GLADMAN DEVELOPMENTS LIMITED

Proposed Industrial Development, Tankersley, Barnsley

Noise Assessment

December 2007



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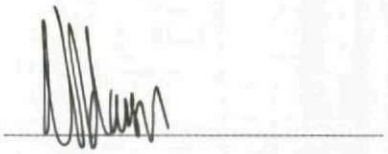
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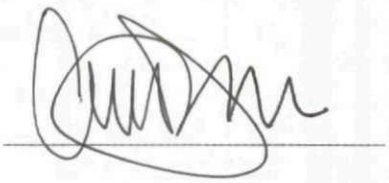
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CONTENTS

1. Introduction 1
2. Noise Survey 2
3. Noise Assessment 7
4. Mitigation Measures 16
5. Conclusion 18

APPENDICES

Appendix A Noise Monitoring Results
Appendix B Typical Example of a Best Practice Management Plan
Appendix C Noise Prediction Calculations

DRAWINGS

LE03627/001 Site Location Plan
LE03627/004 Noise Monitoring location plan and Indicative Position of Proposed Fence Mitigation

1. INTRODUCTION

1.1 By written instruction dated 29th October 2007, from Mr N Gardner of Gladman Developments, Wardell Armstrong LLP were commissioned to undertake a noise assessment for a proposed warehouse development on the Daimler Chrysler Site, Wentworth Business Park, Tankersley, near Barnsley.

1.2 The site is located on the north western edge of Wentworth Industrial Park, to the south east of Carr lane. The eastern site boundary is adjacent to Colliery Yard public footpath. The location of the site is shown on drawing LE03627/001.

1.3 A noise assessment for the site was carried out by Wardell Armstrong in August 2006, the findings of which are detailed in report LE03627/001. This report was produced to support a planning application for the redevelopment of the site. This original application was unsuccessful and the proposals for the site were subsequently revised to take into consideration the comments from Barnsley Metropolitan Borough Council (MBC) planning department. A second noise assessment (report number LE03627/002) was produced to support the second planning application for the site. This application was also unsuccessful and the proposals for the site have been amended again. This noise assessment has been prepared to support a further planning application for the redevelopment of the site taking into consideration the latest proposals.

1.4 On the site, it is proposed to construct four warehouse buildings, each of which will include warehouse space, offices, HGV delivery area and a car park. The development will be classed as B1 (Offices) and B8 (Storage and Distribution) usage. The proposed site layout is shown on Drawing number LE03627/004.

1.5 This noise assessment is based upon the methodology set out in BS4142: 1997 Method for Rating Industrial Noise Affecting Mixed Residential and Industrial Areas. The assessment includes a noise survey and noise predictions for the site and its impact on sensitive receptors close by. This information determines whether complaints are likely, in accordance with BS4142 and also enables assessment against the World Health Organisations Guidelines for Community Noise (1999). Appropriate mitigation measures are recommended and outline details are provided in this report.

2. NOISE SURVEY

2.1 Consultation

2.1.1 Discussions were held with Ms Lucy Allen, Environmental Health Officer at Barnsley MBC, regarding the scope and detail of the proposed noise assessment. It was agreed that the method given in BS4142 was the most appropriate for determining the potential impact of operations at the proposed development site, on existing residential areas nearby.

2.2 Background Noise Survey

2.2.1 In order to establish background noise levels representative of the residential areas closest to the site, Wardell Armstrong carried out noise surveys during daytime and night-time hours at three locations, each adjacent to one of the three properties closest to the site boundary. The addresses of these properties are 28 Stone Row Court (receptor 1), 20 Stone Leigh (receptor 2) and 52 Carr Lane (receptor 3). The noise levels recorded at these three monitoring locations were considered to be representative of background noise levels in the garden areas of the properties. The locations of the sensitive receptors and monitoring locations are shown on drawing number LE03627/004.

2.2.2 The daytime monitoring was carried out at the three locations on the 26th June 2006 between 0600 and 1300 hours and on 6th July 2006 between 1300 and 1830 hours. The night time survey was carried on 4th August between the hours of 0200 and 0330 at the same three locations.

2.2.3 The site is currently unoccupied. The majority of the site has previously been used as a storage area for newly built Mercedes Benz HGV cab units, and the eastern part of the site is a disused car park. During the attended noise monitoring, detailed observations were made regarding contributory noise sources. There were no audible activities taking place at any time on the proposed development site; therefore all of the noise sources that were present during the monitoring period can be classified as background.

2.2.4 A-weighted[1] L_{90s}[2] were recorded for each monitoring period to comply with the requirements of BS4142. The A-weighted L_{Aeqs}[3] were also recorded for each monitoring period to provide additional information. The measured noise levels are detailed in Appendix A.

2.2.5 Noise measurements were made using a 01 dB SIP95 sound level meter, mounted vertically on a tripod 1.5 metres above the ground and more than 3.5 metres from any other reflecting surfaces. The sound level meter was calibrated to a reference level of 94 dB at 1 kHz prior to measurements commencing and on completion of the survey. The calibration check on completion of the monitoring period indicated that the sound level meter had suffered a drift in calibration of no greater than ±0.1 dB.

2.2.6 All noise monitoring took place during dry and still weather conditions. The temperatures on 26th June were approximately 15-20°C; however during the afternoon monitoring period on 6th July the weather was exceptionally warm, with temperatures reaching approximately 30°C.

2.2.7 Noise monitoring was attended for the duration of the survey period to enable observations of all significant sources of noise to be made. Detailed notes were made of the noise sources that contributed to the measured levels. The following sources were identified as the most prominent during the noise survey:

Traffic Noise: Noise from the M1 motorway was audible and continuous throughout the duration of the monitoring. However the motorway noise was significantly lower on 6th July, probably due to the unusually high temperatures which would reduce the ability of sound to propagate horizontally. Local traffic was audible but intermittent during the daytime, but was not present during the night.

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[1] A weighting — An electronic filter in a sound level meter which mimics the frequency response of the human ear, under defined conditions.

[2] L_{90} — The sound pressure level which is exceeded over 90% of a given monitoring period.

[3] L_{eq} — Equivalent continuous sound pressure level – the steady state sound pressure level providing the same amount of acoustic energy as the time varying sound pressure level, for a given reference period.

Bird Song: There are a number of trees surrounding the north eastern and eastern boundaries of the site, and adjacent to the gardens of the residential properties. Birdsong was therefore audible at all three monitoring locations during the daytime.

Noise from the Industrial Park: Monitoring location 1 is in close proximity to the Volvo Construction Equipment site and Cranes UK. Activities at these sites, including vehicle movements and outdoor working, started at about 0700 hours and were audible at location 1, and occasionally at location 2, until approximately 1730 hours. No noise was audible from the industrial park during the night-time period.

2.2.8 Wardell Armstrong has been informed by Gladman Developments, that up to November 2007 no significant changes have taken place to the industrial park or the surrounding area since July 2006, when the monitoring was undertaken. Therefore the monitoring results are still representative of the background noise levels at the receptors and have been used in this assessment

2.2.9 The noise monitoring results are summarised in Table 1 and the full results are provided in Appendix A.

Table 1 – Summarised noise monitoring results

Measurement Location	Measurement time period.	Measured L_{90} dB(A)
1 (26/06/06)	0607 – 0623	43.7
	0712 – 0728	44.6
	0821 – 0835	45.7
	0928 – 0944	46.5
	1033 – 1048	44.7
	1143 – 1159	42.3
1 (06/07/06)	1257 – 1312	45.4
	1401 – 1416	46.4
	1506 – 1521	44.8
	1616 – 1631	43.1
	1727 – 1743	36.5
1 (04/08/06)	0145 - 0155	34.4
	0238 - 0249	26.7

2 (26/06/06)	0633 – 0647	43.8
	0734 – 0749	44.4
	0845 – 0859	45.3
	0949 – 1004	43.6
	1056 – 1113	44.0
	1204 – 1220	40.8
2 (06/07/06)	1320 – 1335	37.9
	1423 – 1439	38.2
	1527 – 1542	36.4
	1638 – 1653	37.0
	1749 – 1804	37.6
2 (04/08/06)	0203 - 0213	34.9
	0255 - 0305	26.4
3 (26/06/06)	0652 – 0707	45.0
	0756 – 0811	46.3
	0904 – 0919	44.9
	1008 – 1023	45.0
	1120 – 1135	43.7
	1229 – 1245	43.1
3 (06/07/06)	1339 – 1354	37.3
	1443 – 1458	35.0
	1551 – 1607	33.7
	1659 – 1714	36.4
3 (04/08/06)	0218 - 0231	27.9
	0310 - 0321	23.0

2.2.10 The results indicate that at location 1 the lowest L_{90} measured during the daytime was 36.5 dB(A) with an average L_{90} of 44.0 dB(A), at location 2 the lowest L_{90} measured during the daytime was 36.4 dB(A) with an average L_{90} of 40.8 dB(A) and at location 3 the lowest L_{90} measured during the daytime was 33.7 dB(A) with an average L_{90} of 41.0 dB(A). During the night-time period the lowest L_{90}

measured at location 1 was 26.7dB(A), at location 2 was 26.4dB(A) and at location 3 was 23.0dB(A). The results do not include any noise generated by activities at the proposed development site.

2.2.11 The background noise levels recorded on 6th July are low when compared to the previous monitoring period. The high temperatures on that day would result in a rapid fall in temperature with height above the ground. This suppresses the propagation of noise laterally and reduces the levels of noise particularly from distant sources such as, in this case, motorway traffic.

2.2.12 The background noise levels used in the following assessment have been taken as averages of the 15-minute readings recorded during daytime hours rather than the lowest background reading recorded at each location. The lowest figures were caused by the exceptional weather conditions and should not therefore be considered to be representative (BS4142 para 7.1.2) of daytime noise levels. The average figures are considered to more appropriately represent typical background noise levels in the area. For the night-time period the lowest L_{Aeq} reading has been used as the background noise level, as this is considered to be a representative value.

3. NOISE ASSESSMENT

3.1 Introduction to the BS4142 Assessment.

3.1.1 The purpose of the BS4142 assessment is to assess whether noise levels from factories, industrial premises, fixed installations or sources of noise of an industrial nature in commercial premises are likely to give rise to complaints from people residing nearby.

3.1.2 BS4142 refers to noise from the industrial source as the 'specific noise' and this is the term used in this report to refer to noise which is predicted to occur from the activities which will take place at the proposed development site. The 'specific noise' levels that have been predicted are detailed further in section 3.3 of this report.

3.1.3 BS4142 assesses the likelihood of complaint by comparing the specific noise level (which in this case are predicted and not measured) to the background noise level (L_{A90}) (measured during the noise survey). However, certain acoustic features can increase the likelihood of complaints over that expected from a simple comparison between the specific noise level and the background noise level. In particular, BS4142 identifies noise that contains discrete impulses and/or audible tonal qualities and in these cases recommends that a 5-dB correction be added to the specific noise level. The specific noise levels along with any applicable corrections are referred to as the 'rating level'.

3.1.4 The activities anticipated at the proposed development site suggest that the noise is likely to contain discrete impulses and/or audible tonal qualities; therefore the 5dB correction has been applied to the predicted specific noise level.

3.1.5 The greater the difference between the rating level and the background noise level, the greater the likelihood of complaints. The assessment criteria given by BS4142 are as follows:

- A difference of +10dB indicates that complaints are likely
- A difference of +5dB is of marginal significance
- If the rating level is more than 10dB below the measured background noise level, this is a positive indication that complaints are unlikely.

3.2 Activities which are proposed at the site

3.2.1 The noise survey, carried out at three monitoring locations adjacent to the north western and south eastern boundaries of the site, provides representative background noise data for the residential properties nearest the site in the absence of any 'specific' operational noise from the proposed development.

3.2.2 To estimate the likely levels of 'specific noise', which would be generated at the site, noise predictions are required. To do this, details of the activities proposed at the site and the source noise levels for these activities are used to suggest likely levels of noise.

3.2.3 The application site will comprise four large warehouse units each with associated office space and HGV loading bays. Outside each of the warehouse units will be an HGV turning area and staff car park. The proposed layout of the site is shown on Drawing LE03627/004 and is based upon drawing number 2940-001 Revision A as provided by Gladman Developments.

3.2.4 The occupiers of the buildings and detailed information regarding activities are not yet known, but it is possible that the warehouse units on the site will be operational 24 hours a day.

3.2.5 The activities that would take place at each of the warehouse units will depend on the occupiers. However, the main activities which are almost certain to occur at each of the units and which would have the potential to generate noise include:

- The arrival and departure of staff vehicles.
- The arrival and departure of articulated delivery lorries.

No specific information is available regarding estimated levels of activity on the site; therefore Wardell Armstrong has made reasonable assumptions about the levels of activity at each warehouse unit. These assumptions are based on the designed capacity for each of the units and previous experience and knowledge of similar sized developments of the same type. These estimates relate to the average number of vehicle movements per hour during daytime hours and a worst case 5 minute period during night time hours.

3.2.6 Based on Gladman's experience of similar developments, it has been assumed that, during the daytime, half of the delivery bays at each unit will be used by one

HGV each hour. This estimate is considered to represent a worst case scenario, as the actual frequency of delivery vehicles to and from units of this size is likely to be less.

3.2.7 Other activities, such as loading and unloading of HGVs will take place inside the units themselves and any noise from these activities will therefore benefit from the attenuation provided by the fabric of the buildings. Specific details of activities likely to take place at each unit are unknown but noise from activities taking place inside the units is not likely to significantly contribute to the overall noise level predicted at the receptors and has not been considered as part of this assessment.

3.2.8 The following assumptions have been made in carrying out the noise predictions for the daytime period. The assessment period is one hour in accordance with BS4142:

- A total of 28 HGVs will enter and leave the site per hour. All deliveries are made by HGVs, all of which use the same access road to reach their respective loading bays and turning areas. Once in the turning areas the HGVs reverse into the delivery bays that are shown on Drawing number LE03627/004. Each reversing movement takes place over a period of 1½ minutes. It is assumed that the HGVs would switch off their engine whilst being loaded/unloaded.
- It is possible that future occupiers of the units will need to use refrigerated trailers. This possibility has been taken into consideration in the noise assessment by assuming a worst case scenario that all of the HGVs visiting the site will have refrigerated trailers. It has been further assumed that while on site all the trailers will run the refrigeration units from on-board diesel engines rather than mains electric. The engines would be left running for 35 minutes each; 5 minutes to pre cool the trailer and 30 minutes during loading.
- Based upon the number of loading bays associated with each unit, and a rate of use of 1 HGV per 2 loading bays per hour. The movements associated with each unit are:
  - Unit 1 – 8 HGV movements per hour
  - Unit 2 – 6 HGV movements per hour
  - Unit 3 – 4 HGV movements per hour
  - Unit 4 – 10 HGV movements per hour

- The HGVs subsequently move away from the loading bay and leave the site travelling back along the main access route. It is assumed that each movement from the loading bay to the access road would take place over 30 seconds and this activity, involving 28 vehicles, would therefore take place for a total of 14 minutes in that hour. The period of time taken to travel along the access road to the exit of the site has been determined assuming an average speed of 10mph.
- There will be up to 24 cars and 14 vans entering or leaving the site each hour. The destination of the cars will be distributed across all the units in proportion to the size of their respective car parks; 2 vans will travel to units 1, 2 and 4, and 1 van will travel to unit 3.
- Cars and vans will travel at an average speed of 20mph.
- There will be no external public announcement systems on the site and no external telephone bells.
- There will be no manufacturing activities taking place in outdoor areas and there will be no forklift trucks operating outside the warehouse buildings.
- Loading and unloading of delivery vehicles will be carried out inside the warehouse units via loading bays.

3.2.9 The number of on site traffic movements during the night has been assumed to be different from that during the day-time. The predictions have been carried out in accordance with BS4142 to represent a worst case 5-minute period during the night.

3.2.10 It has been assumed that in a worst case 5 minute period there will be 1 HGV reversing movement and 1 HGV leaving the loading bay area at each unit. The access road has been assumed to have 1 car, 1 van and 1 HGV on each section of the road. All other assumptions have been kept the same.

3.2.11 Because of existing uneven topography, the land will be reformed to provide each warehouse unit and surrounding area with individual development platforms. The heights of these platforms have been provided by Gladman Developments and have been used in the noise prediction calculations.

3.3 Daytime 'specific noise' level predictions.

3.3.1 Noise predictions have been carried out to assess the potential noise impact of the proposed operations on those residential properties adjacent to the site boundary. The following scenario is considered to be representative and it is unlikely that activities would exceed the levels assumed in the predictions.

3.3.2 Noise levels have been predicted for 28 Stone Row Court (receptor 1), 20 Stone Leigh (receptor 2) and 52 Carr Lane (receptor 3). These properties are most likely to receive the most significant impacts. Other properties in the vicinity are all likely to receive lesser impacts.

3.3.3 The noise levels have been predicted for an hourly period representative of a typical hour between 0600 and 1800 hours. The prediction locations at each residential property have been assumed to be within the garden area at 1.5 metres above ground level and approximately 1 metre from the building façade, for example on the patio. Reflection of noise from the façade has also been taken into account.

3.3.4 Along the property boundaries of receptors 1 and 2, adjacent to the site, there is a line of garden fencing. However, this is not close-boarded or particularly robust therefore no amount of noise attenuation has been assumed in the calculations.

3.3.5 The noise from the proposed operation is entirely due to the movement of vehicles. However, when the vehicles reverse the reversing alarms will create an extra noise source in addition to the engine and transmission noise. The reversing movements have therefore been considered separately as BS4142 would require a 5dB penalty to be added to their calculated noise level because of the tonal nature of the alarms.

3.3.6 The results of the noise predictions are shown in Table 2. The specific noise level includes a 5 dB acoustic feature correction to derive the Rating level.

3.3.7 The design of the site is such that the warehouse buildings are located in between the receptors and the majority of the noise sources i.e. the reversing movements and the access roads. The warehouse buildings will therefore act as noise barriers and this has been taken into consideration in the noise predictions.

Table 2: BS4142 Assessment at Sensitive Receptors 1,2 and 3 (figures in dB(A))

	Receptor		
	1	2	3
Average measured background noise level (without specific noise)	**44.0**	**40.8**	**41.0**
Predicted specific noise level for reversing vehicles	31.8	30.9	33.0
Acoustic Feature Correction	+5	+5	+5
Rating level for reversing vehicles	36.8	35.9	38.0
Predicted specific noise level for vehicles other than reversing.	52.1	49.2	39.1
Total noise level for vehicle movements	52.2	49.4	41.6
Reflection from facade	+2.5	+2.5	+2.5
Rating Level	54.7	51.9	44.1
Excess of rating over background level	10.7	11.1	3.1

3.3.8 The noise predictions therefore confirm that complaints would be likely at receptors 1 and 2, and at receptor 3 the impact would be of less than marginal significance. Because properties are located adjacent to receptor locations 1 and 2 it is probable that complaints would also be likely at additional properties on Stone Row Court and Stone Leigh. Mitigation measures would therefore be required in the north eastern area of the site to prevent complaints from residents at these residential properties.

3.4 Night-time 'specific noise' level predictions.

3.4.1 In accordance with BS4142 the predicted night-time noise levels have been predicted for a worst case 5-minute period between 0200 and 0330 hours. The

prediction locations at each residential property have been assumed to be within the garden area at 4.5 metres above ground level and approximately 1 metre from the building façade, for example outside a typical first floor bedroom window.

Table 3: Night-time BS4142 Assessment at Sensitive Receptors 1,2 and 3 (figures in dB(A))

	Receptor		
	1	2	3
Lowest measured background noise level (without specific noise).	**26.7**	**26.4**	**23**
Predicted specific noise level for reversing vehicles	30.6	27.8	29.9
Acoustic Feature Correction	+5	+5	+5
Rating level for reversing vehicles	35.6	32.8	34.9
Predicted specific noise level for vehicles other than reversing.	48.5	45.5	35.7
Total noise level for vehicle movements	48.8	45.8	38.4
Reflection from facade	+2.5	+2.5	+2.5
Rating Level	51.3	48.3	40.9
Excess of rating over background level	+24.6	+21.9	+17.9

3.4.2 The predictions for the night-time period indicate the noise levels from the development would be considerably above background noise levels and that complaints would be likely at all the prediction locations. Noise mitigation would therefore be required at the site.

3.4.3 However, it should be remembered that the actual noise levels that the residents within the dwellings will experience will be considerably less than those shown in Table 3 because the predictions have been calculated for a location outside each property. During the night-time it is reasonable to assume that people will be indoors rather than outdoors, and will subsequently benefit from the noise attenuation provided by the fabric of the building.

3.4.4 The scope of BS4142 dictates that the method it describes for calculating predicted noise levels from industrial activity is only suitable at the outside of a building and is not suitable for assessing the noise measured inside buildings. The scope of the standard also dictates that the method is not suitable for scenarios where the rating and background noise levels are below 35dB and 30dB respectively. Although the predicted rating level for the proposed development is within this scope, the background levels measured at the receptor locations are very much lower than 30dB. Therefore assessing night-time noise levels at this site using BS4142 alone is not ideal as it is not firmly within the scope of the standard.

3.4.5 Therefore, a further assessment has been made, in accordance with the World Health Organisation Guidelines for Community Noise (1999). These guidelines recommend assessment of internal noise limits rather than comparison to outdoor background noise levels as suggested with BS4142. The noise levels to be achieved at the sensitive dwellings, as set out by the WHO guidelines are as follows:

- The noise level to be achieved in all bedrooms of the dwellings, arising from external noise sources is 30dB(A) L_{Aeq}.
- The maximum instantaneous internal noise level to be attained in all bedrooms of the dwellings, arising from external sources is 45dB(A) L_{MAX}.

3.4.6 An open bedroom window will typically attenuate noise by about 15dB(A) from the façade noise level. Therefore to enable the guidelines to be met inside the bedrooms, while still allowing people the option to have windows open during the night, the WHO guidelines recommend an L_{Aeq}(8 hour) noise limit of 45dB(A) and a L_{MAX} noise limit of 60dB(A) be applied at the building façade.

3.4.7 The noise levels have been predicted over an 8-hour period of between 2200 and 0600. During this time period the average noise level (L_{Aeq} (8 hour)) and the maximum noise level (L_{MAX}) have been calculated. The external prediction locations at each residential property have been assumed to be within the garden area at 4.5 metres above ground level and approximately 1 metre from the building façade, for example outside a typical first floor bedroom window. The internal prediction locations have been assumed to be behind the façade of the property with an open window.

3.4.8 During the 8-hour period of between 2200 hours and 0600 hours it has been assumed that the site will have 4 HGV's 4 Cars and 4 vans entering and leaving

the site each hour. The site will therefore have a total of 192 traffic movements during the 8-hour period. It is assumed that 1 HGV will reverse into, and pull away from each unit every hour. All other assumptions have been kept the same.

Table 4: WHO assessment at Sensitive Receptors 1,2 and 3 (figures in dB(A))

	Receptor		
	1	2	3
Predicted specific noise level for HGV's manoeuvring in loading area	**28.0**	**25.1**	**27.2**
Predicted specific noise level for vehicles on access road.	46.7	43.8	33.7
Total noise level for vehicle movements	46.8	43.8	34.6
Reflection from facade	+2.5	+2.5	+2.5
Noise level outside bedroom L_{Aeq} *(8 hour)*	49.3	46.3	37.1
Noise level inside bedroom L_{Aeq} *(8 hour)*	34.3	31.3	22.1
Excess of noise level over WHO recommendation.	+4.3	+1.3	-7.9
External L_{MAX}	67.0	65.4	63.7
Excess of L_{MAX} over WHO recommendation	+7.0	+5.4	+3.7

3.4.9 The predicted noise levels show that the WHO guideline for L_{Aeq} (8hour) is exceeded at receptor locations 1 and 2 and that the L_{MAX} is exceeded at all receptor locations. Noise mitigation would therefore be required on the site.

4. MITIGATION MEASURES

4.1.1 The noise predictions have confirmed that noise mitigation will be required. The main noise source will be engine noise from HGVs travelling on the site access road and manoeuvring in and out of loading bays. It is therefore likely that the most appropriate option for mitigation will be to construct an acoustic fence around the north eastern corner of the site.

4.1.2 Noise predictions have been carried out for several heights of fence to determine the amount of noise attenuation that would be provided by each. The indicative proposed location of the fence is shown on Drawing number LE03627/004. The noise predictions have been carried out to consider fences of 1.5 and 2.0 metres in height during both the daytime and night-time hours.

4.1.3 The predicted rating levels contained in Tables 2 and 4 have been adjusted to take into account the noise attenuation that would be provided by each height of fence. The results are shown in Tables 5 and 6.

Table 5 – Noise attenuation provided during the daytime.

Noise Attenuation Proposed.	**R1**	**R2**	**R3**
A 1.5m High Fence.			
Predicted Noise level taking into account mitigation (dB(A)).	46.2	43.5	41.8
Excess of rating over background level	2.2	2.7	0.8
A 2m High Fence.			
Predicted Noise level taking into account mitigation (dB(A)).	45.4	43.1	41.8
Excess of rating over background level	1.4	2.3	0.8

Table 6 – Noise attenuation provided during the night-time

Noise Attenuation Proposed.	**R1**	**R2**	**R3**
A 1.5m High Fence.			
Predicted internal noise level taking into account mitigation (dB(A)).	26.6	23.1	16.0
Excess over WHO guidelines of 30dB(A).	-3.4	-6.9	-14.0
Predicted internal L_{MAX} taking into account mitigation (dB(A)).	44.1	41.7	37.5

Noise Attenuation Proposed.	**R1**	**R2**	**R3**
Excess over WHO guidelines of 45dB(A).	-0.9	-3.3	-7.5
A 2m High Fence.			
Predicted internal noise level taking into account mitigation (dB(A)).	25.5	22.4	18.3
Excess over WHO guidelines of 30dB(A).	-4.5	-7.6	-11.7
Predicted internal L_{MAX} taking into account mitigation (dB(A)).	42.8	40.9	36.8
Excess over WHO guidelines of 45dB(A).	-2.2	-4.1	-8.2

4.1.4 Tables 5 and 6 confirm that the construction of an acoustic fence will significantly reduce the noise levels at all three receptor locations.

4.1.5 During the daytime, to reduce the rating noise level at all three receptors to significantly below 5dB(A) above background i.e. so that the resultant noise levels will be of less than marginal significance, it is likely that a fence of 2 metres in height would be required. A 2 metre high fence would also provide adequate attenuation during the night time, and would be sufficient to ensure that the WHO criteria of 30dB(A), and an L_{MAX} of less than 45dB(A) inside bedroom areas during the night would be comfortably achieved. The fence would be required to be constructed around the north eastern edge of the car park adjacent to Unit 1, as shown indicatively on Drawing number LE03627/004.

4.1.6 The level of attenuation provided by a 2m fence has been calculated assuming a standard close-boarded fence. Should a higher specification fence be constructed, i.e. a fence with additional treatment to the top the edge, the attenuation provided by the fence may be increased slightly.

4.1.7 It should also be possible to implement a best practice management plan to control noise. A typical example of this is included in Appendix B.

5. CONCLUSION

5.1 The results of the BS4142 assessment indicate that specific noise levels created by the activities at the site would be likely to cause complaints from residents at nearby residential properties. The results also indicate that during the night-time period the specific noise levels created would, at all receptors, exceed the levels recommended by the WHO guidelines.

5.2 Mitigation measures are required at the site to attenuate noise to a level which BS4142 would consider to be less than of 'marginal significance' and which would ensure that the WHO limit values are achieved. The attenuation provided by a 1.5m or 2m high close boarded fence constructed in the north eastern part of the site has been assessed.

5.3 A 2 metre high fence would reduce noise levels to significantly less than +5 dB(A) above the average background noise level and to a level comfortably within the guidelines set out by WHO at all of the sensitive receptors.

Wardell Armstrong
Engineering & Environmental Solutions

Appendix A
Noise Monitoring Results

Appendix A: Noise Monitoring Results

Time	L_{AEQ} (dB(A))	L_{A90} (dB(A))	L_{AMAX} (dB(A))	L_{AMIN} (dB(A))	Comments
Monitoring Location 1 (26/06/2006):					
06:07 – 06:23	45.6	43.7	53.6	41.6	Motorway noise. Bird Song.
07:12 – 07:28	46.5	44.6	53.9	43.2	Motorway noise. Birdsong. Occasional aircraft.
08:21 – 08:35	49.4	45.7	63.5	43.4	Motorway noise. Volvo activity in yard. Car alarm.
09:28 – 09:44	49.8	46.5	59.9	44.8	Motorway noise. Volvo and Cranes UK (CUK) activity.
10:33 – 10:48	47.6	44.7	54.5	43.0	Motorway noise. Volvo activity. Occasional aircraft
11:43 – 11:59	45.9	42.3	60.2	39.4	Motorway noise. Volvo activity.
Monitoring Location 1 (06/07/2006):					
12:57 – 13:12	49.7	45.4	58.8	43.8	Plant noise from CUK.
14:01 – 14:16	54.4	46.4	61.8	42.5	Flymo being used. Plant noise from CUK.
15:06 – 15:21	48.2	44.8	56.9	44.0	Plant noise from CUK. Engines running at Volvo.
16:16 – 16:31	49.4	43.1	67.3	41.5	Vehicle movement at Volvo & CUK. Shouting in CUK yard. Aircraft.
17:27 – 17:43	41.1	36.5	51.6	33.9	Volvo and CUK shutter and engine noises.
Monitoring Location 1 (04/08/2006):					
01:45 – 01:55	39.4	34.4	52.2	32.3	Motorway noise
02:38 – 02:49	28.8	26.7	37.7	24.7	Occasional motorway noise.
Monitoring Location 2 (26/06/2006):					
06:33 – 06:47	46.6	43.8	57.1	42.2	Motorway noise. Birdsong.
07:34 – 07:49	47.1	44.4	57.8	43.0	Motorway noise. Birdsong.
08:45 – 08:59	51.2	45.3	63.7	44.1	Motorway noise. Birdsong. Mowing and Strimming
09:49 – 10:04	46.9	43.6	57.4	41.7	Motorway noise. Aircraft. Birdsong.
10:56 – 11:13	50.8	44.0	65.3	41.1	Motorway noise. Lawn mower. Dogs barking. Light building works.
12:04 – 12:20	45.6	40.8	57.4	38.3	Motorway noise. Lawn mower. Birdsong.
Monitoring Location 2 (06/07/2006):					
13:20 – 13:35	44.6	37.9	64.0	35.2	Faint noise form CUK. Occasional Aircraft. Police siren.
14:23 – 14:39	49.5	38.2	60.9	34.9	Faint noise form CUK. Birdsong.
15:27 – 15:42	44.4	36.4	67.7	34.1	Birdsong. Occasional local traffic.
16:38 – 16:53	44.1	37.0	55.1	33.5	Local traffic noise. Birdsong.
17:49 – 18:04	44.3	37.6	60.9	33.6	Birdsong. Children playing in back gardens.
Monitoring Location 2 (04/08/2006):					
02:03 – 02:13	40.1	34.9	48.9	31.5	Motorway noise
02:55 – 03:05	30.3	26.4	43.9	23.4	Occasional motorway noise
Monitoring Location 3 (26/06/2006):					
06:52 – 07:07	48.3	45.0	60.9	42.7	Motorway noise. Birdsong.
07:56 – 08:11	50.3	46.3	65.3	44.4	Motorway noise. Birdsong. Occasional local traffic.
09:04 – 09:19	49.5	44.9	65.8	42.7	Motorway noise. Local traffic.
10:08 – 10:23	48.7	45.0	67.6	43.2	Motorway noise. Occasional local traffic. Builders banging.
11:20 – 11:35	47.1	43.7	61.3	42.4	Motorway noise. Lawn Mower.
12:29 – 12:45	48.1	43.1	66.9	41.5	Motorway noise. Birdsong.
Monitoring Location 3 (06/07/2006):					
13:39 – 13:54	44.4	37.3	59.2	35.5	Birdsong. Occasional local traffic noise.

14:43 – 14:58	42.6	35.0	57.7	33.5	Birdsong. Local traffic noise.
15:51 – 16:07	41.3	33.7	60.4	31.6	Occasional local traffic.
16:59 – 17:14	49.0	36.4	64.2	34.2	Local traffic noise. Aircraft. Birdsong.
18:07 – 18:22	56.6	35.5	78.9	32.6	Local traffic noise. Birdsong.
Monitoring Location 3 (06/07/2006):					
02:18 – 02:31	33.3	27.9	41.4	25.6	Motorway noise.
03:10 – 03:21	24.8	23.0	29.6	21.3	Occasional motorway noise.

Appendix B
Typical Example of a Best Practice Management Plan

Appendix B: Typical Example of a Best Practice Management Plan

In addition to the specific mitigation proposed in the report, a best practice noise management plan will also be implemented at the site so that noise from activities across the site is kept to a minimum.

Traffic Movements Associated with the Development

The drivers of vehicles entering the site will be informed about the potential noise impact from vehicles travelling on the access road. Instructions on the measures that should be taken to minimise noise will be issued to the drivers of HGVs, vans and cars. Drivers will be expected to drive with care and at a restricted level of speed and acceleration from the car parks and delivery areas to the access road, and on the access road itself, so as not to generate excessive noise levels on their arrival and departure. The instructions will emphasise that this is particularly important during night-time hours.

Drivers of HGVs will be required to turn engines off during the loading and unloading of the trailers, and will be advised not to slam doors or leave cab radios on while doors are open.

During night-time hours, horns and reversing alarms will not be used.

Operations at the Units

To minimise the potential level of noise generated by the activities of the proposed units, the loading and unloading of delivery vehicles will take place within the units themselves. Delivery vehicles will be reversed into bays, and the loading and unloading processes will therefore effectively be enclosed.

All machinery and equipment used at the units will be contained within the buildings themselves where possible, and will be regularly maintained to ensure that the noise levels are kept to a minimum.

Staff training will be carried out to emphasise the potential noise impact of any activities, especially during night-time hours. Except in the case of emergency, no shouting between members of staff, public announcement systems, loud radios or speakers will be permitted outside of the building.

Appendix C: Noise Prediction Calculations

CLIENT: Gladman
JOB NO: LE03627
PLANT:
Activity
DATE: 06-Nov-07
CALC'D BY: NA
REVISION:
FILE REF:

SITE: Tankersley

Daytime - No Mitigation

Night-time BS4142 - No Mitigation

Noise Calculations assuming no fence will be in place

Note: Only Soft Ground or Barrier Attenuation is applied. Soft Ground Attenuation calculated in accordance with BS5228: Part 1: 1997

Fence Height	Height of Receptors		
	1	2	3
0.00	155.15	147.90	148.40

Onsite barrier

Receiver Location: 28 Stone Leigh Court - 1m from facade:

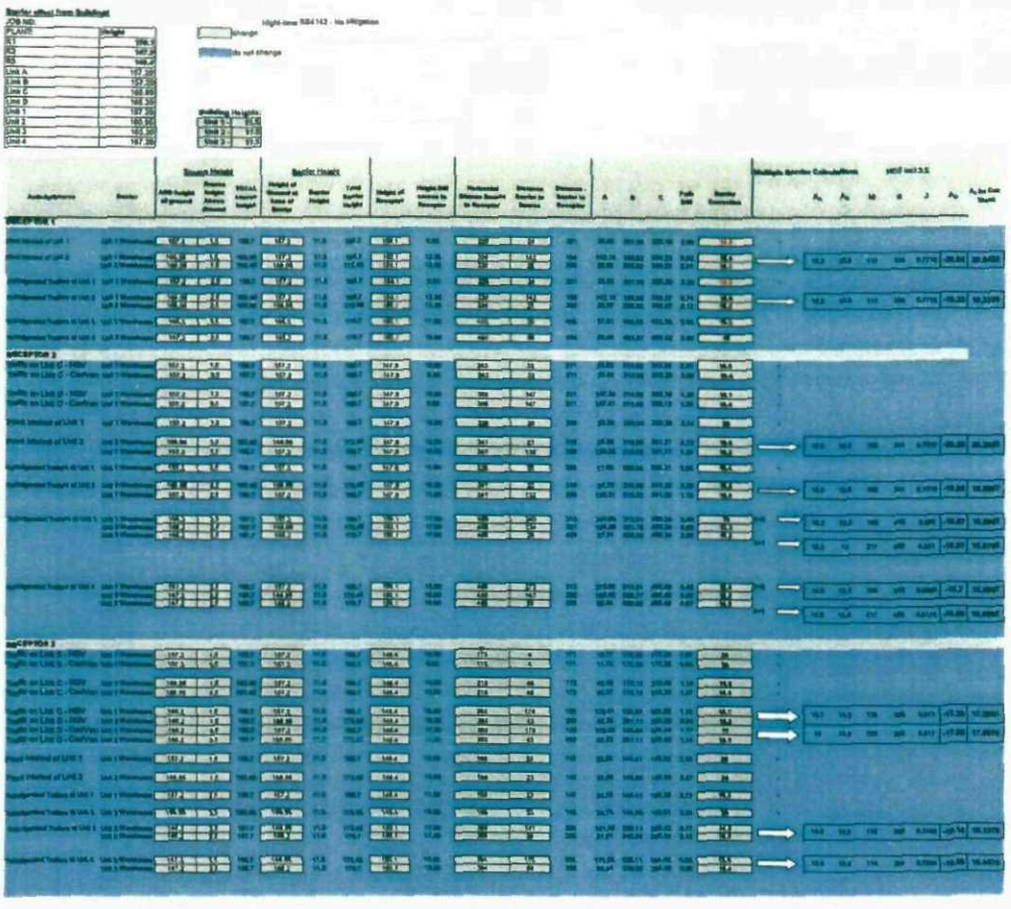
Activity	Number of Vehicles	Time min(point) OR Speed mph (line)	Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Minutes per hour	% On Time	For activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Barrier to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 - 4 HGVs reversing	4.00	1.50	-	55.00	30.00	225.00	37.50	6.00	10.00	-	-	-	10.00	27.50	19.50	8.00																		8.00
Unit 1 - 4 HGVs pulling away	4.00	0.50	-	55.60	30.00	225.00	38.10	2.00	3.33	-	-	-	14.77	23.33	19.50	3.83																		3.83
Unit 2 - 3 HGVs reversing	3.00	1.50	-	55.00	30.00	330.00	34.17	4.50	7.50	-	-	-	11.25	22.92	20.04	2.88																		2.88
Unit 2 - 3 HGVs pulling away	3.00	0.50	-	55.60	30.00	330.00	34.77	1.50	2.50	-	-	-	16.02	18.75	20.04	-1.29																		-1.29
Unit 3 - 2 HGVs reversing	2.00	1.50	-	55.00	30.00	432.00	31.83	3.00	5.00	-	-	-	13.01	18.82	18.20	0.62																		0.62
Unit 3 - 2 HGVs pulling away	2.00	0.50	-	55.60	30.00	432.00	32.43	1.00	1.67	-	-	-	17.78	14.65	18.20	-3.55																		-3.55
Unit 4 - 5 HGVs reversing	8.00	1.50	-	55.00	30.00	460.00	31.29	7.50	12.50	-	-	-	9.03	22.26	15.00	7.26																		7.26
Unit 4 - 5 HGVs pulling away	8.00	0.50	-	55.60	30.00	460.00	31.89	2.50	4.17	-	-	-	13.80	18.69	15.00	3.69																		3.69
Unit 1 - 4 Refrigerated Trailers@72.5dB each.	1.00	35.00	-	78.50	8.00	225.00	49.52	35.00	58.33	-	-	-	2.34	47.18	18.90	28.28																		28.28
Unit 2 - 3 Refrigerated Trailers@72.5dB each	1.00	35.00	-	77.30	8.00	330.00	44.99	35.00	58.33	-	-	-	2.34	42.65	19.33	23.32																		23.32
Unit 3 - 2 Refrigerated Trailers@72.5dB each	1.00	35.00	-	75.50	8.00	432.00	40.85	35.00	58.33	-	-	-	2.34	38.51	18.20	20.31																		20.31
Unit 4 - 5 Refrigerated Trailers@72.5dB each	1.00	35.00	-	79.50	8.00	460.00	44.31	35.00	58.33	-	-	-	2.34	41.97	15.00	26.97																		26.97
																31.93																Total	31.93
																																Total + 5dB	36.93
Road A - 28 HGVs at 10mph	28.00	10.00	92.00	95.80	0.00	100.00	67.00	9.60	16.01	0.92	0.80	12.81	8.93	58.97		58.97															20.00	-9.54	48.53
Road A - 24 Cars at 20mph	24.00	20.00	92.00	74.80	0.00	100.00	46.00	4.12	6.86	0.92	0.80	5.49	12.61	33.39		33.39															20.00	-9.54	23.85
Road A - 14 Vans at 20mph	14.00	20.00	92.00	80.80	0.00	100.00	52.00	2.40	4.00	0.92	0.80	3.20	14.95	57.95		57.95															20.00	-9.54	37.51
Road B - 28 HGV at 10mph	28.00	10.00	137.00	95.80	0.00	100.00	67.00	14.30	23.84	1.37	0.63	15.02	8.23	58.77		58.77															20.00	-9.54	49.23
Road B - 16 Cars at 20mph	16.00	20.00	137.00	74.80	0.00	100.00	46.00	4.09	6.81	1.37	0.63	4.29	13.67	32.33		32.33															20.00	-9.54	22.79
Road B - 10 Vans at 20mph	10.00	20.00	137.00	80.80	0.00	100.00	52.00	2.55	4.26	1.37	0.63	2.68	15.72	34.28		34.28															20.00	-9.54	34.74
Road C - 20 HGV at 10mph	20.00	10.00	118.00	95.80	0.00	212.00	63.74	8.65	14.42	0.55	0.50	7.21	11.42	62.32		62.32															6.00	-15.56	46.76
Road C - 16 Cars at 20 mph	16.00	20.00	118.00	74.80	0.00	212.00	43.74	3.46	5.77	0.55	0.50	2.88	15.40	37.34		37.34															6.00	-15.56	21.77
Road C - 10 Vans at 20mph	10.00	20.00	118.00	78.80	0.00	212.00	36.74	2.16	3.60	0.55	0.50	1.80	17.44	21.30		21.30															6.00	-15.56	5.73
Road D - 14 HGV at 10mph	14.00	10.00	111.00	95.80	0.00	325.00	61.88	5.79	9.66	0.34	0.50	4.83	13.16	46.72		46.72															2.50	-18.57	28.15
Road D - 10 Cars at 20mph	10.00	20.00	111.00	74.80	0.00	325.00	46.88	2.07	3.45	0.34	0.50	1.72	17.63	33.25		33.25															2.50	-18.57	4.68
Road D - 6 vans at 20 mph	6.00	20.00	111.00	80.80	0.00	325.00	46.88	1.24	2.07	0.34	0.50	1.03	19.85	27.03		27.03															2.50	-18.57	8.46
																																Total	52.19
																																Plant + Road Links =	58.07
																																Noise Level at Façade =	63.03

Receiver Location: 30 Stone Leigh 1m from rear façade

Activity	Number of Vehicles	Time min(point) OR Speed mph (line)	Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Minutes per hour	% On Time	For activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Barrier to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 - 4 HGVs reversing	4.00	1.50	-	55.00	30.00	228.00	37.38	6.00	10.00	-	-	-	10.00	27.38	20.00	7.38																		7.38
Unit 1 - 4 HGVs pulling away	4.00	0.50	-	55.60	30.00	228.00	37.98	2.00	3.33	-	-	-	14.77	23.21	20.00	3.21																		3.21
Unit 2 - 3 HGVs reversing	3.00	1.50	-	55.00	30.00	341.00	33.89	4.50	7.50	-	-	-	11.25	22.64	20.28	2.36																		2.36
Unit 2 - 3 HGVs pulling away	3.00	0.50	-	55.60	30.00	341.00	34.49	1.50	2.50	-	-	-	16.02	18.47	20.28	-1.82																		-1.82
Unit 3 - 2 HGVs reversing	2.00	1.50	-	55.00	30.00	485.00	31.38	3.00	5.00	-	-	-	13.01	18.37	18.87	-0.50																		-0.50
Unit 3 - 2 HGVs pulling away	2.00	0.50	-	55.60	30.00	485.00	31.98	1.00	1.67	-	-	-	17.78	14.20	18.87	-4.67																		-4.67
Unit 4 - 5 HGVs reversing	8.00	1.50	-	55.00	30.00	485.00	30.83	7.50	12.50	-	-	-	9.03	21.80	16.09	5.71																		5.71
Unit 4 - 5 HGVs pulling away	8.00	0.50	-	55.60	30.00	485.00	31.43	2.50	4.17	-	-	-	13.80	17.63	16.09	1.54																		1.54
Unit 1 - 4 Refrigerated Trailers@72.5dB each.	1.00	35.00	-	78.50	8.00	228.00	49.40	35.00	58.33	-	-	-	2.34	47.06	19.48	27.58																		27.58
Unit 2 - 3 Refrigerated Trailers@72.5dB each	1.00	35.00	-	77.30	8.00	341.00	44.71	35.00	58.33	-	-	-	2.34	42.37	19.56	22.81																		22.81
Unit 3 - 2 Refrigerated Trailers@72.5dB each	1.00	35.00	-	75.50	8.00	485.00	40.40	35.00	58.33	-	-	-	2.34	38.06	18.87	19.19																		19.19
Unit 4 - 5 Refrigerated Trailers@72.5dB each	1.00	35.00	-	79.50	8.00	485.00	43.85	35.00	58.33	-	-	-	2.34	41.51	16.09	25.42																		25.42
																																Total	30.87
																																Total + 5dB	35.87
Road A - 28 HGVs at 10mph	28.00	10.00	92.00	95.80	0.00	163.00	64.86	9.60	16.01	0.58	1.00	16.01	7.96	56.82		56.82															14.00	-11.09	45.83
Road A - 24 Cars at 20mph	24.00	20.00	92.00	74.80	0.00	163.00	43.86	4.12	6.86	0.58	1.00	6.86	11.84	32.24		32.24															14.00	-11.09	21.15
Road A - 14 Vans at 20mph	14.00	20.00	92.00	80.80	0.00	163.00	49.86	2.40	4.00	0.58	1.00	4.00	13.98	35.96		35.96															14.00	-11.09	24.81
Road B - 28 HGV at 10mph	28.00	10.00	137.00	95.80	0.00	144.00	66.42	14.30	23.84	0.85	0.63	15.02	8.23	57.19		57.19															15.00	-10.79	46.39
Road B - 16 Cars at 20mph	16.00	20.00	137.00	74.80	0.00	144.00	44.42	4.09	6.81	0.85	0.63	4.29	13.67	30.75		30.75															15.00	-10.79	19.96
Road B - 10 Vans at 20mph	10.00	20.00	137.00	80.80	0.00	144.00	50.42	2.55	4.26	0.85	0.63	2.68	15.72	34.79		34.79															15.00	-10.79	23.99
Road C - 20 HGV at 10mph	20.00	10.00	118.00	95.80	0.00	243.00	63.14	8.65	14.42	0.48	1.00	14.42	8.41	54.73	18.90	35.83															4.00	-16.53	19.40
Road C - 16 Cars at 20 mph	16.00	20.00	118.00	74.80	0.00	243.00	42.14	3.46	5.77	0.48	1.00	5.77	12.39	29.75	19.40	10.35															4.00	-16.53	-6.18
Road C - 10 Vans at 20mph	10.00	20.00	118.00	78.80	0.00	243.00	36.14	2.16	3.60	0.48	1.00	3.60	14.43	33.71	19.40	4.31															4.00	-16.53	-12.22
Road D - 14 HGV at 10mph	14.00	10.00	111.00	95.80	0.00	358.00	61.46	5.79	9.66	0.31	1.00	9.66	10.15	51.31	16.10	35.21															2.00	-19.54	15.67
Road D - 10 Cars at 20mph	10.00	20.00	111.00	74.80	0.00	358.00	46.46	2.07	3.45	0.31	1.00	3.45	14.62	25.84	16.40	9.44															2.00	-19.54	-10.10
Road D - 6 vans at 20 mph	6.00	20.00	111.00	80.80	0.00	358.00	46.46	1.24	2.07	0.31	1.00	2.07	16.84	29.62	16.40	13.22															2.00	-19.54	-6.32
																																Total	56.15
																																Plant + Road Links =	62.03
																																Noise Level at Façade =	67.03

Receiver Location: 52 Carr Lane

Activity	Number of Vehicles	Time min(point) OR Speed mph (line)	Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Minutes per hour	% On Time	For activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Barrier to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 - 4 HGVs reversing	4.00	1.50	-	55.00	30.00	168.00	40.84	6.00	10.00	-	-	-	10.00	30.84	20.00	10.84																		10.84
Unit 1 - 4 HGVs pulling away	4.00	0.50	-	55.60	30.00	168.00	40.84	2.00	3.33	-	-	-	14.77	25.57	20.00	5.57																		5.57
Unit 2 - 3 HGVs reversing	3.00	1.50	-	55.00	30.00	257.00	36.34	4.50	7.50	-	-	-	11.25	25.09	20.00	5.09																		5.09
Unit 2 - 3 HGVs pulling away	3.00	0.50	-	55.60	30.00	257.00	36.94	1.50	2.50	-	-	-	16.02	20.92	20.00	0.92																		0.92
Unit 3 - 2 HGVs reversing	2.00	1.50	-	55.00	30.00	345.00	33.38	3.00	5.00	-	-	-	13.01	20.39	19.14	1.15																		1.15
Unit 3 - 2 HGVs pulling away	2.00	0.50	-	55.60	30.00	345.00	33.98	1.00	1.67	-	-	-	17.78	16.12	19.14	-3.02																		-3.02
Unit 4 - 5 HGVs reversing	8.00	1.50	-	55.00	30.00	394.00	32.83	7.50	12.50	-	-	-	9.03	23.86	16.48	7.38																		7.38
Unit 4 - 5 HGVs pulling away	8.00	0.50	-	55.60	30.00	394.00	33.43	2.50	4.17	-	-	-	13.80	19.43	16.48	2.96																		2.96
Unit 1 - 4 Refrigerated Trailers@72.5dB each.	1.00	35.00	-	78.50	8.00	168.00	52.06	35.00	58.33	-	-	-	2.34	49.72	19.50	30.22																		30.22
Unit 2 - 3 Refrigerated Trailers@72.5dB each	1.00	35.00	-	77.30	8.00	257.00	47.16	35.00	58.33	-	-	-	2.34	44.82	20.00	24.82																		24.82
Unit 3 - 2 Refrigerated Trailers@72.5dB each	1.00	35.00	-	75.50	8.00	345.00	42.52	35.00	58.33	-	-	-	2.34	39.98	19.14	20.84																		20.84
Unit 4 - 5 Refrigerated Trailers@72.5dB each	1.00	35.00	-	79.50	8.00	394.00	45.85	35.00	58.33	-	-	-	2.34	43.51	16.48	26.84																		26.84
																																Total	42.26
																																Total + 5dB	37.26
Road A - 28 HGVs at 10mph	28.00	10.00	92.00	95.80	0.00	216.00	63.66	9.60	16.01	0.43	1.00	16.01	7.96	55.70		55.70															3.00	-17.78	37.91
Road A - 24 Cars at 20mph	24.00	20.00	92.00	74.80	0.00	216.00	42.66	4.12	6.86	0.43	1.00	6.86	11.84	31.82		31.82															3.00	-17.78	13.23
Road A - 14 Vans at 20mph	14.00	20.00	92.00	80.80	0.00	216.00	48.66	2.40	4.00	0.43	1.00	4.00	13.98	34.68		34.68															3.00	-17.78	16.89
Road B - 28 HGV at 10mph	28.00	10.00	137.00	95.80	0.00	175.00	64.57	14.30	23.84	0.78	0.80	15.07	7.20	57.37	20.00	37.37															30.00	-7.78	29.59
Road B - 16 Cars at 20mph	16.00	20.00	137.00	74.80	0.00	175.00	43.57	4.09	6.81	0.78	0.80	8.45	12.64	36.93	20.00	16.93															30.00	-7.78	3.15
Road B - 10 Vans at 20mph	10.00	20.00	137.00	80.80	0.00	175.00	49.57	2.55	4.26	0.78	0.80	3.41	14.68	34.89	20.00	14.89															30.00	-7.78	7.11
Road C - 20 HGV at 10mph	20.00	10.00	118.00	95.80	0.00	218.00	63.62	8.65	14.42	0.53	1.00	14.42	8.41	55.21	15.90	39.31															18.00	-10.00	29.31
Road C - 16 Cars at 20 mph	16.00	20.00	118.00	74.80	0.00	218.00	42.62	3.46	5.77	0.53	1.00	5.77	12.39	38.23	16.80	13.63															18.00	-10.00	3.63
Road C - 10 Vans at 20mph	10.00	20.00	118.00	78.80	0.00	218.00	36.62	2.16	3.60	0.53	1.00	3.80	14.43	34.19	16.80	7.59															18.00	-10.00	-2.41
Road D - 14 HGV at 10mph	14.00	10.00	111.00	95.80	0.00	303.00	62.19	5.79	9.66	0.37	1.00	9.66	10.15	52.04	17.29	34.74															9.00	-13.01	21.73
Road D - 10 Cars at 20mph	10.00	20.00	111.00	74.80	0.00	303.00	41.19	2.07	3.45	0.37	1.00	3.45	14.62	26.57	17.69	8.88															9.00	-13.01	-4.13
Road D - 6 vans at 20 mph	6.00	20.00	111.00	80.80	0.00	303.00	47.19	1.24	2.07	0.37	1.00	2.07	16.84	30.35	17.69	12.66															9.00	-13.01	-0.35
																																Total	39.13
																																Plant + Road Links =	44.91
																																Noise Level at Façade =	49.11



CLIENT:
JOB NO: LE03627
JOB NO:
PLANT:
DATE: 06-Nov-07
CALC'D BY: NA
REVISION:
FILE REF:

Daytime - 1.5m Fence

Night-time BS4142 - No Mitigation

Fence Height	Height of Receivers		
	1	2	3
1.50	156.10	147.90	140.40

Noise Calculations assuming no fence will be in place
Note: Only Soft Ground or Barrier Attenuation is applied. Soft Ground Attenuation calculated in accordance with BS5228: Part 1: 1997

Onsite barrier

Receiver Location: 29 Stone Leigh Court - 1m from facade:

Activity	Number of Vehicles	Time min(point) OR Speed mph (line)		Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Minutes per hour	% On Time	Per activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Barrier to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 - 4 HGVs reversing	4.00	1.50	-		65.00	30.00	225.90	37.59	6.00	10.00	-	-	-	10.00	27.59	19.59	8.00																		8.00
Unit 1 - 4 HGVs pulling away	4.00	0.50	-		65.00	30.00	225.90	38.19	2.00	3.33	-	-	-	14.77	23.33	19.50	3.83																		3.83
Unit 2 - 3 HGVs reversing	3.00	1.50	-		65.00	30.00	330.80	34.17	4.50	7.50	-	-	-	11.25	22.92	20.04	2.88																		2.88
Unit 2 - 3 HGVs pulling away	3.00	0.50	-		65.00	30.00	330.80	34.77	1.50	2.50	-	-	-	16.02	18.75	20.04	-1.29																		-1.29
Unit 3 - 2 HGVs reversing	2.00	1.50	-		65.00	30.00	432.90	31.83	3.00	5.00	-	-	-	13.01	18.82	18.20	0.62																		0.62
Unit 3 - 2 HGVs pulling away	2.00	0.50	-		65.00	30.00	432.90	31.43	1.00	1.67	-	-	-	17.78	14.65	18.20	-3.55																		-3.55
Unit 4 - 5 HGVs reversing	5.00	1.50	-		65.00	30.00	480.00	31.29	7.50	12.50	-	-	-	9.03	22.26	15.00	7.26																		7.26
Unit 4 - 5 HGVs pulling away	5.00	0.50	-		65.00	30.00	480.00	31.89	2.50	4.17	-	-	-	13.80	18.09	15.00	3.09																		3.09
Unit 1 - 4 Refrigerated Trailers	1.00	35.00	-		79.50	8.00	225.90	49.52	35.00	58.33	-	-	-	2.34	47.18	18.80	28.38																		28.38
Unit 2 - 3 Refridgerated Trailers	1.00	35.00	-		77.50	8.00	330.80	44.99	35.00	58.33	-	-	-	2.34	42.65	19.33	23.32																		23.32
Unit 3 - 2 Refridgerated Trailers	1.00	35.00	-		75.50	8.00	432.90	46.85	35.00	58.33	-	-	-	2.34	38.51	18.20	20.31																		20.31
Unit 4 - 5 Refridgerated Trailers	1.00	35.00	-		79.50	8.00	480.00	44.31	35.00	58.33	-	-	-	2.34	41.97	15.00	26.97																		26.97
																																Total	31.80
																																Total + BdB	34.80
Road A - 28 HGVs at 10mph	28.00	10.00	92.00	94.00	0.00		100.00	47.00	8.00	16.01	0.92		0.80	12.81	8.93	58.97		58.97	22.00	78.00	100.00	158.70	157.20	158.70	0.00	8.80	8.80	22.00	78.47	100.37	0.10	9.30	46.77	20.00	-9.54	39.23
Road A - 24 Cars at 20mph	24.00	20.00	92.00	74.00	0.00		100.00	46.80	4.12	6.86	0.92		0.80	5.49	12.81	33.39		33.39	22.00	78.00	100.00	157.70	157.20	158.70	1.00	8.80	7.80	22.02	78.47	100.29	0.21	10.90	23.49	20.00	-9.54	12.95
Road A - 14 Vans at 20mph	14.00	20.00	92.00	94.00	0.00		100.00	52.00	2.40	4.00	0.92		0.80	3.20	14.95	37.95		37.95	22.00	78.00	100.00	157.70	157.20	158.70	1.00	8.80	7.80	22.02	78.47	100.29	0.21	10.90	26.18	20.00	-9.54	16.61
Road B - 28 HGV at 10mph	28.00	10.00	137.80	95.00	0.00		100.00	47.00	14.30	23.84	1.37		0.63	15.02	8.23	58.77		58.77	22.00	78.00	100.00	158.70	157.20	158.70	0.00	8.80	8.80	22.00	78.47	100.37	0.10	9.30	46.47	20.00	-9.54	38.93
Road B - 18 Cars at 20mph	18.00	20.00	137.80	74.00	0.00		100.00	46.60	4.09	6.81	1.37		0.63	4.29	13.67	33.33		33.33	22.00	78.00	100.00	157.70	157.20	158.70	1.00	8.80	7.80	22.02	78.47	100.29	0.21	10.90	31.48	20.00	-9.54	11.80
Road B - 10 Vans at 20mph	10.00	20.00	137.80	94.00	0.00		100.00	52.00	2.55	4.25	1.37		0.63	2.68	15.72	36.38		36.38	22.00	78.00	100.00	157.70	157.20	158.70	1.00	8.80	7.80	22.02	78.47	100.29	0.21	10.90	25.38	20.00	-9.54	15.84
Road C - 20 HGV at 10mph	20.00	10.00	116.00	94.00	0.00		212.00	43.74	8.65	14.42	0.55		0.50	7.21	11.42	52.32		52.32	137.00	75.00	212.00	162.45	157.20	158.70	-3.75	8.80	12.35	137.05	75.49	212.36	0.18	10.50	41.82	5.00	-15.56	26.25
Road C - 16 Cars at 20 mph	16.00	20.00	116.00	74.00	0.00		212.00	42.74	3.46	5.77	0.55		0.50	2.88	15.40	27.34		27.34	137.00	75.00	212.00	161.45	157.20	158.70	-2.75	8.80	11.35	137.03	75.49	212.30	0.22	11.00	16.34	5.00	-15.56	6.77
Road C - 10 Vans at 20mph	10.00	20.00	116.00	76.00	0.00		212.00	38.74	2.16	3.60	0.55		0.50	1.80	17.44	21.39		21.39	137.00	75.00	212.00	161.45	157.20	158.70	-2.75	8.80	11.35	137.03	75.49	212.30	0.22	11.00	16.34	5.00	-15.56	4.27
Road D - 14 HGV at 10mph	14.00	10.00	111.60	94.00	0.00		325.00	61.88	5.79	9.66	0.34		0.50	4.83	13.16	48.72		48.72	248.00	78.00	325.00	169.70	157.20	158.70	-6.00	8.80	16.80	249.13	76.49	325.42	0.19	10.80	16.12	2.50	-18.57	19.95
Road D - 10 Cars at 20mph	10.00	20.00	111.80	74.00	0.00		325.00	40.88	2.07	3.45	0.34		0.50	1.72	17.63	23.25		23.25	248.00	78.00	325.00	165.70	157.20	158.70	-7.00	8.80	15.80	249.10	76.49	325.37	0.21	10.90	16.13	2.50	-18.57	-6.22
Road D - 6 vans at 20 mph	6.00	20.00	111.80	94.00	0.00		325.00	46.88	1.24	2.07	0.34		0.50	1.03	19.85	27.83		27.83	248.00	78.00	325.00	165.70	157.20	158.70	-7.00	8.80	15.80	249.10	76.49	325.37	0.21	10.90	16.13	2.50	-18.57	-2.44
																																Total	42.75
																																Plant + Road Links =	50.01
																																Noise Level at Facade =	49.23

Receiver Location: 28 Stone Leigh 1m from rear façade

Activity	Number of Vehicles	Time min(point) OR Speed mph (line)		Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Minutes per hour	% On Time	Per activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Fence to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 - 4 HGVs reversing	4.00	1.50	-		65.00	30.00	228.00	37.39	6.00	10.00	-	-	-	10.00	27.39	20.00	7.39																		7.39
Unit 1 - 4 HGVs pulling away	4.00	0.50	-		65.00	30.00	228.00	37.98	2.00	3.33	-	-	-	14.77	23.21	20.00	3.21																		3.21
Unit 2 - 3 HGVs reversing	3.00	1.50	-		65.00	30.00	341.00	33.99	4.50	7.50	-	-	-	11.25	22.64	20.28	2.36																		2.36
Unit 2 - 3 HGVs pulling away	3.00	0.50	-		65.00	30.00	341.00	34.49	1.50	2.50	-	-	-	16.02	18.47	20.28	-1.82																		-1.82
Unit 3 - 2 HGVs reversing	2.00	1.50	-		65.00	30.00	488.00	31.32	3.00	5.00	-	-	-	13.01	18.37	18.87	-0.50																		-0.50
Unit 3 - 2 HGVs pulling away	2.00	0.50	-		65.00	30.00	488.00	31.96	1.00	1.67	-	-	-	17.78	14.20	18.87	-4.67																		-4.67
Unit 4 - 5 HGVs reversing	5.00	1.50	-		65.00	30.00	486.00	36.83	7.50	12.50	-	-	-	8.03	21.89	15.00	6.71																		6.71
Unit 4 - 5 HGVs pulling away	5.00	0.50	-		65.00	30.00	486.00	31.43	2.50	4.17	-	-	-	13.80	17.63	16.09	1.54																		1.54
Unit 1 - 4 Refrigerated Trailers	1.00	35.00	-		79.50	8.00	228.00	49.46	35.00	58.33	-	-	-	2.34	47.06	19.40	27.66																		27.66
Unit 2 - 3 Refridgerated Trailers	1.00	35.00	-		77.50	8.00	341.00	44.71	35.00	58.33	-	-	-	2.34	42.37	19.56	22.81																		22.81
Unit 3 - 2 Refridgerated Trailers	1.00	35.00	-		75.50	8.00	488.00	46.48	35.00	58.33	-	-	-	2.34	38.68	19.57	19.19																		19.19
Unit 4 - 5 Refridgerated Trailers	1.00	35.00	-		79.50	8.00	488.00	43.85	35.00	58.33	-	-	-	2.34	41.51	16.09	25.42																		25.42
																																Total	36.47
																																Total + BdB	36.47
Road A - 28 HGVs at 10mph	28.00	10.00	92.00	94.00	0.00		163.00	64.88	8.00	16.01	0.56		1.00	16.01	7.96	56.92		56.92	40.00	123.00	163.00	158.70	157.20	158.70	0.00	10.80	10.80	40.00	123.47	163.36	0.12	8.70	47.22	14.00	-11.09	36.13
Road A - 24 Cars at 20mph	24.00	20.00	92.00	74.00	0.00		163.00	63.84	4.12	6.86	0.56		1.00	6.86	11.64	32.24		32.24	40.00	123.00	163.00	157.70	157.20	158.70	1.00	10.80	9.80	40.01	123.47	163.29	0.19	10.80	21.84	14.00	-11.09	10.75
Road A - 14 Vans at 20mph	14.00	20.00	92.00	94.00	0.00		163.00	68.88	2.40	4.00	0.56		1.00	4.00	13.96	36.99		36.99	40.00	123.00	163.00	157.70	157.20	158.70	1.00	10.80	9.80	40.01	123.47	163.29	0.19	10.80	26.38	14.00	-11.09	14.21
Road B - 28 HGV at 10mph	28.00	10.00	137.80	95.00	0.00		144.00	65.42	14.30	23.84	0.95		0.63	15.02	8.23	57.19		57.19	37.00	107.00	144.00	158.70	157.20	158.70	0.00	10.80	10.80	37.00	107.54	144.40	0.14	10.00	47.19	15.00	-10.79	36.39
Road B - 18 Cars at 20mph	18.00	20.00	137.80	74.00	0.00		144.00	64.42	4.09	6.81	0.95		0.63	4.29	13.67	36.75		36.75	37.00	107.00	144.00	157.70	157.20	158.70	1.00	10.80	9.80	37.01	107.54	144.33	0.22	11.00	25.79	15.00	-10.79	14.96
Road B - 10 Vans at 20mph	10.00	20.00	137.80	94.00	0.00		144.00	68.42	2.55	4.25	0.95		0.63	2.68	15.72	34.79		34.79	37.00	107.00	144.00	157.70	157.20	158.70	1.00	10.80	9.80	37.01	107.54	144.33	0.22	11.00	23.79	15.00	-10.79	12.99
Road C - 20 HGV at 10mph	20.00	10.00	116.00	94.00	0.00		243.00	63.14	8.65	14.42	0.48		1.00	14.42	8.41	54.73	18.80	35.93																	4.00	-16.53	19.40
Road C - 16 Cars at 20 mph	16.00	20.00	116.00	74.00	0.00		243.00	62.14	3.46	5.77	0.48		1.00	5.77	12.39	35.75	19.40	16.36																	4.00	-16.53	-6.18
Road C - 10 Vans at 20mph	10.00	20.00	116.00	76.00	0.00		243.00	58.14	2.16	3.60	0.48		1.00	3.60	14.43	23.71	19.40	4.31																	4.00	-16.53	-12.22
Road D - 14 HGV at 10mph	14.00	10.00	111.60	94.00	0.00		358.00	61.46	5.79	9.66	0.31		1.00	9.66	10.15	51.31	16.10	35.21																	2.00	-19.54	15.67
Road D - 10 Cars at 20mph	10.00	20.00	111.80	74.00	0.00		358.00	40.46	2.07	3.45	0.31		1.00	3.45	14.62	25.04	16.40	9.64																	2.00	-19.54	-10.10
Road D - 6 vans at 20 mph	6.00	20.00	111.80	94.00	0.00		358.00	46.46	1.24	2.07	0.31		1.00	2.07	16.84	29.62	16.40	13.22																	2.00	-19.54	-6.32
																																Total	36.37
																																Plant + Road Links =	50.01
																																Noise Level at Facade =	49.47

Receiver Location: 82 Carr Lane

Activity	Number of Vehicles	Time min(point) OR Speed mph (line)		Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Minutes per hour	% On Time	Per activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Fence to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 - 4 HGVs reversing	4.00	1.50	-		65.00	30.00	198.00	40.84	6.00	10.00	-	-	-	10.00	30.84	20.80	10.04																		10.04
Unit 1 - 4 HGVs pulling away	4.00	0.50	-		65.00	30.00	198.00	40.84	2.00	3.33	-	-	-	14.77	25.87	20.80	5.07																		5.07
Unit 2 - 3 HGVs reversing	3.00	1.50	-		65.00	30.00	257.00	36.34	4.50	7.50	-	-	-	11.25	25.09	20.00	5.09																		5.09
Unit 2 - 3 HGVs pulling away	3.00	0.50	-		65.00	30.00	257.00	36.94	1.50	2.50	-	-	-	16.02	20.92	20.00	0.92																		0.92
Unit 3 - 2 HGVs reversing	2.00	1.50	-		65.00	30.00	365.00	33.38	3.00	5.00	-	-	-	13.01	20.29	19.14	1.15																		1.15
Unit 3 - 2 HGVs pulling away	2.00	0.50	-		65.00	30.00	365.00	33.98	1.00	1.67	-	-	-	17.78	16.12	19.14	-3.02																		-3.02
Unit 4 - 5 HGVs reversing	5.00	1.50	-		65.00	30.00	394.00	32.63	7.50	12.50	-	-	-	8.03	23.88	16.45	7.15																		7.15
Unit 4 - 5 HGVs pulling away	5.00	0.50	-		65.00	30.00	394.00	33.23	2.50	4.17	-	-	-	13.80	19.43	16.45	2.98																		2.98
Unit 1 - 4 Refridgerated Trailers	1.00	35.00	-		79.50	8.00	198.00	52.06	35.00	58.33	-	-	-	2.34	49.72	19.50	30.22																		30.22
Unit 2 - 3 Refridgerated Trailers	1.00	35.00	-		77.50	8.00	257.00	47.16	35.00	58.33	-	-	-	2.34	44.82	20.00	24.82																		24.82
Unit 3 - 2 Refridgerated Trailers	1.00	35.00	-		75.50	8.00	365.00	42.32	35.00	58.33	-	-	-	2.34	39.98	19.14	20.84																		20.84
Unit 4 - 5 Refridgerated Trailers	1.00	35.00	-		79.50	8.00	394.00	46.86	35.00	58.33	-	-	-	2.34	43.31	16.45	26.86																		26.86
																																Total	32.79
																																Total + BdB	37.30
Road A - 28 HGVs at 10mph	28.00	10.00	92.00	94.00	0.00		216.00	63.86	8.00	16.01	0.43		1.00	16.01	7.96	55.79		55.79	130.00	86.00	216.00	157.30	157.20	158.70	1.50	10.30	8.80	130.01	86.61	216.18	0.44	12.80	46.90	3.00	-17.78	28.11
Road A - 24 Cars at 20mph	24.00	20.00	92.00	74.00	0.00		216.00	62.86	4.12	6.86	0.43		1.00	6.86	11.64	31.82		31.82	130.00	86.00	216.00	157.30	157.20	158.70	1.50	10.30	8.80	130.01	86.61	216.18	0.44	12.80	18.22	3.00	-17.78	6.43
Road A - 14 Vans at 20mph	14.00	20.00	92.00	94.00	0.00		216.00	68.86	2.40	4.00	0.43		1.00	4.00	13.96	34.88		34.88	130.00	86.00	216.00	157.30	157.20	158.70	1.50	10.30	8.80	130.01	86.61	216.18	0.44	12.80	21.98	3.00	-17.78	4.99
Road B - 28 HGV at 10mph	28.00	10.00	137.80	95.00	0.00		175.00	64.57	14.30	23.84	0.78		0.80	19.07	7.20	57.37	20.00	37.37																	30.00	-7.78	29.59
Road B - 18 Cars at 20mph	18.00	20.00	137.80	74.00	0.00		175.00	63.57	4.09	6.81	0.78		0.80	5.45	12.84	36.93	20.00	16.93																	30.00	-7.78	3.15
Road B - 10 Vans at 20mph	10.00	20.00	137.80	94.00	0.00		175.00	68.57	2.55	4.25	0.78		0.80	3.41	14.86	34.80	20.00	14.80																	30.00	-7.78	7.11
Road C - 20 HGV at 10mph	20.00	10.00	116.00	94.00	0.00		218.00	63.62	8.65	14.42	0.53		1.00	14.42	8.41	56.21	18.90	39.31																	18.00	-10.00	29.31
Road C - 16 Cars at 20 mph	16.00	20.00	116.00	74.00	0.00		218.00	62.62	3.46	5.77	0.53		1.00	5.77	12.39	36.23	18.90	13.63																	18.00	-10.00	3.63
Road C - 10 Vans at 20mph	10.00	20.00	116.00	76.00	0.00		218.00	58.62	2.16	3.60	0.53		1.00	3.60	14.43	24.19	16.60	7.59																	18.00	-10.00	-2.41
Road D - 14 HGV at 10mph	14.00	10.00	111.60	94.00	0.00		303.00	62.19	5.79	9.66	0.37		1.00	9.66	10.15	52.64	17.29	34.74																	9.00	-13.01	21.73
Road D - 10 Cars at 20mph	10.00	20.00	111.80	74.00	0.00		303.00	41.19	2.07	3.45	0.37		1.00	3.45	14.62	26.57	17.69	8.88																	9.00	-13.01	-4.13
Road D - 6 vans at 20 mph	6.00	20.00	111.80	94.00	0.00		303.00	47.19	1.24	2.07	0.37		1.00	2.07	16.84	30.35	17.69	12.66																	9.00	-13.01	-0.35
																																Total	33.32
																																Plant + Road Links =	50.01
																																Noise Level at Facade =	49.37

CLIENT:
JOB NO: LE03627
JOB NO:
PLANT:
DATE: 06-Nov-07
CALC'D BY: NA
REVISION:
FILE REF:

Daytime - 2m Fence

Night-time BS4142 - No Mitigation

Fence Height	Height of Receptors		
	1	2	3
2.00	150.10	147.90	146.40

Noise Calculations assuming no fence will be in place
Note: Only Soft Ground or Barrier Attenuation is applied. Soft Ground Attenuation calculated in accordance with BS5228: Part 1: 1997

Onsite barrier

Receiver Location: 28 Stone Leigh Court - 1m from facade:

Activity	Number of Vehicles	Time min(point) OR Speed mph (line)	Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Minutes per hour	% On Time	For activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier
Unit 1 - 4 HGVs reversing	4.00	1.50	-	55.00	30.00	225.00	37.50	6.00	10.00	-	-	-	10.00	27.50	19.50	8.00
Unit 1 - 4 HGVs pulling away	4.00	0.50	-	55.60	30.00	225.00	38.10	2.00	3.33	-	-	-	14.77	23.33	19.50	3.83
Unit 2 - 3 HGVs reversing	3.00	1.50	-	55.00	30.00	336.00	34.17	4.50	7.50	-	-	-	11.25	22.92	20.04	2.88
Unit 2 - 3 HGVs pulling away	3.00	0.50	-	55.60	30.00	336.00	34.77	1.50	2.50	-	-	-	16.02	18.75	20.04	-1.29
Unit 3 - 2 HGVs reversing	2.00	1.50	-	55.00	30.00	432.00	31.83	3.00	5.00	-	-	-	13.01	18.82	18.20	0.62
Unit 3 - 2 HGVs pulling away	2.00	0.50	-	55.60	30.00	432.00	32.43	1.00	1.67	-	-	-	17.78	14.65	18.20	-3.55
Unit 4 - 5 HGVs reversing	5.00	1.50	-	55.00	30.00	460.00	31.28	7.50	12.50	-	-	-	9.03	22.26	15.00	7.26
Unit 4 - 5 HGVs pulling away	5.00	0.50	-	55.60	30.00	460.00	31.88	2.50	4.17	-	-	-	13.80	18.09	15.00	3.09
Unit 1 - 4 Refrigerated Trailers@72.5dB) each.	1.00	35.00	-	78.50	8.00	225.00	49.52	35.00	58.33	-	-	-	2.34	47.18	18.90	28.28
Unit 2 - 3 Refrigerated Trailers@72.5dB) each	1.00	35.00	-	77.30	8.00	336.00	44.99	35.00	58.33	-	-	-	2.34	42.65	19.33	23.32
Unit 3 - 2 Refrigerated Trailers@72.5dB) each	*1.00*	*35.00*	-	*76.50*	*8.00*	*432.00*	*40.88*	*35.00*	*58.33*	-	-	-	2.34	38.51	18.20	20.31
Unit 4 - 5 Refrigerated Trailers@72.5dB) each	1.00	35.00	-	79.50	8.00	460.00	44.31	35.00	58.33	-	-	-	2.34	41.97	15.00	26.97

Activity	Distance Activity to Barrier	Distance Fence to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
																	Total	11.80
																	Total + 5dB	26.80
Road A - 28 HGVs at 10mph	22.00	78.00	100.00	158.70	157.30	159.20	0.50	9.10	8.60	22.01	78.53	100.37	0.17	10.40	47.87	20.00	-9.54	38.13
Road A - 24 Cars at 20mph	22.00	78.00	100.00	157.70	157.30	159.20	1.50	9.10	7.60	22.05	78.53	100.29	0.29	11.70	21.89	20.00	-9.54	12.15
Road A - 14 Vans at 20mph	22.00	78.00	100.00	157.70	157.30	159.20	1.50	9.10	7.60	22.05	78.53	100.29	0.29	11.70	25.36	20.00	-9.54	15.81
Road B - 28 HGV at 10mph	22.00	78.00	100.00	158.70	157.30	159.20	0.50	9.10	8.60	22.01	78.53	100.37	0.17	10.40	48.37	20.00	-9.54	38.83
Road B - 16 Cars at 20mph	22.00	78.00	100.00	157.70	157.30	159.20	1.50	9.10	7.60	22.05	78.53	100.29	0.29	11.70	29.83	20.00	-9.54	11.69
Road B - 10 Vans at 20mph	22.00	78.00	100.00	157.70	157.30	159.20	1.50	9.10	7.60	22.05	78.53	100.29	0.29	11.70	24.88	20.00	-9.54	15.34
Road C - 20 HGV at 10mph	137.00	75.00	212.00	162.45	157.30	159.20	-3.25	9.10	12.35	137.04	75.55	212.30	0.23	11.10	41.22	5.00	-15.56	25.65
Road C - 16 Cars at 20mph	137.00	75.00	212.00	161.45	157.30	159.20	-2.25	9.10	11.35	137.02	75.55	212.30	0.26	11.40	16.84	5.00	-15.56	8.37
Road C - 10 Vans at 20mph	137.00	75.00	212.00	161.45	157.30	159.20	-2.25	9.10	11.35	137.02	75.55	212.30	0.26	11.40	9.80	5.00	-15.56	-6.67
Road D - 14 HGV at 10mph	249.00	76.00	325.00	166.70	157.30	159.20	-7.50	9.10	16.50	249.11	76.54	325.42	0.23	11.10	37.62	2.50	-18.57	19.05
Road D - 10 Cars at 20mph	249.00	76.00	325.00	166.70	157.30	159.20	-6.50	9.10	15.60	249.08	76.54	325.37	0.25	11.30	31.86	2.50	-18.57	-6.62
Road D - 6 vans at 20 mph	249.00	76.00	325.00	166.70	157.30	159.20	-6.50	9.10	15.60	249.08	76.54	325.37	0.25	11.30	15.73	2.50	-18.57	-2.84
																	Total	41.97
																	Plant + Road Links =	42.37
																	Noise Level at Property =	42.37

Receiver Location: 28 Stone Leigh 1m from rear façade

Activity	Number of Vehicles	Time min(point) OR Speed mph (line)	Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Minutes per hour	% On Time	For activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier
Unit 1 - 4 HGVs reversing	4.00	1.50	-	55.00	30.00	228.00	37.36	6.00	10.00	-	-	-	10.00	27.36	20.00	7.36
Unit 1 - 4 HGVs pulling away	4.00	0.50	-	55.60	30.00	228.00	37.96	2.00	3.33	-	-	-	14.77	23.21	20.00	3.21
Unit 2 - 3 HGVs reversing	3.00	1.50	-	55.00	30.00	341.00	33.89	4.50	7.50	-	-	-	11.25	22.64	20.28	2.35
Unit 2 - 3 HGVs pulling away	3.00	0.50	-	55.60	30.00	341.00	34.49	1.50	2.50	-	-	-	16.02	18.47	20.28	-1.82
Unit 3 - 2 HGVs reversing	2.00	1.50	-	55.00	30.00	456.00	31.36	3.00	5.00	-	-	-	13.01	18.37	18.87	-0.50
Unit 3 - 2 HGVs pulling away	2.00	0.50	-	55.60	30.00	456.00	31.96	1.00	1.67	-	-	-	17.78	14.28	18.87	-4.67
Unit 4 - 5 HGVs reversing	5.00	1.50	-	55.00	30.00	485.00	30.83	7.50	12.50	-	-	-	9.03	21.86	16.00	5.71
Unit 4 - 5 HGVs pulling away	5.00	0.50	-	55.60	30.00	485.00	31.43	2.50	4.17	-	-	-	13.80	17.63	16.09	1.54
Unit 1 - 4 Refrigerated Trailers@72.5dB) each.	1.00	35.00	-	78.50	8.00	228.00	49.40	35.00	58.33	-	-	-	2.34	47.06	19.49	27.56
Unit 2 - 3 Refrigerated Trailers@72.5dB) each	1.00	35.00	-	77.30	8.00	341.00	44.71	35.00	58.33	-	-	-	2.34	42.37	19.56	22.81
Unit 3 - 2 Refrigerated Trailers@72.5dB) each	1.00	35.00	-	76.50	8.00	456.00	40.40	35.00	58.33	-	-	-	2.34	38.06	18.87	19.19
Unit 4 - 5 Refrigerated Trailers@72.5dB) each	1.00	35.00	-	79.50	8.00	485.00	43.85	35.00	58.33	-	-	-	2.34	41.51	16.09	25.42

Activity	Distance Activity to Barrier	Distance Fence to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
																	Total	20.87
																	Total + 5dB	35.87
Road A - 28 HGVs at 10mph	40.00	123.00	163.00	158.70	157.30	159.20	0.50	11.30	10.80	40.00	123.52	163.36	0.16	10.30	46.82	14.00	-11.09	35.53
Road A - 24 Cars at 20mph	40.00	123.00	163.00	157.70	157.30	159.20	1.50	11.30	9.80	40.03	123.52	163.29	0.25	11.30	28.84	14.00	-11.09	9.86
Road A - 14 Vans at 20mph	40.00	123.00	163.00	157.70	157.30	159.20	1.50	11.30	9.80	40.03	123.52	163.29	0.25	11.30	24.88	14.00	-11.09	13.81
Road B - 28 HGV at 10mph	37.00	107.00	144.00	158.70	157.30	159.20	0.50	11.30	10.80	37.00	107.80	144.40	0.19	10.80	48.59	15.00	-10.79	38.79
Road B - 16 Cars at 20mph	37.00	107.00	144.00	157.70	157.30	159.20	1.50	11.30	9.80	37.03	107.80	144.33	0.29	11.70	29.85	15.00	-10.79	19.05
Road B - 10 Vans at 20mph	37.00	107.00	144.00	157.70	157.30	159.20	1.50	11.30	9.80	37.03	107.80	144.33	0.29	11.70	23.88	15.00	-10.79	12.09
Road C - 20 HGV at 10mph	83.14	8.66	14.42	0.46	1.00	14.42	8.41	54.73	18.50	35.93						4.00	-16.53	19.40
Road C - 16 Cars at 20 mph	42.14	3.46	5.77	0.48	1.00	5.77	12.39	39.75	18.40	16.36						4.00	-16.53	-0.18
Road C - 10 Vans at 20mph	36.14	2.16	3.60	0.48	1.00	3.60	14.43	33.71	18.40	4.31						4.00	-16.53	-12.22
Road D - 14 HGV at 10mph	51.46	5.79	9.66	0.31	1.00	9.66	10.15	51.31	16.10	35.21						2.00	-19.54	15.67
Road D - 10 Cars at 20mph	46.46	2.07	3.45	0.31	1.00	3.45	14.62	35.94	16.40	9.44						2.00	-19.54	-10.10
Road D - 6 vans at 20 mph	46.46	1.24	2.07	0.31	1.00	2.07	16.84	39.62	16.40	13.22						2.00	-19.54	-6.32
																	Total	38.78
																	Plant + Road Links =	39.18
																	Noise Level at Property =	39.18

Receiver Location: 92 Carr Lane

Activity	Number of Vehicles	Time min(point) OR Speed mph (line)	Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Minutes per hour	% On Time	For activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier
Unit 1 - 4 HGVs reversing	4.00	1.50	-	55.00	30.00	188.00	36.84	6.00	10.00	-	-	-	10.00	26.84	26.00	10.84
Unit 1 - 4 HGVs pulling away	4.00	0.50	-	55.60	30.00	188.00	37.44	2.00	3.33	-	-	-	14.77	22.67	26.80	5.87
Unit 2 - 3 HGVs reversing	3.00	1.50	-	55.00	30.00	257.00	34.54	4.50	7.50	-	-	-	11.25	23.29	28.20	5.09
Unit 2 - 3 HGVs pulling away	3.00	0.50	-	55.60	30.00	257.00	35.14	1.50	2.50	-	-	-	16.02	19.12	28.80	6.32
Unit 3 - 2 HGVs reversing	2.00	1.50	-	55.00	30.00	365.00	33.30	3.00	5.00	-	-	-	13.01	20.29	19.14	1.15
Unit 3 - 2 HGVs pulling away	2.00	0.50	-	55.60	30.00	365.00	33.90	1.00	1.67	-	-	-	17.78	16.12	19.14	-3.02
Unit 4 - 5 HGVs reversing	5.00	1.50	-	55.00	30.00	394.00	32.83	7.50	12.50	-	-	-	9.03	23.80	16.45	7.15
Unit 4 - 5 HGVs pulling away	5.00	0.50	-	55.60	30.00	394.00	33.23	2.50	4.17	-	-	-	13.80	19.43	16.45	2.98
Unit 1 - 4 Refrigerated Trailers@72.5dB) each.	1.00	35.00	-	78.50	8.00	188.00	52.66	35.00	58.33	-	-	-	2.34	49.72	19.50	30.22
Unit 2 - 3 Refrigerated Trailers@72.5dB) each	1.00	35.00	-	77.30	8.00	257.00	47.16	35.00	58.33	-	-	-	2.34	44.82	20.00	24.82
Unit 3 - 2 Refrigerated Trailers@72.5dB) each	1.00	35.00	-	75.50	8.00	365.00	42.33	35.00	58.33	-	-	-	2.34	39.99	19.14	20.84
Unit 4 - 5 Refrigerated Trailers@72.5dB) each	1.00	35.00	-	79.50	8.00	394.00	46.85	35.00	58.33	-	-	-	2.34	43.51	16.45	26.86

Activity	Distance Activity to Barrier	Distance Fence to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
																	Total	27.86
																	Total + 5dB	37.86
Road A - 28 HGVs at 10mph	130.00	86.00	216.00	157.20	157.30	159.20	2.00	10.80	8.80	130.02	86.68	216.18	0.51	13.20	42.50	3.00	-17.78	24.71
Road A - 24 Cars at 20mph	130.00	86.00	216.00	157.20	157.30	159.20	2.00	10.80	8.80	130.02	86.68	216.18	0.51	13.20	17.82	3.00	-17.78	6.03
Road A - 14 Vans at 20mph	130.00	86.00	216.00	157.20	157.30	159.20	2.00	10.80	8.80	130.02	86.68	216.18	0.51	13.20	21.86	3.00	-17.78	3.99
Road B - 28 HGV at 10mph	64.57	14.30	23.84	0.78	0.80	19.07	7.20	57.37	20.80	37.37						30.00	-7.78	29.59
Road B - 16 Cars at 20mph	43.57	4.09	6.81	0.78	0.80	5.45	12.64	39.53	20.80	18.93						30.00	-7.78	3.15
Road B - 10 Vans at 20mph	39.57	2.59	4.26	0.78	0.80	3.41	14.68	34.89	20.80	14.09						30.00	-7.78	7.11
Road C - 20 HGV at 10mph	83.62	8.65	14.42	0.53	1.00	14.42	8.41	55.21	15.90	39.31						15.00	-10.00	29.31
Road C - 16 Cars at 20 mph	42.62	3.46	5.77	0.53	1.00	5.77	12.39	39.23	16.80	13.63						15.00	-10.00	3.63
Road C - 10 Vans at 20mph	38.62	2.16	3.60	0.53	1.00	3.60	14.43	34.19	16.80	7.59						15.00	-10.00	-2.41
Road D - 14 HGV at 10mph	63.19	5.79	9.66	0.37	1.00	9.66	10.15	52.84	17.29	34.74						9.00	-13.01	21.73
Road D - 10 Cars at 20mph	41.19	2.07	3.45	0.37	1.00	3.45	14.62	35.57	17.89	8.58						9.00	-13.01	-4.43
Road D - 6 vans at 20 mph	47.19	1.24	2.07	0.37	1.00	2.07	16.84	39.36	17.89	12.66						9.00	-13.01	-0.35
																	Total	33.47
																	Plant + Road Links =	33.87
																	Noise Level at Property =	33.87

CLIENT:
JOB NO: LE03827
JOB NO:
PLANT:
DATE: 06-Nov-07
CALC'D BY: HA
REVISION:
FILE REF:

Night-time WHO - No Mitigation

Night-time BS4142 - No Mitigation

Fence Height	Height of Receptors		
	1	2	3
0.00	150.10	147.90	148.40

Noise Calculations assuming no fence will be in place
Note: Only Soft Ground or Barrier Attenuation is applied. Soft Ground Attenuation calculated in accordance with BS5228: Part 1: 1997

Onsite barrier

Receiver Location: 28 Stone Leigh Court - 1m from facade:

Activity	Number of Vehicles	Time min(point) OR Speed mph (line)	Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Lmax	Total Minutes	% On Time	Per activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Barrier to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 -8 HGVs reversing	8.00	1.50	-	55.00	30.00	225.00	37.58	18.88	12.00	2.50	-	-	-	16.02	21.48	19.58	1.90																		1.90
Unit 1 - 8 HGVs pulling away	8.00	0.50	-	55.60	30.00	225.00	36.10	18.88	4.00	0.83	-	-	-	20.79	17.31	19.06	-2.19																		-2.19
Unit 2 - 8 HGVs reversing	8.00	1.50	-	55.00	30.00	330.00	34.17	14.13	12.00	2.50	-	-	-	16.02	18.15	20.04	-1.89																		-1.89
Unit 2 - 8 HGVs pulling away	8.00	0.50	-	55.60	30.00	330.00	34.77	14.73	4.00	0.83	-	-	-	20.79	13.99	20.84	-6.86																		-6.86
Unit 3 - 8 HGVs reversing	8.00	1.50	-	55.00	30.00	432.00	31.83	13.83	12.00	2.50	-	-	-	16.02	15.81	18.20	-2.39																		-2.39
Unit 3 - 8 HGVs pulling away	8.00	0.50	-	55.60	30.00	432.00	32.43	14.23	4.00	0.83	-	-	-	20.79	11.64	18.20	-6.56																		-6.56
Unit 4 - 8 HGVs reversing	8.00	1.50	-	55.00	30.00	460.00	31.29	16.29	12.00	2.50	-	-	-	16.02	15.27	15.00	0.27																		0.27
Unit 4 - 8 HGVs pulling away	8.00	0.50	-	55.60	30.00	460.00	31.89	16.89	4.00	0.83	-	-	-	20.79	11.10	15.00	-3.90																		-3.90
Unit 1 - 8 Refrideratad Trailers	8.00	35.00	-	72.50	8.00	168.00	46.04	37.16	280.00	58.33	-	-	-	2.34	43.72	18.90	24.82																		24.82
Unit 2 - 8 Refrideratad Trailers	8.00	35.00	-	72.50	8.00	257.00	42.36	33.83	280.00	58.33	-	-	-	2.34	40.02	19.33	20.69																		20.69
Unit 3 - 8 Refrideratad Trailers	8.00	35.00	-	72.50	8.00	365.00	39.32	31.12	280.00	58.33	-	-	-	2.34	36.98	18.20	18.79																		18.79
Unit 4 - 8 Refrideratad Trailers	8.00	35.00	-	72.50	8.00	394.00	38.65	23.85	280.00	58.33	-	-	-	2.34	36.31	15.00	21.31																		21.31
																																	Total	28.34
																																	Total + 5dB	33.84
Road A - 64 HGVs at 10mph	64.00	10.00	82.00	86.69	0.00	100.00	67.00	47.66	21.95	4.57	0.92	0.80	3.69	14.37	53.83		52.83																20.00	-9.54	43.09
Road A - 64 Cars at 20mph	64.00	20.00	82.00	74.69	0.00	100.00	46.00	46.00	10.98	2.29	0.92	0.80	1.83	17.38	28.52		28.52																20.00	-9.54	18.98
Road A - 64 Vans at 20mph	64.00	20.00	82.00	86.69	0.00	100.00	52.00	52.00	10.98	2.29	0.92	0.80	1.83	17.38	34.62		34.62																20.00	-9.54	25.08
Road B - 64 HGV at 10mph	64.00	10.00	137.00	90.96	0.00	100.00	67.00	67.00	32.69	6.81	1.37	0.83	4.29	13.87	53.33		53.33																20.00	-9.54	43.79
Road B - 48 Cars at 20mph	48.00	20.00	137.00	74.69	0.00	100.00	46.00	46.00	12.26	2.55	1.37	0.83	1.81	17.93	28.07		28.07																20.00	-9.54	18.53
Road B - 48 Vans at 20mph	48.00	20.00	137.00	86.69	0.00	100.00	52.00	52.00	12.26	2.55	1.37	0.83	1.81	17.93	34.07		34.07																20.00	-9.54	24.53
Road C - 48 HGV at 10mph	48.00	10.00	118.00	90.69	0.00	212.00	63.74	63.74	20.76	4.32	0.55	0.50	2.16	16.65	47.89		47.89																5.00	-15.56	31.52
Road C - 48 Cars at 20 mph	48.00	20.00	118.00	74.69	0.00	212.00	42.74	42.74	10.38	2.16	0.55	0.50	1.08	19.66	23.08		23.08																5.00	-15.56	7.51
Road C - 48 Vans at 20mph	48.00	20.00	118.00	86.69	0.00	212.00	48.74	48.74	10.38	2.16	0.55	0.50	1.08	19.66	29.08		29.08																5.00	-15.56	13.51
Road D - 32 HGV at 10mph	32.00	10.00	111.00	90.69	0.00	325.00	61.88	61.88	13.24	2.76	0.34	0.50	1.38	16.60	43.28		43.28																2.50	-19.57	24.71
Road D - 32 Cars at 20mph	32.00	20.00	111.00	74.69	0.00	325.00	40.88	40.88	8.62	1.38	0.34	0.50	0.69	21.81	19.27		19.27																2.50	-19.57	0.70
Road D - 32 vans at 20 mph	32.00	20.00	111.00	86.69	0.00	325.00	46.88	46.88	8.62	1.38	0.34	0.50	0.69	21.81	25.27		25.27																2.50	-19.57	6.70
								67.88 Lmax																									Total	48.79
																																	Plant + Road Links =	48.79
																																	Noise Level at Receptor =	48.79

Receiver Location: 29 Stone Leigh 1m from rear façade

Activity	Number of Vehicles	Time min(point) OR Speed mph (line)	Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Lmax	Total Minutes	% On Time	Per activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Fence to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 -8 HGVs reversing	8.00	1.50	-	55.00	30.00	228.00	37.38	17.39	12.00	2.50	-	-	-	16.02	21.36	20.00	1.36																		1.36
Unit 1 - 8 HGVs pulling away	8.00	0.50	-	55.60	30.00	228.00	37.98	17.98	4.00	0.83	-	-	-	20.79	17.19	20.00	-2.81																		-2.81
Unit 2 - 8 HGVs reversing	8.00	1.50	-	55.00	30.00	341.00	33.89	13.89	12.00	2.50	-	-	-	16.02	17.87	20.28	-2.42																		-2.42
Unit 2 - 8 HGVs pulling away	8.00	0.50	-	55.60	30.00	341.00	34.49	14.39	4.00	0.83	-	-	-	20.79	13.79	20.28	-6.50																		-6.50
Unit 3 - 8 HGVs reversing	8.00	1.50	-	55.00	30.00	455.00	31.36	12.51	12.00	2.50	-	-	-	16.02	15.36	18.87	-3.51																		-3.51
Unit 3 - 8 HGVs pulling away	8.00	0.50	-	55.60	30.00	455.00	31.96	13.11	4.00	0.83	-	-	-	20.79	11.19	18.87	-7.68																		-7.68
Unit 4 - 8 HGVs reversing	8.00	1.50	-	55.00	30.00	485.00	30.83	14.74	12.00	2.50	-	-	-	16.02	14.81	16.09	-1.28																		-1.28
Unit 4 - 8 HGVs pulling away	8.00	0.50	-	55.60	30.00	485.00	31.43	15.34	4.00	0.83	-	-	-	20.79	10.64	16.09	-5.45																		-5.45
Unit 1 - 8 Refrideratad Trailers	8.00	35.00	-	72.50	8.00	228.00	45.40	34.88	280.00	58.33	-	-	-	2.34	41.06	19.40	21.66																		21.66
Unit 2 - 8 Refrideratad Trailers	8.00	35.00	-	72.50	8.00	341.00	39.51	30.35	280.00	58.33	-	-	-	2.34	37.97	19.56	18.41																		18.41
Unit 3 - 8 Refrideratad Trailers	8.00	35.00	-	72.50	8.00	455.00	37.46	18.83	280.00	58.33	-	-	-	2.34	35.66	18.87	16.79																		16.79
Unit 4 - 8 Refrideratad Trailers	8.00	35.00	-	72.50	8.00	485.00	36.85	30.78	280.00	58.33	-	-	-	2.34	34.51	16.09	18.42																		18.42
																																	Total	28.12
																																	Total + 5dB	33.12
Road A - 64 HGVs at 10mph	64.00	10.00	82.00	86.69	0.00	163.00	64.88	64.88	21.95	4.57	0.58	1.00	4.57	13.40	51.48		51.48																14.00	-11.09	40.39
Road A - 64 Cars at 20mph	64.00	20.00	82.00	74.69	0.00	163.00	43.88	43.88	10.98	2.29	0.58	1.00	2.29	16.41	27.47		27.47																14.00	-11.09	16.39
Road A - 64 Vans at 20mph	64.00	20.00	82.00	86.69	0.00	163.00	49.88	49.88	10.98	2.29	0.58	1.00	2.29	16.41	33.47		33.47																14.00	-11.09	22.39
Road B - 64 HGV at 10mph	64.00	10.00	137.00	90.96	0.00	144.00	68.42	68.42	32.69	6.81	0.96	0.83	4.29	13.67	51.75		51.75																15.00	-10.79	40.96
Road B - 48 Cars at 20mph	48.00	20.00	137.00	74.69	0.00	144.00	44.42	44.42	12.26	2.55	0.96	0.83	1.81	17.93	26.49		26.49																15.00	-10.79	15.69
Road B - 48 Vans at 20mph	48.00	20.00	137.00	86.69	0.00	144.00	50.42	50.42	12.26	2.55	0.96	0.83	1.81	17.93	32.49		32.49																15.00	-10.79	21.69
Road C - 48 HGV at 10mph	48.00	10.00	118.00	90.69	0.00	243.00	63.14	44.34	20.76	4.32	0.48	1.00	4.32	13.64	46.98	18.80	28.78																4.00	-16.53	14.17
Road C - 48 Cars at 20 mph	48.00	20.00	118.00	74.69	0.00	243.00	42.14	22.74	10.38	2.16	0.48	1.00	2.16	16.65	25.49	19.40	6.09																4.00	-16.53	-10.44
Road C - 48 Vans at 20mph	48.00	20.00	118.00	86.69	0.00	243.00	36.14	16.74	10.38	2.16	0.48	1.00	2.16	16.65	21.49	19.40	2.09																4.00	-16.53	-14.44
Road D - 32 HGV at 10mph	32.00	10.00	111.00	90.69	0.00	358.00	61.46	45.36	13.24	2.76	0.31	1.00	2.76	15.59	45.87	18.10	29.77																2.00	-19.54	10.23
Road D - 32 Cars at 20mph	32.00	20.00	111.00	74.69	0.00	358.00	40.46	24.06	8.62	1.38	0.31	1.00	1.38	18.80	21.86	19.40	2.46																2.00	-19.54	-14.69
Road D - 32 vans at 20 mph	32.00	20.00	111.00	86.69	0.00	358.00	46.46	30.66	8.62	1.38	0.31	1.00	1.38	18.80	27.86	19.40	11.46																2.00	-19.54	-8.08
								68.42 Lmax																									Total	43.77
																																	Plant + Road Links =	43.77
																																	Noise Level at Receptor =	43.77

Receiver Location: 82 Carr Lane

Activity	Number of Vehicles	Time min(point) OR Speed mph (line)	Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Lmax	Total Minutes	% On Time	Per activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Fence to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 -8 HGVs reversing	8.00	1.50	-	55.00	30.00	168.00	46.64	39.64	12.00	2.50	-	-	-	16.02	24.62	20.00	4.62																		4.62
Unit 1 - 8 HGVs pulling away	8.00	0.50	-	55.60	30.00	168.00	46.64	39.64	4.00	0.83	-	-	-	20.79	19.85	20.00	-0.15																		-0.15
Unit 2 - 8 HGVs reversing	8.00	1.50	-	55.00	30.00	257.00	36.34	16.34	12.00	2.50	-	-	-	16.02	20.32	20.00	0.32																		0.32
Unit 2 - 8 HGVs pulling away	8.00	0.50	-	55.60	30.00	257.00	36.94	16.94	4.00	0.83	-	-	-	20.79	16.15	20.00	-3.85																		-3.85
Unit 3 - 8 HGVs reversing	8.00	1.50	-	55.00	30.00	365.00	33.36	14.16	12.00	2.50	-	-	-	16.02	17.38	19.14	-1.86																		-1.86
Unit 3 - 8 HGVs pulling away	8.00	0.50	-	55.60	30.00	365.00	33.96	14.76	4.00	0.83	-	-	-	20.79	13.11	19.14	-6.03																		-6.03
Unit 4 - 8 HGVs reversing	8.00	1.50	-	55.00	30.00	394.00	32.63	16.18	12.00	2.50	-	-	-	16.02	16.61	16.45	0.16																		0.16
Unit 4 - 8 HGVs pulling away	8.00	0.50	-	55.60	30.00	394.00	33.23	16.78	4.00	0.83	-	-	-	20.79	12.44	16.45	-4.01																		-4.01
Unit 1 - 8 Refrideratad Trailers	8.00	35.00	-	72.50	8.00	168.00	46.04	39.59	280.00	58.33	-	-	-	2.34	43.72	19.50	24.22																		24.22
Unit 2 - 8 Refrideratad Trailers	8.00	35.00	-	72.50	8.00	257.00	42.36	33.38	280.00	58.33	-	-	-	2.34	40.02	20.00	20.02																		20.02
Unit 3 - 8 Refrideratad Trailers	8.00	35.00	-	72.50	8.00	365.00	39.32	29.18	280.00	58.33	-	-	-	2.34	36.98	19.14	17.84																		17.84
Unit 4 - 8 Refrideratad Trailers	8.00	35.00	-	72.50	8.00	394.00	38.65	23.20	280.00	58.33	-	-	-	2.34	36.31	16.45	19.86																		19.86
																																	Total	37.25
																																	Total + 5dB	42.54
Road A - 64 HGVs at 10mph	64.00	10.00	82.00	86.69	0.00	216.00	63.86	63.66	21.95	4.57	0.43	1.00	4.57	13.40	50.26		50.26																3.00	-17.76	32.47
Road A - 64 Cars at 20mph	64.00	20.00	82.00	74.69	0.00	216.00	42.66	42.66	10.98	2.29	0.43	1.00	2.29	16.41	26.25		26.25																3.00	-17.76	8.48
Road A - 64 Vans at 20mph	64.00	20.00	82.00	86.69	0.00	216.00	48.66	48.66	10.98	2.29	0.43	1.00	2.29	16.41	32.25		32.25																3.00	-17.76	14.46
Road B - 64 HGV at 10mph	64.00	10.00	137.00	90.96	0.00	175.00	64.57	44.57	32.69	6.81	0.78	0.80	5.45	12.64	51.53	20.00	31.53																30.00	-7.78	24.15
Road B - 48 Cars at 20mph	48.00	20.00	137.00	74.69	0.00	175.00	43.57	23.57	12.26	2.55	0.78	0.80	2.04	16.90	26.47	20.00	6.47																30.00	-7.78	-3.11
Road B - 48 Vans at 20mph	48.00	20.00	137.00	86.69	0.00	175.00	49.57	29.57	12.26	2.55	0.78	0.80	2.04	16.90	32.67	20.00	12.67																30.00	-7.78	2.89
Road C - 48 HGV at 10mph	48.00	10.00	118.00	90.69	0.00	218.00	63.62	47.72	20.76	4.32	0.53	1.00	4.32	13.64	49.98	15.00	34.98																18.00	-10.00	24.98
Road C - 48 Cars at 20 mph	48.00	20.00	118.00	74.69	0.00	218.00	42.62	26.62	10.38	2.16	0.53	1.00	2.16	16.65	25.97	16.60	9.37																18.00	-10.00	-0.63
Road C - 48 Vans at 20mph	48.00	20.00	118.00	86.69	0.00	218.00	36.62	22.02	10.38	2.16	0.53	1.00	2.16	16.65	21.97	16.60	5.37																18.00	-10.00	-4.63
Road D - 32 HGV at 10mph	32.00	10.00	111.00	90.69	0.00	303.00	62.19	44.89	13.24	2.76	0.37	1.00	2.76	15.59	46.60	17.29	29.30																9.00	-13.01	16.29
Road D - 32 Cars at 20mph	32.00	20.00	111.00	74.69	0.00	303.00	41.19	23.59	8.62	1.38	0.37	1.00	1.38	18.80	22.59	17.69	4.90																9.00	-13.01	-6.11
Road D - 32 vans at 20 mph	32.00	20.00	111.00	86.69	0.00	303.00	47.19	29.59	8.62	1.38	0.37	1.00	1.38	18.80	28.59	17.69	10.90																9.00	-13.01	-2.11
								63.66 Lmax																									Total	33.74
																																	Plant + Road Links =	33.74
																																	Noise Level at Receptor =	33.74

CLIENT:
JOB NO: LE03427
JOB NO:
PLANT:
DATE: 06-Nov-07
CALC'D BY: NA
REVISION:
FILE REF:

Night-time WHO - 1.5m Fence

Night-time BS4142 - No Mitigation

Noise Calculations assuming no fence will be in place
Note: Only Soft Ground or Barrier Attenuation is applied. Soft Ground Attenuation calculated in accordance with BS5228: Part 1: 1997

Fence Height	Height of Receptors		
	1	2	3
1.50	153.10	158.90	151.40

Onsite barrier

Receiver Location: 28 Stone Leigh Court - 1m from facade:

Activity	Number of Vehicles	Time adajusted OR Speed mph (d/se)	Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Total Minutes	% On Time	For activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Barrier to Receptor	Distance Receptor to Source	Heigt of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Lmet	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 -8 HGVs reversing	8.00	1.50	-	85.00	30.00	225.00	37.50	12.00	2.50	-	-	-	16.02	21.48	18.50	1.98																		
Unit 1 - 8 HGVs pulling away	8.00	0.50	-	85.00	30.00	225.00	38.18	4.00	0.83	-	-	-	20.79	17.31	19.50	-2.19																		
Unit 2 - 8 HGVs reversing	8.00	1.50	-	85.00	30.00	330.00	34.17	12.00	2.50	-	-	-	16.02	18.15	28.04	-1.89																		
Unit 2 - 8 HGVs pulling away	8.00	0.50	-	85.00	30.00	330.00	34.77	4.00	0.83	-	-	-	20.79	13.98	20.04	-6.06																		
Unit 3 - 8 HGVs reversing	8.00	1.50	-	85.00	30.00	432.00	31.83	12.00	2.50	-	-	-	16.02	15.81	18.20	-2.39																		
Unit 3 - 8 HGVs pulling away	8.00	0.50	-	85.00	30.00	432.00	32.43	4.00	0.83	-	-	-	20.79	11.64	18.35	-6.56																		
Unit 4 - 8 HGVs reversing	8.00	1.50	-	85.00	30.00	460.00	31.29	12.00	2.50	-	-	-	16.02	15.27	15.66	6.27																		
Unit 4 - 8 HGVs pulling away	8.00	0.50	-	85.00	30.00	460.00	31.83	4.00	0.83	-	-	-	20.79	11.10	15.00	-3.90																		
Unit 1 - 8 Refridgerated Trailers	8.00	35.00	-	72.50	8.00	198.00	46.06	280.00	58.33	-	-	-	2.34	48.72	18.90	24.82																		
Unit 2 - 8 Refridgerated Trailers	8.00	35.00	-	72.50	8.00	257.00	42.36	280.00	58.33	-	-	-	2.34	48.02	19.33	26.69																		
Unit 3 - 8 Refridgerated Trailers	8.00	35.00	-	72.50	8.00	365.00	39.32	280.00	58.33	-	-	-	2.34	36.99	19.20	19.79																		
Unit 4 - 8 Refridgerated Trailers	8.00	35.00	-	72.50	8.00	394.00	36.65	280.00	58.33	-	-	-	2.34	36.31	15.00	21.31																		
																																Total	28.04	
																																Total + 5dB	33.04	
Road A - 64 HGVs at 10mph	64.00	10.00	92.00	96.89	0.00	100.00	67.86	21.95	4.57	0.92	0.80	3.66	14.37	52.63		52.63	22.00	78.00	100.00	158.70	157.20	158.70	0.00	5.60	5.60	22.00	78.20	100.16	0.04	7.80	59.10	44.73	20.00	-8.54	35.19
Road A - 64 Cars at 20mph	64.00	20.00	92.00	74.89	0.00	100.00	46.00	10.95	2.29	0.92	0.80	1.83	17.38	38.62		38.62	22.00	78.00	100.00	157.70	157.20	158.70	1.00	5.60	4.60	22.02	78.20	100.11	0.12	9.70	56.30	35.92	20.00	-8.54	9.38
Road A - 64 Vans at 20mph	64.00	20.00	92.00	80.89	0.00	100.00	52.00	10.95	2.29	0.92	0.80	1.83	17.38	34.62		34.62	22.00	78.00	100.00	157.70	157.20	158.70	1.00	5.60	4.60	22.02	78.20	100.11	0.12	9.70	42.30	24.92	20.00	-8.54	15.38
Road B - 64 HGV at 10mph	64.00	10.00	137.00	95.89	0.00	100.00	67.86	32.85	6.81	1.37	0.83	4.29	13.67	53.33		53.33	22.00	78.00	100.00	158.70	157.20	158.70	0.00	5.60	5.60	22.00	78.20	100.16	0.04	7.80	59.10	45.40	20.00	-8.54	28.69
Road B - 48 Cars at 20mph	48.00	20.00	137.00	74.89	0.00	100.00	46.00	12.26	2.55	1.37	0.83	1.81	17.93	38.07		38.07	22.00	78.00	100.00	157.70	157.20	158.70	1.00	5.60	4.60	22.02	78.20	100.11	0.12	9.70	56.30	38.37	20.00	-8.54	8.83
Road B - 48 Vans at 20mph	48.00	20.00	137.00	80.89	0.00	100.00	52.00	12.26	2.55	1.37	0.83	1.81	17.93	34.07		34.07	22.00	78.00	100.00	157.70	157.20	158.70	1.00	5.60	4.60	22.02	78.20	100.11	0.12	9.70	42.30	24.37	20.00	-8.54	14.83
Road C - 48 HGV at 10mph	48.00	10.00	116.00	95.89	0.00	212.00	63.74	20.79	4.32	0.55	0.50	2.16	16.65	47.99		47.99	137.00	75.00	212.00	162.45	157.20	158.70	-3.75	5.60	9.35	137.05	75.21	212.21	0.05	5.20	55.54	36.88	5.00	-15.56	23.32
Road C - 48 Cars at 20 mph	48.00	20.00	116.00	74.89	0.00	212.00	42.74	10.38	2.16	0.55	0.50	1.08	19.66	33.08		33.08	137.00	75.00	212.00	161.45	157.20	158.70	-2.75	5.60	8.35	137.03	75.21	212.16	0.07	4.70	54.04	14.38	5.00	-15.56	-1.19
Road C - 48 Vans at 20mph	48.00	20.00	116.00	80.89	0.00	212.00	48.74	10.38	2.16	0.55	0.50	1.08	19.66	29.08		29.08	137.00	75.00	212.00	161.45	157.20	158.70	-2.75	5.60	8.35	137.03	75.21	212.16	0.07	4.70	30.04	10.38	5.00	-15.56	-5.19
Road D - 32 HGV at 10mph	32.00	10.00	111.00	95.89	0.00	325.00	61.88	13.24	2.76	0.34	0.50	1.38	16.60	43.28		43.28	249.00	76.00	325.00	166.70	157.20	158.70	-8.00	5.60	13.60	249.13	76.21	325.28	0.05	5.20	53.88	35.68	2.50	-18.57	16.51
Road D - 32 Cars at 20mph	32.00	20.00	111.00	74.89	0.00	325.00	46.88	6.62	1.38	0.34	0.50	0.69	21.61	19.27		19.27	249.00	76.00	325.00	165.70	157.20	158.70	-7.00	5.60	12.60	249.10	76.21	325.24	0.06	8.50	32.38	16.77	2.50	-18.57	-7.99
Road D - 32 vans at 20 mph	32.00	20.00	111.00	80.89	0.00	325.00	46.88	6.62	1.38	0.34	0.50	0.69	21.61	25.27		25.27	249.00	76.00	325.00	165.70	157.20	158.70	-7.00	5.60	12.60	249.10	76.21	325.24	0.06	8.50	38.38	16.77	2.50	-18.57	-1.99
																														58.38			Total	38.76	
																														Power			Plant + Road Links =	46.76	
																																	Noise Level at Façade =	46.76	

Receiver Location: 28 Stone Leigh 1m from rear façade

Activity	Number of Vehicles	Time adajusted OR Speed mph (d/se)	Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Total Minutes	% On Time	For activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Fence to Receptor	Distance Receptor to Source	Heigt of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Lmet	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 -8 HGVs reversing	8.00	1.50	-	85.00	30.00	226.00	37.38	12.00	2.50	-	-	-	16.02	21.36	20.00	1.36																		
Unit 1 - 8 HGVs pulling away	8.00	0.50	-	85.00	30.00	226.00	37.98	4.00	0.83	-	-	-	20.79	17.19	20.00	-2.81																		
Unit 2 - 8 HGVs reversing	8.00	1.50	-	85.00	30.00	341.00	33.89	12.00	2.50	-	-	-	16.02	17.87	20.28	-2.42																		
Unit 2 - 8 HGVs pulling away	8.00	0.50	-	85.00	30.00	341.00	34.48	4.00	0.83	-	-	-	20.79	13.70	20.28	-6.58																		
Unit 3 - 8 HGVs reversing	8.00	1.50	-	85.00	30.00	466.00	31.38	12.00	2.50	-	-	-	16.02	15.36	18.87	-3.51																		
Unit 3 - 8 HGVs pulling away	8.00	0.50	-	85.00	30.00	466.00	31.98	4.00	0.83	-	-	-	20.79	11.19	18.87	-7.68																		
Unit 4 - 8 HGVs reversing	8.00	1.50	-	85.00	30.00	486.00	30.83	12.00	2.50	-	-	-	16.02	14.81	16.09	-1.28																		
Unit 4 - 8 HGVs pulling away	8.00	0.50	-	85.00	30.00	486.00	31.43	4.00	0.83	-	-	-	20.79	10.64	16.09	-5.45																		
Unit 1 - 8 Refridgerated Trailers	8.00	35.00	-	72.50	8.00	228.00	43.40	280.00	58.33	-	-	-	2.34	41.06	19.40	21.66																		
Unit 2 - 8 Refridgerated Trailers	8.00	35.00	-	72.50	8.00	341.00	39.91	280.00	58.33	-	-	-	2.34	37.37	19.96	16.81																		
Unit 3 - 8 Refridgerated Trailers	8.00	35.00	-	72.50	8.00	466.00	37.40	280.00	58.33	-	-	-	2.34	35.06	18.87	16.19																		
Unit 4 - 8 Refridgerated Trailers	8.00	35.00	-	72.50	8.00	486.00	36.85	280.00	58.33	-	-	-	2.34	34.51	16.09	18.42																		
																																Total	28.12	
																																Total + 5dB	33.12	
Road A - 64 HGVs at 10mph	64.00	10.00	92.00	96.89	0.00	163.00	64.86	21.95	4.57	0.56	1.00	4.57	13.40	51.48		51.48	40.00	123.00	163.00	158.70	157.20	158.70	0.00	7.80	7.80	40.00	123.25	163.19	0.06	6.50	58.38	42.98	14.00	-11.09	31.89
Road A - 64 Cars at 20mph	64.00	20.00	92.00	74.89	0.00	163.00	43.86	10.95	2.29	0.56	1.00	2.29	16.41	27.47		27.47	40.00	123.00	163.00	157.70	157.20	158.70	1.00	7.80	6.80	40.01	123.25	163.14	0.12	9.70	34.18	17.77	14.00	-11.09	6.68
Road A - 64 Vans at 20mph	64.00	20.00	92.00	80.89	0.00	163.00	49.86	10.95	2.29	0.56	1.00	2.29	16.41	33.47		33.47	40.00	123.00	163.00	157.70	157.20	158.70	1.00	7.80	6.80	40.01	123.25	163.14	0.12	9.70	40.18	23.77	14.00	-11.08	12.68
Road B - 64 HGV at 10mph	64.00	10.00	137.00	95.89	0.00	144.00	65.42	32.85	6.81	0.95	0.83	4.29	13.67	51.75		51.75	37.00	107.00	144.00	158.70	157.20	158.70	0.00	7.80	7.80	37.00	107.28	144.21	0.07	6.70	58.72	43.86	15.00	-10.79	33.08
Road B - 48 Cars at 20mph	48.00	20.00	137.00	74.89	0.00	144.00	44.42	12.26	2.55	0.95	0.83	1.81	17.93	26.49		26.49	37.00	107.00	144.00	157.70	157.20	158.70	1.00	7.80	6.80	37.01	107.28	144.16	0.14	10.00	34.42	16.48	15.00	-10.79	5.69
Road B - 48 Vans at 20mph	48.00	20.00	137.00	80.89	0.00	144.00	50.42	12.26	2.55	0.95	0.83	1.81	17.93	32.49		32.49	37.00	107.00	144.00	157.70	157.20	158.70	1.00	7.80	6.80	37.01	107.28	144.16	0.14	10.00	40.42	22.49	15.00	-10.79	11.69
Road C - 48 HGV at 10mph	48.00	10.00	116.00	95.89	0.00	243.00	63.14	20.79	4.32	0.48	1.00	4.32	13.64	49.50	18.80	30.70																		
Road C - 48 Cars at 20 mph	48.00	20.00	116.00	74.89	0.00	243.00	42.14	10.38	2.16	0.48	1.00	2.16	16.65	26.49	19.40	5.89																		
Road C - 48 Vans at 20mph	48.00	20.00	116.00	80.89	0.00	243.00	48.14	10.38	2.16	0.48	1.00	2.16	16.65	31.49	19.40	2.89																		
Road D - 32 HGV at 10mph	32.00	10.00	111.00	95.89	0.00	356.00	61.46	13.24	2.76	0.31	1.00	2.76	15.59	45.87	16.10	29.77																		
Road D - 32 Cars at 20mph	32.00	20.00	111.00	74.89	0.00	356.00	46.46	6.62	1.38	0.31	1.00	1.38	18.60	21.96	16.40	5.48																		
Road D - 32 vans at 20 mph	32.00	20.00	111.00	80.89	0.00	356.00	46.46	6.62	1.38	0.31	1.00	1.38	18.60	27.96	16.40	11.46																		
																														58.38			Total	38.19	
																														Power			Plant + Road Links =	46.19	
																																	Noise Level at Façade =	46.19	

Receiver Location: 52 Carr Lane

Activity	Number of Vehicles	Time adajusted OR Speed mph (d/se)	Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Total Minutes	% On Time	For activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Fence to Receptor	Distance Receptor to Source	Heigt of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Lmet	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 -8 HGVs reversing	8.00	1.50	-	85.00	30.00	188.00	40.64	12.00	2.50	-	-	-	16.02	24.62	20.00	4.62																		
Unit 1 - 8 HGVs pulling away	8.00	0.50	-	85.00	30.00	188.00	40.64	4.00	0.83	-	-	-	20.79	19.85	26.00	-6.15																		
Unit 2 - 8 HGVs reversing	8.00	1.50	-	85.00	30.00	257.00	36.34	12.00	2.50	-	-	-	16.02	20.32	20.00	0.32																		
Unit 2 - 8 HGVs pulling away	8.00	0.50	-	85.00	30.00	257.00	36.94	4.00	0.83	-	-	-	20.79	16.15	20.00	-3.85																		
Unit 3 - 8 HGVs reversing	8.00	1.50	-	85.00	30.00	365.00	33.38	12.00	2.50	-	-	-	16.02	17.28	18.14	-1.86																		
Unit 3 - 8 HGVs pulling away	8.00	0.50	-	85.00	30.00	365.00	33.98	4.00	0.83	-	-	-	20.79	13.11	18.14	-5.03																		
Unit 4 - 8 HGVs reversing	8.00	1.50	-	85.00	30.00	394.00	32.83	12.00	2.50	-	-	-	16.02	16.81	16.45	0.36																		
Unit 4 - 8 HGVs pulling away	8.00	0.50	-	85.00	30.00	394.00	33.23	4.00	0.83	-	-	-	20.79	12.44	16.45	-4.01																		
Unit 1 - 8 Refridgerated Trailers	8.00	35.00	-	72.50	8.00	198.00	46.06	280.00	58.33	-	-	-	2.34	43.72	19.50	24.22																		
Unit 2 - 8 Refridgerated Trailers	8.00	35.00	-	72.50	8.00	257.00	42.36	280.00	58.33	-	-	-	2.34	48.02	20.00	28.02																		
Unit 3 - 8 Refridgerated Trailers	8.00	35.00	-	72.50	8.00	365.00	39.32	280.00	58.33	-	-	-	2.34	36.99	19.14	17.84																		
Unit 4 - 8 Refridgerated Trailers	8.00	35.00	-	72.50	8.00	394.00	36.65	280.00	58.33	-	-	-	2.34	36.31	16.45	19.86																		
																																Total	28.12	
																																Total + 5dB	33.12	
Road A - 64 HGVs at 10mph	64.00	10.00	92.00	96.89	0.00	216.00	63.66	21.95	4.57	0.43	1.00	4.57	13.40	50.26		50.26	130.00	86.00	216.00	157.20	157.20	158.70	1.50	7.30	5.80	130.01	86.31	216.06	0.24	11.20	52.46	38.66	3.00	-17.78	21.27
Road A - 64 Cars at 20mph	64.00	20.00	92.00	74.89	0.00	216.00	42.66	10.95	2.29	0.43	1.00	2.29	16.41	26.25		26.25	130.00	86.00	216.00	157.20	157.20	158.70	1.50	7.30	5.80	130.01	86.31	216.06	0.24	11.20	31.46	15.85	3.00	-17.78	-2.74
Road A - 64 Vans at 20mph	64.00	20.00	92.00	80.89	0.00	216.00	48.66	10.95	2.29	0.43	1.00	2.29	16.41	32.25		32.25	130.00	86.00	216.00	157.20	157.20	158.70	1.50	7.30	5.80	130.01	86.31	216.06	0.24	11.20	37.46	21.65	3.00	-17.78	3.26
Road B - 64 HGV at 10mph	64.00	10.00	137.00	95.89	0.00	175.00	64.57	32.85	6.81	0.78	0.80	5.45	12.64	51.93	20.00	31.93																		
Road B - 48 Cars at 20mph	48.00	20.00	137.00	74.89	0.00	175.00	43.57	12.26	2.55	0.78	0.80	2.04	16.90	26.67	20.00	6.67																		
Road B - 48 Vans at 20mph	48.00	20.00	137.00	80.89	0.00	175.00	49.57	12.26	2.55	0.78	0.80	2.04	16.90	32.67	20.00	12.67																		
Road C - 48 HGV at 10mph	48.00	10.00	116.00	95.89	0.00	218.00	63.62	20.79	4.32	0.53	1.00	4.32	13.64	49.98	15.00	34.98																		
Road C - 48 Cars at 20 mph	48.00	20.00	116.00	74.89	0.00	218.00	42.62	10.38	2.16	0.53	1.00	2.16	16.65	26.97	16.60	8.37																		
Road C - 48 Vans at 20mph	48.00	20.00	116.00	80.89	0.00	218.00	48.62	10.38	2.16	0.53	1.00	2.16	16.65	31.97	16.60	6.37																		
Road D - 32 HGV at 10mph	32.00	10.00	111.00	95.89	0.00	303.00	63.19	13.24	2.76	0.37	1.00	2.76	15.59	46.68		17.29	29.39																	
Road D - 32 Cars at 20mph	32.00	20.00	111.00	74.89	0.00	303.00	41.19	6.62	1.38	0.37	1.00	1.38	18.60	22.59	17.69	4.90																		
Road D - 32 vans at 20 mph	32.00	20.00	111.00	80.89	0.00	303.00	47.19	6.62	1.38	0.37	1.00	1.38	18.60	28.59	17.69	10.90																		
																														58.38			Total	38.46	
																														Power			Plant + Road Links =	46.46	
																																	Noise Level at Façade =	51.00	

CLIENT:
JOB NO: LE03627
JOB NO:
PLANT:
DATE: 06-Nov-07
CALC'D BY: NA
REVISION:
FILE REF:

Night-time WHO - 2m Fence

Night-time BS4142 - No Mitigation

Fence Height	Height of Receptors		
	1	2	3
2.00	152.10	150.90	151.40

Noise Calculations assuming no fence will be in place
Note: Only Soft Ground or Barrier Attenuation is applied. Soft Ground Attenuation calculated in accordance with BS5228: Part 1: 1997

On site barrier

Receiver Location: 29 Stone Leigh Court - 1m from facade:

Activity	Number of Vehicles	Time min(point) OR Speed mph (line)		Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Total Minutes	% On Time	Per activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Barrier to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Lmax	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 -8 HGVs reversing	8.00	1.50	-		65.00	30.00	225.00	37.59	12.00	2.50	-	-	-	16.02	21.48	19.50																					1.98
Unit 1 - 8 HGVs pulling away	8.00	0.50	-		55.60	30.00	225.00	38.10	4.00	0.83	-	-	-	20.79	17.31	19.50																					-2.19
Unit 2 - 8 HGVs reversing	8.00	1.50	-		65.00	30.00	330.00	34.17	12.00	2.50	-	-	-	16.02	18.15	20.04																					-1.89
Unit 2 - 8 HGVs pulling away	8.00	0.50	-		55.60	30.00	330.00	34.77	4.00	0.83	-	-	-	20.79	13.98	20.04																					-6.06
Unit 3 - 8 HGVs reversing	8.00	1.50	-		65.00	30.00	432.00	31.83	12.00	2.50	-	-	-	16.02	15.81	18.20																					-2.39
Unit 3 - 8 HGVs pulling away	8.00	0.50	-		55.60	30.00	432.00	32.43	4.00	0.83	-	-	-	20.79	11.64	18.20																					-6.56
Unit 4 - 8 HGVs reversing	8.00	1.50	-		65.00	30.00	460.00	31.29	12.00	2.50	-	-	-	16.02	15.27	15.00																					0.27
Unit 4 - 8 HGVs pulling away	8.00	0.50	-		55.60	30.00	460.00	31.80	4.00	0.83	-	-	-	20.79	11.19	15.00																					-3.80
Unit 1 - 8 Refrigerated Trailers	8.00	36.00	-		72.60	8.00	198.00	46.96	260.00	58.33	-	-	-	2.34	43.72	18.90																					24.82
Unit 2 - 8 Refrigerated Trailers	8.00	36.00	-		72.60	8.00	257.00	42.36	260.00	58.33	-	-	-	2.34	40.02	19.33																					20.69
Unit 3 - 8 Refrigerated Trailers	8.00	36.00	-		72.60	8.00	365.00	39.32	260.00	58.33	-	-	-	2.34	36.98	18.20																					18.78
Unit 4 - 8 Refrigerated Trailers	8.00	36.00	-		72.60	8.00	394.00	38.60	260.00	58.33	-	-	-	2.34	36.31	15.00																					21.31
																																		Total	28.04
																																		Total + 5dB	33.04
Road A - 64 HGVs at 10mph	64.00	10.00	92.00	96.06	0.00		100.00	67.00	21.95	4.57	0.92		0.80	3.66	14.37	52.63			52.63	22.00	78.00	100.00	158.70	157.20	159.20	0.50	6.10	5.60	22.01	78.24	100.16	0.09	9.20	57.80	43.43	20.00	-0.54	33.89
Road A - 64 Cars at 20mph	64.00	20.00	92.00	74.64	0.00		100.00	46.66	10.96	2.29	0.92		0.80	1.83	17.38	28.62			28.62	22.00	78.00	100.00	157.70	157.20	159.20	1.50	6.10	4.60	22.05	78.24	100.11	0.18	10.50	36.50	18.12	20.00	-0.54	8.58
Road A - 64 Vans at 20mph	64.00	20.00	92.00	80.64	0.00		100.00	52.66	10.96	2.29	0.92		0.80	1.83	17.38	34.62			34.62	22.00	78.00	100.00	157.70	157.20	159.20	1.50	6.10	4.60	22.05	78.24	100.11	0.18	10.50	41.50	24.12	20.00	-0.54	14.08
Road B - 64 HGV at 10mph	64.00	10.00	137.00	96.06	0.00		100.00	67.00	32.69	6.81	1.37		0.83	4.29	13.67	53.33			53.33	22.00	78.00	100.00	158.70	157.20	159.20	0.50	6.10	5.60	22.01	78.24	100.16	0.09	9.20	57.80	44.13	20.00	-0.54	34.59
Road B - 48 Cars at 20mph	48.00	20.00	137.00	74.64	0.00		100.00	46.66	12.26	2.55	1.37		0.83	1.61	17.83	28.07			28.07	22.00	78.00	100.00	157.70	157.20	159.20	1.50	6.10	4.60	22.05	78.24	100.11	0.18	10.50	36.50	17.57	20.00	-0.54	8.03
Road B - 48 Vans at 20mph	48.00	20.00	137.00	80.64	0.00		100.00	52.66	12.26	2.55	1.37		0.83	1.61	17.83	34.07			34.07	22.00	78.00	100.00	157.70	157.20	159.20	1.50	6.10	4.60	22.05	78.24	100.11	0.18	10.50	41.50	23.57	20.00	-0.54	14.03
Road C - 48 HGV at 10mph	48.00	10.00	116.00	96.06	0.00		212.00	63.74	20.76	4.32	0.55		0.50	2.16	19.65	47.68			47.68	137.00	75.00	212.00	162.45	157.20	159.20	-3.25	6.10	8.35	137.04	75.25	212.21	0.05	9.00	54.74	39.68	5.00	-15.56	23.52
Road C - 48 Cars at 20 mph	48.00	20.00	116.00	74.64	0.00		212.00	42.74	10.38	2.16	0.55		0.50	1.08	19.66	23.08			23.08	137.00	75.00	212.00	161.45	157.20	159.20	-2.25	6.10	8.35	137.02	75.25	212.19	0.10	9.30	53.44	33.78	5.00	-15.56	-1.79
Road C - 48 Vans at 20mph	48.00	20.00	116.00	80.64	0.00		212.00	48.74	10.38	2.16	0.55		0.50	1.08	19.66	29.08			29.08	137.00	75.00	212.00	161.45	157.20	159.20	-2.25	6.10	8.35	137.02	75.25	212.16	0.10	9.30	53.44	34.78	5.00	-15.56	-0.79
Road D - 32 HGV at 10mph	32.00	10.00	111.00	90.06	0.00		325.00	41.88	13.24	2.76	0.34		0.50	1.38	18.60	40.28			40.28	249.00	76.00	325.00	166.70	157.20	159.20	-7.80	6.10	13.60	249.11	76.24	325.28	0.07	9.70	53.18	34.58	2.50	-18.57	15.61
Road D - 32 Cars at 20mph	32.00	20.00	111.00	74.64	0.00		325.00	40.56	6.52	1.36	0.34		0.50	0.68	21.51	19.37			19.37	249.00	76.00	325.00	165.70	157.20	159.20	-8.50	6.10	12.60	249.06	76.24	325.24	0.05	9.20	51.58	16.87	2.50	-18.57	-2.80
Road D - 32 vans at 20 mph	32.00	20.00	111.00	80.64	0.00		325.00	46.58	6.52	1.36	0.34		0.50	0.68	21.51	25.27			25.27	249.00	76.00	325.00	165.70	157.20	159.20	-8.50	6.10	12.60	249.06	76.24	325.24	0.09	9.20	37.66	16.87	2.50	-18.57	-2.80
																																		Total	37.48
																																		Plant + Road Links =	37.48
																																		Noise Level at Property =	50.48

Receiver Location: 29 Stone Leigh 1m from rear façade

Activity	Number of Vehicles	Time min(point) OR Speed mph (line)		Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Total Minutes	% On Time	Per activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Fence to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Lmax	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 -8 HGVs reversing	8.00	1.50	-		65.00	30.00	226.00	37.38	12.00	2.50	-	-	-	16.02	21.36	20.00																					1.36
Unit 1 - 8 HGVs pulling away	8.00	0.50	-		55.60	30.00	226.00	37.98	4.00	0.83	-	-	-	20.79	17.19	20.00																					-2.81
Unit 2 - 8 HGVs reversing	8.00	1.50	-		65.00	30.00	341.00	33.89	12.00	2.50	-	-	-	16.02	17.87	20.35																					-2.42
Unit 2 - 8 HGVs pulling away	8.00	0.50	-		55.60	30.00	341.00	34.49	4.00	0.83	-	-	-	20.79	13.79	20.35																					-6.99
Unit 3 - 8 HGVs reversing	8.00	1.50	-		65.00	30.00	455.00	31.38	12.00	2.50	-	-	-	16.02	15.36	19.87																					-3.51
Unit 3 - 8 HGVs pulling away	8.00	0.50	-		55.60	30.00	455.00	31.96	4.00	0.83	-	-	-	20.79	11.19	19.87																					-7.68
Unit 4 - 8 HGVs reversing	8.00	1.50	-		65.00	30.00	485.00	30.83	12.00	2.50	-	-	-	16.02	14.81	16.80																					-1.36
Unit 4 - 8 HGVs pulling away	8.00	0.50	-		55.60	30.00	485.00	31.43	4.00	0.83	-	-	-	20.79	10.64	16.80																					-5.45
Unit 1 - 8 Refrigerated Trailers	8.00	36.00	-		72.60	8.00	229.00	45.40	260.00	58.33	-	-	-	2.34	41.66	19.46																					21.66
Unit 2 - 8 Refrigerated Trailers	8.00	36.00	-		72.60	8.00	341.00	39.91	260.00	58.33	-	-	-	2.34	37.57	19.56																					18.01
Unit 3 - 8 Refrigerated Trailers	8.00	36.00	-		72.60	8.00	455.00	37.40	260.00	58.33	-	-	-	2.34	35.06	19.57																					16.19
Unit 4 - 8 Refrigerated Trailers	8.00	36.00	-		72.60	8.00	485.00	36.85	260.00	58.33	-	-	-	2.34	34.51	16.99																					16.42
																																		Total	25.13
																																		Total + 5dB	30.13
Road A - 64 HGVs at 10mph	64.00	10.00	92.00	96.06	0.00		163.00	64.88	21.95	4.57	0.58		1.00	4.57	13.40	91.48			91.48	40.00	123.00	163.00	158.70	157.20	159.20	0.50	8.30	7.80	40.00	123.29	163.19	0.10	9.30	55.59	42.18	14.00	-11.09	31.09
Road A - 64 Cars at 20mph	64.00	20.00	92.00	74.64	0.00		163.00	43.88	10.96	2.29	0.58		1.00	2.29	16.41	27.47			27.47	40.00	123.00	163.00	157.70	157.20	159.20	1.50	8.30	6.80	40.03	123.29	163.14	0.17	10.40	39.48	23.67	14.00	-11.09	12.58
Road A - 64 Vans at 20mph	64.00	20.00	92.00	80.64	0.00		163.00	49.88	10.96	2.29	0.58		1.00	2.29	16.41	33.47			33.47	40.00	123.00	163.00	157.70	157.20	159.20	1.50	8.30	6.80	40.03	123.29	163.14	0.17	10.40	39.48	27.67	14.00	-11.09	16.58
Road B - 64 HGV at 10mph	64.00	10.00	137.00	96.06	0.00		144.00	65.42	32.69	6.81	0.86		0.83	4.28	13.67	51.75			51.75	37.00	107.00	144.00	158.70	157.20	159.20	0.50	8.30	7.80	37.00	107.32	144.21	0.11	9.50	55.82	42.28	15.00	-10.79	31.48
Road B - 48 Cars at 20mph	48.00	20.00	137.00	74.64	0.00		144.00	44.42	12.26	2.55	0.86		0.83	1.81	17.83	26.48			26.48	37.00	107.00	144.00	157.70	157.20	159.20	1.50	8.30	6.80	37.03	107.32	144.16	0.19	10.60	39.82	21.89	15.00	-10.79	11.09
Road B - 48 Vans at 20mph	48.80	20.00	137.00	80.64	0.00		144.00	50.42	12.26	2.55	0.86		0.83	1.81	17.83	32.49			32.49	37.00	107.00	144.00	157.70	157.20	159.20	1.50	8.30	6.80	37.03	107.32	144.16	0.19	10.60	39.82	25.89	15.00	-10.79	14.69
Road C - 48 HGV at 10mph	48.80	10.00	116.00	96.06	0.00		243.00	63.14	20.76	4.32	0.46		1.00	4.32	13.84	49.30	19.80		30.70																	44.34	4.00	-16.53	14.17
Road C - 48 Cars at 20 mph	48.80	20.00	116.00	74.64	0.00		243.00	42.14	10.38	2.16	0.46		1.00	2.16	16.65	25.49	19.40		6.09																	22.74	4.00	-16.53	-10.44
Road C - 48 Vans at 20mph	48.80	20.00	116.00	80.64	0.00		243.00	48.14	10.38	2.16	0.46		1.00	2.16	16.65	31.49	19.40		12.09																	18.74	4.00	-16.53	-14.44
Road D - 32 HGV at 10mph	32.00	10.00	111.00	90.06	0.00		358.00	61.46	13.24	2.76	0.31		1.00	2.76	15.59	46.87	16.10		30.77																	45.36	2.89	-19.54	19.33
Road D - 32 Cars at 20mph	32.00	20.00	111.00	74.64	0.00		358.00	40.46	6.52	1.36	0.31		1.00	1.36	18.60	21.86	16.40		5.46																	24.06	2.00	-19.54	-14.05
Road D - 32 vans at 20 mph	32.00	20.00	111.00	80.64	0.00		358.00	46.46	6.52	1.36	0.31		1.00	1.36	18.60	27.86	16.40		11.46																	30.06	2.00	-19.54	-8.08
																																		Total	34.48
																																		Plant + Road Links =	34.48
																																		Noise Level at Property =	47.48

Receiver Location: 53 Carr Lane

Activity	Number of Vehicles	Time min(point) OR Speed mph (line)		Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	Total Minutes	% On Time	Per activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Fence to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Lmax	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 -8 HGVs reversing	8.00	1.50	-		65.00	30.00	198.00	40.84	12.00	2.50	-	-	-	16.02	24.82	20.90																					4.82
Unit 1 - 8 HGVs pulling away	8.00	0.50	-		55.60	30.00	198.00	40.84	4.00	0.83	-	-	-	20.79	19.85	20.90																					-0.15
Unit 2 - 8 HGVs reversing	8.00	1.50	-		65.00	30.00	257.00	36.34	12.00	2.50	-	-	-	16.02	20.32	20.90																					0.32
Unit 2 - 8 HGVs pulling away	8.00	0.50	-		55.60	30.00	257.00	36.94	4.00	0.83	-	-	-	20.79	16.15	20.90																					-3.85
Unit 3 - 8 HGVs reversing	8.00	1.50	-		65.00	30.00	365.00	33.38	12.00	2.50	-	-	-	16.02	17.38	19.14																					-1.86
Unit 3 - 8 HGVs pulling away	8.00	0.50	-		55.60	30.00	365.00	33.98	4.00	0.83	-	-	-	20.79	13.11	19.14																					-6.03
Unit 4 - 8 HGVs reversing	8.00	1.50	-		65.00	30.00	394.80	32.83	12.00	2.50	-	-	-	16.02	16.81	16.45																					0.16
Unit 4 - 8 HGVs pulling away	8.00	0.50	-		55.60	30.00	394.80	33.23	4.00	0.83	-	-	-	20.79	12.44	16.45																					-4.91
Unit 1 - 8 Refrigerated Trailers	8.00	36.00	-		72.60	8.00	198.00	46.96	260.00	58.33	-	-	-	2.34	43.72	19.56																					24.23
Unit 2 - 8 Refrigerated Trailers	8.00	36.00	-		72.60	8.00	257.00	42.36	260.00	58.33	-	-	-	2.34	40.02	20.00																					20.02
Unit 3 - 8 Refrigerated Trailers	8.00	36.00	-		72.60	8.00	365.00	39.33	260.00	58.33	-	-	-	2.34	36.99	19.14																					17.84
Unit 4 - 8 Refrigerated Trailers	8.00	36.00	-		72.60	8.00	394.80	38.60	260.00	58.33	-	-	-	2.34	36.31	16.45																					19.84
																																		Total	27.20
																																		Total + 5dB	32.20
Road A - 64 HGVs at 10mph	64.00	10.00	92.00	96.06	0.00		216.00	63.66	21.95	4.57	0.43		1.00	4.57	13.40	50.26			50.26	130.00	86.00	216.00	157.20	157.20	159.20	2.00	7.80	5.80	130.02	86.35	216.08	0.29	11.90	51.79	36.36	3.00	-17.78	28.57
Road A - 64 Cars at 20mph	64.00	20.00	92.00	74.64	0.00		216.00	42.66	10.96	2.29	0.43		1.00	2.29	16.41	26.25			26.25	130.00	86.00	216.00	157.20	157.20	159.20	2.00	7.80	5.80	130.02	86.35	216.08	0.29	11.90	36.76	14.33	3.00	-17.78	5.44
Road A - 64 Vans at 20mph	64.00	20.00	92.00	80.64	0.00		216.00	48.66	10.96	2.29	0.43		1.00	2.29	16.41	32.25			32.25	130.00	86.00	216.00	157.20	157.20	159.20	2.00	7.80	5.80	130.02	86.35	216.08	0.29	11.90	36.76	20.35	3.00	-17.78	2.56
Road B - 64 HGV at 10mph	64.00	10.00	137.00	96.06	0.00		175.00	64.57	32.69	6.81	0.78		0.80	5.45	12.64	51.93	20.00		31.93																	44.57	30.00	-7.79	24.15
Road B - 48 Cars at 20mph	48.00	20.00	137.00	74.64	0.00		175.00	43.57	12.26	2.55	0.78		0.80	2.04	16.90	26.67	20.00		6.67																	29.57	30.00	-7.79	-1.11
Road B - 48 Vans at 20mph	48.00	20.00	137.00	80.64	0.00		175.00	49.57	12.26	2.55	0.78		0.80	2.04	16.90	32.67	20.00		12.67																	29.57	30.00	-7.79	4.89
Road C - 48 HGV at 10mph	48.00	10.00	116.00	96.06	0.00		218.00	63.82	20.76	4.32	0.53		1.00	4.32	13.84	48.98	15.90		34.98																	47.72	18.00	-10.00	24.66
Road C - 48 Cars at 20 mph	48.00	20.00	116.00	74.64	0.00		218.00	42.82	10.38	2.16	0.53		1.00	2.16	16.85	25.97	16.80		6.37																	26.02	18.00	-10.00	-6.83
Road C - 48 Vans at 20mph	48.00	20.00	116.00	70.06	0.00		218.00	38.82	10.38	2.16	0.53		1.00	2.16	16.85	21.97	16.80		5.37																	22.02	18.00	-10.00	-4.83
Road D - 32 HGV at 10mph	32.00	10.00	111.00	90.06	0.00		303.00	63.19	13.24	2.76	0.37		1.00	2.76	15.59	48.60	17.29		29.30																	44.89	9.00	-13.01	19.29
Road D - 32 Cars at 20mph	32.00	20.00	111.00	74.64	0.00		303.00	41.19	6.52	1.36	0.37		1.00	1.36	18.60	22.59	17.69		4.90																	23.50	9.00	-13.01	-4.11
Road D - 32 vans at 20 mph	32.00	20.00	111.00	80.64	0.00		303.00	47.19	6.52	1.36	0.37		1.00	1.36	18.60	28.59	17.69		10.90																	29.50	9.00	-13.01	-1.51
																																		Total	28.33
																																		Plant + Road Links =	28.33
																																		Noise Level at Property =	41.33

Appendix C: Noise Prediction Calculations

CLIENT: Gladman
SITE: Tankersley
JOB NO: LE03627
PLANT:
Activity
DATE: 06-Nov-07
CALC'D BY: NA
REVISION:
FILE REF:

Night-time BS4142 - No Mitigation

Fence Height	Height of Receptors		
	1	2	3
0.00	150.10	147.60	148.40

Noise Calculations assuming no fence will be in place
Note: Only Soft Ground or Barrier Attenuation is applied. Soft Ground Attenuation calculated in accordance with BS5228: Part 1: 1997

Onsite barrier

Receiver Location: 28 Stone Leigh Court - 1m from facade:

Activity	Number of Vehicles	Time min(point) OR Speed mph (line)	Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	βMinutes/5 mins	% On Time	For activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Barrier to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 - 1 HGVs reversing	1.00	1.50	-	95.00	30.00	225.00	37.50	1.50	30.00	-	-	-	5.23	32.27	19.50	12.77																	12.77
Unit 1 - 1 HGVs pulling away	1.00	0.50	-	95.00	30.00	225.00	38.10	0.50	10.00	-	-	-	10.00	28.10	19.50	8.60																	8.60
Unit 2 - 1 HGVs reversing	1.00	1.50	-	95.00	30.00	330.00	34.17	1.50	30.00	-	-	-	5.23	28.94	20.04	8.90																	8.90
Unit 2 - 1 HGVs pulling away	1.00	0.50	-	95.00	30.00	330.00	34.77	0.50	10.00	-	-	-	10.00	24.77	20.04	4.73																	4.73
Unit 3 - 1 HGVs reversing	1.00	1.50	-	95.00	30.00	432.00	31.83	1.50	30.00	-	-	-	5.23	26.60	18.20	8.40																	8.40
Unit 3 - 1 HGVs pulling away	1.00	0.50	-	95.80	30.00	432.00	32.43	0.50	10.00	-	-	-	10.00	22.43	18.20	4.23																	4.23
Unit 4 - 1 HGVs reversing	1.00	1.50	-	95.00	30.00	460.00	31.29	1.50	30.00	-	-	-	5.23	26.06	15.00	11.06																	11.06
Unit 4 - 1 HGVs pulling away	1.00	0.50	-	95.00	30.00	460.00	31.89	0.50	10.00	-	-	-	10.00	21.89	15.00	6.89																	6.89
Unit 1 - 1 Refridgerated Trailers	1.00	5.00	-	72.50	8.00	188.00	46.06	5.00	#####	-	-	-	0.00	46.06	18.90	27.16																	27.16
Unit 2 - 1 Refridgerated Trailers	1.00	5.00	-	72.50	8.00	257.00	42.36	5.00	#####	-	-	-	0.00	42.36	19.33	23.03																	23.03
Unit 3 - 1 Refridgerated Trailer	1.00	5.00	-	72.50	8.00	365.00	39.32	5.00	#####	-	-	-	0.00	39.32	18.20	21.12																	21.12
Unit 4 - 1 Refridgerated Trailer	1.00	5.00	-	72.50	8.00	394.00	38.65	5.00	#####	-	-	-	0.00	38.65	15.00	23.65																	23.65
																																Total	32.39
																																Total + 3dB	35.39
Road A - 1 HGVs at 10mph	1.00	10.00	92.00	86.00	0.00	100.00	67.00	0.34	5.86	0.92	0.80	5.49	12.61	54.39		54.39															20.00	-9.54	64.85
Road A - 1 Cars at 20mph	1.00	20.00	92.00	74.00	0.00	100.00	46.00	0.17	3.43	0.92	0.80	2.74	15.52	36.38		36.38															20.00	-9.54	26.84
Road A - 1 Vans at 20mph	1.00	20.00	92.00	86.00	0.00	100.00	52.00	0.17	3.43	0.92	0.80	2.74	15.52	36.38		36.38															20.00	-9.54	26.84
Road B - 1 HGV at 10mph	1.00	10.00	137.00	86.00	0.00	100.00	67.00	0.51	10.22	1.37	0.63	6.44	11.91	58.09		58.09															20.00	-9.54	48.55
Road B - 1 Cars at 20mph	1.00	20.00	137.00	74.00	0.00	100.00	46.00	0.26	5.11	1.37	0.63	3.22	14.92	31.08		31.08															20.00	-9.54	21.54
Road B - 1 Vans at 20mph	1.00	20.00	137.00	86.00	0.00	100.00	52.00	0.26	5.11	1.37	0.63	3.22	14.92	37.08		37.08															20.00	-9.54	27.54
Road C - 1 HGV at 10mph	1.00	10.00	116.00	86.00	0.00	212.00	63.74	0.43	8.65	0.55	0.80	4.32	13.64	59.19		59.19															5.80	-15.56	34.63
Road C - 1 Cars at 20 mph	1.00	20.00	116.00	74.00	0.00	212.00	42.74	0.22	4.32	0.55	0.80	2.16	16.65	26.09		26.09															5.80	-15.56	10.52
Road C - 1 Vans at 20mph	1.00	20.00	116.00	86.00	0.00	212.00	48.74	0.22	4.32	0.55	0.80	2.16	16.65	32.09		32.09															5.80	-15.56	16.53
Road D - 1 HGV at 10mph	1.00	10.00	111.00	86.00	0.00	325.00	61.88	0.41	8.28	0.34	0.80	4.14	13.83	48.85		48.85															2.50	-18.57	30.28
Road D - 1 Cars at 20mph	1.00	20.00	111.00	74.00	0.00	325.00	40.88	0.21	4.14	0.34	0.80	2.07	16.84	24.04		24.04															2.50	-18.57	5.47
Road D - 1 vans at 20 mph	1.00	20.00	111.00	86.00	0.00	325.00	46.88	0.21	4.14	0.34	0.80	2.07	16.84	30.04		30.04															2.50	-18.57	11.47
							67.00																									Total	48.54
							Lmax																									Plant + Road Links =	48.54
																																Noise Level at Receptor =	51.70

Receiver Location: 28 Stone Leigh 1m from rear façade

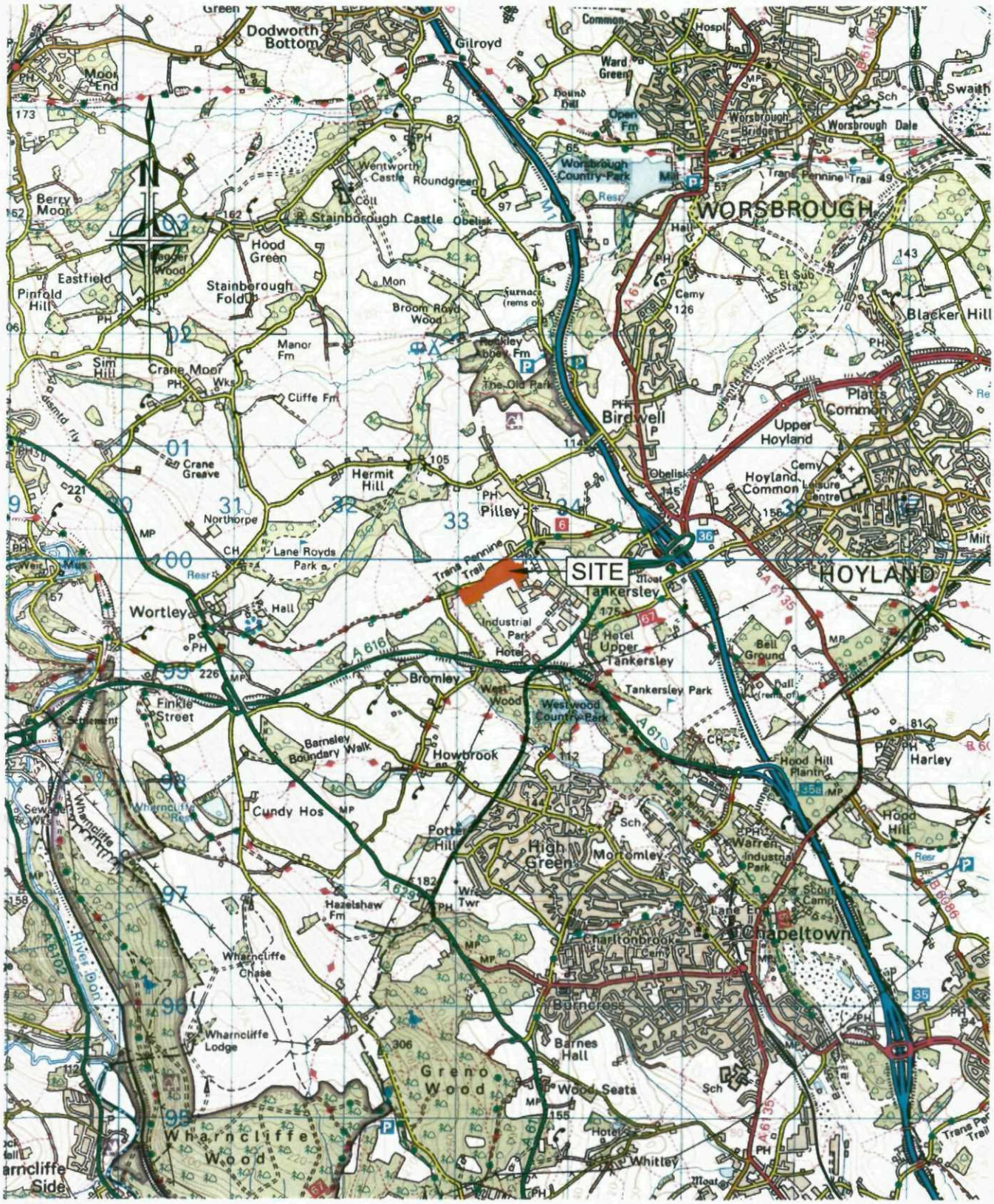
Activity	Number of Vehicles	Time min(point) OR Speed mph (line)	Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	βMinutes/5 mins	% On Time	For activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Fence to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 - 1 HGVs reversing	1.00	1.50	-	86.00	30.00	228.00	37.38	1.50	30.00	-	-	-	5.23	32.15	20.00	12.15																	12.15
Unit 1 - 1 HGVs pulling away	1.00	0.50	-	86.80	30.00	228.00	37.98	0.50	10.00	-	-	-	10.00	27.98	20.06	7.98																	7.98
Unit 2 - 1 HGVs reversing	1.00	1.50	-	86.00	30.00	341.00	33.88	1.50	30.00	-	-	-	5.23	28.96	20.28	8.37																	8.37
Unit 2 - 1 HGVs pulling away	1.00	0.50	-	86.00	30.00	341.00	34.48	0.50	10.00	-	-	-	10.00	24.48	20.28	4.20																	4.20
Unit 3 - 1 HGVs reversing	1.00	1.50	-	86.00	30.00	488.00	31.38	1.50	30.00	-	-	-	5.23	26.15	18.87	7.28																	7.28
Unit 3 - 1 HGVs pulling away	1.00	0.50	-	86.80	30.00	488.00	31.98	0.50	10.00	-	-	-	10.00	21.98	18.87	3.11																	3.11
Unit 4 - 1 HGVs reversing	1.00	1.50	-	86.00	30.00	485.00	30.83	1.50	30.00	-	-	-	5.23	25.60	16.09	9.51																	9.51
Unit 4 - 1 HGVs pulling away	1.00	0.50	-	86.80	30.00	485.00	31.43	0.50	10.00	-	-	-	10.00	21.43	16.09	5.34																	5.34
Unit 1 - 1 Refridgerated Trailers	1.00	5.00	-	72.50	8.00	228.00	43.40	5.00	#####	-	-	-	0.00	43.40	19.40	24.00																	24.00
Unit 2 - 1 Refridgerated Trailers	1.00	5.00	-	72.50	8.00	341.00	38.91	5.00	#####	-	-	-	0.00	38.91	18.56	20.35																	20.35
Unit 3 - 1 Refridgerated Trailer	1.00	5.00	-	72.50	8.00	488.00	37.40	5.00	#####	-	-	-	0.00	37.40	18.87	18.53																	18.53
Unit 4 - 1 Refridgerated Trailer	1.00	5.00	-	72.50	8.00	485.00	36.85	5.00	#####	-	-	-	0.00	36.85	16.09	20.76																	20.76
																																Total	37.30
																																Total + 3dB	40.30
Road A - 1 HGVs at 10mph	1.00	10.00	92.00	86.00	0.00	163.00	64.88	0.34	5.86	0.56	1.00	5.86	11.84	53.24		53.24															14.00	-11.09	42.15
Road A - 1 Cars at 20mph	1.00	20.00	92.00	74.00	0.00	163.00	43.88	0.17	3.43	0.56	1.00	3.43	14.65	28.23		28.23															14.00	-11.09	18.14
Road A - 1 Vans at 20mph	1.00	20.00	92.00	86.00	0.00	163.00	49.88	0.17	3.43	0.56	1.00	3.43	14.65	35.23		35.23															14.00	-11.09	24.14
Road B - 1 HGV at 10mph	1.00	10.00	137.00	86.00	0.00	144.00	65.42	0.51	10.22	0.95	0.83	6.44	11.91	53.51		53.51															15.00	-10.79	42.71
Road B - 1 Cars at 20mph	1.00	20.00	137.00	74.00	0.00	144.00	44.42	0.26	5.11	0.95	0.83	3.22	14.92	29.50		29.50															15.00	-10.79	18.70
Road B - 1 Vans at 20mph	1.00	20.00	137.00	86.00	0.00	144.00	50.42	0.26	5.11	0.95	0.83	3.22	14.92	35.50		35.50															15.00	-10.79	24.79
Road C - 1 HGV at 10mph	1.00	10.00	116.00	86.00	0.00	243.00	63.14	0.43	8.65	0.48	1.00	8.65	10.63	52.51	18.80	33.71															4.00	-16.53	57.18
Road C - 1 Cars at 20 mph	1.00	20.00	116.00	74.00	0.00	243.00	42.14	0.22	4.32	0.48	1.00	4.32	13.64	28.50	19.40	9.10															4.00	-16.53	-7.30
Road C - 1 Vans at 20mph	1.00	20.00	116.00	86.00	0.00	243.00	48.14	0.22	4.32	0.48	1.00	4.32	13.64	34.50	19.40	5.10															4.00	-16.53	-11.43
Road D - 1 HGV at 10mph	1.00	10.00	111.00	86.00	0.00	358.00	61.46	0.41	8.28	0.31	1.00	8.28	10.82	50.64	16.10	34.54															2.00	-19.54	15.00
Road D - 1 Cars at 20mph	1.00	20.00	111.00	74.00	0.00	358.00	40.46	0.21	4.14	0.31	1.00	4.14	13.83	26.63	16.40	10.23															2.00	-19.54	-9.31
Road D - 1 vans at 20 mph	1.00	20.00	111.00	86.00	0.00	358.00	46.46	0.21	4.14	0.31	1.00	4.14	13.83	32.63	16.40	16.23															2.00	-19.54	-3.31
							65.42																									Total	46.36
							Lmax																									Plant + Road Links =	46.36
																																Noise Level at Receptor =	49.37

Receiver Location: 82 Carr Lane

Activity	Number of Vehicles	Time min(point) OR Speed mph (line)	Link Length	dB(A)	Distance at which noise level was measured	Distance to Receiver,R(m)	Distance corrected sound pressure	βMinutes/5 mins	% On Time	For activity D BS5228 D.3.4	Correction factor F	Corrected on-time	On Time Correction	Corrected sound pressure level	Barrier Correction from On Site barriers i.e. buildings	Corrected Sound Pressure with barrier	Distance Activity to Barrier	Distance Fence to Receptor	Distance Receptor to Source	Height of Source	Height of Ground at base of Barrier	TOTAL height of Barrier	Height Difference activity to fence	Height difference fence to receptor	Height difference source to receptor	A	B	C	Path Difference	Barrier Correction Fence	Sound level with barriers	Angle of view	Angle correction dB	Activity $L_{Aeq,1hr}$
Unit 1 - 1 HGVs reversing	1.00	1.50	-	86.00	30.00	188.00	40.84	1.50	30.00	-	-	-	5.23	34.81	20.00	14.81																	14.81
Unit 1 - 1 HGVs pulling away	1.00	0.50	-	86.80	30.00	188.00	40.64	0.50	10.00	-	-	-	10.00	30.64	20.00	10.64																	10.64
Unit 2 - 1 HGVs reversing	1.00	1.50	-	86.00	30.00	257.00	36.34	1.50	30.00	-	-	-	5.23	31.11	20.00	11.11																	11.11
Unit 2 - 1 HGVs pulling away	1.00	0.50	-	86.80	30.00	257.00	36.94	0.50	10.00	-	-	-	10.00	26.94	20.00	6.94																	6.94
Unit 3 - 1 HGVs reversing	1.00	1.50	-	86.00	30.00	365.00	33.38	1.50	30.00	-	-	-	5.23	28.07	19.14	8.93																	8.93
Unit 3 - 1 HGVs pulling away	1.00	0.50	-	86.80	30.00	365.00	33.98	0.50	10.00	-	-	-	10.00	23.98	19.14	4.79																	4.79
Unit 4 - 1 HGVs reversing	1.00	1.50	-	86.00	30.00	394.00	32.83	1.50	30.00	-	-	-	5.23	27.49	16.45	10.95																	10.95
Unit 4 - 1 HGVs pulling away	1.00	0.50	-	86.80	30.00	394.00	33.23	0.50	10.00	-	-	-	10.00	23.23	16.45	6.79																	6.79
Unit 1 - 1 Refridgerated Trailers	1.00	5.00	-	72.50	8.00	188.00	46.06	5.00	#####	-	-	-	0.00	46.06	19.50	26.56																	26.56
Unit 2 - 1 Refridgerated Trailers	1.00	5.00	-	72.50	8.00	257.00	42.36	5.00	#####	-	-	-	0.00	42.36	20.00	22.36																	22.36
Unit 3 - 1 Refridgerated Trailer	1.00	5.00	-	72.50	8.00	365.00	39.32	5.00	#####	-	-	-	0.00	39.32	19.14	20.18																	20.18
Unit 4 - 1 Refridgerated Trailer	1.00	5.00	-	72.50	8.00	394.00	38.65	5.00	#####	-	-	-	0.00	38.65	16.45	22.20																	22.20
																																Total	37.30
																																Total + 3dB	40.30
Road A - 1 HGVs at 10mph	1.00	10.00	92.00	86.00	0.00	216.00	63.86	0.34	5.86	0.43	1.00	5.86	11.84	52.82		52.82															3.00	-17.78	34.23
Road A - 1 Cars at 20mph	1.00	20.00	92.00	74.00	0.00	216.00	42.86	0.17	3.43	0.43	1.00	3.43	14.65	28.81		28.81															3.00	-17.78	10.22
Road A - 1 Vans at 20mph	1.00	20.00	92.00	86.00	0.00	216.00	48.86	0.17	3.43	0.43	1.00	3.43	14.65	34.81		34.81															3.00	-17.78	16.22
Road B - 1 HGV at 10mph	1.00	10.00	137.00	86.00	0.00	175.00	64.57	0.51	10.22	0.78	0.80	6.17	10.80	53.69	20.00	33.69															30.00	-7.78	25.91
Road B - 1 Cars at 20mph	1.00	20.00	137.00	74.00	0.00	175.00	43.57	0.26	5.11	0.78	0.80	4.09	13.89	29.68	20.00	9.68															30.00	-7.78	1.90
Road B - 1 Vans at 20mph	1.00	20.00	137.00	86.00	0.00	175.00	49.57	0.26	5.11	0.78	0.80	4.09	13.89	35.68	20.00	15.68															30.00	-7.78	7.90
Road C - 1 HGV at 10mph	1.00	10.00	116.00	86.00	0.00	218.00	63.62	0.43	8.65	0.53	1.00	8.65	10.53	52.99	15.00	37.99															18.00	-10.00	47.99
Road C - 1 Cars at 20 mph	1.00	20.00	116.00	74.00	0.00	218.00	42.62	0.22	4.32	0.53	1.00	4.32	13.64	28.98	16.60	12.38															18.00	-10.00	2.38
Road C - 1 Vans at 20mph	1.00	20.00	116.00	86.00	0.00	218.00	48.62	0.22	4.32	0.53	1.00	4.32	13.64	34.98	16.60	8.38															18.00	-10.00	-1.62
Road D - 1 HGV at 10mph	1.00	10.00	111.00	86.00	0.00	303.00	62.19	0.41	8.28	0.37	1.00	8.28	10.82	51.37	17.29	34.07															9.00	-13.01	21.06
Road D - 1 Cars at 20mph	1.00	20.00	111.00	74.00	0.00	303.00	41.19	0.21	4.14	0.37	1.00	4.14	13.83	27.36	17.89	9.47															9.00	-13.01	-3.54
Road D - 1 vans at 20 mph	1.00	20.00	111.00	86.00	0.00	303.00	47.19	0.21	4.14	0.37	1.00	4.14	13.83	33.36	17.89	15.67															9.00	-13.01	2.66
							64.57																									Total	36.73
							Lmax																									Plant + Road Links =	36.73
																																Noise Level at Receptor =	39.74

Appendix C
Noise Prediction Calculations

Drawings



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CLIENT	DRG No	SCALE	DATE
GLADMAN DEVELOPMENTS LIMITED	LE03627/001	1:50000	AUGUST 2006
PROJECT	**DRAWN BY**	**CHECKED BY**	**APPROVED BY**
PROPOSED INDUSTRIAL DEVELOPMENT TANKERSLEY, BARNSLEY	J.P.V.		
DRAWING TITLE			
SITE LOCATION			

Wardell Armstrong
Engineering & Environmental Solutions



REFERENCE

RECEPTOR

INDICATIVE PROPOSED FENCE MITIGATION

NOTE

PLAN PREPARED FROM DRAWING PROVIDED BY GLADMAN, DRAWING NUMBER 2940/NJG REV 'C', TITLED 'SITE LAYOUT', DATED 20/04/2007.

REVISION	DETAILS	DATE	DRAWN	CHK'D	APP'D

CLIENT

GLADMAN DEVELOPMENTS LIMITED

PROJECT

PROPOSED INDUSTRIAL DEVELOPMENT
TANKERSLEY, BARNSLEY

DRAWING TITLE

RECEPTOR LOCATIONS

DRG No	SCALE	DATE
LE03627/004	1:2000	NOVEMBER 2007
DRAWN BY	CHECKED BY	APPROVED BY
J.P.V.		

STOKE-ON-TRENT (HEAD OFFICE)	TEL 0845 111 7777	CARDIFF	TEL 029 2072 9191
NEWCASTLE UPON TYNE	TEL 0191 232 0943	LEIGH	TEL 01942 260101
WEST BROMWICH	TEL 0121 580 0909	SHEFFIELD	TEL 0114 245 6244
LONDON	TEL 020 7287 2872	EDINBURGH	TEL 0131 555 3311

Wardell Armstrong
Engineering & Environmental Solutions