



Noise Assessment for a Proposed Commercial Development

Land at Rockingham, Barnsley, S70 5TW
for:

Hartwood Estates Ltd

SHF.1122.002.NO.R.001.C



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Project:	Noise Assessment for Proposed Commercial Development
For:	Hartwood Estates Ltd
Status:	Final
Date:	March 2015
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Executive Summary

Enzygo Environmental Consultants have been commissioned by Hartwood Estates Ltd to undertake a noise assessment as part of an Outline planning submission for a proposed commercial/ industrial development on a parcel of land off Dearne Valley Parkway, Birdwell, Barnsley.

Within the scope of this study, noise levels have been quantified at a number of locations within, and around the development site. Impacts associated with noise levels generated by the proposed development site have been considered, where possible, in line with both the criterion detailed within BS4142:2014 and BS8233:2014, with specific reference made to the criteria referenced by the Local Planning Authority.

The level of information available relating to any fixed/ static plant associated with the development has not allowed detailed acoustic calculations to be undertaken at this stage. This aspect of the development should be controlled by the inclusion of appropriate planning condition(s) within the Outline Planning Permission document.

Noise associated with delivery vehicles and activities within the service yard areas, the proposed Petrol Filling Station and activities associated with the car parking facilities during both weekends and weekdays would be entirely acceptable in accordance with the criteria of BS4142.

Consideration of the noise sensitive portions of the proposed development, residential aspect of the Public House and Hotel indicate that some level of acoustic mitigation would be necessary as part of the detailed design of the site.

In summary this study concludes the following with regard to the site. Based upon the assessments undertaken and the assumptions made therein, subject to the implementation of appropriate acoustic design considerations enforced by appropriate planning conditions there are considered to be no significant issues relating to noise that could not be adequately controlled. Therefore noise should not be considered a material factor for the restriction of the granting of Outline planning permission for the development as proposed. However, the Outline permission should be granted subject to a number of Conditions specifically included to consider and control noise.

1 Introduction

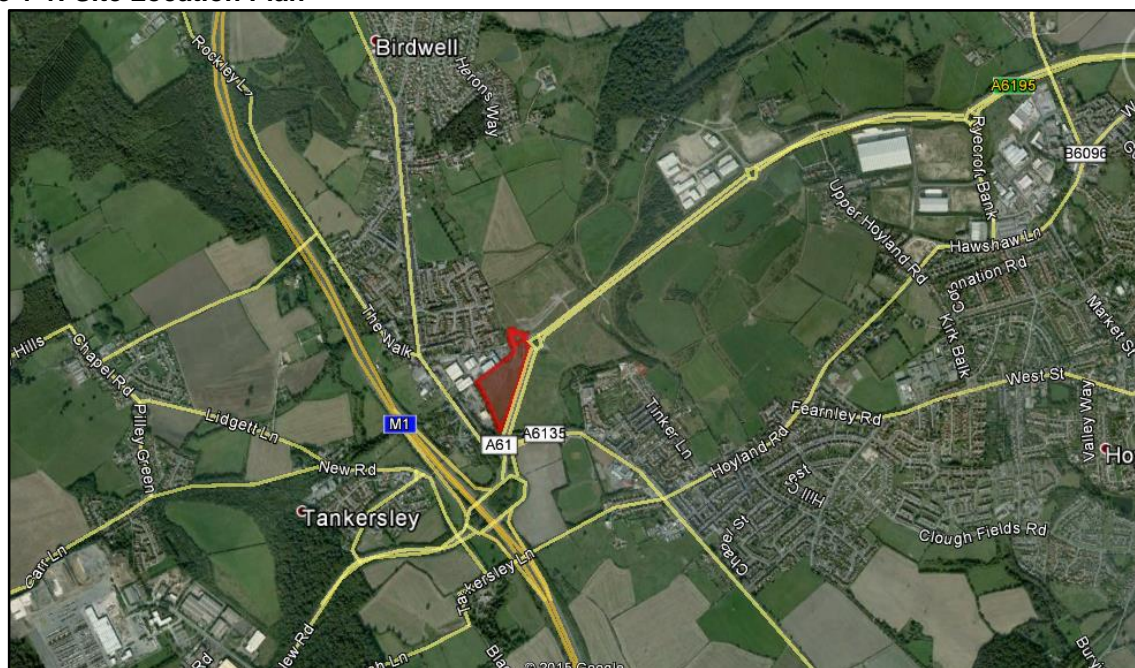
1.1 Project Introduction

- 1.1.1 Enzygo Environmental Consultants (Enzygo) have been commissioned by Hartwood Estates Ltd, to undertake a noise assessment as part of a planning submission for a proposed commercial development on a parcel of land adjacent to the Dearne Valley Parkway in Birdwell near Barnsley.
- 1.1.2 This assessment is based upon a background and ambient noise measurement survey undertaken between the 21st and 27th August 2014 in the vicinity of the site.
- 1.1.3 Details regarding the assessment methodology employed, together with the results of the survey undertaken, and the subsequent conclusions and recommendations drawn are presented within the following report.

1.2 Site Description

- 1.2.1 The proposed development site is located within the Birdwell area of Barnsley approximately 250m to the East of Junction 36 of the M1 motorway. The northern elevation of the site lies directly adjacent to a number of existing commercial/ industrial units in the vicinity of Rockingham Row. The southern elevation of the site lies directly adjacent to the Dearne Valley Parkway (A6195) running broadly south west to north east between the Birdwell and Rockingham roundabouts (respectively).
- 1.2.2 The application site covers an area of approximately 7.8 acres and is centred at approximately SE 34945 00558.
- 1.2.3 The site area is currently an area of open green land typically used for dog walking etc. The available commercial mapping indicates a number of raised power lines crossing the site from the Dearne Valley Parkway towards Rockingham Row.
- 1.2.4 The site is approximately indicated by the red area highlighted on Figure 1-1 below.

Figure 1-1: Site Location Plan



(Image Source: Imagery ©2015 Bluesky, DigitalGlobe GeoEye Getmapping plc, Infoterra Ltd & Bluesky, The Geoinformation Group, Map data ©2015 Google)

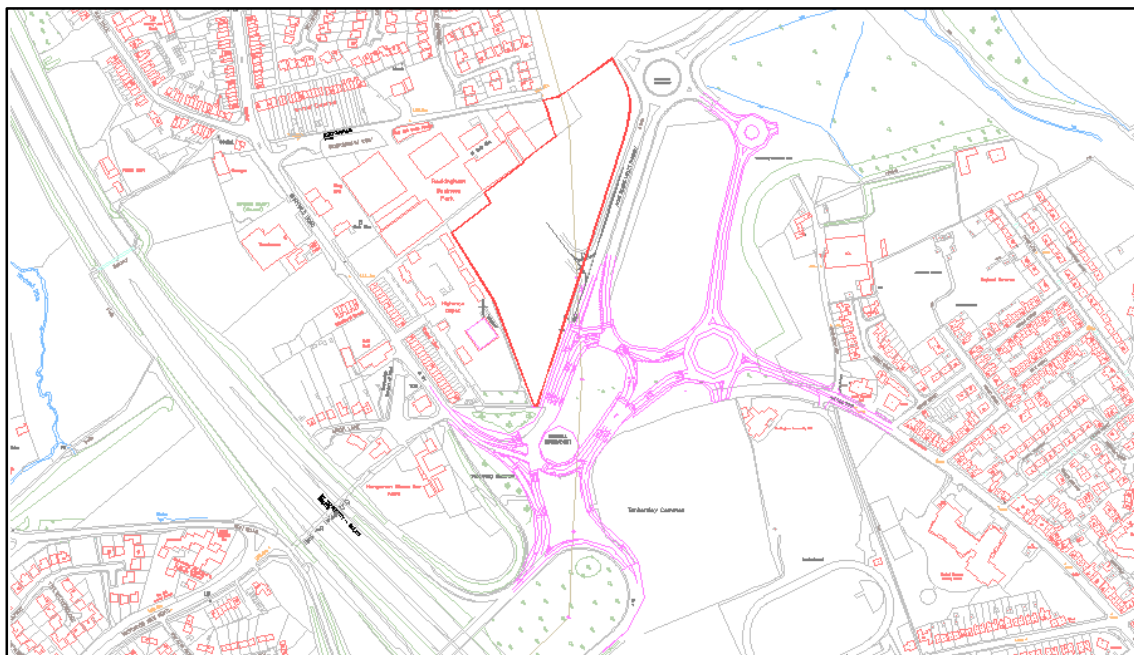
1.2.5 The area immediately surrounding the site is a mixture of industrial/ commercial units with some residential properties at varying distances from the site boundary. Land descriptions in each compass direction are presented below for information and context.

- To the immediate north of the site, adjacent to the site boundary lie a number of large commercial/ industrial buildings in the vicinity of Rockingham Row. Beyond this at a distance of approximately 60m lie a number of residential properties off Locksley Gardens and further properties forming the southern extent of Birdwell;
- To the east the site adjoins the Dearne Valley Parkway which runs broadly south west to north east. Beyond this lies an area of open fields. Further east, at a distance of approximately 270m from the site boundary lie a number of residential properties in the vicinity of Regent Court;
- To the immediate south of the site is the Birdwell roundabout, forming the junction between the A6195, the A61, the A6135 and the M1 motorway. Beyond this lies an area of open fields and outdoor sporting facilities; and,
- To the immediate west of the site is a large motorway depot operated by the Highways Agency. In the vicinity of Woodview lie a number of residential properties fronting on to Sheffield Road (A61). Beyond this lie further residential properties and, at a distance of approximately 310m from the site boundary lies the M1 motorway.

1.3 Other Developments within the Area

1.3.1 It is understood that considerable changes to the infrastructure in the vicinity of the Rockingham site are proposed, most notably in relation to the layout of the Birdwell roundabout and the Dearne Valley Parkway. These changes broadly include the extension of the Birdwell roundabout and the introduction of a second roundabout in the vicinity of Sheffield Road (A6135). The changes proposed are indicated in purple on Figure 1-2 below.

Figure 1-2 – Future Changes to Junction Alignment



1.3.2 In addition to the proposed Birdwell junction improvements, it is noted that a planning application for an adjacent land parcel to the north of the Dearne Valley Parkway has been submitted to the Local Planning Authority. For reference, the application site is highlighted in Blue on the figure below.

Figure 1-3 – Future Changes to Junction Alignment



1.3.3 The information available indicates that the application was submitted for a mixed use development including the following:

- Employment uses (B1/ B8);
- Hotel (C1);
- Car Show room/ Garage (Sui Generis/ B2); and,
- Food and Drink (A3, A4 and A5).

1.3.4 The application was submitted under planning application reference 2014/1055 on the 18th of September 2014 and was approved pursuant to a number of conditions.

1.4 Key Features of this Application

1.4.1 The proposed layout for the development site is detailed on the John R Paley Associates architects drawing ref P13 4806 10 Rev C Dated March 2015.

1.4.2 The development site is allocated as a mixture of Industrial and commercial units with associated car parking facilities, accessed via the existing Rockingham roundabout to the North East of the site. It is understood that access road to the site will be shared with the adjacent development consented under application reference 2014/1055 (as summarised in section 1.3 above).

Figure 1-4: Indicative Site Layout



1.4.3 Figure 1-4 above details the proposed layout of the development site. Broadly the development is separated as follows;

- 2400m² (total) of commercial units including retail, office, café, public house and hot food takeaway units(class A1 to A5);
- 5787m² (total) Commercial/ Industrial uses (Class B1, B2 and B8);
- Up to 241 car parking spaces; and,
- Associated access roads and service yard areas.

1.4.4 The information provided by Hartwood Estates indicates that the proposed development would be open between the hours of 06:00 to 00:00 daily, however, individual operators may look to open/operate for less time within this window, but would be constrained to these hours.

1.5 Consultation

1.5.1 Within the scope of this assessment a consultation exercise was initiated with the local planning authority (LPA) Barnsley Metropolitan Borough Council (BMBC).

- 1.5.2 The initial contact was made with the main switchboard at BMBC on the 29th July 2014 and the details of the query passed on to the relevant department.
- 1.5.3 A call back was received later the same day from Mr Paul Denton whereby the specifics of the proposals were discussed in further detail. The points raised during the discussions with Mr Denton were as follows:
- Brief outline of the proposed development;
 - Appropriate noise assessment methodology including relevant assessment criteria; and,
 - Appropriate noise monitoring methodology including survey timings, durations and locations.
- 1.5.4 During the above discussions Mr Denton detailed the following points for consideration within the proposed noise assessment;
- Noise assessments should be undertaken in line with BS4142 and seek to achieve a criteria of $L_{A90} \pm 0dB$, including any appropriate character correction;
 - Assessments undertaken in line with BS8233 should seek to achieve the 'Good' internal noise climate in line with the previous iteration of the BS8233 guidance; and,
 - Consideration should be given to the proposed/ ongoing works in the vicinity of the M1 J36 area. Changes to the existing junction alignment and subsequent changes to the wider road network could, depending on timescales, have the potential to invalidate the noise monitoring dataset established.
- 1.5.5 A subsequent email transmission was sent to Mr Denton on the 30th July 2014 summarising the points discussed. For reference this email and the subsequent response from Mr Denton are included within Appendix A.
- 1.5.6 The agreements made with BMBC have been used to inform the scope of this study.

1.6 Noise Assessment Methodology

- 1.6.1 In order to assess the impact of noise associated with the proposed development a number of elements of work have been required to be completed as detailed below:
- Consultation with the LPA to discuss and agree appropriate assessment methodologies;
 - A noise survey to quantify the existing baseline and ambient noise climate of the area;
 - Quantification and assessment of the potential impact of the proposed development on the existing residential receptors in close proximity to the site; and,
 - Where necessary, quantification of suitable acoustic mitigation measures and strategies that could be employed within the design of the site to control noise.

2 Noise Units

2.1 Noise

- 2.1.1 Before presenting the results of the noise assessment, it is considered useful to provide some background information on noise, the units of measurement and perception of changing levels by people.
- 2.1.2 Noise is defined as unwanted sound. The range of audible sound is taken to be from 0 dB to 140 dB. Examples of typical noise levels relating to everyday occurrences are presented within Table 2-1 below:

Table 2-1: Typical Noise Levels

Source	Sound Pressure Level in dB(A)	Subjective Level
Traffic at kerb edge	70 – 85	Loud
Raised voice at 1 metre	80	Loud
Normal voice at 1 metre	60	Moderate
Residential area at night	40	Quiet

- 2.1.3 The frequency response of the human ear to noise is usually taken to be about 18Hz (number of oscillations per second) to 18,000Hz. However, the human ear does not respond equally to different frequencies at the same level, it is more sensitive in the mid-frequency range than the lower and higher frequencies and, because of this, when undertaking the measurement of noise the low and high frequency components of any given sound are reduced in importance by applying a filtering (weighting) circuit to the noise measuring instrument. The weighting which is widely accepted to correlate best with the subjective nature of human response to noise and is most widely used to quantify this is the A-weighted filter set. This is an internationally accepted standard for noise measurements.
- 2.1.4 For variable noise sources within an area an increase of 3 dB(A) would be considered to be the minimum perceptible to the human ear under normal conditions. It is generally accepted that an increase/decrease of 10 dB(A) corresponds to a doubling or halving in perceived loudness. The 'loudness' of a noise is a purely subjective parameter, dependant not only upon the sound pressure of the event but also on the dynamics of the listener's ear, the time of the day and the general mood of the person.
- 2.1.5 With regard to environmental noise levels (in the open air), these are rarely steady, but rise and fall according to the activities being undertaken within the surrounding area at any given time. In an attempt to produce a figure that relates this variable nature of noise to human subjective response, a number of statistical noise metrics have been developed. These include:

2.2 L_{Aeq} Noise Level

- 2.2.1 This is the 'equivalent continuous A-weighted sound pressure level, in decibels', and is defined in British Standard BS7445 as the 'value of the A-weighted sound pressure level of a continuous, steady sound that, within a specified time interval, T, has the same mean square sound pressure as a sound under consideration whose level varies with time'.
- 2.2.2 It is the unit most suitable for the description of general environmental noise.

2.3 L_{A10} Noise Level

2.3.1 The L_{A10} is the noise level that is exceeded for 10% of the measurement period, and gives an indication of the noisier portion of the climate. It is a unit that has been used over many years for the measurement and assessment of road traffic noise.

2.4 L_{A90} Noise Level

2.4.1 The L_{A90} is the noise level that is exceeded for 90% of the measurement period and gives an indication of the noise level during the quieter periods. It is often referred to as the 'background' noise level.

3 Standards and Guidance

3.1 Introduction

- 3.1.1 Within the following section of the report, detail will be presented relating to the guidance documents and assessment methodologies appropriate for noise associated with a uses such as those proposed at the Rockingham site.

3.2 National Planning Policy Framework (NPPF, March 2012)

- 3.2.1 The National Planning Policy Framework determines the government's planning policy for England. The NPPF states that, with respect to noise, planning policies and decisions should aim to:

- Avoid Noise from giving rise to significant adverse impacts on health and quality of life as a result of new development;
- Mitigate and reduce to a minimum other adverse impacts on health and quality of life arising from noise from a new development, including through the use of conditions;
- Recognise that development will often create some noise and existing business wanting to develop in continuance of their business should not have unreasonable restrictions put upon them because of changes in nearby land uses since they were established; and
- Identify and protect areas of tranquillity which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.

- 3.2.2 The guidance contained within the NPPF further determines that consideration should be given to the Noise Policy Statement for England (DEFRA, March 2010).

3.3 Noise Policy Statement for England (NPSE, March 2010)

- 3.3.1 The Noise Policy Statement for England attends to three types of noise;

- "Environmental noise" which includes noise from transportation sources;
- "Neighbour noise" which includes noise from inside and outside people's homes; and
- "Neighbourhood noise", which includes noise arising from within the community such as industrial and entertainment premises, trade and business premises, construction sites and noise in the street.

- 3.3.2 In line with the aims determined in the NPPF, the NPSE determines three aims;

1. Avoid significant adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development;
2. Mitigate and minimise adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development; and,

3. Where possible, contribute to the improvement of health and quality of life through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development.

3.3.3 The guidance detailed within the NPSE relates a number of key phrases with regards to adverse effects which can be applied to noise impacts as used by the World Health Organisation.

NOEL – No Observed Effect Level

The level below which no health effect or detrimental impact on the quality of life is observed.

LOAEL – Lowest Observed Adverse Effect Level

The level at which adverse effects on health and quality of life can be detected

SOAEL – Significant Observed Adverse Effect Level

The level, above which significant adverse effects on health and quality of life occur.

3.3.4 The guidance indicates that it is not possible to have a single objective noise based measure that defines SOAEL and as such, the SOAEL is likely to be different for different noise sources and receptors. The document indicates that further research is required to establish what may constitute a significant adverse impact on health and quality of life from noise.

3.3.5 While the NPSE determines the NOEL, LOAEL and SOAEL descriptions, the document indicates that, unlike other environmental disciplines, there are currently no European or national noise limits which have to be met although the NPSE states that “there can be specific local limits for specific developments” allowing for negotiation.

3.4 Planning Practice Guidance - Noise

3.4.1 The Planning Practice Guidance for noise (updated December 2014) broadly considers the same issues as demonstrated within both the NPPF and the NPSE with regards to noise within the planning realm.

3.4.2 The information detailed within the planning practice guidance indicates that noise should be considered when:

- New developments may create additional noise; and/ or,
- New developments would be sensitive to the prevailing acoustic environment.

3.4.3 The guidance indicates that Local Planning Authorities should take account of the acoustic environment and in doing so consider:

- Whether or not a significant adverse effect is occurring or likely to occur;
- Whether or not an adverse effect is occurring or likely to occur; and,
- Whether or not a good standard of amenity can be achieved.

3.4.4 The impact of noise is rated within the policy document in terms of the relative ‘Observed Effect Level’ defined in line with the criteria summarised within paragraph 3.3.3 above. Based upon this the Planning Practice Guidance provides the following matrix of likely average response:

Table 3-1: Planning Practice Guidance – Noise, Exposure Hierarchy

Perception	Example of Outcomes	Increasing Effect Level	Action
Not noticeable	No Effect	No Observed Effect	No specific measures required
Noticeable and not intrusive	Noise can be heard but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.	No Observed Adverse Effect	No specific measures required
Lowest Observed Adverse Effect Level			
Noticeable and Intrusive	Noise can be heard and causes small changes in behaviour and/ or attitude, e.g turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a perceived change in the quality of life.	Observed Adverse Effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level			
Noticeable and disruptive	The noise causes a material change in behaviour and/ or attitude, e.g avoiding certain activities during periods of intrusion: where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in character of the area.	Significant Observed Adverse Effect	Avoid
Noticeable and very disruptive	Extensive and regular changes in behaviour and/ or an ability to mitigate effect of noise leading to psychological stress or physiological effects, e.g regular sleep deprivation/ awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory.	Unacceptable Adverse Effect	Prevent

3.5 British Standard (BS) 4142: Methods for rating and assessing industrial and commercial sound - 2014

3.5.1 This revision to the British Standard was issued at the start of November 2014 and provides a methodology for the rating and assessing of sound associated with both industrial and commercial premises. The purpose of the Standard is clearly outlined in the opening section where it states the method to be appropriate for the consideration of:

- Sound from industrial and manufacturing processes;
- Sound from fixed installations which comprise mechanical and electrical plant and equipment;
- Sound from the loading and unloading of goods and materials at industrial and/or commercial premises; and,
- Sound from mobile plant and vehicles that is an intrinsic part of the overall sound emanating from premises or processes, such as that from forklift trucks, or that from train or ship movements on or around an industrial and/or commercial site.

3.5.2 The Standard is based around the premise that the significance of the impact of an industrial/commercial facility can be derived from the numerical subtraction of the background noise climate level (not necessarily the lowest background level measured, but the typical background of the receptor) from the measured/calculated rating level of the specific sound under consideration. This comparison will enable the impact of said sound to be concluded based upon the premise that typically *"the greater this difference, the greater the magnitude of the impact"*. This difference is then considered as follows:

- A difference of around +10dB or more is likely to be an indication of a significant adverse impact, depending on the context;
- A difference of around +5dB is likely to be an indication of an adverse impact, depending upon context; and,
- The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact.

3.5.3 BS4142 further states that *"where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact"* again depending upon the specific context of the site. The Standard further qualifies the assessment protocol by stating that *"not all adverse impacts will lead to complaints and not every complaint is proof of an adverse impact"*, thus implying that all sites should be assessed on their own merits and specifics.

3.5.4 The Standard quantifies the typical reference periods (for the purposes of the standard) to be used in the assessment of noise:

Typical Daytime	07:00 – 23:00	1hr assessment period
Typical Night-time	23:00 – 07:00	15min assessment period

3.5.5 The Standard outlines a number of methods for defining appropriate *"character corrections"* within the Rating Levels to account for tonal qualities, impulsive qualities, other sound characteristics and/or intermittency. These are a) a Subjective Method, b) an Objective Method for tonality, and c) a Reference Method. It is noted by the Standard that where multiple features are present the corrections should be added in a linear fashion to the Specific level.

3.5.6 The Subjective Method is based on the following corrections:

Table 3-2: BS4142 Subjective Method Rating Corrections

Level of Perceptibility	Tonal Correction	Impulsivity Correction	Correction for "Other sound characteristics"	Intermittency Correction
No Perceptibility	+0 dB	+0 dB	Where neither tonal nor Impulsive but clearly identifiable +3 dB	If intermittency is readily identifiable +3 dB
Just Perceptible	+2 dB	+3 dB		
Clearly Perceptible	+4 dB	+6 dB		
Highly Perceptible	+6 dB	+9 dB		

3.5.7 The Objective Methods are based around the actual quantification of 1/3 Octave data for the sound under investigation where possible.

3.5.8 However, the Standard states that the assessment methodology provided is not intended for the derivation of internal noise levels arising from sound levels outside or "*where background sound levels and rating levels are low*", however, with regard to the latter no definition of "*low*" is provided. Where these situations prevail it is considered appropriate to reference the absolute guidance levels provided in British Standard BS 8233: 2014 - Guidance on Sound Insulation and Noise Reduction for Buildings, and the World Health Organisation 'Guidelines for Community Noise' and 'Night Noise Guidance for Europe'.

3.6 British Standard 8233:2014 – ‘Guidance on Sound Insulation and Noise Reduction for buildings

3.6.1 Within the consultation undertaken with BMBC reference was made to the 1999 version of the BS8233 standard. However, as this has been technically superseded by the 2014 version our discussions and assessment will be tailored accordingly.

3.6.2 When internal noise levels are required to be considered suitable guidance can be found within BS8233 2014. This Standard provides guidance values within Section 7.7 relating to a range of design criteria levels for certain building types. Section 7.7.1 covers “Dwelling Houses, flats and rooms in residential use (when unoccupied)” and the appropriate values are presented within Table 3-3 below.

Table 3-3: BS8233 Guidance Values

Activity	Location	Design Range dB L _{Aeq,T}	
		07:00 – 23:00	23:00 – 07:00
Resting	Living room	35 dB L _{Aeq, 16hr}	-
Dining	Dining room/area	40 dB L _{Aeq, 16hr}	-
Sleeping (daytime resting)	Bedroom	35 dB L _{Aeq, 16hr}	30 dB L _{Aeq, 8hr}

3.6.3 Note 7 to the above table within BS8233 details that “Where development is considered necessary or desirable, despite external noise levels above WHO guidelines, the internal target levels may be relaxed by up to 5 dB and reasonable internal conditions still achieved”.

3.6.4 With regard to external noise levels the Standard states that “For traditional external areas that are used for amenity space, such as gardens and patios, it is desirable that the external noise level does not exceed 50 dB L_{Aeq,T}, with an upper guideline value of 55 dB L_{Aeq,T} which would be acceptable in noisier environments”. However, the Standard recognises that these levels are not

achievable in all situations and further states that “In higher noise areas, such as city centres or urban areas adjoining the strategic transport network, a compromise between elevated noise levels and other factors, such as the convenience of living in these locations or making efficient use of land resources to ensure development needs can be met, might be warranted. In such a situation, development should be designed to achieve the lowest practicable levels in these external amenity spaces, but should not be prohibited”.

- 3.6.5 Section 7.7.5 of BS8233 details further considerations for "Hotels and rooms for residential purposes". This section indicates that the recommendations for noise in hotel bedrooms are similar to those detailed within Table 3 3 above.
- 3.6.6 The information provided details that intrusive noise within hotel rooms can arise from;
 - Other rooms or uses within the building;
 - External sources through facades; and,
 - Internal building services such as heating, ventilation and air conditioning.
- 3.6.7 While not stipulating specific criteria for hotels, the standard does provide example design criteria adopted by various hotel groups within Annex H.
- 3.6.8 Section H.4 of Annex H details a scheme of "*Internal noise levels from external sources*" stating that the noise levels from all external noise sources (road, rail, air traffic and activities outside) should meet the values detailed within Table H.3, with windows closed.

Table 3-4: Indoor Ambient Noise Levels for Hotel Bedrooms (Table H3)

Period	Noise Level
Daytime (07:00 – 23:00hrs)	30 – 40dB L _{Aeq, 1hr}
Night-time (23:00 – 07:00hrs)	25 – 35dB L _{Aeq, 1hr}
	45 – 55dB L _{Amax}

- 3.6.9 It is noted that the noise levels presented above are not entirely dissimilar to those presented within Table 3-3 with the values for residential dwellings falling at the median of the ranges presented within Table 3 4.
- 3.6.10 The internal values detailed within the scope of BS8233: 2014 generally accord well with the recommendations of the WHO guidance.

4 Noise Monitoring Survey

4.1 Introduction

- 4.1.1 This section of the report describes the specifics of the noise survey undertaken in the vicinity of the proposed development site.
- 4.1.2 It is noted that the noise monitoring survey undertaken within the scope of the assessment was informed by site specific factors and presents a departure from the methodology discussed with BMBC during the consultation phase (detailed within Section 1.4). The reason for this was primarily the security of both the equipment and personnel during the monitoring surveys. It is considered that the survey undertaken still broadly follows the principles agreed with BMBC.

4.2 Survey Details

- 4.2.1 In order to determine the noise climate of the area, a noise monitoring survey was undertaken at a number of locations both within the development site area and at the nearest noise sensitive receptor locations. The noise survey was undertaken between the 21st and 27th August 2014 and was considered to be representative of the general, prevailing noise climate of the area.
- 4.2.2 The survey was undertaken at the following noise monitoring locations as a means of establishing the existing noise climate of the area.

Table 4-1: Noise Monitoring Survey Locations

Location Reference	Location Co-ordinates	Description
R01	53.502004, -1.4746101	<i>No 53 Locksley Gardens</i> Within the rear garden of the residential property to the north of the development site, in the vicinity of Rockingham Row. SLM positioned on soft ground at a height of 1.5m above local ground, approximately 1.5m from the boundary fence.
R02	53.499466, -1.4763375	<i>No 20 Woodview</i> Within the rear garden of the residential property to the west of the development site. SLM positioned on hard ground at a height of 1.5m above local ground. Approx. 2m to nearest façade.
R03	53.501031, -1.4704648	To the east of the site in the vicinity of Cross Keys Lane, approx. 200m from the site boundary. SLM positioned on hard ground at a height of 1.5m above local ground. No facades in the vicinity.
S01	53.500016, -1.4740844	<i>Within the site area</i> To the south of the site, approx. 15m from Dearne Valley Parkway (A6195). SLM positioned on soft ground at a height of 1.5m above local ground height. No facades within influencing distance.
S02	53.501224, -1.4748327	<i>Within the site area</i> To the north of the site, adjacent to the existing industrial/commercial units of Rockingham Estate. SLM positioned on soft ground at a height of 1.5m above local ground height. Approx. 10m to the nearest façade.

4.2.3 To clarify;

- Locations R01 to R03 are monitoring locations representative of the nearest noise sensitive residential receptor locations; and,
- Locations S01 and S02 are monitoring locations representative of the noise climate incident upon the development site area.

4.2.4 The noise monitoring locations are broadly indicated within Figure 4-1 below.

Figure 4-1: Noise Monitoring Location Plan



4.2.5 The noise monitoring survey was undertaken as detailed in Table 4-2 below.

4.2.6 Given the nature of the proposed site, it was considered pertinent to quantify the prevailing noise climate during both the weekend and weekday periods and to monitor through the anticipated periods of operation of the proposed development.

4.2.7 For reference, the monitoring periods covered were as detailed below;

Table 4-2: Noise Monitoring Durations

Location Reference	Duration hh:mm:ss	Period
R01	114:00:00	17:15 Thursday 21 st August to 11:15 Tuesday 26 th August 2014
R02	116:15:00	15:15 Thursday 21 st August to 11:30 Tuesday 26 th August 2014
R03	01:00:00	15:30 to 16:30 Thursday 21 st August - Daytime
	01:15:00	12:00 to 13:15 Tuesday 26 th August – Daytime
	01:00:00	01:00 to 02:00 Wednesday 27 th August - Overnight
S01	03:00:00	11:15 to 14:15 Thursday 21 st August – Daytime
	01:00:00	05:31 to 06:31 Tuesday 26 th August – Early morning
	01:00:00	08:00 to 09:00 Tuesday 26 th August – Rush Hour
	03:00:00	10:20 to 13:20 Tuesday 26 th August - Daytime
	01:00:00	23:45 to 00:45 Tuesday 26 th August - Overnight
S02	01:00:00	12:01 to 13:01 Thursday 21 st August - Daytime
	00:20:00	06:40 to 07:00 Tuesday 26 th August – Early morning
	00:45:00	07:00 to 07:45 Tuesday 26 th August – Rush Hour
	01:00:00	23:50 to 00:50 Tuesday 26 th to Wednesday 27 th August - Overnight

4.3 Weather

Thursday 21st August 2014

4.3.1 The weather on the Thursday was noted to be dry though overcast. Ambient air temperatures were noted to be between 15°C during the earlier part of the day, rising to 17°C during the latter part of the monitoring period. Wind speeds were noted to be low at between 10 – 12mph with no strong directional component. Cloud cover was between 80% and 50%.

4.3.2 No precipitation was recorded during the daytime monitoring period.

Friday 22nd to Monday 25th August 2014

4.3.3 As detailed above, the noise monitoring surveys were predominately undertaken on an unattended basis. As such, no subjective field notes were taken for these unattended periods.

4.3.4 It is however noted that the development site is in close proximity to a weather station, located at 53.502, -1.479. The data obtained from this weather station is presented below for the unattended monitoring periods and is considered to be representative of the meteorological conditions on the development site area.

Friday 22nd August – Maximum air temperature was recorded as 19.8°C. Winds were predominately from a northerly direction averaging around 1kph with gusts up to 18kph. No precipitation was recorded during the Friday period.

Saturday 23rd August – Maximum air temperature was recorded at 19.6°C. Winds were again from a northerly direction with an average speed of between 1 and 3kph. No precipitation was recorded during the Saturday period.

Sunday 24th August – Maximum temperature recorded on the Sunday was 20.9°C. Winds were from a north/ west direction with an average speed of around 1kph with gusts up to 14.6kph. No precipitation was recorded during the Sunday period.

Monday 25th August – The ambient air temperature was relatively stable throughout the day, ranging between approx. 11°C and 13°C. Winds were predominately north/ westerly with an average speed between 0kph and 9kph with gusts up to 20kph. Rain started at approximately 11am and continued throughout the day.

Tuesday 26th August 2014

- 4.3.5 The early morning period was noted to be mild with an ambient air temperature of 12°C. Wind speeds were low with no strong directional component. Road surfaces were noted to be wet during the early morning period although no rain fell during the actual monitoring period.
- 4.3.6 Road surfaces were noted to dry off as the monitoring period progressed. Weather conditions remained consistent during the daytime period with temperatures generally staying between 10°C and 12°C.
- 4.3.7 The overnight period was noted to be consistent with the daytime period. Air temperatures remained around 10°C with low/ no wind recorded. Road surfaces were dry for the duration of the monitoring period with no precipitation recorded prior to, or during the monitoring period.

4.4 Monitoring Equipment

4.4.1 The monitoring of noise was undertaken in line with the guidance set out within BS7445: 1991. The sound level meter was programmed to monitor over 15 minute intervals during the daytime and evening and 5 minutes during the overnight periods. The equipment used was set to record the following statistical parameters:

L_{Aeq} in dB

L_{A10} in dB

L_{A90} in dB

L_{Amax} in dB

4.4.2 The following noise monitoring equipment was used in order to undertake the survey work in the vicinity of the site.

Table 4-3: Noise Monitoring Locations

Equipment	Manufacturer	Type	Serial Number
Sound Level Meter	01dB	Black Solo	65445
			65446
			65396
Calibrator	Cirrus	CR:515	59522

4.4.3 The following set-up parameters were used on the sound level meter during all of the noise measurements undertaken:

Time Weighting: Fast

Frequency Weighting: "A"

4.4.4 The sound level meter used within this assessment was locally calibrated using an electronic calibrator prior to commencement and upon completion of the surveys, no significant drift in calibration was observed. The instrumentation calibration documentation for the equipment used is available on request.

5 Noise Survey Results

5.1.1 This section of the report summarises the results of the noise monitoring survey undertaken within the scope of this study. The data established, monitored at each of the locations detailed within Chapter 4, is presented in the following periods;

- The daytime data is presented as the averaged 15 minute levels during the daytime survey periods (between 07:00 to 23:00hrs);
- The overnight data is presented as the averaged 15 minute levels during the overnight survey periods (between 23:00 to 07:00).

5.1.2 For consistency with the information presented within Section 4, the noise levels have been presented as the onsite and offsite measured levels.

5.1.3 Given the nature of the proposed development (Commercial Retail units) there is a potential for different usage characteristics between the weekday and weekend periods and therefore, the data is presented separately for each.

5.2 Offsite Noise Monitoring Data

5.2.1 As detailed within Section 4.2.3 the offsite noise monitoring locations are considered representative of the nearest noise sensitive receptors to the development.

5.2.2 The data has been separated to present the weekday, weekend periods where appropriate.

Table 5-1: Off Site Noise Monitoring Data

Location Reference	Period	Duration hh:mm:ss	L _{Aeq}	L _{Amax}	L _{A90}	L _{A10}	
R01	Weekday	Daytime	25:45:00	56.5	84.4	50.0	55.3
		Overnight	16:00:00	56.0	93.6	43.5	50.8
	Saturday	Daytime	15:45:00 ^{*1}	49.4	70.1	45.5	50.1
		Overnight	08:00:00	44.8	64.4	37.9	47.5
	Sunday	Daytime	15:45:00 ^{*1}	52.4	80.4	45.0	52.4
		Overnight	08:00:00	50.2	64.4	39.1	53.8
R02	Weekday	Daytime	28:00:00	62.8	97.8	54.0	58.1
		Overnight	16:00:00	60.0	99.1	48.1	54.2
	Saturday	Daytime	15:45:00 ^{*1}	59.8	94.4	52.0	57.2
		Overnight	08:00:00	49.6	83.9	42.1	52.2
	Sunday	Daytime	15:45:00 ^{*1}	52.7	76.8	49.1	53.9
		Overnight	08:00:00	49.7	66.5	44.1	52.5
R03	Weekday	Daytime	02:00:00	61.5	87.7	54.7	61.6
		Overnight	01:00:00	43.8	55.6	38.2	47.3

Notes to Table 5-1

*¹ – Daytime period reduced from 16:00:00 to 15:45:00 due to SLM set up;

*² – Recorded maximum L_{Amax} event recorded at 103.7dB during the night time. This event was atypical of the dataset amassed during the 8hr overnight period and is considered to result from outside interference with the noise monitoring equipment. As such this period has been removed from the monitoring dataset.

5.3 Onsite Noise Monitoring Data

5.3.1 The onsite noise data was established at two locations within the site area. The monitoring locations used were considered to be representative of the noise climate of the area and were chosen to represent the noise levels incident upon the site during the relevant periods.

5.3.2 Noise levels were measured for the following periods:

- Early Morning Period – 05:00 to 07:00hrs
- Early Morning Peak Period – 07:00 to 09:00hrs
- Daytime Period – 09:00 to 23:00hrs
- Overnight Period – 23:00 to 07:00hrs

Table 5-2: Onsite Noise Monitoring Data

Location Reference	Period	Duration hh:mm:ss	L _{Aeq}	L _{Amax}	L _{A90}	L _{A10}
S01	Early Morning	01:00:00	64.8	76.4	55.6	68.4
	Morning Peak Period	01:00:00	70.3	79.7	63.8	73.2
	Daytime	06:00:00	67.5	82.6	60.9	70.6
	Overnight	01:00:00	57.9	74.2	43.1	61.3
S02	Early Morning	00:20:00	63.7	70.7	60.9	65.5
	Morning Peak Period	00:45:00	64.0	77.0	61.1	65.7
	Daytime	01:00:00	61.5	81.1	59.0	63.0
	Overnight	01:00:00	52.4	64.6	41.4	56.0

5.3.3 The noise data presented within Table 5-2 above has been used to facilitate the prediction of noise contours across the development site as outlined within Section 6.

5.4 Subjective Field Notes

Thursday 21st August 2014

5.4.1 The noise climate during the daytime period of the 21st August was noted to be dominated by traffic movements on the surrounding road network, predominately the Dearne Valley Parkway (A6195). Other noise sources in the area included activities associated with the industrial commercial units including those on Rockingham Rd, the HA depot at Woodview and the facilities on Cross Keys Lane. These industrial type noises included grinding noises, HGV movements, forklift truck movements and general bangs and clangs.

Tuesday 26th August 2014

5.4.2 The early morning period of the 26th was noted to be dominated by traffic movements on the Dearne Valley Parkway. No noise from the industrial/ commercial facilities were noted during the early period though were noted to pick up from approximately 09:00hrs.

5.4.3 The daytime period was noted to be dominated by traffic movements on the surrounding road network. Again, industrial/ commercial noise was audible at all locations during the daytime period. The overnight period was noted to be similar to the preceding daytime period. Traffic noise in the area was still considered to dominate the wider noise climate with some contribution from more localised sources including noise associated with occasional light gusts of wind and a low level 'static' noise in the vicinity of location M03.

6 Predictive Noise Modelling Assessment

6.1.1 This section of the report will detail the calculation methodologies and assumptions used to inform the noise study.

6.2 Noise Prediction Elements

6.2.1 The aspects of the proposed development that will generate noise and therefore require predictive modelling can be broken down into the following three main elements:

- Operational noise associated with any fixed/ static plant within the proposed site;
- Operational noise associated with vehicle movements/ deliveries and service yard activities; and,
- Noise from the car park and access roads.

6.3 Noise Modelling Protocols

6.3.1 The noise model was constructed within the commercially available Braunstein + Berndt GmbH computer noise mapping software SoundPLAN 7.3. Acoustic propagation within the model has been calculated in accordance with the following standards:

- BS5228: 2009 Code of practice for noise and vibration control on construction and open sites; and,
- ISO 9613-2: Acoustics – Attenuation of sound during propagation outdoors: Part 2: General method of calculation.

6.3.2 However, whilst the software implements both of these protocols, in this instance distance, barrier and ground absorption corrections have been calculated using the methodology of ISO 9613 due to the inherent limitations within the BS5228 methodology with regard to predictions at separation distances in excess of 300m.

6.4 Operational Noise Methodologies and Assumptions

6.4.1 As the noise sources associated with the development are commercial in nature it is considered that BS4142: 2014 is wholly appropriate for the assessment of noise impacts associated with the proposed development.

6.4.2 For each of the main sources of noise associated with the development the methodology used to predict noise into the environment, as well as any assumptions made within the modelling, are discussed below:

Fixed/ Static Plant

6.4.3 At this stage of the development no information is available relating to the specifics of any fixed noise generating plant such as air conditioning fans, refrigeration plant, CHP plant or other fixed noise sources that are to be utilised within the scheme, where they would be located or the required hours of operation.

6.4.4 As there is no information available for fixed plant it cannot be included within the predictive modelling. However, it is possible to set plant noise emission limits which could then be used to form the basis of an appropriately worded planning condition to control noise generated by static plant associated with the development.

6.4.5 Within the scope of the design of any such plant the following key issues should be borne in mind:

- Any external fixed plant should, as far as possible, be located on façades not facing directly onto any sensitive receptors;
- The noise levels emitted from any such equipment should be attenuated by appropriate source noise control techniques to ensure that they do not exceed a 'rating level' of existing $L_{A90} \pm 0\text{dB(A)}$ external to any adjacent inhabited property /sensitive receptor as specified by the LPA in the consultation phase; and,
- Potentially noisy plant and equipment should only be used when necessary and switched off when not in use.

6.4.6 Upon finalisation of the specific equipment required and the location of such further acoustic assessment would be necessary in order to ensure that the operation of such equipment does not have a detrimental effect on the noise climate of the area. This aspect of the detailed design of the site should be conditioned.

Vehicle Deliveries and Service Yard Noise

6.4.7 Typically the dominant noise source within any service yard area would be Heavy Goods Vehicle (HGV) movements and engine idling (refrigerated HGVs). Noise would also be evident from loading and unloading operations although this could be controlled by operational procedures.

6.4.8 Assuming standard 'good practice' techniques are utilised and that, where possible unloading would be undertaken directly from the loading bay into buildings, noise from unloading operations are unlikely to be significant when compared to noise from vehicle movements. It has further been assumed that there will be a no idling policy in place for HGV's on the development site associated with the tenancies to all units.

6.4.9 Through consultations with the client, it is understood that vehicle deliveries would typically be undertaken during the hours of 08:00 to 00:00hrs (midnight).

6.4.10 As the specific end users of each unit have not been confirmed at this time it is necessary to make a number of assumptions relating to delivery vehicle movements and hours. The following assumptions have been made within the scope of the noise predictions:

Table 6-1: Assumed Delivery Hours

Source Unit	Assumed Delivery Hours	
Industrial Units (Class B1, B2 and B8)	Monday to Saturday	08:00 to 23:00
Public House	Monday to Sunday	08:00 to 00:00 (midnight)
Petrol Filling Station	Monday to Sunday	08:00 to 00:00 (midnight)

Within the assessments undertaken the following number of vehicle movements were assumed within the delivery hours detailed above:

- 1 HGV delivery would occur per unit, per hour during the delivery hours detailed above; and,
- No HGV movements would occur during the overnight period between 00:00 to 08:00hrs.

6.4.11 Within the model noise levels generated by the HGV movements have been calculated based on the linear 'Haul Road' methodology of BS5228 in order to derive a sound power level for this source. Source height of the HGV line source has been assumed as 0.5m to represent the approximate height of the exhaust and engine. It has also been assumed within the calculations

that the sound power level of a HGV under acceleration is 105.5dB(A) as stipulated as a maximum permitted value in EC Directive 92/97/EC.

Petrol Filling Station Noise Level

6.4.12 Within the Enzygo empirical data library are a number of noise monitoring surveys undertaken within the forecourt area of active petrol filling stations. These monitoring surveys were undertaken as a means of establishing noise levels associated with typical operations involved in refuelling. Subjective field notes taken during the monitoring surveys indicate that noise sources captured within the forecourt areas included;

- Use of the fuel pumps and fuel pump noise;
- Vehicle movements;
- Car doors open/ closing; and,
- Other irregular noise sources (car stereos, patrons talking etc.).

6.4.13 Noise monitoring surveys were undertaken at seven geographically separate petrol stations all containing similar numbers of pumps (6 to 8 pumps) to that proposed. The information obtained was then used to form a representative dataset for this activity.

6.4.14 The measurements presented within Table 6-1 below summarise the measured 1 minute average L_{Aeq} values during the measurement periods at each of the PFS considered.

Table 6-1: PFS Noise Monitoring Data

Location Reference	Survey Duration (hh:mm:ss)	Measurement Period		Average Measured L_{Aeq} (1 min) dB
		Start Time	Stop Time	
Pantiles	00:20:00	10:36	10:56	67.5
Chobham	00:49:00	13:08	13:57	67.8
Minster	00:59:00	11:20	12:19	66.3
Milton Road	00:20:00	15:58	16:18	68.9
Ackworth	00:60:00	17:05	18:05	66.3
Ellenbrook Road	00:55:00	08:55	09:50	67.5
Letchworth Gate	00:60:00	15:10	16:00	69.0
Milverton	00:60:00	13:25	14:25	65.7
Average				67.5

6.4.15 The data set above therefore presents approximately six and a half hours of monitoring within various forecourts during a number of periods considered representative of typical, core PFS operations. It is noted that the data monitored and presented in Table 6-1 details relatively consistent noise levels on the forecourts.

6.4.16 Based upon this information the noise modelling exercise has been undertaken utilising an area source forecourt sound pressure level of **67.5dB(A) L_{Aeq} 1min**.

Car Park Noise Levels

6.4.17 With regard to the car parking facilities, in the absence of any UK methodology for the prediction of noise from car parks, calculations have been undertaken in line with the methodology of revisions 3 and 4 the Parkplatzlärmstudie des Bayerischen Landesamts für Umweltschutz (Bavarian Parking Lot Study of the Bavarian department for Environmental Protection).

- 6.4.18 The source calculation of the Bavarian methodology converts the number of movements per bay of the car park per hour and the number of bays within the car park into an area noise source for inclusion within the model.
- 6.4.19 The calculations undertaken within the scope of this study have been based upon the design information of 241 parking spaces (including disabled spaces and parent and child spaces) arranged around the site.
- 6.4.20 Analysis of the TRICs database for a site similar to that proposed at Rockingham indicated car parking movements of between 111 to 243 vehicles per hour with peak hour movements occurring between 11:00 and 12:00hrs daily. If it is assumed that vehicle movements around this site are analogous with the proposed Rockingham development it could be concluded that the car parking movements, per parking space, during the peak hour would be as follows:

Table 6-2: Assumed Car Park Movements

Vehicle Movements	Car Park Spaces	Parking Space Movements Per Peak Hour
111 to 243	Up to 241	0.46 to 1.00

- 6.4.21 Based on the above information, a worst case assumption of 1.00 vehicle movement per parking space per hour has been used within the subsequent noise modelling assessment.

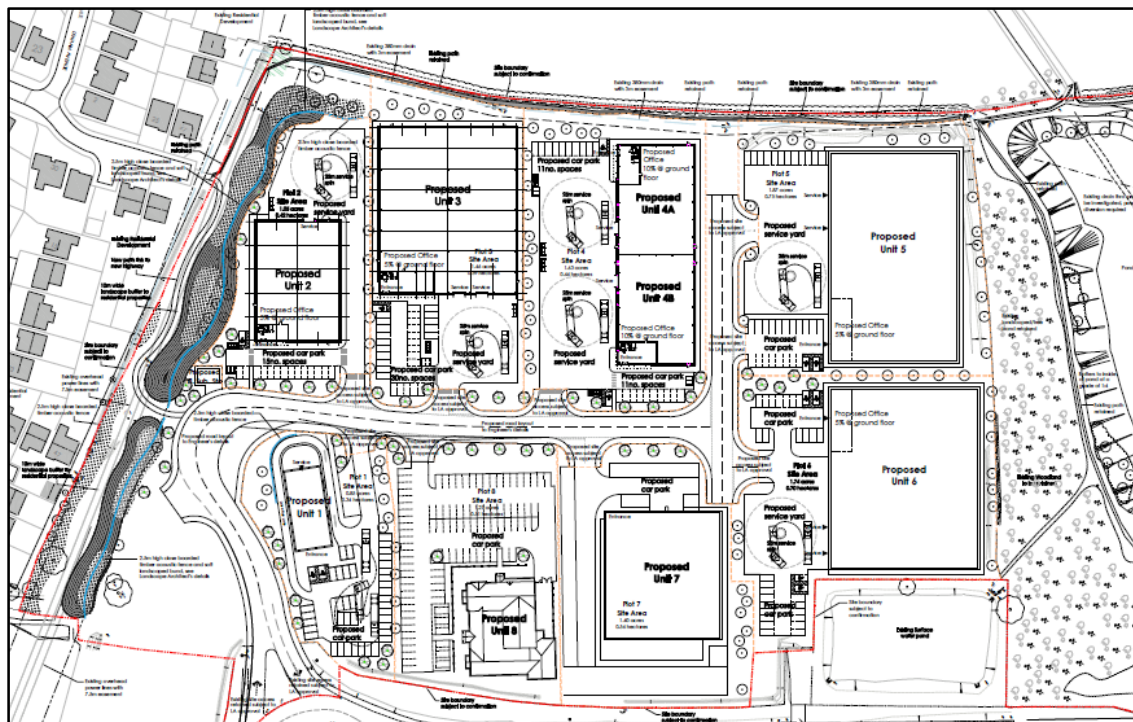
6.5 Foundation of the Noise Model

- 6.5.1 The noise model was constructed using the following information either provided to Enzygo, assumed as outlined above and based on the detailed prediction methodologies:
- Detailed AutoCAD OS mapping data of surrounding area as supplied by John R Paley Associates;
 - Detailed site layout drawings as supplied by JR Paley Associates on the 6th March 2015 (drawing ref: P13 4806 10 Rev C);
 - TRICs database output for traffic movements within the car park provided by Enzygo;
 - Existing residential buildings within the area have been assumed to be 6m high in all cases; and,
 - Existing commercial buildings within the area have been assumed to be 6m high in all cases.
- 6.5.2 Within the scope of the noise model constructed for the development the following mitigation measures have been assumed to be included within the specification of the site:
- It has been assumed that the construction specifications of the external building envelopes of the commercial and industrial units would be designed to ensure that noise generated within is, as far as practicable, entirely contained;
 - There has been assumed to be a “no idling” policy with regard to delivery HGV’s within all service yards across the development. This would be enforced within the tenancies of each of the units within the development; and,
 - All fixed mechanical air conditioning/refrigeration plant has been assumed to be adequately acoustically controlled at source to ensure that it would not unduly impact on the existing noise climate of the area as detailed within Section 6.3.2.

6.6 Committed offsite Mitigation Measures

6.6.1 The information detailed within planning application 2014/1055 for the adjacent consented development indicates extensive noise mitigation measures on the Western boundary of the site, in the vicinity of the existing residential properties on Locksley Gardens. For reference the site layout plan is indicated on the figure below;

Figure 6-1: Inherent Noise Mitigation Measures



6.6.2 The mitigation included within the above mentioned application includes an earth bund of between 1m and 2m in height with a close boarded, timber acoustic fence on, or close to the top. The mitigation measures would run for almost the entire length of the Western boundary with a small gap to permit pedestrian access to the residential properties to the West.

6.6.3 This feature has been included within the scope of our modelling exercise.

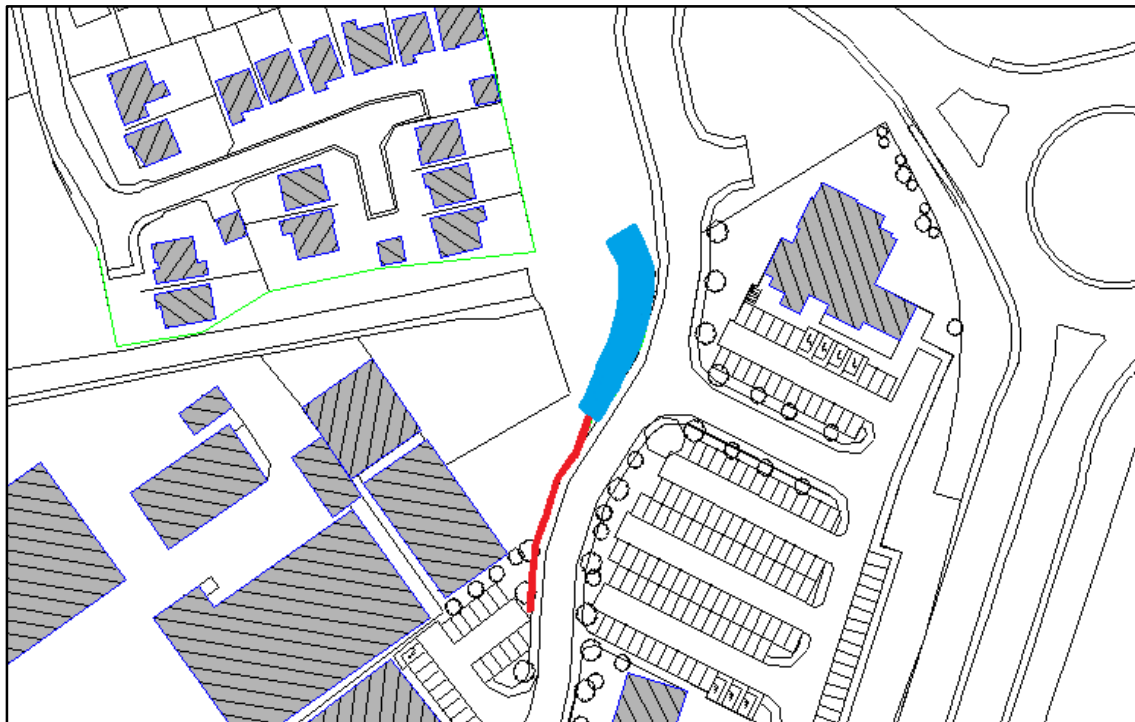
6.7 Proposed Development Specific Mitigation Measures

6.7.1 Within the assessments undertaken as part of this study, it became apparent that some form of mitigation would be required within the scope of this development, as a means of attenuating the noise generated by the development at the existing residential properties to the North West of the site, in the vicinity of Locksley Gardens. A number of mitigation measures have been investigated, however, as a function of the available space and the levels of attenuation required the following noise mitigation measures have been included within the noise modelling assessment specific to this development;

- A combination of 1.5m earth bund with a 2m acoustic barrier on or near the top of the bund (Blue line on Figure 6-2 below); and,
- A 3.5m close boarded acoustic fence (Red line on Figure 6-2 below).

The mitigation measures summarised above are presented in further detail on Figure 6-2 below;

Figure 6-2: Development Specific Mitigation Measures



7 Noise Impact Assessment

7.1.1 In this section of the report the noise impacts associated with the proposed development will be assessed against the appropriate guidance and standards.

7.1.2 For the purposes of these assessments the noise impact has been considered as two separate entities:

- ***The impact of noise generated within the site at the nearest offsite, noise sensitive receptor locations.***

The offsite noise impacts will be considered in line with BS4142:2014 *Methods for rating and assessing industrial and commercial sound*. The assessment in line with BS4142 considers externally received noise levels only, as stipulated in the limitations of the Standard.

- ***The impact of the existing noise climate in the area on the sensitive portions of the development site.***

The onsite noise impacts will be assessed by means of ensuring an appropriate internal noise climate can be achieved in the sensitive internal portions of the proposed buildings. The internal noise criteria of BS8233:2014 *Guidance on Sound Insulation and Noise Reduction for Buildings*, for residential elements would be used.

7.2 Offsite Assessment Locations

7.2.1 Prediction of resulting noise impacts off site has been undertaken to the assessment locations detailed within Table 7-1 below. The assessment locations are representative of the sensitive external spaces associated with the nearest noise sensitive receptor locations. For reference, the relevant baseline noise monitoring location has also been included.

Table 7-1: Assessment Location Matrix

Assessment Locations	Relative monitoring dataset
AL01	R01
AL02	
AL03	
AL04	R02
AL05	
AL06	R03
AL07	

7.2.2 The assessment locations are further presented graphically within Figure 7.1 below.

Figure 7-1: Assessment Location Plan



7.3 Fixed/ Static Plant

7.3.1 As detailed within Section 6.4.3, no specific details regarding the fixed/ static plant are available at this time. Therefore, no quantitative assessment of any potential impacts associated with fixed plant can be undertaken within the production of this report. However, it is considered that this element of the development could be suitably controlled within an appropriately worded planning condition attached to any outline planning permission granted for the proposed development.

7.3.2 For this reason, no further consideration of the noise generated by fixed/ static plant is presented within the scope of this report.

7.4 Vehicle Deliveries and Service Yard Noise

7.4.1 As with the static plant and machinery, the vehicle deliveries and service yard activities cannot be accurately determined until the end user of each proposed unit is identified and the associated vehicle movements provided. However, assessment of the noise related impacts associated with this aspect of the development have been undertaken based on assumed vehicle movements to each unit within the development site during the delivery hours provided. However, it is noted that based upon the proposed uses these assumptions could be somewhat over predicting the levels of vehicles expected in each hour.

Table 7-2: Assumed Delivery Vehicle Movements

Assessment Period		Assumed delivery Vehicles
Weekday Period <i>Monday to Friday</i>	Delivery Period <i>08:00 to 23:00</i>	1 HGV per industrial unit (4 HGVs)
		1 HGV to the PFS
		1 HGV to the Public House
	Delivery Period <i>23:00 to 00:00</i>	1 HGV to the PFS or Public House
Saturday Period	Delivery Period <i>08:00 to 23:00</i>	1 HGV per Industrial unit (4 HGVs)
		1 HGV to the PFS
		1 HGV to the Public House
	Delivery Period <i>23:00 to 00:00</i>	1 HGV to the PFS or Public House
Sunday Period	Delivery Period <i>08:00 to 23:00</i>	1 HGV to the PFS
		1 HGV to the Public House
	Delivery Period <i>23:00 to 00:00</i>	1 HGV to the PFS or Public House

- 7.4.2 The impact of noise associated with HGV movements has been assessed in line with the methodology detailed within BS4142, which is considered an acceptable methodology for the consideration of this type of noise.
- 7.4.3 Within the methodology of BS4142 it is necessary to first calculate a specific external noise level at each receptor location from the operations/site under consideration. This specific noise level then requires converting to a “Rating” level in order to take account of tonal or noticeable characteristics of the source noise. It is noted that as is required by BS4142 the assessment is undertaken on the basis of whole dB values with 0.5dB being rounded up.
- 7.4.4 The following has been concluded with regard to suitable character corrections for the operations proposed at the site. The Subjective Method has been used in this case due to the level of information currently available within the Outline application:

Table 7-3: Vehicle Delivery and Service Yard Noise – Rating Level Correction

Characteristic	Subjective Perception	Justification	BS4142 Correction
Tonality	None	Noise generated by vehicle movements within the site is not considered to be tonal in any way.	+0
Impulsivity	None	Assuming good practice measures are adhered to during the loading/ unloading of delivery vehicles, noise associated with deliveries and service yard activities are not considered impulsive.	+0
Other Characteristics	None	Noise from vehicle movements and service yard activities are not considered out with the existing noise climate and are not considered to include any ‘Other’ characteristics which would incur a correction factor.	+0
Intermittency	Just	The movement of HGVs and activities within the service yard areas have the potential to be intermittent in nature and as such, as a worst case assessment have incurred the feature correction for intermittency.	+3
Total Character Correction			+3

- 7.4.5 It is considered that noise generated by the HGV movements would, broadly speaking, be in keeping with the existing noise climate of the area typified by industrialised noise and infrastructure noise during the typical daytime period. However, as a worst case scenario, and to account for the potential for stop/ start (intermittent) noise generated by the delivery movements it is considered appropriate to include the +3dB BS4142 feature correction.

7.4.6 Given the proposed delivery hours of the development the assessments have been undertaken utilising the average background (L_{A90}) levels established during the following periods;

- 60 minute periods during the daytime (08:00 to 23:00); and,
- 15 minute periods during the overnight (23:00 to 00:00).

The assessments have been undertaken for both the weekday and weekend periods where appropriate.

Table 7-4: Noise Impact Assessment - Delivery Vehicle Movements (08:00 to 23:00)

Location	Predicted Specific Level, dB	Calculated Rating Level, dB	Average Measured Background (08:00 – 23:00), $L_{A90, T}$ dB	Difference, dB	Relevant BS4142 Impact Significance Criteria
Weekday Period – Monday to Friday					
AL01	43 (43.2)	46	50	-4	<i>'Indication of the specific sound source having a low impact'</i>
AL02	36 (35.5)	39	50	-11	
AL03	34 (33.7)	37	50	-13	
AL04	35 (34.7)	38	55	-17	
AL05	36 (35.5)	39	55	-16	
AL06	35 (35.1)	38	55	-17	
AL07	37 (37.2)	40	55	-15	
Weekend Period – Saturday					
AL01	43 (43.2)	46	46	+/-0	<i>'Indication of the specific sound source having a low impact'</i>
AL02	36 (35.5)	39	46	-7	
AL03	34 (33.7)	37	46	-9	
AL04	35 (34.7)	38	52	-14	
AL05	36 (35.5)	39	52	-13	
AL06	35 (35.1)	38	No weekend data available		
AL07	37 (37.2)	40	No weekend data available		
Weekend Period – Sunday					
AL01	38 (38.4)	41	45	-4	<i>'Indication of the specific sound source having a low impact'</i>
AL02	31 (31.0)	34	45	-11	
AL03	29 (28.5)	32	45	-13	
AL04	23 (22.6)	26	49	-23	
AL05	27 (27.2)	30	49	-19	
AL06	30 (29.5)	33	No weekend data available		
AL07	32 (31.7)	35	No weekend data available		

7.4.7 The Daytime assessments presented above indicate the following:

Weekday – Predicted noise level falls between -4dB and -17dB below the measured background (L_{A90}) noise level for the weekday period. This would be considered by the standard to provide an *'indication of the specific sound source having a low impact'*.

Saturday – Predicted noise levels would fall between +/-0dB and -14dB relative to the measured background (L_{A90}) noise level for the Saturday period. This would be considered by the standard to provide an *'indication of the specific sound source having a low impact'*.

Sunday – Predicted noise level would fall between -4dB and -23dB below the measured background (L_{A90}) noise level for the Sunday period. This would be considered by the standard to provide an *'indication of the specific sound source having a low impact'*.

- 7.4.8 In all cases the predicted noise levels from the HGV delivery movements at the site during the daytime period would be within the criteria of existing $L_{A90} \pm 0dB(A)$ as stipulated by the LPA within the consultation phase.
- 7.4.9 In addition to the assessments presented above, it is considered pertinent to consider the later delivery period (23:00 to 00:00) as night-time for the purposes of assessment.
- 7.4.10 The assessment presented below assumes vehicle movements in line with those detailed within Table 7-4 above between 23:00 and 00:00 only.

Table 7-5: Noise Impact Assessment - Delivery Vehicle Movements (23:00 – 00:00)

Location	Predicted Specific Level, dB	Calculated Rating Level, dB	Average Measured Background (23:00 – 00:00), $L_{A90, T}$ dB	Difference, dB	Relevant BS4142 Impact Significance Criteria
Weekday Period – Monday to Friday					
AL01	38 (38.4)	41	42	-1	<i>'Indication of the specific sound source having a low impact'</i>
AL02	31 (31.0)	34	42	-8	
AL03	29 (28.5)	32	42	-10	
AL04	23 (22.6)	26	47	-21	
AL05	27 (27.2)	30	47	-17	
AL06	30 (29.5)	33	No data available for this period		
AL07	32 (31.7)	35	No data available for this period		
Weekend Period – Saturday					
AL01	38 (38.4)	41	45	-4	<i>'Indication of the specific sound source having a low impact'</i>
AL02	31 (31.0)	34	45	-11	
AL03	29 (28.5)	32	45	-13	
AL04	23 (22.6)	26	50	-24	
AL05	27 (27.2)	30	50	-20	
AL06	30 (29.5)	33	No weekend data available		
AL07	32 (31.7)	35	No weekend data available		
Weekend Period – Sunday					
AL01	38 (38.4)	41	45	-4	<i>'Indication of the specific sound source having a low impact'</i>
AL02	31 (31.0)	34	45	-11	
AL03	29 (28.5)	32	45	-13	
AL04	23 (22.6)	26	47	-21	
AL05	27 (27.2)	30	47	-17	
AL06	30 (29.5)	33	No weekend data available		
AL07	32 (31.7)	35	No weekend data available		

7.4.11 The night-time assessments (23:00 – 00:00) presented above indicate the following:

Weekday – Predicted noise level falls between -1dB and -18dB below the measured background (L_{A90}) noise level. This would be considered by the standard to provide an *'indication of the specific sound source having a low impact'*.

Saturday – Predicted noise levels would fall between -4dB and -24dB below the measured background (L_{A90}) noise level. This would be considered by the standard to provide an *'indication of the specific sound source having a low impact'*.

Sunday – Predicted noise level would fall between -4dB and -21dB below the measured background (L_{A90}) noise level. This would be considered by the standard to provide an *'indication of the specific sound source having a low impact'*.

7.4.12 In all cases the predicted noise levels from the HGV delivery movements at the site, during the night-time period (23:00 – 00:00) would be within the criteria of existing $L_{A90} \pm 0dB(A)$ as stipulated by the LPA within the consultation phase.

7.5 Petrol Filling Station (PFS)

7.5.1 The noise impacts associated with activities at the PFS have been assessed in line with the methodology detailed within BS4142.

7.5.2 As detailed within section 6 above, noise associated with activities within the PFS includes vehicle movements and other associated noises such as pumps, doors closing, activity etc.

7.5.3 The following has been concluded with regard to suitable character corrections for the operations associated with the PFS forecourt activities. The Subjective Method has been used again:

Table 7-6: PFS Noise – Rating Level Correction

Characteristic	Subjective Perception	Justification	BS4142 Correction
Tonality	None	The noise generated by the PFS is considered to include vehicle movements, pump noise and occasional noise associated with patrons. This is not considered to include any tonal characteristics.	+0
Impulsivity	None	Noise associated with the PFS is not considered to generate impulsive beyond those already evident within the area.	+0
Other Characteristics	None	No 'other' characteristics associated with the PFS are considered to be present.	+0
Intermittency	Just	Use of the PFS is considered to be intermittent during the overnight as patrons would be less regular than during the daytime period.	+3
Total Character Correction			+3

7.5.4 It is considered that noise generated by movements with the proposed PFS would, broadly speaking, be in keeping with the existing noise climate of the area during the typical daytime period. However, as a worst case scenario, and to account for the potential for stop/ start (intermittent) noise generated by vehicles frequenting the PFS, it is considered appropriate to include the +3dB BS4142 feature correction.

7.5.5 For the purposes of the assessments presented below, and with reference to the proposed opening hours of the development site, the impact of noise associated with the PFS has been quantified against the following assessment periods;

- 60 minute periods during the daytime (07:00 to 23:00); and,
- 15 minute periods during the overnight (06:00 to 07:00 and 23:00 to 00:00).

Table 7-7: Noise Impact Assessment – PFS Operation (07:00 to 23:00)

Location	Predicted Specific Level, dB	Calculated Rating Level, dB	Average Measured Background 07:00 – 23:00, $L_{A90, t}$ dB	Difference, dB	Relevant BS4142 Impact Significance Criteria
Weekday Period – Monday to Friday					
AL01	10 (<10)*	13	50	-37	<i>'Indication of the specific sound source having a low impact'</i>
AL02	10 (<10)*	13	50	-37	
AL03	10 (<10)*	13	50	-37	
AL04	11 (11.1)	14	54	-40	
AL05	10 (<10)*	13	54	-41	
AL06	10 (<10)*	13	55	-42	
AL07	10 (<10)*	13	55	-42	
Weekend Period – Saturday					
AL01	10 (<10)*	13	46	-33	<i>'Indication of the specific sound source having a low impact'</i>
AL02	10 (<10)*	13	46	-33	
AL03	10 (<10)*	13	46	-33	
AL04	11 (11.1)	14	52	-38	
AL05	10 (<10)*	13	52	-39	
AL06	10 (<10)*	13	No weekend data available		
AL07	10 (<10)*	13			
Weekend Period – Sunday					
AL01	10 (<10)*	13	45	-32	<i>'Indication of the specific sound source having a low impact'</i>
AL02	10 (<10)*	13	45	-32	
AL03	10 (<10)*	13	45	-32	
AL04	11 (11.1)	14	49	-35	
AL05	10 (<10)*	13	49	-36	
AL06	10 (<10)*	13	No weekend data available		
AL07	10 (<10)*	13			

7.5.6 The assessments presented above indicate the following:

Weekday – Predicted noise levels fall between -37dB and -42dB below the measured background (L_{A90}) noise level for the weekday period. This would be considered by the Standard to provide an *'indication of the specific sound source having a low impact'*.

Saturday – Predicted noise levels would fall between -33dB and -39dB below the measured background (L_{A90}) noise level for the Saturday period. This would be considered by the Standard to provide an *'indication of the specific sound source having a low impact'*.

Sunday – Predicted noise level would fall between -32dB and -36dB below the measured background (L_{A90}) noise level for the Sunday period. This would be considered by the Standard to provide an *'indication of the specific sound source having a low impact'*.

7.5.7 The noise from the PFS operations during the daytime period would be within the criteria of existing $L_{A90} \pm 0$ dB(A) as stipulated by the LPA within the consultation phase.

7.5.8 As indicated above, the early morning and late evening periods have been considered as part of the overnight period and as such, have been assessed against a 15 minute assessment period

Table 7-8: Noise Impact Assessment – PFS Operation (Overnight)

Location	Predicted Specific Level, dB	Calculated Rating Level, dB	Average Measured Background noise level, $L_{A90, t}$ dB	Difference, dB	Relevant BS4142 Impact Significance Criteria
Weekday Period – Monday to Friday					
AL01	10 (<10)*	13	45	-32	<i>'Indication of the specific sound source having a low impact'</i>
AL02	10 (<10)*	13	45	-32	
AL03	10 (<10)*	13	45	-32	
AL04	11 (11.1)	14	49	-35	
AL05	10 (<10)*	13	49	-36	
AL06	10 (<10)*	13	No data available		
AL07	10 (<10)*	13			
Weekend Period – Saturday					
AL01	10 (<10)*	13	46	-33	<i>'Indication of the specific sound source having a low impact'</i>
AL02	10 (<10)*	13	46	-33	
AL03	10 (<10)*	13	46	-33	
AL04	11 (11.1)	14	50	-36	
AL05	10 (<10)*	13	50	-37	
AL06	10 (<10)*	13	No weekend data available		
AL07	10 (<10)*	13			
Weekend Period – Sunday					
AL01	10 (<10)*	13	44	-31	<i>'Indication of the specific sound source having a low impact'</i>
AL02	10 (<10)*	13	44	-31	
AL03	10 (<10)*	13	44	-31	
AL04	11 (11.1)	14	47	-33	
AL05	10 (<10)*	13	47	-34	
AL06	10 (<10)*	13	No weekend data available		
AL07	10 (<10)*	13			

7.5.9 The assessments presented above indicate the following:

Weekday – Predicted noise level falls between -32dB and -36dB below the measured background (L_{A90}) noise level for the weekday period. This would be considered by the Standard to provide an *'indication of the specific sound source having a low impact'*.

Saturday – Predicted noise levels would fall between -33dB and -37dB below the measured background (L_{A90}) noise level for the Saturday period. This would be considered by the Standard to provide an *'indication of the specific sound source having a low impact'*.

Sunday – Predicted noise level would fall between -31dB and -34dB below the measured background (L_{A90}) noise level for the Sunday period. This would be considered by the Standard to provide an *'indication of the specific sound source having a low impact'*.

7.5.10 The predicted noise levels from the activities at the PFS during the night-time periods of 06:00 – 07:00 and 23:00 to 00:00 would be within the criteria of existing $L_{A90} \pm 0$ dB(A) as stipulated by the LPA within the consultation phase.

7.6 Car Park movements

7.6.1 The impact of noise associated with vehicle movements in the car park areas has also been assessed in line with the methodology detailed within BS4142.

7.6.2 The following has been concluded with regard to suitable character corrections for the operations under consideration. The Subjective Method has been used in this case due:

Table 7-9: Car Park Movements – Rating Level Correction

Characteristic	Subjective Perception	Justification	BS4142 Correction
Tonality	None	Noise associated with car park movements are not considered to generate any degree of tonality.	+0
Impulsivity	None	While some aspects of noise generated by car park movements could be considered impulsive, it is not considered to be out of keeping with the existing noise climate of the area.	+0
Other Characteristics	None	No 'other' characteristics associated with the car parks are considered to be present.	+0
Intermittency	Just	Vehicle movements within the car parking areas could be considered intermittent in nature given the sporadic nature of patron movements etc.	+3
Total Character Correction			+3

7.6.3 It is considered that noise generated by vehicle movements within the car parking area would, broadly speaking, be in keeping with the existing noise climate of the area during the typical daytime period. However, as a worst case scenario, and to account for the potential for intermittent noise generated by parking activities, it is considered appropriate to include the +3dB BS4142 feature correction.

Table 7-10: Noise Impact Assessment - Car Park Movements

Location	Predicted Specific Level, dB	Calculated Rating Level, dB	Average Measured Background Noise Level, LA90, t dB	Difference, dB	Relevant BS4142 Impact Significance Criteria
Weekday Period – Monday to Friday					
AL01	30 (29.6)	33	50	-17	<i>'Indication of the specific sound source having a low impact'</i>
AL02	28 (28.3)	31	50	-19	
AL03	23 (22.6)	26	50	-24	
AL04	27 (27.1)	30	54	-24	
AL05	26 (25.8)	29	54	-25	
AL06	25 (25.1)	28	55	-27	
AL07	28 (28.4)	31	55	-24	
Weekend Period – Saturday					
AL01	30 (29.6)	33	46	-13	<i>'Indication of the specific sound source having a low impact'</i>
AL02	28 (28.3)	31	46	-15	
AL03	23 (22.6)	26	46	-20	
AL04	27 (27.1)	30	52	-22	
AL05	26 (25.8)	29	52	-23	
AL06	25 (25.1)	28	No weekend data available		
AL07	28 (28.4)	31			
Weekend Period – Sunday					
AL01	30 (29.6)	33	45	-12	<i>'Indication of the specific sound source having a low impact'</i>
AL02	28 (28.3)	31	45	-14	
AL03	23 (22.6)	26	45	-19	
AL04	27 (27.1)	30	49	-19	
AL05	26 (25.8)	29	49	-20	
AL06	25 (25.1)	28	No weekend data available		
AL07	28 (28.4)	31			

7.6.4 The assessments presented above indicate the following:

Weekday – Predicted noise level falls between -17dB and -27dB below the measured background (L_{A90}) noise level for the weekday period. This would be considered by the Standard to provide an *'indication of the specific sound source having a low impact'*.

Saturday – Predicated noise levels would fall between -13dB and -23dB below the measured background (L_{A90}) noise level for the Saturday period. This would be considered by the Standard to provide an *'indication of the specific sound source having a low impact'*.

Sunday – Predicted noise level would fall between -12dB and -20dB below the measured background (L_{A90}) noise level for the Sunday period. This would be considered by the Standard to provide an *'indication of the specific sound source having a low impact'*.

7.6.5 In all cases the predicted noise levels from the carpark activities at the site would be within the criteria of existing $L_{A90} \pm 0dB(A)$ as stipulated by the LPA within the consultation phase.

7.7 Restaurant/Family Pub Development

7.7.1 Along with the commercial element of the site it is noted that there is provision for a public house on the development. Due to the location this has been assumed to be a family type pub/restaurant but this has not been confirmed at the present time.

7.7.2 As a result of the nature of this aspect of the development there is a potential that noise generated by this facility could have the potential to result in impacts at the nearest sensitive receptors. This would need to be considered and potentially controlled within the detailed design.

7.7.3 However, whilst information relating to noise from this type of development is presented and discussed below, apart from a location on the outline site Masterplan there is little specific information relating to the feature. Therefore, within the detailed design of the pub/restaurant building, provision should be made for acoustic control including measures such as those discussed and presented below:

7.7.4 Typically pubs described as “family style” pubs are more akin to restaurants than traditional pubs. These developments typically would not have a significant entertainment system, would have no function room and would not host live bands. Pubs of this type usually generate noise/are sensitive to noise in the following ways:

Residential Suitability

7.7.5 Typically these types of pub have provision for staff accommodation on the upper floor, usually assigned to the premises manager/duty manager. Consideration of this element is presented within Section 7.9 of this report.

Static Plant

7.7.6 This would be plant associated with Air Conditioning, refrigeration and extraction fans. Consideration of this element is presented within Section 7.3 of this report.

Vehicle Movements

7.7.7 These would be associated with both car park activities and less frequent delivery/collection movements. Consideration of this element is presented within Sections 7.5 and 7.6 of this report.

Entertainment Noise

7.7.8 Based upon the assumption that it would be a family type pub/restaurant specialising in food rather than as a specific music or concert venue. Music would only be piped into the pub/restaurant area to provide an ambience whilst dining rather than being a main feature.

Public House Provision Assessment

7.7.9 At the present time very little information is available with regard to the specification of the pub and as such it is considered that assessment cannot be realistically undertaken and as such would need to be completed at a later date when the design is fixed. This could, and should be conditioned within the outline planning permission.

7.7.10 Consideration should be made of the noise impacts of the proposed development based upon allowable internal noise levels within the pub/restaurant space based upon different façade controls. Minimisation of potential impacts resulting from entertainment noise should therefore be controlled by internal noise limiting technology and façade mitigation measures concluded in the detailed design stage. Any internal control measures within the pub would need to be tamperproof to all staff but the management to ensure that these levels are not exceeded by overzealous staff.

7.7.11 Generally speaking the better the attenuation attributable to the façade/glazing the higher the level of noise that can be acceptably generated inside the pub without causing undue impacts at the nearest noise sensitive receptors. For context, typically a family type pub/restaurant would operate at an ambient internal noise level of between 55 and 60dB(A) so façade attenuation by a closed standard double glazed unit within a block wall should be sufficient in most cases. However, this can only be confirmed once the specifics of the pub are concluded.

7.7.12 Another issue that would potentially need to be considered within the design would be doorways into the pub. Generally these should be of a lobby design (two sets of doors with a lobby area between) with automatically closing, good quality heavy wooden doors. This will aid to prevent noise break out from the pub as people enter and leave. These doors, and all other doors on the external façade of the building, should be kept closed when not being used to prevent noise leaking out.

7.7.13 In conjunction with specifying maximum internal limits for amplified music, the following measures could also be considered to aid in the control of entertainment noise at the development:

- Windows shut with ventilation provided by other means such as air conditioning or a whole building ventilation system;
- Doors should remain closed when not in use and should not be wedged open;
- Where necessary automated volume controls capable of limiting noise at specific frequencies to prevent significant bass frequency noise could be implemented at the site.
- Should external acts or DJ's ever perform at the pub they should be precluded from using their own equipment unless plugged into the main pub system through any volume control measures.
- It is noted that where necessary any automated volume control measures should be installed and activated by appropriately experienced noise control consultants/engineers to ensure that the equipment operates effectively.

7.7.14 Consideration of the pub should be undertaken as part of the detailed design of the site and appropriate mitigation included based upon the outcomes of the studies. The measures presented above are possible considerations only, with actual mitigation requirements being

concluded as part of said design. This aspect should be conditioned within any Outline planning permission issued to ensure that the issue is suitably addressed.

7.8 Cumulative Noise Impact Assessment

7.8.1 Given the number of noise generating activities associated with the proposed development site it is considered pertinent to assess the cumulative impact associated with all activities on the site being operational during an assumed peak hour period.

7.8.2 For the purposes of this cumulative assessment, the following noise sources are assumed to be operating:

- Peak Daytime vehicle deliveries (as detailed within Table 7-2 above);
- Typical Petrol filling Station Activities; and,
- Peak car park movements.

7.8.3 The cumulative noise impact associated with all the main noise generating aspects of the development site has been assessed in line with the methodology detailed within BS4142. The following has been concluded with regard to suitable character corrections for the operations under consideration.

Table 7-11: Cumulative Assessment – Rating Level Correction

Characteristic	Subjective Perception	Justification	BS4142 Correction
Tonality	None	Of the noise sources considered within this aspect of the development, none are considered to generate any degree of tonality.	+0
Impulsivity	None	Noise associated with the development is not considered to be impulsive in nature.	+0
Other Characteristics	None	No 'other' characteristics associated with the development are considered to be present.	+0
Intermittency	Just	Use of the development site could be considered intermittent in nature during various periods of operations.	+3
Total Character Correction			+3

7.8.4 It is considered that noise generated by the overall development would, broadly speaking, be noise generated by vehicle movements which would be in keeping with the existing noise climate of the area during the typical daytime period. However, as a worst case scenario, and to account for the potential for intermittent noise generated, it is considered appropriate to include the +3dB BS4142 feature correction.

Table 7-12: Noise Impact Assessment – Cumulative Daytime Period

Location	Predicted Specific Level, dB	Calculated Rating Level, dB	Average Measured Background 07:00 – 23:00, L _{A90, t} dB	Difference, dB	Relevant BS4142 Impact Significance Criteria
Weekday Period – Monday to Friday					
AL01	43 (43.4)	46	50	-4	<i>'Indication of the specific sound source having a low impact'</i>
AL02	36 (36.3)	39	50	-11	
AL03	34 (34.1)	37	50	-13	
AL04	35 (35.4)	38	54	-16	
AL05	36 (36.0)	39	54	-15	
AL06	36 (35.6)	39	55	-16	
AL07	38 (37.7)	41	55	-14	
Weekend Period – Saturday					
AL01	43 (43.4)	46	46	+/-0	<i>'Indication of the specific sound source having a low impact'</i>
AL02	36 (36.3)	39	46	-7	
AL03	34 (34.1)	37	46	-9	
AL04	35 (35.4)	38	52	-14	
AL05	36 (36.0)	39	52	-13	
AL06	36 (35.6)	39	No weekend data available		
AL07	38 (37.7)	41	No weekend data available		
Weekend Period – Sunday					
AL01	39 (39.0)	42	45	-3	<i>'Indication of the specific sound source having a low impact'</i>
AL02	33 (32.9)	36	45	-9	
AL03	29 (29.4)	32	45	-13	
AL04	29 (28.5)	32	49	-17	
AL05	30 (29.6)	33	49	-16	
AL06	31 (30.9)	34	No weekend data available		
AL07	33 (33.4)	36	No weekend data available		

7.8.5 The assessments presented above indicate the following:

Weekday – Predicted noise level falls between -4dB and -16dB below the measured background (L_{A90}) noise level for the weekday period. This would be considered by the Standard to provide an *'indication of the specific sound source having a low impact'*.

Saturday – Predicated noise levels would fall between +/-0dB and -14dB relative to the measured background (L_{A90}) noise level for the Saturday period. This would be considered by the Standard to provide an *'indication of the specific sound source having a low impact'*.

Sunday – Predicted noise level would fall between -3dB and -17dB below the measured background (L_{A90}) noise level for the Sunday period. This would be considered by the Standard to provide an *'indication of the specific sound source having a low impact'*.

7.8.6 The predicted noise levels from the overall site would be within the criteria of existing L_{A90} +/- 0dB(A) as stipulated by the LPA within the consultation phase.

7.9 Cumulative Future Onsite Noise Impacts (Sensitive Elements of the Development)

7.9.1 It is noted, with reference to the information presented within Section 1.4.3 that the proposed development site includes a number of uses which could be considered sensitive to noise. These uses include the following:

- Living quarters associated with the public house; and,
- 50 bedroom hotel;

7.9.2 It is considered that these sensitive elements are primarily enclosed internal living spaces and do not have any private, external gardens areas associated with them. As such, it is more appropriate to assess and consider the suitability of these uses at the site based upon the potential level of noise ingress into sensitive internal elements.

7.9.3 To facilitate this, detailed predictive noise calculations were undertaken to the façades of the appropriate noise sensitive buildings i.e. the pub residential element and the Hotel. These calculations are only indicative in nature due to the level of information available at present. The calculations undertaken represent the cumulative future noise level of the development site and include the following noise generating aspects:

- The existing ambient noise climate of the area as established and presented within sections 4 and 5 of this report;
- Proposed onsite car park movements as detailed within Table 6-2;
- Proposed onsite HGV movements as detailed within Table 7-2 (daytime period only); and
- Proposed onsite PFS noise as detailed within Table 6-1.

7.9.4 For reference the façade locations considered within the subsequent sections of the report are presented on Figure 7-4 below. These cover:

- PB01 to PB11: representative of the proposed Public House; and,
- H01 to H08: representative of the proposed Hotel facility.

Figure 7-2: Facade Assessment Locations



7.9.5 The assessments were undertaken for the typical daytime and overnight periods but were augmented with consideration of the Early Morning (overnight as before 07:00) and Peak AM Periods to represent the noisiest periods of the overnight and daytime periods (Respectively) where local noise levels are higher due to increased traffic noise.

Table 7-13: Predicted Future Façade Noise Levels (including development and existing ambient contributions)

Location	Receptor	Assessment Periods			
		AM Peak Period	Typical Daytime	Typical Overnight	Early Morning Period
Public House (PB01–PB011)	PB01	66.1	63.9	52.5	60.3
	PB02	67.8	65.4	54.3	62.1
	PB03	73.3	69.6	57.8	68.0
	PB04	72.9	68.4	55.1	67.8
	PB05	72.9	68.5	55.2	67.8
	PB06	72.6	67.9	53.8	67.5
	PB07	70.0	65.3	50.7	64.8
	PB08	58.6	58.3	33.1	51.5
	PB09	60.3	60.1	34.5	52.0
	PB10	62.3	61.3	45.7	55.3
	PB11	64.7	63.0	50.3	58.6
Hotel (H01-H08)	H01	63.9	61.9	50.4	57.6
	H02	67.8	65.4	54.8	62.0
	H03	73.1	70.6	60.1	67.5
	H04	68.3	65.7	54.9	62.7
	H05	66.8	64.1	53.1	61.1
	H06	67.1	64.3	53.3	61.4
	H07	65.2	62.9	50.3	59.1
	H08	60.3	60.3	31.0	47.2

7.9.6 It is noted that the planning application is for Outline consent at the present time and therefore, the proposed site layout (presented within Figure 1-3) is only indicative in nature. Furthermore the specifics of the proposed site buildings have not been accurately determined regarding façade construction, size and position of windows etc. Therefore, it is not possible to undertake detailed calculations regarding the specific level of attenuation required by each façade at this time, but indicative calculations have been presented. These calculations indicate the level of façade attenuation necessary in order to achieve appropriate internal noise climates due to the potential future noise climate of the site.

Public House – Residential Element

7.9.7 The public house is located to the North of the site in the vicinity of the Rockingham roundabout, adjacent to the Dearne Valley Parkway. It is exposed to the highest levels of road traffic noise within the site area as a result of this.

7.9.8 While the public house itself might not be residential in nature, it is considered likely that the upstairs portion of the building could contain living quarters for the staff members/ management. As such it is considered important to ensure that the resulting internal noise climate of this residential element achieves the criteria detailed within BS8233:2014 (ref Table 3-3 above). We would not envisage this dwelling to have any sensitive external space associated.

7.9.9 Calculations have been undertaken for both the AM peak and the Early Morning (overnight) period on the premise that these periods represent the times during which the site would be exposed to the highest external noise levels within the daytime and overnight periods respectively.

Furthermore the calculations have been undertaken on the premise that each façade would serve an internal noise sensitive room (bedroom).

Table 7-14: Indicative Future Ambient Façade Attenuation Requirements - Public House

Location	Period	Predicted Façade Level, L_{Aeq} , dB	Internal Criteria, L_{Aeq} , dB	Required Attenuation
PB01	AM Peak Period	66.1	35dB $L_{Aeq, 16hr}$	31.1dB
	Early Morning Period	60.3	30dB $L_{Aeq, 8hr}$	30.3dB
PB02	AM Peak Period	67.8	35dB $L_{Aeq, 16hr}$	32.8dB
	Early Morning Period	62.1	30dB $L_{Aeq, 8hr}$	32.1dB
PB03	AM Peak Period	73.3	35dB $L_{Aeq, 16hr}$	38.3dB
	Early Morning Period	68.0	30dB $L_{Aeq, 8hr}$	38.0dB
PB04	AM Peak Period	72.9	35dB $L_{Aeq, 16hr}$	37.9dB
	Early Morning Period	67.8	30dB $L_{Aeq, 8hr}$	37.8dB
PB05	AM Peak Period	72.9	35dB $L_{Aeq, 16hr}$	37.9dB
	Early Morning Period	67.8	30dB $L_{Aeq, 8hr}$	37.8dB
PB06	AM Peak Period	72.6	35dB $L_{Aeq, 16hr}$	37.6dB
	Early Morning Period	67.5	30dB $L_{Aeq, 8hr}$	37.5dB
PB07	AM Peak Period	70.0	35dB $L_{Aeq, 16hr}$	35.0dB
	Early Morning Period	64.8	30dB $L_{Aeq, 8hr}$	34.8dB
PB08	AM Peak Period	58.6	35dB $L_{Aeq, 16hr}$	23.6dB
	Early Morning Period	51.5	30dB $L_{Aeq, 8hr}$	21.5dB
PB09	AM Peak Period	60.3	35dB $L_{Aeq, 16hr}$	25.3dB
	Early Morning Period	52.0	30dB $L_{Aeq, 8hr}$	22.0dB
PB10	AM Peak Period	62.3	35dB $L_{Aeq, 16hr}$	27.3dB
	Early Morning Period	55.3	30dB $L_{Aeq, 8hr}$	25.3dB
PB11	AM Peak Period	64.7	35dB $L_{Aeq, 16hr}$	29.7dB
	Early Morning Period	58.6	30dB $L_{Aeq, 8hr}$	28.6dB

7.9.10 The preliminary calculations presented above indicate that these façades would require between 21.5dB and 38.3dB of noise attenuation to achieve a suitable internal noise climate. Standard double glazing in a blockwork wall would afford approximately 33dB attenuation and therefore based upon this it is considered that more robust glazing would be required to certain façades.

7.9.11 More detailed acoustic calculations would be required as part of the detailed design of the public house to ensure an adequate internal noise climate is achieved should residential aspects be proposed. Furthermore, it is considered that alternative forms of ventilation would be required to ensure adequate ventilation is afforded for the proposed dwellings spaces without the necessity to open windows.

7.9.12 However, it is noted that this assessment considers only the impacts of the external noise climate on the pub and does not account for noise generated within the pub itself. Therefore the pub building would need to be adequately designed to ensure noise does not travel through internal partitions and impacts are appropriately controlled.

50 Bed Hotel

7.9.13 The information provided indicates that the proposed hotel is located centrally within the development site, set back slightly from the main noise source in the area (Dearne Valley Parkway).

7.9.14 It is noted that certain large hotel chains have their own design requirements with regards to internal ambient noise climates and other acoustic considerations, however, in the absence of

any specific developer the proposed hotel has been considered in accordance with the guidance detailed within BS8233:2014.

Again, as with the Public House assessment the calculations have been undertaken for the early morning (overnight period) and AM peak periods.

Table 7-15: Indicative Future Ambient Façade Attenuation - Hotel

Location	Period	Predicted Façade Level, L_{Aeq} , dB	Internal Criteria, L_{Aeq} , dB (BS8233)	Required Attenuation
H01	AM Peak Period	63.9	30 - 40dB $L_{Aeq, 1hr}$	33.9dB – 23.9dB
	Early Morning Period	57.6	25 - 35dB $L_{Aeq, 1hr}$	32.6dB – 22.6dB
H02	AM Peak Period	67.8	30 - 40dB $L_{Aeq, 1hr}$	37.8dB – 27.8dB
	Early Morning Period	62.0	25 - 35dB $L_{Aeq, 1hr}$	37.0dB – 27.0dB
H03	AM Peak Period	73.1	30 - 40dB $L_{Aeq, 1hr}$	43.1dB – 33.1dB
	Early Morning Period	67.5	25 - 35dB $L_{Aeq, 1hr}$	42.5dB – 32.5dB
H04	AM Peak Period	68.3	30 - 40dB $L_{Aeq, 1hr}$	38.3dB – 28.3dB
	Early Morning Period	62.7	25 - 35dB $L_{Aeq, 1hr}$	37.7dB – 27.7dB
H05	AM Peak Period	66.8	30 - 40dB $L_{Aeq, 1hr}$	36.8dB – 26.8dB
	Early Morning Period	61.1	25 - 35dB $L_{Aeq, 1hr}$	36.1dB – 26.1dB
H06	AM Peak Period	67.1	30 - 40dB $L_{Aeq, 1hr}$	37.1dB – 27.1dB
	Early Morning Period	61.4	25 - 35dB $L_{Aeq, 1hr}$	36.4dB – 26.4dB
H07	AM Peak Period	65.2	30 - 40dB $L_{Aeq, 1hr}$	35.2dB – 25.2dB
	Early Morning Period	59.1	25 - 35dB $L_{Aeq, 1hr}$	34.1dB – 24.1dB
H08	AM Peak Period	60.3	30 - 40dB $L_{Aeq, 1hr}$	30.3dB – 20.3dB
	Early Morning Period	47.2	25 - 35dB $L_{Aeq, 1hr}$	22.2dB – 12.2dB

7.9.15 The assessment presented above indicates that the façades of the proposed hotel would require to provide between 12.2dB and 43.1dB of attenuation depending on the required end internal noise climate.

7.9.16 Standard double glazing in a typical blockwork wall would afford in the order of 33dB and therefore, some façades would require more robust attenuation depending on the required internal noise climate of the developer.

7.9.17 It is concluded that the detailed design of the hotel should be conditioned such that the specifics of the required acoustic mitigation scheme and design parameters are agreed with the LPA prior to commencement on site.

8 Conclusion

8.1.1 An assessment has been undertaken to consider the potential noise impacts associated with the proposed development of the land at Rockingham near Birdwell, Barnsley. The development proposed is outline in nature consisting of a mixed use scheme containing the following elements:

- A public House;
- Class B1, B2 and B8 Industrial units;
- A 50 bed Hotel;
- Petrol filling station; and,
- Up to 241 car parking spaces.

8.1.2 The assessments undertaken within this report have considered the impact of the proposed development on the wider environment and the impact of the existing noise climate on the sensitive aspects of the development.

8.1.3 These assessments have been undertaken in line with the guidance and methodologies detailed within BS4142 and BS8233 where appropriate.

8.2 Fixed and Static Plant

8.2.1 Due to the lack of specific information relating to static plant or equipment at the site it is considered that this aspect of the development should be controlled by the inclusion of a suitably worded planning condition.

8.3 Vehicle Deliveries and Service Yard Noise

8.3.1 The noise impact associated with the movement of delivery vehicles during the hours detailed by Hartwood Estates would be considered by BS4142 to provide an *'Indication of the specific sound source having a low impact'* and would conform with the criteria proposed by the Local Planning Authority during the consultation.

8.3.2 As such, noise associated with HGV movements at the site would not be considered to be detrimental to the noise climate of the area.

8.4 Petrol Filling Station

8.4.1 The noise impact associated with the petrol filling station during the daytime and overnight periods, for both the weekday and weekend would be considered by BS4142 to provide an *'Indication of the specific sound source having a low impact'* and would conform with the criteria proposed by the Local Planning Authority.

8.4.2 As such, noise associated with the PFS at the site would not be considered to be detrimental to the noise climate of the area.

8.5 Car Park Movements

8.5.1 The assessment of the noise generated by the car parking facilities has been undertaken based upon peak hour movements for both the weekday and weekend.

8.5.2 The assessments indicate that noise associated with the car parks would be classified by BS4142 as providing an *'Indication of the specific sounds source having a low impact'*.

8.5.3 As such noise associated with car movements and car parking at the site would not be considered to be detrimental to the noise climate of the area.

8.6 Restaurant/ Public House Development

8.6.1 Again due to the lack of specific information relating to the type or design of the proposed public house at this point it is considered that the specifics and design of this should be controlled by the inclusion of a suitably worded planning condition.

8.7 Cumulative Noise Impact Assessment

8.7.1 The cumulative assessment, undertaken in line with BS4142 indicates that all modelled activities at the development site occurring concurrently would provide an *'Indication of the specific sound source having a low impact'*.

8.7.2 This assessment would conform to the criteria proposed by the LPA of $L_{A90} +0dB$ and would indicate that noise generated by the site would not be considered detrimental to the noise climate of the area.

8.8 Onsite Noise Impacts – Sensitive Uses

8.8.1 The indicative layout for the site includes provision for a number of uses which could be considered sensitive to external noise in the area. These include a Hotel and the residential element of the pub. However, neither of these are considered to have sensitive external living space attached and would be typified by enclosed, apartment type living.

8.8.2 Based on the noise levels at the site it is concluded that the potentially sensitive portions of the development as specified would require noise mitigation measures to ensure an appropriate internal noise climate is achieved.

8.8.3 This aspect of the development can be controlled by a suitably worded condition within the planning permission granted for the site.

8.9 General Conclusions

8.9.1 Overall it is considered that there are no significant issues relating to noise impacts associated with the proposed development that would preclude the scheme from being granted Outline planning permission subject to appropriate conditions.

REFERENCES

Department for Communities and Local Government – National Planning Policy Framework, March 2012.

Department for Environment, Food and Rural Affairs – Noise Policy Statement for England, March 2010.

Department for Communities and Local Government – Planning Practice Guidance – Noise, March, 2014

Department for Communities and Local Government - Planning Policy Guidance Note 24, 1994

British Standards Institution. British Standard 7445-2: Description and measurement of environmental noise. Guide to the acquisition of data pertinent to land use', 1991.

Department for Communities and Local Government - Planning Policy Guidance Note 24, 1994

British Standards Institution. British Standard 4142: Method for Rating and Assessing Industrial and Commercial sound – 2014.

British Standard Institution. British Standard 8233: Guidance on Sound Insulation and Noise Reduction for Buildings, 2104

Appendix A – Consultation Correspondence

Mark Harrison

From: Denton , Paul <xxxxxxxxxx@barnsley.gov.uk>
Sent: 30 July 2014 11:01
To: Mark Harrison
Subject: RE: Noise Assessment - Dearne Valley Parkway, Birdwell

Hi Mark,

I can confirm that I am satisfied with your proposed approach to carrying out your baseline survey on the site highlighted below.

Regards,

Paul

From: Mark Harrison [mailto:xxxxxxxxxx@enzygo.com]
Sent: 30 July 2014 09:12
To: Denton , Paul
Cc: Pete Tallantyre
Subject: Noise Assessment - Dearne Valley Parkway, Birdwell

Paul,

Thank you for the call back yesterday regarding our proposed noise assessment for the site at Birdwell. As discussed, the proposals are outline at the present time though, based on the information available, indicate a commercial development incorporating a number of separate commercial units.

The site area is indicated on the figure below:



The noise monitoring survey would be undertaken to 5 locations both within, and around the proposed development site. The surveys would be undertaken to cover both the weekend and weekday period. The monitoring survey will be undertaken both within the site area and in the surrounding area, at the nearest noise sensitive receptors. More specifically:

- The survey within the site area would be undertaken by means of two unattended noise monitoring stations, logging continuously for the duration of the surveys.
- The survey in the vicinity of the site would be undertaken at locations deemed representative of the nearest noise sensitive receptors as discussed.

For clarity, the monitoring location are presented on the figure below:



The monitoring locations detailed above are indicative and will be more accurately determined during the site visit to account for access permissions and the safety and security of site personnel. As detailed above, the monitoring survey would be undertaken during both the weekend and weekday periods. Ideally this would be during a Sunday/ Monday period however weather might dictate the specifics of the survey. The short term monitoring would be undertaken during the following periods:

	Period	Duration
Weekend	Daytime 08:00 – 20:00	Up to 120 minutes at each location.
	Overnight 01:00 – 04:00	Up to 60 minutes at each location.
Weekday	Daytime 08:00 – 20:00	Up to 120 minutes at each location.
	Overnight 01:00 – 04:00	Up to 60 minutes at each location.

The information established during the surveys would be used to inform the resultant assessments which will be undertaken in line with the criteria detailed within the following standards;

- BS4142: 1997 – Rating Industrial Noise Affecting Mixed Residential and Industrial Areas;
- BS8233: 2014 – Guidance on Sound Insulation and Noise Reduction for Building.

The BS4142 assessment will seek to achieve a criteria of **L₉₀ +/-0dB**. The assessments undertaken to external spaces should not exceed **55dB L_{Aeq}**.

Our discussions yesterday highlighted a number of points which could be pertinent to the assessment of noise at the site. These points are summarised below:

- Changes to the M1 J36 roundabout which could, within the near future, alter the noise climate of the area to a degree whereby the baselines established during our noise survey might not be representative;
- Construction activities associated with the M1 J36 roundabout and any potential noise impact on the existing noise climate of the area;
- The proximity of a school to the site and the potential influence on the prevailing noise climate. It was concluded during our discussions that, in the absence of the noise generated by typical activities at the

school, the baseline noise climate would be lower than typical and, therefore a worst case scenario for the purposes of our assessment.

Thank you once again for taking the time to discuss the proposed scheme. I hope the above covers all the points raised. If you have any comments or questions please feel free to contact me on the details below.

Many thanks and kind regards,

Mark Harrison
Senior Acoustic Consultant

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Appendix B – Noise Monitoring Data

File	065446_140821_110817000.CMG			
Periods	15m			
Start	21/08/2014 11:15			
End	21/08/2014 14:15			
Location	Solo 065446			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
21/08/2014 11:15	67.3	79.9	61.1	70.5
21/08/2014 11:30	67.6	77.3	62.1	71.0
21/08/2014 11:45	67.5	75.5	61.4	70.7
21/08/2014 12:00	66.9	75.5	61.2	70.1
21/08/2014 12:15	67.4	78.4	61.9	70.4
21/08/2014 12:30	67.3	75.6	61.5	70.6
21/08/2014 12:45	67.7	74.8	62.1	70.7
21/08/2014 13:00	67.9	74.9	61.9	71.1
21/08/2014 13:15	67.7	77.6	61.7	70.6
21/08/2014 13:30	67.7	78.8	61.7	70.8
21/08/2014 13:45	67.7	82.6	61.8	70.7
21/08/2014 14:00	67.7	82.0	59.5	71.0
Overall	67.5	82.6	61.5	70.7

File	065396_140826_234328000.CMG			
Periods	5m			
Start	26/08/2014 23:45			
End	27/08/2014 00:45			
Location	Solo 065396			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
26/08/2014 23:45	57.8	69.1	44.7	62.4
26/08/2014 23:50	59.8	71.7	45.3	63.8
26/08/2014 23:55	57.4	70.4	43.7	61.8
27/08/2014 00:00	58.4	73.7	45.9	61.9
27/08/2014 00:05	59.5	71.9	45.6	63.4
27/08/2014 00:10	56.1	69.1	43.3	60.3
27/08/2014 00:15	56.8	73.5	42.4	59.1
27/08/2014 00:20	57.9	73.0	43.9	60.0
27/08/2014 00:25	58.3	71.4	43.1	62.7
27/08/2014 00:30	59.3	74.2	41.9	61.2
27/08/2014 00:35	54.4	68.9	40.0	56.9
27/08/2014 00:40	56.5	71.5	41.7	59.9
Overall	57.9	74.2	43.1	61.3

File	065396_140826_053015000.CMG			
Periods	5m			
Start	26/08/2014 05:31			
End	26/08/2014 06:31			
Location	Solo 065396			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
26/08/2014 05:31	61.0	72.8	52.6	64.7
26/08/2014 05:36	64.5	72.7	56.4	68.1
26/08/2014 05:41	64.2	71.5	54.7	68.1
26/08/2014 05:46	64.6	73.5	56.7	68.5
26/08/2014 05:51	63.1	70.8	55.1	66.9
26/08/2014 05:56	64.6	75.6	55.2	68.3
26/08/2014 06:01	64.4	72.3	53.4	68.2
26/08/2014 06:06	64.4	76.4	55.3	67.9
26/08/2014 06:11	66.1	74.4	59.0	69.5
26/08/2014 06:16	66.4	73.1	60.4	69.1
26/08/2014 06:21	65.6	73.1	57.0	69.0
26/08/2014 06:26	66.2	72.2	60.4	69.2
Overall	64.8	76.4	55.6	68.4

File	065396_140826_101714000.CMG			
Periods	15m			
Start	26/08/2014 10:20			
End	26/08/2014 13:20			
Location	Solo 065396			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
26/08/2014 10:20	67.3	75.8	60.2	70.3
26/08/2014 10:35	67.8	75.4	60.6	70.6
26/08/2014 10:50	67.4	78.1	60.7	70.4
26/08/2014 11:05	67.9	80.9	60.1	70.7
26/08/2014 11:20	67.4	76.2	60.2	70.2
26/08/2014 11:35	67.7	80.8	60.2	70.7
26/08/2014 11:50	67.7	82.5	61.2	70.6
26/08/2014 12:05	67.5	76.0	60.1	70.7
26/08/2014 12:20	67.4	75.1	60.2	70.4
26/08/2014 12:35	68.1	77.3	61.4	71.1
26/08/2014 12:50	67.3	77.9	59.8	70.4
26/08/2014 13:05	67.1	74.5	60.0	70.4
Overall	67.6	82.5	60.4	70.5

File	065445_140821_120059000.CMG			
Periods	15m			
Start	21/08/2014 12:01			
End	21/08/2014 13:16			
Location	Solo 065445			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
21/08/2014 12:01	61.0	81.1	58.4	61.6
21/08/2014 12:16	61.5	72.4	59.3	63.0
21/08/2014 12:31	61.3	69.7	59.0	62.7
21/08/2014 12:46	61.9	69.7	59.9	63.3
21/08/2014 13:01	61.7	67.5	59.0	63.6
Overall	61.5	81.1	59.0	63.0

File	065446_140826_234559000.CMG			
Periods	5m			
Start	26/08/2014 23:50			
End	27/08/2014 00:50			
Location	Solo 065446			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
26/08/2014 23:50	54.7	61.2	46.0	57.7
26/08/2014 23:55	51.9	60.0	41.7	55.0
27/08/2014 00:00	53.2	60.4	46.8	56.6
27/08/2014 00:05	53.1	60.5	46.6	56.1
27/08/2014 00:10	52.1	62.8	39.0	55.4
27/08/2014 00:15	50.6	56.9	43.7	53.8
27/08/2014 00:20	52.2	62.1	40.0	55.9
27/08/2014 00:25	54.5	64.6	40.4	58.1
27/08/2014 00:30	53.1	61.1	39.7	57.1
27/08/2014 00:35	50.1	58.6	40.4	53.9
27/08/2014 00:40	50.7	56.9	40.9	54.4
27/08/2014 00:45	49.0	58.0	41.1	52.7
Overall	52.4	64.6	41.4	56.0

File	065396_140826_063817000.CMG			
Periods	5m			
Start	26/08/2014 06:40			
End	26/08/2014 07:00			
Location	Solo 065396			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
26/08/2014 06:40	63.4	67.4	61.0	65.2
26/08/2014 06:45	63.5	68.0	60.7	65.6

26/08/2014 06:50	64.4	70.7	61.7	66.3
26/08/2014 06:55	63.3	69.9	60.5	64.8
Overall	63.7	70.7	60.9	65.5

File	065396_140826_063817000.CMG			
Periods	15m			
Start	26/08/2014 07:00			
End	26/08/2014 07:45			
Location	Solo 065396			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
26/08/2014 07:00	63.3	68.5	60.6	65.1
26/08/2014 07:15	64.1	72.8	61.3	65.6
26/08/2014 07:30	64.5	77.0	61.9	66.0
Overall	64.0	77.0	61.1	65.7

File	065445_140821_170112000.CMG			
Periods	15m			
Start	21/08/2014 17:15			
End	22/08/2014 17:00			
Location	Solo 065445			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
21/08/2014 17:15	56.2	66.2	53.9	57.6
21/08/2014 17:30	56.8	67.2	54.1	57.9
21/08/2014 17:45	56.0	61.4	54.2	57.3
21/08/2014 18:00	54.9	65.1	53.0	56.1
21/08/2014 18:15	55.7	64.2	52.5	57.7
21/08/2014 18:30	60.6	69.6	52.6	65.7
21/08/2014 18:45	56.4	65.9	51.5	59.5
21/08/2014 19:00	54.6	64.0	51.2	56.0
21/08/2014 19:15	53.5	66.1	50.8	55.0
21/08/2014 19:30	52.4	57.6	49.9	54.2
21/08/2014 19:45	52.8	61.5	50.1	54.6
21/08/2014 20:00	52.5	58.7	49.6	54.6
21/08/2014 20:15	52.5	60.9	49.5	54.4
21/08/2014 20:30	53.6	67.1	49.4	55.6
21/08/2014 20:45	49.4	57.5	45.2	51.4
21/08/2014 21:00	49.9	60.0	45.9	52.1
21/08/2014 21:15	49.4	55.9	46.0	51.9
21/08/2014 21:30	48.2	55.3	44.8	50.2
21/08/2014 21:45	48.7	57.6	45.4	51.0
21/08/2014 22:00	49.2	55.6	45.7	51.6
21/08/2014 22:15	49.4	58.8	45.5	51.5
21/08/2014 22:30	48.3	64.3	43.4	49.9
21/08/2014 22:45	48.1	56.1	42.4	51.0
22/08/2014 07:00	55.7	62.6	52.9	57.7
22/08/2014 07:15	57.0	62.7	54.1	58.9
22/08/2014 07:30	57.1	63.8	53.4	59.5
22/08/2014 07:45	57.3	63.2	53.9	59.4
22/08/2014 08:00	59.5	68.0	55.6	61.8
22/08/2014 08:15	58.5	63.8	55.5	60.8
22/08/2014 08:30	59.2	69.1	56.4	61.2
22/08/2014 08:45	56.3	65.2	50.5	59.5
22/08/2014 09:00	53.8	61.3	49.5	56.1
22/08/2014 09:15	57.4	77.0	51.4	58.6
22/08/2014 09:30	51.2	63.2	46.8	53.6
22/08/2014 09:45	54.5	63.1	50.2	57.0
22/08/2014 10:00	51.1	59.1	47.0	53.4
22/08/2014 10:15	51.4	65.9	46.5	53.6
22/08/2014 10:30	52.4	62.1	48.0	55.1
22/08/2014 10:45	52.7	62.0	49.0	54.9
22/08/2014 11:00	51.2	67.8	46.6	53.0
22/08/2014 11:15	50.9	65.3	45.0	53.8

SHF.1122.002

Location R01

22/08/2014 11:30	50.1	63.9	45.3	52.4
22/08/2014 11:45	51.3	59.2	45.9	54.2
22/08/2014 12:00	50.9	62.2	44.6	53.8
22/08/2014 12:15	49.3	60.1	44.8	51.6
22/08/2014 12:30	54.8	79.4	47.7	55.3
22/08/2014 12:45	49.6	62.9	45.3	51.3
22/08/2014 13:00	48.8	64.1	45.3	50.8
22/08/2014 13:15	51.5	59.8	47.4	54.1
22/08/2014 13:30	49.2	65.2	46.3	50.4
22/08/2014 13:45	49.4	57.4	46.6	51.4
22/08/2014 14:00	49.2	60.2	46.2	50.8
22/08/2014 14:15	53.4	68.0	47.4	55.9
22/08/2014 14:30	58.1	69.3	48.9	62.6
22/08/2014 14:45	51.9	60.5	48.4	54.2
22/08/2014 15:00	53.0	61.2	49.8	55.1
22/08/2014 15:15	51.2	62.0	46.7	53.5
22/08/2014 15:30	51.3	61.0	48.9	52.5
22/08/2014 15:45	51.5	62.0	48.4	53.6
22/08/2014 16:00	50.0	55.8	48.2	51.1
22/08/2014 16:15	51.1	60.6	49.0	52.2
22/08/2014 16:30	52.0	60.7	49.9	53.4
22/08/2014 16:45	51.5	61.3	49.0	53.4

File	065445_140821_170112000.CMG			
Periods	5m			
Start	21/08/2014 23:00			
End	22/08/2014 07:00			
Location	Solo 065445			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
21/08/2014 23:00	46.2	60.2	39.8	48.4
21/08/2014 23:05	45.7	53.1	40.3	48.2
21/08/2014 23:10	45.7	55.4	41.3	48.7
21/08/2014 23:15	46.2	53.4	41.1	49.4
21/08/2014 23:20	45.6	53.2	39.5	49.4
21/08/2014 23:25	44.2	53.7	40.3	46.3
21/08/2014 23:30	45.3	54.7	41.2	47.7
21/08/2014 23:35	49.0	62.9	40.7	51.3
21/08/2014 23:40	44.6	49.7	41.5	46.3
21/08/2014 23:45	45.8	51.3	43.7	47.9
21/08/2014 23:50	45.4	59.6	41.3	46.7
21/08/2014 23:55	42.8	49.9	39.6	45.3
22/08/2014 00:00	42.5	49.8	38.3	44.7
22/08/2014 00:05	43.9	51.4	38.8	46.8
22/08/2014 00:10	41.5	46.8	38.1	43.4
22/08/2014 00:15	43.9	59.6	38.9	45.4
22/08/2014 00:20	42.8	49.7	39.6	45.2
22/08/2014 00:25	42.7	53.7	37.5	45.3

SHF.1122.002

Location R01

22/08/2014 00:30	43.0	52.6	39.1	45.7
22/08/2014 00:35	42.2	49.4	38.3	45.0
22/08/2014 00:40	40.1	46.5	36.1	42.7
22/08/2014 00:45	43.9	53.7	39.1	46.6
22/08/2014 00:50	41.8	48.4	38.8	43.9
22/08/2014 00:55	41.0	49.2	37.4	43.2
22/08/2014 01:00	40.5	48.6	36.6	43.3
22/08/2014 01:05	40.7	47.1	36.4	43.4
22/08/2014 01:10	40.4	51.3	35.1	43.5
22/08/2014 01:15	36.6	44.5	31.3	39.1
22/08/2014 01:20	38.7	48.2	34.0	41.1
22/08/2014 01:25	40.4	48.7	34.3	43.5
22/08/2014 01:30	41.6	50.0	36.8	44.9
22/08/2014 01:35	37.5	47.7	32.5	40.1
22/08/2014 01:40	36.9	48.7	31.5	39.4
22/08/2014 01:45	39.4	49.5	32.7	44.0
22/08/2014 01:50	38.7	46.0	34.7	41.7
22/08/2014 01:55	39.2	48.5	36.2	41.5
22/08/2014 02:00	40.3	46.3	37.1	42.8
22/08/2014 02:05	38.7	45.1	35.4	40.4
22/08/2014 02:10	38.5	48.5	33.9	41.2
22/08/2014 02:15	41.7	49.5	33.4	44.6
22/08/2014 02:20	46.2	49.6	43.3	48.1
22/08/2014 02:25	47.2	50.8	45.7	49.1
22/08/2014 02:30	44.2	47.2	42.4	45.4
22/08/2014 02:35	40.0	46.4	37.5	42.0
22/08/2014 02:40	43.0	55.1	37.5	45.2
22/08/2014 02:45	40.3	44.7	38.1	41.9
22/08/2014 02:50	42.2	50.2	37.7	44.5
22/08/2014 02:55	42.1	48.2	37.6	45.2
22/08/2014 03:00	40.9	46.3	37.5	43.4
22/08/2014 03:05	42.3	50.4	38.5	44.6
22/08/2014 03:10	38.7	45.7	36.3	40.8
22/08/2014 03:15	40.0	45.8	37.3	41.9
22/08/2014 03:20	40.5	46.5	37.7	42.6
22/08/2014 03:25	41.1	47.9	38.9	42.1
22/08/2014 03:30	41.0	48.0	37.8	43.5
22/08/2014 03:35	41.4	47.2	39.0	43.3
22/08/2014 03:40	41.3	47.1	38.5	43.7
22/08/2014 03:45	40.8	47.7	36.7	43.9
22/08/2014 03:50	41.8	48.8	38.5	44.0
22/08/2014 03:55	40.8	48.2	36.5	43.5
22/08/2014 04:00	43.2	49.9	40.3	45.4
22/08/2014 04:05	43.6	48.0	41.0	45.2
22/08/2014 04:10	43.2	46.6	40.8	44.9
22/08/2014 04:15	44.1	49.7	41.8	45.6
22/08/2014 04:20	42.4	46.0	40.6	43.5
22/08/2014 04:25	45.9	53.8	42.1	49.0
22/08/2014 04:30	47.0	53.8	43.0	49.3
22/08/2014 04:35	44.8	52.6	41.6	46.8

SHF.1122.002

Location R01

22/08/2014 04:40	44.1	50.1	41.5	46.2
22/08/2014 04:45	47.2	56.6	44.1	49.7
22/08/2014 04:50	43.9	48.3	41.4	45.6
22/08/2014 04:55	46.8	52.4	43.9	48.6
22/08/2014 05:00	46.9	51.7	45.0	48.4
22/08/2014 05:05	46.5	51.8	43.8	48.9
22/08/2014 05:10	47.7	51.2	45.2	49.6
22/08/2014 05:15	47.8	53.8	45.2	50.2
22/08/2014 05:20	49.6	52.9	48.1	50.9
22/08/2014 05:25	47.6	53.4	45.4	49.0
22/08/2014 05:30	46.4	51.1	44.3	48.0
22/08/2014 05:35	48.6	52.1	46.4	50.1
22/08/2014 05:40	48.3	51.6	46.5	49.4
22/08/2014 05:45	49.2	55.9	46.0	51.2
22/08/2014 05:50	48.2	53.0	46.1	49.6
22/08/2014 05:55	49.2	54.0	47.2	50.7
22/08/2014 06:00	49.7	52.5	48.3	50.8
22/08/2014 06:05	51.6	62.5	48.0	53.3
22/08/2014 06:10	51.5	55.8	50.1	52.8
22/08/2014 06:15	52.8	56.7	50.1	54.8
22/08/2014 06:20	54.5	58.1	52.5	55.9
22/08/2014 06:25	53.2	57.9	51.3	54.4
22/08/2014 06:30	54.6	58.4	51.6	56.8
22/08/2014 06:35	56.3	61.3	53.4	58.2
22/08/2014 06:40	53.5	66.5	50.9	54.7
22/08/2014 06:45	52.5	56.5	50.2	53.9
22/08/2014 06:50	52.8	57.4	50.9	54.2
22/08/2014 06:55	54.7	64.1	51.1	57.1

File	065445_140822_170100000.CMG			
Periods	15m			
Start	22/08/2014 17:15			
End	23/08/2014 17:00			
Location	Solo 065445			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
22/08/2014 17:15	53.7	73.4	49.2	55.4
22/08/2014 17:30	51.2	67.5	46.7	53.1
22/08/2014 17:45	48.2	57.4	45.8	49.8
22/08/2014 18:00	47.8	58.7	45.8	48.5
22/08/2014 18:15	48.6	58.9	46.1	49.8
22/08/2014 18:30	49.7	62.9	46.7	50.7
22/08/2014 18:45	47.6	57.0	45.9	48.6
22/08/2014 19:00	48.6	60.8	46.5	49.6
22/08/2014 19:15	50.2	62.7	47.2	51.3
22/08/2014 19:30	49.9	61.9	47.2	50.6
22/08/2014 19:45	50.1	61.0	47.7	51.3
22/08/2014 20:00	50.4	65.6	47.3	51.1

SHF.1122.002

Location R01

22/08/2014 20:15	50.2	66.6	47.7	50.9
22/08/2014 20:30	50.7	66.2	47.6	51.3
22/08/2014 20:45	49.1	59.3	47.2	50.3
22/08/2014 21:00	49.1	55.9	47.1	50.4
22/08/2014 21:15	49.4	54.3	47.7	50.6
22/08/2014 21:30	49.2	64.1	47.1	49.7
22/08/2014 21:45	47.6	51.7	45.9	48.9
22/08/2014 22:00	48.6	61.2	46.1	49.7
22/08/2014 22:15	47.8	54.5	45.5	49.3
22/08/2014 22:30	47.1	51.1	45.1	48.6
22/08/2014 22:45	47.4	53.2	45.6	48.6
23/08/2014 07:00	47.7	53.1	45.7	49.1
23/08/2014 07:15	48.0	63.4	45.7	48.7
23/08/2014 07:30	47.7	57.1	45.6	49.1
23/08/2014 07:45	48.6	55.4	47.0	49.7
23/08/2014 08:00	48.7	52.8	47.1	50.0
23/08/2014 08:15	48.1	56.1	46.6	49.0
23/08/2014 08:30	47.1	54.4	44.6	48.2
23/08/2014 08:45	46.8	59.1	44.6	48.0
23/08/2014 09:00	46.6	53.5	44.8	47.9
23/08/2014 09:15	45.8	50.2	44.4	46.9
23/08/2014 09:30	47.3	55.2	44.9	49.0
23/08/2014 09:45	47.1	54.4	45.7	48.0
23/08/2014 10:00	49.1	62.3	45.9	50.2
23/08/2014 10:15	50.4	64.4	46.2	50.4
23/08/2014 10:30	47.6	61.3	45.4	48.4
23/08/2014 10:45	47.8	60.9	44.6	49.3
23/08/2014 11:00	48.3	56.8	45.7	50.5
23/08/2014 11:15	48.2	66.0	45.3	48.5
23/08/2014 11:30	47.1	58.0	44.9	48.2
23/08/2014 11:45	47.7	58.8	44.1	49.6
23/08/2014 12:00	47.2	58.0	43.4	49.3
23/08/2014 12:15	47.0	58.1	43.1	49.1
23/08/2014 12:30	47.0	56.0	44.7	48.4
23/08/2014 12:45	49.0	64.9	44.3	50.5
23/08/2014 13:00	46.3	59.5	44.2	47.2
23/08/2014 13:15	49.8	64.2	45.1	51.6
23/08/2014 13:30	47.7	57.6	43.8	49.9
23/08/2014 13:45	57.2	70.1	43.9	60.4
23/08/2014 14:00	56.9	66.1	52.4	59.5
23/08/2014 14:15	54.4	62.2	49.7	57.2
23/08/2014 14:30	50.2	61.1	45.0	53.2
23/08/2014 14:45	52.5	64.0	46.1	55.2
23/08/2014 15:00	51.2	59.0	47.7	53.7
23/08/2014 15:15	47.0	56.9	44.8	48.5
23/08/2014 15:30	46.4	59.9	43.0	48.0
23/08/2014 15:45	44.8	50.4	43.0	46.1
23/08/2014 16:00	47.5	58.5	44.5	48.4
23/08/2014 16:15	48.2	61.9	44.6	50.0
23/08/2014 16:30	47.4	58.3	45.0	48.9

23/08/2014 16:45	46.2	58.2	43.4	48.0
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File	065445_140822_170100000.CMG			
Periods	5m			
Start	22/08/2014 23:00			
End	23/08/2014 07:00			
Location	Solo 065445			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
22/08/2014 23:00	46.9	54.1	45.0	48.7
22/08/2014 23:05	46.2	49.3	44.5	47.7
22/08/2014 23:10	46.5	49.9	44.8	48.2
22/08/2014 23:15	45.9	51.0	44.6	46.9
22/08/2014 23:20	45.9	54.7	43.2	48.1
22/08/2014 23:25	45.4	50.3	43.3	46.9
22/08/2014 23:30	49.7	62.6	42.3	53.4
22/08/2014 23:35	45.5	54.7	42.7	47.5
22/08/2014 23:40	46.8	58.9	43.3	47.9
22/08/2014 23:45	46.2	51.0	43.6	47.9
22/08/2014 23:50	44.9	52.3	43.1	46.4
22/08/2014 23:55	45.7	49.5	43.6	47.3
23/08/2014 00:00	45.3	48.5	43.1	46.8
23/08/2014 00:05	45.5	49.0	43.7	46.8
23/08/2014 00:10	46.2	52.3	44.6	47.2
23/08/2014 00:15	46.4	49.8	45.0	47.4
23/08/2014 00:20	45.7	48.5	44.3	46.7
23/08/2014 00:25	45.7	52.1	43.7	47.0
23/08/2014 00:30	45.1	50.3	43.0	46.7
23/08/2014 00:35	45.2	49.3	43.5	46.3
23/08/2014 00:40	45.2	49.0	43.3	46.5
23/08/2014 00:45	44.8	49.2	42.0	46.6
23/08/2014 00:50	44.1	47.2	42.1	45.4
23/08/2014 00:55	44.6	47.2	42.5	46.0
23/08/2014 01:00	45.4	48.7	43.3	47.1
23/08/2014 01:05	44.2	47.7	42.2	45.8
23/08/2014 01:10	45.2	50.8	43.3	46.6
23/08/2014 01:15	44.1	48.2	42.2	45.7
23/08/2014 01:20	46.1	50.3	44.2	47.6
23/08/2014 01:25	44.6	48.9	41.9	46.4
23/08/2014 01:30	45.0	49.6	42.9	46.4
23/08/2014 01:35	42.8	47.1	40.6	44.1
23/08/2014 01:40	44.2	50.6	41.1	46.1
23/08/2014 01:45	43.7	50.7	40.3	45.6
23/08/2014 01:50	44.0	49.7	40.8	46.6
23/08/2014 01:55	43.8	50.7	40.2	46.3
23/08/2014 02:00	45.1	51.9	42.0	47.1
23/08/2014 02:05	43.0	50.6	40.1	45.3
23/08/2014 02:10	41.0	47.2	38.3	42.7

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Location R01

23/08/2014 02:15	42.7	50.6	38.9	45.4
23/08/2014 02:20	43.1	47.2	39.9	44.8
23/08/2014 02:25	43.6	47.3	41.7	44.8
23/08/2014 02:30	42.2	46.6	39.9	43.5
23/08/2014 02:35	43.2	47.8	41.0	44.9
23/08/2014 02:40	42.9	48.5	40.6	44.7
23/08/2014 02:45	42.1	47.2	40.3	43.4
23/08/2014 02:50	42.0	48.6	39.0	43.8
23/08/2014 02:55	42.3	48.4	39.4	44.3
23/08/2014 03:00	41.5	47.4	38.6	43.7
23/08/2014 03:05	41.8	47.0	38.9	43.9
23/08/2014 03:10	42.2	49.5	38.1	44.9
23/08/2014 03:15	42.9	47.0	40.1	44.7
23/08/2014 03:20	43.7	48.4	41.2	45.7
23/08/2014 03:25	41.0	45.1	38.1	42.8
23/08/2014 03:30	42.5	47.6	39.8	44.4
23/08/2014 03:35	41.2	48.9	38.4	43.5
23/08/2014 03:40	43.2	50.1	38.4	45.9
23/08/2014 03:45	55.0	69.0	40.0	54.9
23/08/2014 03:50	46.1	61.6	39.9	45.9
23/08/2014 03:55	42.0	51.7	37.6	43.6
23/08/2014 04:00	41.4	48.5	38.0	43.9
23/08/2014 04:05	42.1	48.7	38.4	45.0
23/08/2014 04:10	42.8	53.5	38.5	45.3
23/08/2014 04:15	39.4	46.0	34.4	42.6
23/08/2014 04:20	40.5	47.7	36.8	43.1
23/08/2014 04:25	43.7	51.0	37.6	47.0
23/08/2014 04:30	45.4	53.4	38.4	49.1
23/08/2014 04:35	52.2	66.6	39.8	54.6
23/08/2014 04:40	49.1	58.4	41.9	52.5
23/08/2014 04:45	46.4	53.4	41.6	49.3
23/08/2014 04:50	47.3	55.2	43.8	49.3
23/08/2014 04:55	47.0	54.2	43.3	49.1
23/08/2014 05:00	44.6	51.4	42.1	46.5
23/08/2014 05:05	45.0	52.8	41.8	47.0
23/08/2014 05:10	47.2	56.6	41.2	49.8
23/08/2014 05:15	46.5	54.1	40.6	49.5
23/08/2014 05:20	45.9	51.9	41.8	48.8
23/08/2014 05:25	46.1	52.1	42.6	48.5
23/08/2014 05:30	50.5	57.8	42.8	53.8
23/08/2014 05:35	51.3	59.5	45.5	54.2
23/08/2014 05:40	53.6	58.7	49.6	56.1
23/08/2014 05:45	52.8	58.7	47.4	55.4
23/08/2014 05:50	54.9	62.0	49.7	57.5
23/08/2014 05:55	52.8	57.4	48.6	55.1
23/08/2014 06:00	53.0	60.2	47.1	56.0
23/08/2014 06:05	49.4	57.3	46.3	51.7
23/08/2014 06:10	47.4	55.0	45.7	48.6
23/08/2014 06:15	47.6	54.0	45.7	48.9
23/08/2014 06:20	47.1	50.7	45.1	48.8

23/08/2014 06:25	47.9	56.1	46.0	49.0
23/08/2014 06:30	50.0	61.4	47.6	51.4
23/08/2014 06:35	48.8	52.1	47.0	50.2
23/08/2014 06:40	49.3	53.4	47.1	50.9
23/08/2014 06:45	49.7	54.2	48.2	50.8
23/08/2014 06:50	48.6	56.7	47.0	49.7
23/08/2014 06:55	48.9	52.4	47.1	50.2

File	065445_140823_170100000.CMG			
Periods	15m			
Start	23/08/2014 17:15			
End	24/08/2014 17:00			
Location	Solo 065445			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
23/08/2014 17:15	50.4	60.3	48.1	52.1
23/08/2014 17:30	49.1	59.8	46.1	51.1
23/08/2014 17:45	50.5	57.3	46.4	53.1
23/08/2014 18:00	49.6	58.4	46.2	51.8
23/08/2014 18:15	47.0	53.2	44.0	48.9
23/08/2014 18:30	47.2	57.5	43.1	49.1
23/08/2014 18:45	46.9	60.0	43.5	49.0
23/08/2014 19:00	48.6	64.5	42.6	50.4
23/08/2014 19:15	49.7	64.1	45.3	50.7
23/08/2014 19:30	49.8	65.8	46.6	49.9
23/08/2014 19:45	49.4	62.6	46.8	50.5
23/08/2014 20:00	49.2	58.4	47.2	50.5
23/08/2014 20:15	49.5	61.1	47.5	50.6
23/08/2014 20:30	48.9	60.9	47.1	49.9
23/08/2014 20:45	48.6	54.1	46.8	50.1
23/08/2014 21:00	49.1	56.4	46.6	50.7
23/08/2014 21:15	48.4	62.8	45.9	49.6
23/08/2014 21:30	49.4	55.1	47.6	50.8
23/08/2014 21:45	48.7	52.7	46.9	49.9
23/08/2014 22:00	48.9	52.6	47.0	50.2
23/08/2014 22:15	49.1	59.3	47.4	50.3
23/08/2014 22:30	48.4	57.7	45.8	49.8
23/08/2014 22:45	46.9	52.6	44.3	48.5
24/08/2014 07:00	46.3	53.2	42.9	48.8
24/08/2014 07:15	46.5	57.3	42.4	48.6
24/08/2014 07:30	45.4	61.4	42.2	46.5
24/08/2014 07:45	44.9	56.9	40.7	47.2
24/08/2014 08:00	44.0	58.0	40.0	45.7
24/08/2014 08:15	43.1	53.9	38.8	45.2
24/08/2014 08:30	41.6	51.8	38.8	43.3
24/08/2014 08:45	42.7	60.2	39.4	44.0
24/08/2014 09:00	42.5	55.9	39.6	44.1
24/08/2014 09:15	45.9	64.7	41.8	45.9

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Location R01

24/08/2014 09:30	45.6	60.5	41.9	45.8
24/08/2014 09:45	45.7	61.5	42.4	46.8
24/08/2014 10:00	48.5	63.9	42.6	50.7
24/08/2014 10:15	46.2	58.8	43.9	47.3
24/08/2014 10:30	46.1	57.4	43.0	48.0
24/08/2014 10:45	46.6	60.9	44.4	47.8
24/08/2014 11:00	56.2	65.5	45.6	61.8
24/08/2014 11:15	56.6	63.7	46.0	60.8
24/08/2014 11:30	47.7	59.1	46.0	48.5
24/08/2014 11:45	48.2	63.1	44.1	49.6
24/08/2014 12:00	46.4	55.0	44.0	47.8
24/08/2014 12:15	46.4	57.1	43.5	47.4
24/08/2014 12:30	44.6	57.4	42.7	45.7
24/08/2014 12:45	46.6	58.5	42.4	47.5
24/08/2014 13:00	46.0	65.3	43.0	46.6
24/08/2014 13:15	45.3	53.4	43.4	46.8
24/08/2014 13:30	45.1	54.0	42.6	46.7
24/08/2014 13:45	46.2	56.8	43.8	47.5
24/08/2014 14:00	50.3	69.5	43.8	51.0
24/08/2014 14:15	51.0	67.6	43.9	53.6
24/08/2014 14:30	52.4	67.8	45.3	55.2
24/08/2014 14:45	52.6	68.2	44.6	55.0
24/08/2014 15:00	55.3	73.2	46.4	57.3
24/08/2014 15:15	54.1	67.5	44.2	57.1
24/08/2014 15:30	57.2	80.4	45.9	58.5
24/08/2014 15:45	53.2	70.8	44.2	55.4
24/08/2014 16:00	49.7	62.7	44.4	52.2
24/08/2014 16:15	53.0	71.0	44.5	55.8
24/08/2014 16:30	53.2	66.1	45.2	56.2
24/08/2014 16:45	50.4	65.6	43.5	53.4

File	065445_140823_170100000.CMG			
Periods	5m			
Start	23/08/2014 23:00			
End	24/08/2014 07:00			
Location	Solo 065445			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
23/08/2014 23:00	47.4	51.9	45.5	49.0
23/08/2014 23:05	47.6	56.3	45.2	49.1
23/08/2014 23:10	49.7	59.3	46.7	50.6
23/08/2014 23:15	48.6	55.5	46.2	50.4
23/08/2014 23:20	47.2	51.3	45.2	48.5
23/08/2014 23:25	47.0	55.0	44.2	48.6
23/08/2014 23:30	46.3	49.8	44.8	47.7
23/08/2014 23:35	47.0	50.2	45.5	48.1
23/08/2014 23:40	49.3	61.1	45.4	50.1
23/08/2014 23:45	46.6	50.6	45.0	47.6

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Location R01

23/08/2014 23:50	46.4	50.0	44.8	47.9
23/08/2014 23:55	47.4	57.8	45.0	48.3
24/08/2014 00:00	46.4	50.9	44.4	47.9
24/08/2014 00:05	47.4	52.7	45.3	48.9
24/08/2014 00:10	46.0	50.2	43.5	48.0
24/08/2014 00:15	46.2	49.2	44.4	47.6
24/08/2014 00:20	46.2	51.4	43.7	48.1
24/08/2014 00:25	45.7	49.9	43.1	48.0
24/08/2014 00:30	45.2	49.5	41.9	47.2
24/08/2014 00:35	46.2	56.2	42.5	48.0
24/08/2014 00:40	49.9	63.4	43.5	50.1
24/08/2014 00:45	45.4	49.7	43.3	47.2
24/08/2014 00:50	45.5	53.3	42.5	47.7
24/08/2014 00:55	43.9	48.7	40.9	45.7
24/08/2014 01:00	44.5	52.5	41.4	46.7
24/08/2014 01:05	44.8	52.0	41.5	46.5
24/08/2014 01:10	44.9	51.2	41.9	46.5
24/08/2014 01:15	43.3	49.2	40.4	45.5
24/08/2014 01:20	47.8	64.4	39.9	46.1
24/08/2014 01:25	44.8	54.3	41.3	46.1
24/08/2014 01:30	44.1	49.5	40.8	46.4
24/08/2014 01:35	43.2	47.8	39.2	45.4
24/08/2014 01:40	47.7	63.5	40.2	48.2
24/08/2014 01:45	43.5	49.8	41.2	45.2
24/08/2014 01:50	44.4	49.1	41.9	46.3
24/08/2014 01:55	43.3	49.4	40.8	45.0
24/08/2014 02:00	43.9	50.2	40.3	46.7
24/08/2014 02:05	43.9	49.4	41.0	45.8
24/08/2014 02:10	42.1	47.8	39.3	44.0
24/08/2014 02:15	42.9	51.7	39.5	45.2
24/08/2014 02:20	43.0	50.3	39.7	44.9
24/08/2014 02:25	42.0	49.2	37.9	44.6
24/08/2014 02:30	41.3	47.9	37.5	43.9
24/08/2014 02:35	42.8	55.5	38.4	44.6
24/08/2014 02:40	41.2	47.9	36.1	43.5
24/08/2014 02:45	40.1	45.6	36.0	42.7
24/08/2014 02:50	39.6	47.6	34.0	42.4
24/08/2014 02:55	41.4	48.0	37.4	43.7
24/08/2014 03:00	43.0	54.0	36.4	45.7
24/08/2014 03:05	42.0	49.8	37.8	44.5
24/08/2014 03:10	43.3	49.6	38.9	45.6
24/08/2014 03:15	39.6	48.8	36.0	42.3
24/08/2014 03:20	40.6	49.5	36.3	44.0
24/08/2014 03:25	41.4	49.0	38.3	43.5
24/08/2014 03:30	41.2	48.7	38.0	43.3
24/08/2014 03:35	40.5	47.9	35.9	43.0
24/08/2014 03:40	41.1	46.8	37.5	43.4
24/08/2014 03:45	41.2	47.5	37.4	44.1
24/08/2014 03:50	41.0	47.4	35.4	43.7
24/08/2014 03:55	40.9	48.8	35.1	43.8

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Location R01

24/08/2014 04:00	39.3	46.3	35.1	42.2
24/08/2014 04:05	39.9	48.1	36.4	42.3
24/08/2014 04:10	39.4	50.2	34.7	40.9
24/08/2014 04:15	37.0	44.5	33.5	40.0
24/08/2014 04:20	38.2	43.0	35.0	40.5
24/08/2014 04:25	40.4	46.0	36.5	42.7
24/08/2014 04:30	39.9	45.7	35.6	43.2
24/08/2014 04:35	38.8	45.6	36.0	41.0
24/08/2014 04:40	40.3	48.2	36.1	43.3
24/08/2014 04:45	40.1	47.6	36.3	42.8
24/08/2014 04:50	40.3	48.7	34.7	43.7
24/08/2014 04:55	42.3	48.5	38.9	44.8
24/08/2014 05:00	40.5	46.6	37.1	42.6
24/08/2014 05:05	40.2	48.2	37.7	41.8
24/08/2014 05:10	40.5	46.5	36.8	42.7
24/08/2014 05:15	43.7	50.1	40.7	46.0
24/08/2014 05:20	43.7	48.6	41.2	45.5
24/08/2014 05:25	45.2	55.9	41.1	47.9
24/08/2014 05:30	45.0	50.7	42.6	47.0
24/08/2014 05:35	44.2	49.0	41.5	46.4
24/08/2014 05:40	44.3	51.4	42.0	46.1
24/08/2014 05:45	43.6	49.6	40.3	45.7
24/08/2014 05:50	44.0	50.2	41.1	46.7
24/08/2014 05:55	44.6	50.5	40.8	46.7
24/08/2014 06:00	47.1	54.9	42.1	50.3
24/08/2014 06:05	46.3	51.2	43.3	48.2
24/08/2014 06:10	46.5	51.6	43.9	48.2
24/08/2014 06:15	46.5	50.9	43.0	48.4
24/08/2014 06:20	46.5	50.9	43.3	48.3
24/08/2014 06:25	46.1	53.7	43.4	47.6
24/08/2014 06:30	46.8	52.0	44.4	48.3
24/08/2014 06:35	46.4	51.4	44.1	48.0
24/08/2014 06:40	47.3	53.4	45.0	48.7
24/08/2014 06:45	47.0	55.2	43.6	49.3
24/08/2014 06:50	46.5	50.6	43.2	48.8
24/08/2014 06:55	46.3	50.5	43.1	48.3

File	065445_140824_170100000.CMG			
Periods	15m			
Start	24/08/2014 17:15			
End	25/08/2014 17:00			
Location	Solo 065445			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
24/08/2014 17:15	54.9	73.4	48.1	56.6
24/08/2014 17:30	54.8	69.5	48.3	57.6
24/08/2014 17:45	52.8	69.7	46.7	55.2
24/08/2014 18:00	52.3	67.1	47.7	54.8

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Location R01

24/08/2014 18:15	53.6	67.6	48.6	55.8
24/08/2014 18:30	55.0	65.6	50.8	57.2
24/08/2014 18:45	54.1	63.6	50.7	55.7
24/08/2014 19:00	54.4	66.5	50.4	56.6
24/08/2014 19:15	56.0	67.0	49.8	58.9
24/08/2014 19:30	56.9	70.5	50.4	59.4
24/08/2014 19:45	55.7	71.7	48.5	58.7
24/08/2014 20:00	53.7	66.8	48.2	56.1
24/08/2014 20:15	55.9	69.8	48.5	58.9
24/08/2014 20:30	53.9	63.3	49.5	56.5
24/08/2014 20:45	54.0	64.9	49.0	56.8
24/08/2014 21:00	58.0	77.1	51.6	60.1
24/08/2014 21:15	56.5	68.3	50.8	59.4
24/08/2014 21:30	56.1	68.8	49.7	58.7
24/08/2014 21:45	52.5	64.3	44.4	56.2
24/08/2014 22:00	46.5	52.0	42.8	48.5
24/08/2014 22:15	50.2	68.2	42.1	50.9
24/08/2014 22:30	50.2	70.8	44.6	51.3
24/08/2014 22:45	52.5	63.7	44.5	56.4
25/08/2014 07:00	50.7	56.9	47.0	53.3
25/08/2014 07:15	52.1	60.7	47.4	54.9
25/08/2014 07:30	54.0	60.4	49.9	56.7
25/08/2014 07:45	54.3	72.7	49.1	55.6
25/08/2014 08:00	54.6	61.7	50.5	57.0
25/08/2014 08:15	55.7	66.2	50.0	58.2
25/08/2014 08:30	55.1	63.7	49.7	58.1
25/08/2014 08:45	55.9	64.2	51.6	58.2
25/08/2014 09:00	55.6	63.9	51.1	58.1
25/08/2014 09:15	56.7	62.2	52.8	58.9
25/08/2014 09:30	56.8	64.3	51.7	59.1
25/08/2014 09:45	56.5	65.5	52.6	59.1
25/08/2014 10:00	58.3	68.6	54.8	60.6
25/08/2014 10:15	58.5	64.8	54.9	61.1
25/08/2014 10:30	59.4	65.2	56.1	61.5
25/08/2014 10:45	59.0	64.1	55.9	61.1
25/08/2014 11:00	58.5	63.5	56.0	60.3
25/08/2014 11:15	59.3	65.6	56.8	61.2
25/08/2014 11:30	59.3	65.6	56.4	61.1
25/08/2014 11:45	60.4	66.2	57.2	62.4
25/08/2014 12:00	60.1	64.5	57.6	61.8
25/08/2014 12:15	63.8	85.3	56.9	62.2
25/08/2014 12:30	60.2	67.2	57.5	62.0
25/08/2014 12:45	60.3	65.6	57.3	62.4
25/08/2014 13:00	61.0	69.4	57.8	63.0
25/08/2014 13:15	60.1	67.3	57.7	61.8
25/08/2014 13:30	61.0	67.6	57.8	62.9
25/08/2014 13:45	60.5	66.2	57.4	62.4
25/08/2014 14:00	60.1	66.2	56.6	62.3
25/08/2014 14:15	59.9	66.1	56.7	61.8
25/08/2014 14:30	59.9	66.1	57.0	62.0

25/08/2014 14:45	60.6	65.9	57.7	62.4
25/08/2014 15:00	59.9	64.5	57.4	61.7
25/08/2014 15:15	60.2	65.3	56.8	62.1
25/08/2014 15:30	59.2	67.8	56.1	61.0
25/08/2014 15:45	60.6	75.6	56.4	62.8
25/08/2014 16:00	59.8	65.7	57.2	61.6
25/08/2014 16:15	60.3	68.7	56.4	62.8
25/08/2014 16:30	59.8	66.7	56.5	61.7
25/08/2014 16:45	60.1	66.5	56.9	62.4

File	065445_140824_170100000.CMG			
Periods	5m			
Start	24/08/2014 23:00			
End	25/08/2014 07:00			
Location	Solo 065445			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
24/08/2014 23:00	52.3	60.1	44.9	56.4
24/08/2014 23:05	51.2	59.8	44.9	54.6
24/08/2014 23:10	50.1	62.4	44.2	53.2
24/08/2014 23:15	53.0	61.4	47.6	56.0
24/08/2014 23:20	53.8	63.9	45.3	58.1
24/08/2014 23:25	52.8	61.4	45.3	57.3
24/08/2014 23:30	53.4	62.7	45.3	57.1
24/08/2014 23:35	53.7	61.5	46.1	57.5
24/08/2014 23:40	50.4	57.5	43.2	53.7
24/08/2014 23:45	52.8	61.3	43.3	56.6
24/08/2014 23:50	53.1	63.3	45.6	56.4
24/08/2014 23:55	49.7	57.8	40.8	54.1
25/08/2014 00:00	46.9	56.9	37.9	49.8
25/08/2014 00:05	49.1	58.1	36.6	53.2
25/08/2014 00:10	48.2	56.4	41.2	51.9
25/08/2014 00:15	46.6	54.6	39.2	50.6
25/08/2014 00:20	45.8	54.1	36.5	49.4
25/08/2014 00:25	50.3	60.9	36.1	54.9
25/08/2014 00:30	50.3	59.3	42.7	54.3
25/08/2014 00:35	51.2	57.6	38.8	54.8
25/08/2014 00:40	50.5	61.9	42.5	54.2
25/08/2014 00:45	49.7	61.8	38.1	53.2
25/08/2014 00:50	48.8	60.6	40.1	52.3
25/08/2014 00:55	47.9	59.5	38.0	51.8
25/08/2014 01:00	50.0	59.0	43.8	52.7
25/08/2014 01:05	50.0	60.3	38.1	54.5
25/08/2014 01:10	52.3	61.6	38.8	56.7
25/08/2014 01:15	50.6	60.8	39.7	54.0
25/08/2014 01:20	49.6	58.1	40.1	54.0
25/08/2014 01:25	52.2	62.0	37.2	56.8
25/08/2014 01:30	49.0	59.0	36.8	53.4

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Location R01

25/08/2014 01:35	47.4	57.4	39.2	51.8
25/08/2014 01:40	50.4	59.5	42.0	54.7
25/08/2014 01:45	44.2	54.9	39.2	46.8
25/08/2014 01:50	48.4	55.8	45.1	50.0
25/08/2014 01:55	49.2	62.0	40.5	51.8
25/08/2014 02:00	51.6	62.3	39.5	55.5
25/08/2014 02:05	51.4	61.4	32.4	56.0
25/08/2014 02:10	48.7	60.4	34.4	53.0
25/08/2014 02:15	48.8	60.7	35.8	53.5
25/08/2014 02:20	50.2	61.0	36.9	54.6
25/08/2014 02:25	49.0	60.5	36.4	53.8
25/08/2014 02:30	52.3	61.1	39.1	56.6
25/08/2014 02:35	51.2	60.5	43.9	54.7
25/08/2014 02:40	50.7	61.6	36.1	55.2
25/08/2014 02:45	49.7	60.3	36.4	53.5
25/08/2014 02:50	50.7	61.1	38.4	54.8
25/08/2014 02:55	47.6	58.8	37.0	51.2
25/08/2014 03:00	48.7	58.7	35.5	53.6
25/08/2014 03:05	50.9	61.8	37.1	55.0
25/08/2014 03:10	48.8	57.7	36.6	53.9
25/08/2014 03:15	47.2	55.6	37.7	50.4
25/08/2014 03:20	46.5	56.7	35.4	50.2
25/08/2014 03:25	48.0	59.5	39.0	51.3
25/08/2014 03:30	43.8	54.8	37.6	46.1
25/08/2014 03:35	48.2	57.9	38.0	52.6
25/08/2014 03:40	46.4	59.6	35.7	49.4
25/08/2014 03:45	44.2	55.3	38.7	46.6
25/08/2014 03:50	48.2	61.5	38.1	51.4
25/08/2014 03:55	47.9	56.8	38.8	51.8
25/08/2014 04:00	46.7	56.2	38.9	50.4
25/08/2014 04:05	41.2	48.2	35.5	44.0
25/08/2014 04:10	48.5	57.5	40.5	51.9
25/08/2014 04:15	45.6	57.1	38.3	48.5
25/08/2014 04:20	49.7	57.7	41.3	53.2
25/08/2014 04:25	49.7	56.3	44.1	52.8
25/08/2014 04:30	46.6	53.3	40.2	50.1
25/08/2014 04:35	45.0	50.5	40.7	47.4
25/08/2014 04:40	49.3	61.3	41.3	51.2
25/08/2014 04:45	44.3	54.1	38.4	47.7
25/08/2014 04:50	45.6	54.3	39.1	49.6
25/08/2014 04:55	47.7	57.9	40.1	51.5
25/08/2014 05:00	49.4	58.1	40.6	52.2
25/08/2014 05:05	49.1	57.9	42.2	52.0
25/08/2014 05:10	48.9	56.9	42.2	52.6
25/08/2014 05:15	49.1	55.4	41.4	52.6
25/08/2014 05:20	48.8	55.1	43.3	51.4
25/08/2014 05:25	51.0	56.6	47.2	53.4
25/08/2014 05:30	53.3	64.4	47.4	54.3
25/08/2014 05:35	51.1	60.4	45.6	54.0
25/08/2014 05:40	51.2	56.0	47.7	53.6

25/08/2014 05:45	49.9	57.0	45.5	52.2
25/08/2014 05:50	50.6	57.4	43.2	53.4
25/08/2014 05:55	53.6	60.2	48.4	56.1
25/08/2014 06:00	49.2	55.6	44.6	51.7
25/08/2014 06:05	51.7	57.1	45.6	54.5
25/08/2014 06:10	51.9	60.5	47.1	54.2
25/08/2014 06:15	53.1	62.5	48.8	55.1
25/08/2014 06:20	52.0	60.3	47.5	54.9
25/08/2014 06:25	52.4	57.9	47.8	54.8
25/08/2014 06:30	53.2	57.6	45.8	55.8
25/08/2014 06:35	49.1	55.0	46.1	51.0
25/08/2014 06:40	51.3	57.6	47.4	53.4
25/08/2014 06:45	49.7	56.1	45.1	52.2
25/08/2014 06:50	51.3	57.7	46.2	53.7
25/08/2014 06:55	49.3	55.4	46.3	51.5

File	065445_140825_170100000.CMG			
Periods	15m			
Start	25/08/2014 17:15			
End	26/08/2014 11:15			
Location	Solo 065445			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
25/08/2014 17:15	60.4	73.3	56.6	62.4
25/08/2014 17:30	59.1	64.9	55.7	61.1
25/08/2014 17:45	58.9	66.1	54.8	61.3
25/08/2014 18:00	59.0	65.7	55.5	61.2
25/08/2014 18:15	59.0	66.0	55.2	61.2
25/08/2014 18:30	58.8	66.6	54.9	60.9
25/08/2014 18:45	57.3	65.0	52.8	59.8
25/08/2014 19:00	58.3	64.8	54.7	60.6
25/08/2014 19:15	57.3	67.2	52.3	59.8
25/08/2014 19:30	57.0	64.8	52.6	59.5
25/08/2014 19:45	57.2	68.4	51.3	59.6
25/08/2014 20:00	57.5	63.4	54.5	59.5
25/08/2014 20:15	57.8	67.0	54.4	59.9
25/08/2014 20:30	56.4	64.1	53.1	58.7
25/08/2014 20:45	79.8	98.2	53.8	83.5
25/08/2014 21:00	83.1	103.7	57.1	81.7
25/08/2014 21:15	59.6	74.9	48.7	62.8
25/08/2014 21:30	53.1	61.8	46.6	56.0
25/08/2014 21:45	53.4	61.9	46.9	56.6
25/08/2014 22:00	54.7	65.7	47.0	58.1
25/08/2014 22:15	53.4	62.9	42.9	56.7
25/08/2014 22:30	52.5	63.2	44.9	56.0
25/08/2014 22:45	53.0	69.8	44.0	55.3
26/08/2014 07:00	61.9	66.9	59.1	63.7
26/08/2014 07:15	62.8	72.2	59.9	64.5

SHF.1122.002

Location R01

26/08/2014 07:30	63.0	69.8	60.6	64.8
26/08/2014 07:45	63.9	68.5	61.1	65.6
26/08/2014 08:00	63.6	68.5	61.1	65.3
26/08/2014 08:15	63.8	68.9	61.1	65.5
26/08/2014 08:30	63.2	67.6	60.6	64.9
26/08/2014 08:45	63.3	84.4	59.6	64.2
26/08/2014 09:00	61.3	67.6	57.6	63.4
26/08/2014 09:15	60.5	66.2	57.5	62.4
26/08/2014 09:30	61.3	70.0	57.4	63.3
26/08/2014 09:45	60.3	66.8	56.8	62.4
26/08/2014 10:00	61.1	68.9	57.9	62.9
26/08/2014 10:15	60.5	69.0	57.8	62.0
26/08/2014 10:30	60.7	66.7	57.2	62.7
26/08/2014 10:45	61.0	74.5	57.9	62.9
26/08/2014 11:00	61.5	71.9	58.2	63.4

File	065445_140825_170100000.CMG			
Periods	5m			
Start	25/08/2014 23:00			
End	26/08/2014 07:00			
Location	Solo 065445			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
25/08/2014 23:00	50.5	61.9	41.8	53.5
25/08/2014 23:05	50.9	61.3	40.7	54.7
25/08/2014 23:10	52.3	60.0	44.1	56.4
25/08/2014 23:15	53.4	58.9	49.3	56.2
25/08/2014 23:20	52.2	60.1	43.1	55.6
25/08/2014 23:25	55.7	61.3	51.9	57.7
25/08/2014 23:30	52.1	62.7	45.2	54.7
25/08/2014 23:35	51.8	62.2	46.5	54.9
25/08/2014 23:40	53.9	69.3	44.5	55.6
25/08/2014 23:45	54.3	64.5	47.1	57.0
25/08/2014 23:50	57.6	69.9	51.4	60.8
25/08/2014 23:55	60.7	70.4	51.2	64.5
26/08/2014 00:00	72.9	93.6	50.4	68.7
26/08/2014 00:05	73.5	91.4	52.8	66.8
26/08/2014 00:10	53.8	72.6	46.6	54.6
26/08/2014 00:15	50.4	62.3	45.1	52.8
26/08/2014 00:20	51.6	59.2	44.4	54.5
26/08/2014 00:25	49.7	58.4	42.2	53.4
26/08/2014 00:30	50.0	59.0	43.1	52.7
26/08/2014 00:35	51.8	59.4	45.4	55.2
26/08/2014 00:40	53.9	62.0	44.5	57.7
26/08/2014 00:45	48.8	57.2	42.8	52.0
26/08/2014 00:50	50.5	58.5	44.7	53.4
26/08/2014 00:55	49.3	58.9	44.6	51.8
26/08/2014 01:00	50.5	59.6	42.7	54.3

SHF.1122.002

Location R01

26/08/2014 01:05	53.1	58.6	47.5	56.2
26/08/2014 01:10	50.8	56.8	44.4	54.5
26/08/2014 01:15	49.9	57.1	42.9	53.2
26/08/2014 01:20	51.6	60.4	44.9	54.4
26/08/2014 01:25	52.2	63.7	44.6	55.5
26/08/2014 01:30	49.9	58.5	44.8	52.5
26/08/2014 01:35	58.2	74.8	47.5	57.5
26/08/2014 01:40	54.2	62.5	49.8	57.2
26/08/2014 01:45	48.9	61.3	42.9	51.0
26/08/2014 01:50	49.5	59.3	43.0	52.9
26/08/2014 01:55	49.2	61.3	42.4	52.2
26/08/2014 02:00	47.7	57.1	39.4	52.0
26/08/2014 02:05	48.4	57.2	38.8	52.8
26/08/2014 02:10	46.1	57.6	37.8	50.1
26/08/2014 02:15	49.1	57.9	39.9	53.3
26/08/2014 02:20	47.3	58.1	38.2	52.1
26/08/2014 02:25	49.7	62.6	43.4	52.9
26/08/2014 02:30	51.2	72.6	40.2	50.1
26/08/2014 02:35	43.5	55.0	39.1	45.5
26/08/2014 02:40	45.5	54.6	40.3	47.6
26/08/2014 02:45	47.8	60.9	41.0	51.2
26/08/2014 02:50	49.2	60.8	42.7	52.5
26/08/2014 02:55	46.6	55.6	40.4	50.2
26/08/2014 03:00	42.1	52.4	36.8	44.5
26/08/2014 03:05	48.6	56.4	39.7	51.9
26/08/2014 03:10	47.3	57.0	41.6	51.1
26/08/2014 03:15	49.6	56.3	42.8	52.5
26/08/2014 03:20	48.3	60.1	41.0	51.5
26/08/2014 03:25	49.8	59.5	41.6	53.2
26/08/2014 03:30	49.3	58.0	41.5	53.5
26/08/2014 03:35	48.7	59.1	42.7	51.0
26/08/2014 03:40	50.7	60.6	46.1	53.7
26/08/2014 03:45	52.1	61.5	47.9	54.9
26/08/2014 03:50	52.2	60.6	48.9	54.3
26/08/2014 03:55	50.9	59.7	43.0	55.5
26/08/2014 04:00	51.5	60.7	42.5	54.7
26/08/2014 04:05	50.0	62.6	40.6	53.7
26/08/2014 04:10	51.9	61.7	42.7	55.1
26/08/2014 04:15	50.4	59.8	41.6	54.3
26/08/2014 04:20	50.3	59.5	43.4	53.4
26/08/2014 04:25	48.3	58.5	40.8	51.8
26/08/2014 04:30	51.4	59.2	41.3	55.8
26/08/2014 04:35	51.4	59.8	40.5	55.3
26/08/2014 04:40	55.4	64.3	48.5	58.3
26/08/2014 04:45	53.5	61.6	44.3	57.1
26/08/2014 04:50	53.0	66.0	42.3	56.6
26/08/2014 04:55	53.6	62.0	44.9	56.9
26/08/2014 05:00	54.8	62.9	48.2	58.0
26/08/2014 05:05	53.1	61.9	47.0	56.0
26/08/2014 05:10	52.6	63.6	41.2	56.8

SHF.1122.002

Location R01

26/08/2014 05:15	53.8	62.6	48.3	56.9
26/08/2014 05:20	56.3	61.4	51.3	58.9
26/08/2014 05:25	55.8	62.8	49.5	58.9
26/08/2014 05:30	54.9	58.9	50.1	57.2
26/08/2014 05:35	58.9	64.3	56.0	60.8
26/08/2014 05:40	58.6	63.5	55.0	60.7
26/08/2014 05:45	58.4	63.8	55.0	60.2
26/08/2014 05:50	57.9	63.7	53.1	60.7
26/08/2014 05:55	60.6	67.5	55.0	63.4
26/08/2014 06:00	61.2	70.8	56.4	64.3
26/08/2014 06:05	58.4	63.5	54.2	61.2
26/08/2014 06:10	60.4	64.5	57.7	62.1
26/08/2014 06:15	60.7	67.8	57.3	62.8
26/08/2014 06:20	60.7	67.1	56.0	63.0
26/08/2014 06:25	60.7	67.4	57.7	62.4
26/08/2014 06:30	61.2	65.7	58.1	63.4
26/08/2014 06:35	60.6	65.0	56.9	62.5
26/08/2014 06:40	61.1	67.5	58.0	63.5
26/08/2014 06:45	62.0	66.1	59.1	63.9
26/08/2014 06:50	62.7	67.3	59.7	64.6
26/08/2014 06:55	62.4	67.8	59.5	64.4

File	065446_140821_151103000.CMG				
Periods	15m				
Start	21/08/2014 15:15				
End	22/08/2014 15:00				
Location	Solo 065446				
Weighting	A				
Data type	Leq				
Unit	dB				
Period start	Leq	Lmax	L90	L10	
21/08/2014 15:15	65.1	83.8	57.2	67.8	
21/08/2014 15:30	66.0	80.3	56.2	63.3	
21/08/2014 15:45	58.2	67.9	55.8	59.7	
21/08/2014 16:00	70.0	91.4	56.8	65.0	
21/08/2014 16:15	64.3	86.2	57.2	61.4	
21/08/2014 16:30	61.2	75.7	57.4	63.5	
21/08/2014 16:45	59.3	71.4	57.4	60.5	
21/08/2014 17:00	59.6	71.3	57.2	60.8	
21/08/2014 17:15	59.4	72.8	56.8	60.3	
21/08/2014 17:30	61.3	74.9	58.1	63.2	
21/08/2014 17:45	60.7	72.0	58.3	61.8	
21/08/2014 18:00	58.7	67.4	57.2	59.8	
21/08/2014 18:15	58.2	67.5	56.7	59.2	
21/08/2014 18:30	57.9	63.3	56.1	59.1	
21/08/2014 18:45	57.0	69.5	55.2	58.1	
21/08/2014 19:00	63.3	88.3	55.3	59.1	
21/08/2014 19:15	57.9	72.6	54.5	58.4	
21/08/2014 19:30	56.1	68.6	53.7	57.0	
21/08/2014 19:45	57.0	74.6	53.8	57.0	
21/08/2014 20:00	56.0	68.9	53.6	56.4	
21/08/2014 20:15	55.1	66.1	52.9	56.0	
21/08/2014 20:30	55.2	65.2	52.6	56.6	
21/08/2014 20:45	52.5	62.1	50.4	53.8	
21/08/2014 21:00	52.9	64.3	50.3	54.2	
21/08/2014 21:15	53.6	70.0	49.9	54.3	
21/08/2014 21:30	51.6	56.2	49.1	53.3	
21/08/2014 21:45	51.8	63.4	49.3	53.3	
21/08/2014 22:00	52.0	63.4	49.1	53.7	
21/08/2014 22:15	52.0	68.1	49.2	53.3	
21/08/2014 22:30	50.4	60.5	47.1	52.5	
21/08/2014 22:45	50.4	58.4	46.7	52.5	
22/08/2014 07:00	57.4	80.8	53.9	57.6	
22/08/2014 07:15	56.7	63.3	55.1	57.7	
22/08/2014 07:30	57.0	67.8	55.0	58.2	
22/08/2014 07:45	57.5	67.7	55.1	58.7	
22/08/2014 08:00	57.3	70.2	55.1	58.6	
22/08/2014 08:15	57.0	63.4	55.2	58.1	
22/08/2014 08:30	69.1	97.8	55.3	59.2	
22/08/2014 08:45	56.0	62.3	54.2	57.2	
22/08/2014 09:00	55.3	64.7	52.9	56.6	
22/08/2014 09:15	55.3	64.8	53.5	56.3	

22/08/2014 09:30	54.6	62.2	52.6	55.8
22/08/2014 09:45	54.6	63.6	52.5	55.7
22/08/2014 10:00	54.4	64.0	52.5	55.5
22/08/2014 10:15	53.9	58.7	51.9	55.3
22/08/2014 10:30	54.3	60.4	52.6	55.5
22/08/2014 10:45	54.5	61.8	52.5	55.8
22/08/2014 11:00	54.1	62.5	51.7	55.5
22/08/2014 11:15	53.8	60.5	51.8	55.1
22/08/2014 11:30	53.9	64.5	51.4	55.2
22/08/2014 11:45	54.1	64.6	52.1	55.0
22/08/2014 12:00	56.5	72.4	53.2	57.1
22/08/2014 12:15	53.4	65.1	51.6	54.4
22/08/2014 12:30	55.1	60.7	53.6	56.2
22/08/2014 12:45	54.0	63.7	51.6	55.0
22/08/2014 13:00	54.4	69.1	52.0	55.6
22/08/2014 13:15	55.2	60.7	53.9	56.1
22/08/2014 13:30	54.7	69.9	52.4	55.5
22/08/2014 13:45	56.7	68.6	52.6	58.7
22/08/2014 14:00	57.6	70.1	52.9	59.6
22/08/2014 14:15	56.7	71.0	53.3	57.5
22/08/2014 14:30	55.5	63.0	54.0	56.7
22/08/2014 14:45	55.3	66.5	53.6	56.4

File	065446_140821_151103000.CMG				
Periods	5m				
Start	21/08/2014 23:00				
End	22/08/2014 07:00				
Location	Solo 065446				
Weighting	A				
Data type	Leq				
Unit	dB				
Period start	Leq	Lmax	L90	L10	
21/08/2014 23:00	49.9	59.0	45.9	52.3	
21/08/2014 23:05	48.9	54.7	45.8	50.7	
21/08/2014 23:10	49.0	64.2	45.7	50.6	
21/08/2014 23:15	48.5	60.3	45.3	50.6	
21/08/2014 23:20	47.8	51.7	44.9	49.9	
21/08/2014 23:25	47.4	54.6	44.1	49.6	
21/08/2014 23:30	48.9	57.8	45.3	51.1	
21/08/2014 23:35	49.8	66.3	45.2	51.3	
21/08/2014 23:40	48.8	53.3	46.5	50.7	
21/08/2014 23:45	50.3	57.1	47.8	51.8	
21/08/2014 23:50	48.8	56.8	44.9	51.2	
21/08/2014 23:55	47.6	52.5	43.9	49.7	
22/08/2014 00:00	46.4	55.4	42.5	48.9	
22/08/2014 00:05	47.9	55.8	44.3	50.1	
22/08/2014 00:10	48.7	61.5	43.7	50.6	
22/08/2014 00:15	47.6	54.8	43.1	51.1	
22/08/2014 00:20	46.9	54.2	43.6	48.8	
22/08/2014 00:25	45.6	53.9	42.3	48.1	

22/08/2014 00:30	46.8	53.0	43.2	48.9
22/08/2014 00:35	46.9	53.5	42.4	49.4
22/08/2014 00:40	43.1	48.8	38.9	45.5
22/08/2014 00:45	46.4	56.9	41.8	48.4
22/08/2014 00:50	45.9	50.6	42.9	47.7
22/08/2014 00:55	46.2	56.8	41.3	48.1
22/08/2014 01:00	44.7	52.2	40.7	47.3
22/08/2014 01:05	43.3	52.0	39.8	45.2
22/08/2014 01:10	45.5	55.9	40.4	47.1
22/08/2014 01:15	42.6	53.8	36.1	45.0
22/08/2014 01:20	43.7	52.6	38.7	46.1
22/08/2014 01:25	43.5	53.7	39.7	46.0
22/08/2014 01:30	45.2	54.7	40.4	48.2
22/08/2014 01:35	41.9	48.9	35.4	44.4
22/08/2014 01:40	43.0	53.5	36.3	45.4
22/08/2014 01:45	43.1	53.2	38.8	45.1
22/08/2014 01:50	45.5	55.4	40.5	49.1
22/08/2014 01:55	43.5	52.9	39.6	45.5
22/08/2014 02:00	44.9	54.5	40.7	47.3
22/08/2014 02:05	44.7	50.4	40.8	47.2
22/08/2014 02:10	44.6	50.9	41.3	46.8
22/08/2014 02:15	44.8	52.4	38.5	48.0
22/08/2014 02:20	50.2	54.6	46.5	51.5
22/08/2014 02:25	52.8	55.9	50.7	54.2
22/08/2014 02:30	50.7	54.0	48.9	52.1
22/08/2014 02:35	47.0	52.8	43.4	49.9
22/08/2014 02:40	47.9	59.3	42.7	50.6
22/08/2014 02:45	45.2	53.2	43.2	46.5
22/08/2014 02:50	47.8	55.3	43.3	49.6
22/08/2014 02:55	45.6	53.9	42.1	47.9
22/08/2014 03:00	46.2	53.5	42.0	48.1
22/08/2014 03:05	47.0	54.4	41.8	49.3
22/08/2014 03:10	45.3	57.6	40.4	47.8
22/08/2014 03:15	42.8	46.1	40.6	44.3
22/08/2014 03:20	45.5	56.1	41.3	47.6
22/08/2014 03:25	47.1	56.9	44.1	49.1
22/08/2014 03:30	46.4	52.4	43.4	48.6
22/08/2014 03:35	47.0	53.6	43.5	49.5
22/08/2014 03:40	46.8	57.4	42.5	48.7
22/08/2014 03:45	46.7	56.8	42.2	49.3
22/08/2014 03:50	47.1	57.3	43.8	48.7
22/08/2014 03:55	47.2	57.6	42.0	50.6
22/08/2014 04:00	47.1	56.8	43.3	49.2
22/08/2014 04:05	48.0	55.0	45.4	50.2
22/08/2014 04:10	48.4	54.9	45.1	51.0
22/08/2014 04:15	49.0	54.4	46.4	51.2
22/08/2014 04:20	49.3	56.4	45.6	51.2
22/08/2014 04:25	49.0	54.1	45.7	51.1
22/08/2014 04:30	48.6	55.1	46.5	49.7
22/08/2014 04:35	49.5	55.1	46.2	51.9

22/08/2014 04:40	48.4	55.2	45.1	51.6
22/08/2014 04:45	50.6	56.9	48.4	52.2
22/08/2014 04:50	49.0	54.1	46.6	51.0
22/08/2014 04:55	51.1	57.5	48.3	53.2
22/08/2014 05:00	51.1	56.6	48.5	53.3
22/08/2014 05:05	51.2	56.7	48.7	53.1
22/08/2014 05:10	51.9	56.2	49.2	53.9
22/08/2014 05:15	51.6	55.7	49.3	53.6
22/08/2014 05:20	53.9	58.1	51.8	55.5
22/08/2014 05:25	52.9	57.4	50.7	54.9
22/08/2014 05:30	52.4	56.8	49.8	54.6
22/08/2014 05:35	52.9	57.1	50.8	54.4
22/08/2014 05:40	53.1	57.5	50.6	55.3
22/08/2014 05:45	52.9	57.7	50.6	54.4
22/08/2014 05:50	53.1	57.0	50.8	54.6
22/08/2014 05:55	54.2	58.9	51.9	56.1
22/08/2014 06:00	54.5	57.7	52.8	55.7
22/08/2014 06:05	55.3	61.0	53.1	56.8
22/08/2014 06:10	56.0	58.3	54.6	57.2
22/08/2014 06:15	56.0	58.9	53.8	57.6
22/08/2014 06:20	56.8	64.4	54.9	58.1
22/08/2014 06:25	56.5	60.3	54.7	57.8
22/08/2014 06:30	55.0	59.5	53.2	56.6
22/08/2014 06:35	58.5	73.2	54.5	59.5
22/08/2014 06:40	55.5	60.0	53.7	56.6
22/08/2014 06:45	58.1	73.4	53.6	58.0
22/08/2014 06:50	55.1	58.5	53.0	56.6
22/08/2014 06:55	55.2	64.2	53.3	56.3

File	065446_140822_151100000.CMG			
Periods	15m			
Start	22/08/2014 15:15			
End	23/08/2014 15:00			
Location	Solo 065446			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
22/08/2014 15:15	55.9	62.3	52.7	59.6
22/08/2014 15:30	78.1	96.8	59.0	61.8
22/08/2014 15:45	57.5	65.1	54.7	60.8
22/08/2014 16:00	59.2	85.4	54.4	57.2
22/08/2014 16:15	56.3	66.6	54.4	57.3
22/08/2014 16:30	67.9	94.0	55.4	69.2
22/08/2014 16:45	72.8	92.9	54.9	74.3
22/08/2014 17:00	64.6	91.4	54.5	58.5
22/08/2014 17:15	64.5	92.1	54.7	58.1
22/08/2014 17:30	56.6	67.2	54.3	57.7
22/08/2014 17:45	75.2	97.3	53.8	59.0
22/08/2014 18:00	61.9	90.0	53.6	56.8

22/08/2014 18:15	56.1	73.8	53.6	56.7
22/08/2014 18:30	55.3	64.7	53.3	56.7
22/08/2014 18:45	56.0	73.0	53.1	56.3
22/08/2014 19:00	56.4	61.6	54.9	57.5
22/08/2014 19:15	56.1	68.6	53.8	57.0
22/08/2014 19:30	56.5	73.4	54.1	56.9
22/08/2014 19:45	55.4	66.9	53.5	56.5
22/08/2014 20:00	55.0	60.0	53.2	56.2
22/08/2014 20:15	56.2	72.8	53.6	56.8
22/08/2014 20:30	55.3	60.6	53.4	56.6
22/08/2014 20:45	55.2	60.6	53.4	56.5
22/08/2014 21:00	55.4	63.1	53.3	57.0
22/08/2014 21:15	54.6	58.6	52.6	56.0
22/08/2014 21:30	53.5	59.2	51.4	55.0
22/08/2014 21:45	52.9	58.6	50.8	54.3
22/08/2014 22:00	53.7	67.8	50.4	55.2
22/08/2014 22:15	52.2	58.9	49.9	53.9
22/08/2014 22:30	52.6	61.6	50.7	53.9
22/08/2014 22:45	52.7	58.1	50.5	54.3
23/08/2014 07:00	53.5	63.3	50.4	55.6
23/08/2014 07:15	52.9	59.0	50.3	54.8
23/08/2014 07:30	53.0	59.1	50.9	54.4
23/08/2014 07:45	54.3	61.5	52.0	55.8
23/08/2014 08:00	54.6	62.3	52.4	56.0
23/08/2014 08:15	54.8	63.3	52.7	56.2
23/08/2014 08:30	56.5	73.6	52.5	57.7
23/08/2014 08:45	57.2	79.8	52.7	56.4
23/08/2014 09:00	54.7	62.7	52.4	56.1
23/08/2014 09:15	54.9	70.6	52.7	55.9
23/08/2014 09:30	68.6	94.4	53.7	59.2
23/08/2014 09:45	61.2	79.3	53.7	64.1
23/08/2014 10:00	56.4	67.3	54.1	57.7
23/08/2014 10:15	58.0	80.5	54.2	58.2
23/08/2014 10:30	55.0	61.1	53.1	56.3
23/08/2014 10:45	54.5	66.9	52.4	55.8
23/08/2014 11:00	67.0	93.5	53.5	64.2
23/08/2014 11:15	64.9	79.8	53.9	70.4
23/08/2014 11:30	62.5	77.9	53.4	66.4
23/08/2014 11:45	64.1	82.6	52.8	68.4
23/08/2014 12:00	56.0	71.2	51.3	55.7
23/08/2014 12:15	53.8	64.0	50.9	55.3
23/08/2014 12:30	55.8	74.0	52.3	56.6
23/08/2014 12:45	55.7	64.0	52.7	57.2
23/08/2014 13:00	54.8	62.6	53.0	56.0
23/08/2014 13:15	56.5	71.3	52.4	58.9
23/08/2014 13:30	56.0	67.1	51.3	59.0
23/08/2014 13:45	56.1	67.9	51.4	58.0
23/08/2014 14:00	56.9	67.4	54.6	58.2
23/08/2014 14:15	55.5	73.0	53.0	56.3
23/08/2014 14:30	53.8	65.0	51.6	55.1

23/08/2014 14:45	55.7	68.9	51.4	57.2
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File	065446_140822_151100000.CMG			
Periods	5m			
Start	22/08/2014 23:00			
End	23/08/2014 07:00			
Location	Solo 065446			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
22/08/2014 23:00	52.2	58.1	50.1	53.6
22/08/2014 23:05	52.2	58.0	49.8	54.0
22/08/2014 23:10	51.6	56.1	49.5	53.3
22/08/2014 23:15	52.1	58.4	50.0	54.1
22/08/2014 23:20	51.6	56.0	48.8	53.8
22/08/2014 23:25	50.7	54.9	47.9	53.0
22/08/2014 23:30	52.7	61.7	48.4	56.0
22/08/2014 23:35	49.4	57.1	46.6	51.1
22/08/2014 23:40	51.0	61.5	47.8	52.3
22/08/2014 23:45	51.1	56.7	49.1	52.6
22/08/2014 23:50	50.9	55.6	49.1	52.2
22/08/2014 23:55	51.9	57.8	49.4	53.8
23/08/2014 00:00	51.4	54.4	49.2	53.0
23/08/2014 00:05	51.2	55.8	48.9	52.7
23/08/2014 00:10	52.2	56.6	50.3	53.7
23/08/2014 00:15	52.5	57.7	49.9	54.2
23/08/2014 00:20	52.4	56.7	50.4	54.1
23/08/2014 00:25	51.6	58.4	48.9	53.6
23/08/2014 00:30	53.8	62.3	49.2	56.3
23/08/2014 00:35	51.2	55.1	48.4	53.6
23/08/2014 00:40	50.6	55.6	48.4	52.2
23/08/2014 00:45	50.6	57.2	45.8	52.8
23/08/2014 00:50	50.1	55.4	47.6	52.0
23/08/2014 00:55	50.5	55.9	48.0	52.2
23/08/2014 01:00	50.7	57.0	48.1	52.7
23/08/2014 01:05	49.8	56.8	46.9	52.2
23/08/2014 01:10	50.8	56.6	47.5	53.3
23/08/2014 01:15	49.3	54.4	46.4	50.8
23/08/2014 01:20	50.9	55.4	48.7	52.3
23/08/2014 01:25	50.2	55.6	47.9	52.1
23/08/2014 01:30	50.1	54.9	47.8	51.7
23/08/2014 01:35	49.8	59.7	45.2	51.4
23/08/2014 01:40	49.4	63.1	45.1	50.8
23/08/2014 01:45	47.2	51.6	44.3	48.9
23/08/2014 01:50	46.4	52.8	43.6	48.3
23/08/2014 01:55	47.8	56.4	43.1	50.8
23/08/2014 02:00	48.1	55.7	44.6	50.0
23/08/2014 02:05	47.1	54.9	43.9	49.2
23/08/2014 02:10	46.9	54.2	40.0	49.2

23/08/2014 02:15	46.9	54.6	43.1	50.1
23/08/2014 02:20	48.6	58.6	44.1	51.0
23/08/2014 02:25	48.4	55.0	45.7	50.9
23/08/2014 02:30	47.0	56.1	44.5	48.8
23/08/2014 02:35	47.0	51.4	43.4	49.3
23/08/2014 02:40	48.0	56.4	45.2	50.0
23/08/2014 02:45	47.7	54.2	44.8	50.0
23/08/2014 02:50	46.5	54.5	41.9	49.1
23/08/2014 02:55	48.1	55.0	45.3	49.9
23/08/2014 03:00	45.4	52.8	41.4	47.7
23/08/2014 03:05	46.5	53.0	43.7	48.1
23/08/2014 03:10	46.9	59.8	41.3	50.0
23/08/2014 03:15	48.1	62.9	43.7	49.5
23/08/2014 03:20	49.7	58.0	45.2	52.2
23/08/2014 03:25	49.0	61.1	42.6	51.8
23/08/2014 03:30	47.8	57.1	43.4	50.1
23/08/2014 03:35	46.6	56.8	41.9	49.8
23/08/2014 03:40	46.3	53.2	41.9	48.6
23/08/2014 03:45	47.2	55.0	43.9	49.2
23/08/2014 03:50	56.5	70.3	45.9	55.3
23/08/2014 03:55	46.2	55.0	41.3	49.4
23/08/2014 04:00	46.1	53.4	42.8	47.8
23/08/2014 04:05	46.6	53.7	43.4	48.7
23/08/2014 04:10	47.0	54.2	43.1	49.8
23/08/2014 04:15	44.9	53.0	40.3	48.0
23/08/2014 04:20	46.2	53.1	42.1	49.1
23/08/2014 04:25	46.7	54.1	41.4	50.1
23/08/2014 04:30	45.9	54.8	42.1	48.8
23/08/2014 04:35	46.4	59.5	41.7	48.6
23/08/2014 04:40	51.4	63.1	44.6	54.8
23/08/2014 04:45	48.7	56.9	46.1	50.7
23/08/2014 04:50	50.5	57.7	47.7	52.5
23/08/2014 04:55	50.6	56.4	47.1	52.4
23/08/2014 05:00	48.0	53.4	45.3	49.8
23/08/2014 05:05	49.9	56.2	46.4	52.6
23/08/2014 05:10	50.0	55.5	46.8	52.1
23/08/2014 05:15	48.6	56.0	44.8	51.0
23/08/2014 05:20	49.5	55.3	46.4	52.1
23/08/2014 05:25	49.5	55.7	46.2	51.4
23/08/2014 05:30	50.6	56.8	47.0	53.0
23/08/2014 05:35	50.8	56.8	47.8	53.2
23/08/2014 05:40	51.4	56.2	48.6	53.6
23/08/2014 05:45	51.8	61.5	48.7	53.7
23/08/2014 05:50	51.4	60.2	48.6	53.1
23/08/2014 05:55	50.9	56.4	49.1	52.5
23/08/2014 06:00	51.3	54.7	49.1	52.7
23/08/2014 06:05	52.2	57.3	49.9	54.0
23/08/2014 06:10	52.7	57.6	49.9	54.8
23/08/2014 06:15	52.3	59.3	49.7	54.3
23/08/2014 06:20	52.9	58.3	49.9	55.1

23/08/2014 06:25	52.9	57.0	50.8	54.6
23/08/2014 06:30	55.5	69.0	51.6	57.2
23/08/2014 06:35	52.7	58.5	50.6	54.3
23/08/2014 06:40	53.8	66.3	50.5	54.3
23/08/2014 06:45	53.4	57.7	51.7	54.8
23/08/2014 06:50	53.0	59.1	51.1	54.4
23/08/2014 06:55	53.5	58.2	51.5	54.9

File	065446_140823_151100000.CMG			
Periods	15m			
Start	23/08/2014 15:15			
End	24/08/2014 15:00			
Location	Solo 065446			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
23/08/2014 15:15	56.1	73.0	53.0	56.9
23/08/2014 15:30	54.8	70.0	51.9	55.6
23/08/2014 15:45	60.3	78.8	51.2	56.6
23/08/2014 16:00	55.4	71.4	51.7	56.1
23/08/2014 16:15	66.8	92.1	51.5	57.1
23/08/2014 16:30	55.9	77.2	51.8	55.7
23/08/2014 16:45	71.9	93.1	52.4	69.5
23/08/2014 17:00	59.0	81.2	52.8	57.6
23/08/2014 17:15	55.6	60.4	54.0	56.6
23/08/2014 17:30	54.4	65.6	52.2	55.5
23/08/2014 17:45	52.9	68.1	49.9	54.4
23/08/2014 18:00	52.8	67.8	49.6	54.2
23/08/2014 18:15	52.6	66.2	49.6	54.1
23/08/2014 18:30	52.0	63.3	48.8	53.9
23/08/2014 18:45	52.5	65.3	49.1	54.2
23/08/2014 19:00	53.0	68.1	49.0	54.5
23/08/2014 19:15	54.0	70.6	50.8	55.0
23/08/2014 19:30	54.1	61.7	51.9	55.4
23/08/2014 19:45	55.3	63.5	52.5	57.0
23/08/2014 20:00	54.7	65.9	52.5	56.2
23/08/2014 20:15	55.8	61.4	53.7	57.2
23/08/2014 20:30	55.1	59.1	53.2	56.7
23/08/2014 20:45	53.9	59.1	51.8	55.1
23/08/2014 21:00	54.0	58.3	52.1	55.2
23/08/2014 21:15	53.1	56.7	50.9	54.8
23/08/2014 21:30	54.5	59.0	52.2	56.1
23/08/2014 21:45	54.1	58.3	51.9	55.6
23/08/2014 22:00	55.0	59.1	53.2	56.3
23/08/2014 22:15	54.9	70.6	52.5	55.8
23/08/2014 22:30	53.3	56.5	51.3	54.6
23/08/2014 22:45	52.1	56.9	48.8	53.9
24/08/2014 07:00	49.4	58.9	45.3	52.1
24/08/2014 07:15	49.7	57.3	46.1	52.3

24/08/2014 07:30	50.2	57.0	46.4	52.6
24/08/2014 07:45	50.1	58.3	45.7	52.8
24/08/2014 08:00	50.6	62.2	45.7	53.0
24/08/2014 08:15	49.3	57.1	45.1	51.8
24/08/2014 08:30	50.2	57.2	46.4	52.7
24/08/2014 08:45	49.9	56.4	46.4	52.2
24/08/2014 09:00	51.2	60.5	48.0	53.2
24/08/2014 09:15	52.3	58.0	49.7	54.1
24/08/2014 09:30	52.3	58.2	49.6	54.1
24/08/2014 09:45	53.3	67.2	50.4	54.6
24/08/2014 10:00	54.3	69.0	50.4	55.4
24/08/2014 10:15	54.3	70.5	51.2	55.1
24/08/2014 10:30	53.1	66.4	50.0	54.7
24/08/2014 10:45	53.9	71.3	51.1	55.1
24/08/2014 11:00	54.6	61.6	52.7	55.9
24/08/2014 11:15	55.4	59.8	53.8	56.6
24/08/2014 11:30	55.1	62.8	53.4	56.3
24/08/2014 11:45	55.2	63.9	52.8	57.2
24/08/2014 12:00	54.7	64.4	52.2	56.0
24/08/2014 12:15	55.2	75.4	52.0	55.3
24/08/2014 12:30	53.0	64.1	50.6	54.1
24/08/2014 12:45	56.1	76.8	51.2	56.7
24/08/2014 13:00	54.0	66.8	51.4	55.7
24/08/2014 13:15	55.0	69.0	52.0	55.8
24/08/2014 13:30	53.5	72.0	50.6	54.3
24/08/2014 13:45	52.7	62.8	50.3	54.2
24/08/2014 14:00	54.3	72.0	50.7	55.0
24/08/2014 14:15	53.8	68.1	50.2	56.3
24/08/2014 14:30	53.4	65.7	49.8	54.7
24/08/2014 14:45	51.8	59.2	48.8	53.5

File	065446_140823_151100000.CMG			
Periods	5m			
Start	23/08/2014 23:00			
End	24/08/2014 07:00			
Location	Solo 065446			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
23/08/2014 23:00	51.2	54.9	49.7	52.8
23/08/2014 23:05	51.8	56.8	49.0	53.8
23/08/2014 23:10	53.6	62.6	50.8	54.9
23/08/2014 23:15	60.4	83.9	50.9	54.7
23/08/2014 23:20	52.1	58.5	49.9	53.6
23/08/2014 23:25	51.8	55.9	48.4	53.5
23/08/2014 23:30	51.3	57.3	49.1	53.0
23/08/2014 23:35	51.4	57.3	49.2	53.6
23/08/2014 23:40	52.4	63.4	49.8	53.0
23/08/2014 23:45	51.8	56.4	49.4	53.8

23/08/2014 23:50	52.0	56.1	49.8	53.3
23/08/2014 23:55	51.9	56.9	49.3	53.7
24/08/2014 00:00	51.4	56.1	49.1	52.9
24/08/2014 00:05	51.5	55.9	49.0	53.2
24/08/2014 00:10	51.5	55.6	49.4	53.3
24/08/2014 00:15	50.3	55.9	48.1	51.9
24/08/2014 00:20	49.9	55.0	47.6	52.0
24/08/2014 00:25	49.5	55.7	47.0	51.5
24/08/2014 00:30	49.9	60.0	46.3	52.0
24/08/2014 00:35	50.0	55.3	47.7	52.0
24/08/2014 00:40	51.2	58.5	46.5	54.4
24/08/2014 00:45	51.3	55.9	48.8	53.8
24/08/2014 00:50	49.2	55.5	47.0	50.8
24/08/2014 00:55	48.9	55.6	45.9	50.9
24/08/2014 01:00	47.9	51.6	45.5	49.7
24/08/2014 01:05	49.6	54.3	46.5	51.9
24/08/2014 01:10	49.7	55.8	46.4	52.1
24/08/2014 01:15	47.9	55.3	43.8	50.6
24/08/2014 01:20	48.5	58.5	44.8	49.8
24/08/2014 01:25	47.9	54.4	45.4	50.1
24/08/2014 01:30	48.2	54.2	45.4	50.0
24/08/2014 01:35	47.9	54.3	43.3	50.7
24/08/2014 01:40	49.2	57.5	46.2	51.2
24/08/2014 01:45	47.9	52.6	45.0	50.2
24/08/2014 01:50	49.8	57.4	46.0	51.9
24/08/2014 01:55	48.0	55.7	44.3	50.3
24/08/2014 02:00	48.0	55.9	43.4	50.2
24/08/2014 02:05	49.2	54.6	46.0	51.4
24/08/2014 02:10	47.6	55.6	43.6	49.6
24/08/2014 02:15	46.3	52.0	43.4	47.9
24/08/2014 02:20	47.2	54.6	44.1	48.9
24/08/2014 02:25	45.2	52.3	42.3	47.0
24/08/2014 02:30	45.6	52.0	40.9	48.3
24/08/2014 02:35	45.9	52.9	42.4	48.0
24/08/2014 02:40	46.4	54.9	39.4	49.8
24/08/2014 02:45	44.1	54.1	39.7	46.7
24/08/2014 02:50	43.8	53.3	39.2	46.4
24/08/2014 02:55	45.2	54.8	40.9	47.8
24/08/2014 03:00	45.9	54.0	42.5	48.1
24/08/2014 03:05	45.5	54.1	41.4	47.7
24/08/2014 03:10	47.7	55.3	44.3	49.5
24/08/2014 03:15	43.0	52.5	39.1	45.0
24/08/2014 03:20	43.9	52.7	39.0	46.5
24/08/2014 03:25	45.7	55.9	41.1	48.2
24/08/2014 03:30	46.7	59.2	41.8	48.5
24/08/2014 03:35	44.8	55.0	39.8	46.9
24/08/2014 03:40	44.8	54.4	41.0	47.1
24/08/2014 03:45	45.4	54.5	41.3	47.4
24/08/2014 03:50	45.0	53.8	40.9	47.4
24/08/2014 03:55	43.7	52.1	40.8	45.3

24/08/2014 04:00	42.9	51.4	39.3	45.3
24/08/2014 04:05	44.2	53.9	38.4	47.0
24/08/2014 04:10	43.9	52.1	36.3	47.3
24/08/2014 04:15	44.1	53.2	37.8	47.6
24/08/2014 04:20	44.0	54.2	40.3	45.9
24/08/2014 04:25	46.1	57.3	41.7	49.0
24/08/2014 04:30	45.1	53.7	40.6	48.0
24/08/2014 04:35	44.8	54.4	40.2	47.7
24/08/2014 04:40	45.6	54.0	39.6	48.3
24/08/2014 04:45	44.1	51.3	39.8	46.8
24/08/2014 04:50	44.6	55.5	40.9	46.3
24/08/2014 04:55	46.5	54.1	42.3	49.7
24/08/2014 05:00	45.3	54.0	40.0	48.3
24/08/2014 05:05	45.7	52.4	41.8	47.6
24/08/2014 05:10	46.5	55.0	41.8	49.1
24/08/2014 05:15	47.9	56.4	43.7	50.4
24/08/2014 05:20	47.4	55.0	43.4	49.9
24/08/2014 05:25	48.7	55.0	44.6	51.7
24/08/2014 05:30	49.7	56.6	46.1	51.9
24/08/2014 05:35	50.6	60.4	46.7	53.3
24/08/2014 05:40	49.5	56.5	46.0	51.6
24/08/2014 05:45	48.0	54.8	43.7	50.7
24/08/2014 05:50	49.6	60.7	45.5	51.6
24/08/2014 05:55	48.8	55.2	46.6	50.8
24/08/2014 06:00	49.6	54.6	46.6	51.7
24/08/2014 06:05	50.0	56.9	47.1	51.7
24/08/2014 06:10	52.2	59.2	49.1	54.4
24/08/2014 06:15	51.6	56.8	48.1	53.7
24/08/2014 06:20	51.2	55.4	49.1	53.0
24/08/2014 06:25	51.4	55.4	48.8	53.3
24/08/2014 06:30	52.1	57.9	49.0	54.4
24/08/2014 06:35	50.4	55.9	47.5	52.5
24/08/2014 06:40	51.7	59.6	48.5	53.5
24/08/2014 06:45	51.2	58.7	47.8	53.5
24/08/2014 06:50	50.1	59.6	47.1	52.4
24/08/2014 06:55	49.4	56.0	45.8	52.1

File	065446_140824_151100000.CMG			
Periods	15m			
Start	24/08/2014 15:15			
End	25/08/2014 15:00			
Location	Solo 065446			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
24/08/2014 15:15	53.0	66.7	50.0	54.3
24/08/2014 15:30	53.9	68.9	50.2	55.4
24/08/2014 15:45	52.6	60.4	50.0	54.3
24/08/2014 16:00	52.3	56.7	49.6	53.9

24/08/2014 16:15	53.0	66.1	49.8	54.2
24/08/2014 16:30	53.1	64.1	50.0	55.0
24/08/2014 16:45	51.9	59.5	49.2	53.6
24/08/2014 17:00	51.8	59.4	49.5	53.3
24/08/2014 17:15	51.6	60.6	48.8	53.3
24/08/2014 17:30	55.6	76.6	48.3	55.0
24/08/2014 17:45	51.0	56.7	47.7	53.0
24/08/2014 18:00	52.2	61.7	48.9	54.2
24/08/2014 18:15	52.0	66.0	47.8	53.4
24/08/2014 18:30	52.5	66.5	48.8	54.2
24/08/2014 18:45	51.1	58.0	48.4	52.8
24/08/2014 19:00	52.0	66.0	49.1	53.5
24/08/2014 19:15	51.5	59.5	48.4	53.4
24/08/2014 19:30	53.0	62.9	50.0	54.7
24/08/2014 19:45	51.8	58.8	49.2	53.4
24/08/2014 20:00	50.9	57.7	48.6	52.7
24/08/2014 20:15	50.2	56.1	47.6	52.1
24/08/2014 20:30	50.6	65.6	47.7	52.0
24/08/2014 20:45	49.8	58.7	46.8	51.8
24/08/2014 21:00	49.6	58.4	46.5	51.6
24/08/2014 21:15	50.6	56.8	47.5	52.7
24/08/2014 21:30	51.1	57.0	48.5	52.9
24/08/2014 21:45	50.4	56.8	47.1	52.3
24/08/2014 22:00	49.8	54.3	46.7	51.7
24/08/2014 22:15	53.6	72.5	45.4	51.6
24/08/2014 22:30	50.0	66.4	46.1	51.9
24/08/2014 22:45	51.3	59.4	48.0	53.3
25/08/2014 07:00	52.9	61.4	50.1	54.7
25/08/2014 07:15	53.2	58.2	50.3	55.3
25/08/2014 07:30	53.4	59.5	50.9	55.1
25/08/2014 07:45	54.6	65.4	51.9	56.2
25/08/2014 08:00	54.8	61.3	52.0	56.7
25/08/2014 08:15	55.4	64.5	52.8	56.9
25/08/2014 08:30	54.4	62.9	52.0	56.2
25/08/2014 08:45	55.1	62.5	52.0	56.9
25/08/2014 09:00	54.6	61.0	52.0	56.2
25/08/2014 09:15	55.6	60.7	52.8	57.3
25/08/2014 09:30	56.4	61.2	54.3	57.8
25/08/2014 09:45	58.0	70.4	55.3	59.4
25/08/2014 10:00	58.0	64.4	55.9	59.6
25/08/2014 10:15	57.6	61.4	55.9	58.8
25/08/2014 10:30	58.3	69.1	56.6	59.4
25/08/2014 10:45	59.4	62.3	57.7	60.5
25/08/2014 11:00	59.0	62.3	57.4	60.2
25/08/2014 11:15	58.8	64.4	57.4	59.9
25/08/2014 11:30	58.7	67.9	57.2	59.6
25/08/2014 11:45	59.3	63.5	57.7	60.8
25/08/2014 12:00	59.0	64.1	57.6	59.9
25/08/2014 12:15	59.0	70.9	57.3	59.9
25/08/2014 12:30	58.8	64.5	57.3	59.9

25/08/2014 12:45	59.4	64.1	57.4	60.5
25/08/2014 13:00	60.4	74.8	58.1	61.1
25/08/2014 13:15	59.0	62.9	57.5	60.1
25/08/2014 13:30	59.1	63.0	57.8	60.0
25/08/2014 13:45	61.3	78.1	58.0	60.8
25/08/2014 14:00	59.2	62.1	57.8	60.2
25/08/2014 14:15	58.9	61.9	57.4	60.0
25/08/2014 14:30	59.0	72.1	57.2	60.0
25/08/2014 14:45	59.8	65.4	57.9	61.0

File	065446_140824_151100000.CMG			
Periods	5m			
Start	24/08/2014 23:00			
End	25/08/2014 07:00			
Location	Solo 065446			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
24/08/2014 23:00	49.7	56.7	46.5	51.6
24/08/2014 23:05	49.9	55.4	47.1	51.7
24/08/2014 23:10	50.1	55.4	46.7	52.0
24/08/2014 23:15	50.9	54.8	48.6	52.5
24/08/2014 23:20	51.3	58.3	47.4	54.3
24/08/2014 23:25	49.9	57.5	47.1	51.5
24/08/2014 23:30	52.2	58.9	48.7	54.5
24/08/2014 23:35	49.8	54.6	46.6	51.7
24/08/2014 23:40	50.5	62.3	46.4	53.1
24/08/2014 23:45	51.1	57.0	48.0	52.9
24/08/2014 23:50	49.1	54.0	45.8	51.3
24/08/2014 23:55	48.6	55.6	44.4	51.1
25/08/2014 00:00	47.5	52.8	44.4	49.4
25/08/2014 00:05	48.4	55.5	44.0	50.9
25/08/2014 00:10	48.6	54.3	45.8	50.8
25/08/2014 00:15	47.9	55.0	44.5	50.1
25/08/2014 00:20	51.4	64.8	47.2	52.6
25/08/2014 00:25	48.4	54.5	44.4	50.7
25/08/2014 00:30	50.1	55.5	47.0	52.1
25/08/2014 00:35	49.7	59.1	46.0	52.2
25/08/2014 00:40	49.5	54.1	46.6	51.5
25/08/2014 00:45	48.6	53.8	45.8	50.8
25/08/2014 00:50	49.4	55.6	44.7	52.0
25/08/2014 00:55	48.7	56.8	42.3	51.4
25/08/2014 01:00	49.1	53.5	46.1	51.6
25/08/2014 01:05	47.8	54.0	42.9	50.2
25/08/2014 01:10	50.0	57.3	45.1	53.4
25/08/2014 01:15	47.6	52.8	44.0	49.8
25/08/2014 01:20	48.4	55.9	44.3	51.5
25/08/2014 01:25	47.9	53.1	42.9	50.6
25/08/2014 01:30	47.7	56.4	40.9	50.5

25/08/2014 01:35	49.4	58.2	43.5	52.6
25/08/2014 01:40	48.7	55.2	45.9	50.6
25/08/2014 01:45	47.9	53.5	44.4	50.0
25/08/2014 01:50	51.5	55.6	49.0	53.0
25/08/2014 01:55	51.6	63.5	44.9	53.7
25/08/2014 02:00	49.1	59.7	43.8	51.2
25/08/2014 02:05	46.4	53.5	39.6	49.1
25/08/2014 02:10	47.4	54.1	42.0	50.3
25/08/2014 02:15	45.6	52.8	40.6	48.2
25/08/2014 02:20	47.1	55.2	42.0	50.1
25/08/2014 02:25	47.6	55.3	43.0	50.7
25/08/2014 02:30	49.5	56.1	44.6	52.1
25/08/2014 02:35	48.7	57.8	44.8	51.2
25/08/2014 02:40	47.5	55.9	42.8	50.9
25/08/2014 02:45	46.9	55.2	41.6	50.1
25/08/2014 02:50	48.3	54.2	44.6	50.9
25/08/2014 02:55	45.9	55.6	40.0	48.2
25/08/2014 03:00	45.9	54.9	40.6	49.0
25/08/2014 03:05	48.7	55.7	43.3	52.1
25/08/2014 03:10	47.6	54.4	43.4	50.1
25/08/2014 03:15	47.9	56.5	40.9	51.5
25/08/2014 03:20	46.3	54.0	42.3	48.9
25/08/2014 03:25	45.9	51.2	43.2	48.0
25/08/2014 03:30	47.4	55.5	43.2	49.3
25/08/2014 03:35	47.5	53.4	44.1	49.9
25/08/2014 03:40	46.5	53.9	41.2	49.0
25/08/2014 03:45	48.1	55.6	44.7	49.7
25/08/2014 03:50	48.6	62.7	44.4	49.9
25/08/2014 03:55	45.8	51.9	42.6	48.4
25/08/2014 04:00	46.2	53.7	42.2	48.9
25/08/2014 04:05	45.6	53.4	41.1	48.5
25/08/2014 04:10	47.3	53.4	44.2	49.6
25/08/2014 04:15	45.8	51.9	41.1	48.1
25/08/2014 04:20	47.9	56.5	42.5	50.5
25/08/2014 04:25	48.6	54.0	45.5	50.7
25/08/2014 04:30	49.8	57.8	45.3	52.1
25/08/2014 04:35	49.0	57.4	44.6	52.0
25/08/2014 04:40	49.0	59.7	44.6	51.5
25/08/2014 04:45	47.6	54.5	43.1	50.1
25/08/2014 04:50	47.0	54.3	42.3	49.2
25/08/2014 04:55	48.3	54.1	43.8	51.1
25/08/2014 05:00	48.9	54.3	45.0	51.0
25/08/2014 05:05	50.0	55.3	45.7	52.0
25/08/2014 05:10	49.3	56.5	46.1	51.5
25/08/2014 05:15	48.9	54.7	45.7	51.5
25/08/2014 05:20	49.6	57.6	47.0	51.2
25/08/2014 05:25	52.5	59.4	50.2	54.3
25/08/2014 05:30	52.2	55.9	50.2	53.8
25/08/2014 05:35	54.5	64.6	49.9	57.3
25/08/2014 05:40	52.3	57.7	50.1	53.6

25/08/2014 05:45	52.6	56.2	50.6	54.0
25/08/2014 05:50	51.0	56.2	47.7	52.9
25/08/2014 05:55	51.9	58.6	48.5	53.7
25/08/2014 06:00	51.6	59.0	48.0	53.6
25/08/2014 06:05	52.8	61.9	49.0	55.0
25/08/2014 06:10	51.2	56.1	48.5	53.3
25/08/2014 06:15	51.5	55.7	48.3	53.3
25/08/2014 06:20	52.3	56.1	49.8	54.0
25/08/2014 06:25	52.2	58.4	48.9	54.3
25/08/2014 06:30	52.3	57.7	49.3	54.2
25/08/2014 06:35	51.3	58.7	47.9	53.2
25/08/2014 06:40	52.2	57.6	49.2	54.3
25/08/2014 06:45	52.6	59.8	48.7	54.9
25/08/2014 06:50	52.2	56.7	49.1	54.3
25/08/2014 06:55	53.0	66.5	48.6	54.5

File	065446_140825_151100000.CMG			
Periods	15m			
Start	25/08/2014 15:15			
End	26/08/2014 11:30			
Location	Solo 065446			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
25/08/2014 15:15	59.3	63.9	57.7	60.6
25/08/2014 15:30	59.2	72.0	57.4	60.0
25/08/2014 15:45	58.9	67.8	56.9	60.3
25/08/2014 16:00	58.7	61.7	57.4	59.8
25/08/2014 16:15	58.4	67.1	57.0	59.4
25/08/2014 16:30	58.6	62.1	57.0	59.7
25/08/2014 16:45	58.6	62.7	57.3	59.6
25/08/2014 17:00	58.6	64.8	57.1	59.8
25/08/2014 17:15	59.3	67.3	57.7	60.6
25/08/2014 17:30	58.1	61.4	56.1	59.4
25/08/2014 17:45	58.2	62.2	56.6	59.4
25/08/2014 18:00	58.3	65.5	56.4	59.6
25/08/2014 18:15	58.3	64.1	56.3	59.6
25/08/2014 18:30	58.0	62.9	56.0	59.4
25/08/2014 18:45	57.8	67.6	55.9	59.3
25/08/2014 19:00	58.6	69.8	56.4	59.7
25/08/2014 19:15	57.0	62.3	55.3	58.2
25/08/2014 19:30	57.2	66.5	55.2	58.3
25/08/2014 19:45	58.2	66.2	55.5	60.3
25/08/2014 20:00	61.8	79.4	58.4	60.5
25/08/2014 20:15	60.6	80.2	59.1	60.7
25/08/2014 20:30	58.7	61.8	57.0	59.9
25/08/2014 20:45	56.4	60.3	54.5	57.7
25/08/2014 21:00	55.3	59.4	53.2	56.6
25/08/2014 21:15	54.9	59.2	52.5	56.6

25/08/2014 21:30	54.7	71.2	52.1	55.7
25/08/2014 21:45	54.3	58.7	51.9	56.0
25/08/2014 22:00	54.6	59.7	52.1	56.3
25/08/2014 22:15	53.3	58.4	50.6	55.2
25/08/2014 22:30	53.2	57.7	51.0	54.8
25/08/2014 22:45	53.7	66.9	50.7	55.4
26/08/2014 07:00	61.1	77.4	57.0	62.7
26/08/2014 07:15	58.7	72.6	56.0	60.1
26/08/2014 07:30	60.0	80.9	56.0	61.1
26/08/2014 07:45	61.2	75.9	58.1	63.3
26/08/2014 08:00	65.0	79.1	57.9	64.9
26/08/2014 08:15	59.9	74.0	56.7	62.3
26/08/2014 08:30	60.9	66.5	58.1	63.5
26/08/2014 08:45	60.3	72.1	57.7	61.9
26/08/2014 09:00	59.5	69.8	57.3	61.0
26/08/2014 09:15	58.1	63.8	56.3	59.4
26/08/2014 09:30	58.9	67.4	56.6	60.6
26/08/2014 09:45	58.0	62.0	56.0	59.2
26/08/2014 10:00	58.3	63.1	56.7	59.4
26/08/2014 10:15	58.4	66.8	56.6	59.6
26/08/2014 10:30	58.8	72.4	56.8	59.7
26/08/2014 10:45	58.4	68.6	56.8	59.6
26/08/2014 11:00	59.3	69.6	57.4	60.3
26/08/2014 11:15	57.9	63.3	56.0	59.4

File	065446_140825_151100000.CMG			
Periods	5m			
Start	23:00:00			
End	07:00:00			
Location	Solo 065446			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
25/08/2014 23:00	52.2	56.3	49.2	54.5
25/08/2014 23:05	52.8	58.2	48.9	55.2
25/08/2014 23:10	53.0	58.6	49.3	55.2
25/08/2014 23:15	53.2	56.9	51.2	54.7
25/08/2014 23:20	52.1	57.2	48.1	54.6
25/08/2014 23:25	52.9	56.9	49.7	54.5
25/08/2014 23:30	51.7	56.1	48.3	53.8
25/08/2014 23:35	51.9	57.2	46.8	54.5
25/08/2014 23:40	51.7	58.4	47.3	54.3
25/08/2014 23:45	51.8	58.5	48.2	54.0
25/08/2014 23:50	51.9	65.7	48.7	53.4
25/08/2014 23:55	52.0	57.4	48.2	54.7
26/08/2014 00:00	52.2	61.3	47.1	55.2
26/08/2014 00:05	53.5	62.2	49.5	55.2
26/08/2014 00:10	50.3	55.4	47.4	52.1
26/08/2014 00:15	51.5	56.5	48.5	53.7

26/08/2014 00:20	51.4	56.5	48.0	53.7
26/08/2014 00:25	53.1	59.7	47.4	56.3
26/08/2014 00:30	50.7	56.2	46.2	53.1
26/08/2014 00:35	52.7	57.2	48.3	55.1
26/08/2014 00:40	51.1	56.2	47.8	53.3
26/08/2014 00:45	51.3	58.6	46.0	54.2
26/08/2014 00:50	51.3	57.2	46.6	53.9
26/08/2014 00:55	51.0	56.1	46.7	53.2
26/08/2014 01:00	49.6	55.9	46.0	52.1
26/08/2014 01:05	50.2	55.2	46.2	52.5
26/08/2014 01:10	52.2	59.6	46.1	55.0
26/08/2014 01:15	50.1	58.5	45.9	52.7
26/08/2014 01:20	49.8	55.9	45.4	52.7
26/08/2014 01:25	51.9	58.0	47.1	54.9
26/08/2014 01:30	51.3	58.1	45.9	55.3
26/08/2014 01:35	52.6	61.4	47.4	55.6
26/08/2014 01:40	52.0	61.0	48.0	54.2
26/08/2014 01:45	49.2	56.2	45.7	51.9
26/08/2014 01:50	53.2	58.7	48.1	55.8
26/08/2014 01:55	53.1	61.7	46.9	57.0
26/08/2014 02:00	52.4	58.2	48.7	54.9
26/08/2014 02:05	52.1	59.0	47.1	54.8
26/08/2014 02:10	51.6	58.0	47.6	54.2
26/08/2014 02:15	52.3	58.3	48.8	55.4
26/08/2014 02:20	50.6	55.9	47.7	52.8
26/08/2014 02:25	53.3	59.5	49.6	55.5
26/08/2014 02:30	51.7	56.5	49.3	53.3
26/08/2014 02:35	52.4	57.3	49.1	54.7
26/08/2014 02:40	54.5	60.4	51.3	56.4
26/08/2014 02:45	54.6	61.9	51.5	56.5
26/08/2014 02:50	53.8	59.5	51.5	55.3
26/08/2014 02:55	53.7	60.0	51.3	55.5
26/08/2014 03:00	51.3	57.3	46.0	54.5
26/08/2014 03:05	54.6	64.4	49.4	58.1
26/08/2014 03:10	53.6	58.3	50.9	55.9
26/08/2014 03:15	54.0	58.9	51.0	56.2
26/08/2014 03:20	52.0	56.8	49.5	53.8
26/08/2014 03:25	54.3	60.0	51.4	56.4
26/08/2014 03:30	53.5	60.2	49.9	56.0
26/08/2014 03:35	53.1	59.2	50.2	54.7
26/08/2014 03:40	55.7	59.0	53.4	57.4
26/08/2014 03:45	57.8	62.1	55.4	60.0
26/08/2014 03:50	57.7	61.5	55.8	59.1
26/08/2014 03:55	54.7	60.2	52.2	56.5
26/08/2014 04:00	53.2	58.0	50.7	55.0
26/08/2014 04:05	53.8	59.5	49.2	56.7
26/08/2014 04:10	53.9	58.9	50.3	56.2
26/08/2014 04:15	53.8	57.8	51.6	55.6
26/08/2014 04:20	69.8	82.3	50.7	74.7
26/08/2014 04:25	57.3	66.8	53.2	60.0

26/08/2014 04:30	56.0	63.9	52.0	58.7
26/08/2014 04:35	73.0	82.6	59.9	77.2
26/08/2014 04:40	69.9	84.2	53.3	74.1
26/08/2014 04:45	70.9	88.0	54.0	73.5
26/08/2014 04:50	69.8	85.5	53.7	73.8
26/08/2014 04:55	77.3	99.1	54.4	71.0
26/08/2014 05:00	74.3	92.6	54.5	74.7
26/08/2014 05:05	62.7	80.4	55.1	64.2
26/08/2014 05:10	67.0	81.0	55.4	69.9
26/08/2014 05:15	57.2	65.7	53.4	59.6
26/08/2014 05:20	57.2	64.8	53.9	59.4
26/08/2014 05:25	57.7	69.4	53.5	59.9
26/08/2014 05:30	57.1	68.4	53.4	59.7
26/08/2014 05:35	57.2	63.2	55.4	58.3
26/08/2014 05:40	58.0	69.3	54.8	59.2
26/08/2014 05:45	56.2	64.9	53.9	57.6
26/08/2014 05:50	56.0	68.9	53.8	57.2
26/08/2014 05:55	56.4	64.3	54.1	57.9
26/08/2014 06:00	56.1	61.8	54.0	57.8
26/08/2014 06:05	56.3	62.1	54.1	58.0
26/08/2014 06:10	56.9	61.9	54.7	58.7
26/08/2014 06:15	57.0	64.1	54.9	58.3
26/08/2014 06:20	63.8	74.8	56.0	67.7
26/08/2014 06:25	58.9	69.2	55.8	61.1
26/08/2014 06:30	59.8	74.2	56.2	60.7
26/08/2014 06:35	64.5	79.9	56.9	63.1
26/08/2014 06:40	61.2	73.1	56.8	62.9
26/08/2014 06:45	60.3	73.8	57.1	61.4
26/08/2014 06:50	60.2	67.0	58.2	61.5
26/08/2014 06:55	59.2	65.1	56.9	60.6

File	065445_140821_152954000.CMG			
Periods	15m			
Start	21/08/2014 15:30			
End	21/08/2014 16:30			
Location	Solo 065445			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
21/08/2014 15:30	60.6	68.5	58.0	62.3
21/08/2014 15:45	58.4	62.4	56.7	59.7
21/08/2014 16:00	60.4	74.8	58.1	61.6
21/08/2014 16:15	62.5	67.0	59.7	63.9
Overall	60.7	74.8	57.6	63.1

File	065446_140826_115403000.CMG			
Periods	15m			
Start	26/08/2014 12:00			
End	26/08/2014 13:15			
Location	Solo 065446			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
26/08/2014 12:00	55.8	71.5	51.9	57.0
26/08/2014 12:15	55.8	69.6	51.6	57.3
26/08/2014 12:30	59.3	75.3	51.8	60.4
26/08/2014 12:45	63.2	87.7	52.0	63.5
26/08/2014 13:00	66.3	84.4	52.4	68.9
Overall	62.0	87.7	51.9	63.1

File	065396_140827_005825000.CMG			
Periods	5m			
Start	27/08/2014 01:00			
End	27/08/2014 02:00			
Location	Solo 065396			
Weighting	A			
Data type	Leq			
Unit	dB			
Period start	Leq	Lmax	L90	L10
27/08/2014 01:00	45.3	52.2	39.4	48.9
27/08/2014 01:05	42.1	51.2	38.0	45.6
27/08/2014 01:10	43.7	49.8	37.7	46.9
27/08/2014 01:15	40.1	48.5	37.6	42.4
27/08/2014 01:20	44.2	50.7	39.2	47.4
27/08/2014 01:25	42.7	50.0	37.7	46.2
27/08/2014 01:30	43.1	51.2	38.0	46.4
27/08/2014 01:35	44.0	55.6	38.5	46.8
27/08/2014 01:40	43.8	52.7	38.9	46.9
27/08/2014 01:45	45.8	51.5	40.9	49.2

SHF.1122.002

Location R03



27/08/2014 01:50	42.4	50.8	37.8	46.5
27/08/2014 01:55	45.1	52.1	38.4	49.0
Overall	43.8	55.6	38.2	47.3



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