Client: Clearfield Envirotech Limited
Address: Mc1, Road Five, Winsford Industrial Estate, Winsford, Cheshire, CW7 3RB

Clearfield Envirotech Limited
Mc1, Road Five, Winsford Industrial Estate, Winsford, Cheshire, CW7 3RB

FIRE PREVENTION PLAN

06 September 2023

Our Reference: Clearfield-Winsford-RP03-Final (FPP)

Waste And Industry Compliance Ltd

ENVIRONMENTAL CONSULTANCY SERVICES

☎	07748 363 125
✉	info@wasteandindustry.co.uk
🖱	www.wasteandindustry.co.uk

Clearfield-Winsford-RP03-Final (FPP)

Version & Status	Date Produced	Prepared, Checked and Authorised by:
Draft v1.0	28/08/2023	Waste and Industry Compliance Ltd.
Final	06/09/2023	Waste and Industry Compliance Ltd.

This report has been prepared by Waste and Industry Compliance Limited with all reasonable skill, care and diligence in accordance with the instruction of the above-named client and within the terms and conditions of the Contract with the Client.

The report is for the sole use of the above-named Client and Waste and Industry Compliance Limited shall not be held responsible for any use of the report or its content for any purpose other than that for which it was prepared and provided to the Client.

Waste and Industry Compliance Limited accepts no responsibility of whatever nature to any third parties who may have been made aware of or have acted in the knowledge of the report or its contents.

Waste and Industry Compliance Limited
20 Walton Grange,
Stafford Road,
Stone,
Staffordshire, ST15 0ET

Telephone 07748 363 125
info@wasteandindustry.co.uk

CONTENTS

DRAWINGS

Drawing No. 5989-HJCE-00-XX-DR-D-3001	MC1, Drainage Layout	1:250@A1
Drawing No. DW01	Indicative Site Layout and Storage	
Drawing No. DW02	Sensitive Receptors	

1 INTRODUCTION

1.1 BACKGROUND

1.1.1 This Fire Prevention Plan (FPP) has been prepared for a proposed non-hazardous waste plastic and carboard recycling facility at Mc1, Road Five, Winsford Industrial Estate, Winsford, Cheshire, CW7 3RB (the Site). It is submitted in support of an application for a bespoke Environmental Permit for the Site.

1.1.2 Clearfield Envirotech Limited (the Operator) will operate the facility to treat a range of non-hazardous plastic and cardboard wastes for recovery and recycling. All waste streams are accepted for the purpose of recycling and recovery. No wastes are received for the specific reason of treating them for disposal.

1.1.3 Using state of the art washing and separation technology, the plant is designed to achieve high rates of recycling, typically 70% or greater. It will recycle many non-hazardous plastics that are typically either landfilled or incinerated, thereby moving these materials up the waste hierarchy and making a significant contribution to recycling targets. The Site will have an annual waste throughput of up to 100,000 tonnes. Hazardous wastes will not be accepted at the Site.

1.1.4 The Site incorporates a dedicated and enclosed building, of brick and steel portal frame construction, which incorporates a fully sealed impermeable concrete base. There are no drainage outlets inside the building and therefore no pathways to groundwater, surface water or uncontained land. All waste treatment activities will take place inside the building. Processing equipment will comprise shredding equipment, up to two wash plants, which each incorporate rear end mechanical drying, up to two plastic extrusion plants and a baler for baling recycled products prior to off-site supply to customers.

1.1.5 The building is fitted with 4 roller shutter vehicular access doors on the northern side and 5 roller shutter doors on the southern side. Pedestrian access fire doors are also fitted for emergency evacuation, e.g. in the event of a fire incident.

1.1.6 All incoming wastes will be in baled form. Wastes will only be processed inside the building (there will be no internal waste storage).

1.1.7 There is an external yard, which incorporates engineered, paved surface. It will be used for the storage of all incoming wastes, which is in baled form, prior to transferring them into the building for processing and recovery. Storage of baled wastes on the external yard will take place using a combination of stockpiles with a minimum of 6m separation distances all around (i.e. to all four sides) and fireproof bays comprising 2 hour fire resistant concrete rear push walls and side walls. Where fire resistant bays are used, a 6m separation distance will be maintained in front of the bay and the maximum height of waste will be at least 1m lower than the top of the bay walls.

1.1.8 The Site will operate on a 24 hours x 7 days basis. There will be no waste deliveries or recycled product collections between the hours of 7.00pm and 7.00am. During this time period, the doors to the building will be kept closed, including the roller shutter vehicular access door (except in the event of an emergency, such as a fire) and all activities will take place inside. The building will be staffed throughout the operational period. CCTV cameras will be installed both internal and external to the building to provide continuous 24 hours coverage of the entire Site.

1.1.9 The proposed permit boundary, site layout, storage areas and CCTV cameras etc are shown on Drawing 'Indicative Site Layout and Storage-DW01'.

1.1.10 Vehicles will access and exit the Site via the public highway on Road 5. A weighbridge will be installed inside the Site, close to the entrance, see 'Indicative Site Layout and Storage-DW01'.

1.1.11 This FPP has been prepared in accordance with the Environment Agency`s Fire Prevention Plan (FPP) Guidance, which was updated on 11 January 2021, see https://www.gov.uk/government/publications/fire-prevention-plans-environmental-permits/fire-prevention-plans-environmental-permits.

1.1.12 An EMS has also been prepared for the Site, in accordance with the latest Environment Agency guidance 'Develop a management system: environmental permits' https://www.gov.uk/guidance/develop-a-management-system-environmental-permits. It is included as part of the permit application, reference Clearfield-Winsford-RP02-Final (EMS).

1.1.13 A Technically Competent Person, with suitable WAMITAB qualification (or EPOC qualification for an initial period of up to 12 months), will supervise operations at the Site. A Certificate of Continuing Competence is required every 2 years after initial issue of the WAMITAB Certificate or whatever appropriate requirements are prevalent at the time.

1.1.14 Any fuels or oils stored on Site will be kept in dedicated containers located within the building or in suitable tanks. Any tanks used for the storage of potentially polluting liquids will be either double skinned or located in an impermeable bunded area, with a capacity of at least 110% of the largest tank's contents.

1.1.15 No substances that would be classified as 'dangerous' under the Control of Major Accident Hazards (COMAH) Regulations will be used at the Site for the operation of the facility.

1.1.16 The Site is secured by a combination of palisade, steel mesh and chain link fencing topped with barb wire. Lockable security gates are installed at the Site entrances.

1.2 THE SITE

1.2.1 The Site is located on the Winsford Industrial Estate and is surrounded on all four sides by large industrial buildings. It is accessed off Road Five, which connects onto Road One that in turn leads onto the A54 'Middlewich Road'. The nearest residential properties are circa 540m west of the Site at the closest point. There is a railway line circa 525m west of the Site, which runs from Crewe to Runcorn and beyond, and serves Winsford Railway Station. The River Weaver is located circa 1,765m west of the Site at the closest point. The River Dane is circa 1,600m east of the Site, beyond which is the Trent and Mersey Canal, circa 1,755m to the east of the Site.

1.2.2 Winsford Industrial Estate is a large complex of industrial buildings and units extending circa 1.6km in a north south axis and circa 700m in an east west axis. The nearest non-industrial estate land to the Site are areas of farmland and woodland, circa 165m and 170m east of the Site.

1.2.3 The Site is not located within an Air Quality Management Area (AQMA) or within 2km of an AQMA.

1.2.4 A review of Defra's Magic Map (https://magic.defra.gov.uk/MagicMap.aspx) shows that there are three European Site designations within a 10km radius of the Site. West Midlands Mosses Special Area of Conservation (SAC) is located circa 7,175m west northwest of the Site at the closest point. It

is also designated as Midland Meres and Mosses Phase 2 RAMSAR Site. Oak Mere SAC is circa 9,220m west of the Site at the Closest Point.

1.2.5 There are no European Sites (i.e. Special Protection Areas (SPA), SACs or RAMSAR Sites), Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNR) or Local Nature Reserves (LNR) within 2km of the Site.

1.2.6 The nearest area of Priority Habitat is a belt of Deciduous Woodland located circa 250m north northeast of the Site. There are further areas of Priority Deciduous Woodland circa 570m and 730m northeast of the Site at the closest points. There is an area of Ancient Woodland circa 935m southeast of the Site.

1.2.7 There is a Scheduled Monument, Bostock Hall moated site, circa 580m northeast of the Site. There are no other Scheduled Monuments or any Registered Battlefield within 2km of the Site.

1.2.8 Sensitive receptors are shown on Drawing 'Sensitive Receptors'-DW02.

1.3 OPERATIONAL HOURS

1.3.1 It is proposed to operate the Site on a 24 hours, 7 days basis.

1.3.2 Waste processing operations will take place throughout this period. However, between the hours of 7.00pm and 7.00am there will be no waste deliveries or collections of recycled products. The doors to the building will remain closed throughout this period and all activities will be internal to the building. Between the hours of 7.00am and 7.00pm, the vehicular access roller shutter door will be kept closed other than when vehicles are entering and exiting the building. Operational coverage of the external yard during this period will be provided by the CCTV cameras, which provide continuous, complete coverage (see paragraph 1.1.8).

1.4 FIRE PREVENTION OBJECTIVES – OUTLINE METHODOLOGY

1.4.1 The purpose of this FPP is to ensure that all reasonable measures are undertaken to prevent a fire.

1.4.2 The FPP provides a plan to minimise likelihood of fire breaking out, a means of extinguishing fire if it breaks out and a statement of methods designed to minimise the spread of fire.

1.4.3 The Site Manager will have overall responsibility for ensuring that the potential for fire outbreak arising from operations on the Site is minimised. Adequate staffing levels will be maintained at all times to ensure the effective operation of the facilities.

1.4.4 In line with current industry best practice, the fire prevention controls set out in the sections below will be used as the 'appropriate measures' to minimise the risk of and, wherever possible, prevent outbreak of fire associated with operations at the Site. Site meetings will be held on a monthly basis between the Site Manager and staff to discuss current and planned site operations with respect to their potential for generating fire, and accordingly the FPP will be updated as necessary. Identified actions arising from the meetings and responsibilities for their completion will be recorded prior to their circulation to the relevant personnel within Clearfield Envirotech Ltd.

1.4.5 The FPP will be made readily available and clearly identified on site and all staff will be made aware of the location of the plan. It will be referenced in the EMS and there will be a requirement that all contractors working on site will be briefed on the contents of the FPP.

1.4.6 Regular Fire Prevention Plan Exercises will be carried out initially every six months. The frequency of exercises will be reviewed and changed depending on the results of exercises, reviews of incidents and near misses and the turnover of staff.

2 TYPES OF COMBUSTIBLE MATERIALS

2.1 COMBUSTIBLE WASTE

2.1.1 The list of proposed wastes at the Site is detailed in Table 1 below, which includes the associated fire potential or combustibility under 'normal' operational conditions of each waste type. The maximum waste throughput at the Site will be 100,000 tonnes per annum and the maximum quantity of wastes stored on site at any one time will be 3,200 tonnes.

Table 1: Permitted Wastes

ECW Code	Description	Fire Risk Without Mitigation
02 01	**Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing**	
02 01 04	Waste plastics	Medium
03 03	**Wastes from pulp, paper and cardboard production and processing**	
03 03 07	Mechanically separated rejects from pulping of waste paper and cardboard	Medium
03 03 08	Wastes from sorting of paper and cardboard destined for recycling	Medium
07 02	**Wastes from the MFSU of plastics, synthetic rubber and man-made fibres**	
07 02 13	Waste plastic	Medium
12 01	**Wastes from shaping and physical and mechanical surface treatment of metals and plastics**	
12 01 05	Plastics shavings and turnings	Medium
15 01	**Packaging (including separately collected municipal packaging waste)**	
15 01 01	Paper and cardboard packaging	Medium
15 01 02	Plastic packaging	Medium
15 01 05	Composite packaging	Medium
15 01 06	Mixed packaging	Medium
16 01	**End-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)**	
16 01 09	Plastic	Medium
17 02	**Wood, glass and plastic**	
17 02 03	Plastic	Medium
19 12	**Wastes from the mechanical treatment of wastes (e.g. sorting, crushing, compacting, pelletising) not otherwise specified**	
19 12 01	Paper and cardboard	Medium
19 12 04	Plastic and rubber	Medium
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in in 19 12 11 (limited to dry recyclables only)	Medium
20 01	**Separately collected fractions (except 15 01)**	
20 01 01	Paper and cardboard	Medium

ECW Code	Description	Fire Risk Without Mitigation
20 01 39	Plastics	Medium

2.1.2 Storage arrangements for the wastes listed in Table 1 are detailed in Section 7 'Managing Waste Piles'.

2.2 PERSISTENT ORGANIC POLLUTANTS

2.2.1 The Site is not permitted to accept hazardous wastes, including those containing hazardous quantities of persistent organic pollutants (POPS). In the event that POPS waste is inadvertently accepted at the Site, it will be segregated and stored in a sealed and lidded quarantine skip for removal off site to an authorised disposal facility.

2.3 OTHER COMBUSTIBLE MATERIALS

2.3.1 Combustible non-waste materials used on site comprise diesel for the Company's haulage vehicles and mobile plant and office consumables such as paper and cardboard etc.

2.3.2 Diesel is stored in a dedicated and purpose designed double skinned fuel tank. Fire extinguishers and hoses are located at various locations at the Site, including inside the building and on the external yard area, see Drawing 'Indicative Site Layout and Storage'-DW01).

3 USING THIS FIRE PREVENTION PLAN

3.1 LOCATION OF THE FIRE PREVENTION PLAN

3.1.1 A copy of the FPP will be kept in the site office and weighbridge office (marked 'cabin' on Drawing 'Indicative Site Layout and Storage'-DW01). All staff will be made aware of its location and contents. Any contractors working at the Site, Environment Agency officers carrying out site inspections and any emergency services personnel attending the facility will also be made aware of its location and contents. Staff will be able to access the FPP at any time.

3.2 TESTING THE FPP AND STAFF TRAINING

3.2.1 Staff will be trained in the contents and requirements of the FPP and fire prevention and mitigation measures in place. All existing and new staff will receive FPP training and refresher talks will be held annually.

3.2.2 Regular fire drills will be carried out initially six monthly. Frequency will change depending on results of exercises, any incidents and turnover of staff.

4 FIRE PREVENTION PLAN CONTENTS

4.1 ACTIVITIES AT THE SITE

4.1.2 The Site incorporates:

- Site offices, weighbridge and weighbridge office (marked 'cabin' on Drawing 'Indicative Site Layout and Storage'-DW01);
- Roofed building of brick and steel portal frame construction, with fully sealed impermeable concrete floor, for the processing and recycling of plastic and cardboard wastes;
- Waste processing and recycling plant located inside the building, comprising shredding plant, wash plant, mechanical drying plant, plastic extrusion plant, baler and waste water treatment and recirculation system;
- External yard area for the storage of baled wastes prior to transfer into the building for processing and recycling;
- External quarantine area for sole use in the event of a fire or hot load being inadvertently deposited at the site;
- Fire extinguishers, fire hoses, spill kits etc;
- CCTV cameras;
- Double skinned fuel tank.

4.2 SITE PLAN

4.2.1 The site layout and fire mitigation infrastructure are shown on Drawing 'Indicative Site Layout and Storage', DW01. Drainage is shown on Drawing 'MC1 Drainage Layout', 5989-HJCE-00-XX-DR-D-3001 Copies of the drawings are included with this FPP.

4.3 SENSITIVE RECEPTORS PLAN

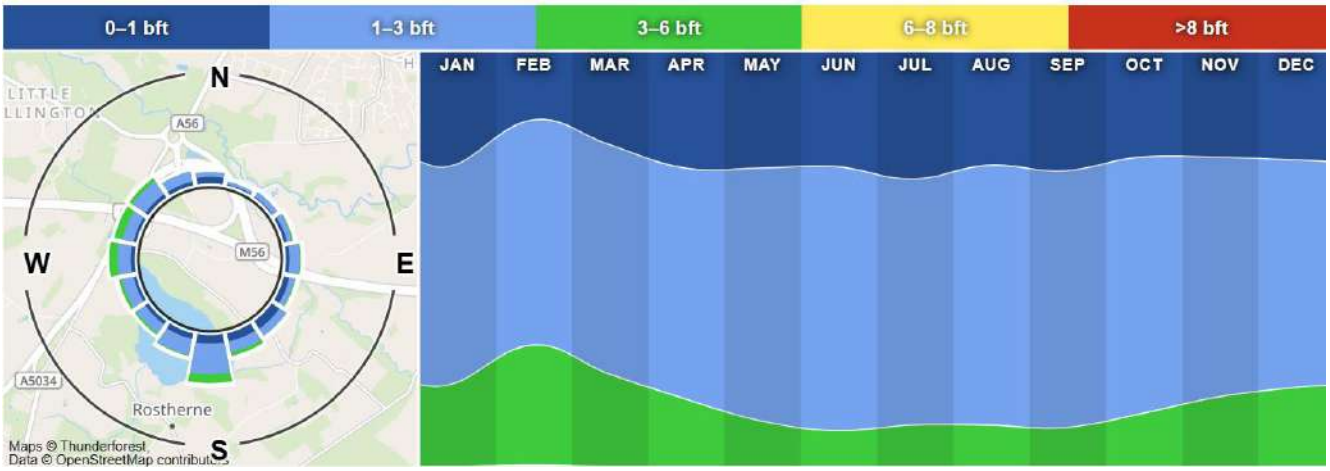
4.3.1 Sensitive receptors within a 2km radius of the site are shown on Drawing 'Sensitive Receptors' DW02. The nearest sensitive receptors are also listed in Section 1.2 above.

4.4 PREVAILING WIND DIRECTION AND STRENGTH

4.4.1 Statistics on wind direction and speed are based on observations taken from the nearest weather station at Rostherne Mere (circa 18.5km northeast of the Site) between July 2015 and June 2023. This indicates that prevailing winds originate predominantly from the south, see Figure 1 monthly wind speed statistics and directions, and Figure 2 monthly wind direction and strength distribution (including wind rose data).

Figure 1: Monthly wind speed statistics and directions for Rostherne Mere

Figure 2: Monthly wind direction and strength distribution



4.5 SENSITIVE RECEPTORS

4.5.1 Sensitive receptors at potential risk from any fire and smoke emissions at the Site are shown on the Drawing 'Sensitive Receptors'-DW02 and are listed in Table 2 below.

4.5.2 Table 2 uses the hierarchy of hospitals, schools, childcare facilities, elderly housing, convalescent facilities (i.e. areas where inhabitants are more vulnerable to the adverse effects of exposure to fire and smoke), residential properties, industry, major infrastructure, amenity areas and designated habitat sites.

4.5.3 In terms of predicted exposure risk, levels have been determined via a qualitative assessment which evaluates the likelihood of exposure to fire and smoke emissions based on the receptors' proximity to the Site and the location of the sensitive receptors in regard to the prevailing wind direction, as shown in Figures 1 and 2.

4.5.4 There are no Special Protection Areas (SPA), Special Areas of Conservation (SAC), RAMSAR Sites, Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNR) or Local Nature Reserves (LNR)

within 2km of the Site. In addition, the Site is not located in an AQMA or within 2km of one. Therefore, a 1km radius has been used as this generally reflects the maximum potential distance that smoke could reasonably be expected to cause affects in extreme meteorological conditions without any mitigation measures in place.

4.5.5 Due to the high number of sensitive receptors, not all residential properties and local businesses etc are individually assessed, as there are several thousand locations within the assessment distance. Table 2 assesses the most proximate receptors within each category to provide information on the highest level of risk that would be encountered. Where mitigation measures demonstrate that the level of risk is low at the selected sites, it can be assumed that risk would also be low at more distant sites.

Table 2: Assessment of Fire and Smoke Risks at Sensitive Receptors

Receptor	Distance from Site	Risk Without Mitigation	Unmitigated Consequences	Comments	Risk After Mitigation
Medical					
Wharton Primary Healthcare Centre	885m W	Low	Low/Moderate	Located upwind of the prevailing wind direction and relatively distant from the site (over 750m). Strict compliance with waste pre-acceptance documentation to identify any potentially hot loads or highly combustible wastes, which would be refused acceptance prior to delivery to the Site. Additional waste acceptance checks will be used on arrival of waste loads and in the event that any hot loads or highly combustible wastes have been inadvertently delivered to the Site, they will also be refused and not allowed to be off loaded at the facility. Any wastes delivered to the Site that are found to be non-compliant upon deposit, will be reloaded onto the delivery vehicle for removal off-site to the waste producer or authorised facility. If the delivery vehicle has left the premises, the waste will be damped down with water from a hose and stored in quarantine for removal off-site to an authorised facility. All wastes will be received in baled form and either stored on the external yard using a combination of fire proof concrete bays (with a 6m separation distance in front of the bay) or in open stockpiles (with a 6m separation distance all the way around each stockpile). Maximum dimensions of each stockpile will be 12m x 10.5m x 3.4m, i.e. 428.40m^3. Wastes will transferred by forklift or grab into the building for processing. The building is fully enclosed and fitted with vehicular access roller shutter doors. Recovered products will be loaded inside the building for removal off-site to customers. The roller shutter doors will be kept closed other than when vehicles are entering and exiting the building. The addition of water at the washing plant stage of processing ensures materials are predominantly processed in a damp condition, prior to being transferred to the extruder for extrusion and pelletising of final products. The extruder is an enclosed unit.	Low

Receptor	Distance from Site	Risk Without Mitigation	Unmitigated Consequences	Comments	Risk After Mitigation
				Hose reels and fire extinguishers will be installed on the external yard area and inside the building and there are two fire hydrants, one at each entrance to the facility. Use of first in, first out waste handling and the regular emptying and sweeping of waste storage areas and other operational parts of the Site will prevent heat building up within the waste stockpiles to minimise and risk from internal heating and combustion.	
Residential Care Home					
None	-	-	-	-	-
Schools and Colleges					
Sunrise Nursery	760m W	Low	Low	Located upwind of the prevailing wind direction and relatively distant from the site (over 750m). Use of control measures detailed in this Fire Prevention Plan and summarised above.	Low
Willow Wood Community Primary School	830m W	Low	Low	Located upwind of the prevailing wind direction and relatively distant from the site (over 750m). Use of control measures detailed in this Fire Prevention Plan and summarised above.	Low
Residential Properties					
Bradbury Road	540m W	Low/Moderate	Low/Moderate	Located upwind of the prevailing wind direction and over 500m from the Site. Use of control measures detailed in this Fire Prevention Plan and summarised above.	Low
Bollin Close	545m WSW	Low/Moderate	Low/Moderate	Located upwind of the prevailing wind direction and over 500m from the Site. Use of control measures detailed in this Fire Prevention Plan and summarised above.	Low
Bollin Avenue	635m WSW	Low/Moderate	Low/Moderate	Located upwind of the prevailing wind direction and over 500m from the Site. Use of control measures detailed in this Fire Prevention Plan and summarised above.	Low
Greenheyes Farm	735m NE	Low/Moderate	Low/Moderate	Although the residential property is downwind of the Site, it is located significantly more than 500m from the facility. Use of control measures detailed in this Fire Prevention Plan and summarised above.	Low

Receptor	Distance from Site	Risk Without Mitigation	Unmitigated Consequences	Comments	Risk After Mitigation
Properties off A54 'Middlewich Road'	755m S	Low	Low	Residential properties are located upwind of the prevailing wind direction and relatively distant from the site (over 750m). Use of control measures detailed in this Fire Prevention Plan and summarised above.	Low
Bostock Road	860m E	Low	Low	Residential properties are relatively distant from the site (over 750m). Use of control measures detailed in this Fire Prevention Plan and summarised above.	Low
Stanthorne Grange	900m SE	Low	Low	Residential properties are located upwind of the prevailing wind direction and relatively distant from the site (over 750m). Use of control measures detailed in this Fire Prevention Plan and summarised above.	Low
Industrial and Commercial					
Henkel Ltd	10m N	Medium/High	High	The company is in close proximity to the Site and there is the potential for significant smoke impacts at this distance. Therefore it is important that the mitigation measures detailed in this Fire Prevention Plan and summarised above are used to prevent any significant risks to the neighbouring business.	Low
Renray Healthcare Ltd	10m S	Medium/High	High	Although the company is upwind of the prevailing wind direction, it is in close proximity to the Site and therefore it is important that the mitigation measures detailed in this Fire Prevention Plan and summarised above are used to prevent any significant risks to the neighbouring business.	Low
GEMCO (Garage Equipment and Maintenance Company)	10m W	Medium/High	High	Although the company is upwind of the prevailing wind direction, it is in close proximity to the Site and therefore it is important that the mitigation measures detailed in this Fire Prevention Plan and summarised above are used to prevent any significant risks to the neighbouring business.	Low
Valentte (Perfumes)	10m W	Medium/High	High	Although the company is upwind of the prevailing wind direction, it is in close proximity to the Site and therefore it is important that the mitigation measures detailed in this Fire Prevention Plan and summarised above are used to prevent any significant risks to the neighbouring business.	Low
Tithebarn Ltd	65m SE	Medium/High	High	Although the company is upwind of the prevailing wind direction, it is in close proximity to the Site and therefore it is important that the mitigation measures detailed in this Fire Prevention Plan and summarised above are used to prevent any significant risks to the neighbouring business.	Low
British Red Cross Depot	70m W	Medium/High	High	Although the company is upwind of the prevailing wind direction, it is in close proximity to the Site and therefore it is important that the mitigation measures detailed in this Fire Prevention Plan and summarised above are used to prevent any significant risks to the neighbouring business.	Low

Receptor	Distance from Site	Risk Without Mitigation	Unmitigated Consequences	Comments	Risk After Mitigation
Screw Fix	70m W	Medium/High	High	Although the company is upwind of the prevailing wind direction, it is in close proximity to the Site and therefore it is important that the mitigation measures detailed in this Fire Prevention Plan and summarised above are used to prevent any significant risks to the neighbouring business.	Low
Sports and Playing Fields					
Bradbury Road Play Area	590m W	Low	Low/Moderate	Located upwind of the prevailing wind direction and over 500m from the Site. Use of control measures detailed in this Fire Prevention Plan and summarised above.	Low
Railway					
Rail Line	525m W	Low/Moderate	Low/Moderate	Upwind of the prevailing wind direction and over 500m distant. Smoke is unlikely to cause any impacts to railway infrastructure, and trains will quickly travel beyond the proximity of the Site, meaning exposure time is likely to be very short. Rail personnel maintaining the line in proximity to the Site would have longer periods of occupancy. The use of control measures detailed in this Fire Prevention Plan and summarised above would protect workers from any significant smoke impacts.	Low
Surface Water					
Unnamed surface water ditch	157m E	Medium	Low/Moderate	Downwind of the prevailing wind direction. Smoke is unlikely to cause any significant impacts at this distance on water quality or flora and fauna associated with the ditch. Personnel accessing the ditch in proximity to the site could have potential exposure to smoke for relatively short periods. The use of control measures detailed in this Fire Prevention Plan and summarised above would protect personnel from any significant smoke impacts.	Low
Unnamed surface water ditch	178m NE	Medium	Low/Moderate	Downwind of the prevailing wind direction. Smoke is unlikely to cause any significant impacts at this distance on water quality or flora and fauna associated with the ditch. Personnel accessing the river in proximity to the site could have potential exposure to smoke for relatively short periods. The use of control measures detailed in this Fire Prevention Plan and summarised above would protect personnel from any significant smoke impacts.	Low
Agricultural Land					
Agricultural Land	165m E	Medium	Low/Moderate	The nearest agricultural land is downwind of the prevailing wind direction. Smoke is considered unlikely at this distance to cause significant impacts to arable crops or grazing animals. However, agricultural workers could have	Low

Receptor	Distance from Site	Risk Without Mitigation	Unmitigated Consequences	Comments	Risk After Mitigation
				potential exposure to smoke for relatively short periods. The use of control measures detailed in this Fire Prevention Plan and summarised above would protect personnel from any significant smoke impacts.	
Ancient Woodland					
Ancient Woodland	935m SE	Low	Low	Located upwind of the prevailing wind direction and relatively distant from the site (over 750m). Smoke unlikely to cause any significant impacts on the flora and fauna. Use of control measures detailed in this Fire Prevention Plan and summarised above.	Low
Scheduled Monuments					
Bostock Hall Moated Site	580m NE	Low/Moderate	Low/Moderate	Smoke is unlikely to cause any significant impacts on the structure of the Scheduled Monument. However, people accessing the site could have potential exposure to smoke for relatively short periods. Use of control measures detailed in this Fire Prevention Plan and summarised above	Low

5 MANAGE COMMON CAUSES OF FIRE

5.1 ARSON

5.1.1 Lockable gates are located at the Site entrances and the facility will be operated on a 24 hours, 7 days a week basis, meaning that the premises will be occupied at all times. CCTV cameras are also installed for additional security, locations are shown on Drawing 'Indicative Site Layout and Storage'- DW01.

5.1.2 The high standard of site security to prevent and detect any attempts at unauthorised entry minimises the potential for arson attacks.

5.2 VISITORS AND CONTRACTORS

5.2.1 All visitors and contractors will be made aware of the location and contents of the FPP. Health and Safety induction training for visitors and contractors will include emergency measures for exiting the facility during a fire incident or fire alarm and details of the mitigation measures in place.

5.3 PLANT AND EQUIPMENT

5.3.1 Plant and equipment preventative maintenance procedures and record keeping form part of the EMS for the Site. As a part of these procedures all plant and equipment which requires maintenance will be assessed for fire risk. Checks will be programmed and records will be retained with a log of maintenance carried out.

5.3.2 Site vehicles will be fitted with dust filters and fire extinguishers. Vehicles and equipment will be regularly inspected for electrical faults. When not in use vehicles will be stored away from any combustible waste materials.

5.4 DAMAGED OR EXPOSED ELECTRICAL CABLES

5.4.1 Site operatives are required to report any damaged or exposed cables to the Site Manager or, in his absence, other Technically Competent Person. Any plant or equipment with damaged cables will not be used and will be switched off until repaired or replaced by an electrician or other suitably qualified person.

5.4.2 Routine plant maintenance will be carried out in accordance with the manufacturer's or supplier's specifications. Maintenance checks will include inspection of electrical cables, with appropriate repair or replacement as required. All electrical equipment will be PAT tested, as required.

5.5 ELECTRICAL FAULTS

5.5.1 All electrical work on site will be carried out by fully certified and qualified electricians and will comply with the relevant British Standards for design and installation of electrical equipment. Detailed operational manuals will require equipment to be checked and maintained as part of a planned maintenance regime. In particular vehicles and equipment will be regularly inspected for electrical faults, including damaged or exposed electrical cables.

5.6 SMOKING POLICY

5.6.1 The Site will operate a strict no smoking policy.

5.7 HOT WORKS SAFE WORKING PRACTICES

5.7.1 A hot works management system will operate on site. This will apply to staff and contractors. A Fire Watch will be carried out after hot works are finished and specifically revisited at the end and beginning of each shift by staff trained in the assessment of risks associated with hot works.

5.7.2 Hot works will not take place on site within 6m of any combustible or flammable waste.

5.8 INDUSTRIAL HEATERS

5.8.1 There will be no industrial heaters on site.

5.9 HOT EXHAUSTS AND ENGINE PARTS

5.9.1 All waste storage areas on site will be subject to the Fire Watch checks. Inspections will also check for dust build up or fluff settled onto hot exhausts and engines and a check will be made for the emission of any hot sparks from vehicle exhausts on entry and exit to the Site. In the event of dust or fluff build up, engines and exhausts will be allowed to cool and then swept or air blown to remove the material. Removed dust and fluff deposits will then be swept up and suitably disposed of.

5.10 FIRE WATCH PROCEDURES

5.10.1 At the beginning and end of each working shift a Fire Watch will be carried out. Therefore, as a minimum, a Fire Watch will be carried out at the start and end of each shift, i.e. at least 6 of these over a 24 hours period. All waste storage and processing areas on site will be subject to the Fire Watch checks.

5.10.2 CCTV cameras are installed and used on site to detect any evidence of fire or hot spots.

5.10.3 Fire Watch checks will be assessed to see if any improved operational procedures can be invoked to reduce risks. Fire watch reviews will also be undertaken out of hours to check for post operational heating issues and procedures will be reviewed after assessment.

5.11 FIRE ALARM

5.11.1 A fire alarm system complying with BS 5839 part 1 will be installed at the Site. This comprises a mains analogue addressable fire alarm control panel complying with BS EN 54-2, which will be installed on entry to the building. Additionally, audible warning will be provisioned by the installation of sounders. Both visual and audible warnings are triggered on activation of the fire detection system. The control panel will provide sounder circuits and will monitor all zones, power supply and sounder circuits for any faults. Manual Call Points will be installed at strategic points throughout the facility.

5.12 IGNITION SOURCES

5.12.1 Waste will not be burnt at the Site.

5.12.2 There will be no waste incinerator plant or industrial heaters on site.

5.13 SELF COMBUSTION

5.13.1 The waste types and processing activities undertaken on site are not anticipated to give rise to chemical oxidation. The Site does not accept waste chemicals, laboratory chemicals or other potentially incompatible materials that may result in chemical or thermal reactions etc.

5.13.2 All materials will be processed within 4 weeks of receipt. Measures to prevent self-combustion are detailed in Section 6.

5.14 BATTERIES

5.14.1 The Site does not accept lead acid batteries. Any batteries inadvertently received at the Site will be stored upright in a dedicated and lidded container, with acid proof base. Any spent batteries arising on site from servicing of the company's vehicles and mobile plant etc, will also be stored upright in a lidded container with acid proof base.

5.15 LEAKS AND SPILLAGES OF OILS AND FUELS

5.15.1 Any leaks or spillages of potentially polluting or flammable liquids such as oil and diesel will be cleaned up using dedicated spill kits or absorbent material. Spillage procedures form part of the EMS for the Site (see EMS, Appendix 1 'Emergency Spillage Procedure') and spill kit locations are shown on Drawing 'Indicative Site Layout and Storage'- DW01.

5.15.2 Contaminated spill kits and absorbent will be stored in a sealed container for authorised disposal off site.

5.15.3 Leaks and spillages will be treated as a priority incident and upon detection cleaning measures will be implemented immediately. Repairs will be made to any tanks, containers, pipework etc that are found to be leaking.

5.16 BUILD-UP OF LOOSE COMBUSTIBLE WASTE, FLUFF AND DUST

5.16.1 The Site will operate a first in first out policy to ensure non-hazardous wastes are stored, processed and dispatched from the facility typically within 4 weeks of receipt. As part of this policy, waste storage bays and stockpiles will be totally emptied and swept, including the corners, to ensure all waste, fluff and debris is removed. This prevents the potential for wastes, dust and fluffs to accumulate and build-up.

5.16.2 Typically, the Site will be swept throughout the day and at the end of each shift to ensure the facility is clean and tidy at all times. Site sweeping will be carried out by site operatives under the supervision of the Site Manager or other Technically Competent Person.

5.16.3 The trigger for additional sweeping and cleaning will be during periods of dry weather, which may give rise to dusty conditions, during daily site inspections if noticeable waste, dust or fluff accumulation is present or if there is the potential for associated emissions from the Site.

5.17 REACTIONS BETWEEN WASTES

5.17.1 The Site does not accept waste chemicals, laboratory chemicals or other potentially incompatible materials that may result in chemical or thermal reactions etc.

5.18 WASTE ACCEPTANCE AND HOT LOADS

5.18.1 Waste Acceptance Procedures are included in the EMS for the Site.

5.18.2 Waste producers are required to provide pre-acceptance documentation that includes details of:

- The waste description;
- The European Waste Classification (EWC) code;
- The source and nature of the waste, including its physical form;
- Any special handling measures;
- Any potential risks to process safety, occupational safety and the environment (e.g. from hot materials, odour or dust);
- Details of the waste producer (name, address and contact details);
- Where the waste holder is not the producer, details of the waste holder (name, address and contact details);
- Information on the nature and variability of the waste production process and the waste;
- Age of the waste;
- Type of packaging;
- An estimate of the quantity to be received in each load and in a year.

5.18.3 Waste pre-acceptance details are checked by the Operator to make sure that only authorised wastes are delivered to the Site. Any non-permitted or unsuitable wastes, such as potentially hot materials, are rejected prior to delivery. All vehicles delivering wastes to the Site will stop at the weighbridge and will be weighed.

5.18.4 Checks will be made to establish whether the haulier is a Registered Waste Carrier or has a valid exemption from registration. Only registered carriers or those who are lawfully exempt from registration will be permitted to use the Site.

5.18.5 Waste will not be accepted if for any reason there is insufficient storage capacity available or if the Site is inadequately manned. This is to ensure that all waste is managed effectively to prevent pollution or loss of amenity.

5.18.6 Weighbridge staff will be suitably trained and will follow documented procedures. The weighbridge operator will examine waste descriptions at the weighbridge and the information will be checked against the pre-acceptance documentation, six figure European Waste Catalogue Code(s) and other details on the Waste Transfer Note or Season Ticket and against the waste types permitted by the Environmental Permit.

5.18.7 A visual inspection of the contents of all waste loads, including those received in enclosed containers, will be made during deposit.

5.18.8 Any hot loads inadvertently delivered to the Site will be detected by either the weighbridge staff during delivery or by site operatives during unloading from the delivery vehicle. Staff will separate hot loads from other wastes and materials, using mechanical plant, and transfer them to the quarantine area, the location of which is shown on Drawing 'Indicative Site Layout and Storage,' DW01. A hosepipe will be used to apply cooling water and rapidly reduce the temperature where required. There will be adequate hose reel length available to reach the quarantine area from the mains supply if necessary.

5.19 HOT AND DRY WEATHER

5.19.1 All wastes will be treated inside a fully enclosed building, which will prevent direct exposure to sunlight. All waste storage will be on the external yard, which is afforded partial shading by the northern edge of the building at certain times of the day and by fireproof concrete bay walls at other times of the day (these bay walls will be 4.4m high). However, it will not be possible to afford shading to all wastes stored on the external area at all times of the day. During periods of hot or dry weather, water will be applied to waste stockpiles, using a hose, to reduce temperatures.

5.20 ESCAPE OF SMOKE FROM THE BUILDING IN THE EVENT OF A FIRE

5.20.1 In the event of a fire, smoke would escape from the building by opening the roller shutter vehicular access doors. There are 4 of these on the northern side and 5 on the southern side.

6 PREVENT SELF COMBUSTION

6.1 WASTE STORAGE TIMES

6.1.1 The Site will operate a first in first out policy to ensure non-hazardous wastes are stored, processed and dispatched from the facility typically within 4 weeks. This ensures efficient waste stockpile rotation and that materials do not accumulate for extended periods of time that can result in excessive heat generation or the build-up of hot spots within the waste mass. The maximum height of stacked bales will be 3.4m.

6.2 METHODS USED TO RECORD AND MANAGE WASTE STORAGE

6.2.1 Every delivery of waste to the Site will be recorded, detailing the date of the transaction, weight, waste type, registered carrier, Waste Transfer Note number or Season Ticket, vehicle registration and other pertinent information against a unique reference number. This allows for the tracking of wastes from arrival on site to dispatch, the generation of reports and waste returns, as well as providing comprehensive, auditable information.

6.2.2 Waste bays and stockpiles will be routinely emptied completely and swept (including the corners) typically every 4 days but not exceeding a fortnight. Checks will be made during daily site inspections by the Site Manager or other Technically Competent Person to ensure all bays and stockpile storage areas are emptied and cleared completely, thereby ensuring that all materials are processed and

dispatched from the Site and not allowed to accumulate over extended periods of time.

6.3 MONITOR AND CONTROL TEMPERATURE

6.3.1 Monitoring equipment will be used daily to check the temperature of baled wastes when they are transferred into the building and split prior to processing and recycling. Due to the density of baled wastes, it is not practicable to manually insert a probe into the centre of the waste mass to record the temperature prior to splitting.

6.3.2 The risk of fire when waste is in baled form is low due to the exclusion of oxygen from the waste mass. Once the bale is broken and oxygen introduced, the risk of fire increases. To combat this, a water hose and fire extinguishers are located inside the building (as well as on the external yard area), see Drawing 'Indicative Site Layout and Storage'-DW01. In the event of a fire starting or excess heat being detected when a bale is broken, water will be applied from the hose to extinguish the fire / rapidly reduce the temperature.

6.3.3 The Environment Agency commissioned BRE Global Limited to carry out a review of Fire Prevention Plan document '160527 FPP v3 final draft. The BRE Global report includes the results of isothermal self-heating test data (based on test methodology in BS EN 15188 ''Determination of spontaneous ignition behaviour of dust accumulations') on a range of waste types comprising: wood chip, rubber crumb and secondary recovered fuel (SRF). The time to ignition determined during the testing ranged from 74 to 106 days storage for a 4m high stockpile of waste.

6.3.4 Waste stockpile heights on site will not exceed 3.4m (see paragraph 6.1.1).

6.3.5 All wastes will only be stored on site for a maximum of a fortnight prior to transferring into the building for processing and recovery. Therefore, it is highly unlikely that spontaneous ignition of waste will occur on site. Notwithstanding this as a worst-case scenario it is proposed that a trigger level of 47°C will be used on site. This would give the Operator an early warning that temperatures may approach 57°C, which is the lowest critical temperature determined during the BRE Global trials for spontaneous ignition to occur in a 4m high stockpile of wood chip. This is seen as a very conservative approach to ensure that temperatures where spontaneous combustion could occur are never reached.

6.3.6 If the trigger level of 47°C is reached in any waste stockpile, the stockpile would be separated out, reduced in height and doused with cold water throughout to reduce its temperature. Water would be applied using a hose and care taken to ensure that all materials are cooled. Temperature probes are available on site and will be used to monitor temperatures to provide early warning if a trigger level may be reached and therefore initiate the necessary mitigation measures being undertaken.

6.4 DEALING WITH HOT WEATHER AND HEATING FROM SUNLIGHT

6.4.1 Partial shading of baled waste storage is provided by the building and the 4.4m high fire proof concrete bays. Although it is not possible to keep all wastes in shaded areas at all times, stockpile locations can be managed to take advantage of the shading available during hot weather and heating from sunlight.

6.4.2 In addition, water will be applied to waste stockpiles, using a hose, during hot weather and periods of intense heating from the sunlight to reduce temperatures. In such circumstances the waste bales

will be spread out and water applied to ensure that all bales are doused with cooling water.

6.5 WASTE BALE STORAGE

6.5.1 All wastes delivered to the Site will be in baled form. They will be stored and stacked on the external yard area using a combination of fireproof concrete bays (with a 6m separation distance at the front of the bay) and open stockpiles (surrounded by a 6m separation distance to all 4 sides of the stockpile). Individual stacked bale sizes will not exceed 12m x 10.5m x 3.4m high (i.e. 428.4m^3). Bales will be transferred into the building for processing and recycling using a fork lift truck or mechanical grab. Bales will be 'broken' inside the building and transferred immediately to the feed hopper of the shredder for onwards materials recovery.

7 MANAGING WASTE PILES

7.1 STORING WASTE MATERIALS IN THEIR LARGEST FORM

7.1.1 The purpose of the Site is to recycle and recover non-hazardous wastes.

7.1.2 Baled wastes are stored in their largest form on the external yard and only split and broken once transferred into the building for processing and recovery.

7.2 MAXIMUM PILE SIZES

7.2.1 Waste stockpile sizes are shown in Table 3 below and locations are shown on Drawing 'Indicative Site Layout and Storage-DW01'.

7.3 WASTE STORED IN CONTAINERS

7.3.1 Wastes will not be stored in containers at the Site.

8 PREVENT FIRE SPREADING

8.1 SEPARATION DISTANCES

8.1.1 The engineered waste storage bays will each comprise a fireproof concrete push wall and two fireproof concrete sidewalls (the fire resistance specification of the concrete will be a minimum of 120 minutes). A minimum 6m separation distance will be maintained at the front of each bay. The maximum height of waste in each bay will be at least 1m below than the top of the concrete walls. Open stockpiles on the external yard used for waste storage will be surrounded by a 6m separation distance all the way around.

8.1.2 Separation distances are shown on Drawing 'Site Layout and Storage'-DW01.

8.1.3 The Site operates a rapid turnover of wastes and uses a first in first out policy to ensure non-hazardous wastes are typically processed, recycled and dispatched from the Site within 4 weeks of receipt. Incoming baled wastes will be transferred into the building for processing typically within 4

days of receipt but not exceeding a fortnight. All waste storage bays and stockpiles will be completely emptied and cleared at least once per fortnight so that all materials are removed. The corners of bays and stockpile areas will also swept and cleared to ensure there is no accumulation of materials over an extended time. This prevents the potential for any build-up of heat or hotspots within the waste mass.

8.2 FIRE WALLS CONSTRUCTION STANDARDS

8.2.1 The fireproof bay walls will comprise fireproof concrete, specified to provide a minimum of 2 hours fire resistance.

8.2.2 Fireproof concrete bays will comprise rear push wall and 2 side walls in all cases.

8.3 STORING WASTE IN BAYS

8.3.1 The fireproof waste storage bays will resist radiative heat and flaming and provide suitable fire resistance.

8.3.2 The Site operates a rapid turnover of wastes and uses a first in first out policy to ensure non-hazardous materials are typically transferred into the building for processing and recycling within 4 days of receipt and not exceeding a fortnight, and processed and dispatched from the facility within a maximum 4 weeks period of initial receipt.

Table 3 Waste Stockpile Sizes

Waste stream	Location	How it is stored	Maximum length	Maximum width	Maximum height	Volume	Maximum storage time prior to processing and recovery
Baled waste	See drawing DW01	Fireproof bay	12m	10.5m	3.4m	Bales stacked in bay 428.50m^3 (12m x 10.5m x 3.4m = 428.50m^3. Note that bales are circa 0.85m thick and will be stacked up to 4 high, i.e. up to 3.4m high)	Typically 4 days, but not exceeding a fortnight
Baled waste	See drawing DW01	Fireproof bay	12m	10.5m	3.4m	Bales stacked in bay 428.50m^3 (12m x 10.5m x 3.4m = 428.50m^3). Note that bales are circa 0.85m thick and will be stacked up to 4 high, i.e. up to 3.4m high)	Typically 4 days, but not exceeding a fortnight
Baled waste	See drawing DW01	Fireproof bay	12m	10.5m	3.4m	Bales stacked in bay 428.50m^3 (12m x 10.5m x 3.4m = 428.50m^3). Note that bales are circa 0.85m thick and will be stacked up to 4 high, i.e. up to 3.4m high)	Typically 4 days, but not exceeding a fortnight
Baled waste	See drawing DW01	Fireproof bay	12m	10.5m	3.4m	Bales stacked in bay 428.50m^3 (12m x 10.5m x 3.4m = 428.50m^3). Note that bales are circa 0.85m thick and will be stacked up to 4 high, i.e. up to 3.4m high)	Typically 4 days, but not exceeding a fortnight
Baled waste	See drawing DW01	Open stockpile (surrounded by 6m separation)	12m	10.5m	3.4m	Bales will be stacked up to 428.50m^3 in total (12m x 10.5m x 3.4m = 428.50m^3). Note that bales are circa 0.85m thick and will be stacked up to 4 high, i.e. up to 3.4m high)	Typically 4 days, but not exceeding a fortnight

Waste stream	Location	How it is stored	Maximum length	Maximum width	Maximum height	Volume	Maximum storage time prior to processing and recovery
Baled waste	See drawing DW01	Open stockpile (surrounded by 6m separation)	12m	10.5m	3.4m	Bales will be stacked up to 428.50m^3 in total (12m x 10.5m x 3.4m = 428.50m^3). Note that bales are circa 0.85m thick and will be stacked up to 4 high, i.e. up to 3.4m high)	Typically 4 days, but not exceeding a fortnight
Baled waste	See drawing DW01	Open stockpile (surrounded by 6m separation)	12m	10.5m	3.4m	Bales will be stacked up to 428.50m^3 in total (12m x 10.5m x 3.4m = 428.50m^3). Note that bales are circa 0.85m thick and will be stacked up to 4 high, i.e. up to 3.4m high)	Typically 4 days, but not exceeding a fortnight
Baled waste	See drawing DW01	Open stockpile (surrounded by 6m separation)	12m	10.5m	3.4m	Bales will be stacked up to 428.50m^3 in total (12m x 10.5m x 3.4m = 428.50m^3). Note that bales are circa 0.85m thick and will be stacked up to 4 high, i.e. up to 3.4m high)	Typically 4 days, but not exceeding a fortnight
Baled waste	See drawing DW01	Open stockpile (surrounded by 6m separation)	12m	10.5m	3.4m	Bales will be stacked up to 428.50m^3 in total (12m x 10.5m x 3.4m = 428.50m^3). Note that bales are circa 0.85m thick and will be stacked up to 4 high, i.e. up to 3.4m high)	Typically 4 days, but not exceeding a fortnight
Baled waste	See drawing DW01	Open stockpile (surrounded by 6m separation)	12m	10.5m	3.4m	Bales will be stacked up to 428.50m^3 in total (12m x 10.5m x 3.4m = 428.50m^3). Note that bales are circa 0.85m thick and will be stacked up to 4 high, i.e. up	Typically 4 days, but not exceeding a fortnight

Waste stream	Location	How it is stored	Maximum length	Maximum width	Maximum height	Volume	Maximum storage time prior to processing and recovery
						to 3.4m high)	
Baled waste	See drawing DW01	Open stockpile (surrounded by 6m separation)	12m	10.5m	3.4m	Bales will be stacked up to 428.50m^3 in total (12m x 10.5m x 3.4m = 428.50m^3). Note that bales are circa 0.85m thick and will be stacked up to 4 high, i.e. up to 3.4m high)	Typically 4 days, but not exceeding a fortnight
Baled waste	See drawing DW01	Open stockpile (surrounded by 6m separation)	12m	10.5m	3.4m	Bales will be stacked up to 428.50m^3 in total (12m x 10.5m x 3.4m = 428.50m^3). Note that bales are circa 0.85m thick and will be stacked up to 4 high, i.e. up to 3.4m high)	Typically 4 days, but not exceeding a fortnight
Baled waste	See drawing DW01	Open stockpile (surrounded by 6m separation)	12m	10.5m	3.4m	Bales will be stacked up to 428.50m^3 in total (12m x 10.5m x 3.4m = 428.50m^3). Note that bales are circa 0.85m thick and will be stacked up to 4 high, i.e. up to 3.4m high)	Typically 4 days, but not exceeding a fortnight

9 QUARANTINE AREA

9.1 QUARANTINE AREA LOCATION AND SIZE

9.1.1 A quarantine area is designated on the yard at a size of circa 190m^2, its location is shown on Drawing 'Indicative Site Layout and Storage-DW01'. A minimum 6m clearance distance to the building, waste storage and processing areas, plant, equipment and the site perimeter will be maintained at all times.

9.1.2 The quarantine area will be in accordance with the Fire Prevention Plan guidance in that it will have capacity to hold at least 50% of the largest pile (i.e. 214.25m^3). There is adequate hose reel capacity to reach the quarantine area from the hoses (see below).

9.2 USE OF QUARANTINE AREA IN THE EVENT OF A FIRE

9.2.1 In the event of a fire incident, the quarantine area will be used as temporary and safe storage to isolate unburned materials and/or plant and equipment that are moved there by trained site operatives to prevent the fire spreading. Alternatively, burnt and hot materials may instead be moved to the quarantine area to isolate them from the rest of the Site until they are cooled and safe enough to remove from the Site.

9.2.2 The quarantine area will be clearly identified on Site and marked to allow the segregation of identified unsuitable material and separation from incoming waste. Quarantined waste will be removed as soon as practicable in appropriate vehicles and properly disposed of at a suitably authorised site.

9.2.3 Any hot loads inadvertently deposited on Site would be diverted to the quarantine area.

9.3 PROCEDURE TO REMOVE MATERIALS TEMPORARILY STORED IN THE QUARANTINE AREA

9.3.1 Waste and materials stored in the quarantine area will only be removed when it is safe to do so.

9.3.2 In the event that unburnt waste, plant and equipment etc has been moved to the quarantine area for safe storage and to prevent a fire spreading, it shall be moved back to its normal location once it is safe to do so and the burnt materials have cooled and been safely removed.

9.3.3 Where the quarantine area is used to isolate hot loads or wastes etc that are on fire, once these have been safely cooled by the use of fire-fighting water, the ashes and residues will be removed off site to authorised facilities.

10 DETECTING FIRES

10.1 DETECTION SYSTEMS

10.1.1 The Site will be equipped with a comprehensive CCTV system, comprising of 10 external cameras and 4 internal cameras that provide coverage of all the Site, including the waste storage and processing areas and the external perimeters of the facility. The CCTV cameras include motion detection.

10.1.2 The Site will be in constant attendance by site operatives on a 24 hours x 7 days basis, so that in the

event of a fire incident or smoke emission an alarm would be raised and mitigation measures implemented immediately.

10.1.3 Temperature probes will be used to monitor the temperature of waste stockpiles, including baled wastes once they are spilt. This will ensure that the Operator has accurate and up to date information on temperature accumulation in baled wastes at all times and throughout the year, which will enable any seasonal variations of temperature within the wastes to be recorded.

10.2 FIRE DETECTION OUTSIDE OF OPERATIONAL HOURS

10.2.1 The Site will operate on a 24 hours x 7 days basis, so it will be manned and operational at all times.

11 DETECTION SYSTEM CERTIFICATION

11.1.1 The CCTV surveillance systems will be designed, installed and maintained by a contractor who is covered by an appropriate UKAS-accredited third party certification scheme.

12 SUPPRESSING FIRES

12.1 SUPPRESSION SYSTEM IN USE

12.1.1 Environment Agency Guidance: Fire Prevention Plans: Environmental Permits https://www.gov.uk/government/publications/fire-prevention-plans-environmental-permits/fire-prevention-plans-environmental-permits#suppressing-fires states:

If you store waste in a building, you must install a fire suppression system. This system should be proportionate to the nature and scale of waste management activities you carry out and the associated risks.

12.1.2 The Operator does not propose to store waste inside the building. All waste will be received in baled form and stored on the external yard area. Waste bales will be transferred into the building by fork lift truck or mechanical grab, split and fed directly to the waste processing plant on a just in time basis.

12.1.3 The building will be manned and operated on a 24 hours x 7 days basis and therefore any smoke or outbreak of fire would be quickly detected by the site operatives. Fire hoses and fire extinguishers will be installed both in the building and in the external yard area, see Drawing 'Indicative Site Layout and Storage'-DW01. Site operatives will be trained to operate the fire-fighting equipment to deal with a fire incident, where it is safe to do so (see Section 13.1 below).

12.1.4 Records of training, testing and maintenance of fire extinguishers and fire hoses will be maintained. Fire extinguishers will meet the requirements of BS 5036.

13 FIRE FIGHTING TECHNIQUES

13.1 ACTIVE FIRE FIGHTING

13.1.1 The Site is equipped with mobile plant such as mechanical grab and fork lift trucks, which can be used by trained site operatives to move materials in the event of a fire or assist the Fire Service if requested to do so by them.

13.1.2 The Site is equipped with fire hoses and fire extinguishers to fight fire (see Section 12.1).

13.1.3 The Site is equipped to fight fire by:

- Applying water to cool unburned materials and other hazards;
- Separate unburned materials from the fire using forklift trucks and mechanical grabs;
- Separate burning materials from the fire using forklift trucks and mechanical grabs and quench materials using fire hoses and fire extinguishers.

13.1.4 Fire residues and materials contaminated as a result of a fire will be removed from the Site as quickly as possible, once it is safe to do so and they have sufficiently cooled. Residues and contaminated materials will be removed off site to suitably authorised facilities.

13.1.5 Site staff will only be used to fight fire where they are suitably trained and it is safe to do so. If the Fire Service attend the Site to deal with an incident, site staff will liaise with the fire fighters and follow their instruction.

14 WATER SUPPLIES

14.1 AVAILABLE WATER SUPPLY

14.1.1 Environment Agency guidance on Fire Prevention Plans states that a 300m^3 stockpile of combustible waste must have a water supply of at least 2m^3 per minute for a minimum of 3 hours, i.e. 360m^3 water supply in total. This rate is proportional and as the largest combustible waste stockpile on site has a capacity of 428.40m^3, this equates to 514.20m^3 of water.

14.1.2 Two fire hydrants are located at each entrance to the Site, the locations of which are shown on Drawing 'Indicative Site Layout and Storage'-DW01.

14.1.3 The minimum flow rate of fire hydrants on the industrial estate is 50 litres per second. Therefore the fire hydrants should supply a minimum of 540,000 litres of water (i.e. 540m^3) over a 3 hours period, which meets the requirements of the Guidance.

15 MANAGING FIRE WATER

15.1 CONTAINING FIRE WATER RUN-OFF

15.1.1 The building incorporates an engineered concrete base, with no internal drainage outlets. Therefore there are no discharges from the waste treatment and product storage areas inside the building to surface water, groundwater or foul sewer.

15.1.2 The perimeter of the Site is kerbed with the exception of the site entrances off the public highway, i.e. Road Five. It is proposed that 100mm high 'sleeping policeman' type bunds are constructed across the entrances to the Site (which are both off Road Five) to retain firewater within the external yard area in the event of a fire incident. The Site dimensions are a minimum of 125m x 95m. Therefore the 100mm (0.1m) high 'sleeping policeman' bunds across entry and exit points creates a 'reservoir' of 1187.50m^3 (125m x 95m x 0.1m), which is sufficient to contain all firewater in the event of a fire incident.

15.1.3 In the event of a fire, firewater on the external yard will drain to the Site's surface water drainage system, which has been designed by an independent civil and structural engineering consultancy to ensure run-off discharges to sewer via Kingpan Klargester Class 1 Bypass Interceptors. Drawing No 5989-HJCE-00-XX-DR-D-3001 shows the site drainage. In order to prevent potentially contaminated firewater passing through the interceptors to public sewer, cut off valves will be installed downstream of the interceptors to prevent any liquors escaping the drainage system. In addition, fire water booms and drain mats will be located to seal off drains, drainage gullies and manholes.

15.1.4 The fire water booms will be industry approved and consist of the same product as those used by the Fire Service.

15.1.5 Captured firewater will be either tankered off site to a suitably authorised wastewater treatment plant or released to the combined sewer, provided it is sampled and chemically tested by an independent laboratory and proven to be safe and compliant for discharge.

16 DURING AND AFTER AN INCIDENT

16.1 DEALING WITH ISSUES DURING A FIRE

16.1.1 In the event of a fire incident on Site, waste import will cease and delivery drivers will be contacted with instructions to divert their waste loads to an alternative authorised site.

16.1.2 Waste deliveries will only recommence when the fire has been extinguished and residues sufficiently cooled and cleared so that they no longer pose any fire risk.

16.2 NOTIFYING RESIDENTS AND BUSINESSES

16.2.1 Adjacent businesses and other high-risk receptors (see Table 2) will be contacted and informed of the fire incident.

16.2.2 The Environment Agency will be notified as soon as a fire incident occurs and local media contacted where appropriate so that people living and working in the wider area can be notified. Due to the

highly urbanised nature of the local environ, it is not possible for the Operator to contact every business and household individually within a 1Km radius of the Site, as there are several thousand properties within this area. However, the incident will be notified to the relevant authorities and NHS so that people are aware of any potential risks from smoke etc.

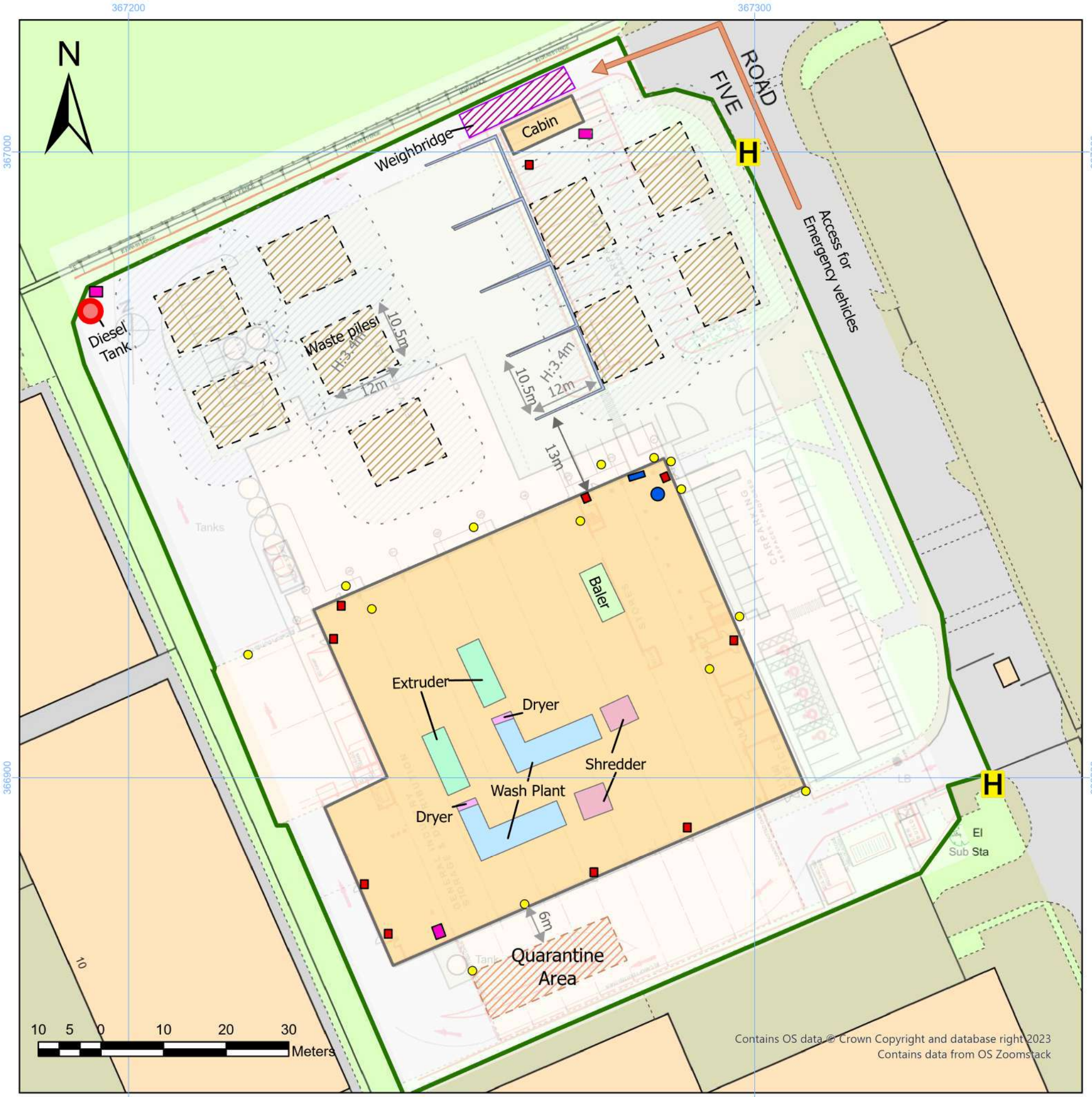
16.3 CLEANING AND DECONTAMINATION AFTER A FIRE

16.3.1 Cleaning and decontamination procedures following a fire will comprise:

- Removing ashes, residues and any equipment or plant etc that has been fire damaged and cannot be repaired to a suitably authorised facility. Materials will only be moved once they have sufficiently cooled to no longer pose a fire risk;
- Remove any contaminated fire water to a suitably authorised treatment facility;
- Removal of fire damaged waste to a suitably authorised facility for disposal;
- Undertake any required repairs to infrastructure, plant and equipment that has been damaged as a result of the fire;
- Liaise and fully co-operate with the Fire Service, Environment Agency and other regulatory bodies, as appropriate;
- Review and update FPP, EMS and staff training, as appropriate.

16.4 RECOMMENCEMENT OF OPERATIONS AFTER A FIRE

16.4.1 Once it is safe to do so and the infrastructure, plant and equipment necessary to operate the Site in accordance with the Environmental Permit and to ensure there is no significant risk of pollution or harm has been repaired or replaced, the facility will recommence waste deliveries and processing.



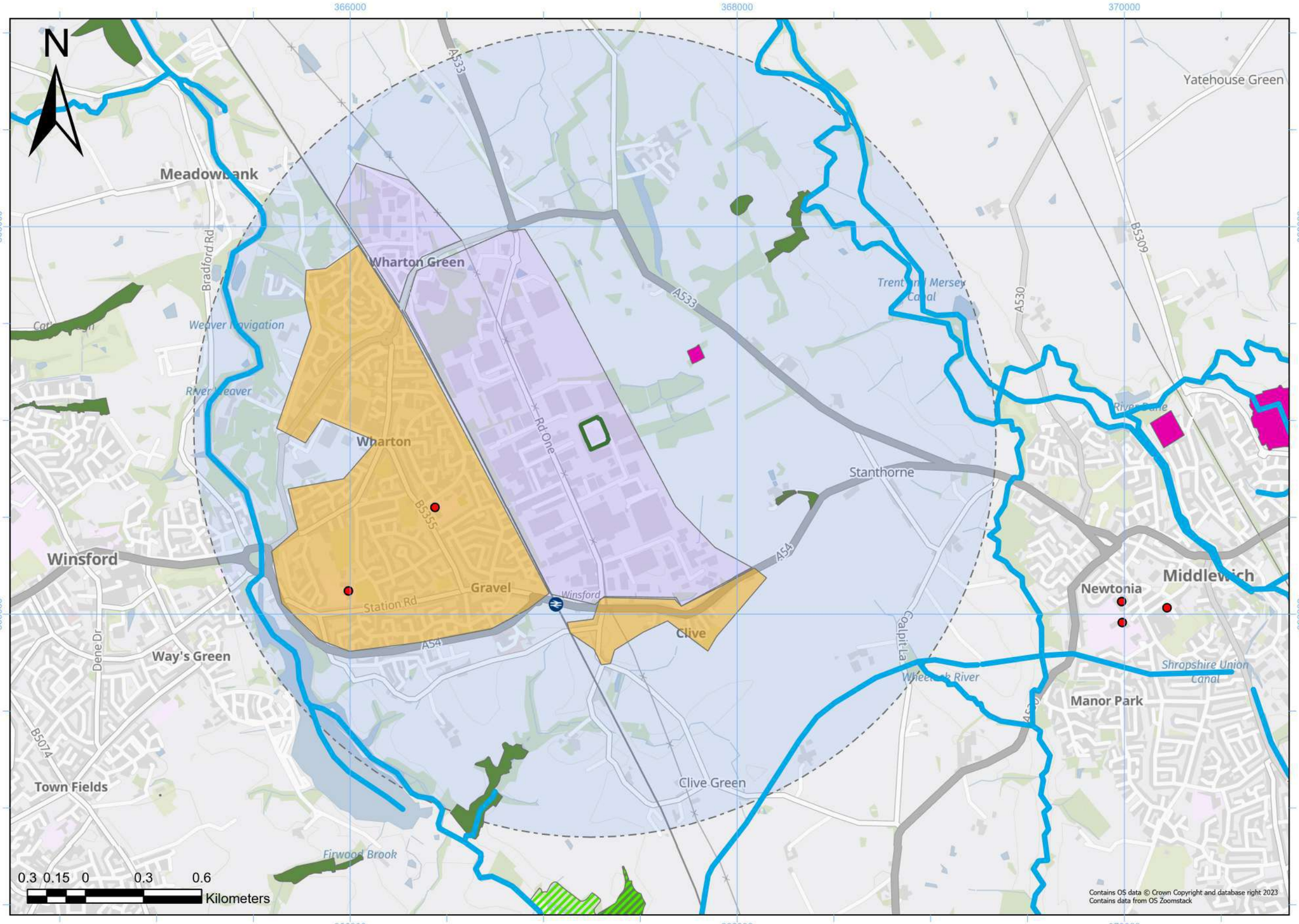
Waste And Industry Compliance Ltd
ENVIRONMENTAL CONSULTANCY SERVICES

Title: indicative Site Layout & Storage		
Site Location: Rd Five, Winsford Industrial Estates, Winsford, CW7 3QY		
Scale: 1:650	Page Size: A3	Author: S. Barnes
Date: 04/09/2023		Version: FINAL
Drawing Number: Clearfields-Winsford-DW01		

Legend

- Permit Boundary
- Bays 6m separation buffer
- Fire Extinguisher
- Water Mains tap
- Spill Kit
- Water Hose
- Diesel Tank
- CCTV
- Fire Hydrant

Grid ref:
SJ 67255 66946



Waste And Industry Compliance Ltd
ENVIRONMENTAL CONSULTANCY SERVICES

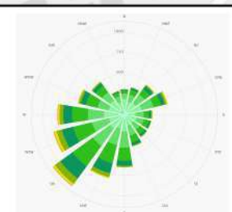
Clearfields Envirotech Ltd.

Legend

- Permit Boundary
- Buffer

Receptors

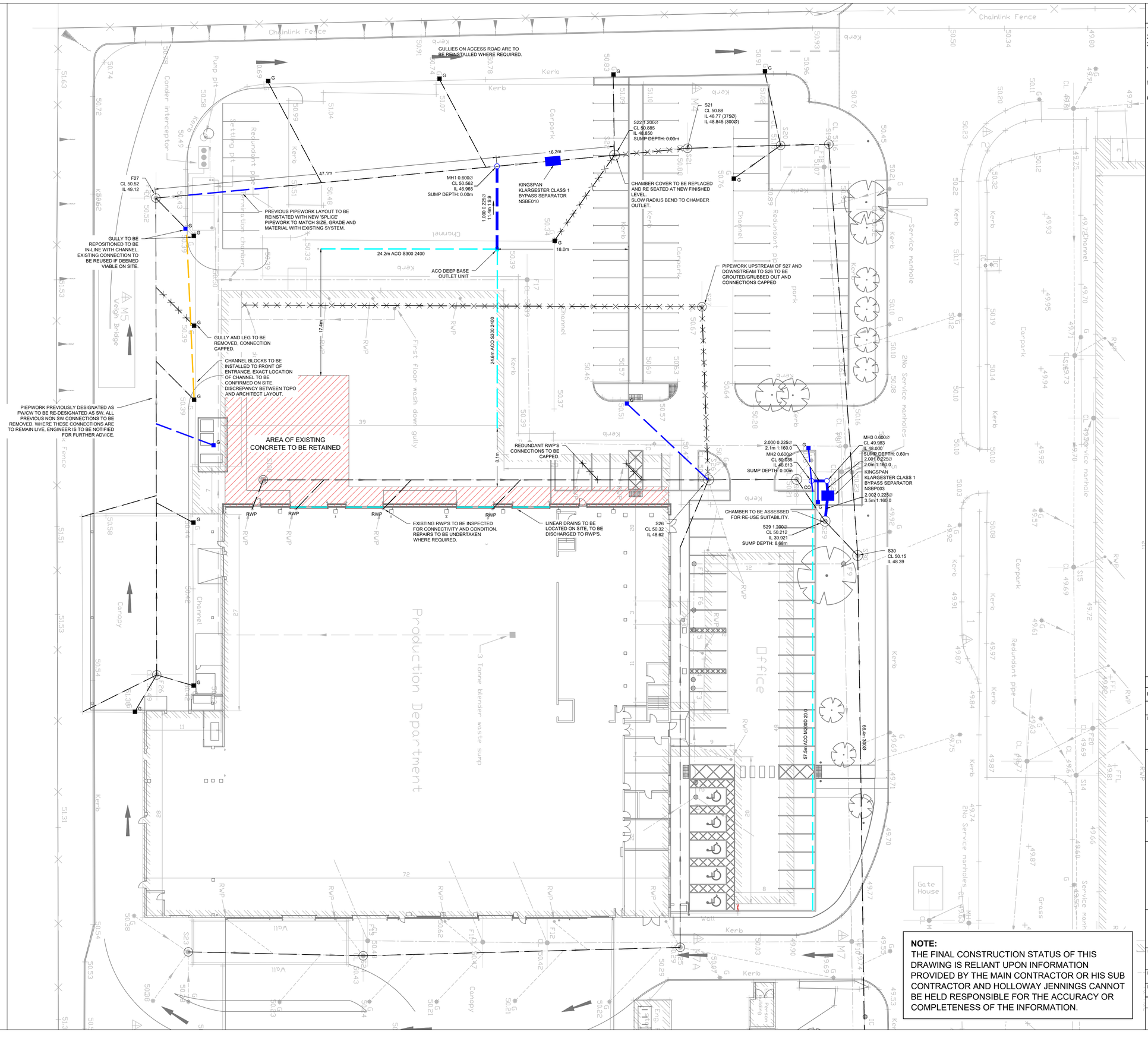
- Commercial
- Residential
- School
- Watercourse
- Special Protection Areas
- Special Areas of Conservation
- Sites of Special Scientific Interest
- Ancient Woodland
- Scheduled Monuments
- National Nature Reserves
- Local Nature Reserves



Author: S. Barnes. Contains OS data © Crowncopyright [OS OpenMap Local] [2023]. Emapsite 885778.
All Dimensions to be checked on site and not scaled from this drawing.
This drawing is not for construction

All services to be checked on site and not scaled from this drawing

Title: Sensitive Receptors	Date: 15/08/2023	Page Size: A3	Drawing Number: Clearfields-Winsford-DW02
Site Location: Winsford Industrial Estate, Road Five, Winsford, CW7 3SG.	Version: FINAL	Scale:1:20,000	Grid reference: SJ 67273 66909



NOTES

1. DO NOT SCALE
2. DRAWING NOT COORDINATED
3. ALL LEVELS SHOULD BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCY TO BE REPORTED TO ENGINEER.
4. DRAWING TO BE USED IN CONJUNCTION WITH ALL OTHER DESIGN INFORMATION.
5. SYSTEM TO BE FULLY CLEANSED PRIOR TO COMMISSIONING.
6. ALL DRAINAGE COMPONENTS TO BE INSTALLED IN ACCORDANCE WITH PART H OF THE BUILDING REGULATIONS, AND WITH MANUFACTURER GUIDANCE.

NOTE:
THE FINAL CONSTRUCTION STATUS OF THIS DRAWING IS RELIANT UPON INFORMATION PROVIDED BY THE MAIN CONTRACTOR OR HIS SUB CONTRACTOR AND HOLLOWAY JENNINGS CANNOT BE HELD RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION.

REV	DATE	DESCRIPTION	BY
FC1	30.03.23	FINAL CONSTRUCTION ISSUE	MI

AMENDMENTS

PROJECT
WINSFORD
ALTERATIONS

TITLE
MC1
DRAINAGE LAYOUT

CLIENT
ISS

HOLLOWAY JENNINGS
Consulting Civil & Structural Engineers
CONNAUGHT HOUSE, PARK VIEW, LOFTHOUSE
WAKEFIELD, WF3 3HA
T 01924 824 433
admin@hjce.co.uk www.hjce.co.uk

STATUS
FINAL CONSTRUCTION ISSUE

DESIGNED BY	CHECKED BY	HJCE Ref.
DM	MH	5989
DRAWN BY	DATE	SCALE @ A1
DM	23.12.22	1:250

PROJECT - ORIGINATOR - VOLUME - LEVEL - TYPE - ROLE - NUMBER	REVISION
5989-HJCE-00-XX-DR-D-3001	FC1