 10:40	75.5	78.4	69.6	66.3	65.9	63.0	62.4	56.7	98.4	102.8	93.8	88.1	89.2	85.4	90.4	82.8
10:40 - 10:50	61.2	59.3	59.3	62.2	59.4	52.0	47.9	43.7	79.4	78.5	80.7	85.8	83.9	73.5	69.2	67.6
10:50 - 11:00	58.9	57.1	56.0	52.9	52.0	51.8	46.4	34.5	73.9	72.8	69.1	70.8	69.5	70.4	63.1	49.8

Table A7: Location 1, L_{eq} and L_{max} frequency data, 11 August 2016

	Frequency Hz								Frequency Hz							
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
11:15 - 11:20	69.8	68.8	58.4	56.6	56.8	54.0	49.0	40.6	85.2	81.8	68.5	69.5	69.1	69.2	66.2	61.1
11:20 - 11:25	69.2	70.3	58.4	56.3	55.6	52.5	47.3	38.4	79.7	80.2	72.1	71.0	72.6	71.6	63.9	54.0
11:25 - 11:30	72.8	72.1	58.4	55.2	55.6	51.7	47.1	38.5	91.9	88.1	71.6	66.7	74.4	70.4	61.7	54.4
11:30 - 11:35	73.1	71.8	62.4	60.4	58.6	54.2	48.3	39.4	86.1	82.6	77.2	78.3	70.1	64.0	59.9	51.4
11:35 - 11:40	70.6	71.2	60.2	59.8	58.1	54.7	49.1	41.9	83.4	83.3	74.1	85.0	75.3	75.8	69.1	63.9
11:40 - 11:45	68.5	64.8	58.6	57.0	54.2	49.6	45.8	38.1	83.8	81.5	72.9	72.3	71.1	66.2	65.3	56.5
11:45 - 11:50	66.8	62.0	55.1	53.4	51.5	46.2	40.4	34.8	78.4	79.7	72.0	72.2	66.8	58.9	57.6	55.7
11:50 - 11:55	67.8	62.6	58.5	57.9	58.1	52.9	50.0	40.9	83.1	84.9	79.3	82.1	84.3	78.4	76.6	67.8
11:55 - 12:00	72.8	63.4	59.6	59.4	62.6	59.8	53.9	47.7	91.3	78.8	73.0	74.0	83.4	81.0	70.8	70.6
12:00 - 12:05	73.5	65.4	59.1	57.0	56.1	54.1	50.9	42.6	90.1	84.5	75.4	73.8	72.8	75.0	72.5	61.4
12:05 - 12:10	70.5	63.0	58.8	56.0	56.5	52.9	48.3	41.1	80.2	80.5	76.3	74.7	77.6	71.2	68.0	59.7
12:10 - 12:15	72.8	66.7	60.5	58.4	57.8	55.4	51.3	43.3	89.1	86.4	80.1	77.9	74.5	72.6	72.2	64.4
12:15 - 12:20	70.2	63.6	59.7	59.0	58.1	54.2	48.8	39.8	90.3	82.0	81.5	81.3	80.7	78.6	71.5	58.1
12:20 - 12:25	67.3	61.0	58.1	58.6	61.5	54.9	48.8	40.7	78.3	75.7	71.3	76.7	84.5	77.8	71.3	64.1
12:25 - 12:30	74.5	73.2	66.4	62.7	66.0	66.6	65.4	57.2	87.9	84.1	82.7	76.5	87.5	89.6	80.7	73.0
12:30 - 12:35	68.1	65.0	60.7	59.2	61.2	59.2	55.2	49.5	81.4	78.1	77.6	77.1	78.6	78.7	79.9	77.0
12:35 - 12:40	67.6	64.7	59.9	58.3	57.9	53.3	48.8	41.6	83.8	80.1	70.7	77.9	75.1	67.7	61.7	59.6
12:40 - 12:45	67.3	65.9	62.7	59.8	57.2	52.0	46.5	41.7	85.0	81.2	80.5	75.2	71.6	66.6	67.0	66.0
12:45 - 12:50	66.9	64.0	59.6	58.3	55.4	57.5	50.2	42.0	82.3	81.3	76.5	77.3	72.1	74.0	69.0	63.2
12:50 - 12:55	72.7	71.1	70.8	62.2	57.0	53.8	49.0	42.3	89.8	90.6	91.8	82.5	74.0	72.7	67.6	61.1

Table A8: Location 2, L_{eq} and L_{max} frequency data, 11 August 2016

APPENDIX B - REPORT CHECKLIST

Camden

Acoustic report checklist for planning applications

Please fill in the checklist and attach to the acoustic report with your planning application.

Please place a tick against one box for every item in each category, to indicate whether the relevant information has been included in the report, excluded, or does not apply.

Category ITEM	Yes	No	Not applicable- state why?
1. Introduction & Description of Development	√		
2. Authors name and qualifications	√		
3. Maps/Plans included			See other documents submitted with application
4. Photo of site and surroundings			See other documents submitted with application
5. Guidance/Standards Quoted?	√		
6. Calibration and Sound Level Meter details	√		
7. Is Development considered Noise Sensitive?		√	
8. Is Development Potentially Noisy (see LAQs)?		√	
9. Existing Noise Environment assessed?	√		
10. Impact of Noise Sources?	√		
11. Proposed Working Hours and Methods?			No noisy processes
12. Distance (nearest Noise sensitive receptor)?	√		
13. Boundary Noise Limits?	√		

Acoustic report checklist April 2014

Category ITEM	Yes	No	Not applicable – state why?
14. Building Orientation/Construction?		√	See other documents submitted with application
15. Noise Barriers/ attenuation proposed?	√		
16. Equipment Specification?	√		
17. Noise Management Plan?		√	
18. Background Noise measurement (General)?	√		
19. Background Noise (Worse Case)?	√		
20. LB Camden's Noise Conditions considered under DP28/DP29?	√		
21. Evaluation/Analysis of measured levels?	√		
22. Frequency Analysis done?		√	Level of detail not required
23. Vibration analysis done?		√	Vibration levels imperceptible
Other Considerations/comments (please specify)			

Signed..... Print name.....John Lloyd

Company details.....Scotch Partners LLP

Date.....

If you have any queries on filling in this form please see further guidance on the planning website, email helen.masterson@camden.gov.uk or ring our Noise duty officer on 0207 974 2163.

Acoustic report checklist April 2014

Date Created: 19 August 2016
Revision 03: 14 September 2016

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