

# FIRE PREVENTION AND MITIGATION PLAN

Unit 103, Zone 1, Deeside Industrial Park, Flintshire, CH5 2LR

**Parry & Evans Ltd**

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THIS DOCUMENT IS DUE FOR REVIEW IN **DECEMBER 2020** OR AS A RESULT OF ANY INCIDENTS WHICH MAY LEAD TO THE REQUIREMENT FOR IMMEDIATE REVIEW, WHICHEVER IS THE SOONER

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Drawing No. 1537-DEE-MAP-01 – Site Location Map

Drawing No. 1537-DEE-MAP-02 – Permit Boundary Plan

Drawing No. 1537-DEE-MAP-03 – Layout & Fire Plan

Drawing No. 1537-DEE-MAP-04 – Sensitive Receptors Plan

**Appendix II      -      Record Keeping Forms**

**Appendix III      -      Darcy Poly Land Booms Specification**

**Appendix IV      -      Copy of the Site's Fire Contingency Response and Environmental Incident Plan**

## Site Information & Key Contacts List

<b>Site Address:</b>	Unit 103, Zone 1, Deeside Industrial Park, Flintshire, CH5 2LR		
<b>Site Operator:</b>	Parry & Evans Ltd	<b>National Grid Ref:</b>	SJ 33066 70221

CONTACT	DESCRIPTION	OFFICE HOURS	OUT OF HOURS
Lee Evans	Operations Director	07792 458549	Same
Stephen Evans	Managing Director	07970 651129	Same
Nick Owen	Site Manager	07540 341990	Same
Dave Evans	Health & Safety Advisor	07962 389726	Same
Timothy Jones	Transport Manager	07850 650497	Same
Steve Walker	Deputy Manager	07876 500454	Same
Countess of Chester Hospital – Liverpool Road, Chester, CH2 1UL	Local NHS Hospital (Main)	01244 365000	999
	Accident & Emergency (A&E)	111	999
Deeside Medical Practice – 21 Chester Road West, Shotton, Deeside, CH5 1QA	Local Doctor Surgery (GP)	01244 831698	999 or 112
Deeside Police Station – 26 Wepre Drive, Connah's Quay, Deeside, CH5 4HA	Local Police Non-Emergency	101, or; 0845 6071002	999
	Police Emergency	999	999
Deeside Fire Station – Chester Road East, Deeside, CH7 2EF	Fire and Rescue Service (in Emergency Dial 999)	01244 813512	999 or 112
Natural Resources Wales	Environmental Regulator	0300 065 3000	0300 065 3000
Flintshire County Council	Local Planning Authority	01352 703020	01352 752121
	Environmental Health Dept.	01352 703020	01352 752121
Manweb	Electricity Provider	0845 2727000	0845 2722424
Welsh Water	Local Water Supplier / Sewerage Provider	0800 052 0130	
Severn Trent	Local Water Supplier / Sewerage Provider	02477715000	0845 7834444
Oaktree Environmental Ltd Lime House, 2 Road Two, Winsford, Cheshire CW7 3QZ	Specialist Advisor (Waste and Planning Issues)	01606 558833	
Metro Rod	24 hr call out service for gully clearance	0808 208 2620	

# **1 Introduction**

## **1.1 Fire prevention objectives**

1.1.1 This Fire Prevention & Mitigation Plan (FPMP) has been produced in accordance with Natural Resources Wales' (NRW) - Waste Management; Guidance Note 16 published July 2017 to:

- Minimise the likelihood of a fire;
- Reduce impact from emissions during or after a fire on the local community, critical infrastructure and the environment;
- Ensure suitable resources required by the NRW and other emergency responders are available during an incident; and,
- Identify post incident clean-up and remediation costs.

## **1.2 Scope of document**

1.2.1 This FPRP details the measures which will be put in place with regards site design, infrastructure and management to ensure the waste operations will be carried out with paramount consideration to the risk of fire. All necessary prevention measures and procedures will be strictly implemented and followed through essential training and inspection regimes as detailed in this document, the Fire Contingency Response and Environmental Incident Plan and in the site's EMS.

## **1.3 General site information**

1.3.1 This document considers the risks associated with fire on site at Unit 103, Zone 1, Deeside Industrial Park, Flintshire, CH5 2LR. The main purpose of the recycling centre is for the recycling of waste paper and cardboard via sorting, separation, shredding, baling and storage for onward recovery.

- 1.3.2 It should be noted that this Fire Prevention and Mitigation Plan (FPMP) forms part of the site's ISO 14001 Environmental Management System (EMS) and is part of our Integrated Management System (IMS).
- 1.3.3 In addition to this document, the site will be operated by Parry & Evans Ltd in accordance with a fully comprehensive Environmental Management System (EMS) and a Bespoke Environmental Permit (Ref: EPR/CB3593HF), regulated by Natural Resources Wales (NRW).
- 1.3.4 All site staff should be provided with a copy of this Fire Prevention and Mitigation Plan and be aware of where it is located on site.
- 1.3.5 The main operations which take place at the site are as follows:
- Compacting (by loading shovel/360° excavator)
  - Sorting (with loading shovel/360° excavator or by hand)
  - Screening (by using appropriate mechanical screening plant and equipment)
  - Separation (by using appropriate mechanical screening plant and equipment)
  - Shredding (by using appropriate plant and equipment)
  - Baling (by using appropriate plant and equipment)
  - Magnetic separation of ferrous metals
- 1.3.6 The layout of the site is shown on Drawing No. 1537-DEE-MAP-03.
- 1.3.7 This FPMP document will be kept in the site office the location of which is shown on the 'Site Layout and Fire Plan' (Drawing No. 1537-DEE-MAP-03) at Appendix I to this document. All operational staff must be aware and understand the contents of the FPMP and what they must do during a fire.
- 1.3.8 This document will be due for review two years from the date of approval, as a result of any incidents which may lead to the requirement for immediate review, or the FPMP guidance changing, whichever is the sooner.



- 1.3.9 This FPMP also will be located in the Emergency Services Box (ESB) located near the site entrance as shown on Drawing No. 1537-DEE-MAP-03 in Appendix I. The ESB will also contain contact numbers for immediate receptors who could be in danger if a large fire broke out at the site. The receptors are shown on Drawing No. 1537-DEE-MAP-04 in Appendix I and table 9.1 In the event of a fire, the Fire & Rescue Service and NRW would be able to view this FPMP to ensure the actions set out are implemented to meet the objectives shown in Section 1.1.1

## 1.4 **Staffing and management**

- 1.4.1 Table 1.1 overleaf details the staff structure of the site when operating at full capacity. Positions in bold italic print below are the minimum staff requirements when the site is open for the reception of waste and, therefore, shows the minimum number of staff available to tackle a fire on site during operational hours. Only the site manager, machine/plant operators and general operatives will be permitted to tackle fires on-site.

**Table 1.1 - Staffing Levels**

<b>Position</b>	<b>Employees</b>	<b>Responsibilities</b>
Site manager / Technically Competent Manager	2 <b><i>(1)</i></b>	Ensuring that the site is being operated in accordance with the Environmental Permit and in-line with attendant regulations
Administrative Staff	5 <b><i>(1)</i></b>	Office / administrative duties
Machine / Plant Operator	15 <b><i>(3)</i></b>	Waste handling/processing, reception and plant operation
General Operatives	30 <b><i>(5)</i></b>	Waste sorting, maintenance and tidying.

## 1.5 **Plant and equipment**

- 1.5.1 Table 1.2 below details the plant/equipment on site. Only trained operators will be permitted to drive/operate the plant/equipment listed below.

**Table 1.2 - Plant & Equipment**

Item	Number	Function
Loading shovel	3	Loading/unloading/movement/sorting
360° excavator / crane grab	4	Loading/unloading/movement/sorting
Forklift	6	Loading/unloading/movement/sorting
Weighbridge	3	Determine load weights in/out
Picking Line	2	Sorting/storage of waste
Shredder	2	Shredding/size reduction of waste
Baler	2	Baling/compaction of waste
Trommel	1	Size reduction of waste

- 1.5.2 All site staff and contractors must be aware and understand the contents of the Fire Prevention and Mitigation Plan (FPMP) and the required actions during a fire.

## 1.6 **Hours of operation**

- 1.6.1 The site is operated according to the hours specified below:

Monday to Friday	24 hours
Saturday	24 hours
Sundays, Bank/Public holidays	24 hours

- 1.6.2 Whilst the site is open 24 hours, the plant may not be operated on a 24 hour basis. Some of the times when the site is open it will only be occupied by banksmen and/or site supervisors during times when the site operations are limited to receipt and dispatch of incoming/outgoing materials.

## **1.7 Correspondence with Fire and Rescue Service**

- 1.7.1 Parry & Evans Ltd will seek a two-yearly response from NRW and FRS (or sooner should a fire incident occur) with regards to their FPMP and associated operations on site. This regular correspondence will ensure all measures to prevent, mitigate and contain fires on site are up to date and deemed sufficient by the FRS.

## **1.8 Sensitive receptors**

- 1.8.1 A Sensitive Receptors Plan (reference Drawing No. 1537-DEE-MAP-04) has been provided in Appendix I to highlight all main receptors within 1,000m of the site.
- 1.8.2 There are no groundwater source protection zones, boreholes, wells, springs supplying water for human consumption located within 50m of the site as shown on this plan.
- 1.8.3 To minimise the impact on the local area and associated receptors from a fire on site, this document details mitigation measures which will decrease the likelihood of a fire occurring on site and limit the size and duration of a fire if it does occur. These measures will ensure the potential impact on any of the surrounding land is as minimal as practicably possible.
- 1.8.4 The primary sensitive receptors for any fire event would be the site itself and any site users.

## **2 Managing common causes of fire**

### **2.1 Common causes**

- 2.1.1 The following list outlines common causes of fire and outlines specific examples of these sources, the associated risks and any mitigation measures necessary to manage them:

<b>Source</b>	<b>Risk</b>	<b>Specific mitigation</b>
Arson or vandalism	Deliberate ignition of wastes by intruder(s) and/or vandalism of site infrastructure, plant and/or machinery which may give rise to malfunction or compromise the integrity of waste storage/containment measures	Site security measures are detailed in Section 2.6.
Plant or equipment	e.g. spillages of fuel, sparks from machinery or malfunction caused by ineffective maintenance	All items of plant are subject to the preventative maintenance checklist as detailed in Section 2.5 and stored 6m away from combustible materials when the site is closed.
Electrical appliances and cabling	Faulty appliances or damaged/ exposed electrical cables may spark as a result of a power surge	All electrics on site will be fully certified by a qualified electrician and with written procedures in place that set out the regular maintenance.  Any potential ignition sources from suspected electrical faults should be isolated and an electrician should be contacted immediately to rectify the situation. Where possible, staff should immediately remove any stored wastes from the vicinity of the fault area or cable traverse if safe to do so.
Discarded smoking materials	Risk of ignition of stored wastes from smoking materials which have not been fully extinguished	The site has a strict no smoking policy.
Open burning on site or on adjacent sites	Risk of ignition from radiative heat or flaming from open burning on site or an adjacent sites	There is no open burning on site, all staff are suitably trained and regular checks take place 2/3 times a day.

Source	Risk	Specific mitigation
Overheating of stored waste	sources of heat may include heating pipes, hot exhausts, light bulbs, space heaters or direct sunlight	<p>Stored wastes will be visually inspected throughout the day and turned as necessary to prevent the formation of 'hot spots'.</p> <p>Where appropriate or when waste starts to heat up, the moisture level of the stockpiles will be controlled via water suppression i.e. the onsite hosepipes in order to limit the potential of overheating/self-combustion. Waste stockpiles/stacks will be routinely turned in order to dissipate heat and limit the potential for overheating/self-combustion. Reference should be made to Section 4.</p>
Sparks from loading buckets/shovels	Scraping of loading buckets/shovels causing sparks which may ignite stored wastes	Fire extinguishers are fitted in the cab of all loading plant.
Fireworks/Chinese lanterns	Ignition of stored wastes from either of these two sources	All piles / stacks of combustible wastes are within the limits shown within the NRW's FPMP guidance and remotely accessible CCTV and on-site fire-fighting equipment can be used to reduce the spread of fire. All stacks, bays and containers containing combustible wastes are individually accessible should an incident of this nature occur.
Hot works	e.g. welding, soldering, cutting, etc. which involve the use of high temperature equipment which may be a source of both primary and residual heat to stored wastes	Any hot works will be carried out in strict accordance with a Permit to Work and approved by company authorised personnel
Industrial heating	Industrial heaters and/or pipework used to heat internal and external areas on site which may, in turn, supply heat to stored wastes increasing the risk of combustion	There are no industrial heaters (or associated pipework) used at the site.
Hot exhausts	Potential source of both primary and residual heat to stored wastes	Hot exhausts and other sources of ignition will be kept 6m from combustible and flammable waste piles. Staff will be trained and made aware of the risk. The site manager will constantly monitor operational staff/plant to ensure a 6m distance is maintained.
Loose material build-up around plant/machinery and exhausts	Light waste and ambient particulates with high combustibility settling and building up in key areas in and around plant/machinery and around exhausts	Plant / equipment is monitored daily as per the checklist and dedicated site staff cleaning the areas around plant and equipment. Shift teams at end of each shift clean the area around the equipment they have been working on and ensure the equipment is clear of all debris and material.

Source	Risk	Specific mitigation
Hot loads	Imported wastes which may contain materials which are above ambient temperature	All loads are inspected in accordance with our waste acceptance procedures. If such loads arrive at site they are intercepted by site operatives who will refuse the acceptance of the waste. They will then if necessary be directed to the quarantine area to ensure the material does not pose a concern/fire risk to the site. The material will if required be treated to ensure the risk of fire is completely negated.
Overhead power lines	Any overhead power lines on or around the site may ignite in the event of a fire and worsen the effects	There are no overhead power lines which traverse the site.
Other combustible non-waste materials on or near the site not mentioned above	Any combustible non-waste materials on or near the site may ignite in the event of a fire and worsen the effects	Apart from those sources and risks mentioned in the table above (or elsewhere in this FPMP), there are no other combustible non-waste materials/liquids/gases on or near the site other than those which will be rejected.
Batteries within waste deposits	Ignition of stored wastes via batteries within imported wastes	All loads are inspected in accordance with our waste acceptance procedures. If any wastes are identified as containing batteries these will be intercepted by site operatives who will separate them from the waste pile for storage within the dedicated battery storage area. There will be no ELVs accepted at the site.
Visitors or contractors	Misuse of site, plant or machinery, not adhering to site rules	All visitors/contractors allowed onto site will be provided with site induction training and/or be escorted around the site by a site manager (depending on the nature of their visit and scope of works) to ensure site rules are adhered to in full and that they are aware of the potential fire risks of the site and associated plant, machinery and infrastructure. Appropriate risk assessments and full inductions (including training in this FPMP document) will be carried out for contractors undertaking work at the site where supervision from site management is not required or is not feasible.
Reaction between wastes	Combustible waste piles may ignite in the event of a fire and worsen the effects if wastes react	All wastes will have been sorted at source or on site before being placed into separated stockpiles. Waste will either be contained within bays / containers or have a separation distance. All loads are inspected in accordance with our waste acceptance procedures and all wastes will be visually inspected throughout the day.
Leaks and spillages	Interaction with burning or reactive waste and causing a larger fire event	All flammable liquids will be contained and stored within a bunded area. Any leaks or spillages cleared immediately by depositing sand or absorbents on the affected area and removed to the quarantine area or to a dedicated quarantine skip to await removal to a suitably permitted facility. There will be no ELVs accepted on site.

## 2.2 **Fuel/oil storage**

2.2.1 The 5,000 litre fuel tank for supply of diesel for site vehicles is stored externally as shown on Drawing No. 1537-DEE-MAP-03. This tank is surrounded by a bund capable of containing a minimum of 110% of the volume of fuel stored in the tank.

- Tanks will be surrounded by a bund capable of containing a minimum of 110% of the volume of fuel stored in the tank.
- All pipework and associated infrastructure will be enclosed within the bund.
- A lock will be fitted to the tank valve to prevent unauthorised operation.
- All valves and gauges on the bund will be constructed to prevent damage caused by frost.
- No combustible waste will be stored within 6 metres of the tank.

2.2.2 Any fuel/oil storage tanks will be clearly marked showing the product within and also its capacity.

## 2.3 **Smoking policy**

2.3.1 Smoking of cigarettes and e-cigarettes is prohibited on site.

2.3.2 Employees who wish to smoke may do so in their own time during lunch breaks at a location outside of the site.

2.3.3 Managers will be responsible for the promotion and maintenance of the no smoking policy by their staff. Managers will receive training and guidance regarding their responsibilities in relation to the policy and enforcement of it.

2.3.4 Employees should inform the appropriate manager immediately if anyone fails to comply with the policy.

2.3.5 Employees not complying with the policy will be referred to their manager for support subject to the usual disciplinary procedure.

- 2.3.6 Visitors not adhering to the policy will be asked to comply or leave the site.
- 2.3.7 All job applicants will be made aware of the policy via application packs, where a requirement to abide by it will be part of the role specification. Applicants will be reminded of the policy at interview stage.
- 2.3.8 A copy of the policy will form part of new employees' induction packs. Training and guidance on enforcing the policy will form part of new managers' induction process.
- 2.3.9 The policy will be reviewed every 12 months.

## 2.4 **Plant and equipment maintenance**

- 2.4.1 External separation distances of 6m will be observed between plant and stored material when the site is not staffed or when a particular process is to be dormant for longer than 1 hour. During out-of-hours or periods of operational dormancy, all relevant plant will be powered-down and completely shut off 30 minutes prior to cessation of operations. During this period there is ample time to inspect the equipment for any dust/fluff which will be removed using hoses or brushes.
- 2.4.2 The locations of processing plant are clearly shown on Drawing No. 1537-DEE-MAP-03. It is not possible to show locations of plant i.e. shovels, excavators, HGVs as they will be constantly manoeuvring throughout the day.
- 2.4.3 All mobile plant and equipment will be fitted with fire extinguishers in the cab. For bucket loaders, rubber strips are not considered appropriate as they are usually removed via uneven and bumpy ground and not fit for purpose for sites/operations of this nature.
- 2.4.4 Fuels and combustible liquids from site vehicles will be checked prior to commencement of operations then ongoing throughout the day ensuring each vehicle has undergone the relevant inspection for the presence of leakages.
- 2.4.5 If spillages are reported or found on site following inspections, they will be cleared immediately by using the various spill kits located around the site which involve depositing



sand or absorbents on the affected area and the resulting affected material(s) removed to the quarantine area or to a dedicated quarantine skip to await removal to a suitably permitted facility. There are spill kits located on site as shown indicatively on Drawing No. 1537-DEE-MAP-03.

- 2.4.6 Dust from processing/treatment operations on site can settle at the end of the shift / working day onto hot exhausts and engine parts so a fire-watch will be implemented after cessation of works. Any build of dust/fluff will be removed from the equipment and comments noted in the inspection sheet shown in Appendix II.
- 2.4.7 Site management will undertake or delegate additional preventative maintenance checks on a more frequent basis to ensure, where possible, the machinery is mechanically sound, as described in the section below.

## 2.5 **Preventative Maintenance**

- 2.5.1 All items of plant and equipment listed in Section 1.5 (and any additional items of plant which may be hired-in to cover busier periods) are subject to preventative maintenance checks to ensure their safe operation and to prevent any potential situations which may give rise to faults or malfunction. A Preventative Maintenance Checklist is shown in Appendix II of this FPMP which can be referenced by the operator.
- 2.5.2 Much of the plant and equipment on site and all vehicles in the fleet are subject to annual manufacturer maintenance to ensure proper working order in the form of service contracts. Site management will undertake or delegate additional preventative maintenance checks on a more frequent basis to ensure i.e. daily, before, during and at the end of each working day to ensure (where possible) the machinery is mechanically sound. These checks will be carried out using the Preventative Maintenance Checklist and any results which are flagged as needing attention will also be recorded in the site diary.

## 2.6 **Site security**

- 2.6.1 The site boundary is secured as follows:

- a) The northern-facing boundary is comprised of 2.4-metre-high galvanised steel palisade fencing.
- b) The eastern-facing boundary is secured by way of a section of 2.4-metre-high galvanised steel palisade fencing with two sets of security gates constructed of the same. Part of this boundary is also comprised of the large Belfast Hangar building which is shown on Drawing No. 1537-DEE-MAP-03 as Building 1. In the southern section of the site (comprising the new extension area) the eastern-facing boundary is comprised of a 3.6 metre concrete panel fence.
- c) The southern-facing boundary of the site is largely 2.4-metre-high galvanised steel palisade fencing with a 55-metre-long section of 3.6 metre concrete panel fencing.
- d) The western-facing boundary is entirely comprised of 2.4-metre-high galvanised steel palisade fencing.

2.6.2 All site access gates are of steel construction and are lockable should the site be left unmanned at any time, to prevent unauthorised vehicular or pedestrian access.

2.6.3 The site benefits from 24hr operations and, as such, there will be permanent onsite representation by employees of Parry & Evans Ltd. The site also has CCTV fitted with full site coverage with both on and off-site supervision.

2.6.4 The site security measures will be inspected on a daily basis and any defects which impair the effectiveness of the security will be repaired by the end of the working day. If this is not possible, temporary measures will be put in place to ensure no unauthorised access to the site can be gained until the proper repairs can be carried out as soon as practicably possible.

2.6.5 If unauthorised access becomes apparent as a problem at the site the security measures will be reviewed and improvements implemented.

## 2.7 **Electrical faults or damaged/exposed electrical cables**

2.7.1 All fixed wiring electrical cabling on site will be inspected daily by staff and serviced in accordance with Legislation (3/5 years) by fully qualified and certified electrical contractors

to undertake both Planned Preventative Maintenance and Reactive Maintenance (under contract) of the following:

- a) Fire detection & alarm system;
- b) Emergency lighting;
- c) Machinery checks / services (as per manufacturers' instructions).

2.7.2 In terms of portable appliance testing (PAT), this will be carried out under an annual service contract by qualified and certified electrical contractors.

2.7.3 Daily inspections of cabling, etc. will be undertaken and the daily Fire Checklist can be used as a reference. Any potential ignition sources from suspected electrical faults will be isolated and the appointed electrical contractors will be contacted immediately to rectify the situation. Where possible, staff will immediately remove any stored wastes from the vicinity of the fault area or cable traverse if safe to do so.

### **3 Waste acceptance procedures**

#### **3.1 General**

- 3.1.1 Strict waste acceptance procedures are in place at the site and detailed in the site's EMS. Details of when the waste was accepted, how long waste has been on site and how long other separated wastes are stored prior to removal from the site will be stored. This will ensure compliance with the maximum storage duration for specific wastes (as shown on the Waste Storage Table on the Layout and Fire Plan in Appendix I).
- 3.1.2 The following details will be recorded for every load deposited at the site:
- a) The date and time of delivery.
  - b) The name and address of the waste producer.
  - c) The detailed and accurate description of the waste including type, quantity (in tonnes and/or cubic metres) and EWC codes.
  - d) How the waste is contained e.g. loose, container type.
  - e) The carrier's name and address.
  - f) Driver's name, signature and vehicle registration No.
  - g) Signature or initials of person(s) producing/ accepting/ inspecting/ carrying the waste.
  - h) Additional handling details/notes made by the driver after inspection of the load.
  - i) SIC code of the premises which produced the waste (where relevant).
  - j) Waste hierarchy declaration.
  - k) Information on previous treatment of the waste e.g. manual or mechanical.
- 3.1.3 Any wastes identified during the incoming waste inspections which do not conform to site acceptance criteria will not be accepted and/or removed and quarantined immediately to await safe removal from site. NRW will be contacted (where necessary) if the non-conforming waste discovered is likely to lead to a breach of permit conditions.

## 3.2 **Manage storage time**

- 3.2.1 The site will reduce the risk of self-combustion by ensuring good stock rotation. This will be carried out as shown below.
- 3.2.2 **Incoming Material** – The incoming combustible material will consist of grades of separated recyclable wastes (paper / card etc.), mixed unsorted waste (co-mingled recyclables) and non-target waste fractions. These are deposited in the reception bays in the main recycling building as shown the Site Layout and Fire Plan and separated by fire walls (as shown) to prevent the spread of fire between the bays. The material in the bays will be pushed up at various times during the working day to prevent spillage of waste to the front apron of the bays.
- 3.2.3 The waste in the reception bays will be stored for a maximum of 1 week however this will likely be a much shorter timeframe as the treatment process is ongoing. The bays will be emptied every two months to prevent the build-up of smaller particles and dust.
- 3.2.4 Storage times for all stored combustible wastes on site are detailed in the 'Storage Area Details' Table in Drawing No. 1537-DEE-MAP-03.

## 3.3 **Monitoring and control of temperature**

- 3.3.1 A requirement exists to ensure that temperatures of waste piles, both processed and unprocessed, are monitored and recorded. Decomposition of various waste piles can generate sufficient heat that the material may spontaneously combust.
- 3.3.2 The waste material to be monitored for temperature will include but not be limited to:
- a) Baled paper and cardboard (stored externally)
  - b) Separated loose recyclable paper and cardboard (stored inside the transfer building)
  - c) Incoming mixed recyclable wastes
- 3.3.3 Material listed above will be monitored for temperature periodically, using either a metre-long temperature probe and/or a hand-held thermographic (thermal imaging) device.

- 3.3.4      Temperatures will be recorded on the designated temperature monitoring form in Appendix II of this document. The following information should be recorded:
- a)    Date
  - b)    Waste Type
  - c)    Lowest Temperature & highest temperature (°C)
  - d)    Type of temperature recording (Probe or Thermographic)
  - e)    Any relevant comments regarding the waste type (e.g. physical condition, steam etc.)
- 3.3.5      The completed temperature monitoring form should be returned to the site office for filing. Files must be retained for a minimum of 3 years.

## **4      Managing waste piles**

### **4.1      Stored combustible waste/materials**

4.1.1      The following list outlines the materials which have been identified on site as having combustible potential.

- a)    Mixed unsorted waste (co-mingled recyclables and mixed general waste).
- b)    Separated recyclable wastes (paper / card / wood / etc.).
- c)    Baled single-stream recyclable waste products.
- d)    Loose single and multi-stream recyclable waste products.
- e)    Non target fraction of recyclable wastes (separated via recycling activities onsite).
- f)    Shredded RDF/SRF for energy recovery.
- g)    Rejected wastes.

4.1.2      The main wastes accepted and stored on site which have been identified as having combustible potential are summarised in the table overleaf below which is also shown on Drawing No. 1537-DEE-MAP-03 in greater detail.

**Table 4.1 - Combustible waste storage table**

Plan Ref	Brief Description	Storage form	Length / Width (m)	Height (m)	Approx. Area (m2)	Volume (m3)	Max Duration of storage
1A	Vehicle trailer for baled plastics	Processed (baled) in articulated trailer	10 x 2	2	20	40	<2 weeks
1B	2 x 40yd <sup>3</sup> skips for the storage of textiles and metals	Separated and loose in 40yd <sup>3</sup> skips	N/A	2.2	N/A	62	<2 weeks
2A	Baled paper/card	Processed (baled) / free standing bale stack	20 x 10	3	200	600	<2 months
3A	Mixed recyclables for separation (picking line feed pile)	Loose / mixed / free standing pile	6 x 6	3	36	35	<72 hours
3B	Separated recyclables	Processed / loose / free-standing in 2-sided bay	5 x 5	2	25	17	<1 week
3C	Separated recyclables	Processed / loose / free-standing in 2-sided bay	5 x 4	2	20	13	<1 week
3D	Ferrous metals removed from overband magnet	Processed / loose / free-standing in 2-sided bay or in a skip	5 x 2	2	10	7	<1 week
3E	Separated recyclables	Processed / loose / free-standing in 2-sided bay	5 x 3	2	15	10	<1 week
4A	Baled paper/card	Processed (baled) / concrete block wall bay	20 x 10	4	200	800	<2 months
5A	Baled paper/card	Processed (baled) / concrete block wall bay	20 x 10	4	200	800	<2 months
6A	Baled paper/card	Processed (baled) / concrete block wall bay	12 x 10	4	120	480	<2 months
7A	Loose paper/card	Loose awaiting separation and grading	15 x 6	3	90	178	<2 weeks
8A	UPW reel reception area	Unprocessed / free standing in 2-sided bay	8 x 7	2	56	75	<48 hours
9A	UPW reel bales	Processed (baled) / free standing	10 x 5	2	50	140	<1 week
9B	UPW reel (loose)	Processed / free standing in 2-sided bay	12 x 7	2	84	112	<48 hours
10A	Loose magazines	Unprocessed / concrete block wall bay	20 x 10	4	200	533	<1 week
11A	Loose shredded pams	Processed (shredded) / concrete block wall bay	20 x 10	4	200	533	<1 week
12A	Loose news and pams	Unprocessed / concrete block wall bay	19 x 10	4	190	507	<1 week
13A	Loose news and pams	Processed / free standing	10 x 5	3	50	133	<48 hours
14A	Baler feed pile (sorted recyclables)	Unprocessed / concrete block wall bay (2-sided)	14 x 6	2	84	112	<48 hours



Plan Ref	Brief Description	Storage form	Length / Width (m)	Height (m)	Approx. Area (m2)	Volume (m3)	Max Duration of storage
15A	Loose/baled recyclables storage	Processed (baled) / free standing	14 x 8	3	112	112	<1 week
16A	Mixed paper	Unprocessed / free standing	17 x 8	4	136	363	<1 week
17A	Cardboard	Processed / concrete block wall bay	5 x 4	3	20	40	<1 week
18A	Mixed paper and card	Unprocessed / concrete block wall bay	20 x 9	4	180	480	<1 week
19A	Baler feed pile comprising paper and cardboard or plastics	Unprocessed / free standing in 2-sided bay	6 x 6	2	36	24	<1 week
20A	Holding bay for separated recyclables awaiting baling	Unprocessed / free standing	7 x 5	2	35	23	<1 week
21A	Baled recyclables	Processed (baled) / free standing bale stack	10 x 10	4	100	400	<1 week
22A	4 x 40yd3 skips of separated recyclables	Sorted / 40 cubic yard containers	N/A	2	N/A	124	<1 week
23A	Mixed general waste reception bay	Unprocessed / concrete block wall bay	12.8 x 10	3	128	255	<72 hours
24A	RDF/SRF output bay (shredded)	Processed (shredded) / concrete block wall bay	12.8 x 10	3	128	255	<72 hours
25A	Baled recyclables	Processed (baled) / free standing bale stack	20 x 10	2.6	200	520	<1 week

- 4.1.3 The sections below detail the wastes stored on site and procedures to reduce the risk of combustion/ignition in line with the NRW's FPMP guidance (reference should be made to the Layout & Fire Plan in Appendix 1 for details and locations for each of the storage areas).

## 4.2 Waste stored loose in stockpiles/bays

- 4.2.1 The wastes shown in the table below are those which are stored loose, either within a bay or as a free-standing stockpile.

Pile Ref:	Storage/monitoring procedures to reduce the risk of fire
3A – Mixed recyclables for separation (picking line feed pile)	<ul style="list-style-type: none"> <li>This is a free-standing stockpile located externally.</li> <li>This pile is located near to the site boundary which lies just to the north of the pile which comprises a 2.4-metre-high palisade fence. There are no potentially sensitive land uses to the immediate north of the site and therefore, it is not necessary to install a dedicated fire wall to protect the site boundary.</li> <li>The pile has a maximum storage duration of 72 hours to allow for small accumulations of mixed recyclables awaiting sorting in the picking line over the weekend when the plant is unlikely to be in operation.</li> <li>The pile is visually monitored throughout the day (including weekends when the plant is unlikely to be in operation) by site operatives and trained personnel who will be trained via toolbox talks in recognition of fire.</li> </ul>
3B – Separated recyclables 3C – Separated recyclables 3D – Ferrous metals 3B – Separated recyclables	<ul style="list-style-type: none"> <li>These piles are directly beneath the external picking line to the north of the site. The picking line either feeds stockpiles beneath or skips which sit underneath the exit chute.</li> <li>To the immediate west of these bays is a 3-metre-high concrete firewall.</li> <li>The maximum duration of storage for all four of these bays is 1 week, however, it is likely that waste will not be stored in these piles for longer than 48 hours if the picking line is in continuous operation.</li> <li>The pile is visually monitored throughout the day (including weekends when the plant is unlikely to be in operation) by site operatives and trained personnel who will be trained via toolbox talks in recognition of fire.</li> </ul>
7A – Loose paper/card	<ul style="list-style-type: none"> <li>This bay is predominantly used as an overspill (holding) bay for loose paper/cardboard which will be moved into Building 1 for processing.</li> <li>The maximum duration of storage for this bay is 2 weeks.</li> <li>The concrete bay containing the loose materials are 4 metres tall. This will allow for a minimum 1.0m freeboard between the top of the firewalls and the top of the stored waste (at 3 metres).</li> <li>The pile is visually monitored throughout the day by site operatives and trained personnel who will be trained via toolbox talks in recognition of fire.</li> </ul>
8A – UPW reel reception area 9B – UPW reel (loose)	<ul style="list-style-type: none"> <li>These bays are located within Building 2.</li> <li>The building comprises 3m high concrete panel walls with steel cladding to 8m. The steel cladding and girders will be painted with intumescent paint.</li> <li>Stockpiles 8A and 9B are to be emptied every 48 hours.</li> <li>As the reel cutter is located in this building, the waste will be monitored frequently throughout the day by trained operatives, particularly within 30 minutes of the cessation of each cutting activity.</li> </ul>

Pile Ref:	Storage/monitoring procedures to reduce the risk of fire
<p>10A – Loose magazines</p> <p>11A – Loose shredded pams</p> <p>12A – Loose news and pams</p>	<ul style="list-style-type: none"> <li>• These bays are located within the main processing building (Building 1). A full internal deluge system will be installed within this building within <u>2 years</u> (in consultation with the company's insurers and NRW).</li> <li>• The concrete bays containing the loose materials are 5 metres tall. This will allow for a minimum 1.0m freeboard between the top of the firewalls and the top of the stored waste (at 4 metres).</li> <li>• The piles can be visually monitored throughout the day by site operatives and trained personnel.</li> <li>• The maximum duration of storage for these products will be 1 week, however this is likely to be much shorter as the process is continually ongoing and the throughput of the plant is high. The levels of waste stored in these bays is likely to be greater during the daytime when most feedstock deliveries are made – these bays will be much reduced after the night shift when the plant has had the chance to process the incoming waste from the previous day.</li> </ul>
<p>13A – Loose news and pams</p>	<ul style="list-style-type: none"> <li>• This stockpile is located within the main processing building (Building 1).</li> <li>• This is a free-standing stockpile which is fed by the tower as shown on the plan. The waste in this stockpile will be pushed up into stockpile 12A at various times throughout the day. Therefore, the duration of storage of material in this stockpile would be expected to be &lt;8 hours but 48 hours has been cited as the maximum duration of storage of material to cover for plant downtime.</li> </ul>
<p>14A – Baler feed pile</p>	<ul style="list-style-type: none"> <li>• These bays are located within the main processing building (Building 1).</li> <li>• For pile the concrete fire wall is 3 metres in height. This allows for a minimum 1.0m freeboard between the top of the firewalls and the top of the stored waste (i.e. 2 metres).</li> <li>• The baler feed pile (14A) has a maximum storage duration of 48 hours as this pile is constantly being added to and waste removed from it.</li> <li>• The pile is visually monitored throughout the day (including weekends when the plant is unlikely to be in operation) by site operatives and trained personnel who will be trained via toolbox talks in recognition of fire.</li> </ul>
<p>16A – Mixed paper</p> <p>17A – Cardboard</p> <p>18A – Mixed paper &amp; card</p>	<ul style="list-style-type: none"> <li>• These bays are located within the main processing building (Building 1).</li> <li>• These piles are visually monitored throughout the day (including weekends when the plant is unlikely to be in operation) by site operatives and trained personnel who will be trained via toolbox talks in recognition of fire.</li> <li>• The maximum duration of storage for these materials will be 1 week, however this is likely to be much shorter as these are the feeder piles for the main sorting plant. The levels of waste stored in these bays is likely to be greater during the daytime when most feedstock deliveries are made – these bays will be much reduced after the night shift when the plant has had the chance to process the incoming waste from the previous day.</li> </ul>

Pile Ref:	Storage/monitoring procedures to reduce the risk of fire
19A – Baler feed pile	<ul style="list-style-type: none"> <li>• The area comprises the baler feed and is located in Building 3.</li> <li>• The pile has a maximum storage duration of 72 hours to allow for small accumulations of baler-feed material over the weekend when the plant is unlikely to be in operation.</li> <li>• This pile is located in the corner of the Building 3 which is constructed with 3-metre-high concrete panel walls which allows for a minimum 1.0m freeboard between the top of the firewalls and the top of the stored waste (i.e. 2 metres)</li> <li>• The pile is visually monitored throughout the day (including weekends when the plant is unlikely to be in operation) by site operatives and trained personnel who will be trained via toolbox talks in recognition of fire.</li> <li>• There is suitable access via the two front accesses and the side of the building to aid in suppressing or removing the material in the event of a fire.</li> <li>• In addition to the daily visual monitoring by staff, a temperature reading of the surface and centre of the bale will be taken at least once during the day; usually following shutdown.</li> </ul>
23A – Tipping / sorting area for mixed wastes  24A – Shredded RDF	<ul style="list-style-type: none"> <li>• These bays are located within Building 4.</li> <li>• The building comprises 3m high concrete panel walls with steel cladding to 9m. The steel cladding and girders will be painted with intumescent paint.</li> <li>• The piles have a maximum storage duration of 72 hours to allow for small accumulations of mixed waste or residual shredded RDF material over the weekend when the trommel and shredding plant is unlikely to be in operation. Whilst the plant is in operation, this pile is constantly being added to and waste removed from it and is therefore dynamic with low residence times for material contained within.</li> <li>• The piles are visually monitored throughout the day by site operatives and trained personnel who will be trained via toolbox talks in recognition of fire.</li> <li>• The front of the bays are located appropriate distances from any other stored combustible wastes or separated by a fire wall in compliance with the FPMP guidance.</li> <li>• There is suitable access via the front of the building to aid in suppressing or removing the bales in the event of a fire.</li> <li>• Apart from the use of loading equipment (the location of which varies throughout the building) the piles are separated from the trommel and shredding plant by 3 metre return concrete walls.</li> <li>• In addition to the daily visual monitoring by staff, a thermographic temperature reading of the pile will be taken at least once during the day; usually following shutdown.</li> </ul>

## 4.3 Waste stored in containers

4.3.1 The table overleaf details the waste types which are stored in containers at the site.

**Table 4.2 - Combustible waste storage table for waste stored in containers**

Pile Ref:	Storage/monitoring procedures to reduce the risk of fire
1B & 22A  40 cubic yard containers comprising recyclable wastes	<ul style="list-style-type: none"><li>• The containers are standard 40 cubic yards in size and will consist of sorted recyclables, which have been handpicked from the various areas and are stored to ensure the easier transfer and movement of waste from the site.</li><li>• The containers are stored on the ground and replaced by empty containers once removed off site.</li><li>• All the waste stored in the containers will have been sorted by hand so the waste is unlikely to contain any hot loads or incompatible waste which could lead to a spark or overheating causing a fire.</li><li>• The containers will be removed from site when full which will be between 24 hours and 2 weeks.</li><li>• The waste in the containers will not exceed the height of the containers which is approximately 2.62m.</li><li>• All containers are open at the top to allow access for fire-fighting.</li><li>• In the event of a fire breaking out in one of the containers, they can be dragged into the quarantine area by mobile plant to reduce the spread i.e. to another skip or adjacent waste piles.</li><li>• No further monitoring required other than visual by trained staff.</li></ul>

4.3.2 These skips/containers will be removed to a suitable waste management facility when full but are not expected to be on site for longer than 2 weeks.

4.3.3 Each skip/container is individually accessible at all times to ensure it can be moved if a risk of fire were to occur and moved to the quarantine area or to access the adjacent skips to remove them to the quarantine area in the event of a fire.

4.3.4 Due to health and safety risk and potential risk of the fire spreading, the operator would not attempt to move a skip full of waste which has fully ignited.

4.3.5 Mobile plant i.e. loading shovels are used to move containers to the quarantine area to prevent the fire spreading. Mobile plant is kept on site at all times and is accessible 24 hours a day.

## 4.4 Waste stored in bale form

4.4.1 The table below details the waste types which are stored in baled form at the site.

**Table 4.3 - Combustible waste storage table for baled waste**

Pile Ref:	Storage/monitoring procedures to reduce the risk of fire
<p>1A</p> <p>Vehicle trailer for baled plastics</p>	<ul style="list-style-type: none"> <li>• This will be an ongoing waste storage process involving the placement of a curtain-sided vehicle trailer in the location shown which will be loaded by forklift with baled plastics.</li> <li>• Once the trailer is full (approximately 40 bales) a tractor unit will remove the trailer off site to deliver the baled plastics to an onward recycling operation.</li> <li>• Whenever a full trailer is removed, a new empty trailer will be set down by the same tractor unit to enable loading.</li> <li>• It will take &lt;2 weeks to complete the loading of a trailer so the maximum duration of storage for any wastes in this area is 2 weeks.</li> <li>• No further monitoring required other than visual by trained staff.</li> </ul>
<p>2A, 2B, 12A and 25A – Baled recyclables (free-standing piles)</p>	<ul style="list-style-type: none"> <li>• These bale stacks are not stored with concrete bunkers.</li> <li>• Pile 2A is separated from the nearest waste pile (1A) by 12.5m in-line with the FPMP guidance. This pile is stored on the site boundary and benefits from a 4 metre concrete firewall. The bales will be stacked no higher than 3 metres in this pile. This allows for a minimum 1.0m freeboard between the top of the firewall and the top of the bale stack.</li> <li>• Piles 21A and 25A are stored on the site boundary which is protected by a 3.6-metre-high concrete firewall. As pile 21A is located in an area which borders the site's 'Future Expansion Area' to the west, there is no need to adhere to freeboard as the adjacent 'Future Expansion Area' is barren ground with no infrastructure and, therefore, acts as a large separation distance between pile 21A and the site boundary. Pile 25A is set to a maximum height of 2.6 metres to ensure there is a 1 metre freeboard between the top of the waste and the top of the firewall.</li> <li>• Piles 2A and 2B will be stored for up to 2 months and, as such, will be subject to a temperature reading of the surface and centre of the bale which will be taken at least once during the day; usually following shutdown.</li> <li>• If a temperature of above 75°C is recorded, the bale will be transferred into the quarantine area, broken and doused with water until the temperature has reduced. The other bales will then be re-assessed using the same monitoring techniques.</li> <li>• Piles 21A, 25A and 26A will only be stored for up to 1 week and, as such, will not be subject to such stringent temperature monitoring.</li> </ul>

Pile Ref:	Storage/monitoring procedures to reduce the risk of fire
<p>4A – 6A,  Baled recyclables</p>	<ul style="list-style-type: none"> <li>• These bays/bunkers will be used for stacking baled paper and cardboard.</li> <li>• It is proposed that the bunkers will be constructed using 5m high concrete fire walls and the bales will be stacked no more than 4 metres high. This allows for a minimum 1.0m freeboard between the top of the firewalls and the top of the bale stack.</li> <li>• The piles are visually monitored throughout the day by site operatives and trained personnel who will be trained via toolbox talks in recognition of fire.</li> <li>• The front of the bays are located appropriate distances from any other stored combustible wastes in compliance with the FPMP guidance.</li> <li>• Apart from the use of loading equipment (the location of which varies throughout the building) no other mechanical processing of waste takes place within 6m of waste piles.</li> <li>• The maximum duration of storage for these products will be 2 months. Each bay/bunker will be used in a cyclical fashion where each bay will be cleared in its entirety every 2 months (or sooner).</li> <li>• There is suitable access via the front of the building to aid in suppressing or removing the bales in the event of a fire.</li> <li>• In addition to the daily visual monitoring by staff, a temperature reading of the surface and centre of the bale will be taken at least once during the day; usually following shutdown.</li> <li>• In the event the bales need to be stored longer, further monitoring using the probe or thermal imagery can provide a full representation of the bale surface temperature and inside the centre of the bales.</li> <li>• If a temperature of above 75°C is recorded, the bale will be transferred into the quarantine area, broken and doused with water until the temperature has reduced. The other bales will then be re-assessed using the same monitoring techniques.</li> </ul>
<p>9A  UPW reel bales</p>	<ul style="list-style-type: none"> <li>• This area will be used for the storage of UPW reel bales.</li> <li>• The pile is visually monitored throughout the day by site operatives and trained personnel who will be trained via toolbox talks in recognition of fire.</li> <li>• Apart from the use of loading equipment (the location of which varies throughout the building) no other mechanical processing of waste takes place within 6m of waste piles.</li> <li>• The maximum duration of storage for these products will be 1 week. Each pile will be cleared in its entirety every week (or sooner).</li> <li>• There is suitable access via the front of the building to aid in suppressing or removing the bales in the event of a fire.</li> <li>• In addition to the daily visual monitoring by staff, a temperature reading of the surface and centre of the bale will be taken at least once during the day; usually following shutdown.</li> <li>• In the event the bales need to be stored longer, further monitoring using the probe or thermal imagery can provide a full representation of the bale surface temperature and inside the centre of the bales.</li> <li>• If a temperature of above 75°C is recorded, the bale will be transferred into the quarantine area, broken and doused with water until the temperature has reduced. The other bales will then be re-assessed using the same monitoring techniques.</li> </ul>

Pile Ref:	Storage/monitoring procedures to reduce the risk of fire
15A  Loose/baled recyclables storage	<ul style="list-style-type: none"> <li>• This area will be used for the storage of loose/baled recyclables.</li> <li>• The pile is visually monitored throughout the day by site operatives and trained personnel who will be trained via toolbox talks in recognition of fire.</li> <li>• The maximum duration of storage for these products will be 1 week and the pile will be cleared in its entirety every week (or sooner).</li> <li>• There is suitable access via the front of the building to aid in suppressing or removing the bales in the event of a fire.</li> <li>• In addition to the daily visual monitoring by staff, a temperature reading of the surface and centre of the bale will be taken at least once during the day; usually following shutdown.</li> <li>• In the event the bales need to be stored longer, further monitoring using the probe or thermal imagery can provide a full representation of the bale surface temperature and inside the centre of the bales.</li> <li>• If a temperature of above 75°C is recorded, the bale will be transferred into the quarantine area, broken and doused with water until the temperature has reduced. The other bales will then be re-assessed using the same monitoring techniques.</li> </ul>

## 4.5 General waste storage monitoring

4.5.1 In addition to the above tables, the risk of fire may be reduced via the visual monitoring of wastes, moisture control (i.e. regular wetting down of wastes to reduce heat of stored wastes) and the regular rotation of bales/wastes stored in bays to ensure dissipation of heat if considered appropriate by the TCM/site manager.

4.5.2 Hot spots will be detected and controlled with the use of a temperature probe and thermal imagery.

4.5.3 The specification of the probe and thermal imagery will be as follows:

- 'K' Heavy Duty Reduced Tip Penetration Probe Ø9.5 x 1400mm
- FLIR E4 Thermal Imaging Camera, Temp Range: -20 → +250 °C 80 x 60 pixel



## 4.6 **Stock rotation and seasonal variations**

- 4.6.1 Details of stock rotation are clearly shown in Sections 4.2 – 4.4 for all wastes which are stored and processed on site.
- 4.6.2 In the event of destination site closures or seasonal demands for wastes leading to a longer storage duration, the operator can:
- Search for additional site's using NRW's / EA public register for alternative sites who could take this material or they would contact the destination sites where waste from the site will be sent.
- 4.6.3 The operational outputs and residues produced by the site and the disposal or recovery routes are detailed as follows which the operator has outlets for:
- a) Some materials will not be recovered after processing (or will not be fit for use at recovery sites). These materials may be disposed at suitably permitted landfill site.
  - b) Fines - as material for site restoration works on site or used as landfill cover.
  - c) Metals – metals removed from the overband magnet will be taken to a suitably permitted site for further recovery.
  - d) Rejected material will be removed from site as detailed in Section 2.6.
  - e) Wood – Used for biomass or animal bedding.
  - f) Paper/cardboard and plastic – Sent to paper/plastic recycler for further treatment.
  - g) Waste unsuitable for processing will be sent to a suitably permitted site.
- 4.6.4 The list of outlets has not been provided due to confidentiality purposes however the contracts will range from weekly – monthly depending on seasonal variations and demand for material.

## **5 Prevent fire spreading**

### **5.1 Waste storage general / fire breaks**

- 5.1.1 Combustible waste will be stored as per the Layout & Fire Plan in Appendix I and reference should be made to Section 4 to ensure the waste is stored within the guidelines of the table NRW's guidance. The operator will store waste materials in their largest form and minimise pile sizes wherever possible. All stockpiles of stored wastes are detailed in the Storage Area Details table on the plan in respect of their description, maximum length and width, area, volume and storage duration. Some of the dimensions of the pile are provided on the plan for context (these dimensions are not exhaustive).
- 5.1.2 Fire breaks are clearly shown on Drawing No. 1537-DEE-MAP-03.
- 5.1.3 The aim of the site is to process the incoming material and arrange for its export off site as soon as practicably possible, to minimise over-stocking which in-turn minimises the risk of overheating and spontaneous combustion.
- 5.1.4 **Storage on flat ground:** Site surfaces where wastes are stored are flat and, therefore, reduce the risk of falling materials which would accelerate the spread of fire.

### **5.2 Fire walls and bays**

- 5.2.1 The purpose of these firewalls is to:
- a) Resist fire (both radiative heat and flaming); and,
  - b) Have a fire resistance period of at least 120 minutes to allow waste to be isolated and to enable a fire to be extinguished within 4 hours.
- 5.2.2 The above walls are checked throughout the day by staff via daily inspections if any gaps or damage to the walls are present which could compromise their integrity, the walls will be repaired and sealed as soon as practically possible.

- 5.2.3 For waste which is stored in and against walls, a suitable freeboard will be visually monitored throughout the day by operational staff who are loading/removing waste to/from the bay to ensure waste stockpiles don't exceed the freeboard height of the bay. The stockpile will be reduced immediately i.e. by moving wastes to one of the two quarantine areas if a freeboard cannot be maintained. In the event of breakdowns, the operator will divert waste material to (an) alternative site(s) until the freeboard is maintained. It is not possible to scientifically calculate the flame height as each waste pile is different and could contain a number of different sizes/grades of waste leading to a lesser or greater flame height.

### 5.3 **Wind**

- 5.3.1 As can be seen from Drawing No. 1537-DEE-MAP-03, the vast majority of wastes are stored within bays (with a minimum 1.0m freeboard), covered areas or containers and are thus sheltered from the wind.
- 5.3.2 In the event of a fire, the larger free-standing stockpiles i.e. bales will be reduced in height using mobile plant if it is safe to do so.

## **6      Quarantine area**

- 6.1.1      In accordance with the NRW's FPMP guidance two areas on site have been designated as functional quarantine areas as shown on the Layout & Fire Plan. The two areas are in separate parts of the site in order to minimise distances between storage areas and quarantine area and both are located in areas which are accessible at all times. Both areas allow for a 6 metre buffer from the site perimeter and other stored waste or materials on site.
- 6.1.2      The quarantine areas are both the same size and measure 150m<sup>2</sup>. If waste were stored to a height of 4m, each area could hold a volume of approximately 600m<sup>3</sup> of bales which is greater than 50% of the largest stockpile (Piles 4A & 5A).
- 6.1.3      The waste would be moved using the site's loading shovel or forklift.
- 6.1.4      In the event of a fire the areas will be used either to isolate wastes which are smouldering to allow safe dissipation of heat without placing other areas on site at risk of ignition or to remove any wastes stored in bays near any material affected by a fire to prevent fire spreading to adjacent piles. Waste will be moved to the Quarantine Areas immediately and within one hour of a fire starting at the latest (providing it is safe to do so).

## **7 Site inspection programme**

### **7.1 Daily checks**

- 7.1.1 Site management are responsible for carrying out daily site walks for checking drainage systems, security measures and waste storage areas. Site management can reference the fire checklist shown in Appendix II but may use internal check sheets. The site also carries out weekly inspections for firefighting equipment to ensure they are fit for purpose.
- 7.1.2 Carrying out the above checks daily will keep the levels of dust, fibre, paper and other loose combustible materials, which could aid in the acceleration of a fire, on site surfaces to a minimum and ensure all containment of wastes on site are functioning effectively in accordance with the storage limitations provided in the table on Drawing No. 1537-DEE-MAP-03.
- 7.1.3 Operational staff will be trained by site management to ensure visual inspections of escape routes, fire exits, extinguishers etc. are clear in the event of a fire; Drawing No. 1537-DEE-MAP-03 shows all fire exits for buildings, storage locations of firefighting equipment and escape routes.

### **7.2 Buildings**

- 7.2.1 All buildings on site are fitted with a 'sniffer' system with extensive and wide-ranging coverage of the buildings. The system is an optical/heat detection system with call points installed throughout the offices, canteen, workshops and storage areas and was installed by Universal Fire Protection Ltd. The system is fitted with a Duelcom communicator (Cat 4) and linked to a central monitoring station. The fire alarm manufacturer is Honeywell Gent.
- 7.2.2 The system as it stands has two visits per annum as per the recommendation of BS5839 part 1. Following the installation of the air sampling system this has been increased to four visits to enable the company to clean/replace the filters on the pipe work. At least once per annum the pipework will be cleaned using compressed air.

### 7.3 **Staff training**

- 7.3.1 Staff will be suitably trained in how to raise a fire alarm and how to use the extinguishing equipment, including hose reel should the fire be small enough to tackle. Managers will also ensure formal fire extinguisher training has been provided for anyone specifically designated to use such equipment.
- 7.3.2 A full understanding the procedures outlined in this FPMP document will be required to be demonstrated as part of the site induction for all new staff and any existing staff that are not familiar with the documents. In particular all staff will be trained to ensure that they know what to do in the event of a fire and more importantly how to undertake their work in a way that minimises the risk of a fire occurring.
- 7.3.3 Ongoing training, including tool box talks, will also be provided to ensure site staff are informed of any changes to any of the site management documentation as this is subject to regular review.
- 7.3.4 A full test (drill) of the procedures in this document will be carried out every 6 months. The first test will take place within one month of the agreement of this document with the EA. The outcome and any follow up training for staff will be documented in the site diary and relevant forms in the EMS. The Site Inspection Form in Appendix II will also be used during the drill.
- 7.3.5 All staff will be rigorously tested about the requirements of this FPMP on a 6 monthly basis to ensure they know the procedures in the event of a fire.

### 7.4 **Toolbox talks**

- 7.4.1 All operational staff will receive fire awareness and firefighting procedures training / tool box talks by trained site management prior to working at the site. This will enable the operational staff to detect early signs of fire and to minimise the chance of a fire breaking. Refresher testing will be mandatory every 6 months or sooner if site operations change which could lead to a greater fire risk.

## **8      Fire detection procedure**

### **8.1      Manual detection/on site detection**

- 8.1.1      If a fire is detected or suspected by a member of staff, it must be immediately reported to the site manager or TCM. The site manager will then conduct the following procedure:
- a)      Raise the fire alarm (if not already done by another staff member).
  - b)      Initiate evacuation of staff and visitors on site to the meeting point and instruct delegated person(s) to conduct a roll-call to ensure all site users are accounted for.
  - c)      Assess the intensity and scale of the fire and make a judgment as to whether the fire can be managed without the requirement for assistance from the emergency services i.e. using the hose or fire extinguishers.
  - d)      If viable and safe, instruct necessary site staff to commence extinguishment.

## **9 Fire response procedures**

### **9.1 Response procedure**

9.1.1 Further to the detection measures in Section 8, the following procedures would apply in the event of a fire at the site:

- a) Call the Fire Response Service (FRS) immediately using 999.
- b) Call the Natural Resources Wales Emergency Contact Number.
- c) A suitably trained employee will initiate fire water containment measures to close the site's surface water drainage system (see Section 11).
- d) Prior to the FRS arriving, inform all neighbouring premises likely to be affected.
- e) If not previously informed, senior management of the company will be informed at this point of the details, nature and extent of the fire and whether assistance from staff from other depots is required.
- f) Ensure access routes are clear.
- g) If safe to do so, site management will inspect the location of the fire, to identify immediate risks to surrounding premises and the FRS.
- h) Ensure operators of appropriate machinery are standing by in a safe location to help create fire breaks, under the direction of the FRS when they arrive.
- i) Site management will identify themselves to the FRS as soon as they arrive on site and will provide them with a copy of this document and update them with relevant information that will assist them in dealing with a fire more effectively.
- j) Implement pollution control measures if safe to do so (see Section 12).

9.1.2 In the event of site management being absent from site, the operator will ensure the TCM or a suitably competent deputy is available during operating hours to take command of an incident should one occur.



## 9.2 **Staff/Visitor Response Procedure**

9.2.1 The following quick actions will be undertaken by site operatives where a fire is detected or suspected on site:

- a) Don't panic
- b) Inform the site manager or technically competent manager immediately
- c) Raise the alarm (if not done so already)
- d) Do not try to tackle the fire yourself unless you are trained in doing so and you are sure of the nature of the fire
- e) Leave the site using the nearest exit as quickly and as orderly as possible
- f) Assemble at the specified fire assembly point
- g) The site manager or delegated operative will be in charge of calling the emergency services on "999" and ensuring that all persons who were working in the building are assembled safely
- h) Do not return to the site until you have been given the 'all clear' by the emergency services and/or site management / responsible person.

## 9.3 **Evacuation of Staff (and Drill Procedure)**

9.3.1 A Fire Contingency Response and Environmental Incident Plan has been formulated for the site and all operational staff and is included at Appendix IV to this Fire Prevention & Mitigation Plan. This document will be updated upon completion of construction of Building 4 on the Layout & Fire Plan and will be made aware of the actions through site inductions, refresher training, toolbox talks etc. The fast and effective evacuation of staff to the fire assembly point will increase safety on site and limit the impact of a fire on any persons on site.

9.3.2 Fire drills will take place every 12 months and 1 month after site operations commence to ensure evacuation times are acceptable and that site staff remain informed of evacuation procedures.

- 9.3.3 The drill will be a simulation of an emergency with the location of a mock fire notified to staff in order to test the response speed in deploying pollution control equipment i.e. including drain mats/plugs and ensure all firefighting equipment is sound. The fire check form may also be completed and a detailed report of the outcome of the exercise will be prepared to assist with staff training.

## 9.4 **Access for emergency services**

- 9.4.1 The site has access from Drome Road to the north, which provides direct access to the site from the A494 for the emergency services.
- 9.4.2 The width of the surrounding roads and the gateway provide sufficient access onto the site for the FRS.
- 9.4.3 Access routes for emergency services around the site are clearly shown on Drawing No. 1537-DEE-MAP-03.

## 9.5 **Notifying receptors**

- 9.5.1 The contact numbers of key sensitive receptors identified within 1km of the site who could be directly affected in the event of a fire along with the Receptor Plan will be stored within the site office and in the emergency services box.
- 9.5.2 As it isn't feasible for a contact number to be provided for every individual residential receptors and individual business within 1km, the most sensitive receptors and closest business receptors (adjacent to site) have been included within the table below.

**Table 9.1 – Receptor Contact Information**

<b>CONTACT</b>	<b>DESCRIPTION</b>	<b>CONTACT NUMBER</b>
Flintshire County Council	Contact for residential/small business receptors	01352 703234
WBS Ltd	Contact for business receptor	01244 288202
Bob Francis Crane Hire	Contact for business receptor	01244 288282
Venalink	Contact for business receptor	01244 287050
HFF Solutions	Contact for business receptor	01244 288573
DRB Group	Contact for business receptor	01244 280280
Defence Electronics and Components Agency (DECA): MOD Sealand	Contact for business receptor / Government Building	01244 847745 – General Enquiries

- 9.5.3 The above receptors will be contacted by a co-ordinated approach where staff from Parry & Evans Ltd will contact them by phone and/or email.
- 9.5.4 Following discussions with from Flintshire County Council, they have advised that once Emergency Services arrive on site i.e. FRS, Police, the lead authority (usually the Police) will co-ordinate a systematic approach to ensure all the relevant sensitive receptors within 1,000m are notified. This will involve via telephone calls, personal visits (knocking on doors) and or using a loud speaker while driving around the associated catchment. In addition to this, the Emergency Services would also publicise the fire on their Social Media outlets and contact local news websites, radios who can also provide updates on the incident. The Council will not commit in providing written communication to demonstrate their approach as it would depend on the type/size of fire as they have numerous approaches.
- 9.5.5 The police with the assistance of ECSS and any other attending authority will ensure all relevant properties are informed of the fire event and given clear instructions of the actions they need to take.

## 10 **Suppressing fires and water supply**

### 10.1 **General**

10.1.1 Section 20 of the NRW's FPMP mentions the site should have enough water available for firefighting to take place and to manage a worst-case scenario. A worst-case scenario would be the largest waste pile catching fire.

10.1.2 Based on the above scenario, the largest waste pile of combustible waste on site measures 1120m<sup>3</sup> (when at full capacity) – this would require 1,344,000 litres (1,344m<sup>3</sup>) of water to extinguish the fire within 3 hours.

Table 10.1 - Water supply calculations

Maximum pile volume in m <sup>3</sup>	Water supply needed in litres per minute	Overall water supply needed over 3 hours in litres	Total water available on/off site in litres
800	800 x 6.67 = 5,333	5,333 x 180	960,000

### 10.2 **Covered areas**

10.2.1 Parry & Evans Ltd have been in discussion with their insurers who have requested the buildings on site be fitted with an automatic deluge/suppression system. A deluge system has been installed for the main processing building (Building 1) with outlets above the processing plant itself. Details of the deluge system coverage can be found in the Fire Contingency Response and Environmental Incident Plan which appears at Appendix IV of this Fire Prevention & Mitigation Plan.

10.2.2 There are a large number of hose reels located within all buildings on the site and these are available for use in tackling smaller fires or providing initial suppression to any internal fires prior to attendance by the FRS.

### 10.3 **External suppression - fire hydrants**

10.3.1 In consultation with NWFRS and Welsh Water, 6no. Fire hydrants have been identified within 350m of the site, including two fire hydrant in the centre of the site, as shown on

Drawing No. 1537-DEE-MAP-03. Note: HYDRANT ACTIVATED BY TURNING ANTICLOCKWISE  
NOT CLOCKWISE

- 10.3.2 Welsh Water have confirmed that the on-site hydrants is likely to achieve a flow rate of 20l/s (1200l/m) each. If used in conjunction with the other hydrants in the area, the water supply would easily surpass 4000l/m. The additional 1,333 will be supplied from the on-site 30,000 litre water tank, FRS tenders and firewater which can be recirculated on site.

## 10.4 **Additional suppression measures**

- 10.4.1 There are a number of fire extinguishers located around the site which can be deployed in the event of a smaller fire incident for fire suppression.
- 10.4.2 The site has mains water points (the majority fitted with hose reels) at various locations around the building and some which will be connected to the external concreted area.
- 10.4.3 Mobile plant listed in Table 1.2 i.e. excavators, loading shovels will be used to move unburned material to the quarantine areas and away from waste that is on fire to prevent it from spreading. The waste on fire which will have been separated will be quenched using on-site hosepipes or by the FRS. The waste will be kept here until the fire has been extinguished. The site may also fill a sealed skip with water and load burning waste into it.
- 10.4.4 The site is able to bring in additional plant into help move waste, remove fire water and aid in fighting fires. It is considered the company has adequate finances to be able to source additionally plant if required.

## 10.5 **Out-of-hours fire procedure**

- 10.5.1 It is considered arson would be the only cause of a fire outside of operating hours. Whilst the site is operated on a 24 hour basis, there will be areas of the site which will not be operational after 7pm and before 7am. The site has 24 hour CCTV which is remotely accessible including times when the site is closed (i.e. not operational or open for receipt of wastes). In addition, there is a security guard/watchman or operative(s) who are trained to identify any fires or potential for fire.

- 10.5.2 If a fire were to occur, once notified by the security guard, the site manager/out-of-hours contact will then conduct the following procedure:
- a) Irrespective of whether a company presence is required at the site by the FRS, the out of hours appointed contact (or delegated responsible person) will attend the site to assist in any way possible and to ensure that surface water protection and control measures are deployed, if safe to do so, under the instruction of the FRS.
  - b) The site appointed out-of-hours contact will subsequently contact as many additional members of staff as required to ensure that surface water protection, smothering and/or separation measures may be effectively deployed. Ideally this will be a minimum of three other staff members (enabling safe working in pairs) with at least one machine operator.

## **11 Managing fire water**

### **11.1 Drainage**

- 11.1.1 See Drawing No. 1537-DEE-MAP-03 for the location of the key drainage features.
- 11.1.2 If there is any deviation from the current drainage arrangement, an amended FPMP will be submitted for approval by the NRW and FRS.

### **11.2 Containment of fire water**

- 11.2.1 As detailed in Section 10.1.2, the largest pile would require containment for 960,000 litres (960m<sup>3</sup>) of water in accordance with the FPMP guidance.
- 11.2.2 In the event of a fire:
- i) Clay drain mats would be laid to surface gullies;
  - ii) The interceptor would be closed using a penstock valve; and,
  - iii) The site is surrounded by a sealed drainage system comprising of a minimum 0.15m kerb as shown on Drawing No. 1537-DEE-MAP-03 to seal the concreted area the site.

**Table 11.1 - Firewater Containment Calculation**

<b>Volume of Water (m<sup>3</sup>)</b>	<b>Containment Area (m<sup>2</sup>)</b>	<b>Containment Required</b>	<b>Total Containment On Site (m)</b>
960	19,273	$960/19,273 = 0.05$	0.05

- 11.2.3 In the event of a fire there are three outlet points for foul and surface water from the site (surface to the south and foul to the east). The last manhole along the drainage line of each will be plugged in the event of a fire on site (manholes shown on the Site Layout and Fire Plan). In the event of an emergency this would close all potential drainage outlets until such a time when the emergency has been dealt with and the drains have been emptied, collecting all contaminants and thus preventing an environmental incident.

- 11.2.4 The area of the concrete pad (including internal building areas which form part of the site's overall containment measures approximately 19,273 m<sup>2</sup>. The majority of the site boundary is entirely enclosed to at least 150 mm by impermeable containment including the existing Belfast Hangar building (Building 1), Buildings 2, 3 and 4, perimeter concrete firewalls and existing kerbing to the northern site boundary (all shown on the Layout & Fire Plan in Appendix I). There is around 80 metres of the boundary which is not currently protected to 150 mm (locations shown). It is proposed that these areas be protected by Darcy Poly Booms which would ensure the entire 1.93 hectare functional site is protected to 150 mm.
- 11.2.5 With an effective storage capacity of 150 mm, the site would be able to provide 2,891 m<sup>3</sup> of containment for firewater. This does not take into account the fall of the concrete pad towards the drains in the centre of the site (as much as 150mm in some places), which would also offer additional storage capacity. Given that a worst-case scenario fire would require a total of 960 m<sup>3</sup> (see Section 10.1.2), this would provide more than adequate water containment.
- 11.2.6 In the event of a fire additional capacity would be provided by using a vacuum tanker to extract some of the collected fire water as the concrete pad would take at least 3 hrs to reach capacity in a worst-case scenario event, giving ample time to provide a vacuum tanker.

### 11.3 **Darcy Poly Boom deployment procedure**

- 11.3.1 The poly boom rolls will be located within the site offices (as shown on Drawing No. 1537-DEE-MAP-03). These would be deployed in the event of a fire and positioned as per the plan to contain any fire water runoff from the quarantine area. The polybooms have a 160mm diameter tube each side. Using a standard water main i.e. the hose in the centre of the application site, these would be filled and provide containment in <10 minutes. The detailed specification of the poly boom roll (product code 0419/500/100) is provided at Appendix III to this document.
- 11.3.2 A key member of senior staff will be responsible for arranging the deployment of the poly booms and will be trained in this procedure.



11.3.3 Upon confirmation that a significant volume of water is likely to be required for extinguishing a fire on site, the following deployment procedure for the poly booms will be observed:

- a) Take the boom roll from the site office;
- b) Emplace the boom as shown on the Layout & Fire in the Annexe by rolling the necessary length;
- c) Use supplied cable ties (also available in the site office) to seal the front end of the boom;
- d) Using a sharp knife, cut the laid out section from the remaining roll;
- e) Using the Hose Reel, begin filling the first of the two chambers of the boom being sure to elevate the 'fill' end to prevent the water leaving the tube;
- f) Once the first chamber is filled, repeat in second chamber ensuring the 'fill' end is kept elevated to prevent escape of water;
- g) When both chambers are full the 'fill' end should be sealed using a cable tie thus completing deployment.
- h) Typically one side of the roll would be filled which has a 160mm diameter,

11.3.4 The above process should be completed as above for all lengths of boom shown on Drawing No. 1537-DEE-MAP-03.

11.3.5 Once deployed, all booms should be regularly checked during a fire event to ensure that they are providing effective containment and that there are no breaches. Secondary/additional lengths of boom can be deployed in addition to the compulsory locations using the same procedure (as above) if deemed necessary.

## 11.4 **Removal of fire water**

11.4.1 Upon successfully extinguishing a fire all standing fire water would be pumped using a hired-in vacuum tanker from a reputable drainage contractor and deposited to a suitably permitted site for treatment.

- 11.4.2 Pre-agreement will be made in advance with NRW and the FRS to see if the firewater could be treated on site.

## 11.5 **Control of Combustion Products**

- 11.5.1 Combustion products likely to be associated with the waste stored at the site include; oxides of carbon, nitrogen and particulate matter including white smoke (mixed waste). Additional combustion products may also include PAHs, dioxins and particulate matter including black smoke from plastics.
- 11.5.2 The release of combustion products may be controlled by the low size of waste piles at the site and the swift removal of burning wastes to the quarantine area (thus reducing spread of fire and reducing the amount of combustion products created).

## **12 During and after an incident**

### **12.1 Contingency Planning**

- 12.1.1 In the event of a fire the site will cease accepting waste. All customers who wish to deliver wastes during a fire will be notified by site admin staff and any who arrive without prior notification will be turned away. If urgent, deliveries will be directed to an alternative waste facility in the borough; details of which can be found on the NRW / EA public register.
- 12.1.2 No waste will be accepted on site until the post-fire site recovery procedures outlined below have been fully implemented and the site is authorised to re-open for trade and waste acceptance.
- 12.1.3 Incoming wastes during a fire event will be diverted other waste facilities from the NRW or EA public register. This site can also transport any mobile plant to the site to assist with tackling the fire.
- 12.1.4 The site will have contractors in place who will have access to the site plant and will be used as a back up to assist in firefighting techniques and waste material removal.

### **12.2 Site decontamination**

- 12.2.1 Surface water on site will be cleared using the following method:
- a) Using a bowser, all standing fire water should be sucked up and taken off site or stored in a tank/bowser prior to removal off site. The site has a contract set up with a supplier who empties the interceptor so would be able to quickly source the company in.
  - b) Using all available resources, manually clean out surface water gullies removing the debris to the pile of fire damaged waste for removal to landfill or permitted site.
  - c) Using a road sweeper, sweep the yard (damp as required using the bowser) until all ash and clinker has been removed.
  - d) All debris has now been isolated and all contaminated water holding areas have been cleaned and emptied.

- e) Wash the yard down in entirety using clean water, or allow a reasonably heavy rain shower to wash the yard down.
- f) It is at this stage that site management should decide whether it is appropriate to remove the surface water protection measures, or repeat areas of the clean-up.

12.2.2 If the clean-up operation has been deemed complete, the surface water protection measures can now be removed. This will be achieved using the following methods:

- a) Remove any temporary bungs/valves
- b) Surface water discharge from the site is now possible the next time it rains to discharge to foul sewer. Ensure that surface water checks are made during the next rainfall event to validate that clean-up has been undertaken satisfactorily. Record all findings and actions in the site diary.
- c) Account for all consumables that have been used in the fire and re-order / replace immediately.
- d) Restack, and re-locate all items used for the surface water protection during the fire to their storage locations ready for future deployment.
- e) Check monthly that items are still present and correct and still serviceable for use in an emergency.

12.2.3 The operator will liaise with the Natural Resources Wales throughout the event ensuring they are satisfied with the clean-up programme and notify the operator when the site can begin accepting waste again onto site.

12.2.4 Due to the nature of the site's customers, there are no regular waste contracts which need to be dealt with if the site is closed for a period of time due to any incidents. Most waste is accepted on a one off basis from members of the public or local businesses. In the event that the site is not able to receive wastes the customer will be offered alternative authorised facilities where they can take their waste.

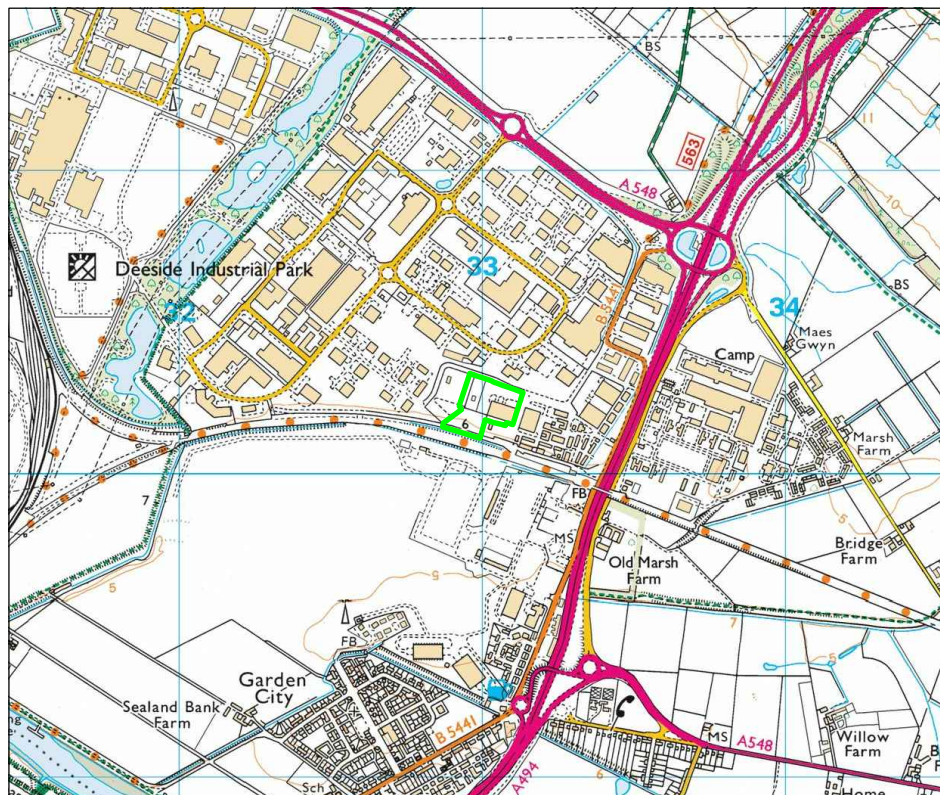
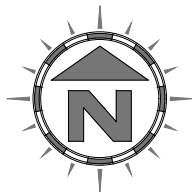
## 12.3 **Post fire site recovery**

12.3.1 If a recovery procedure is required, Parry & Evans Ltd would instigate the following;

- a) Remove damaged material to a permitted facility that is able to deal with it legally.
- b) Ask engineers to carry out repairs on any plant, vehicles and/or infrastructure.
- c) Assist the FRS with the fire investigation and where necessary engage the advice from a professional fire consultant.
- d) Review the FPMP and EMS procedures and improve upon where found deficient.
- e) Review training requirements for staff.
- f) Assess whether further preventative measure could implemented.
- g) Ensure all fire equipment, where used, is replenished.
- h) Remove fire water to a permitted facility for disposal.

# **Appendix I**

## **Drawings**



Scale Bar (1:25,000)

0 km 1 km 2 km

#### NOTES

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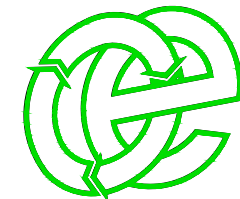
#### REVISION HISTORY

Rev	Date	Init:	Description:
-	17.12.19	RS	Initial drawing

#### KEY:

— Site location

**Oaktree Environmental Ltd**  
Waste, Planning and Environmental Consultants



**DRAWING TITLE**  
SITE LOCATION MAP

**CLIENT**  
Parry & Evans Ltd

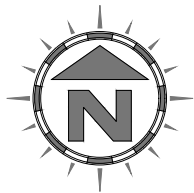
**PROJECT/SITE**  
Unit 103, Zone 1, Deeside Industrial Park,  
Flintshire CH5 2LR

<b>SCALE @ A4</b>	<b>JOB NO</b>	<b>CLIENT NO</b>
1:25,000	002	1537

<b>DRAWING NUMBER</b>	<b>REV</b>	<b>STATUS</b>
1537-DEE-MAP-01	-	Issued

<b>DRAWN</b>	<b>CHECKED</b>	<b>DATE</b>
RS	RS	17.12.19

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ  
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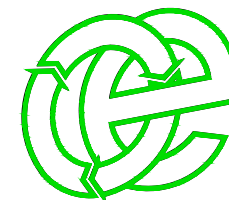
#### REVISION HISTORY

Rev	Date	Init:	Description:
-	17.12.19	RS	Initial drawing

#### KEY:

— Permit boundary

**Oaktree Environmental Ltd**  
Waste, Planning and Environmental Consultants



**DRAWING TITLE**  
PERMIT BOUNDARY PLAN

**CLIENT**  
Parry & Evans Ltd

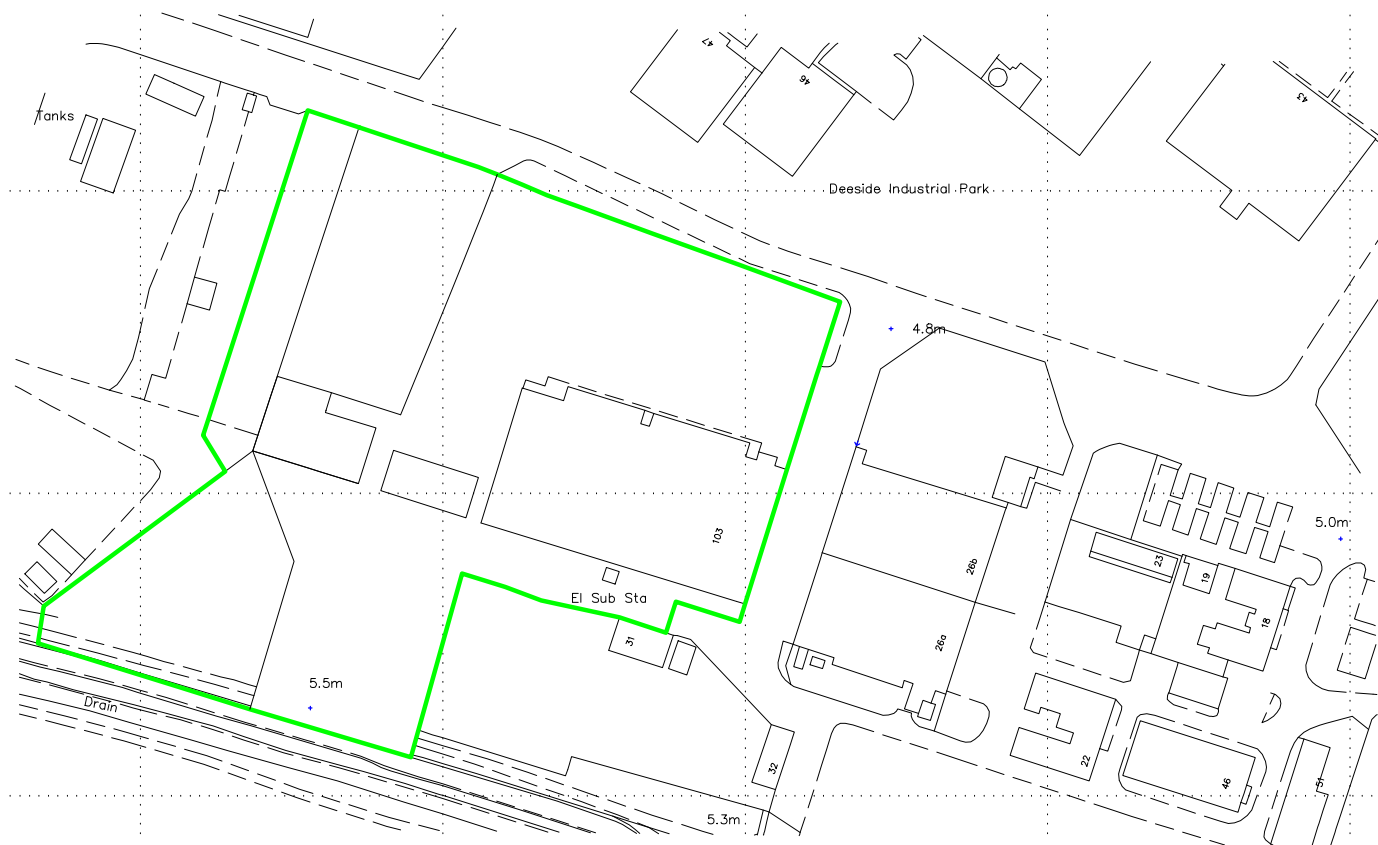
**PROJECT/SITE**  
Unit 103, Zone 1, Deeside Industrial Park,  
Flintshire CH5 2LR

<b>SCALE @ A4</b> 1:25,000	<b>JOB NO</b> 002	<b>CLIENT NO</b> 1537
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<b>DRAWING NUMBER</b> 1537-DEE-MAP-02	<b>REV</b> -	<b>STATUS</b> Issued
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<b>DRAWN</b> RS	<b>CHECKED</b> RS	<b>DATE</b> 17.12.19
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t: 01606 558833 | e: sales@oaktree-environmental.co.uk

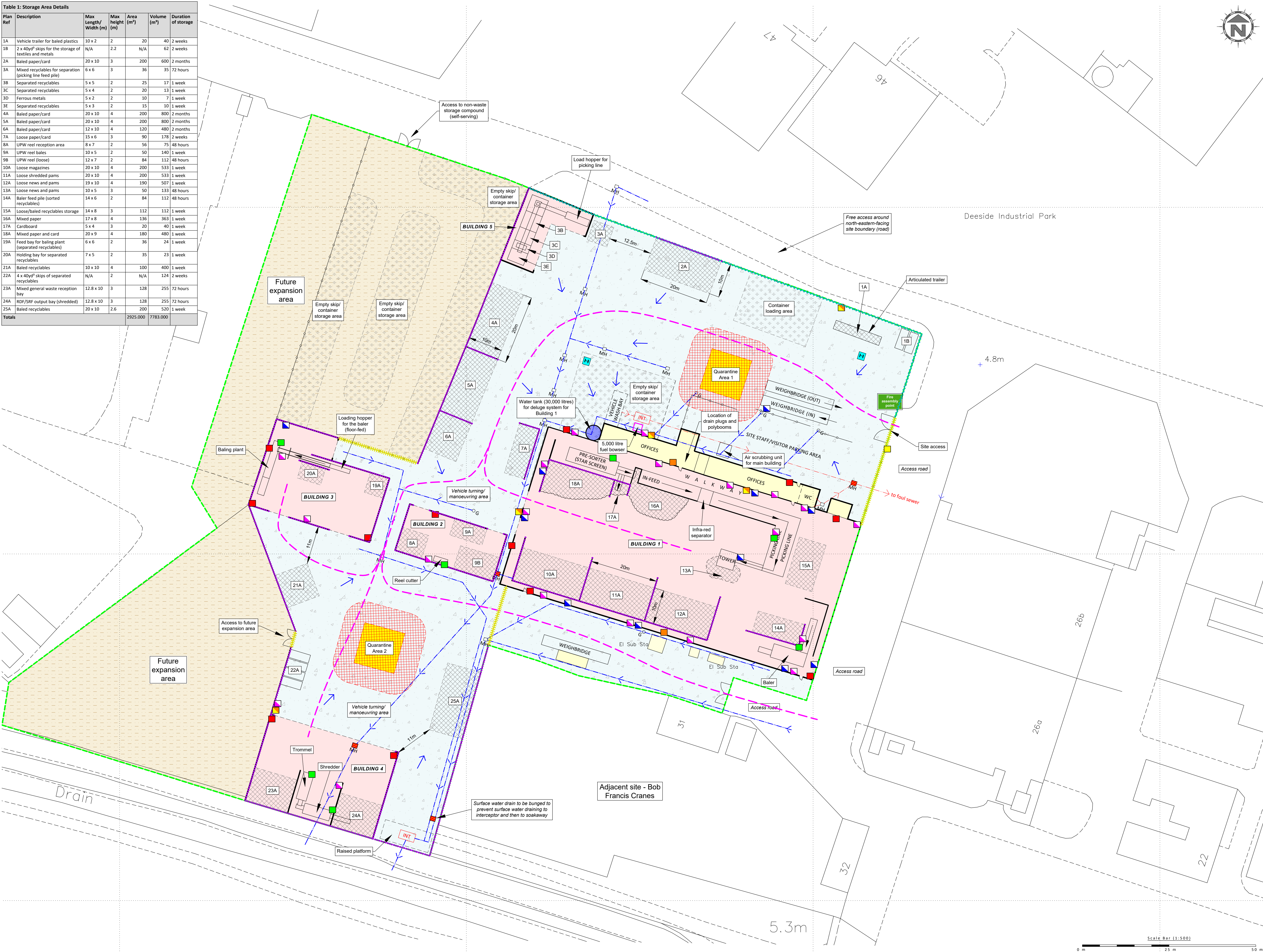


Scale Bar (1:2,500)

0 m 100 m 200 m



Table 1: Storage Area Details					
Plan Ref	Description	Max Length/Width (m)	Max height (m)	Area (m²)	Volume (m³)
1A	Vehicle trailer for baled plastics	10 x 2	2	20	40
1B	2 x 40yd³ skips for the storage of textiles and metals	N/A	2.2	N/A	62
2A	Baled paper/card	20 x 10	3	200	600
3A	Mixed recyclables for separation (picking line feed pile)	6 x 6	3	36	35
3B	Separated recyclables	5 x 5	2	25	17
3C	Separated recyclables	5 x 4	2	20	13
3D	Ferrous metals	5 x 2	2	10	7
3E	Separated recyclables	5 x 3	2	15	10
4A	Baled paper/card	20 x 10	4	200	800
5A	Baled paper/card	20 x 10	4	200	800
6A	Baled paper/card	12 x 10	4	120	480
7A	Loose paper/card	15 x 6	3	90	178
8A	UPW reel reception area	8 x 7	2	56	75
9A	UPW reel bales	10 x 5	2	50	140
9B	UPW reel (loose)	12 x 7	2	84	112
10A	Loose magazines	20 x 10	4	200	533
11A	Loose shredded pams	20 x 10	4	200	533
12A	Loose news and pams	19 x 10	4	190	507
13A	Loose news and pams	10 x 5	3	50	133
14A	Baler feed pile (sorted recyclables)	14 x 6	2	84	112
15A	Loose/baled recyclables storage	14 x 8	3	112	112
16A	Mixed paper	17 x 8	4	136	363
17A	Cardboard	5 x 4	3	20	40
18A	Mixed paper and card	20 x 9	4	180	480
19A	Feed bay for baling plant (separated recyclables)	6 x 6	2	36	24
20A	Holding bay for separated recyclables	7 x 5	2	35	23
21A	Baled recyclables	10 x 10	4	100	400
22A	4 x 40yd³ skips of separated recyclables	N/A	2	N/A	124
23A	Mixed general waste reception bay	12.8 x 10	3	128	255
24A	RDF/SRF output bay (shredded)	12.8 x 10	3	128	255
25A	Baled recyclables	20 x 10	2.6	200	520
Totals				2925.000	7783.000

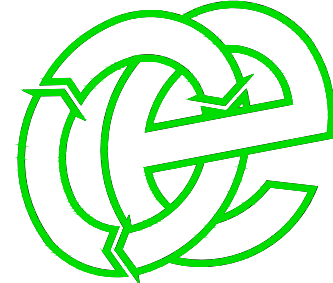


NOTES  
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REVISION HISTORY			
Rev	Date	Init	Description
-	21.1.19	RS	Initial Drawing

- Key:
- Permit boundary
  - Storage areas (see Table 1 for full details)
  - Other (non-waste operational/storage areas)
  - Sealed buildings
  - Concreted areas
  - Stone surface (free-draining)
  - Other buildings (offices, etc.)
  - Quarantine area (with 6m buffer zone)
  - MH Manhole (surface and foul)
  - INT Interceptor
  - G Gully
  - Mains water / hose reel
  - Spill kit
  - Fire fighting equipment (extinguishers, etc.)
  - Main electrics shut off
  - Access routes for emergency vehicles
  - Fire alarm
  - Surface water drainage
  - Foul water drainage
  - Concrete firewall
  - Concrete kerbing (min 150 mm)
  - Polyboom deployment locations (150 mm)
  - Manholes/drainage to be plugged in the event of a fire incident
  - Plant electric control boxes
  - Drainage fall direction
  - Emergency box location

**Oaktree Environmental Ltd**  
Waste, Planning and Environmental Consultants



DRAWING TITLE  
LAYOUT & FIRE PLAN

CLIENT  
Parry & Evans Ltd

PROJECT/SITE  
Unit 103, Zone 1, Deeside Industrial Park, Flintshire CH5 2LR

SCALE @ A1  
1:500

JOB NO  
002

CLIENT NO  
1537

DRAWING NUMBER  
1537-DEE-MAP-03

REV  
-

STATUS  
Issued

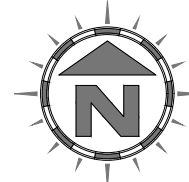
DRAWN  
RS

CHECKED  
RS

DATE  
17.12.19


Lime House, Road Two, Winsford, Cheshire, CW7 3QZ  
t: 01606 558833 | e: sales@oaktree-environmental.co.uk





- 

Compass Wind Rose for Station at  
Hawarden (EGNR) Period 2000-2010

 <p><b>Oaktree Environmental Ltd</b>  <b>Waste Management and Environmental Consultants</b>          Lime House          2 Road Two          Winsford Industrial Estate          Winsford, Cheshire CW7 3QZ          Tel: 01606 558833          E-mail: sales@oaktree-environmental.co.uk</p>	Client: <b>Parry &amp; Evans Ltd</b>		<b>Notes:</b> (1) Boundaries are shown indicatively. (2) Wind rose data shows the prevailing wind direction to be WSW.	<b>Revision Details:</b>			
	Site: <b>Unit 103, Zone 1, Deeside Industrial Park, Flintshire CH5 2LR</b>			Rev:	Description:	Date:	
	Date: <b>17 December 2019</b>			Printed At: <b>A3</b>	-	Initial drawing	17/12/19
	Title: <b>RECEPTORS PLAN</b>	Scale: <b>1:10,000</b>		Revision: <b>-</b>	Drawn By: <b>RS</b>		
Drawing No: <b>1537-DEE-MAP-04</b>	Client No: <b>1537</b>	Job No: <b>002</b>	Checked: <b>-</b>				



# **Appendix II**

## **Record Keeping Forms**

**PARRY & EVANS LTD**  
**SITE INSPECTION FORM (DAILY INSPECTIONS) – PEL/RF/4**

WEEK STARTING								
TYPE OF INSPECTION		DAY						
		M	T	W	T	F	S	S
SITE ENTRANCE/NOTICE BOARD								
SECURITY - GATES								
SECURITY - FENCING								
SITE ROADS (CLEAR FROM HAZARDS)								
IMPERMEABLE CONCRETE AREAS (INTEGRITY)								
BUND AROUND CONCRETE PAD (INTEGRITY)								
HOLDING TANK / SUMP								
BAY WALLS (STRUCTURAL INTEGRITY)								
FIRE BREAKS IMPLEMENTED (WHERE NECESSARY)								
WASTE STORAGE LIMITS	UNTREATED WOOD							
WASTE STORAGE LIMITS	TREATED WASTE WOOD							
STORAGE LIMITS	WOOD PRODUCT							
COMBUSTIBLE WASTES (AWAY FROM POTENTIAL IGNITION SOURCES)								
REJECTED WASTE TYPES / STORAGE								
NOISE LEVELS								
FIRES (ANY INCIDENTS REPORTED)								
QUARANTINE AREA CLEAR OF WASTE								
NO SMOKING SIGNS IN PLACE								
FIRE FIGHTING EQUIPMENT								
PLANT/EQUIPMENT MAINTENANCE CHECKS								
HOT EXHAUSTS FIRE WATCH (DUST/FLUFF CLEANED REMOVED)								
OFFICE/WELFARE FIRE RISKS CHECKED								
LITTER								
DUST								
ODOUR								
VERMIN								
RECORDS								
COMPLAINTS RECEIVED								
OTHER (SEE NOTES BELOW)								
INSPECTION CARRIED OUT BY								
<b>NOTES/ACTION (CONTINUE ON A SEPARATE SHEET IF NECESSARY):</b>								
<b>CHECKED BY</b>		<b>SIGNATURE</b>						
<b>POSITION</b>		<b>DATE</b>						
<i>Sheet</i>		<i>of</i>						

**PARRY & EVANS LTD****PREVENTATIVE MAINTENANCE CHECKLIST – PEL/RF/5**

<b>CHECKED BY</b>	<b>POSITION</b>
<b>DATE</b>	<b>DATE OF LAST CHECKLIST</b>

	<b>EQUIPMENT ITEM</b>					
<b>OFFICIAL MAINTENANCE CHECK REQUIRED (Y/N)</b>						
<b>IF NO, DATE OF LAST CHECK</b>						
<b>IF YES, DATE OF NEXT CHECK</b>						
<b>IS ITEM IN CORRECT WORKING ORDER</b>						
<b>LEAKAGES OF OIL/DIESEL ON MOBILE PLANT / VEHICLES</b>						
<b>IF NO, WHAT REPAIRS ARE REQUIRED (USE SEPARATE SHEET IF REQUIRED)</b>						
<b>WERE REPAIRS DETAILED ON THE LAST CHECKLIST</b>						
<b>IF YES, HAVE THEY BEEN CARRIED OUT</b>						
<b>ADDITIONAL REPAIRS OR ACTIONS REQUIRED</b>						

## **Temperature Monitoring Sheet**

### **Summary of Requirement**

- A requirement exists to ensure that temperatures of waste piles both processed and unprocessed, at the Parry & Evans Ltd facility are monitored and recorded periodically.
- Decomposition of various waste piles can generate sufficient heat that the material may combust. This monitoring sheet is to be used for the purpose of manually recording these temperatures.

### **Instructions**

- Two temperatures should be taken from each waste pile using either the metre temperature probe or the hand-held thermographic unit.
- Both temperatures should be recorded in the table below, identifying the time, waste type and monitoring method (probe or thermographic).

TIME	Waste Type	Low Temp °C	High Temp °C	Probe or Thermo (P or T)	Comment
	BALED PAPER AND CARDBOARD			T	
	BALED PAPER AND CARDBOARD			T	
	BALED PAPER AND CARDBOARD			T	
	SEPARATED LOOSE RECYCLABLES			T	
	SEPARATED LOOSE RECYCLABLES			T	
	CO-MINGLED (MIXED) RECYCLABLE WASTE			T	
	REJECTED WASTE			P	

**ANY RECORDED TEMPERATURE ABOVE 75°C (FOR COMPOSTED WASTE) AND 50°C (FOR ALL OTHER WASTE) SHOULD BE REPORTED IMMEDIATELY TO A SENIOR MEMBER OF THE MANAGEMENT TEAM**

Day\_\_\_\_\_ Date\_\_\_\_\_

Name\_\_\_\_\_ Signed\_\_\_\_\_

## **Appendix III**

# **Darcy Poly Land Booms Specifications**

## SPECIFICATION FOR POLYBOOMS

**PRODUCT CODE:** 0419/500/10 and 0419/500/100

**DESCRIPTION:** Polybooms – various sizes

**DIMENSIONS:** Lay flat: 250 x 100 x 250mm sections  
Filled: 160mm dia x 100mm x 160mm dia  
**COMPOSITION:** Low density polyethylene  
**COLOUR:** Yellow  
**THICKNESS:** 500 gauge (125 microns)  
**PACK TYPE:** polythene wrap or box

PRODUCT	0419/500/10	0419/500/100
LENGTH (m)	10	100
WEIGHT (kg)	1.5	15.0
PACK QUANTITY	1	1
PACK INCLUDES	4 ties	-
PACK SIZE (cm)	65 x 15 x 3	65 x 27 x 20

**PROPERTIES:** Lightweight, good flexibility, good puncture resistance  
Sealable by cable tie or by knotting end of boom

**COMPATIBILITY:** Polybooms are resistant to most liquids for the duration of a spill cleanup. However it is not recommended that they be used with strong oxidizing agents as contact may lead to spontaneous combustion. Normally they are used once and then disposed of. If reusing they should be cleaned with soapy water before reuse.

**SHELF LIFE:** If stored away from direct sunlight the shelf life is unlimited.

**SAFETY DATA:** This product is non-toxic to both users and to the environment.  
**Note:** After use care should be taken when handling the boom if contaminated with hazardous liquids.

**DISPOSAL:** May be disposed of by landfill or incineration, in accordance with local and national regulations, taking into account the classification of the liquid which may contaminate the polyboom.

**NOTE:** All weights, dimensions, and other figures quoted are approximate



## **Appendix IV**

# **Copy of the Site's Fire Contingency Response and Environmental Incident Plan (Working Document)**

**\*Dave Evans (Health & Safety coordinator) should be contacted for  
the latest version of this document to ensure the version is  
correct**



FIRE CONTINGENCY RESPONSE

AND

ENVIRONMENTAL INCIDENT

PLAN

DEESIDE DEPOT SITE 1 AND SITE 2

**MAIN / SITE 2****103 Industrial Estate Zone 1 Deeside CH5 2LR****Map Reference:** SJ 333062 - 370216**DESCRIPTION OF SITE**

The whole site totals approximately 19,930 square metres - Site 2 measuring approx 6,130 square metres  
Main Site - measuring approx 13,800 square metres

**Buildings on sites;**

**Main warehouse:** 50,000 Square feet - 1940's building (formally aircraft hanger) brick built with 2 sides steel shutter doors. Weighbridge and Steel portal frame roof with section to front of building. apex flat sheet panels. Cardboard storage bay added August 2011.

Within warehouse - 4 mezzanine working platforms, 3 accessed by sets of stairs and 4th by controlled access ladder.

**Reel Cutter building** - August 2017 added building steel framed with concrete 6 foot high walls then metal cladding to sides and roof. two roller sized opening and fire exit. Area 25m x 10m with 5m sides.

**Site 2 - Baler Building:** June 2018 building added and rear site developed and concreted Baler building measuring approx 26metres by 40metres square metres) building is constructed of steel frame with 6 metre concrete panels and Steel cladding to 8 metres - roof flat sheet panels.

Within building 1 baler fitted with working platforms accessed by steps.

Portacabin canteen with welfare facilities added 4.2019.

**Overview of Activities on Site**

Recycling plant dealing with large volumes of - PAPER - CARDBOARD smaller quantities of - PLASTIC - Sorting & baling taking place within main warehouse, baling in site 2 baler building, with reel cutter process within Reel Cutter shed. Loading & unloading of Articulated vehicles with walking floor, curtainsider trailers and containers, Hooklift vehicles with open top and compactor skips.

Sorted loose materials stored within main warehouse and baled materials stacked with yard areas of main and site 2.

**Plant / Machinery on site:****MACHINERY**

MAIN SITE - Warehouse - Sorter - 4 x Titech(s) - 1 x Baler - Starscreen - Mobile Shredder.

MAIN SITE - Reel Cutter shed - reel cutter machine

SITE 2 - Baler shed - 1 Baler

**PLANT:** consists of 3 x 360's - 2 x Large Shovel - 1 x small shovel - 6 x forklift trucks that operate within warehouse and 2 Forklift trucks that primarily operate outside of warehouse loading containers with bales of paper / cardboard / plastic / Cardboard cores.

**Site Working times**

Main site operates a two shifts system - 6 a.m. to 2 p.m. and 2 p.m. to 10 p.m. - (10p.m. to 6 a.m. (nights) will be worked in accordance with business need. Approximate numbers of employees on site will be up to 10 to 12 plus delivery drivers and contractors could bring that number up to 25 to 30 people including office staff.

Site 2 - Operates from 6 a.m. to 6 p.m (cover maybe extended or reduced in line with business needs), Approx number of staff will be two with drivers loading & unloading minimum further 2 and supervision.

**Surrounding area**

The site is located on an industrial estate with commercial premises and storage areas.

with two access roads running along boundary fencing and on other boundary there is P&E Site 2 Baling & storage baled materials.

Onsite surface drainage leading to offsite soakaway ditch on boundary, not connected to main drainage (See drainage plan).

Plan compiled by	David Evans
Plan Approved by	Steve Evans

**OBJECTIVES OF PLAN**

To identify risk areas where if uncontrolled there is potential for impacting on environment

To identify control measures required to prevent adverse impact on the environment.

To produce a plan of how we deal with any incidents or emergencies involving fire, spillage or potential environmental impacts

To provide information to relevant agencies

To be incorporated into and part of Integrated Management System (combined Quality, Environmental & Health & Safety Management System)

**EXTERNAL ORGANISATIONS CONSULTED**

**Natural Resources Wales** - incident hotline no. is 0300 065 3000

**Jones Lang LASALLE** Land agents (drainage) - 020 7493 6040

**Fire Service** - Fire Safety Compliance Manager North Wales Fire & Rescue Flint - 01352 792820

**Welsh Water** - Local engineer refs site supply and operation of Fire Hydrant - 0800 052 0130

**DISTRIBUTION LIST**

Deeside Depot - Main Office

Natural Resources Wales - Available on site

Fire Service - Available on site.

**EXTERNAL CONTACTS**

<b>CONTACT</b>	<b>OFFICE HOURS</b>	<b>OUT OF HOURS</b>
<b>Emergency services</b>		
Fire	01244 813512	999
Police	as below	999
Ambulance - Flintshire	01745 532900	999
Local Police	Non emergency dial 101 in Wales - 0845 60710002 outside Wales	999
Local Hospital /NHS trust	Contess of Cester Hospital 01244 365000 Main number	Accident Emergency 01244 365224
Environmental Regulator Incident hotline	0300 065 3000	
Environmental Regulator Local Contact	Steven WHITE 0300 065 3913	
Local Authority Emergency Planning Department	Flintshire CC - 01352 703020	Emergency 01352 752121
Local Water Company	Welsh Water - 0800 052 0130	Emergency 0800 052 0130
Electricity Company	Manweb - 0845 2727000	Emergency 0845 2722424
Gas Company	NO GAS ON SITE	
Waste Management Contractor	See Waste Disposal Folder for full details (located in middle office)	
Specialist Clean up contractor		

Persons Authorised & trained to activate plan - Nick Owen, Steve Walker, Jason Reeves, Gary Easton , Wayne Goff and Dave Evans

**INTERNAL CONTACTS:**

Managing Director Stephen Evans mobile: 07970 651129 Site Technically Competent Manager: Andrew (Lee) Evans mobile: 07792 458549  
 Site Manager: Nick Owen mobile: 07540 341990 Deputy Site Manager Steve Walker mobile: 07876 500454  
 Health & Safety Advisor David Evans mobile: 07962389726 Transport Manager - mobile: 07850 650497

## CHEMICAL PRODUCT AND WASTE INVENTORY

Trade Name / substance	Solid/liq uid/gas or powder	UN No	Max amount	Location Marked on site plan	Type of containment	
Diesel	liquid	1202	5,000 litres	Yes	Bunded bowzers	Refuelling for plant - Electric for powering machinery
AD Blue	Liquid		2500 litres	Yes	In bunded area	
Engine oil	Liquid		600 Litres	Yes	IBC	
Hydraulic Oil	Liquid		600 Litres	Yes	IBC	
Gloss Paint	liquid		30 litres	Hazardous store	Locked store room	
Brake fluid	Liquid		25 litres	Hazardous store	Locked store room	
Thinners	Liquid		25 litres	Hazardous store	Locked store room	
Paint Undercoat	Liquid		10 litres	Hazardous store	Locked store room	
Vinyl Silk Paint	Liquid		10 litres	Hazardous store	Locked store room	
Grease	Solid		150 litres	Auto greasers with warehouse and stored in oil room	Store room / containers	

## POLLUTION PREVENTION EQUIPMENT INVENTORY

Type	location	Amount	Staff Contact
Large Spillage Kit	Storeroom adjacent to Oil store room	2 Large kit on wheels	Nick Owen
Drain plugs for surface water and foul	Main office	2	Nick Owen
Poly Boom - inflatable bunding	Maintenance Room	100 metres	Maintenance Op
Sand used for spillage containment	Adjacent to fuel Bowzers	Approx 3 tonne	Nick Owen

## FIRE FIGHTING EQUIPMENT ON SITE

Type	Location
Fire Extinguishers	See fire evacuation plan for locations
Fire hose reels	See fire evacuation plan for locations
Fire Hydrant	See fire evacuation plan for locations
Fire Deluge system	See fire plan for locations

**30,000 Litre water tank** installed April 2019 connected to additional fire hoses within main warehouse and connected to fire suppression fitted to machinery in warehouse, starscreen, paddles of sorting system - tunnels under picking line of sorting system.

**RECORDS OF FIRE EVACUATIONS AND INSPECTIONS IN FIRE FOLDER and training records on matrix and in personal folders.  
Inspections carried out internally and via external auditors for ISO 9001:2015 - 14001:2015 - 45001:2018**

**AMENDMENT RECORD**

Issue No.	Date of Amendment	Details of amendment	Amendment by
2	15.9.11	Attended plans to incorporate new office layout	Dave Evans
3	9.11.11	Update Supervisor Changes - spillage arrangements (location spill Kit)	Dave Evans
4	5.6.2013	Amended drainage plan include new surface drains	Dave Evans
		Amended DTZ contact Barbara Clow left DTZ number still same	
5	11.4.2014	Up dates - Show Nick Owen as Site Manager - Peter Williams GM - Lee Evans as Technically Competent Manager - Remove Ivan Zaborsky and replace with Jason Reeves as Supervisor - Change references from Environmental Agency to Natural Resources Wales with correct Incident contact number and include Grahma Wadsworth Maintenance Operative.	Dave Evans
6	31.3.2015	Update Emergency training - Include supervisor Sam Hay, Maintenance Operative Wayne Goff - amend Manager information as site contact from John Reid to Nick Owen	Dave Evans
7	13.4.2016	Removed Reference to General Manager Peter Williams, left company position	Dave Evans
		Updated plant information number on site reduced	
		Add Dave Jones transport Manager information	
		Amend Environmental Regulator contact and telephone number	
		Land Agents information changed amended to current owner and contact	
		Amend maximum quantities of hydrolic oil on site due to change of containment to IBC's	
8	17.5.2016	Update contact information for Water supply - Welsh water	Dave Evans
		Updated site plan highlight operation of Fire hydrant (Fire Evacuation Plan)	
9	15.9.2016	Updated Fire Evacuation Plan with position of new Baler and revised emergency exit route by baler.	Dave Evans
		Update NRW Contact changed from Andrew Sowerby to Steven White and amended contact number.	
		Jason Jones now team Leader included in authorisation for plan	
10	16.2.2017	Include Site storage plan identify quarantine area compass points wind direction	Dave Evans
11	05.06.2017	Reviewed and updated	Dave Evans



12	6th February 2018	Updated plan to include location of new electric substation to be connected for powering machinery which will negate the requirement for continuous use of generators and reduce amount of diesel required on site (5,000 litres of Deisel). Nick Owen as Technically competent Manager taken over from Lee Evans. Updated change of role for Steve Walker to Deputy Site Manager and Florin Toraco for Transport Manager. Site plan has been updated to show changes, plan also reissued on site.	Dave Evans
		<i>Note: Proposed Fire Prevention Mitigation Plan resubmitted to NRW 6.2.2018 initial plan for updated NRW guidance with plan for implementation for changes. For continued liaison with NRW.</i>	
13	14th June 2018	<i>Updated plan to include Site 2 and incorporate updates to fire emergency plan and drainage plans. Site 2 operating independantly to main site, however connections between sites need to be maintained when site 2 in use for compliance to fire regulation and to ensure site staff safety. Added Lee Evans as Technically Competent cover for Nick Owen when on leave. Sam Hay Quality Manager added as part of authorised team for plan.</i>	Dave Evans
14	10th September 2018	Updated with change in size of diesel tank from 2,500 to 5,000 litres to reduce on site traffic movement when refilling by supplier and update site plans. Remove Sam Hay as Qualifty Manager. Include Gary Easton as Team Leader.	Dave Evans
15	25th April 2019	Updated plan site 2 to include addition of Portacabin Canteen / welfare facilities. April 2019 added 30,000 litre water tank on site 1, indicated on to site plan site 1 for internal fire suppression system on machinery and warehouse and additional internal hoses, on-going installation of system. Amend persons authorised to implement removed Sam Hay & Brian Wardle as they have left business. Change in position for Transport Manager updated.	Dave Evans
16	8th July 2019	Updated to include information of introduction of Poly boom for retaining fire water in emergency. The commissioning of Fire Deluge system to 30,000 clod water tank for use with additional fire hoses within main warehouse and deluge systems on Starscreen, sorting system.	Dave Evans
17	8th August 2019	Updated Site & Technically Competent Manager changed from Nick Owen to Andrew (lee) Evans - included contact number - Nick Owen Site Manager.	Dave Evans

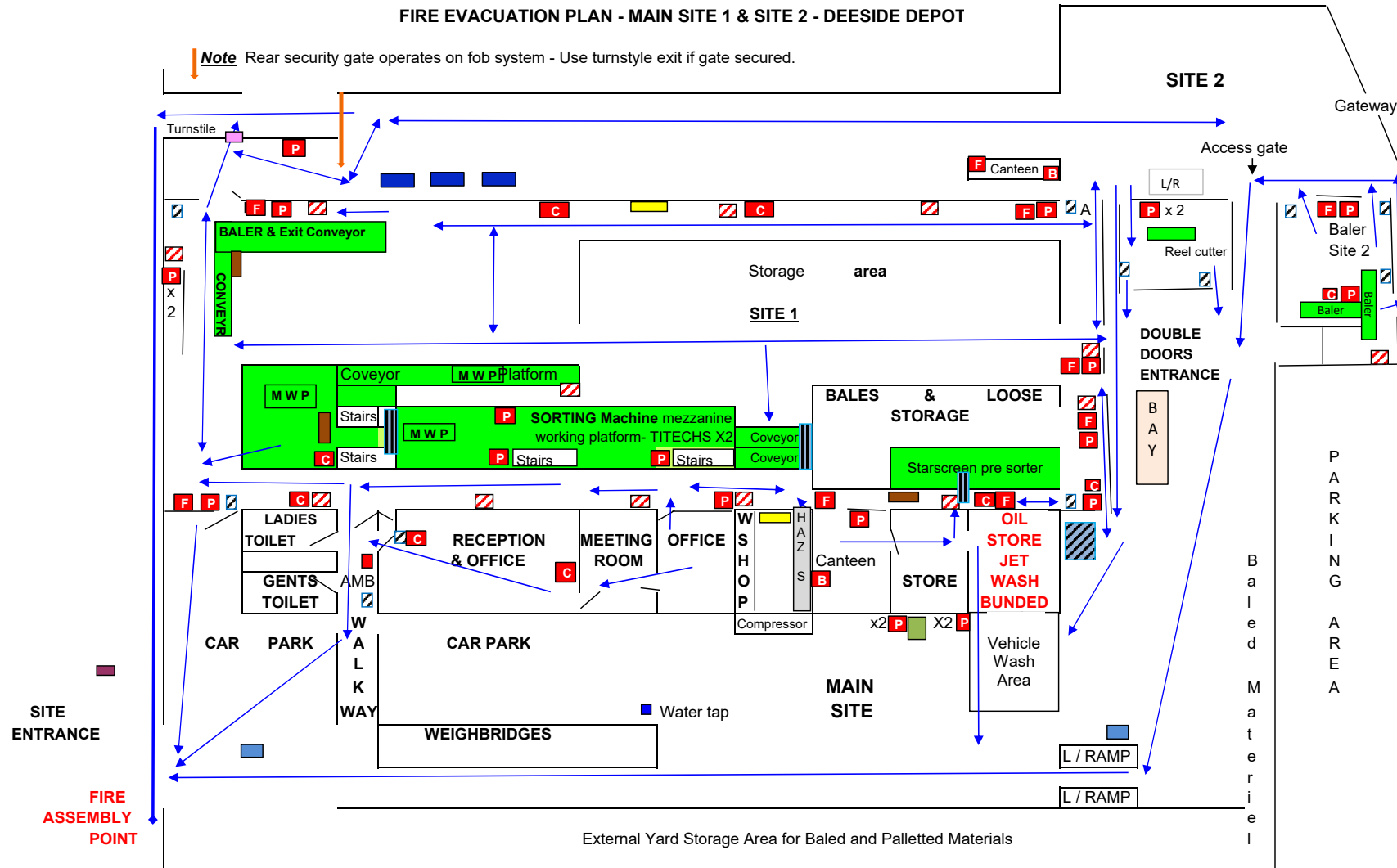
**Review Date - July 2020**

**Date of next Environmental exercise - within 12 months**

**RECORDS OF FIRE EVACUATIONS AND INSPECTIONS IN FIRE FOLDER and training records on matrix and in personal folders.  
Inspections carried out internally and via external auditors for ISO 14001:2015 & 45001:2018**

# FIRE EVACUATION PLAN - MAIN SITE 1 & SITE 2 - DEESIDE DEPOT

**Note** Rear security gate operates on fob system - Use turnstyle exit if gate secured.



## INDEX

- Hose Reel
- CO2 Carbon Dioxide
- Powder (ABC)
- Foam (AFFF)
- Fire Blanket
- AMB Alarm Main Board
- Call points
- Hydrant(s)

## Escape Routes

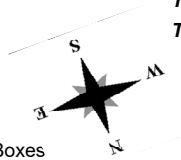
- Sorting System / Titechs x2 - Mezzanine Working Platform **MWP**
- MACHINERY / TITECHS**
- Water tank - 30,000 Lt capacity
- Water Meter
- Electric sub stations
- Fuel Bowser 5,000 litres
- Main Electrics Shut Off
- Deluge system linked to water tank

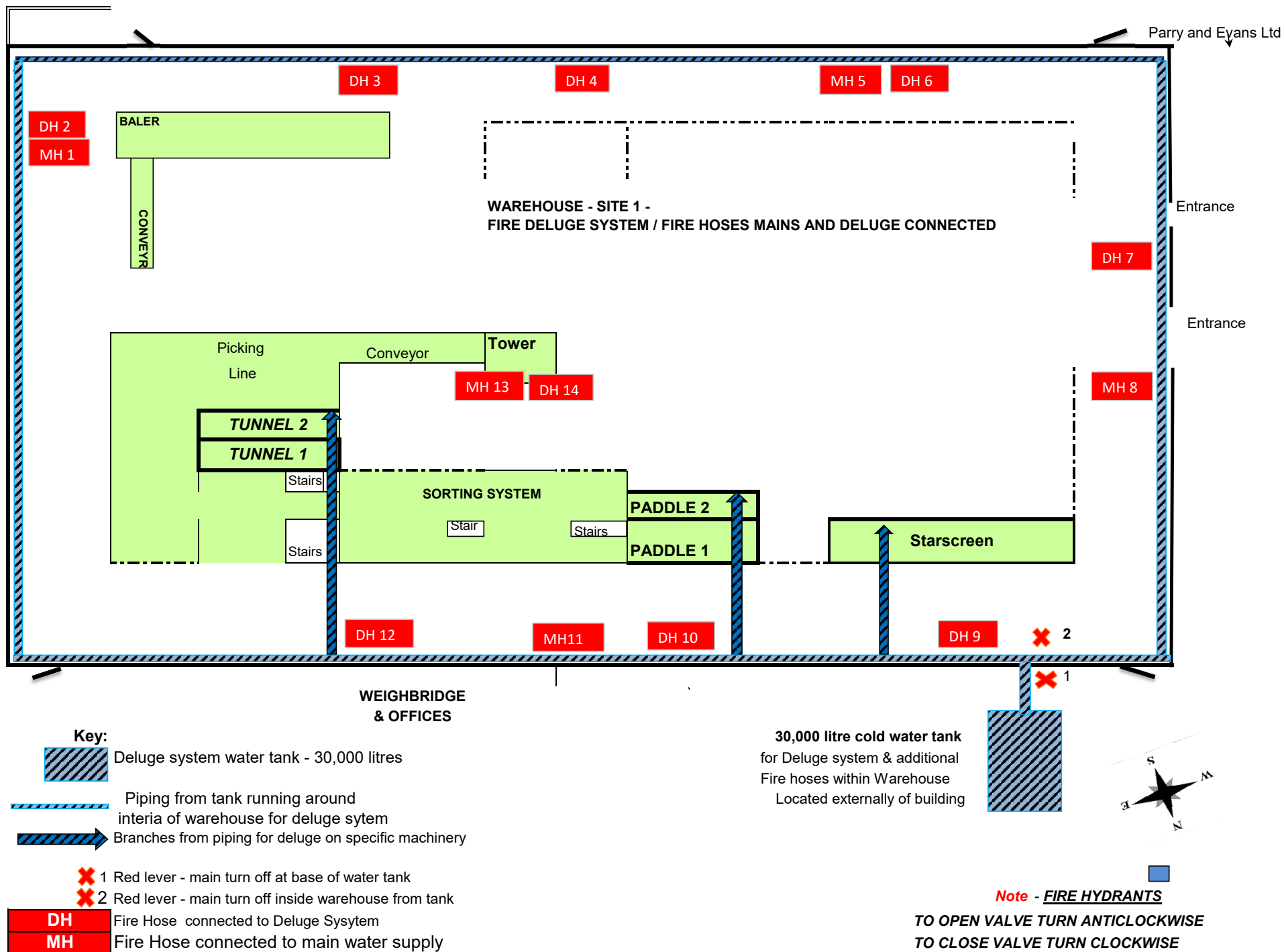
Hazardous Substances Store

Machine Electric Control Boxes  
L / RAMP - Loading ramps

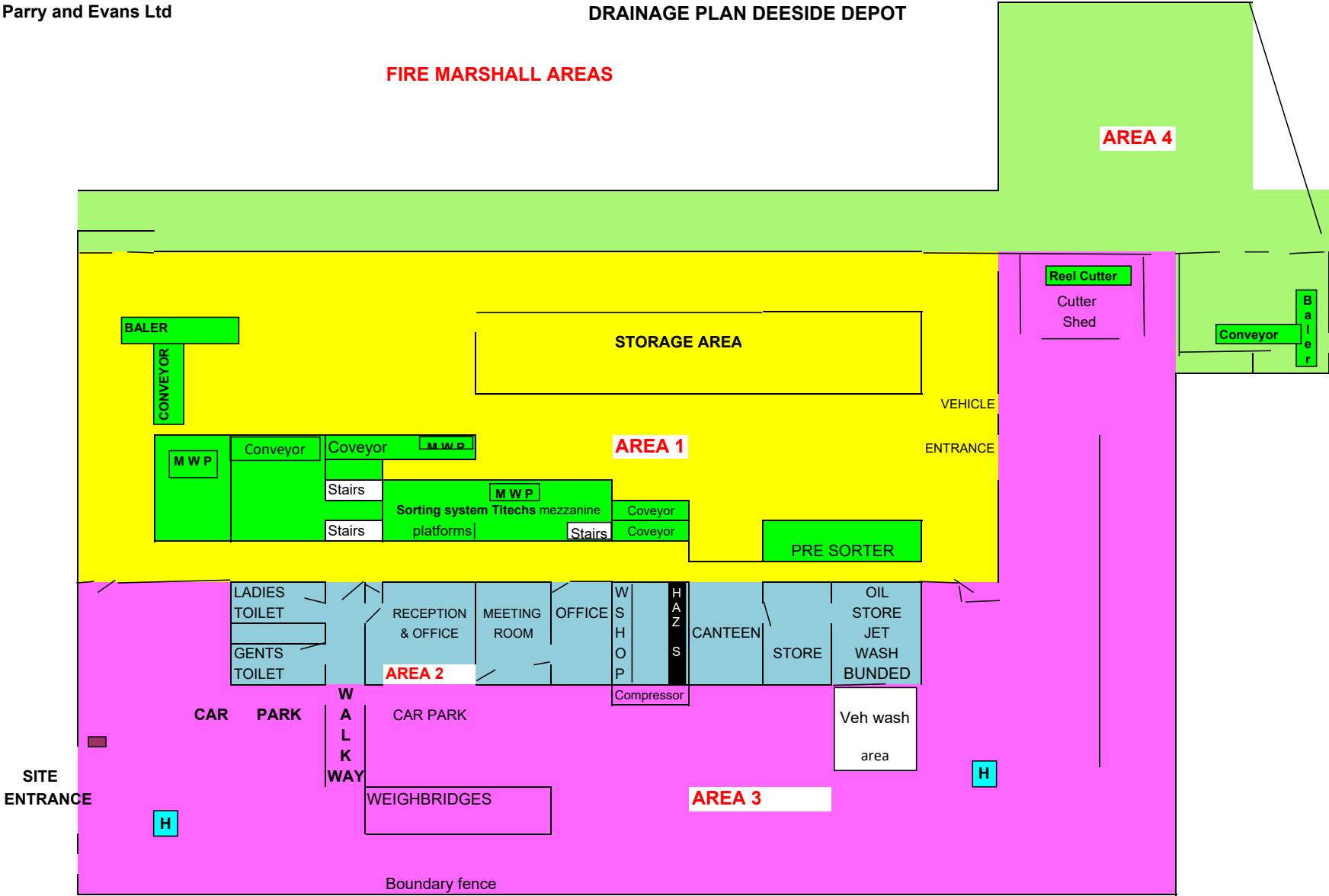
**Note - FIRE HYDRANT**

**TO OPEN VALVE TURN ANTICLOCKWISE  
TO CLOSE VALVE TURN CLOCKWISE**





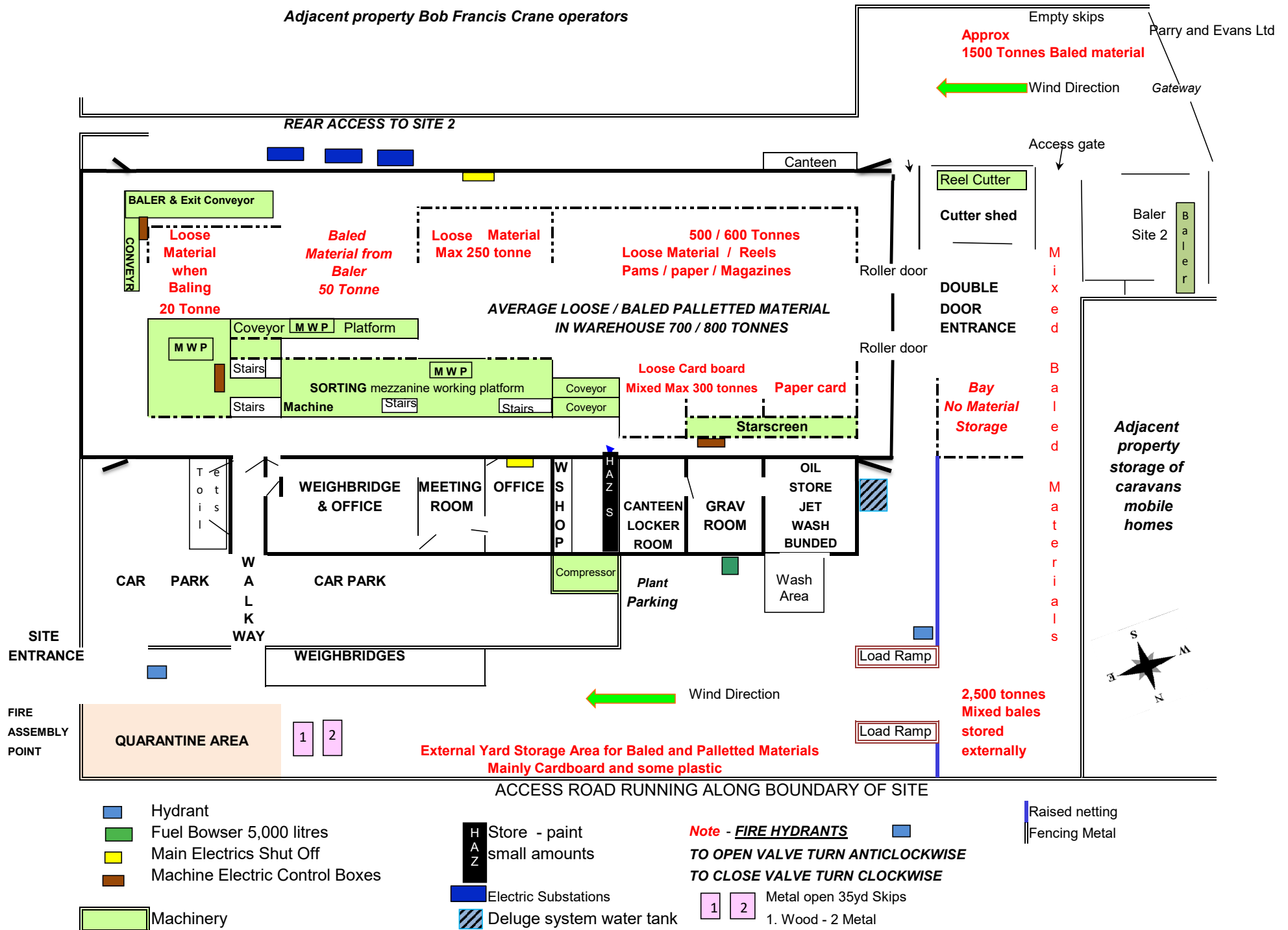
FIRE MARSHALL AREAS



MACHINERY

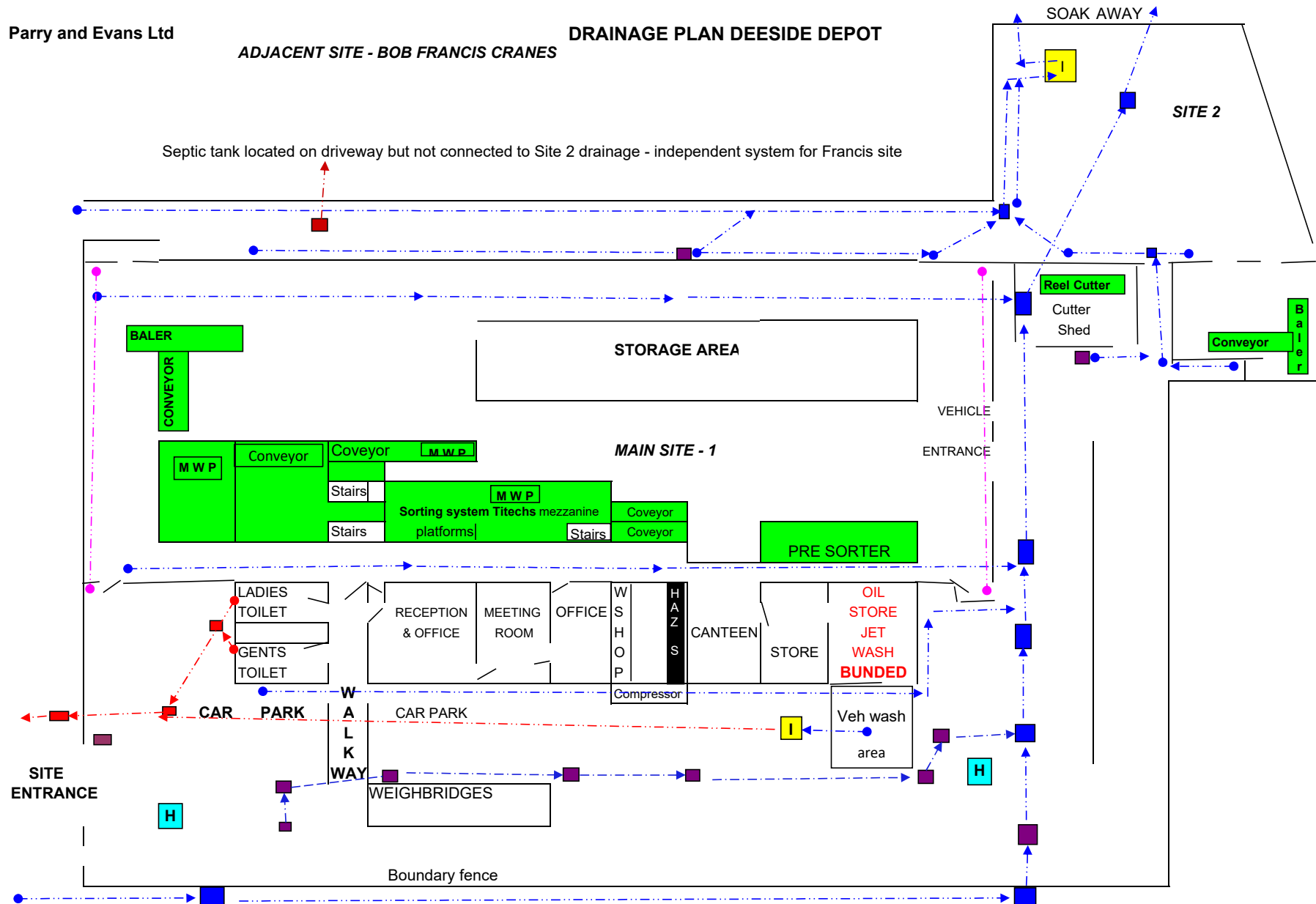
H Hydrant  
M W P Mezzanine Working Platform

Area 1 Main warehouse - ensure all operative evacuated  
Area 2 Office - Canteen - ensure all personnel have evacuated  
Area 3 - Main Yard - ensure all operatives, contractors, drivers evacuated  
Area 4 - Site 2 - Ensure Operatives and drivers evacuated



# Drainage Plan Deeside Depot

ADJACENT SITE - BOB FRANCIS CRANES



- I Interceptor
- Grid
- Manhole covers
- Water Meter
- H Hydrant
- MWP** Mezzanine Working

## Notes:

## MACHINERY

- - - - - Indicate surface water drainage, flows from front of site to rear and leaves site into Catton's yard into water ditch and through sluse gates into River Dee about a mile away.
- - - - - Indicates foul water drainage from toilets leaves site to Builders yard where it travels through interceptors onwards to Birken head
- - - - - Indicates surface water drain at each end of warehouse leads into surface water drainage

**Drainage Plan Deeside Depot**

**IF IN ANY DOUBT DO NOT PLACE YOURSELF OR OTHERS AT RISK -  
LIAISE SITE MANAGEMENT**

**Legend:**

- I Interceptor
- Grid
- Manhole covers
- H Hydrant

**Notes:**

- Remove surface water drainage cover insert bung into pipe to prevent contaminated water leaving site. If unsafe or impracticable due to circumstances bung in surface water in reel cutter shed.

**Site Layout Labels:**

- Entrances:** SITE ENTRANCE, VEHICLE ENTRANCE
- Buildings:** LADIES TOILET, GENTS TOILET, RECEPTION & OFFICE, MEETING ROOM, OFFICE, W S H O P, H A Z S, CANTEN, STORE, OIL STORE, JET WASH, BUNDED, Veh wash area, Cutter Shed, Site 2 Baler Warehouse
- Other Areas:** CAR PARK, WEIGHBRIDGES, Boundary fence
- Drainage Features:** SOAK AWAY, Interceptor (I), Hydrant (H), Manhole covers (red squares), Grid (brown squares)

**Drainage Plan Deeside Depot**

**IF IN ANY DOUBT DO NOT PLACE YOURSELF OR OTHERS AT RISK - LIAISE SITE MANAGEMENT**

**Legend:**

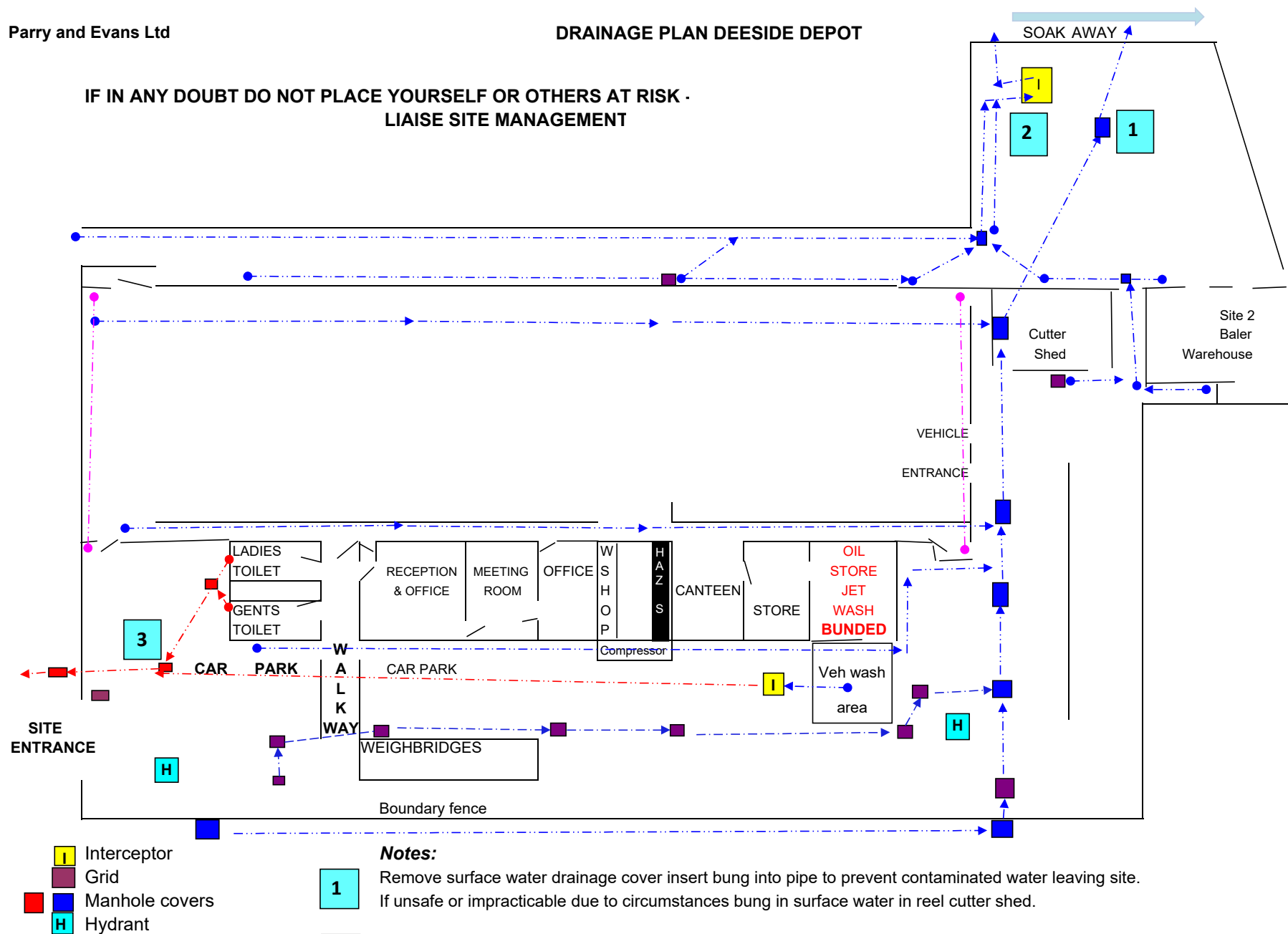
- I Interceptor
- Grid
- Manhole covers
- H Hydrant

**Notes:**

- Remove surface water drainage cover insert bung into pipe to prevent contaminated water leaving site. If unsafe or impracticable due to circumstances bung in surface water in reel cutter shed.

**Site Layout Details:**

- Buildings:** LADIES TOILET, GENTS TOILET, RECEPTION & OFFICE, MEETING ROOM, OFFICE, W S H O P, H A Z S, CANTEN, STORE, OIL STORE, JET WASH, BUNDED, Veh wash area.
- Other Areas:** CAR PARK, WEIGHBRIDGES, Cutter Shed, Site 2 Baler Warehouse.
- Entrances:** SITE ENTRANCE, VEHICLE ENTRANCE.
- Drainage Features:** Boundary fence, ALK WAY, SOAK AWAY.
- Drainage Paths:** Indicated by blue dashed lines with arrows, showing flow from various points towards the SOAK AWAY area.



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- Drainage Plan Deeside Depot**
- IF IN ANY DOUBT DO NOT PLACE YOURSELF OR OTHERS AT RISK - LIAISE SITE MANAGEMENT**
- Legend:**
- I Interceptor
  - Grid
  - Manhole covers
  - H Hydrant
- Notes:**
- Remove surface water drainage cover insert bung into pipe to prevent contaminated water leaving site. If unsafe or impracticable due to circumstances bung in surface water in reel cutter shed.
- Site Layout Labels:**
- SOAK AWAY
  - 1, 2, 3 (Numbered boxes)
  - Cutter Shed
  - Site 2 Baler Warehouse
  - VEHICLE ENTRANCE
  - LADIES TOILET
  - GENTS TOILET
  - RECEPTION & OFFICE
  - MEETING ROOM
  - OFFICE
  - W S H O P
  - HAZ S
  - CANTEEN
  - STORE
  - OIL STORE JET WASH BUNDED
  - Veh wash area
  - WEIGHBRIDGES
  - Boundary fence
  - WALKWAY
  - CAR PARK
  - SITE ENTRANCE
  - Compressor

**Drainage Plan Deeside Depot**

**IF IN ANY DOUBT DO NOT PLACE YOURSELF OR OTHERS AT RISK - LIAISE SITE MANAGEMENT**

**Legend:**

- I Interceptor
- Grid
- Manhole covers
- H Hydrant

**Notes:**

- Remove surface water drainage cover insert bung into pipe to prevent contaminated water leaving site. If unsafe or impracticable due to circumstances bung in surface water in reel cutter shed.

**Site Layout Labels:**

- SOAK AWAY
- 1, 2, 3 (Numbered boxes)
- Cutter Shed
- Site 2 Baler Warehouse
- VEHICLE ENTRANCE
- LADIES TOILET
- GENTS TOILET
- RECEPTION & OFFICE
- MEETING ROOM
- OFFICE
- W S H O P
- HAZ S
- CANTEEN
- STORE
- OIL STORE JET WASH BUNDED
- Veh wash area
- WEIGHBRIDGES
- Boundary fence
- WALKWAY
- CAR PARK
- SITE ENTRANCE
- Compressor

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- Drainage Plan Deeside Depot**
- IF IN ANY DOUBT DO NOT PLACE YOURSELF OR OTHERS AT RISK -  
LIAISE SITE MANAGEMENT**
- Legend:**
- I Interceptor
  - Grid
  - Manhole covers
  - H Hydrant
- Notes:**
- Remove surface water drainage cover insert bung into pipe to prevent contaminated water leaving site. If unsafe or impracticable due to circumstances bung in surface water in reel cutter shed.
- Site Layout Labels:**
- Top Right:** SOAK AWAY (with arrow pointing right)
  - Top Right Buildings:** Site 2 Baler Warehouse, Cutter Shed
  - Center Buildings:** RECEPTION & OFFICE, MEETING ROOM, OFFICE, W S H O P, H A Z S, CANTEN, STORE, OIL STORE, JET WASH, BUNDED, Veh wash area
  - Left Buildings:** LADIES TOILET, GENTS TOILET
  - Bottom Left:** CAR PARK, WEIGHBRIDGES, Boundary fence
  - Entrances:** SITE ENTRANCE, VEHICLE ENTRANCE
  - Paths:** WALK WAY
- Drainage Features:**
- Interceptors (I):** Located in the top right, near the cutter shed, and in the center near the vehicle wash area.
  - Manhole Covers (Red Squares):** Located along the perimeter and near buildings.
  - Hydrants (H):** Located in the bottom left and center right.
  - Grids (Brown Squares):** Located near the top right and bottom left.



