

Enterprise Skip Hire Ltd

Wendover Rd, Stoke Mandeville

Dust Emission Management Plan (DEMP)

Document Ref: 233036/DEMP April 2023

Shippon
Abingdon
OX13 6HX
T 01235 536042
F 01235 532849
info@aae-ltd.co.uk
www.aae-ltd.co.uk

Enterprise Waste Manageme Wendover Rd Stoke Mandeville Aylesbury HP22 5GX	ent
Issue Date	Document Reference
April 2023	233036/DEMP
Issued By	
amilyfold	
Emily Ford MSc BSc (Hons	s)
Reviewed By	
GBown	
Ed Brown BSc (Hons)	
Approved By	
Matthew Lawman MSc BSc	c (Hons)
AA Environmental Limited	(Registered Office)

Unit 4 to 8 **Cholswell Court** Shippon Abingdon OX13 6HX

REPORT FOR:

T 01235 536042 **F** 01235 532849 E info@aae-ltd.co.ukW www.aae-ltd.co.uk

Company No. 8474322

Table of Revisions

Issue	Date	Description of Changes
1		

233036/DEMP Enterprise Skip Hire Ltd AA Environmental Limited

Enterprise Waste Management

Wendover Rd **Stoke Mandeville**

> **Aylesbury HP22 5GX**

Contents

- 1.0 **INTRODUCTION & SCOPE**
- 2.0 **BASELINE CONDITIONS & SENSITIVE RECEPTORS**
- 3.0 **OPERATIONS**
- 4.0 **DUST & PARTICULATE MANAGEMENT**
- 5.0 PARTICULATE MATTER MONITORING
- **DEMP MANAGEMENT, TRAINING & RESPONSIBILITIES** 6.0

DRAWINGS

233036/D/001	Site Location Plan
233036/D/002	Site Receptor Plan
233036/D/003A	Hydrological Setting
233036/D/003B	Cultural Heritage
233036/D/004	Site Layout Plan
233036/D/007	Monitoring Plan

APPENDICES

Appendix A	Source Pathway Receptor Table
Appendix B	Complaints Procedure & Form
Appendix C	Weekly Housekeeping Schedule

AA Environmental Limited 233036/DEMP

1.0 INTRODUCTION & SCOPE

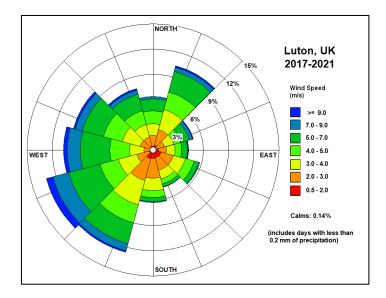
- 1.1 This dust emissions management plan (DEMP) sets out how the risk of air quality emissions will be managed at the Waste Transfer and Recovery Facility operated by Enterprise Skip Hire Limited (the Operator). The site is located circa 4 km to the southeast of Aylesbury town centre on Wendover Road, HP22 5GX. The site is next to the Triangle Business Park. This plan forms part of the management systems for the site.
- 1.2 The purpose of this plan is to:
 - minimise the emissions of dust, particulates and NO₂ produced by site activities, as far as is practicable, using appropriate best practice measures; and
 - mitigate the potentially adverse impacts of the residual emissions of dust, particulates and NO₂ after all appropriate control measures have been applied with due regard to the sensitivity of the local surroundings.
- 1.3 This management plan incorporates industry good practice to ensure the air quality emissions risk remains low during the site's operation. The plan has been developed following the principals set out in the EA dust control guidance and SPG Mayor of London Guidance and City of London Code of Practice for Deconstruction and Construction Sites¹. The relevant guidance in these plans relates primarily to construction processes which are consistent with those operated at the manufacturing site and present good industry practice.
- 1.4 The movement, storage and placement of waste may generate particulates and litter. The sources of emissions and associated controls are described in Section 3 of this plan. The plan sets out the proactive and reactive measures that will be implemented to control the emissions during standard and abnormal operational circumstances. These controls are described in subsequent sections.
- 1.5 In the event that the implementation of controls fails, corrective actions will be identified and implemented. The Site Manager will be responsible for implementation of the DEMP on site and site operatives will be provided with copies of this plan and trained on its implementation. Additional copies of the latest revision can be found in the site office and welfare area.
- 1.6 The waste treatment processes can generate particulates and litter. The associated controls are described in Section 4 of this plan. The plan sets out the proactive and reactive measures that will be implemented to control the emissions during standard and abnormal operational circumstances. These controls are described in subsequent sections.
- 1.7 The scope of this management plan follows the Environment Agency's (EAs) requirements set out in the Dust and Emissions Management template. Monitoring is in line with EA Guidance M17.
- 1.8 There have been no complaints related to emissions of dust from the site to date.

¹ Guidance used as it is the most authoritative for the type of operations at the site.

2.0 SENSITIVE RECEPTORS & BASELINE CONDITIONS

Baseline Conditions

2.1 The frequency of exposure and likelihood of any fugitive emissions on sensitive land uses is determined by the magnitude of release, proximity of receptors and prevailing meteorological conditions. Meteorological wind data has been acquired from ADM Ltd for data between 2017-2021 from the Luton Airport weather station which is approximately 30 km to the east of the site. The data shows that the prevailing wind direction in the area is from the south west quadrant. Accordingly, if fugitive dusts are emitted they are most likely to propagate towards the east-north-east.



- 2.2 The site is bordered to the south west / north west by a railway line and by commercial / industrial uses to the east and south. The north / north east is bound by a drain / ditch beyond which is an arable field. The sensitive receptors are shown in drawing 233036/D/002 and identified in Table 2.
- 2.3 Considering that the prevailing wind direction is from the south west, the most sensitive receptors will be the Chilterns View Garden Centre and the residential receptors on Wendover Road, circa 230 m from the eastern border of the site. Additionally, the agricultural land beyond the residential dwellings is a sensitive receptor.
- 2.4 DEFRA Air Quality Management Areas (AQMAs) interactive map data² indicates the site is not within an AQMA. The nearest AQMA is the Stoke Road AQMA for NO₂, circa 3.6 km north of the site.
- 2.5 The site is located within the Buckinghamshire Council. The nearest automatic monitoring location is situated circa 16.5 km north west of the site in Stokenchurch (ID:CM1), National Grid Reference SU 76604 95436. The monitoring site is suburban, for the monitoring of NO2. This recorded a 2021 annual mean of 18 µg/m³ for NO2³. There was no PM2.5 or PM10 monitoring undertaken.
- 2.6 DEFRA estimate the background concentration for a number of pollutants over a number of years on a 1 km grid resolution for the whole of the UK⁴. Table 1 shows the Defra estimated background concentration of PM₁₀, PM_{2.5} and NO₂ at the grid location closest to the site. Estimates are presented for 2021.

Table 1. Estimated Annual Average Background Concentrations for 2021 (µg/m3)4

Receptor Grid Location	PM ₁₀	PM _{2.5}	NO ₂
487500, 216500	13.6	8.9	7.3

² https://uk-air.defra.gov.uk/aqma/maps/ accessed 16/01/2023

³ Information from the Buckinghamshire Council 2022 Air Quality Annual Status Report dated June 2022 ⁴ https://uk-air.defra.gov.uk/data/laqm-background-home (accessed 22/12/22)

Sensitive Receptors

2.7 The sensitive receptors are shown in drawing 233036/D/002. With the dominant wind direction from the south west, the receptors at higher risk from fugitive emissions are likely to be the drain / ditch along the northern boundary, visitors to the Chilterns View Garden Centre and the residential area to the east.

Table 2. Sensitive Receptors

Description	Sensitivity	Distance from operational site
Residential		
Dwellings off Wendover Road	High	From 230 m east,
		330 m north &
		520 m south east
Dwellings off Station Road		From 600 m north
Dwellings off A420		From 760 m north west
Stoke House (stables)		630 m south west
Mill House Farm		985 m south west
Commercial / Industrial		
Triangle Business Park Industrial units	Medium	90 m south east
Triangle Business Park Car Park		30 m south east
Commercial Unit		45 m north east
Chiltern View Garden Centre		< 10 m east
Woolpack Stoke Mandeville Pub		830 m north west
Post Office		850 m north west
Agricultural		
Surrounding agricultural land	Low	<10 m east,
		<10 m north &
		15 m west
Ecological		
Priority Habitat – Traditional Orchards	Medium	550 m south and 660 m west
Drain / ditch (surface water)	Medium	Along the eastern boundary
Weston Turville Reservoir	High	1.3 km south east
Archaeological		
Archaeological Site of The Church of St Mary the Virgin	Low	800 m west
Other		
Stoke Mandeville Railway Station	Medium	670 m north west (760 m from
	iviedium	operational area)
Railway Line	Medium	South / south west adjacent to the site
The Pace Centre (Charity / Community Centre)	Low	860 m north
Public Highway (Wendover Road)	Low	210 north east
Pedestrians (footpath on Wendover Road)	Medium	210 north east
Pedestrians (Public Right of Way)		233 north west,
	Medium	236 m north east,
	ivieuluiti	348 m south west &
		408 m south east.

Local Dust Contributors

2.8 Table 3 sets out the potential dust emitters, by proximity to the operation.

Table 3. Potential dust emitter locations

Land Use Type	Name	Approximate distance from site boundary
Agricultural – arable farming	N/A	<10 m east, <10 m north and 15 m west
Railway Line	N/A	Along the southern / south western boundary (<10 m)

3.0 **OPERATIONS**

Site Overview & Waste Operations

- The site is a waste transfer station and recycling facility where the treatment and processing of 3.1 construction, demolition, commercial and industrial streams is undertaken both within enclosed buildings. The site layout plan is presented in drawing 233036/D/004. In principle, there are four areas of activity which have dust risk potential:
 - Building A: Used for picking station and the storage of trommel fines, cardboard, wood, plastic and residual waste.
 - Building B: Used to store waste streams, including residual waste, trommel fines and shredded waste and for wood/plastics/carboard shredding process and storage.
 - Building 1: Used as main reception area for tipping of skips, mechanical sorting of waste streams. wood shredding and storage.
 - Building 2: Used for crushing, screening and storage of hardcore and inert waste streams.
 - External Yard: Used for processing of C&D waste, storage of inert and non-hazardous waste streams, storage of plant, COSHH and skips.
- 3.2 The entirety of the site is underlain by impermeable concrete hardstanding.
- The site is accessed via Wendover Road (A413) to the north east of the site through a shared access 3.3 road through Chiltern View Garden Centre car park. The permitted tonnage is 125,000 tonnes per annum (tpa). The main waste types will consist of the following waste streams:
 - Inert construction and demolition mineral-based (soil and aggregate) waste types.
 - Commercial and Industrial waste types.
 - Non-hazardous segregated waste (wood, plastic and metal).
 - Mixed and segregated metal waste.
- 3.4 The overall dust risk that derives from the predominant waste stream is considered potentially medium. to high without mitigation; however, some of the comprising materials are in bulk form and are not typically friable or in low particle size. There is potential for more friable, smaller particle size wastes within the waste streams listed in Section 3.3. The overall dust risk for the typical waste stream is considered medium to high without mitigation. Table 4 highlights the potential dust risk from the typical waste streams expected on site.
- 3.5 The dust risk arising from non-hazardous segregated waste streams is considered very low to negligible. Dust risk from these areas can be eliminated through maintenance of the drainage system and good cleaning practices as per general site wide controls.

Table 4. Typical incoming potential dust risk waste types

EWC	Description	Tonnes per week (indicative)	Destination and Process	Potential Risk (with no mitigation)
17 09 04	Mixed construction skip waste/C&I Waste types	< 500 tonnes	Added to feedstock area. Put through manual segregation, trommel / picking process line with output in segregated bays (output dependent on input content).	Medium / High
01 01 01 01 01 02 01 04 08 01 04 09 01 04 13 02 04 01 10 12 08 10 13 14 17 05 04 17 05 08 19 12 09 20 02 02	Soil / stone / mineral	< 500 tonnes	Added to feedstock area. Depending on input material, put through manual segregation followed by screening into fractions. Output stored in segregated bays.	High
17 04 codes	Metals	0-25 tonnes	Segregated waste bay. If well segregated, no processing required, bulking up only.	Low

15 01 packaging codes 17 02 03	Plastics and packaging	0-25 tonnes	Segregated waste bay. If well segregated, no processing required, bulking up only.	Low
20 03 01	Non-hazardous bulky domestic waste	0-25 tonnes	Added to feedstock area. Put through manual segregation, trommel / picking process line with output in segregated bays (output dependent on input content).	Low
17 01 01 17 01 02 17 01 03 17 01 07	Inert C&D Arisings	<1000 tonnes	Added to feedstock area. Put through manual segregation, trommel/picking process line with majority stored in the external yard hardcore bay.	High
17 02 01	Wood	<100 tonnes	Segregated waste bay. If well segregated, no processing required, bulking up only. If required, put through shredding in Building A.	Medium / High
17 08 02	Gypsum-based waste (plasterboard)	<100 tonnes	Segregated waste bay. No processing on this waste type.	Medium / High
10 11 12 15 01 07 17 02 02	Glass	0-25 tonnes	Segregated waste bay. If well segregated, no processing required, bulking up only.	Low
17 03 02	Bitumen	0-25 tonnes	Segregated waste bay. If well segregated, no processing required, bulking up only.	Low
15 01 01	Paper & Cardboard	<100 tonnes	Segregated waste bay. If well segregated, no processing required, bulking up only.	Low
WEEE waste Notes:	Batteries and cables	0-25 tonnes	Segregated waste bay only.	Low

3.6 Table 5 sets out the waste streams, waste management activities and the potential for fugitive particulate emissions. The dust risk derives from the finer fraction which can become airborne during dry conditions and without abatement controls. Appendix A has the source pathway receptors for all potential dust activities below.

Table 5. Waste streams and description of management activities

Description	Processes (area)	Potential for fugitive particulate emissions without mitigation
Haulage and site operation (site wide)	Import and export of materials (whole site – within building and/or movements between different areas)	Possible exhaust emissions and fugitive dusts from loads from vehicles (NOx, PM2.5 (<2.5 μ m), PM10 (<10 μ m) and Total Suspended Particulates (TSP).
	Use of plants and machinery	Possible wind entrainment of fines silts and soil on operating surface and haul route.
Building A: used as a picking station.	Tipping of waste and pre- processing storage	Possible aerial entrainment of waste and materials.
Building B (south): Used for wood / plastics / carboard shredding process and strange		Possible aerial entrainment of lighter waste fraction. Exhaust emissions and fugitive dusts from the plants in operation (NO _X , PM ₁₀ (<10 μ m) and Total Suspended Particulates (TSP)).
storage. Building B (north): Used to store	Sorting, segregating, screening, shredding of waste	Mechanical breaking, shredding and abrasion of the minerals can cause particulates to be emitted. If these become entrained they can become airborne.

The tonnes per week and processes are considered worst case and are subject to varying factors. Final worst case volumes are in accordance with the Fire Prevention Plan.

Drawing 233036/D/004 shows the waste storage bays, feedstock and processing areas.

Description	Processes (area)	Potential for fugitive particulate emissions without mitigation
waste streams, including residual waste, trommel fines and		As the material is transferred on conveyor or dropped onto the ground there is the potential for aerial entrainment of fines.
shredded waste Building 1:		Exhaust emissions and fugitive dusts from the plant in operation.
Used as main reception area for tipping of skips, mechanical sorting of waste		Possible spillage of aggregate/segregated waste streams over the operational area which can cause direct entrainment or increased risk of mud across operational surface.
streams, wood shredding and storage. Building 2: Used for crushing,	Management and transfer of recovered materials and/or segregated waste streams into stockpiles/ storage containers	Possible emissions during the external bulking of materials.
screening and storage of hardcore and inert waste streams.	Physical segregation into stockpiles	Possible aerial entrainment of waste.
Storage of waste and recovered material	Storage of material or waste within stockpiles/uncovered concrete bays	Possible aerial entrainment of waste and litter.
External loading of waste and material	Loading of material into lorries. Movement of front loader from bays /	Possible wind entrainment of waste, materials and litter.
	enclosures to HGV.	Possible aerial entrainment of lighter waste fraction.

3.7 Dust and emission controls are outlined in Section 4.1

Plant and Equipment

- 3.8 The delivery plant involved are sheeted 8-wheel delivery lorries with an emission rating of Euro 5 and above. The deliveries are with either standard, sheeted tipper lorries, or sheeted skip loaders at a rate per day compliant with planning permission.
- 3.9 The plant is owned by the Operator and is maintained in line with manufacturer's specification. If plant must be replaced, the replacements will be of the lowest emission standard possible at the time of purchase. There are no generators on site. Table 6 sets out the known combustion engine powered plant and their emission ratings.

Table 6. Mobile Plant and Equipment

Description	Make	Model	Emission Rating
Excavator	Hyundai	HX140	Stage IV compliant
Excavator	Doosan	DX 235LCR-5	Stage IV compliant
Excavator	Caterpillar	313	Stage IIIB compliant
Excavator	Caterpillar	320 GC	Stage IV compliant
Loading shovel	JCB	560-80 T4 Wastemaster Loadall	EcoMax Stage IV engine
Loading shovel	JCB	535-80T4 Wastemaster Loadall	Stage IV engine
Material Handler	Liebherr	LH24M	Uses volvo penta Stage V compliant engine
Shredder	Peterson	2710D	Stage IV compliant

Screening Plant	Bluemac	Terex MPS	Not relevant
Crusher		QJ241	Tier 4 final

4.0 DUST & PARTICULATE MANAGEMENT

Sources of Fugitive Particulates and Control Processes

- 4.1 The potential dusts include fine particulate matter which consist of inhalable fractions (total suspended particulates (<100 μm) and the more dangerous respirable fraction (less than PM₁₀). Such dust types are termed as friable. Friable dusts may occur in hardcore and aggregate waste.
- 4.2 There will be no point source emissions of air pollutants. Any release will be fugitive only. All fixed plant treatment will be within the main buildings.
- 4.3 The external stockpiles and bulked wastes situated in bays will be subject to periodic wetting by water bowser and/or building-mounted rain guns during dry conditions. When moved or disturbed by front loader or excavator, the inner part of the waste stockpile may be exposed. Any external loading of HGVs will be under manual misting system or rain gun dust control during dry conditions.
- 4.4 The waste streams with fine particulates include the feedstock, residual fines and inert/ non-hazardous soil/hardcore, which will be processed under integrated and manual dust suppression measures, including the internal misting systems of the fixed plant. The locations and type of dust suppression measures are shown in drawing 233036/D/004. Table 7 sets out the controls that will be implemented at all time the site is operational, unless specified otherwise.

Table 7. Dust Emission Standard Operating Controls

Ref	Abatement Measure	Description/Effect	Overall Consideration and Implementation	Trigger for Implementation				
Prev	Preventative Measures Preventative Measures							
1	Impermeable concrete surfacing Site accessed directly from the access road to the east which is constructed of tarmac and leads directly into the site into the external yard. There are no unmade areas on site or along the access route.	No mud generated. Any mud/ dust brought to site on HGVs is easy to clean. All vehicle running surfaces at the site will be hard surfaced and all waste will be delivered by road. The external yard will be subject to a 'deep clean' on a weekly basis to prevent the build up of dirt and dust. The operating surfaces will be washed down and sweept by hand and/or with a mechanical road sweeper at least daily. The frequency will be increased when significant accumulation is identified.	The site manager or TCM will inspect the access / egress of the site with the external road three times a day to determine whether there is beginning to be an accumulation of dust/mud on the internal impermeable concrete. In the event there is, a road sweeper is deployed. The operative will also be manned with a strong brush for manual assistance. The operative will be aware of the DEFRA's CoP grading classifications and the corrective action response time is immediate, provided it is safe to do so. As a minimum, the section of road external to the site access/egress will be swept within half a day of identification. There will be a dedicated dust brush on site to deal with larger detritus and the road sweeper will remove the finer particles afterwards.	Excess mud/ dust will be identified in daily visual inspections. Grading classification and triggers is in accordance with DEFRA's CoP.				
2	Requirement for delivery lorries to implement dust controls.	All lorries will be 8-wheel enclosed, sheeted skip lorries or vehicle with equivalent dust controls. Vehicles will be sheeted / covered upon arrival.	Vehicles will temporarily uncover for visual inspection at the weighbridge or gate, then re-cover for the transit to the designated tipping location within the building or waste acceptance area under misting system (if conditions are dry).	Operative responsible for ticket collection enforces compliance with sheeting/ equivalent dust controls if dust control is inadequate. If non-compliance is observed, a strike is given, which when tallied up to 3 strikes for repeat offenders, the haulier is contacted and driver banned from site.				
3	Tipping location situated in designated areas and under dust suppression.	Vehicles will finally uncover at tipping location and under dust suppression spray (if required), demobilise fugitive dust emissions.	These designated areas will be the only locations where unloading/ tipping will occur to ensure adequate suppression.	Site operatives will be briefed on the tipping locations and ensure that tipping occurs there. All vehicular unloading will be supervised by a banksman operative to ensure tipping is not uncontrolled.				
4	3.6 m high concrete wall on boundaries of site.	The walls will partially screen the force of the prevailing winds and shelter the processing plant and external yard. Reduction in wind speed to demobilise PM10 dust particulates.	This feature will be permanent, as are the location of the higher risk processing activities in the storage yard, to provide protection for the sensitive receptors downwind.	Any revisions to the layout will be implemented only after considering the sheltering effect offered by the walls.				

Ref	Abatement Measure	Description/Effect	Overall Consideration and Implementation	Trigger for Implementation
Prev	ventative Measures			
5	Netting / micro netting on concrete blocks around external hardcore bay	Erecting netting around bay that could give rise to large amounts of dust and particulates can prevent dispersion off site and suspension within the site.	Netting fitted to the end of the picking station conveyer outside to stop small particles of light rubbish leaving the site boundary. The integrity of the netting will be inspected in accordance with the maintenance / infrastructure records.	This feature is permanent.
6	Buildings A, B, 1 and 2	Buildings will provide significant screening of work activities preventing dust leaving the site to the south; and reduce winds which may mobilise dusts.	Buildings will be inspected. Any repairs will be made as soon as possible (in a practicable timescale).	This feature is permanent.
7	Atomiser heads Atomiser misting curtain on trommel Locations as per drawing 233036/D/004. loader and a stationary HGV), rain gun dust suppression will be used on the bay and the over the loading area. The site will be dampened each morning prior to starting works using the tractor and bowser or fixed dust systems.		There is no exception to this abatement measure and in the event that the dust suppression system fails, all operations will cease until the control can recommence. Periodic wetting of stockpiles will occur by water bowser during dry conditions. Critical spares for the dust suppression system (sprays) will maintained on site. There is one replacement handheld high pressure misting system kept on site.	There is no exception to this abatement measure and suppression will be implemented whenever these activities are taking place.
8	Drop heights and double handling minimised.	required. Drop heights will be minimised and double handling minimised at all times. To note, the design of the infrastructure and concrete bays means that drop heights are not excessive and drops are within reason given the surrounding infrastructure.	Location of concrete bays and processing plant will be fixed and this is a permanent design feature. The factory process is systematic to limit double handling of materials. Operatives who drive front loader and excavator will be briefed on the need to minimise drop heights.	Location of concrete bays and processing plant will be fixed and this is a permanent design feature.
9	Sealing / tamping down stockpiled material Stockpiles will be compacted to minimise wind entrainment and be stored at safe angles of repose (typically 1:3), to minimise the risk of instability that can lead to a greater risk of wind entrainment.		The compaction of aggregate will decrease the pore space between particles and increasing the bonds between soil particles, in turn reducing the potential for wind entrainment. The compaction method will be solely by the excavator tidying up the perimeter of the stockpile and compacting with the bucket to minimise debris rolling down the slopes and will minimise mobilisation by wind or rain.	Site operatives will be briefed on the stockpile management controls and these are implemented at all times.

Ref	Abatement Measure	Description/Effect Overall Consideration and Implementation		Trigger for Implementation
Prev	ventative Measures			
10	· · = · · · · · · · · · · · · · · ·		Periodic wetting of stockpiles will occur by water bowser during dry conditions.	Site operatives will be briefed on the stockpile management controls and these will be implemented at all times.
11	Internal segregated waste bay locations and design.	Segregated waste bays will be located within the buildings directly under or adjacent to the processing operations. The recovered material must be lower than the bay height with a freeboard of 1 m (FPP guidance) made visible by a highlighted physical mark. This will prevent wind whipping of the external stockpiles.	Permanent design feature. Material will be stored in a manner that is stable (preferably within skips/containers) and not able to become airborne This will be implemented internally and externally as part of the FPP for fire safety, while also providing minimization of wind whipping of external stockpiles.	Permanent design feature.
12	Site wide speed limit set at 10 mph for all HGVs	Minimisation of fugitive emissions from site surfacing/ vehicle wheels/ loads by keeping vehicle speed low. To note, the site is all on concrete and due to the size of the site, it is very unlikely that vehicles can go above 10 mph.	All drivers delivering waste will be subject to signage reminders of speed limit, dust controls and by the operator at the ticket office. Drivers under the Operator's primary control will be subject to a site induction and toolbox talks.	If non-compliance is observed, a strike is given, which when tallied up to 3 strikes for repeat offenders, the haulier is contacted and driver banned from site.
13	Anti-idling policy	Limit the fugitive emissions from vehicles by implementing a no idling policy.	All drivers delivering waste will be subject to reminders of no idling policy by the Operator at the ticket office. Driver's under the Operator's primary control will be subject to a site induction and toolbox talks.	If non-compliance is observed, a strike is given, which when tallied up to 3 strikes for repeat offenders, the haulier is contacted and driver banned from site.
14	Visual monitoring inspection The visual monitoring will be completed daily by nominated site operative, where wind direction, airborne dust, dust soiling and weather conditions is monitored. The check is kept on site in the Site Office and recorded in the Site Diary. These conditions will be monitored using the Met Office website and		The number of visual inspections will be increased in accordance with the weather conditions and following an emissions incident or complaint. The inspections will be undertaken during normal operating hours, not during breaks. The inspection will include a check of concrete surfacing, acceptance of loads and tipping/loading activities.	A minimum of 2 visual monitoring inspections will be undertaken per day during operational periods (i.e not during breaks). During dry / windy conditions, 3 inspections will be undertaken per day.

Ref	Abatement Measure	Description/Effect Overall Consideration and Implementation		Trigger for Implementation				
Prev	reventative Measures							
		real-time observations on site. Notes of weather conditions off site may also be noted if different from on site notes. This informs the need to use additional preventative measures.		In the event of dust identification, the procedure and actions set out in Section 5 of this DEMP will be implemented.				
15	Air emissions awareness training	All staff will receive internal air emissions awareness training at site induction and through regular toolbox talks to engender awareness on emissions reduction.	All staff will receive internal air emissions awareness training at site induction and through regular toolbox talks	All staff will receive internal air emissions awareness training at site induction and through regular toolbox talks				
16	Routine servicing of plant and equipment.	All plant and equipment will be routinely serviced in line with manufacturers' guidance.	All plant and equipment will be routinely serviced in line with manufacturers' guidance.	Frequency of servicing will be undertaken in line with manufacturer's guidance, or as faults or excessive emissions are identified.				
17	Plant and equipment will be switched off when not in use / auto off systems	Plant and equipment will be switched off when not in use to reduce excessive emissions.	The importance of this measure will be reinforced during the daily briefing, site induction and during site walkovers (as part of the daily site inspection) by the Site Manager and the site operative nominated for visual dust monitoring.	During site walkovers (as part of the daily site inspection) by the Site Manager and the site operative nominated for visual dust monitoring, operatives will be reminded to switch off their engines if idling is identified. Incidences will be recorded in the visual monitoring check and appropriate action taken upon repeat offences.				
18	Higher Tier generators used where possible	For permanent infrastructure requiring constant power, in the very unlikely event it is not fed by main electric power, Tier 4 compliant generators will be used. For short term operations, as a minimum, Tier 2 or 3 are used (where electricity cannot be provided).	Any procurement of generators will be aware of the classification and the need for the more suitable Tier 4 standard, where practically possible.	Any procurement of generators will be aware of the classification and the need for the more suitable Tier 4 standard, where practically possible.				
19	Dusty load response procedure	Upon entering the site, loads will be inspected on the weighbridge by staff member responsible for waste ticket collection/examination. Waste composition information will be relayed onto machine driver and yard manager via two-way radio. A second inspection will be undertaken during tipping. If an unacceptably dusty load is identified at either of these stages, the load will be returned to the waste producer. If the load has been tipped, it will be re-loaded under suppression from handheld hoses as well as the fixed dust suppression systems, adsorbing any dust generated.	The inspection at weighbridge should not overly disturb the dusty load. In the event dust is identified at the weighbridge stage, additional handheld misting can be applied using the external handheld misting systems. In the unlikely event that a dusty load is accepted, the load will be dealt with under dust controls within the main building. The waste producer will be notified, and an investigation initiated to prevent recurrence.	Inspection and identification of dusty loads will be undertaken at ticket office and during tipping.				

Ref	Abatement Measure	Description/Effect	Overall Consideration and Implementation	Trigger for Implementation
Prev	ventative Measures			
		To note, it is the overall responsibility of the Site Manager to implement the dusty load response procedure.		
20	Daily litter pick / check	A daily litter pick will be undertaken by a nominated site operative who has been briefed internally on housekeeping requirements (shown in Appendix C). This prevents build up of debris and airborne emissions of waste.	If litter has migrated offsite as identified the, litter pick will also cover external road through the shared access route through the Chiltern View Garden Centre car park. In the event that there is an escape of litter from the confines of the site and into the local environment, it is the responsibility of the site staff to arrange for litter picking of the affected areas within the working day. The operation or delivery generating the escape of litter will be contained and thereafter controlled to minimise further releases and any container releasing fugitive material is covered or removed from site immediately. An excessive spillage of materials anywhere within the site or on the adjacent road will be dealt with immediately by sweeping of the surface and litter picking if required. Such a spillage and the action taken will be recorded in the site diary. The EA can inspect the daily site diaries during inspections.	Visual Inspections to identify unacceptable conditions and trigger the litter pick in addition to the daily scheduled litter pick. Records of inspections or remedial actions are made in the site diary.
21	Records of visual site inspections recorded	Records of visual site inspections recorded in Site Diary by TCM.	Records will allow for easy review and identification of dust sources in the event of complaints/ emission incident etc.	Results and check of visual inspections are to be filled out and recorded each time.
22	Ceasing operation during high winds and/or prevailing wind direction	Mobilisation of dust and particulates is likely to be greater during periods of strong winds and hence ceasing operation at these times may reduce peak pollution events.	If during severe weather dust is seen to be leaving the site in the direction of high risk receptors and in the opinion of the TCM likely to reach them, operations will cease until weather conditions have improved. The EA is notified if this occurs.	

- 4.5 Water for suppression is sourced from the on-site water tanks which are fed by mains. There are four water tanks on site one in the west which holds 10,000 L water, and three in the east of the site which holds up to 25,000 L and 5,000 L. The 25,000 L tank is continually topped up and is used for the building /infrastructure mounted dust suppression (rain guns, atomiser misting and curtains). The tank in the west of the site is used for plant wash down. The tanks are continually replenished by mains fed water. The on site dust suppression capacity is likely to be a minimum of 65 m³ with a conservative additional capacity provided from mains of 40 m³.
- 4.6 The estimated worst-case water consumption of on-site operations is calculated in Table 8 below:

Table 8. Onsite worst-case water consumption

Dust suppression Activity	Worst Case Water Consumption (per day)		
Road sweeper	2.1 m ³ /hour x 10 hours = 21 m ³		
Rain Gun	0.6 m ³ /hour x 10 hours = 6 m ³		
	$6 \times 3 = 18 \text{ m}^3$		
Atomiser misting guns / curtains	0.18 m ³ /hour x 10 hours = 1.8 m ³		
	1.8 x 10 = 18 m ³		
Maintenance (cleaning, washing down)	Estimated at 0.5 m ³		
Total	57.5 m ³		

- 1. Water consumptions taken from WRAP 'Case Study: Water Efficiency on construction site'.
- 2. The operating working hours are taken from the Operational Plan. These are conservative and do not include break times.
- 4.7 Based on the worst-case scenario in Table 8, the water capacity at the site can comfortably accommodate site operations.
- In the event water supply fails, the Operator will review and limit identified high risk external processing and loading operations. This would occur in liaison with the Local Authority and Environment Agency. Operations will remain active within the enclosure, which provides a significant dust preventative measure. This scenario is highly unlikely as the mains water supply is a reliable back up.
- 4.9 During drought / dry conditions, in the event water use is rationed, the internal building misting system supply will be prioritised. External loading misting system will be stopped and all loading will be internalised during periods of lower water supply. More emphasis will be on keeping the external concrete surfacing clean to minimise use of the access / egress misting system.

5.0 PARTICULATE MATTER MONITORING

- A daily site inspection will be undertaken by the Operator including potential sources that day, the control of dusts and the provision of controls. This information will be recorded in the Site Diary. To note, any site operative can report incidents to their line manager and appropriate actions will be taken immediately. The inspection will be undertaken by the Site Manager and/or a nominated site operative who has been given appropriate internal training by Site Manager and/or Technically Competent Manager (TCM), and/or environmental consultant. In the event the Site Manager is not at the site, the On-Duty Manager and/or nominated site operative will be expected to undertake the site inspection. The Site Diary is kept in the site office. Corrective actions are outlined in Section 6 and will be recorded in the Site Diary and effectiveness monitored.
- 5.2 The visual inspection will be performed on foot, allowing adequate opportunity to identify emission sources at the 5 locations across the site and the external location (locations seen in drawing 233036/D/007), where the operative will stop to observe from each monitoring point for a minimum of 2 minutes. The visual monitoring will be undertaken prior to ceasing operations each day. Inspection of static objects (cars, street furniture, storage containers) will be used to gauge the extent of dust soiling and will be wiped clean so an accurate judgement can be performed on the subsequent inspection. To note, no out of hour visual monitoring provision is deemed necessary given control measures applied.
- 5.3 Weather conditions (temperature, precipitation and wind speed/direction) will be recorded in the daily Site Diary using a value obtained from the Met Office online resource or the Company's weather status which provides continuous data. After completion of the inspection, the inspected wind directions will be compared against the desktop inspection. The comparison will be for information only. If the local weather conditions do not match the Met office conditions, the local conditions will take precedence.
- A minimum of 2 visual inspections will be undertaken per day. During dry / windy conditions, 3 inspections will be undertaken per day. One of the checks will be before cessation of works each day. The inspections will be undertaken during normal operating hours, not during breaks. The inspections will include check of concrete surfacing, acceptance of loads and tipping/loading and processing activities. To ensure this system is operating effectively, it will be reviewed monthly by the Site Manager. If found to be ineffective (e.g. recurring identification of dust sources on site, poorly filled out forms), the methodology and frequency of the monitoring will be reviewed, revised and briefings will be implemented. This is the responsibility of the Site Manager or TCM.
- 5.5 The daily inspections will have a trigger threshold of visual dust in the form of a visible dust (this may be in plume form or separated, this may also just be felt on your skin rather than visible) within the site, as a result of vehicle movements, wind whipping or material handling. This trigger threshold is an internal site action threshold only and not a compliance threshold. There is no severity to visual dust: if it is seen, the response procedure (set out in section 5.6 to 5.9 below) must be implemented.
- In the unlikely event this threshold is breached, the Site Manager, TCM, or nominated site operative will notify the Site Team and the response procedure will be initiated. The Site Manager is responsible for the implementation of the incident response procedure. The response procedure actions are set out below. When triggered, the Site Manager and/or nominated site operative will assess the operations, waste type being handled and deliveries immediately prior to the alarm being activated;
 - If the source cannot be ascertained with certainty, the Site Team will temporarily cease the most likely operation;
 - If the source is within the site's control, the Site Team will take appropriate action in terms of dust/particulate abatement to ensure further observations do not encounter the same emissions for a similar activity. Actions will include:
 - Review of the activity's dust control measures;
 - Increased frequency of the existing control measures; and
 - Temporarily suspending likely works until suitable abatement can be introduced.
 - If an effective control measure cannot be identified and the internal trigger level is identified again within 30 minutes of the first identification raised; and the wind direction indicates it could be from the site; the source activity will be temporarily suspended. The activity will not resume until

- sufficient controls have been achieved (i.e. no visible identification). Visual inspection frequency will be every half an hour during the response procedure, until incident is closed out.
- If there are more than three incidents within a month, further targeted quantitative dust monitoring will be undertaken to establish source and effective control measures. Details of the quantitative monitoring is set out in section 5.7.
- 5.7 Quantitative monitoring will be undertaken within 10 working days (this covers consultant lead in times and procurement) of when the final of three incidents is identified. The quantitative monitoring will be one of the following and will be in accordance with the standard set out in M8 EA guidance:
 - Pumped (active) sampling of PM10 onto filter paper; Gravimetric analysis; or
 - Light-scattering optical particle counter
- 5.8 The monitor will be set up in accordance with supplier recommendations and environmental consultant's procedures. The focus of the monitoring will be on determining the source activities and measurements will be collated within 10 m, within 30 m and at boundary in upwind and downwind locations. This will only be undertaken in dry conditions (to recreate similar conditions to the breaches and to preserve integrity of the equipment). Monitoring will also be undertaken at specific receptors to account for any complaints/concerns.
- 5.9 The monitoring equipment and consultant will be carried out under MCERTS accreditation. The quantitative dust monitoring PM10 threshold will be 75 μ g/m³ over a 5-minute period average. If the quantitative action threshold is exceeded; and the wind direction indicates it could be from the site; the site will identify and cease the likely source operation until measured PM10 concentrations drop below the action threshold for a 30-minute period.
- 5.10 The internal action observation exceedance will be logged in the Site Diary and a report of the exceedance and corrective action response to the local EA officer via email within 1 week. To note, these are internal identifications of dust on site. Any exceedance which is not from the site but from an adjacent third-party activity, will be noted in the Site Diary.
- 5.11 All complaints will be logged and dealt with appropriately in accordance with the Operator's complaint procedure (shown in Appendix B). Operations and additional controls are in accordance with Appendix B.
- 5.12 All monitoring data will be made available to the Local Authority and Environment Agency, upon request or as specified within the Environmental Permit. This will include any reporting or notification response or contextual information regarding the monitoring data. This will be undertaken within 10 working days of when the monitoring data is issued.

Controls in the Event of Abnormal Fugitive Emissions

- 5.13 In the event that abnormal fugitive particulate emissions are identified during site inspections the following controls should be applied:
 - · take immediate action to cease operations;
 - investigate the incident;
 - record the incident and the remedial site action in the Site Diary; and
 - the DEMP will be updated accordingly and issued to the EA for review.
- 5.14 Remedial actions are dependent on the source but may include, but not limited to:
 - Increase the frequency of road sweeping along the operational hardstanding and external road;
 - Deploy more misting systems, including manual hosing down, specifically targeting certain locations;
 - Limit activities to fewer hours each day (in addition to the standard controls being implemented);
 - Stop accepting certain mixed waste types which are likely to have more friable dust potential; and
 - Remove the dusty waste from site under dampened conditions immediately (under suppression systems).
- 5.15 In periods of drought (defined as > 35 °C over 3 days consecutively or no rainfall in 14 days) and high winds (defined as > 25mph on any day), operations will be limited in one of the following ways:

- Limit activities to fewer hours each day;
- Limit activities externally and focus on operating within building only;
- Wet down loads in main enclosure before transferring to external Yard 1A;
- Limit the number of loads accepted proportional to the reduction in activities;
- Deploy more misting systems, specifically targeting tipping and loading activities, including manual hosing down of stockpiles; or
- If limited or no water is available, the Operator will operate in accordance with section 4.9 and 4.10 of this DEMP.
- 5.16 In the event that these controls do not resolve fugitive particulate emissions at the site, key source activities will be suspended until suitable arrestment systems are implemented. These systems will be implemented in agreement with the Local Authority and the EA. The systems may include permanent use of remedial actions or alternative measures, as agreed. In the event that the implemented systems change, the DEMP will be reviewed and amended accordingly.

6.0 DEMP MANAGEMENT, TRAINING & RESPONSIBILITIES

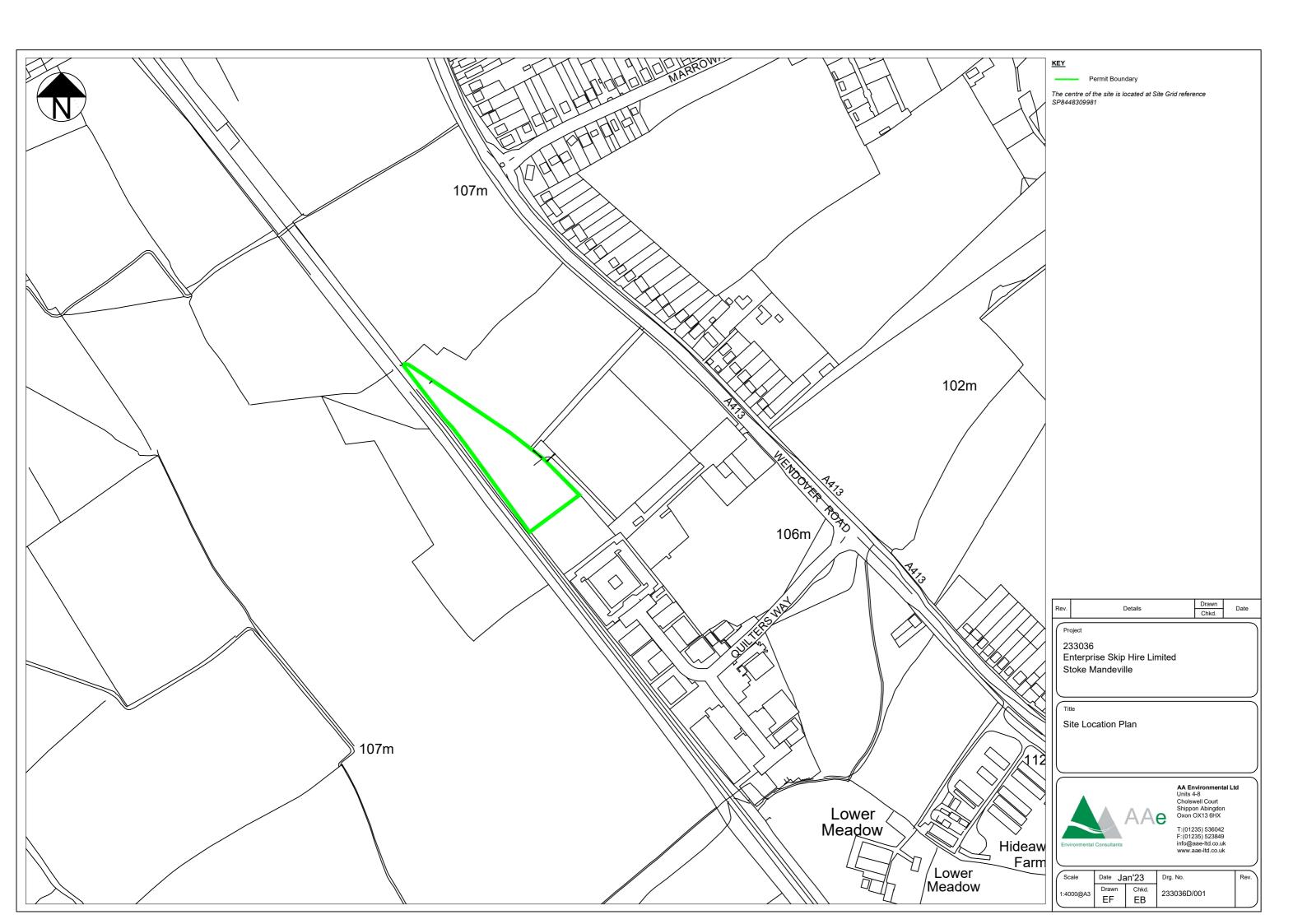
Management Responsibilities

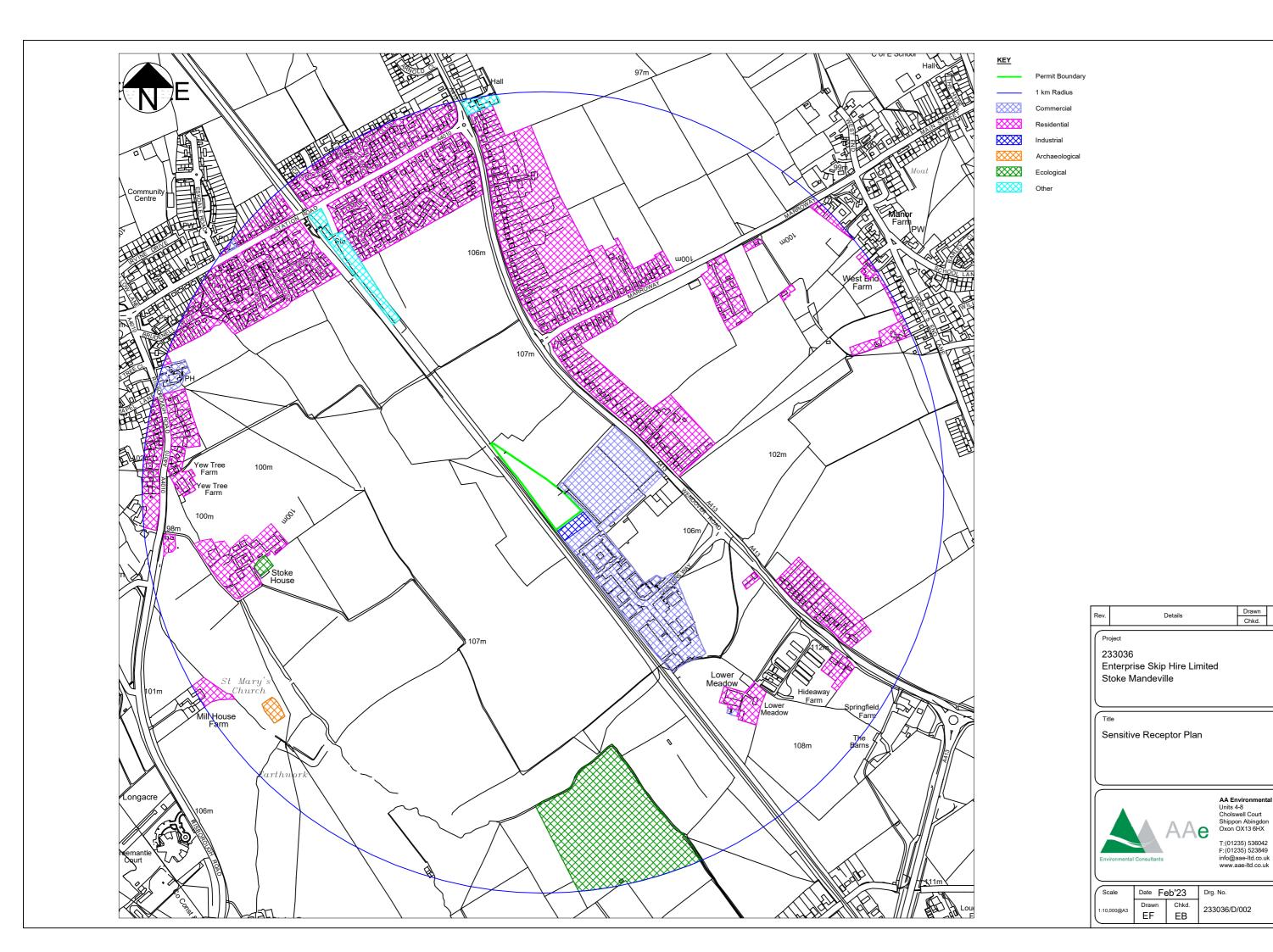
- 6.1 The staff member responsible for implementation, updating and review of this document is the site manager and/or TCM. The site manager is given appropriate training regarding this document upon induction. Upon each document revision and review by site manager, a final review of the document and evaluation of training will be undertaken by senior management.
- 6.2 All site operatives will receive internal dust and emissions training. Training is included within the site induction (upon the start of employment), during daily site briefings, and through tool box talks.
- As a minimum, this plan will be reviewed by the site manager on an annual basis to ensure that it is up to date, addressing the dust risks of the operations at any time. The plan will be reviewed by Senior Management either following an emissions incident quantified by a substantiated complaint, a monitoring threshold exceedance or observed emissions over the boundary, or change to the processing plant. The review procedure will be undertaken within 1 month of the incident to allow any further data to be interpreted. The review will ensure mistakes are learnt from and new/improved methods will be integrated.
- 6.4 Enterprise Skip Hire Limited has been operating at the facility since circa 2016. The main site telephone number, including site emergency number is displayed on the exterior of the site boundary on signage and the site telephone number and email are found on the website. Complainants are readily able to contact site management through different avenues, allowing their concerns to be addressed in a timely manner. Any formal complaint received will be recorded in the management system.
- In the event there is a change in the process or dust profile on site, the Operator will notify residents within 100 m of the site of any changes. This will be undertaken on an individual basis either by email, letter or door to door meeting.

DRAWINGS

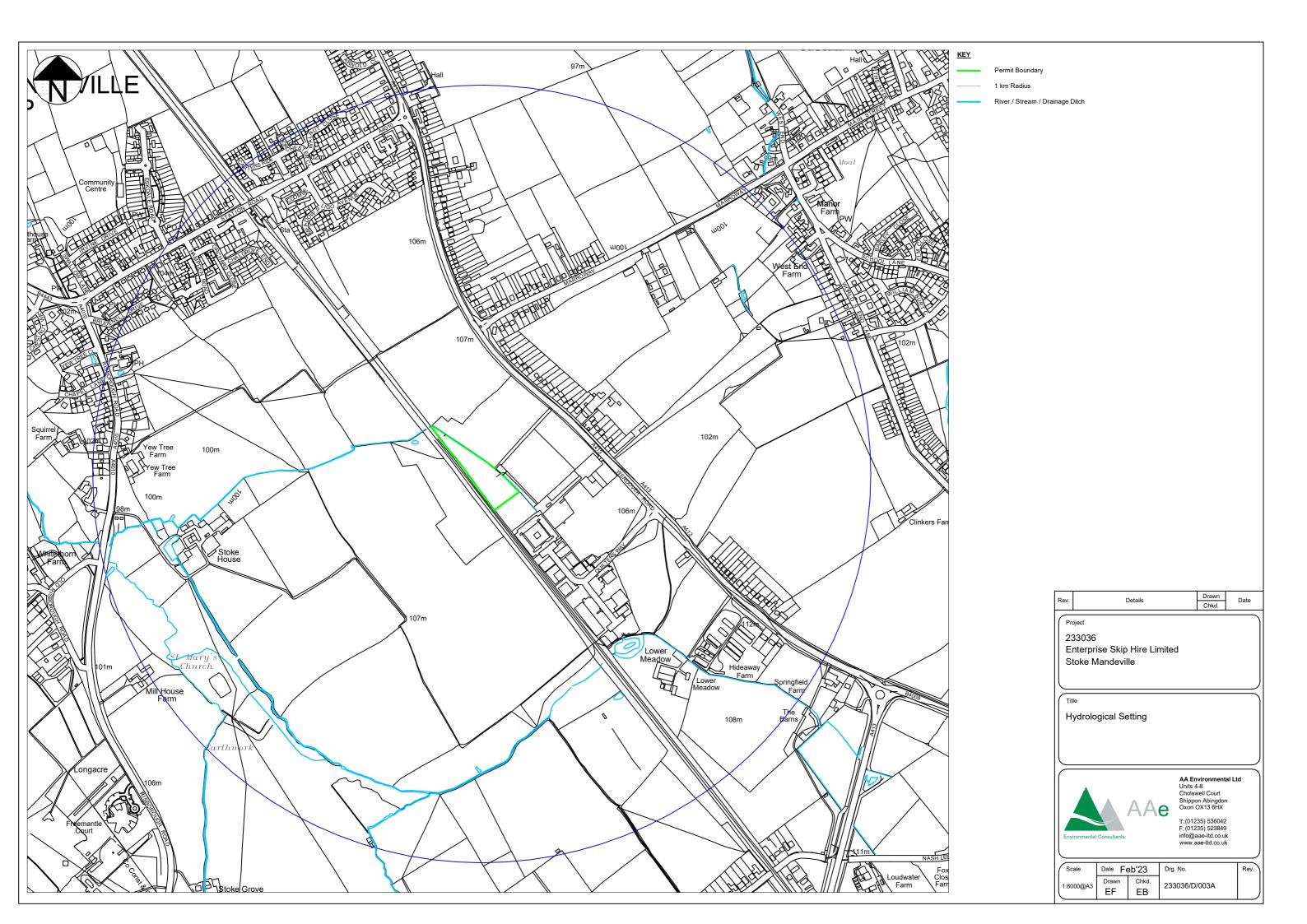
AA Environmental Limited

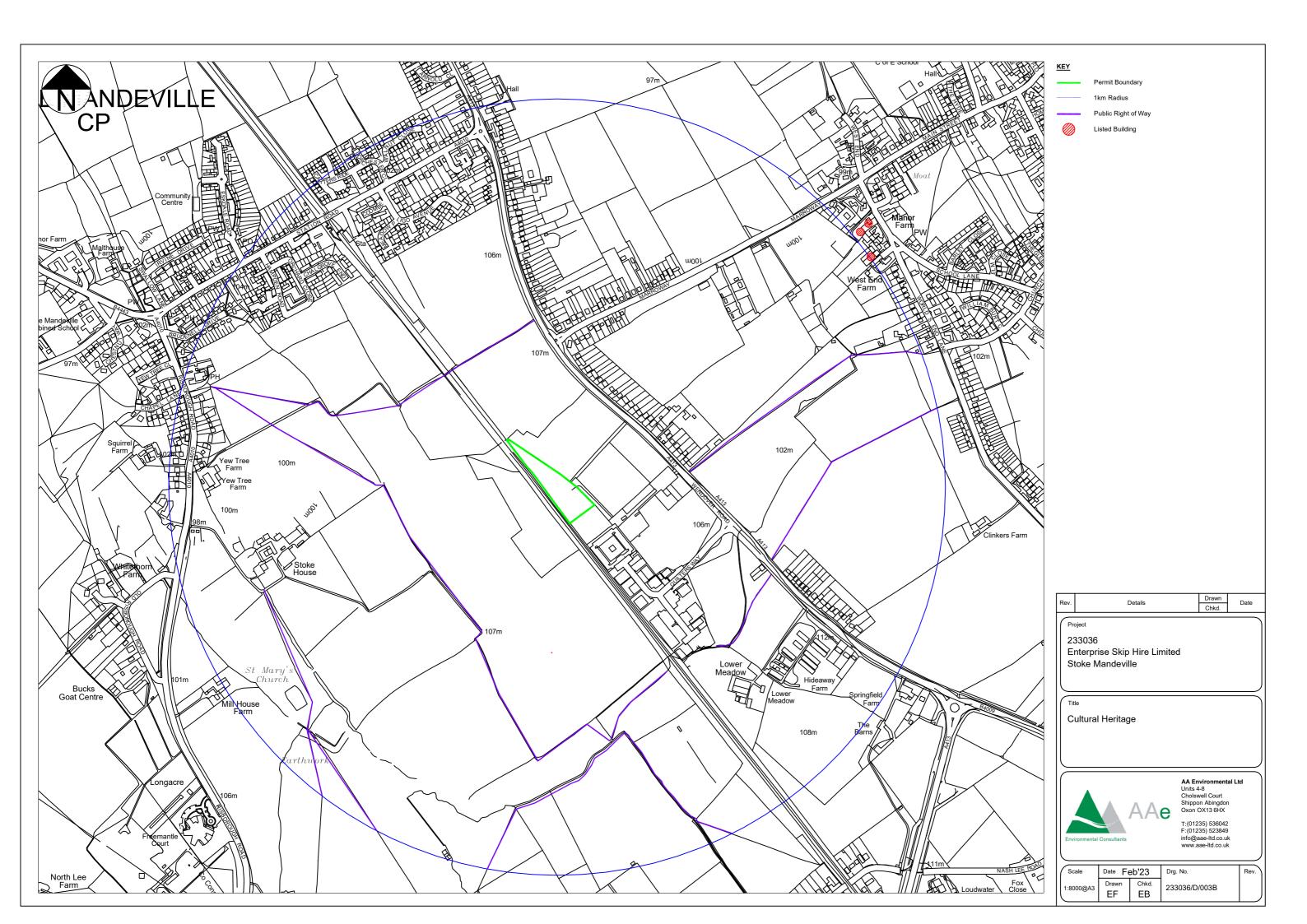
233036/DEMP
Enterprise Skip Hire Ltd

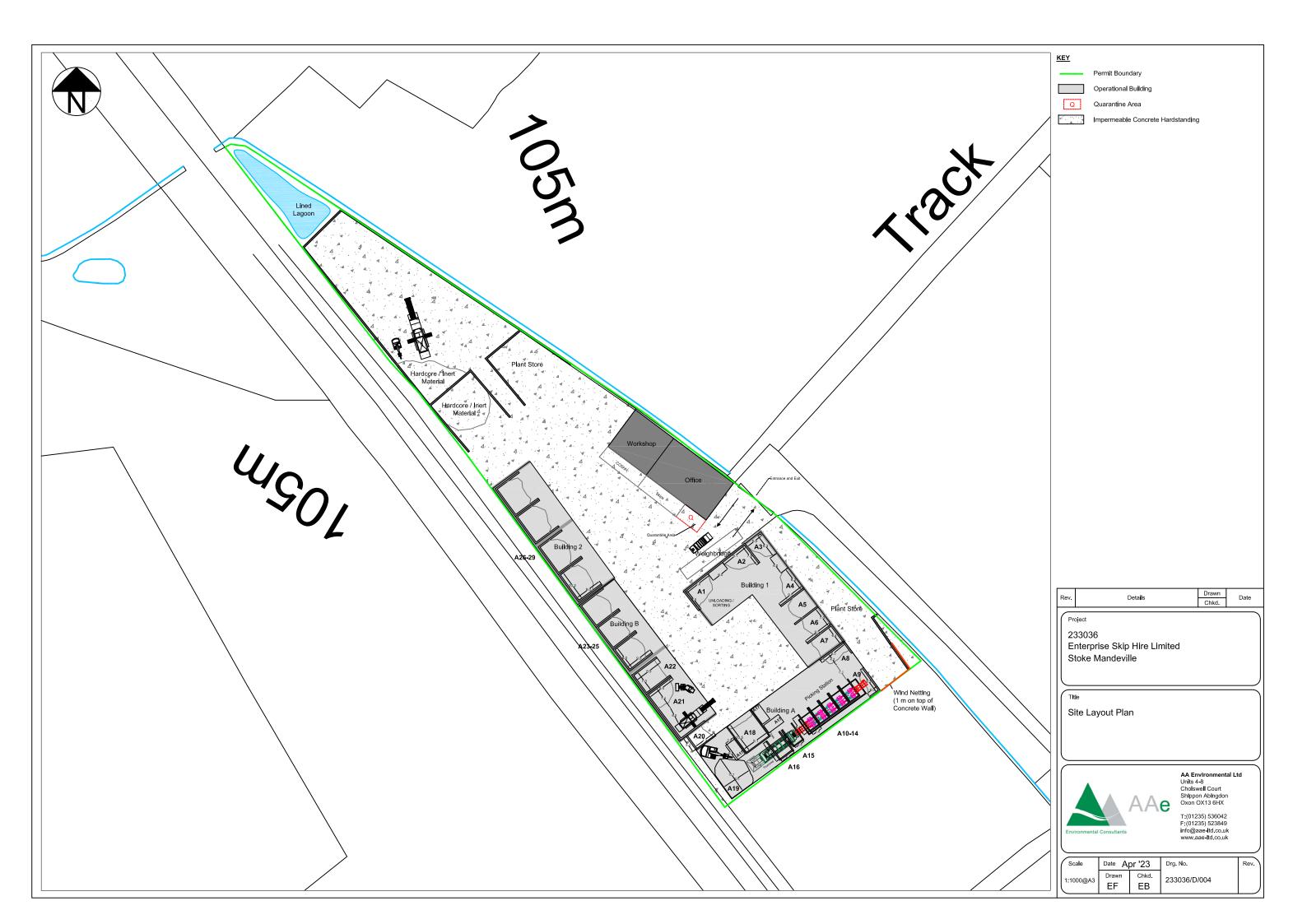


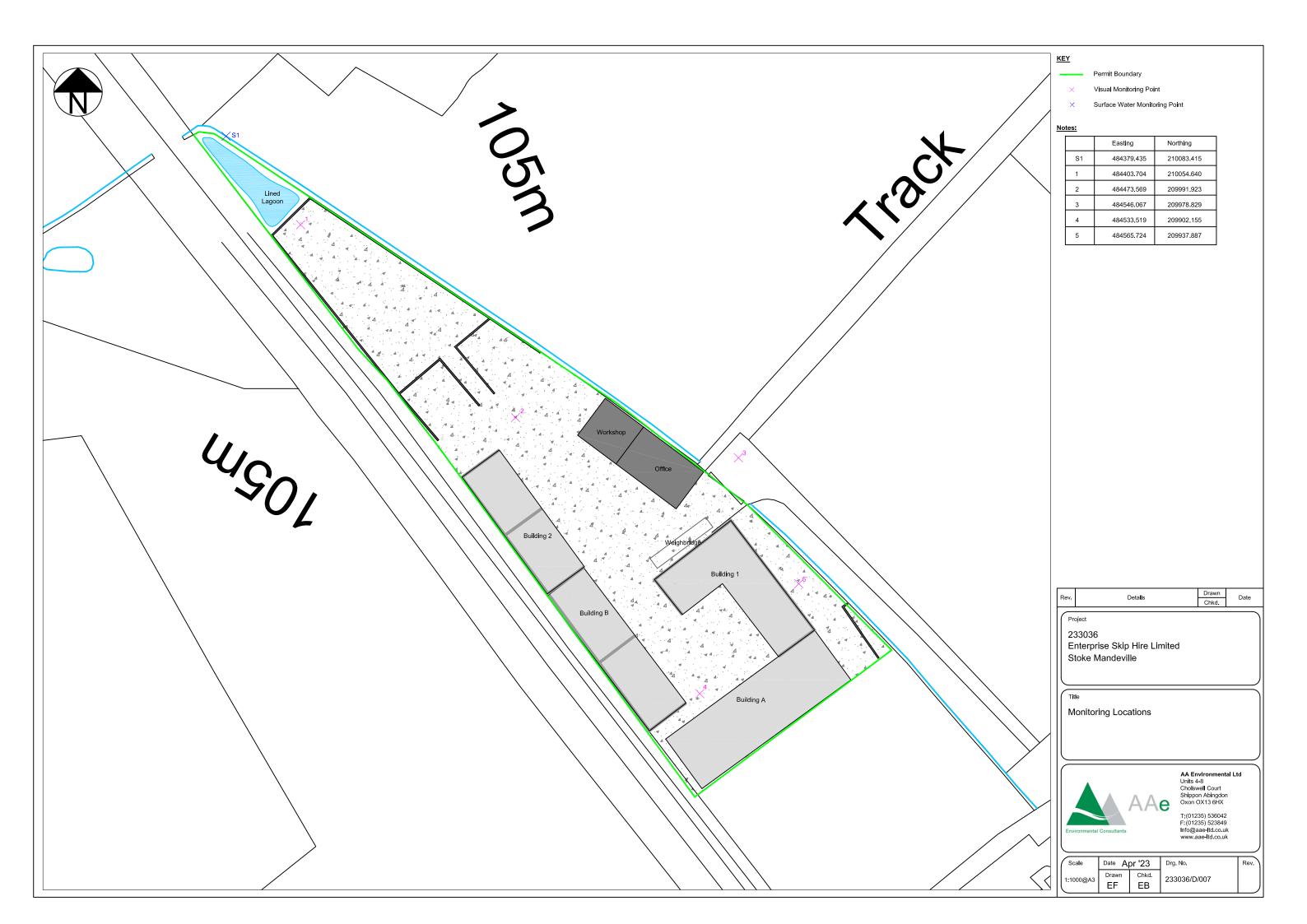


Date









Appendix A Source, Pathway Receptor Table

233036/DEMP Enterprise Skip Hire Ltd AA Environmental Limited

Source	Pathway	Receptor	Type of impact	Where relationship can be interrupted
Dust, mud and debris from vehicle operations through external yard area.	Tracking dust on wheels and vehicles, then mud dropping off wheels/vehicles when dry Debris falling off lorries	Surrounding receptors listed in Table 3	Visual soiling, also consequent resuspension as airborne particulates	Site wide speed limit set at 10 mph for all HGVs. Hand sweeping and mechanical road sweeping implemented, with access point swept and maintained daily. All surfacing is impermeable concrete. Weather will be monitored and recorded using continuous data and site operations limited accordingly./ higher frequency of water suppression. Wash down area used if problems identified. Clearing of debris by front loader at the start and end of each shift and as identified during visual inspection. Lorries covered on arrival prior to tipping and leaving site.
Tipping, storage and sorting of waste inside building	Escape from buildings and subsequent atmospheric dispersion	Surrounding receptors listed in Table 3	Airborne particulates	All storage and treatment of waste within enclosure. Dust suppression system over unloading area and high dust risk stockpiles. Misting system available throughout enclosure dampening wastes. Design of building so tipping area is located at opposite end to enclosure opening – fugitive particulates are dampened and adsorbed into mist prior to reaching enclosure opening. Minimising drop heights and design of internal layout to minimise double handling.
Dust from external operations: Tipping, storage and processing	Atmospheric dispersion	Surrounding receptors listed in Table 3	Airborne particulates	External loading areas will operate a dust suppression system when in use & bays will have misting system in operation during loading activities Concrete wall surrounding the site and enclosed by buildings. Waste being loaded will have a damp quality having been subject to dust suppression/misting systems at each stage of processing, minimizing fugitive emissions.
Vehicle and NRMM exhaust emissions	Atmospheric dispersion	Surrounding receptors listed in Table 3	Airborne particulates	Regulatory controls and best-practice measures to minimise source strength. Regular maintenance in line with manufacturer guidance. All NRMM are in accordance with Table 4.

233036/DEMP Enterprise Skip Hire Ltd AA Environmental Limited

Appendix B Complaints Procedure & Form

233036/DEMP Enterprise Skip Hire Ltd AA Environmental Limited

Complaints Procedure

223286/CP

INTRODUCTION

This Complaints Procedure outlines how the Operator will respond in the event of a complaint. A complaint may arise relating to the site permitted activities involving a nuisance (dust, noise, odour, pests). This procedure contains information on how any complaint will be investigated and any actions taken as a result of the complaint.

KEY CONTACTS

The key contacts will be shown on the site notice board at the site entrance. Alternatively, any complaints can be made at the site to any site operative and/or the Site Manager.

PROCEDURE

- 1. Any complaints made will be immediately logged by the Site Manager and/or Site Operative. In the event a complaint is made to a Site Operative, the Site Operative will refer the complaint to the Site Manager. If able to do so, the complainant details will be taken on initial contact either by phone or in person. The response time is typically within 1 hour.
- 2. The Site Manager (or nominated operative) will discuss any concerns with the complainant directly within 1 working day of the complaint being made; and request contact details to notify the complainant of any updates/corrective measures. The complaint will be logged using the Complaint Form (attached) and given a unique reference number.
- 3. The Site Manager will review the site activities and ensure control measures are in accordance with the Site's Management Systems. This review will typically happen in conjunction with point 1 and review will be undertaken within 2 working days of complaint being made.
- 4. Once initial contact and review of the site has been undertaken, the Site Manager will investigate the location of concern raised in relation to the site i.e. at a local receptor location and/or public highway to inspect the impact on the receptor. This will occur within 3 working days.
- 5. The Site Manager will notify the complainant of any updates to the control measures / site operations. Control measures may be corrective and/or preventative and include additional control measures and/or increase the frequency of an existing control measure. Alternatively, the design of the site operations may change to decrease nuisance to that receptor. The notification will be within 1 week of the complaint being made.
- 6. In the event the same issue persists, the Site Manager will further review site operations and control measures. This may require a temporary cessation of certain operations whilst additional measure is implemented. The works will not recommence until further control measures have been incorporated and a review of effectiveness has been agreed / witnessed by the Site Manager. The complainant will be kept abreast of further measures. This is likely to be within 1-2 weeks subject to what the complaint is, severity of complaint and associated activity taking place.
- 7. In the event of an out of hour complaint, the complaint will be picked up on the next working day and dealt with as per point 1-6 above.

RECORDS

On site Records

A copy of this procedure is kept on site and briefed to all site operatives upon site induction. Any identified complaints, incidents or accidents, as well as corrective measures, are recorded in the Complaint Form. Copies of the complaint forms are kept on site.

Complaints Procedure

223286/CP

Review

This procedure is reviewed on a yearly basis or post-incident to ensure it remains up-to-date with the site operations. The review procedure would involve the Senior Management Team and site team collectively to establish the root cause and the best available control techniques. The review will take place within 1 month of the incident.

Complaint Form Complaint Form Reference No. Date of Complaint **Details of Complainant** Name Address Email Address Contact Number Nature of Complaint Reported To Date of Incident (if different to date of complaint) Corrective Measure Taken Follow up Communication with Complainant

Close out Date

Preventative Measure Taken (if any)

Sign off

Appendix C Weekly Housekeeping Schedule

Housekeeping activity	Area of the site	Frequency	Personnel	Record
Litter inspection and pick	Whole site	Daily – typically beginning of each working day	Nominated operative	Daily Site Diary
Manual brush	Access / egress to the site	Daily - if mud on road is identified	Nominated operative	Daily Site Diary
Road sweeper brush	Access / egress to the site	Daily - if mud on road is identified	Nominated operative / third party contractor	Daily Site Diary
Stockpile height and surfacing – tidy up	Feedstock and material	Daily – end of each day	Plant operator	Daily Site Diary
Concrete hardstanding HGV route inspection – cleared of debris using front loader	Route to and from the different yard areas.	Daily – beginning and end of each day	Plant operator	Daily Site Diary
Welfare unit clean	Welfare unit	Weekly	Third party contractor	Daily Site Diary
Picking line clean	Picking line	Weekly	Nominated operative	Daily Site Diary
Building Inspection	Building A, B, 1 and 2	Daily	Nominated operative	Daily Site Diary