

NOISE IMPACT ASSESSMENT

Tower House, Stopgate Lane, Simonswood Ind Park, Kirkby, Merseyside, L33 4XY

Simonswood Properties Ltd

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1 Introduction

1.1 Background to Report

1.1.1 Oaktree Environmental Ltd have been commissioned by Simonswood Properties Ltd to undertake a Noise Impact Assessment (NIA) for a site situated at Tower House, Stopgate Lane, Simonswood Ind Park, Kirkby, Merseyside,L33 4XY.

1.1.2 This report utilises measurements of plant/equipment and background noise levels taken by Oaktree Environmental Ltd in order to provide an assessment of the noise associated with the site as per BS4142:2014 and the relevant Environment Agency guidance.

1.1.3 This document has been prepared by Thomas Benson of Oaktree Environmental Ltd who is an associate member of the Institute of Acoustics with a level of qualifications and experience commensurate with those described within the replacement noise guidance issued by the EA. A full CV can be provided separately, if required.

1.2 Site location

1.2.1 The site is located on Land at Tower House, Stopgate Lane, Simonswood Ind Park, Kirkby, Merseyside,L33 4XY. The site is bounded by the surrounding industrial estate whilst the a railway line runs approximately 10m south of the sites boundary connecting Rainford station with Headbolt Lane station.

1.2.2 Access to the site is via the access road leading from Siding Lane, to the east of the site.

1.2.3 The site is located within a primarily industrial setting, however this area is surrounded by agricultural fields and woodland. The nearest residential receptors are those located off Stopgate AND Siding Lane, from 200m northwest.

1.3 Hours of operation

1.3.1 The site will be operated in accordance with the following hours:

- Monday-Friday- 07:00-18:00
- Saturday- 07:00-13:00
- Sunday/Bank holidays- Closed

2 Planning Policy

2.1 Noise Policy Statement for England

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

2.1.2 “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.”

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

2.1.4 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”.

2.1.5 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”, 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.

2.1.6 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.

2.2 National Planning Policy Framework

2.2.1 The NPPF, revised in 2019, replaces the Planning Policy Guidance Note 24 (PPG 24) and does not refer to any other relevant noise guidance, other than the NPSE.

2.2.2 With regards to noise, the NPPF states the planning process should “contribute and enhance the natural and local environment”, with regards to noise this means “preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affect by unacceptable levels” of, amongst other things, noise.

2.2.3 The NPPF 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:

a) 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,

b) 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 Planning Practice Guidance – Noise

2.3.1 Although this NVMP is being submitted to the Environment Agency, it is important to set out the appropriate guidance set out in the NPPF which 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.

2.3.2 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.

2.3.3 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 Sensitive Receptors

3.1 Receptor Plan

3.1.1 A sensitive receptors plan (SRP) has been produced to accompany this NVMP and is shown in Appendix I as on Drawing No. 2358-004-04. The receptors highlighted are those which are considered to be at risk by noise generated by the site.

3.2 Noise Sensitive Receptors

3.2.1 The receptors listed from the SRP are also shown in the table below with approximate distances to these residential properties.

3.2.2 The site lies within a primarily industrial setting with the nearest residential noise sensitive receptors are approximately 200m to the north west of the site located on Stopgate Lane and Siding Lane.

3.2.3 There are numerous additional noises emitting operators located within 250m of the application site, with uses including; manufacturing, warehousing and demolition specialists.

3.2.4 In terms of limiting potential noise impact, a site-specific Noise Management Plan (Document Ref. 2358-004-J-NVMP) taking into account the findings of this report has also been prepared in order to ensure the noise levels at the site can be managed further and reduce any impact on the surrounding receptors. The proposed operation and mitigation measures for the site has been planned in conjunction with the acoustic assessment carried out by Oaktree Environmental and submitted to the Environment Agency (EA) and therefore, has been designed with limiting the impacts from noise on the above receptors in mind.

4 Noise Assessment Criteria

4.1 Overview

4.1.1 In order to assess the impacts of existing road traffic and industrial noise on the proposed development, the following documents have been used:

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

4.2 BS8233:2014

4.2.1 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 BS8233:2014 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 L _{Aeq, 16hour}	-
Dining	Dining room	40 L _{Aeq, 16hour}	-
Sleeping	Bedroom	35 L _{Aeq, 16hour}	30 L _{Aeq, 16hour}

4.3 BS4142:2014

4.3.1 BS4142:2014 provides a method for assessing and rating 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.

4.3.2 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.

4.3.3 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 source.

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

4.4 WHO Guidelines for Community Noise

4.4.1 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.

4.4.2 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.

- 4.4.3 The WHO document also recommends that steady, continuous noise levels should not exceed 55 dB (LAeq) on 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 (LAeq).

4.5 Environment Agency Guidance

- 4.5.1 This document has been produced in accordance with the EA's guidance "Noise and vibration management: environmental permits" updated 31 January 2022. With particular relevance are the recommendations with regard to context, which build on those discussed within BS4142:2014.

5 Existing Noise Climate and Background Levels

5.1 Procedure and Monitoring Locations

5.1.1 A background noise survey in accordance with BS 7445-1: 2003 by Oaktree Environmental Ltd. Attended background level measurements were taken at locations representative of the nearest noise sensitive receptors within the vicinity of the site on both the 4th of January and 06th January 2024.

5.1.2 The methodology of attended measurements has the benefit of allowing for a significant level of observation to be made on the existing noise climate within the vicinity of the nearest residential receptors which adds context to the figures surveyed. BS4142 makes numerous recommendations in relation to context and therefore it was considered that this approach was more beneficial at the time in relation to BS4142.

5.1.3 The measurement locations are presented within the Noise Monitoring Plan within Figure 4.1 below.

Figure 5.1 – Noise Monitoring Locations



5.1.4 The approximate NGR for the above monitoring point is SD 43466 01129 (NMP A). This point is approximately 210m from the site. The approximate NGR for the above monitoring point is SD 43648 01174 (NMP B).

5.1.5 Effort was made to distance the noise meter from the carriageway, ensuring that measured levels are representative of the noise levels within the external amenity areas of the nearest noise sensitive receptors.

5.2 Weather Conditions

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

Table 5.2 – Weather Conditions during noise monitoring

Date	Wind Speed (max)	Cloud Cover	Temperature	Precipitation
04/01/2024	Still with very limited gusts of 1.6m/s (NW)	25-100%	6-10 ^o C	None recorded whilst onsite
06/01/2024	Gusts of 2.0m/s (NW)	15-100%	2-4 ^o C	None recorded whilst onsite

5.3 Field Calibration

5.3.1 The factory calibration dates for the survey equipment used by Oaktree Environmental are shown below in Table 3.5. However, during every noise survey undertaken by Oaktree Environmental a pre and post noise survey field calibration is undertaken. During these calibrations, no significant shift was identified.

5.4 Equipment Used During the Survey

5.4.1 Details of the equipment used during the survey are shown below in Table 3.5 (Oaktree Survey Equipment):

Table 3.5 - Survey Equipment

Description	Model	Manufacturer	Serial No.	Calibration Date
<i>Precision Sound Analyser</i>	NOR 145	Norsonic	14530082	May 2023
Pre-amplifier 1	Nor1209	Norsonic	23775	May 2023
Microphone 1	Nor1227	Norsonic	527239	May 2023
Class 1 Sound Analyser	NOR 150	Norsonic	15030504	October 2022

Description	Model	Manufacturer	Serial No.	Calibration Date
Microphone	Norsonic Type 1225	Norsonic	305208	October 2022
Field Calibrator	NOR 1251	Norsonic	35205	October 2022

5.5 Results for Oaktree attended measurements.

5.5.1 The results of the background noise monitoring survey are tabulated below within tables 4.2 to 4.5. The raw data has also been provided to the EA in spreadsheet form.

Table 4.3 – Weekday Measurement Results for Noise Monitoring Position A (NMP A)

Measurement Time	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}
07:00-08:00	44.2	45.4	51.3	74.2
08:00-09:00	50.6	48.9	54.2	74.2
09:00-10:00	54.4	48.9	57.0	77.4

Table 4.4 – Weekday Measurement Results for Noise Monitoring Position B (NMP B)

Measurement Time	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}
07:06-08:06	55.7	45.5	69.2	90.7
08:06-09:06	59.1	49.5	68	86.8
09:06-10:06	49.6	48.7	63.8	88.7

Table 4.5 – Weekend Morning Measurement Results for Noise Monitoring Position A (NMP A)

Measurement Time	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}
07:00-08:00	43.0	42.7	54.6	73.1
08:00-09:00	46.0	43.0	50.0	74.4

Table 4.6 – Weekend Morning Measurement Results for Noise Monitoring Position B (NMP B)

Measurement Time	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}
07:04-08:04	46.1	41.0	58.8	86.5
08:04-09:04	55.6	41.3	59.6	86.2

5.6 Existing Noise Climate

- 5.6.1 The existing noise climate at NMP A typically comprised road traffic movements associated with local residents and audible road traffic from Stopgate Lane to the north.
- 5.6.2 Industrial noise in the form of ventilation/extraction noise from the Puratos manufacturing company to the west produced a constant tonal hum noise. In addition, noise sources such as reversing alarms and use of mobile plant could be heard.
- 5.6.3 Whilst at NMP B it was evident that road traffic noise dominated the soundscape. This comprised smaller cars as well as a number of HGVs and tractors. Distant industrial noise possible from the site or the neighbouring business's such as Westcoast fencing limited and Denholm UK logistics limited was also audible.

6 Noise Impact Assessment

6.1 Proposed Operations

6.1.1 The most prominent noise sources associated with the site were considered to be the loading and operation of the wash plant, comprising;

- Loading and operation of the feed hopper and scalping screen,
- Preliminary screener,
- Logwasher,
- Secondary Aggregate screener,
- Sand plant.

6.1.2 The contribution of additional items of plant such as the overband magnet and conveyors are considered negligible in comparison to those listed previously and therefore have not been included within the model. It is considered that any measurement of these would include noise radiating from surrounding louder items of plant (screener, log wash etc.) and would provide a considerable over-estimation of noise sources.

6.1.3 Oaktree Environmental attended site on the 4th of January 2024 in order to undertake specific measurements of individual items of plant which make up the treatment plant. Table 6.1 overleaf includes the sound pressure levels and distance from the plant. In addition, details of geometry and “on-times” etc. assumed within the model are provided.

6.1.4 In addition, site management have confirmed that very rarely the use of mobile crushers/screeners may take place at the site. The vast majority of the processing will be undertaken using the wash plant and therefore this may take place to 1 - 2 days a week as a maximum.

6.1.5 Table 6.1 also includes additional measurements utilised within the model such as the loading of HGVs and tipping.

6.1.6 For measurements taken at the existing yard, electronic noise files, photographs and videos can be provided, if required.

Table 6.1 - Noise levels Associated with External Operations

Activity	Noise Level (LAeq)	Source
Log wash	82.0 at 5m	Oaktree measurement taken on site. Assumed to be operating in steady state at a height of 6.0m. Modelled as a point source.
Preliminary Screener	83.4 at 4m	Oaktree measurement taken on site. Assumed to be operating in steady state at a height of 4.0m. Modelled as a point source.
Sand Plant / Dewatering screen	82.2 at 3.5m	Oaktree measurement taken on site. Assumed to be operating in steady state at a height of 6.0m. Modelled as a point source.
Secondary (Dry) Screener	89.5 at 5m	Oaktree measurement taken on site. Assumed to be operating in steady state at a height of 6.0m. Modelled as a point source.
Loading of feed hopper and operation of scalper	87.9 at 7.2m	Oaktree measurement taken on site. Assumed to be operating in steady state at a height of 2.0m. Modelled as a point source.
Loading of HGVs prior to egress	75.4 at 10m	Recent measurement taken by Oaktree Environmental at a similar site. Modelled as a point source of 2m height. Assumed to be active for 330 minutes per day as a worst-case assumption. Representative of one vehicle being loaded per hour, taking approximately 30 minutes.
Tipping of inert wastes	70.1 at 12m	Onsite measurement taken by Oaktree Environmental on site. Modelled as a point source of 0.5m height.
HGV movements	80.0 at 10m	This measurement is taken from BS5228 and modelled at a height of 1.0m. This is modelled as a line source with operating times based on the throughput of the site. It is assumed that there will be 10no. movements per hour.
Sorting/movement of material using onsite mobile plant	77.4 at 3m	Measurement made by Oaktree Environmental of a similar plant. Modelled as a point source at 1m height. The activity is assumed for approximately 25% of the time and therefore 165 minutes has been assumed within the model.
Loading and operation of crusher	92.1 at 2.5m	Measurement made by Oaktree Environmental of a similar plant. Modelled as a point source at 2m height. The activity is assumed to operate in steady state.

Loading and operation of screener	90.3 at 2m	Measurement made by Oaktree Environmental of a similar plant. Modelled as a point source at 2m height. The activity is assumed to operate in steady state.
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6.1.7 To assess the potential noise impacts associated with the installation of the recycling facility on the on the nearby noise sensitive receptors, noise models have been created using CadnaA. The software package utilises standardised noise prediction methodologies and algorithms to predict the propagation of noise from source to receiver.

6.1.8 The CadnaA noise model was constructed using OS mapping Opendata and Google Earth satellite imagery. Topographical data was downloaded in the form of a DTM.

6.1.9 The following assumptions/parameters are made within the model:

- The intervening agricultural 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 surrounding industrial land which is modelled as 0.0.
- All residential buildings have been modelled as 4.0m in height.
- Buildings were set as acoustically reflective, with a reflection loss of 1 dB. A maximum order of reflection of 3.0 is assumed.
- Noise levels were determined at residential properties representing the nearest residential facades. The height of each receiver was 1.5 m, consistent with the height of a typical first storey window.
- The predicted 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 building heights have been taken from observations and information provided from the Local Authority public access where available.
- All barriers are modelled as hard and reflective. Commensurate with concrete bay walls.

6.1.10 Figure 6.2 overleaf details the results of the modelling and the predicted noise levels (in dB A) associated with the operation of the site.

Figure 6.2 – Results of Noise Modelling

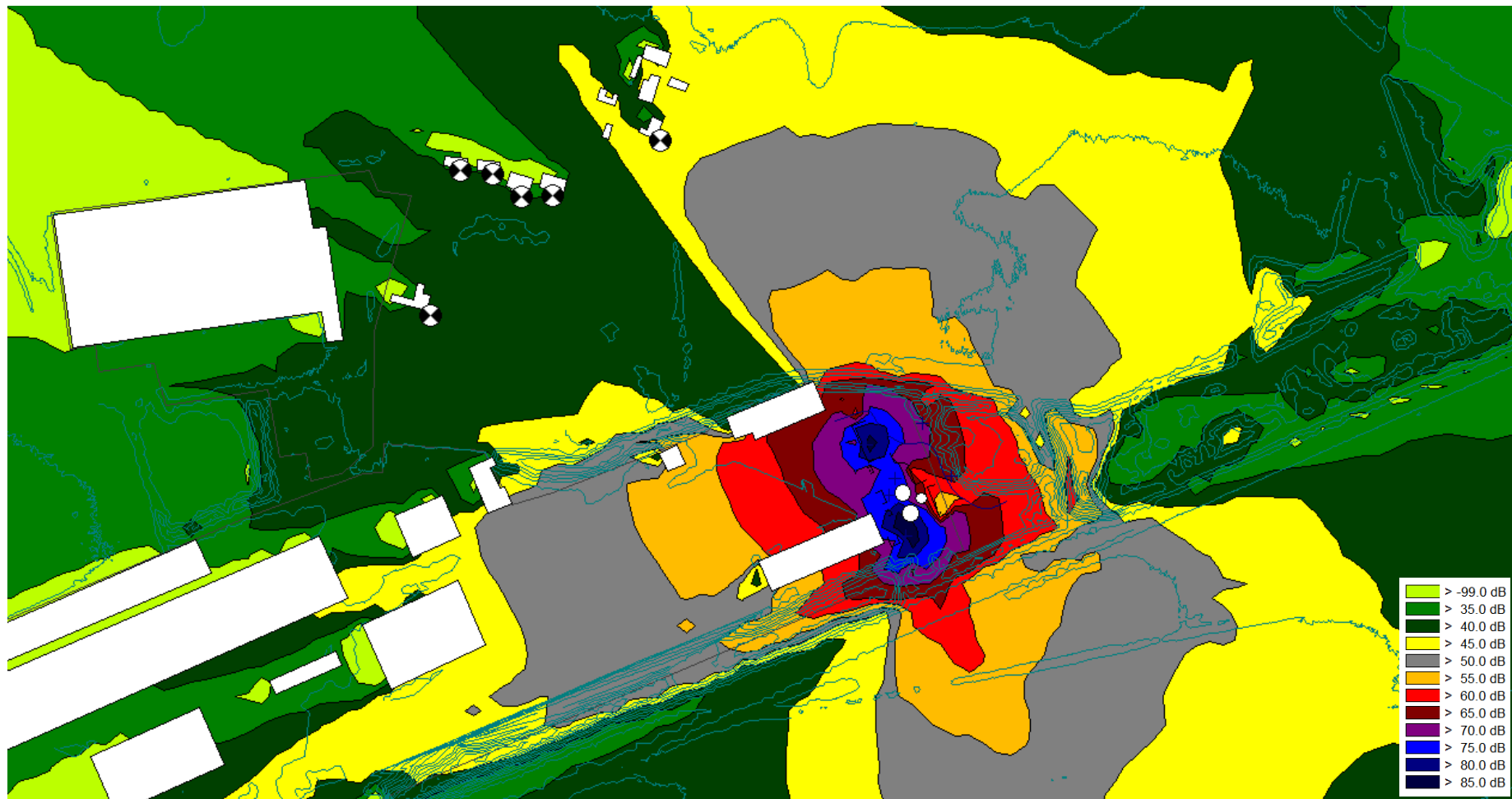
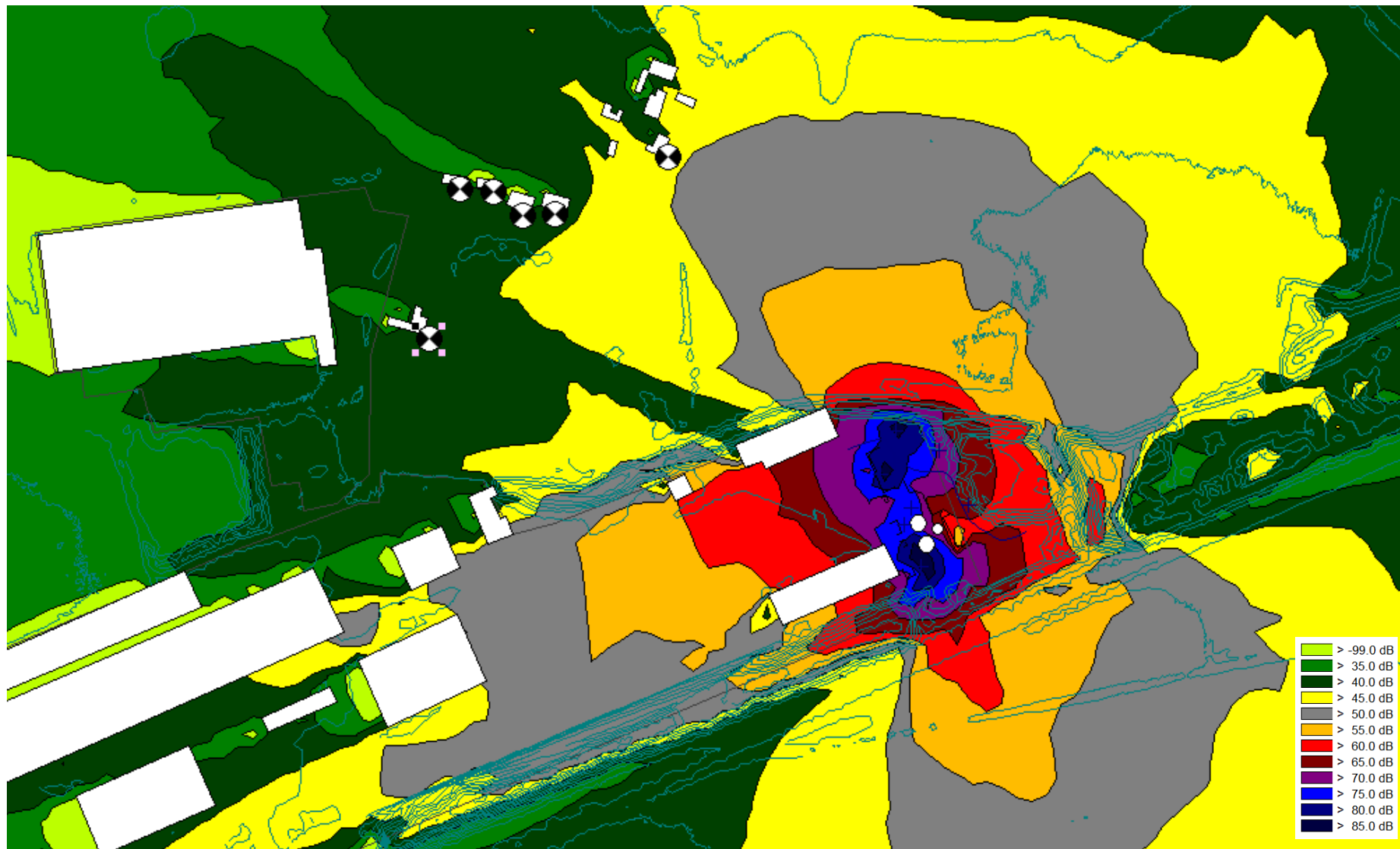


Figure 6.3 – Results of Noise Modelling including crushing and screening



6.2 Discussion

- 6.2.1 Tables 6.4 below compare the calculated levels using the models to the background levels measured at the nearest noise sensitive receptors as per Figure 6.2.
- 6.2.2 With regards to character corrections as per BS4142:2014, the system is generally free from any impulsive crashes or bangs due to the nature of the throughput and associated processes. However, some impulsive events may arise from the tipping of material, reverse alarms etc. Therefore a +2dB penalty has been applied. This is considered a worst-case scenario, as the dwellings off Siding Lane already experience many impulsive events from the commercial/industrial use directly west.
- 6.2.3 Whilst there is a prominent tonal element associated with the plant, the receptors lie within an area with high levels of road traffic noise, as can be seen from the LA10 figures which are up to 69.2dB. In addition, clear ventilation/extraction noise is audible along Siding Lane. Therefore, the tonal elements are likely to be masked by the existing noise climate and no additional penalties are required.

Table 6.4 – Preliminary BS4142:2014 assessment with regards to operations during the daytime operations.

	Calculated noise level at dwellings off Siding Lane (NMP A)	Calculated noise level at dwellings off Stopgate Lane (NMP B)	Comments
Calculated noise level as per figure 5.2-5.3	41.8	48.5	
Addition of relevant penalties as per bs4142:2014	+2 = 43.8	+2 = 50.5	As per section 6.2.2=6.2.3
Weekday comparison to background level	43.8 - 45.4/48.9 = 1.6 to 6.2dB below	50.5 – 45.5-49.5 = 1.0 to 5.0dB above	See discussion...
Weekend Comparison to background level	43.8 – 42.7/43.0 = 0.8 to 1.1dB above	50.5 – 41.0-41.3 = 9.2 to 9.5dB above	See discussion....

- 6.2.4 As per Table 6.4, with regards to the dwellings at Siding Lane, the calculated rating level is below the range of measured LA90 figures and therefore the assessment concludes a low impact at these dwellings.
- 6.2.5 With regards to the dwellings off Stopgate Lane, the calculated rating level is up to 5.0dB above the lowest measured weekday LA90 figure. However, it should be noted that this measurement was taken between 07:00-08:00 in the morning. Measurements made later in the day are typically higher, sufficient to ensure that the calculated rating level is only 1.0dB above the background figure. It is understood from conversations with site management that typically, the wash plant will not operate until 08:00, with the first hour of the day likely to comprise housekeeping and ancillary activities. Considering this, the impacts are considered acceptable during these times.
- 6.2.6 In terms of weekends, the rating level is up to 9.5dB above the background level. However, this is based on the constant operation of the wash plant, which is likely to be unusual during weekends.
- 6.2.7 In addition, this exceedance is limited to a single dwelling, with the vast majority being screened from higher noise levels by intervening buildings and bunding. Furthermore, this dwelling is located within the boundary of a working farm which is likely to generate its own noise. This is likely to reduce the impact at this location.
- 6.2.8 Considering the above and the location of the receptor to a busy highway and extensive industrial estate coupled with the reasonable operating hours, the limited exceedances are considered acceptable in this instance. This stance will be reviewed upon the receipt of any noise related complaint.

Table 6.5 – Preliminary BS4142:2014 assessment with regards to operations during the daytime operations including mobile crushing and screening.

	Calculated noise level at dwellings off Siding Lane (NMP A)	Calculated noise level at dwellings off Stopgate Lane (NMP B)	Comments
Calculated noise level as per figure 5.2-5.3	43.0	49.4	
Addition of relevant penalties as per bs4142:2014	+2 = 45.0	+2 = 51.4	As per section 6.2.2=6.2.3
Weekday comparison to background level	45.0 - 45.4/48.9 = 0.4 to 3.9dB below	51.4 – 45.5-49.5 = 1.9 to 5.9dB above	See discussion...
Weekend Comparison to background level	45.0 – 42.7/43.0 = 2.0 to 2.3dB above	51.4 – 41.0-41.3 = 10.1 to 10.4dB above	See discussion....

6.2.9 As per Table 6.4, the calculated rating level is either below the range of LA90 figures, or below the threshold at which an adverse impact is considered possible for the receptors at Siding Lane.

6.2.10 With regards to the receptors off Stopgate Lane, the rating level is as much as 5.9dB above the lowest background level during the week. Considering the marginal exceedance of the +5 figure, nature of the existing noise climate and frequency of use of the crusher/screener, the impact is considered acceptable in this instance.

6.2.11 With regards to weekends, the rating level is above the threshold at which a significant adverse impact may occur. However, as stated previously, the use of the screener and crusher is extremely limited and unlikely to occur during weekends.

6.3 Uncertainty

6.3.1 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.
- Weather during the background sound monitoring was ideal for outdoor noise monitoring (dry, wind speed under 5m/s).

- The measurement locations are considered representative of the existing noise climate outside the nearest residential dwellings to the proposed development given the nature of the existing noise climate. Whilst a greater level of background data would be desirable, it is considered unlikely that it would change the findings of the report.

7 Conclusion

7.1 Summary& Recommendations

- 7.1.1 Oaktree Environmental have undertaken a noise impact assessment for a site at Tower House, Stopgate Lane, Simonswood Ind Park, Kirkby, Merseyside,L33 4XY.
- 7.1.2 The nearest noise sensitive receptors are considered to be the residential dwellings off Stopgate Lane and Siding Lane, approximately 200m northwest.
- 7.1.3 The onsite noise sources have been measured and modelled and compared to the range of LA90 figures also measured by Oaktree Environmental. Based on the numerical comparison and a number of contextual factors, the noise levels associated with the proposed operation of the site are considered to be acceptable.
- 7.1.4 In addition, noise emissions will be controlled and regulated via the Noise Management Plan also produced by Oaktree Environmental. The NMP comprises a standalone document to be used in the regulation and management of the site by both site management and he Environment Agency.

Appendix I





Drawings

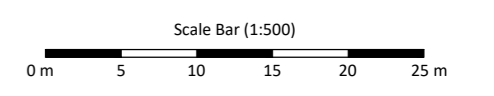
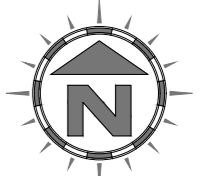
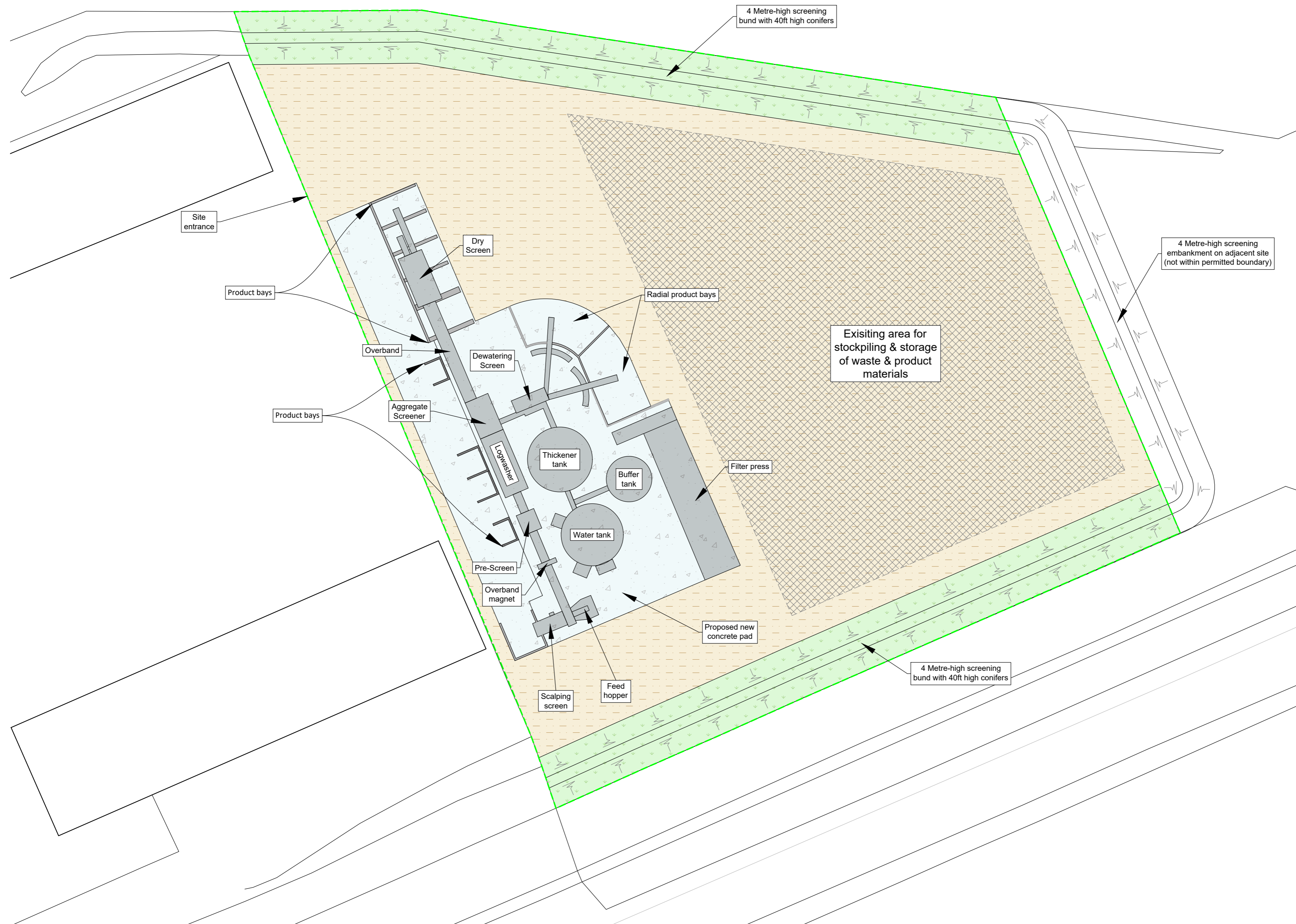
NOTES
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REVISION HISTORY

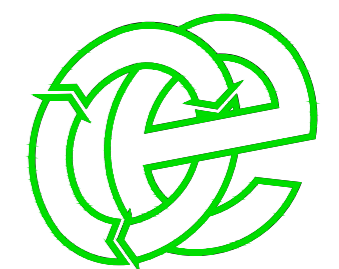
Rev:	Date:	Init:	Description:
-	20.10.22	JH	Initial drawing
A	07.11.22	JH	Client comments
B	12.01.24	IA	Drawing amendments

KEY:

-  Permit boundary
-  Concreted areas (within permit boundary)
-  Stone surface (free-draining)
-  Unsurfaced/landscaped areas



Oaktree Environmental Ltd
 Waste, Planning and Environmental Consultants



DRAWING TITLE
 SITE LAYOUT PLAN

CLIENT
 Simonswood Properties Ltd

PROJECT/SITE
 Simonswood Industrial Estate, Stopgate Lane,
 Simonswood, Knowsley, Merseyside, L33 4YB

SCALE @ A2 1:500	CLIENT NO 2358	JOB NO 003
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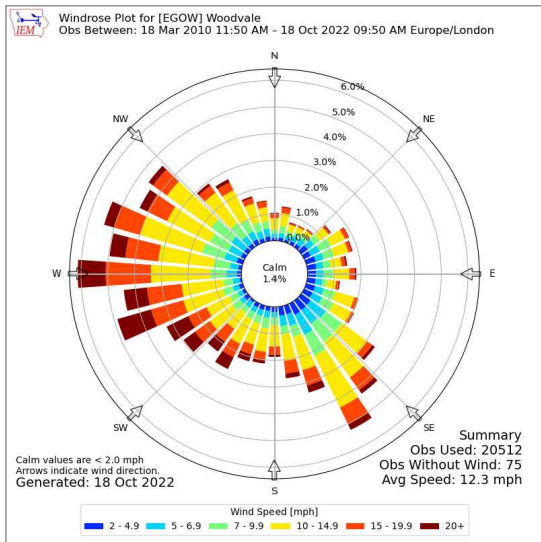
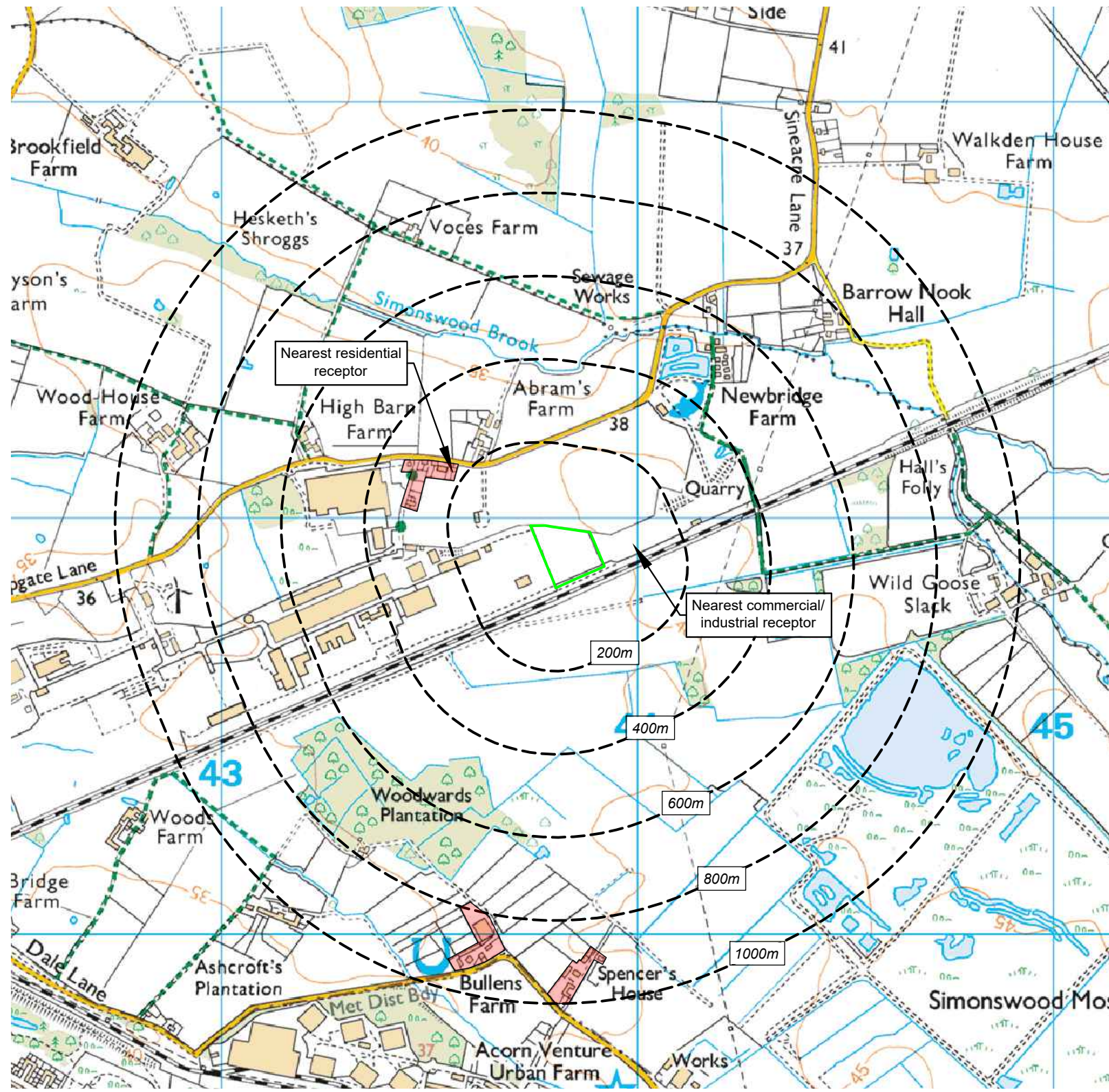
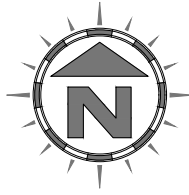
DRAWING NUMBER 2358-003-03	REV B	STATUS Issued
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DRAWN BY JH	CHECKED RS	DATE 12.01.24
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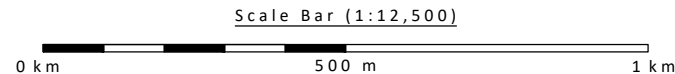
Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
 t: 01606 558833 | e: sales@oaktree-environmental.co.uk

KEY:

- Permit boundary
- Main River
- Surface water body (river / stream / pond / pool / lake)
- Workplaces (includes agriculture industry, commerce and retail)
- Areas with mix of residential, retail and commercial properties
- Residential blocks
- Class A roads
- Class B roads
- Class C roads
- Railway line
- Woodland areas



Compass Wind Rose for Woodvale (EGOW)
 Period 2010-2022
 - source: Iowa State University



NOTES

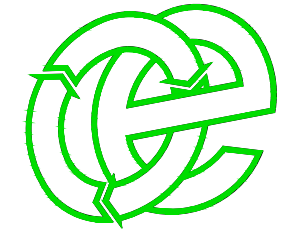
1. Boundaries are shown indicatively.
2. Wind rose data shows the prevailing wind direction to be Southerly.

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	23.11.22	IA	Initial drawing

Oaktree Environmental Ltd
 Waste, Planning and Environmental Consultants



DRAWING TITLE
 RECEPTOR PLAN

CLIENT
 Simonswood Properties Ltd

PROJECT/SITE
 Simonswood Industrial Estate, Stopgate Lane,
 Simonswood, Knowsley, Merseyside, L33 4YB

SCALE @ A3	CLIENT NO	JOB NO
1:12,500	2358	003

DRAWING NUMBER	REV	STATUS
2358-003-04	-	Issued

DRAWN BY	CHECKED	DATE
IA	IA	23.11.22

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