

NOISE IMPACT ASSESSMENT

The Breakers Yard, Barracks Road, Assington CO10 5LP

Assington Autos Ltd

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1.2	16/12/2022	TB	CP	Revisions to Noise Model
1.3	20/04/2023	TB	CP	Revisions to noise sources, operating hours and site layout
1.4	07/07/2023	TB	CP	Revisions to Noise Model/Assessment following EA queries, update to site layout plan (Part 2) in Appendix I and addition of Appendix III.

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1 Introduction

- 1.1.1 Oaktree Environmental have been commissioned by Assington Autos Ltd to undertake a Noise Impact Assessment (NIA) for site situated at The Breakers Yard, Barracks Road, Assington CO10 5LP.
- 1.1.2 The report has been produced by Thomas Benson of Oaktree Environmental Ltd, an associate member of the Institute of Acoustics. Full credentials can be provided under separate cover, if required. However, these do comply with the recently revised national guidance.
- 1.1.3 The main purpose of this report is to assess the risks arising from the increased throughput to the currently permitted 2,500 tonnes per annum with what the site currently accepts (approx. 12,000 tonnes per annum) and expansion of the business where up to 30,000 tonnes per annum of waste could be accepted. The report has also been submitted to the Local Authority in support of a planning application for the revised site layout and increased throughput. The Local Authority's latest comments are shown in Appendix III.
- 1.1.4 The document includes details of the revised site layout which has been reconsidered following receipt of noise related complaints from residents and comments from the local area officers. Currently the site is arranged as per the Site Layout Plan Reference BAR/3041/03, however, it is proposed to incorporate significant site infrastructure updates presented within Drawing Nos. BAR/3041/03A and BAR/3041/03B which are shown in Appendix I.
- 1.1.5 This document will be utilised by the area officer for the ongoing regulation of the site with regards to noise emissions.
- 1.1.6 Revision 1.4 of this document includes additional mitigation measures in the form of updated machinery, increased height of acoustic screens and additional good control measures (i.e loading HGVs adjacent to acoustic screens rather than in the open yard).

1.2 Site Description and Proposed Development

1.2.1 The site is located on the southern side of Barracks Road to the south of Assington village. It has long been established as a vehicle breakers yard and scrap recycling centre. The current owners took over the site in 2017 and set about changing the manner in which the site operated to improve working practices, making the process more efficient and ensuring that the best environmental practices are upheld. They are recognised as being one of the leading companies in the vehicle recycling Authorised Treatment Facility field.

1.3 Hours of Operation

1.3.1 The site is open during the following hours for all waste operations, i.e. depositing, sorting, moving, storing and removing wastes:

- 07:00am – 07:30am (Monday – Friday) = HGVs comprising 2 no. 8 car transporters and 1 no. 4 transporter leave the site to begin their collection of ELVs. The transporters return to the site no later than 16:00pm. The number of movements depend on the travel time of the HGV.
- 07:30am (Monday – Saturday) = Staff arrive at the site in cars.
- 08:00am – 17:30pm (Monday – Friday) = All operations permitted comprising depollution of waste motor vehicles and sorting, separation, compacting, or, of waste into different components for recovery.
- 08:00am – 17:00pm (Monday – Friday) = Arrival and removal of HGVs unloading and loading waste to and from the site.
- 09:00am – 17:30pm (Monday – Friday) = Baling (using a mechanical baler) and cutting (using handheld equipment) of waste for recovery.
- 17:30pm – 18:00pm (Monday – Friday) = Housekeeping and tidying of site for the next day using mobile plant to ensure all waste is securely stored in bays
- 08:00am – 13:00pm (Saturday) = No waste acceptance or treatment, the site undergoes a full housekeeping, tidy up ready for operations to commence on Monday. No movement of HGVs will take place.
- The site will not operate in any circumstances on a Sunday or Bank Holiday.

1.4 Environmental Regulation

- 1.4.1 The site has an Environmental Permit in place with day-to-day operations regulated by the Environment Agency (EA). Potential impacts on air, land and water will be fully controlled and regulated under the EP. In accordance with paragraph 188 of the National Planning Policy Framework (NPPF), there should be no duplication of this control under the planning regime. When assessing appropriate operational phase mitigation and control, reference has been made to proposed control methods which have been submitted to the EA as part of the EP application process and which will need to be agreed with the EA as part of the permitting process.

2 Relevant Noise Guidance

2.1 Environment Agency Guidance

2.1.1 This document has been produced in accordance with the EA's guidance "Noise and vibration management: environmental permits" updated 31 January 2022.

2.2 Noise Policy Statement for England

2.2.1 The Noise Policy Statement for England (NPSE), March 2010, sets out the Government's long-term noise policy, the aims of which are:

"Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- *Avoid significant adverse effects on health and quality of life;*
- *Mitigate and minimise adverse effects on health and quality of life;*
- *Where possible, contribute to the improvement of health and quality of life."*

2.2.2 The first aim of the NPSE is to avoid significant adverse effects, considering the shared UK principles of sustainable development.

2.2.3 The second aim provides guidance on the scenario when the potential noise impact falls between the LOAEL (Lowest Observed Adverse Effect Level) and the SOAEL (Significant Observed Adverse Effect Level), in which case it is stated, *"all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development"*. However, it is also stated, *"This does not mean that such adverse effects cannot occur"*.

2.2.4 With regards to the SOAEL, the document states, *"It is not possible to have a single objective noise-based measure that defines SOAEL that is applicable to all sources of noise in all situations"*, thus acknowledging that this is very much dependent on the noise source, the receptor, and the time of day. Therefore, the NPSE provides the necessary policy flexibility until further guidance / evidence is available.

2.2.5 Other guidance will need to be taken into account when applying the principles of the NPSE, as well the nature of the proposed development and its specific circumstances.

2.3 National Planning Policy Framework

2.3.1 The National Planning Policy Framework, revised in February 2019, states that Planning policies and decisions should also ensure that new development is appropriate for its location, taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

- Mitigate and reduce to a minimum potential adverse impact resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;
- Identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.

2.3.2 Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed.

2.3.3 The revised document also makes reference to the Noise Policy Statement for England.

2.4 Planning Practice Guidance – Noise

2.4.1 Further to the guidance set out in the NPPF advises that the Local Authority should consider the following when decision making:

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

2.4.2 As previously discussed within the NPSE, the guidance discusses the LOAEL and SOAEL and provides scenarios that could be expected for the perception level of noise, plus the associated activities that may be required to bring about the desired outcome. Again, as with the NPSE, no objective noise levels are provided for LOAEL or SOAEL.

2.4.3 It is stated that “the subjective nature of noise means that there is not a simple relationship between noise levels and the impact on those affected. This will depend on how various factors combine in any particular situation”. These factors include:

- The absolute noise level of the source and the time of day it occurs.
- Where the noise is non-continuous (intermittent), the number of noise events along with any patterns of occurrence.
- The frequency of content and acoustic characteristics (tonality etc.) of the noise.
- The effects of noise on the surrounding wildlife.
- The acoustic environment of external amenity areas provided as an intrinsic part of the overall design.
- The impact of noise from certain commercial developments such as night clubs and pubs where activities are often at their peak during the evening and night.

3 Noise Assessment Criteria

3.1.1 To assess the impacts of existing road traffic and industrial noise from the proposed development, the following documents have been used:

- BS8233:2014
- BS4142:2014
- World Health Organisation (WHO) Guidelines on Community Noise

3.2 BS8283:2014

3.2.1 This document provides guidance on the relevant level of sound insulation required by a variety of building types affected by general environmental noise and provides recommendations for appropriate internal ambient noise level criteria for a variety of different situations including residential dwellings. The table below includes the proposed noise criteria within BS8283:2014 with regards to residential properties:

Table 3.1 - BS8233:2014 Internal Criteria

Activity	Location	07:00 – 23:00	23:00 – 7:00
Resting	Living rooms	35 LAeq, 16hour	-
Dining	Dining room	40 LAeq, 16hour	-
Sleeping	Bedroom	35 LAeq, 16hour	30 LAeq, 16hour

3.3 BS4142:2014

3.3.1 BS4142:2014 provides a method for “assessing and rating industrial sound” of an industrial/commercial nature. The method described in the standard uses the rating level from a noise source and the existing background noise level to assess the potential effects of sound on the residential premises upon which sound is incident.

3.3.2 Using this method, the background sound level is subtracted from the rating level. The resulting figure is assessed using the following guidance from the document:

- The greater the difference between the background sound level and the rating level, the greater the impact on the receptor.
- An exceedance of the background level of around 10dB, or more, is likely to be an indication of a significant adverse impact, dependent on the context.
- An exceedance of the background level of around 5dB is likely to be an indication of an adverse impact, dependent on the context.
- The lower the rating level compared to the existing background level, the less likely an adverse impact, or a significant adverse impact. Where the rating level does not exceed the background level, this is indicative of a low impact, dependent on context.

3.3.3 The document introduces a requirement to consider and report the uncertainty in the data as well as also including guidance for applying a correction/penalty for certain adverse acoustic features such as tonality, impulsivity or intermittency. The following table summarises the corrections based on the subjective assessment of the noise.

Table 3.2 - BS4142:2014 Corrections and Penalties

	Tonality	Impulsivity	Other characteristics
Just perceptible	+ 2dB	+ 3dB	
Clearly perceptible	+ 4dB	+ 6dB	
Highly perceptible	+ 6dB	+ 9dB	
Readily Distinctive against Residual Environment			+ 3Db

3.4 WHO Guidelines for Community Noise

3.4.1 The WHO Guidelines (1999) recommends indoor night-time guidelines in order to avoid sleep disturbance, the document states these to be 30 dB (LAeq) and 45 dB (LA_{fmax}) for continuous and individual noise events respectively.

- 3.4.2 The document states that the number of noise events should also be considered and that individual noise events should not exceed 45 dB (LA_{fmax}) more than 10 – 15 times per night.
- 3.4.3 The WHO document also recommends that steady, continuous noise levels should not exceed 55 dB (LA_{eq}) for outdoor living areas (balconies, terraces etc.). However, in order protect the majority of individuals from moderate annoyance, external noise levels should not exceed 50 dB (LA_{eq}).

4 Background Noise Monitoring

4.1 Procedure and Monitoring Locations

4.1.1 Correspondence was initially made to the Local Environmental Noise Specialist Mr Duncan Beaumont of the EA during February and March 2022. Liaison with Mr Beaumont was to agree a scope of works to ensure consistency which resulted in a background noise survey being undertaken and completed on the 5th and 21st of March 2022 in accordance with BS 7445-1: 2003. This survey was carried out by Thomas Benson of Oaktree Environmental Ltd.

4.1.2 The locations were chosen in order to be representative of the nearest noise sensitive receptors. Whilst access could not be gained to the gardens at Noise Monitoring Positions 1 and 2 positions were chosen representative of the gardens closest to the site, for example NMP 1 lies 7 metres from the carriageway, whilst NMP 2 is located within a clearing adjacent to the garden, 10m from the carriageway.

4.1.3 For the background monitoring to be representative of the existing noise climate in the absence of the site being assessed, site management agreed to cease operations on the 5 and 21st March to allow the survey to be undertaken.

4.1.4 The measurement locations are shown in Figure 4.1, below:

Figure 4.1 - Site location and noise monitoring position



4.2 Equipment Used During the Survey

4.2.1 Details of the equipment used during the survey are shown in the table below:

Table 4.1 - Survey Equipment

Description	Model	Manufacturer	Serial No.	Calibration Date
Class 1 Sound Analyser	NOR 150	Norsonic	15030504	02/10/2020
Microphone	Norsonic Type 1225	Norsonic	305208	02/10/2020
Field Calibrator	NOR 1251	Norsonic	35205	03/03/2020

4.3 Weather

4.3.1 The weather during the background surveys is summarised in the table below:

Table 4.2 – Weather Conditions during noise monitoring

Date	Wind Speed (max)	Cloud Cover	Temperature	Precipitation
05/03/2022	Max gusts of 4m/s however generally more still	75-100-%	3 ^{oc} -7 ^{oc}	Some light drizzle prior to the 09.15 monitoring period
21/03/2022	Still with gentle gusts of between 1-3m/s	0-25%	2 ^{oc} -11 ^{oc}	None recorded whilst onsite.

4.4 Results

4.4.1 The results of the background noise monitoring survey are tabulated below in Table 4.3-4.6. Commentary on the background level and survey is included further on in Section 4.5.

Table 4.3 -Weekday background monitoring results for NMP 1

Measurement Time	LA _{eq}	LA _{max}	LA ₉₀	LA ₁₀
10:43-11:43 21/03/2022	54.1	76.7	38.3	53.5
14:31-15:31 21/03/2022	49.6	75.0	31.5	49.3

Table 4.4 -Weekend background monitoring results for NMP 1

Measurement Time	LA _{eq}	LA _{max}	LA ₉₀	LA ₁₀
11:32-12:32 05/03/2022	61.7	84.6	41.8	54.1

Table 4.5 -Weekday background monitoring results for NMP 2

Measurement Time	LA _{eq}	LA _{max}	LA ₉₀	LA ₁₀
07:45-08:45 21/03/2022	53.5	75.5	37.6	54.0
12:17-13:17 21/03/2022	54.0	81.4	30.3	50.1

Table 4.6 -Weekend background monitoring results for NMP 2

Measurement Time	LA _{eq}	LA _{max}	LA ₉₀	LA ₁₀
09:15-10:15 05/03/2022	49.9	68.5	37.4	52.6

Table 4.7 -Weekday background monitoring results for NMP 3

Measurement Time	LA _{eq}	LA _{max}	LA ₉₀	LA ₁₀
08:52-09:52 21/03/2022	53.5	81.7	33.0	47.9
13:24-14:24 21/03/2022	51.2	78.7	30.2	42.5

Table 4.8 -Weekend background monitoring results for NMP 3

Measurement Time	LA_{eq}	LA_{max}	LA₉₀	LA₁₀
10:22-11:22 05/03/2022	58.8	81.6	41.8	53.5

4.4.2 Should It be required, photographs and videos can be provided, along with the noise measurement files to corroborate the above observations. These are available upon request by the EA and other parties i.e the Local Authority.

4.5 Existing Noise Climate

4.5.1 During the monitoring contributors to the background sound level were observed to include the following within the vicinity of the site:

- Road traffic along Barracks Road mainly comprising smaller private vehicles but also sporadically larger agricultural vehicles,
- Occasional movements and activities associated with the yard to the north including jet washing of agricultural machinery and movement of goods.
- Birdsong.

4.5.2 The noise sources at NMP 3 to the east were largely similar, however without the contribution from the previously mentioned agricultural use.

4.6 Control of Uncertainty

4.6.1 Uncertainty in this assessment was controlled via the following precautions/procedures:

- Both the sound level meter and calibrator have a traceable laboratory calibration and the meter was field-calibrated both before and after the measurements.
- The measurement locations are considered representative of the existing noise climate outside the nearest residential dwellings to the proposed development.
- Background monitoring was undertaken during favourable weather conditions (e.g. dry and under 5m/s wind speed).

5 Noise Impact Assessment

5.1 Introduction

5.1.1 Following from the previous revision of this document, noise sources have been reviewed, with older, noisier items of plant proposed to be replaced with quieter, more modern items of plant following grant of the revised permit and planning permission. This is the case for the baler and disc cutter. Noise sources such as the forklift and the “pinching” of engines via the Hyundai powerhand which were previously excluded from the assessment have also been included.

5.1.2 Reference should be made to the site layout plan which confirms the location of these activities. This is also detailed within Table 5.1, along with “on-times” and notes on the calculation method within the model (point or area source, height etc.).

5.1.3 It is considered the most significant noise sources associated with the development are:

- Skip lorries/HGVs travelling to and from the site for delivery / collection of vehicle parts and waste material including car transporter delivering and unloading an ELV using a forklift
- Initial depollution and dismantling of an ELV comprising use of the impact nut gun, abrasive wheel for removal of hazardous components and salvageable parts
- Stripping/dismantling of the ELV using Husqvarna disc cutter, removal of non-ferrous metal using Hyundai with powerhand attachment to ‘pinch’ the waste.
- Loading of ELV into baler/shear using Atlas grab/excavator
- Use of baler/shear
- Proposed use of skips containing vehicle parts being tipped into bays awaiting processing
- Loading of alloy wheels from the storage bays at the site into removal vehicle using grab.
- Loading of waste parts into containers for storage on site and into articulated vehicles for removal off site

- Manoeuvring of mobile plant around external areas of the site
- Small vehicles travelling to and from the site (e.g. staff and visitor's cars, courier van deliveries etc.)
- Repairs/servicing of vehicles

5.1.4 The initial depollution and dismantling of an ELV comprising use of the impact nut gun has not been included within the model. Initial depollution is undertaken by hand and is contained within an enclosed structure and therefore is considered to have a negligible contribution to the overall noise model. This has not been mentioned in any historic complaints or within the EA assessment, which would appear to confirm this assumption.

5.1.5 In addition, the use of the impact nut gun is very infrequent and is generally only used for removing tyre nuts from the wheel of the vehicle. This has been observed to be relatively quiet and of very low duration.

5.1.6 However, the cutting using a disc cutter has been included in the model. This is done to remove the catalytic converter and other rusted parts from older vehicles.

5.1.7 Noise from the workshop is variable and therefore is difficult to calculate, however, again this generally comprises hand tools or use of electronic equipment for minor repairs and servicing, as this is enclosed within the building with roller shutters facing into the site, the contribution of this source is considered to be negligible.

5.2 Proposed revisions to site layout

5.2.1 Following the receipt of noise related complaints from local residents and comments from the local area officers site management in conjunction with Oaktree Environmental Ltd have undertaken a comprehensive review of onsite operations and proposed a revised site layout (Drawing Nos. BAR/3041/03A and BAR/3041/03B) in order to ensure noise emissions are adequately controlled.

5.2.2 The site is currently arranged as per Drawing Nos. BAR/3041/03 however this will be revised following permit issue to that presented within Drawing Nos. BAR/3041/03A and

BAR/3041/03B. In addition, a standalone Noise & Vibration Management Plan (NVMP) has been produced to accompany this document which will be put in place by site management which will ensure noise levels are reduced further.

5.2.3 The changes to the site layout and additional mitigation measures include:

- The relocation of related operations from the north and centre of the site to the south of the site. This includes the; baling/shearing, scrap metal storage, HGV loading and sorting and container storage. Operations in the north will primarily involve the enclosed depolluted ELV storage and office space which do not generate any noise nuisance.
- The movement of the petrol cutting from the centre of the external yard to a dedicated stage three dismantling/stripping buildings to the south of the site and will be operated internally with roller shutter doors closed. The use of petrol cutters has also ceased and the site will utilise electric Husqvarna cutters which are much quieter (see later bullet point).
- Erection of additional barriers around storage and treatment areas.
- Implementation of 4.8m high acoustic barriers to site perimeters.
- Increase the height of walls adjacent to the baler to 4.8m high.
- Investment in either a quieter, modern baler which is quieter or installation of silencers.
- Ensure loading of waste into HGVs/articulated vehicles is done so as far south as possible, adjacent to the 4.8m high wall which will ensure the source is screened from the nearest receptors.
- Vehicles cannot leave the site until after 07:00am in the morning.
- Replaced all petrol cutting with the more modern Husqvarna electric battery powered equipment.
- Updated forklift movements to 5mph and changed to white noise reversing alarms.
- Implementation of 4.8m high acoustic barrier to the south-western corner of the site.

- 5.2.4 It is anticipated that these amendments will deliver a reduction in the rating level of 20dB+ (A) at the nearest noise sensitive receptors. This is demonstrated in the following sections. Should the permit and planning permission be issued it is proposed to undertake additional noise monitoring in order to confirm the effectivity of the mitigation measures.

5.3 Background Levels

- 5.3.1 With regards to background levels, BS4142:2014 states that *“the objective is not simply to ascertain a lowest measured background sound level, but to quantify what is typical during particular time periods”* and also *“In practice there is no “single” background sound level as this is a fluctuating parameter. However, the level for the assessment should be representative of the period being assessed”*.
- 5.3.2 The assessment will utilise the range of levels from Tables 4.3-4.6. As stated previously, site management agreed to cease operations on the 5th and 21st March to allow the survey to be undertaken. Whilst a greater level of background monitoring may be desirable the cost of undertaking this exercise should not be underestimated.
- 5.3.3 From review of the measured background levels, the LA90 levels are markedly higher during the weekend measurements than those taken on the weekday. It is anticipated that this is due to the difference in road traffic levels which were observed to be slightly higher during the weekend monitoring along with observable agricultural activity and the local hunt. Wind speed was also very slightly higher (whilst still being low enough as per BS7445).
- 5.3.4 A historic Noise Impact Assessment has been produced for the site which has demonstrated background levels of 32-26 dB (A) within the vicinity of the site, these levels were measured during a survey taken in December 2018. The document is shown in Appendix II.

5.4 **BS4142: Assessment**

- 5.4.1 The CadnaA noise models were constructed using OS mapping Opendata and Google Earth satellite imagery, whilst topographical data was imported as a digital terrain model obtained from DEFRA.
- 5.4.2 The model has been based on the updated Drawing Nos. BAR/3041/03A and BAR/3041/03B.
- 5.4.3 The following assumptions/parameters are made within the models:
- The intervening land between the site boundary and residential properties was modelled with $G = 1.0$ as it was considered that the land is predominantly acoustically absorbent. This is with the exception of the concrete pad which has been modelled as 0.0.
 - Noise sources were not assumed to be constant, table 5.1 details the assumed “on-times” as well as the assumptions with regards to geometry of the noise source (height, point or area source etc.).
 - Buildings were set as acoustically reflective, with a reflection loss of 1 dB. A maximum order of reflection of 3.0 has been assumed.
 - Noise levels were determined at residential properties representing the nearest residential facades. This has been calculated via a receiver placed at 1.5m. This methodology has been agreed with the AQMAU team as part of separate permit applications.
 - The predicted grid noise levels were free-field, A-weighted, sound pressure levels. The noise contours generated within the model are also at a height of 1.5 m, assumed to be the worst-case scenario.
 - Surrounding residential properties were modelled at a height of between 4.0m for the majority of residential dwellings. Commercial building heights have been taken from observations and information taking from planning public access where available.

- Barrier heights and waste storage bays have also been modelled based on the proposals within this document and within documents supported under the relevant permitting applications. These have been modelled as being hard and reflective (i.e. concrete).

5.4.4 Table 5.1 below includes the measured noise levels for the anticipated activities, which have either been measured by Oaktree Environmental Ltd or provided by the manufacturer.

Table 5.1 – Measured levels of activities

Activity	Noise Level (LAeq)	Source/comments
Loading and operation of the car baler	71.2 at 10m	<p>Onsite measurement by Oaktree Environmental of a more modern baler which is representative of the type to be utilised by site management following grant of planning.</p> <p>The baler is modelled as a point source 2m in height and operational for 60 minutes a day. As the proposed baler is capable of processing one car a minute, this is deemed sufficient.</p> <p>This has been assumed to be 120 minutes under the existing scenario, as the existing baler will take longer to process a vehicle.</p> <p>Octave bands have been utilised within the model.</p>
Sorting and movement of scrap metal by grab	76.4 at 4m	<p>Onsite measurement by Oaktree Environmental.</p> <p>This is modelled as a point source 1.0m in height and operational for 240 minutes a day . Based on the required throughput and that the grab will be used for loading etc, this is considered an accurate estimation.</p> <p>Octave bands have been utilised within the model.</p>
Loading and removal of a container from site	82.2 at 8m	<p>Measurement of similar operation made by Oaktree Environmental.</p> <p>This is modelled as a point source 2.0m in height and operational for 60 minutes a day .</p>

		Octave bands have been utilised within the model.
Operation of the disc cutter	87.3 at 3.5m	<p>Measurement of similar operation made by Oaktree Environmental.</p> <p>This has been modelled within 2 of the 3 proposed dismantling and stripping sheds. The sheds have been modelled as steel sheeting with trapezoidal corrugations. The northerly shed has been assumed to be open to the east while the southerly shed has assumed to be open to the south.</p> <p>An "on-time" of 30 minutes has been assumed for each source based on the reasons discussed previously. This is also the case for the existing model. However, this assumes a single cutter operating outside rather than the 2no. within the proposed model.</p>
Loading of HGVs via grab / Use of powerarm	84.6 at 3m	<p>Measurement of similar operation made by Oaktree Environmental.</p> <p>This is modelled as a point source 1.5m in height and operational for 120 minutes a day (constituting 4 vehicles being loaded at 30 minutes per vehicle).</p> <p>This has also been used as a surrogate measurement for the powerarm. Considering the measurement will include impulsive bangs/crashes from the falling material, this is likely to comprise an overestimation.</p> <p>Octave bands have been utilised within the model.</p>
Forklift	68 at 1m	<p>Measurement of similar operation made by Oaktree Environmental.</p> <p>This is modelled as 3no. line sources 1.0m in height and operational for 120 minutes a day. However, an additional 3no. are</p>

		located within the workshop, parts storage and HGV servicing building. These have not been included within the model as following enclosure by the buildings and the fact that they are used so infrequently, there contribution to the overall rating level is negligible. Vehicle speed has been assumed to be 8kmh given the 5mph speedlimit introduced at the site.
--	--	---

- 5.4.5 With regards to penalties as per BS4142:2014, it is considered that the impulsive nature of the noise associated with the sorting, tipping and general operation of the site will be perceptible at the nearest residential dwellings given the nature of the existing noise climate and therefore a 6dB penalty may be applied at these times.
- 5.4.6 Table 5.3 details the predicted noise levels (in dB A) associated with the application site at the relevant receptors and provides an assessment as per BS4142:2014. These are based on the results of the modelling provided overleaf in Figures 5.2.

Table 5.2 – Assessment of typical daytime noise sources associated with the site as per the proposed layout

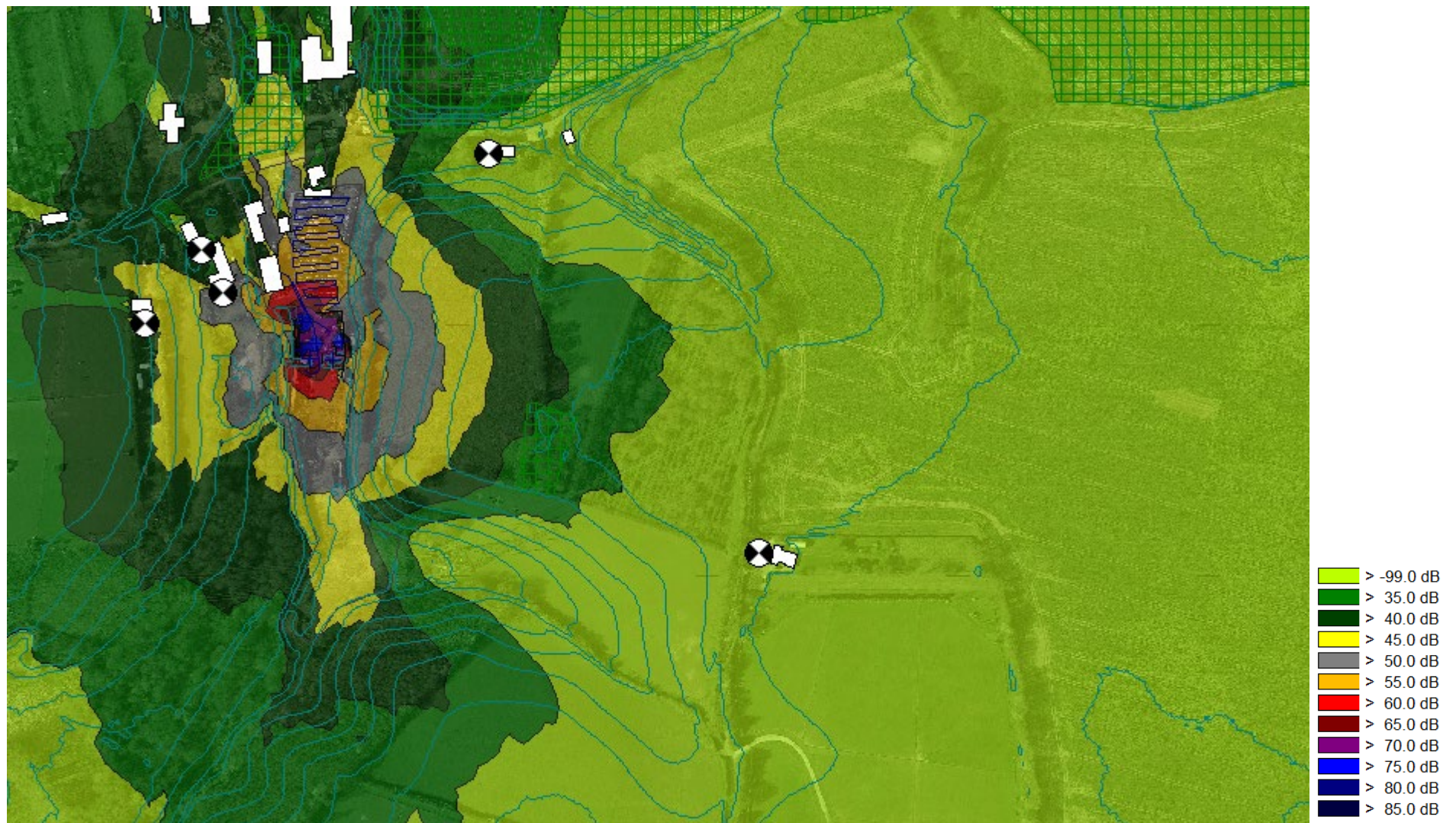


Table 5.3 – Assessment of typical daytime noise sources associated with the site (proposed layout) as per BS4142:2014

	Residential dwellings off Barracks Road to NW (dB A)	Residential dwellings off Barracks Road to E (dB A)	Caravan to NW of the site (dB A)	Residential dwellings off High Road to E (dB A)	Comments
Calculated noise level as per figure 5.2	32.6	26.0	32.0	33.4	
Addition of relevant penalties as per bs4142:2014	+6 = 38.6	+6 = 32.0	+6 = 38.0	+6 = 39.4	As per Section 5.4.5
Comparison to weekday background levels	38.6 – 31.5/38.3 = 0.3 to 7.1 above	32.0 – 30.3/37.6 = 5.6 below to 1.7 above	38.0 – 31.5/38.3 = 0.3 below to 6.5 above	39.4 – 30.2/33.0 = 6.4 to 9.2 above	See subsequent discussion

- 5.4.7 As per Table 5.3, following the additional mitigation, the rating level associated with the operation of the site is at times, greater than the level at which an adverse impact is considered possible (i.e. +5dB above background) , this is generally during the middle of the day, whereby the rating level is marginally above this threshold.
- 5.4.8 BS4142 discusses at length the need for consideration of context and subjectivity when finalising the assessment outcome after the initial comparison of the rating level to the background level, with the simple arithmetic comparison providing only a preliminary guide. This has been undertaken within Section 5.5.
- 5.4.9 It should of course be observed that the assessment comprises a potential over estimation of the rating level, with numerous worst-case assumptions being made, for example the orders of reflection and “on-times” assumed within the model are unlikely to be representative of the typical day to day operation of the site.
- 5.4.10 Site management have indicated that Saturdays will typically comprise a maintenance and housekeeping day, with no waste being accepted or loaded for egress, no dismantling of ELVs will occur and there will be no processing vehicles using the baler.

5.4.11 Noise levels during this time will be largely as a result of the forklift and sorting/movement of onsite wastes using the mobile plant.

5.4.12 The model provided within figure 5.2 was amended inline with the proposed weekend operation. This confirmed that noise levels fall to t 20dB for the vast majority of receptors in lieu of penalties as per BS4142:2014. Assuming a 6dB penalty as per the weekday assessment. The assessment outcome is low from review of the weekend background levels provided.

5.5 Contextual and Subjective Assessment in Accordance with BS4142:2014 and EA Guidelines

5.5.1 As discussed previously, BS4142 emphasises the need for the consideration of context and subjectivity in assessing commercial and/or industrial sound and that the comparison of the rating level to the background level alone is insufficient.

5.5.2 This is reflected in the recently revised Environment Agency guidance which also advises that context should be taken into account, stating that: “*context in which a noise occurs is critical to assessing the severity of the pollution. Not every receptor will have the same response to the same noise pollution*”. Although the EA guidance differs to planning guidance, it is considered important to use in this contextual argument.

5.5.3 BS4142 allows the context of the situation to inform the assessment outcome. Whilst context allows you to interpret impact thresholds (to a degree), there are practical limits to the extent of the interpretation. It is unlikely you could adjust the assessment outcome beyond the next band (for example, modifying a BS 4142 outcome of more than 10dB to be less than an ‘adverse impact’).

5.5.4 The EA guidance lists 12no. factors that may impact the context of a noise source, these are listed below with an associated comment as to their applicability:

- *Weekdays rather than weekends*

The proposed hours are listed within Section 1.3 and confirm that waste processing activities (i.e. the loudest operations) will only take place between Monday to Friday, with Saturdays comprising a maintenance day and the site being closed on Sundays and Bank Holidays.

- *What the sound 'means' – meaningful sound is one that conveys an unpleasant meaning beyond its mere acoustic content, for example noise from an abattoir*

The noise associated with the operation of the site will include bangs/crashes of scrap metal and motor noise, which although has the capacity to cause annoyance (justifying the inclusion of penalties as per BS4142:2014) carries no particularly unpleasant meaning. Following revision to the site layout, these bangs and crashes will occur at a greater distance and at a lower noise level than observed previously.

- *Time of day*

As described previously, onsite operations are limited to between the hours of 08:00-17:00. These hours would not be considered unsociable or unreasonable.

- *The absolute sound level*

The absolute sound levels range from 26 to 33.4dB (A) within the vicinity of the site prior to the addition of any acoustic correction factors. This is considerably below the measured LAeq levels measured within the vicinity of the site with range from 51.2 to 61.7dB (A). In addition, the figures are below the 50dB WHO threshold for external amenity areas.

- *Where the sound occurs*

The sounds occur within an established industrial area south of Barracks Road. While the surrounds are of an agricultural nature, the onsite activities have been present for some time.

- *New industry or new residences*

The site has been used for similar waste/commercial activities for in excess of 23 years. A brief review of the history of the area via Google Earth confirms this.

- *Intrinsic links between the source and receptor, for example the source is the resident's place of work*

There is no established link between the source and the surrounding receptors.

- *Local attitudes*

No formal assessment of surrounding residents has been undertaken.

- *The residual acoustic environment*
The existing noise climate is discussed within Section 4.5. As detailed previously, the nature of the sounds are distinguishable from those of the surrounding area, thus the application of the 6dB penalty. This is of course with the exception of the agricultural yard to the north, whereby bangs and crashes have been observed along with motor noise from heavy farm vehicles. These vehicles can leave the site before 06:00am in the morning which is evident from a resident who lives adjacent to the site on Barracks Road, this resident actually works at the site.
- *The land use at the receptor (for example, gardens rather than yards)*
The surrounding residential dwellings appear to contain established amenity areas, with the nearest residential gardens being located to west.
- *The exceedance (traditional BS 4142)*
This is provided within Table 5.3. Noise levels rise above the 5dB+ threshold during the middle of the day, when road traffic levels are lower. This is indicative of a potential adverse impact, dependent on context. The EA guidelines consider that the contextual/subjective argument may higher or lower this band (i.e. to low impact or to significant adverse). It should be noted that this time of the day may be considered less sensitive than for example early morning or late afternoon.
- *Other matters that might be particular to that individual situation*

5.5.5 The EA guidance also considered that these elements are likely to make a situation more sensitive:

- *More houses in the location*
Whilst there are a number of dwellings within the vicinity of the site, these are generally sparingly distributed. In addition, these are generally located away from the revised location of site activities.
- *Noise during antisocial hours and at weekends*
As discussed previously, noisy activities will be limited to between 08:00 and 17:00, Monday to Friday, with Saturday comprising a maintenance and housekeeping day.
- *A well-used amenity area and private rear gardens*
Reference should be made to the previous section.

- *The natural soundscape*
Reference should be made to the previous Section.
- *A new industry*
The noise source is associated with a long-standing operation within an established industrial plot.
- *A highly sensitive receptor*
None of the receptors within the vicinity of the site would be considered particularly more sensitive than a typical residential dwelling.

5.5.6 The EA guidelines state that the following elements are likely to make a situation less sensitive:

- *More industry in the location*
As discussed previously, the site and the adjacent agricultural yard are the main industrial/commercial sound sources within the vicinity.
- *Noise only between 9am to 5pm*
The site will be operated between the hours of 07:00-17:00 with processing, sorting and loading operations not fully commencing until roughly 08:00. These hours would not be considered unsociable or unreasonable, with numerous surrounding businesses and road traffic already active by this time.
- *Noise on weekdays only*
As discussed previously, the site will be operated Monday to Friday with limited maintenance/housekeeping on Saturdays.
- *A rarely used amenity area and open front yards*
Please refer to the previous sections with regards to amenity areas.
- *A polluted landscape*
The LAeq, LAm_{ax}, LA90 and LA10 figures are provided previously, the soundscape would not be considered to be particularly polluted, with lower background levels largely being responsible for the exceedance of the rating level over the LA90 figures rather than a high rating level itself.
- *Bland sound*
Not applicable in this instance.

- *Long-standing industry*
This has been covered within previous sections.
- *A less sensitive receptor*
This has been covered within previous sections.

5.5.7 The subjective/contextual assessment of noise discussed within the preceding Section confirms that the resultant impacts are likely to be lower than the comparison of the rating level with background levels alone would indicate.

5.5.8 The following contextual factors are likely to reduce the impact of noise levels; the absolute sound level, the fact that the site lies within an established industrial land use, nature/meaning of the noise, time of the day of the noise and the fact that the majority of the noise sources will only operate during the week.

5.5.9 The impact of contextual factors such as the presence of external amenity areas (used during the evening) has the potential to raise the level of impact.

5.5.10 Considering the substantial reduction in noise levels associated with the application, the marginal exceedance at limited times of the day and the associated contextual and subjective factors, the impact is deemed to be acceptable, subject to post-issue regulation via the environmental permit by the Environmental Agency and regular review of the associated noise management plan.

5.6 Existing Scenario

5.6.1 In order to demonstrate the improvements made to the site and the reduction in noise levels that the revised site layout will provide, an acoustic model was also produced for the existing model.

5.6.2 The model utilises the same assumptions as those described in sections 5.4.3 with regards to ground absorption, reflective surfaces etc. However, the location of the sources and barrier heights and locations are as per those observed whilst onsite and as per the previously provided site layout plan. "On times" are slightly different as the nature of day

to day work is currently different (i.e. the existing baler may take longer to process the same number of vehicles).

5.6.3 Table 5.5 details the predicted noise levels (in dB A) associated with the current layout of the application site at the relevant receptors and provides an assessment as per BS4142:2014. These are based on the results of the modelling provided in Figure 5.6 on table 32.

5.6.4 It should also be noted that the penalties used within the assessment are higher than those using within Table 5.3. The noise sources currently benefit from less screening as per the proposed scenario and are located significantly closer to the residential dwellings off Barracks Road. In addition, the petrol cutter is currently operated externally, this noise source is deemed to be highly impulsive and to have a tonal element. Therefore, an 8dB correction has been applied (6 for impulsive elements and 2 for tonal aspects).

Table 5.4 – Assessment of typical daytime noise sources associated with the site (existing layout) as per BS4142:2014

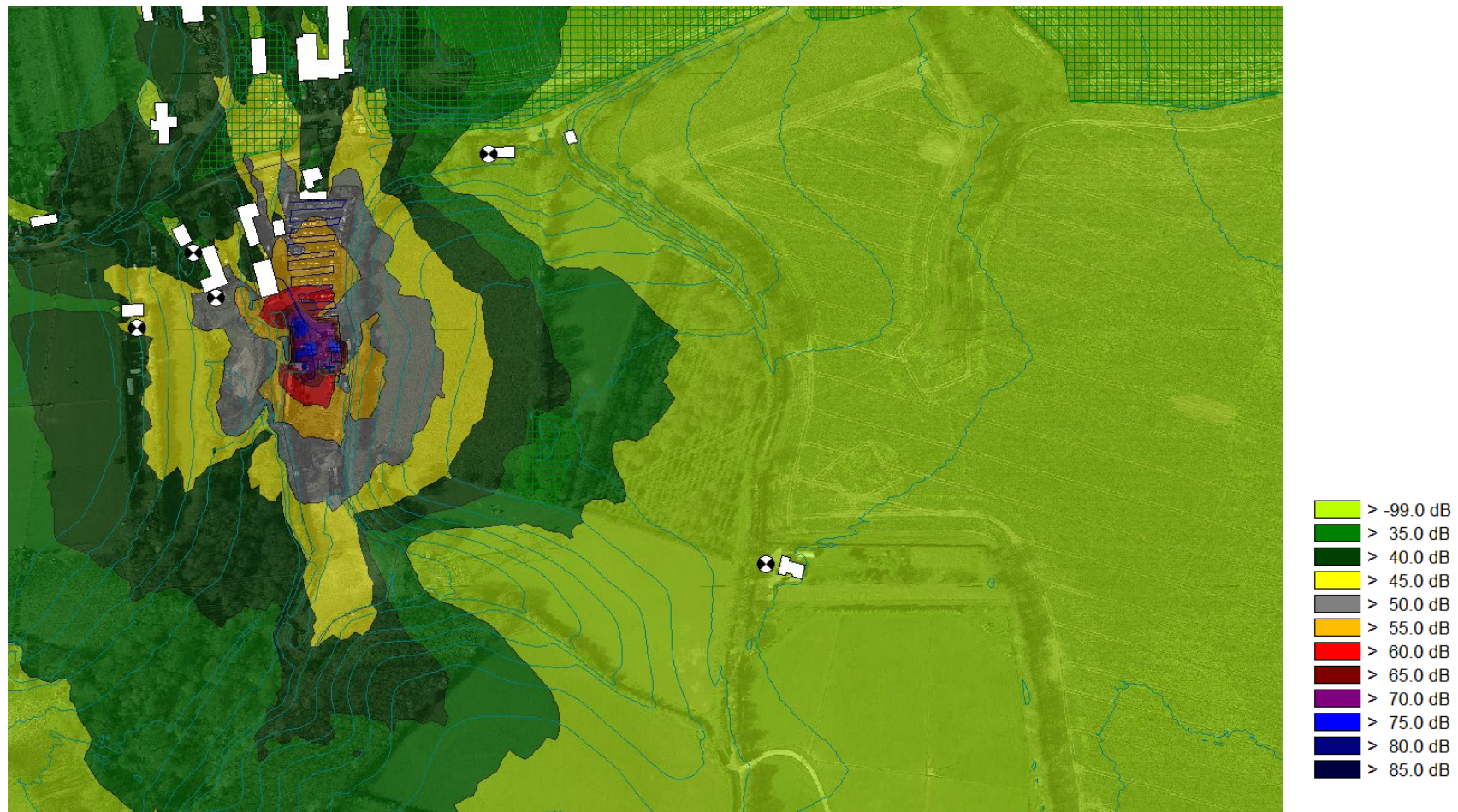
	Residential dwellings off Barracks Road to NW (dB A)	Residential dwellings off Barracks Road to E (dB A)	Caravan to NW of the site (dB A)	Residential dwellings off High Road to E (dB A)	Comments
Calculated noise level as per figure 5.2	45.2	31.8	54.1	32.8	
Addition of relevant penalties as per BS4142:2014	+8 = 53.2	+8 = 39.8	+8 = 62.1	+8 = 40.8	As per Section 5.7.4
Comparison to weekday background levels	53.2 – 31.5/38.3 = 14.9 to 21.7 above	39.8 – 30.3/37.6 = 2.2 to 9.5 above	62.1 - 31.5/38.3 = 23.8 to 30.6 above	40.8 – 30.2/33.0 = 7.8 to 10.6 above	See subsequent discussion

Table 5.5 – Comparison of calculated rating levels

	Residential dwellings off Barracks Road to NW (dB A)	Residential dwellings off Barracks Road to E (dB A)	Caravan to NW of the site (dB A)	Residential dwellings off High Road to E (dB A)	Comments
Calculated rating level as per existing scenario (table 5.5)	38.6	32.0	38.0	39.4	
Calculated rating level as per proposed scenario (table 5.2)	53.2	39.8	62.1	40.8	
Difference in dB (A)	-14.6	-7.8	24.1	-1.4	See subsequent discussion

5.6.5 As can be seen from Table 5.4 and 5.5 above, the proposed amendments to the site layout and additional mitigation will result in a substantial betterment in terms of the rating level when experienced at the nearest residential dwellings, despite the increase in throughput. For the vast majority of receptors, this downgrades the resultant “banding” from significant adverse to adverse (dependent on context).

Table 5.6 – Assessment of typical daytime noise sources associated with the site as per the existing layout



6 Conclusion

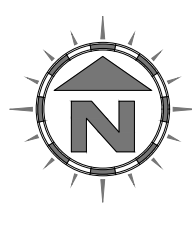
6.1 Summary & Recommendations

- 6.1.1 Oaktree Environmental Limited have undertaken an NIA for Ltd.'s site situated at The Breakers Yard, Barracks Road, Assington CO10 5LP.
- 6.1.2 The primary receptors are the residential dwellings off Barracks Road to the northwest and northeast. Additional receptors are located off High Road further to the east.
- 6.1.3 The document includes details of the revised site layout which has been reconsidered following receipt of noise related complaints from residents and comments from the local area officers. Currently the site is arranged as per Drawing No. BAR/3041/03, however, this will be revised following permit issue to that presented within Drawing Nos. BAR/3041/03A and BAR/3041/03B.
- 6.1.4 In addition, the disc cutter and the baler noise level has been revised to be representative of a more modern, quieter plant. Numerous additional mitigation measures have been recommended which have been detailed previously.
- 6.1.5 The proposed layout of the has been designed with acoustic issues in mind and the site has been assessed with regards to BS4142:2014. It is considered that the proposed revisions to site layout and the associated mitigation measures will deliver a reduction in the rating level of approximately 20dB+ and that the impacts associated with the proposed operation of the site are low based on the excess of the background level over the onsite noise sources in conjunction with the following contextual and subjective assessment of the site.
- 6.1.6 It is also proposed that following the installation of the additional mitigation measures and revisions to site layout, additional post-completion monitoring of the site be undertaken within areas representative of the nearest residential receptors in order to confirm the calculated rating level. Due to the methodology undertaken within the modelling, these are likely to overstate the noise levels and associated impact.

- 6.1.7 Measured parameters should include LAeq, LAmax, LA90 and LA10 and should be used to re-assess the site prior to revision of the NMP, if required.
- 6.1.8 If the EA are minded to reject this NIA, it is proposed the EA recommend a pre-operational condition which restricts throughput to <12,000 of ELVs only until an as built Noise Impact Assessment has been submitted to and approved by the EA given the number of proposals stated in this NIA. It is considered an as-built NIA will provide a much more representative and accurate assessment. .

Appendix I

Drawings

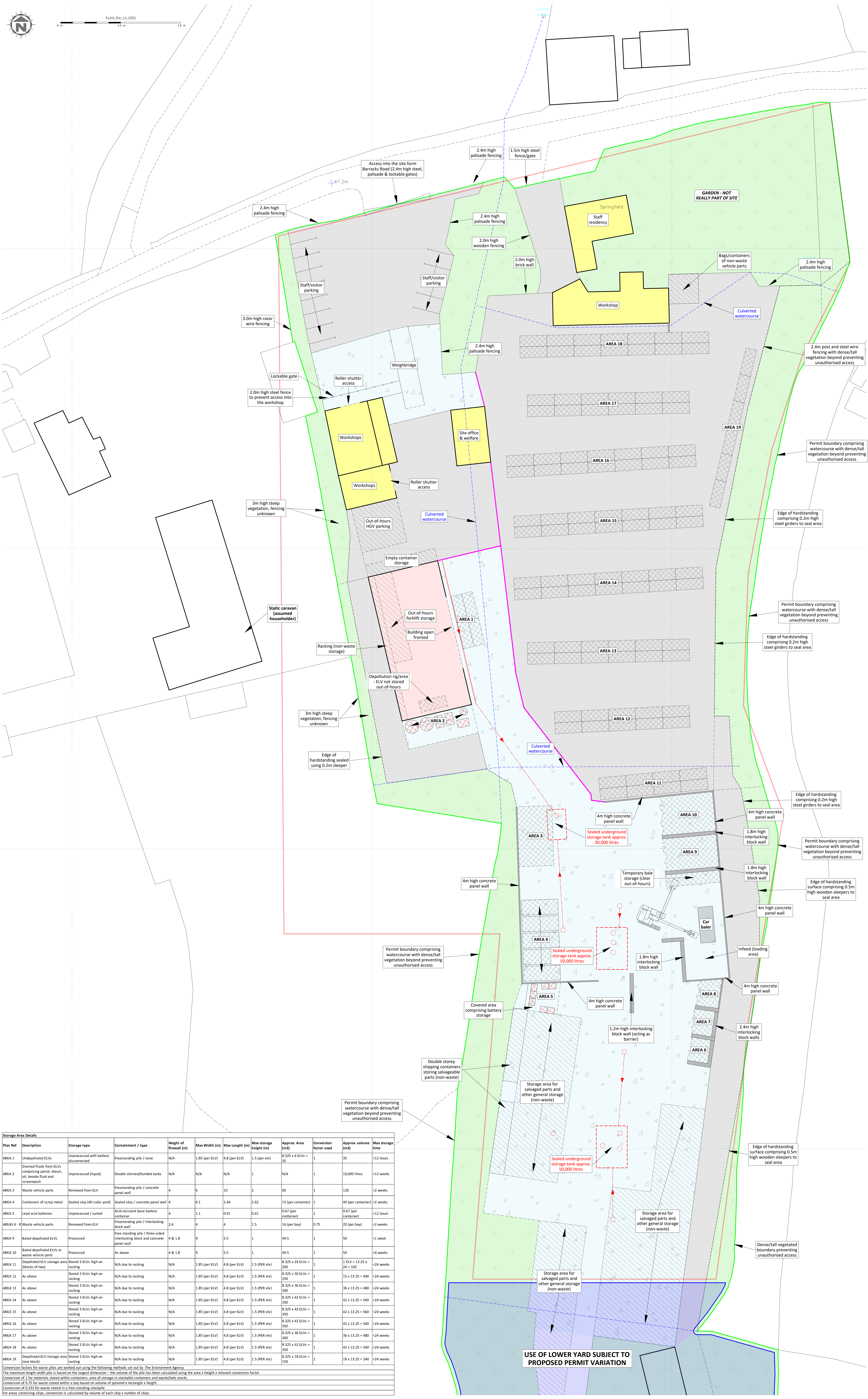


Scale: 1:1000
0 m 10 m 20 m

NOTES
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Rev	Date	Init	Description
-	11.03.22	CP	Initial drawing

- Key - NEEDS TO BE COMPLETED/CONFIRMED
- Proposed permit boundary
 - Existing permit boundary
 - Waste storage areas
 - Loading areas
 - Non-waste storage areas
 - Hazardous waste storage areas
 - Non-hazardous waste storage areas
 - Waste recycling / storage buildings (impermeable concrete floor)
 - Other buildings i.e. workshops/offices
 - Impervious concrete surfaces with sealed drainage (upper level)
 - Contaminated surface water drainage
 - Gully's
 - Manholes



Plan Ref	Description	Storage type	Containment / type	Height of freewall (m)	Max Width (m)	Max Length (m)	Max storage height (m)	Approx. Area (m ²)	Conversion factor used	Approx. volume (m ³)	Max storage time
AREA 1	Depolluted ELVs	Unprocessed with battery disconnected	Freestanding pile / none	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (per elv)	8,325 x 4 ELVs = 35	1	35	<12 hours
AREA 2	Drained fluids from ELVs comprising petrol, diesel, oil, brake fluid and screenwash	Unprocessed (liquid)	Double skinned/bunded tanks	N/A	N/A	N/A	1	N/A	1	10,000 litres	<12 weeks
AREA 3	Waste vehicle parts	Removed from ELV	Freestanding pile / concrete panel wall	4	6	10	2	60	1	120	<2 weeks
AREA 4	Containers of scrap metal	Sealed skip (40 cubic yard)	Sealed skip / concrete panel wall	4	6.1	2.44	2.62	15 (per container)	1	40 (per container)	<2 weeks
AREA 5	Lead acid batteries	Unprocessed / sorted	Acid resistant base battery container	4	1.1	0.91	0.61	0.67 (per container)	1	0.67 (per container)	<12 hours
AREAS 6 - 8	Waste vehicle parts	Removed from ELV	Freestanding pile / interlocking block wall	2.4	4	4	1.5	16 (per bay)	0.75	20 (per bay)	<2 weeks
AREA 9	Baled depolluted ELVs	Processed	Free standing pile / three-sided interlocking block and concrete panel wall	4 & 1.8	9	5.5	1	49.5	1	50	<1 week
AREA 10	Baled depolluted ELVs or waste vehicle parts	Processed	As above	4 & 1.8	9	5.5	1	49.5	1	50	<4 weeks
AREA 11	Depolluted ELV storage area (blocks of two)	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (PER elv)	8,325 x 24 ELVs = 200	1	1 ELV = 13.25 x 24 = 320	<24 weeks
AREA 12	As above	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (PER elv)	8,325 x 30 ELVs = 250	1	15 x 13.25 = 400	<24 weeks
AREA 13	As above	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (PER elv)	8,325 x 36 ELVs = 300	1	36 x 13.25 = 480	<24 weeks
AREA 14	As above	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (PER elv)	8,325 x 42 ELVs = 350	1	42 x 13.25 = 560	<24 weeks
AREA 15	As above	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (PER elv)	8,325 x 42 ELVs = 350	1	42 x 13.25 = 560	<24 weeks
AREA 16	As above	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (PER elv)	8,325 x 42 ELVs = 350	1	42 x 13.25 = 560	<24 weeks
AREA 17	As above	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (PER elv)	8,325 x 36 ELVs = 300	1	36 x 13.25 = 480	<24 weeks
AREA 18	As above	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (PER elv)	8,325 x 42 ELVs = 350	1	42 x 13.25 = 560	<24 weeks
AREA 19	Depolluted ELV storage area (one block)	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (PER elv)	8,325 x 18 ELVs = 150	1	18 x 13.25 = 240	<24 weeks

Conversion factors for waste piles are worked out using the following methods set out by The Environment Agency:
 The maximum length/width pile is based on the largest dimension - the volume of the pile has been calculated using the area x height x relevant conversion factor
 Conversion of 1 for materials stored within containers, area of storage in stackable containers and waste/bale stacks
 Conversion of 0.75 for waste stored within a bay based on volume of pyramid x height
 Conversion of 0.333 for waste stored in a free-standing stockpile
 For areas containing skips, conversion is calculated by volume of each skip x number of skips

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
EXISTING SITE LAYOUT PLAN

CLIENT
Assington Autos Ltd

PROJECT/SITE
The Breakers Yard, Barracks Road, Assington
CO10 5LP

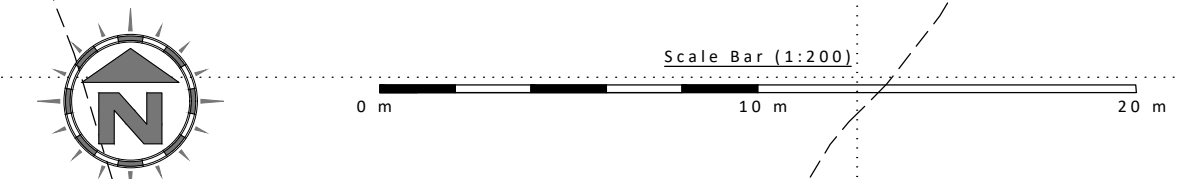
SCALE @ A0 1:200 **CLIENT NO** 3041 **JOB NO** 001

DRAWING NUMBER BAR/3041/03 **REV** - **STATUS** Draft

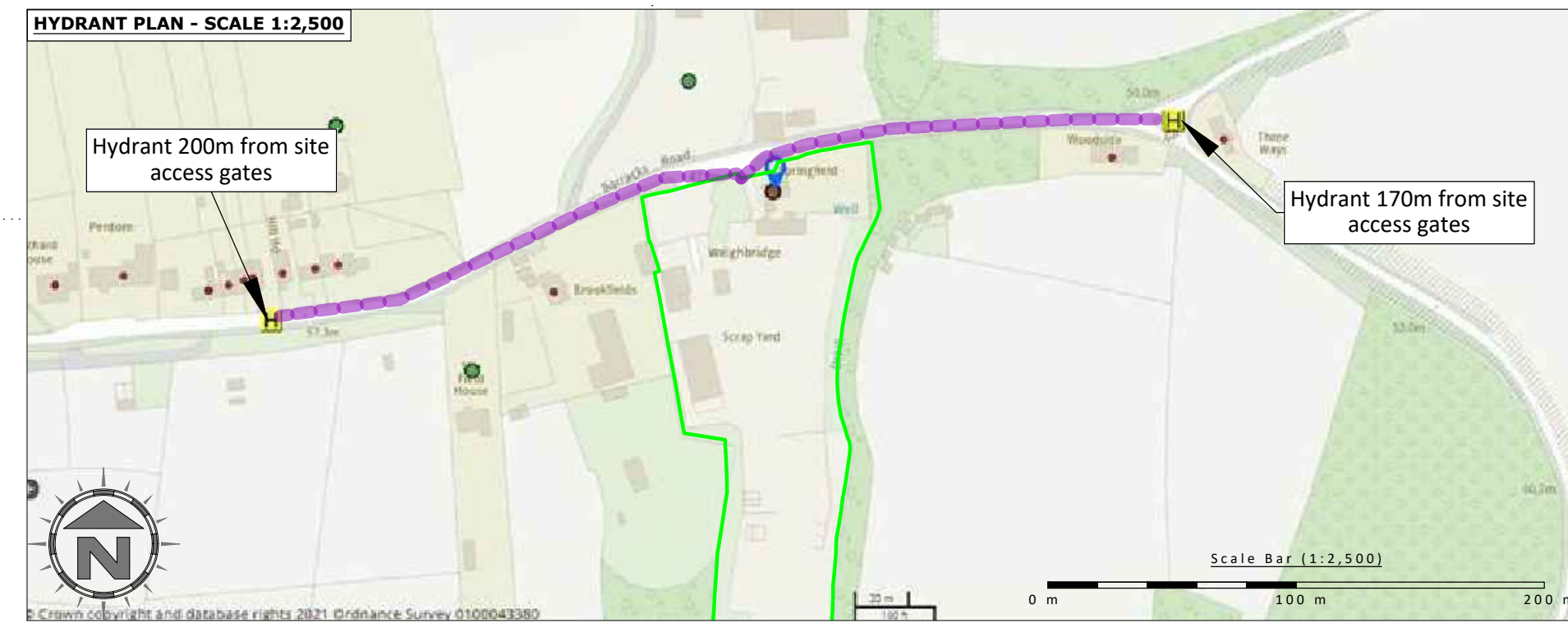
DRAWN BY CP **CHECKED** - **DATE** 11.03.22

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Plan Ref	Description	Storage type	Containment / type	Height of firewall (m)	Max Width (m)	Max Length (m)	Max storage height (m)	Approx. Area (m ²)	Conversion factor used	Approx. volume (m ³)	Max storage time
AREA 1	Depolluted ELV storage area (blocks of two)	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (per ELV)	8,325 x 42 ELVs = 350	1	42 x 13.25 = 560	<24 weeks
AREA 2	Depolluted ELV storage area (one block)	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (per ELV)	8,325 x 18 ELVs = 150	1	18 x 13.25 = 240	<24 weeks
AREA 3	Depolluted ELV storage area (blocks of two)	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (per ELV)	8,325 x 36 ELVs = 300	1	36 x 13.25 = 480	<24 weeks
AREA 4	As above	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (per ELV)	8,325 x 42 ELVs = 350	1	42 x 13.25 = 560	<24 weeks
AREA 5	As above	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (per ELV)	8,325 x 42 ELVs = 350	1	42 x 13.25 = 560	<24 weeks
AREA 6	As above	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (per ELV)	8,325 x 42 ELVs = 350	1	42 x 13.25 = 560	<24 weeks
AREA 7	As above	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (per ELV)	8,325 x 36 ELVs = 300	1	36 x 13.25 = 480	<24 weeks
AREA 8	As above	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (per ELV)	8,325 x 30 ELVs = 250	1	15 x 13.25 = 400	<24 weeks
AREA 9	As above	Stored 3 ELVs high on racking	N/A due to racking	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (per ELV)	8,325 x 24 ELVs = 200	1	1 ELV = 13.25 x 24 = 320	<24 weeks
AREA 10	Lead acid batteries and catalytic converters	Unprocessed / sorted	Acid resistant base battery container	N/A	1.1	0.91	0.61	0.67 (per container)	1	0.67 (per container)	<4 weeks
AREA 11	Unpolluted ELVs	Unprocessed with battery disconnected	Freestanding pile / none	N/A	1.85 (per ELV)	4.8 (per ELV)	1.5 (per ELV)	8,325 x 6 ELVs = 50	1	50	<12 hours

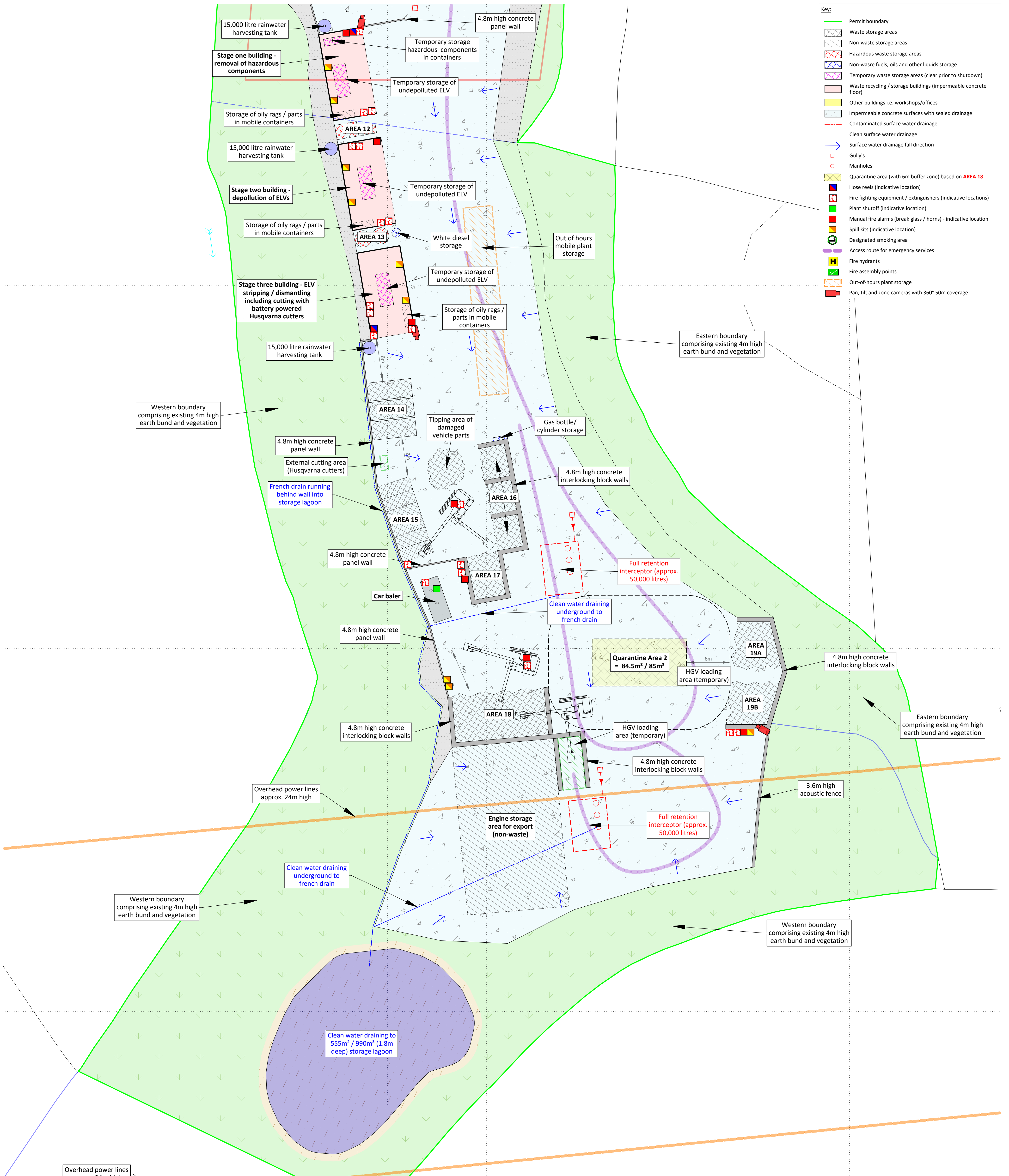


- KEY**
- Permit boundary
 - Waste storage areas
 - Non-waste storage areas
 - Hazardous waste storage areas
 - Non-waste fuels, oils and other liquids storage
 - Temporary waste storage areas (clear prior to shutdown)
 - Waste recycling / storage buildings (impermeable concrete floor)
 - Other buildings i.e. workshops/offices
 - Impermeable concrete surfaces with sealed drainage
 - Contaminated surface water drainage
 - Clean surface water drainage
 - Surface water drainage fall direction
 - Gully's
 - Manholes
 - Quarantine area (with 6m buffer zone) based on AREA 10
 - Hose reels (indicative location)
 - Fire fighting equipment / extinguishers (indicative locations)
 - Plant/shaft (indicative locations)
 - Manual fire alarms (break glass / horns) - indicative location
 - Spill kits (indicative location)
 - Designated smoking area
 - Access route for emergency services
 - Fire hydrants
 - Fire assembly points
 - Out-of-hours plant storage
 - Pan, tilt and zone cameras with 360° 50m coverage



REVISION HISTORY

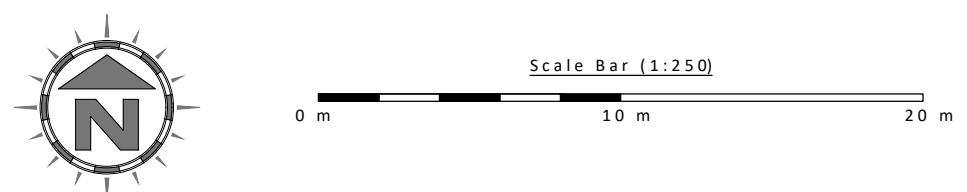
Rev	Date	Int	Description
-	07.04.22	CP	Initial drawing
A	20.04.23	CP	Updated site layout



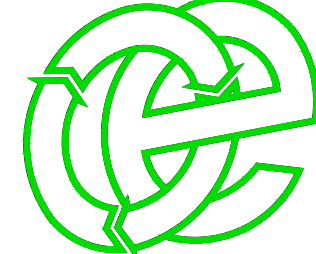
- Key:**
- Permit boundary
 - Waste storage areas
 - Non-waste storage areas
 - Hazardous waste storage areas
 - Non-waste fuels, oils and other liquids storage
 - Temporary waste storage areas (clear prior to shutdown)
 - Waste recycling / storage buildings (impermeable concrete floor)
 - Other buildings i.e. workshops/offices
 - Impermeable concrete surfaces with sealed drainage
 - Contaminated surface water drainage
 - Clean surface water drainage
 - Surface water drainage fall direction
 - Gully's
 - Manholes
 - Quarantine area (with 6m buffer zone) based on AREA 18
 - Hose reels (indicative location)
 - Fire fighting equipment / extinguishers (indicative locations)
 - Plant shutdown (indicative location)
 - Manual fire alarms (break glass / horns) - indicative location
 - Spill kits (indicative location)
 - Designated smoking area
 - Access route for emergency services
 - Fire hydrants
 - Fire assembly points
 - Out-of-hours plant storage
 - Pan, tilt and zone cameras with 360° 50m coverage

Storage Area Details PART 2 OF 2

Plan Ref	Description	Storage type	Containment / type	Height of fire wall (m)	Max Width (m)	Max Length (m)	Max storage height (m)	Approx. Area (m ²)	Conversion factor used	Approx. volume (m ³)	Max storage time
AREA 12	Drained fluids from ELVs comprising, oil, break fluid and screen wash	Unprocessed (liquid)	Double skinned/bunded tanks	N/A	N/A	N/A	1	N/A	1	10,000 litres	<12 weeks
AREA 13	Drained fluids from ELVs petrol, diesel, oil, brake fluid and screen wash	Unprocessed (liquid)	Double skinned/bunded tanks	N/A	N/A	N/A	1	N/A	1	10,000 litres	<12 weeks
AREA 14	Containers of scrap metal	Sealed skip (40 cubic yard)	Sealed skip / concrete panel wall	4.8	6.1	2.44	2.62	15 (per container)	1	40 (per container)	<1 week
AREA 15	Depolluted ELVs awaiting baling	Processed / fully stripped ELV shell	Freestanding / concrete panel wall	4.8	1.85 (per ELV)	4.8 (per ELV)	1.5 (per ELV)	8.325 x 6 ELVs = 50	1	50	<12 hours
AREA 16	Waste vehicle parts	Removed from ELV	Freestanding pile / interlocking block wall	4.8	4	4	1.5	16 (per bay)	0.75	20 (per bay)	<1 week
AREA 17	Waste vehicle parts	Removed from ELV	Freestanding pile / interlocking block wall	4.8	4	4	1.5	16 (per bay)	0.75	20 (per bay)	<1 week
AREA 18	Baled depolluted ELVs & waste vehicle parts	Processed	As above	4.8	13	6.5	1	82	1	82	<1 week
AREA 19A & 19B	Waste tyres and alloys wheels	Removed from ELV	Free standing pile / three-sided interlocking block wall	4.8	13	7	1	91	0.75	68	<1 week



Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants



DRAWING TITLE
SITE LAYOUT & FIRE PLAN (PART 2 OF 2)

CLIENT
Assington Autos Ltd

PROJECT/SITE
The Breakers Yard, Barracks Road, Assington CO10 5LP

SCALE @ A1
1:250

CLIENT NO
3041

JOB NO
001

DRAWING NUMBER
BAR/3041/03B

REV
B

STATUS
Issued

DRAWN BY
CP

CHECKED
AAL

DATE
07.07.23

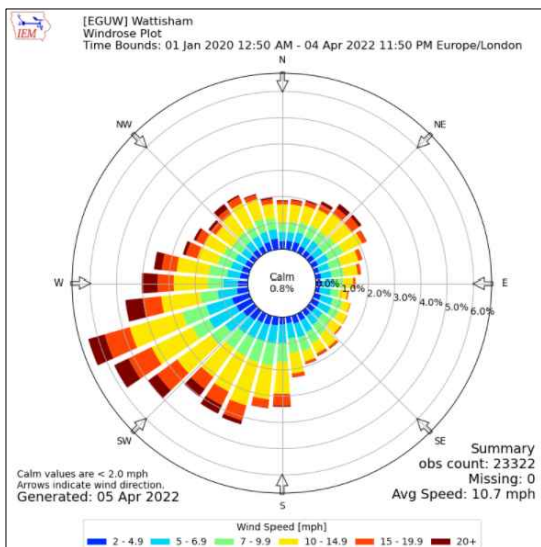
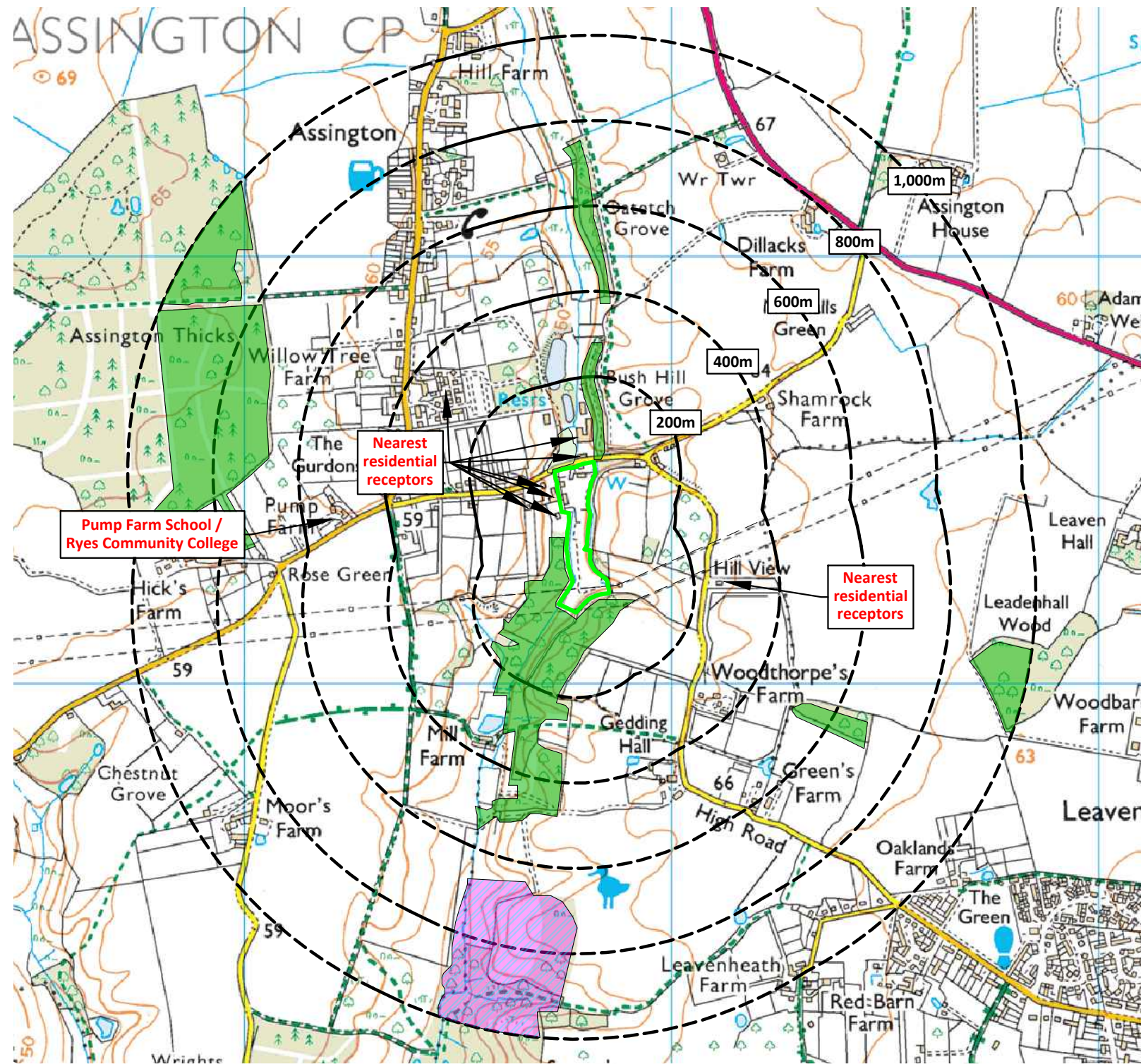
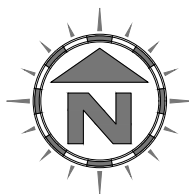
NOTES
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REVISION HISTORY

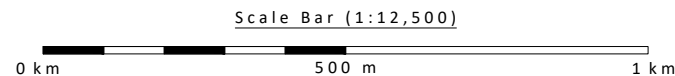
Rev:	Date:	Init:	Description:
-	07.04.22	CP	Application copy
A	20.04.23	CP	Updated site layout + infrastructure improvements
B	07.07.23	CP	Updated site layout + infrastructure improvements

KEY:

- Permit boundary
- Surface water (river / stream / beck)
- Surface water (estuary / pond / pool / lake / resevoir)
- Areas with mix of residential, retail and commercial properties
- Workplaces (includes agriculture industry, commerce and retail)
- Class A roads
- Class B roads
- Class C roads
- Priority Habitat - Deciduous Woodland
- SSSI - Argen Fen
- Non-protected woodland areas



Compass Wind Rose for Wattisham (EGUW)
 Period 2020 - 2022
 - source: Iowa State University



NOTES

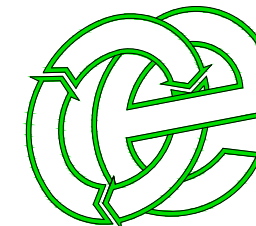
1. Boundaries are shown indicatively.
2. Wind rose data shows the prevailing wind direction to be blowing northeast from the southwest.

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	05.04.22	CP	Initial drawing

Oaktree Environmental Ltd
 Waste, Planning and Environmental Consultants



DRAWING TITLE
 RECEPTOR PLAN

CLIENT
 Assington Autos Ltd

PROJECT/SITE
 The Breakers Yard, Barracks Road, Assington
 CO10 5LP

SCALE @ A3	CLIENT NO	JOB NO
1:12,500	3041	001

DRAWING NUMBER	REV	STATUS
BAR/3041/04	-	Issued

DRAWN BY	CHECKED	DATE
CP	--	05.04.22

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Appendix II

Historic NIA

Project

Assington Autos
Noise Assessment

Prepared for

Charlotte Malone
Assington Autos Ltd
The Breakers Yard
Barracks Road
Assington
Sudbury
CO10 5LP

By

Tom Dolton BA(Hons)

Published

21 December 2018

Quality Assurance	
Project Title	Assington Autos
Document Title	Noise Assessment
Client	Assington Autos Ltd.
Client Address	Assington Autos Ltd The Breakers Yard Barracks Road Assington Sudbury CO10 5LP
Author	Tom Dolton BA(Hons)
Checker	Richard Budd BEng(Hons) CEng MIOA
Report Number	I4948A - T01
Additional information	

Revision History

Revision	Date	Comments
-	21 December 2018	First Issue

Summary

Assington Autos Ltd is a metal recyclers and vehicle dismantlers in Assington, Suffolk. Complaints about noise from Assington Autos Ltd. have been made to the Environment Agency by multiple local residents. Assington Autos Ltd has asked SRL Technical Services Ltd to assess the impact of noise from their premises on the nearest noise sensitive receptors.

I have assessed noise from Assington Autos' site using the method in BS 4142:2014.

The result of my assessment shows that in a very worst-case scenario the noise levels at the nearest noise sensitive receptors, may cause an 'adverse impact' as defined by BS 4142:2014. The results indicate that there is unlikely to be an adverse impact at any receptors further away from the facility.

I have given a set of recommendations to reduce the impact of noise from Assington Autos on the surrounding dwellings, which include:

- Extending the 4.5m high concrete wall and bund northward along the western boundary, as well as building a new wall (or similar) along the eastern boundary between the dismantling area and the dwelling to the east.
- A series of mitigation measures to reduce noise from operating plant.

A document with a monitoring procedure to be used as part of the noise management plan will be issued separately to this report.



Tom Dolton BA(Hons)

For and on behalf of

SRL Technical Services Limited

Tel: 01787 247595

Email: tdolton@srltsl.com

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1.0 Introduction

The Environment Agency has received numerous complaints due to noise from activities at Assington Autos (AA). These have been made by local residents that industrial noise from Assington Autos is heard at their residences throughout the day during its operating hours.

The site is on a country lane in the village of Assington, with an industrial site opposite and residential properties along the lane in both directions.

I understand that the comments have been made from the three nearest residents on the same road, approximately 35m west of the site, approximately 113m west of the site and approximately 98m east of the site.

SRL Technical Services Ltd. has been commissioned by Assington Autos Ltd to investigate the likely causes of the adverse comments and if necessary, give advice to mitigate these noises.

The facility operates between 08:00h to 18:00h Monday to Friday, and between 08:00h to 13:00h on Saturdays.

There is one dismantling area on the site, as well as a shed containing a depollution station with the rest of the site being used for storage. All the noisiest activities take place in the dismantling area.

Figure 1 shows the site and surrounding area, with the boundaries of Assington Autos marked red, the dismantling area marked orange and the noise sensitive receptors (NSR) marked as yellow dots.

Figure 1: Site and surrounds, with noise sensitive receptors (NSR) identified



Note that the buildings to the south of NSR1 are farm buildings, not residential.

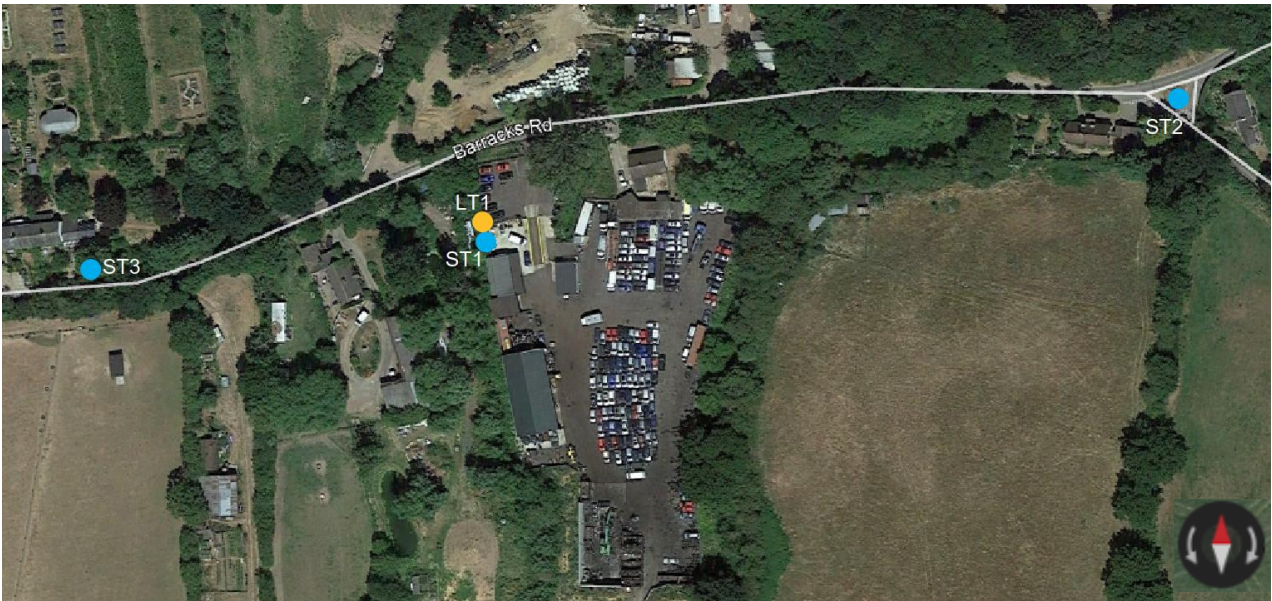
2.0 Noise Climate

2.1 Measurements at the nearest noise sensitive properties

I visited the site on Monday 10th December 2018 at 09:00 and installed an unattended noise monitor to the Western boundary of the facility, in line with the nearest residential property where noise complaints have been made (location LT1 in **figure 2** below). The monitor was left for 7 days to identify any variation in noise levels from the yard over an entire working week.

I also took attended noise measurements during the day on Monday 10th December. These were taken close to the monitor (ST1), at each of the residential noise sensitive receptors (ST2 and ST3).

Figure 2: locations of short-term and long-term measurement positions for NSRs



LT = Long Term measurement location; ST = Short Term measurement locations

The noise environment at ST1 contained noise from the AA yard, road traffic on Barracks Road, bird song, agricultural noise from the north and planes overhead.

Noise at ST2 included road traffic on Barracks Road, birdsong, agricultural noise from the north, planes overhead and intermittent noise from the AA yard. During lulls in the local traffic and aircraft noise, distant traffic could be heard from the A134 to the east.

Noise at ST3 included road traffic on Barracks Road, birdsong, intermittent agricultural noise from the west, planes overhead and intermittent noise from the AA yard.

In general, the traffic on Barracks Road was infrequent but at times there were large numbers of aircraft overhead.

Additional measurements were then taken at the same locations while the site had a temporary shut down between 12:30 and 13:15. These are shown in **table I** below.

Table I - Background Noise Measurements at Noise Sensitive Receptors

Position	Location	Distance to main site noise	Start time	L _{Aeq}	L _{A90}	L _{Amax}
LT1*	Western site boundary, in line with NSR1	82m	13:15	49	35	72
ST1*	Western site boundary, in line with NSR1 I	82m	13:14	48	35	67
ST2	Next to NSR2	202m	12:49	55	36	77
ST3	Grass triangle junction, opposite NSR3	161m	13:44	52	32	75

* This measurement was taken on the boundary of the site next to NSR1 property. This was taken here as the closest possible location to the NSR from the site, with the same distance from the road, the main noise source in the area while the site was inactive, to determine background noise level at NSR1.

2.2 Measurements at the Assington Autos yard

During the attended survey measurements were also taken around the AA yard while it was operating. I measured every type of noisy activity across different times of the day to determine how the noise varies and the noise level of each activity at source. Staff at AA reported that it was a typical busy day in the yard and that the noise environment does not change on different days.

All of the noisiest activities took place in the dismantling area, highlighted in figure 1 above, where the mobile crane and crusher are located. All measurements were taken 15m away from the centre of the noise source (unless otherwise stated in appendix B).

The main sources noted in the AA yard during the survey were as follows:

- Large crane used to lift vehicles into the crusher
- Articulated lorry driving into site, reversing, bring loaded by crane
- Abrasive wheels used to saw vehicles
- Drills used on vehicles

- JCB telehandler being used to pull components from vehicles
- Intermittent forklift loading cars onto and from stacks, and bringing them to the dismantling area
- Other cars being driven to the dismantling area from storage areas to be dismantled

The only normal activities not measured on this day were:

- daily deliveries of end-of-life vehicles by pickup trucks towing single vehicles
- occasional delivery by a multi-car transporter which is not a daily occurrence.

The noise level of the pickup trucks would be similar to smaller vehicles and flatbed truck measured during the survey. The multi-car transporter would be very similar to the articulated lorry driving into the site and forklifts moving vehicles that were measured during the survey. These are not a cause for concern as they were not among the loudest noises measured, being between 68 to 71 dB L_{Aeq} at 5m.

The site typically has one articulated lorry visit a day. This is loaded by the crane which takes on average one hour, as I witnessed during my survey. This infrequent number of lorries is unlikely to exceed road traffic noise limits in the area.

Average noise levels from the dismantling area varied from 65dB - 79dB L_{Aeq} during different activities, depending on which equipment was operating. For the whole duration the crusher was operating, the JCB telehandler crane and flatbed truck were idling. The higher levels were intermittent, with long breaks in between, where the average noise level settled at 65 - 66dB L_{Aeq} at 15m.

The highest measured average noise level was 79dB L_{Aeq} . This was measured during three different scenarios:

- 11:28 - all mobile plant equipment idling, crusher on, JCB telehandler pulling components from vehicle
- 11:49 - all mobile plant idling, crusher on, crane loading articulated lorry, abrasive wheel sawing vehicle
- 12:17 - crane loading the articulated lorry

From this I have determined that the worst-case scenario of noise from AA activities is a level of 79 L_{Aeq} at 15m.

A full table of measurements taken during the survey is in appendix B.

3.0 Noise Assessment

3.1 Noise Modelling

To assess noise from AA activities I need to know the specific noise level of the activity. My measurements showed that the noise level of AA activity was often similar (and lower in some cases) to the background noise level at the NSR locations. Due to the varying noise environment of the area regardless of noise from AA, it is not possible to determine the specific noise level from AA at each NSR using only my measurements at these positions. To determine the levels of noise from activities at AA at each NSR, I have produced a noise model of the area using the proprietary 3D noise modelling software *CadnaA*.

The model was verified using the measured noise levels from ST1, ST2, ST3 and LT1. The noise level of AA used is the worst case scenario of 79 dB L_{Aeq} as measured during the survey. The predicted noise levels across the area during these loudest activities are shown in **figure 3**.

Figure 3: Noise levels in area during loudest activities at site (at 1.5m high) - dB L_{Aeq}



3.2 BS 4142: 2014 "Methods for Rating and Assessing Industrial and Commercial Sound"

Taking the levels at each NSR from the noise model and the background noise levels measured for each during the survey, I have assessed the impact of this noise to BS4142:2014.

Table 2 - BS 4142 Assessment

	NSR1	NSR2	NSR3
Calculated "Typical Worst Case" Noise Level $L_{Aeq,1min}$ (dB)	34	38	34
Subjective Impulsivity Correction (dBA) ¹	6	3	3
Rating Level (dBA)	40	41	37
Measured Background Sound Noise Level $L_{A90, 15min}$ (dB)	35	36	32
Rating level excess over background (dBA)	+5	+5	+5
BS 4142 Assessment Rating	Indicates an Adverse impact	Indicates an Adverse impact	Indicates an Adverse impact

¹A subjective impulsivity correction has been added as per Section 9.2 of BS 4142:2014 up to a maximum of 9dB. 'Subjectively, this can be converted to a penalty of 3dB for impulsivity which is just perceptible at the noise receptor, 6dB where it is clearly perceptible, and 9dB where it is highly perceptible.'

This assessment indicates that there may be adverse impact at each of the three NSRs during the 'worst-case scenario' noise levels from AA.

It should be noted that during the survey this level of activity was not constant and only occurred for short periods of time while the crane was loading the articulated lorry, which happens on average for one hour per day. Nearly all other levels of activity in the dismantling area were between 3 and 14dB lower, meaning there would be no adverse impact to the NSRs during these activities.

Also note that the L_{Aeq} measured at the NSRs during this 'worst case scenario' period (see appendix B, measurement numbers 37-40) was no louder, sometimes quieter, than periods when less noisy activities were happening and when all AA activities stopped for the background measurements. This is due to other changes in the local noise environment: the amount of local traffic, other industrial farm noise not associated with AA, and overhead planes.

4.0 Recommendations

AA maintains an awareness of the impact of noise from the site on neighbouring properties and already have several noise mitigation measures in place and planned as seen in their Noise Management Plan dated August 2018. I recommend that these continue. They include:

- Maintain permitted site boundary fencing and walls
- Ensuring all operators of any vehicle and mobile plant adhere to speed limits at all times within the yard
- Ensuring that all vehicles and goods are fastened sufficiently and safely prior to transportation to avoid banging caused by loose movement during transportation
- Deliver training and toolbox talks in material handling and control of noise within the yard
- Operating plant in a manner that minimises the material impact and handling noise from the opening and closing of the crane grab
- Considering alternative methods to reduce the emission of noise e.g. using the hydraulic shear to remove catalytic converters as opposed to hand grinders*

*Since this plan, AA had been using the hydraulic shear instead of the hand grinders for this task, which significantly reduced the noise created. At the time of the survey, the hydraulic shear was broken and abrasive wheels used instead. AA are in the process of obtaining a replacement new hydraulic shear. This will significantly reduce noise from the site, as the abrasive wheels were the only activity from AA clearly audible at the NSRs other than the crane grab.

AA has also recently moved the large disposal containers away from western boundary to other side of site (away from NSR1).

During the survey, I noted that all the noise levels from AA that were audible at the NSRs was from the dismantling area of AA. There is currently a 4.5m high wall on the west and south edge of this area, which effectively reduces the sound travelling in these directions. This can be seen by the reduction of noise levels in these directions from the centre of **figure 3**.

I recommend that further solid barriers of at least 1m above the normal operating height of the crane grab are erected on the north and east side of this area, either by building new walls or moving the large disposal containers to block the line of sight between this area and the NSRs. An effective noise barrier can be a wall or fence, as long as it has a surface mass of at least 7kg/m² and has no holes or gaps.

In addition to this, I recommend the following:

- All dismantling work must continue to be contained within the designated area.
- The crane grab must be kept as low as practically possible, and not be raised above the height of barrier around the dismantling area.
- If reasonably practical, cover the forks/decks of the forklifts with a softer material such as rubber to prevent the scraping of metal against metal when loading vehicles
- Vehicles entering or leaving the yard must not be left idling by the entrance or on the road
- Loading and unloading of materials must be kept within the centre of the site

Appendix A - Survey Details

A1. Location of Survey

Barracks Road, Assington, Suffolk

A2. Date & Time of Survey

Attended Survey - 10/12/2018: 9:00 to 14:00

Unattended Survey - 10/12/2018: 10:00 to 17/12/2018 10:00

A3. Personnel Present During Survey

Tom Dolton (SRL)

A4. Weather Conditions during Survey

8°C, dry, light cloud. North-westerly breeze at 8mph.

A5. Instrumentation

Bruel & Kjaer - Noise Meter HE2

Description	Location	SRL No.	Serial	Make	Model
Sound Level Meter (HE2)	Holbrook	615	2579806	B&K	2250
Pre-amp	Holbrook	616	22126	B&K	ZC0032
Microphone	Holbrook	617	2584598	B&K	4189
Calibrator	Holbrook	618	2583398	B&K	4231

Norsonic - Noise Logger HL4

Description	Location	SRL No.	Serial	Make	Model
Sound Level Meter (HL4, Brown)	Holbrook	799	1404737	Norsonic	Nor 140
Calibrator (93.8dB)	Holbrook	184	1739193	Brüel & Kjaer	Type 4230
Pre-amp	Holbrook	799	13927	Norsonic	Type 1209
Microphone	Holbrook	799	128683	Norsonic	Type 1225

A6. Calibration Procedure

Bruel & Kjaer 2250- Noise Meter - HE2

Before and after the survey the measurement apparatus was check calibrated to an accuracy of ± 0.3 dB using the type 4231 Sound Level Calibrator. The Calibrator produces a sound pressure level of 93.8 dB re 2×10^{-5} Pa at a frequency of 1 kHz.

Norsonic - Type 140 - HL4

Before and after the survey the measurement, apparatus was check calibrated to an accuracy of ± 0.3 dB using the SV33 Sound Level Calibrator. The Calibrator produces a sound pressure level of 114.0 dB re 2×10^{-5} Pa at a frequency of 1 kHz.

A7. Survey Procedure

Ambient noise levels were monitored at various positions around the site as shown on Figure 1. The measurements are tabulated in Appendix B, and explanations of the parameters used are listed in Appendix C.

Appendix B - Measured Ambient Noise Levels

Table 3 - Measured Ambient Noise Levels During Attended Survey

Number	Time (HH:MM)	Duration (MM:SS)	Location	L _{Aeq} (dB)	L _{A90} (dB)	L _{Amax} (dB)	Notes
1	10:19	00:55	15m from source	66	65	73	Crusher on; JCB telehandler, crane, flatbed truck idling
2	10:21	00:51	15m from source	65	65	69	Crusher on; JCB telehandler, crane, flatbed truck idling
3	10:23	00:30	15m from source	66	65	68	Crusher on; JCB telehandler, crane, flatbed truck idling
4	10:23	00:25	15m from source	70	66	76	All plant idling, crusher on, abrasive wheel cutter operating
5	10:25	00:56	15m from source	66	65	71	All plant idling, crusher on, abrasive wheel cutter operating
6	10:26	01:28	15m from source	71	68	88	All idling, crusher on, crane lifting vehicles into crusher
7	10:27	00:41	15m from source	74	68	89	All idling, crusher on, crane lifting vehicles into crusher
8	10:28	00:25	15m from source	74	65	87	All idling, crusher on, crane lifting vehicles into crusher
9	10:29	00:33	15m from source	73	65	82	All idling, crusher on, handheld drill operating
10	10:36	02:03	15m from source	70	67	83	All plant idling, crane lifting vehicles and JCB operating (pulling chain on vehicle to break off parts)
11	10:38	00:17	15m from source	76	67	84	All plant idling, crane lifting vehicles and JCB operating (pulling chain on vehicle to break off parts)
12	10:45	01:03	ST2	40	37	46	Planes, birdsong, traffic on Barracks road, distant traffic

Number	Time (HH:MM)	Duration (MM:SS)	Location	L _{Aeq} (dB)	L _{A90} (dB)	L _{Amax} (dB)	Notes
							on A134, industrial farm noise to the north. Intermittent AA noise.
13	10:48	01:26	ST2	42	38	48	Planes, birdsong, traffic on Barracks road, distant traffic on A134, industrial farm noise to the north. Intermittent AA noise.
14	10:52	01:21	Opposite site entrance	45	40	59	Noise in other agricultural site to the north louder than AA (during noisy activity in AA).
15	10:54	01:00	NSRI (opposite on road)	43	36	55	AA intermittently audible
16	10:58	01:14	ST3	40	32	62	Birdsong, traffic on Barracks road, agricultural noise to the west. AA intermittently audible
17	11:02	01:02	ST3	38	33	51	Birdsong, traffic on Barracks road, agricultural noise to the west. AA intermittently audible
18 ¹	11:06	01:04	ST1	47	42	58	Birdsong, traffic on Barracks road, AA audible.
19 ¹	11:08	01:24	ST1	51	44	62	Birdsong, traffic on Barracks road, AA audible.
20	11:11	01:03	4m north of depollution shed	47	44	55	All previous site activities plus forklift
21	11:13	00:25	15m from source	73	70	81	All previous activities plus forklift
22	11:15	00:23	15m from source	69	64	78	All plant idling, crusher on, telehandler operating

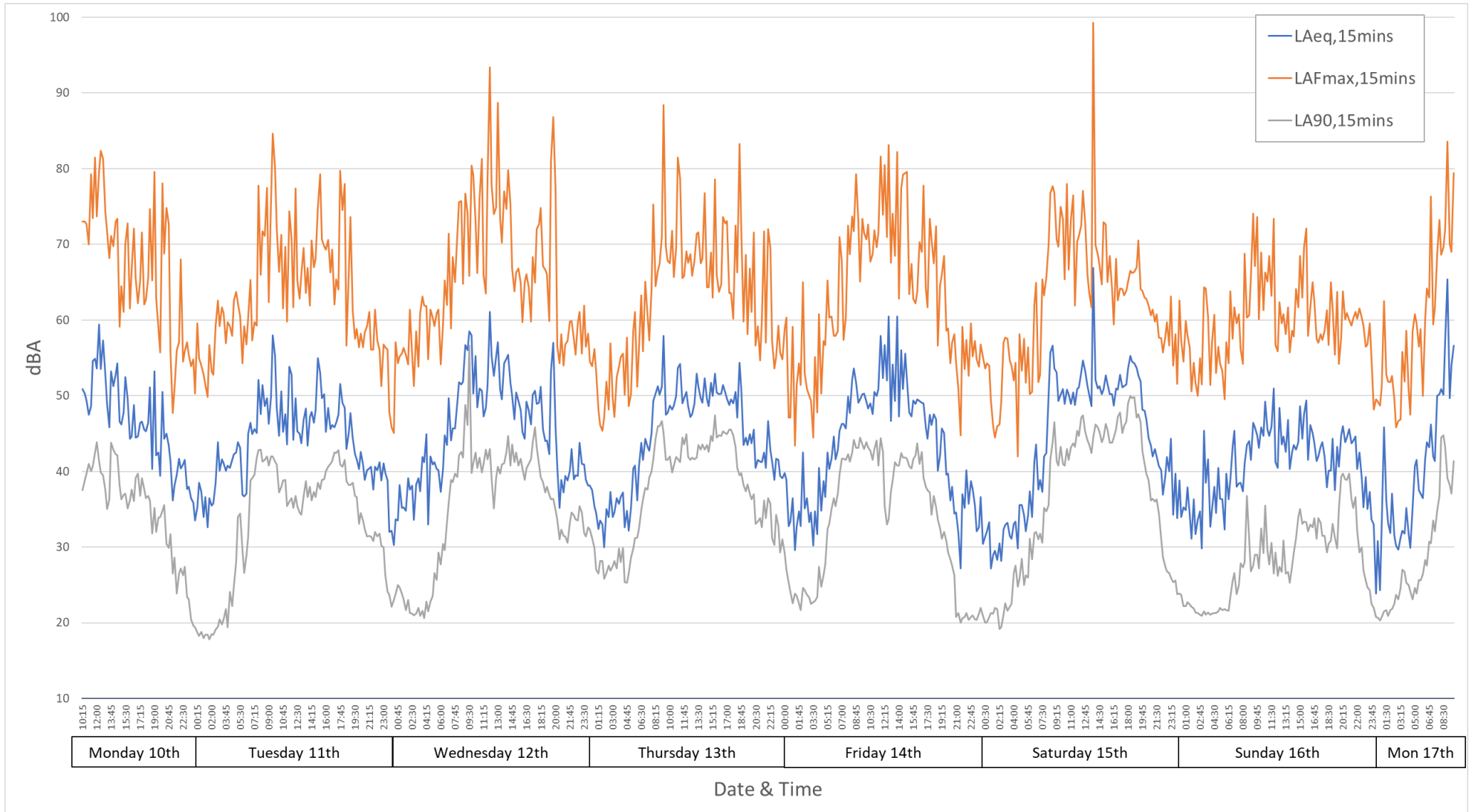
Number	Time (HH:MM)	Duration (MM:SS)	Location	L _{Aeq} (dB)	L _{A90} (dB)	L _{Amax} (dB)	Notes
23	11:17	01:12	15m from source	75	67	89	All plant idling, crusher on, crane and abrasive wheel saw operating
24	11:21	00:13	5m from source	63	61	66	Forklift lifting and moving vehicles
25	11:22	00:10	4m north of depollution shed	62	61	66	Forklift lifting and moving vehicles
26	11:23	00:38	4m north of depollution shed	67	63	75	Forklift lifting and moving vehicles
27	11:25	00:18	15m from source	78	69	82	All plant idling, abrasive wheel saw operating
28	11:26	00:09	15m from source	72	66	85	All plant idling, JCB telehandler pulling car apart
29	11:28	00:20	15m from source	79	68	84	All plant idling, JCB telehandler pulling car apart
30	11:29	05:23	15m from source	76	66	95	Crusher, forklift, crane, telehandler, drill and saw operating
31	11:39	00:12	5m from source	69	55	82	Articulated lorry driving past
32	11:40	00:32	5m from source	68	55	77	Articulated lorry driving past
33	11:42	00:47	5m from source	70	58	84	Articulated lorry and flatbed truck driving over site entrance ramp
34	11:44	00:36	5m from source	71	66	78	Articulated lorry reversing
35	11:49	02:25	15m from source	79	70	93	Crane loading articulated lorry, saw operating, all plant idling, crusher on

Number	Time (HH:MM)	Duration (MM:SS)	Location	L _{Aeq} (dB)	L _{A90} (dB)	L _{Amax} (dB)	Notes
36	11:54	01:12	15m from source	77	70	88	Crane loading articulated lorry, saw operating, all plant idling, crusher on
37 ¹	11:57	01:20	ST1	51	44	63	Crane loading articulated lorry, saw operating, all plant idling, crusher on
38 ¹	12:01	01:03	ST2	45	39	56	Planes, birdsong, traffic on Barracks road, distant traffic on A134, industrial farm noise to the north. Intermittent AA noise.
39 ¹	12:05	01:02	NSRI (opposite on road)	45	41	56	AA intermittently audible
40 ¹	12:07	01:02	ST3	38	33	53	Birdsong, traffic on Barracks road, intermittent agricultural noise to the west. AA intermittently audible
41	12:15	00:54	15m from source	78	70	92	Crane loading articulated lorry, crusher on
42	12:17	00:48	15m from source	79	70	90	Crane loading articulated lorry, crusher on
43 ²	12:49	15:00	ST2	55	36	77	Planes overhead, birdsong, traffic on Barracks Road, A134 in distance
44 ²	13:14	15:00	ST3	52	32	75	Planes overhead, birdsong, traffic on Barracks Road, industrial farm noise to west
45 ²	13:32	01:09	ST1	48	35	67	Birdsong, traffic on Barracks Road, wind in leaves.

¹ Taken during loudest site activities (Crane loading articulated lorry, saw operating, crusher on, all other plant idling).

² Background measurement during AA shutdown. No AA activity

Noise Levels Measured by Unattended Monitor LTI (Monday 10th to Monday 17th December 2018)



Appendix C - Noise Measurement Parameter Definitions

L_{A90} - The "A" weighted sound pressure level that is exceeded for 90% of the measurement period. It is commonly used as the "Background Noise Level".

L_{Aeq} - The "A" weighted equivalent continuous sound pressure level. A representation of a continuous sound level containing the same amount of sound energy as the measured varying noise, over the measurement period. It can be considered as the "average" noise level.

L_{Amax} - The maximum "A" weighted sound pressure level that that occurred in the measurement period.

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Appendix III

Local Authority Comments to Oaktree NIA

From: BMSDC Planning Mailbox <planning@baberghmidsuffolk.gov.uk>

Sent: 02 Jun 2023 04:46:19

To:

Cc:

Subject: FW: DC/21/02579 re-consultation- Assington Autos, Cotton Wood, Barracks Road, Assington

Attachments:

Dear Lynda

YOUR REF: DC/21/02579

SUBJECT: Assington Autos, Cotton Wood, Barracks Road, Assington, SUDBURY, Suffolk, CO10 5LP.

Planning Application. Change of use of land to extend an Authorised Treatment Facility (salvage yard); construction of 5no storage buildings, and other associated operational works

Please find below my comments regarding noise/odour/light/smoke matters only.

Thank you for your re-consultation on the above application.

I have had regard to the document 'Noise Impact Assessment' (NIA), document reference BAR/3041-F, dated 04 April 2023, version 1.4 produced by Oaktree Environmental Ltd.

The NIA details that the site layout has been further revised, and additional mitigation measures proposed. In addition, the NIA has considered noise sources missing from the previous assessment - such as the forklift truck and the Hyundai powerhand. The NIA also puts forward revised operation hours of 08.00 – 18.00hrs Monday – Friday, 08.00 – 13.00hrs Saturday, and no working on Sundays and Bank Holidays with HGV movements limited to 07.00 – 17.00hrs Monday – Friday.

The site operates under an Environmental Permit which is issued and enforced by the Environment Agency. I understand from section 1.1.3 that the permit for the site allows 2500 tonnes of scrap metal to be accepted at the site. Currently 12000 tones are accepted, and the business wishes to vary the permit to allow 25000 tonnes to be accepted – it is understood that this is the category of tonnage into which the sites operation would fall, rather than 25000 tonnes being the amount actually anticipated.

The NIA now proposes that the older noiser items of plant (including the baler and disc cutter) will be replaced with quieter more modern items. The NIA also recommends that the site layout be rearranged as per drawings nos BAR/3041/03A – Rev A and BAR/3041/03B – Rev A. This layout relocates baling/shearing, scrap metal storage, HGV loading and sorting and container storage to the south of the site, thus increasing distance attenuation from residential properties. Petrol cutting and HGV servicing will now take place internally. Additional barriers will be placed around the site and acoustic barriers and walls will be increased to 4.8m in height.

The recommendations made in the NIA are predicted to result in a reduction of -20dB at nearby dwellings, compared to current operational noise levels.

A BS4142 assessment has been carried out. BS4142 methodology includes adding 'penalties' for acoustic features which are likely to increase the significance of noise impact – this can include tonality, impulsivity and intermittency. The NIA imposes a +6dB penalty for impulsivity.

The NIA concludes that predicted noise levels at receptors Northwest of Barracks Road will be between -1dB below to 6dB above background levels, between -3dB below to +5dB above background levels at receptors East of Barracks Road, and between +5dB to +8dB above background levels at receptors on High Road. Using the guidance given in BS4142, this would result in an adverse impact (+5db) with an exceedance of 10dB being a significant adverse impact.

As the background noise survey was limited to 2 x 1-hour periods at each receptor, there is a degree of uncertainty. I have therefore also compared the predicted Noise levels with the background noise levels given in the SRL noise assessment in 2018 (referenced and replicated in the previous NIA). This comparison finds that the predicted level would be +2dB above background levels at receptor Northwest of Barracks Road, and -2dB below levels at receptors East of Barracks Road (High road was not included in that survey).

Section 5.4.13 asserts that the predicted levels would likely be lower at the weekend due to reduced operations on a Saturday morning and so would be of less impact. Section 5.5. of the NIA offers a contextual assessment based on Environment Agency guidance. I would refer to the Environment Agency for their comments on this but would note from The Agency's noise assessment that a large volume of reports of noise at the site have been received and I would be mindful of this when assessing context. The NIA suggests that the revision to the site layout will mean that 'bangs and crashes will occur at a greater distance'.

In terms of absolute levels, noise levels would be within the acceptable range for good amenity in outdoor areas and, assuming a -10-15dB reduction for an open window, would be within internal guidance values as given in BS8233/WHO guidance, even if an additional acoustic penalty for intermittency was applied.

Whilst the noise from the site, when compared with existing background noise levels, will likely have an adverse impact on nearby dwellings, the absolute levels of noise will be within acceptable levels. I appreciate that this will be a significant improvement on current levels and that additional mitigation has been proposed. Whilst we would not normally recommend approval based on a BS4142 assessment which indicates an adverse impact, given the established use of a scrapyards in this location, the adherence with BS8233 guidance levels for internal and external amenity, and the revision of the proposed start time of HGVs to 7am, you may find this acceptable on the basis of predicted significant improvement to residents.

I would note that little commentary is offered in terms of mitigation of impulsive noises such as a dropping of metals into containers and I would appreciate further commentary on this and potential mitigation. For example, I would suggest that rubber matting could be used at the base of storage bays in area 16, 17, 18, 19A & 19B as well as in the base of skips to attenuate the noise from metal items being dropped into them.

Should you be minded to grant this application, I note that in the letter from Oaktree Environmental, (reference 004-3041_response to Noise Queries_2023_04_04) states that "the applicant would be satisfied to undertake a new Noise Impact Assessment following the relocation and construction of the site where new modelling and site measurements would be undertaken comprising a 'as-built' NIA' in order to validate the predicted noise levels. I would suggest that this be required by means of condition as well as the requirement for "bi-annual monitoring (..) to ensure the noise levels arising from the site are monitored and considered suitable." I would request that the preparation of the NIA and the monitoring be carried out by a suitably qualified and independent person (e.g. not the applicant themselves).

Reason: to minimise detriment to nearby residential amenity

I would also recommend the following conditions be attached to any permission:

- All petrol cutting operations shall take place internally, within the dedicated stage three dismantling/stripping buildings to the south of the site, with roller shutter doors closed. All petrol cutting shall take place using the Husqvarna K1 PACE Battery Powered Disc Cutter (or other such model if details are submitted to and approved by the LPA) .

Reason: to minimise detriment to nearby residential amenity

- All additional barriers to storage and treatment areas , acoustic barriers to site perimeters, and increase in height to 4.8m for walls adjacent to the baler should be carried out as per drawing BAR/3041/03a – rev a and Bar/3041/03b rev a. Site layout shall be as per these plans, with activities restricted to the areas denoted in the plans.

Reason: to minimise detriment to nearby residential amenity

- Baling operations to be carried out by a replacement baler which will meet the noise output as given in table 5.1 of the document Noise Impact Assessment' (document reference BAR/3041-F, dated 04 April 2023 , version 1.4 produced by Oaktree Environmental Ltd) or by attenuating the current baler to meet the same noise output.. Details of the baler (or silencers and accompanying calculations demonstrating the same level of attenuation to meet the output given in table 5.1) shall be submitted to the LPA for approval and its operation commence within 3 months of this application being granted.

Reason: to minimise detriment to nearby residential amenity

- Loading of waste into HGVs/articulated vehicles shall only take place adjacent to the 4.8m high wall to the south of the site .

Reason: to minimise detriment to nearby residential amenity

- Operating hours at the site shall be limited to 08.00 – 18.00hrs Monday – Friday (with HGV movements limited to 07.00 – 17.00hrs), 08.00 – 13.00hrs Saturday (with no waste acceptance or treatment taking place during these hours) and no operations taking place on Sundays or Bank Holidays.

Reason: to minimise detriment to nearby residential amenity

- All mobile plant and vehicles used on site shall be fitted with white noise/broadband reversing alarms.

Reason: to minimise detriment to nearby residential amenity

- Operations at the site shall at all times be carried out in accordance with the 'noise and vibration management plan' (NVMP) produced by Oaktree Environmental Ltd, document reference BAR-3041-G, dated 04.04.2023, version 1.3' with particular regard to the noise management table given in section 4.3.

Reason: to minimise detriment to nearby residential amenity

- Operations related to the construction (including site clearance and demolition) phases) of the permitted development/use shall only operate between the hours of 07.30 and 18.00hrs Mondays to Fridays and between the hours of 08.00 and 13.00hrs on Saturday. There shall be no working and/or use operated on Sundays and Bank Holidays. There shall be no HGVs arriving at or departing the site outside of these approved hours.

Reason: to minimise detriment to nearby residential amenity

- No burning shall take place on site at any stage during site clearance, demolition or construction phases of the project.

Reason: to minimise detriment to nearby residential amenity

Kind regards

Joanna Hart, MCIEH
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Babergh and Mid Suffolk District Councils - Working Together

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Please note my working days are Wednesday – Friday.



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