ENVIRONMENTAL MANAGEMENT SYSTEM

Fire Prevention Plan

Reference: EMS-FPP-01

Environmental Permit 100312

Weybeards Farm
Hill End Road
Harefield
Uxbridge
UB9 6LH

Fire Prevention Plan

Document Reference: EMS-FPP-01	Issue Number: 2	Issue Date: 3.4.2023

DOCUMENT CONTROL SHEET

Version Reference	Date	Reason for Change	Issued by
1	30.11.2021	To support permit application	AC
2	3.4.2023	Minor amendment to storage volumes	AC

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1 INTRODUCTION

This document provides the Fire Prevention Plan for the waste management facility at Weybeards Farm, Harefield, Uxbridge, UB9 6LH.

1.1 Purpose

The primary purpose of this Fire Prevention Plan (FPP) is to guide staff and contractors in the prevention of fire. This FPP also confirms the actions to be taken in the event of fire in order to minimise any impact on the environment and to control the fire where appropriate.

This FPP will be issued to the Fire Brigade in the event of a fire to aid with firefighting.

1.2 Scope

This FPP has been prepared in accordance with Environment Agency guidance.[1] It covers combustible wastes that are collected as part of the operator's business. No chemicals or aerosols are accepted at the site. If these are encountered, they will be treated as non-compliant and stored in the quarantine area.

1.3 Objectives

The objectives of the Fire Prevention Plan are:

- To minimise the likelihood of a fire occurring.
- To aim for a fire to be extinguished within 4 hours.
- To minimise the spread of fire within the site and to neighbouring sites.

1.4 Site Location

The site is located at for the waste management facility at Weybeards Farm, Harefield, Uxbridge, UB9 6LH.

The site is accessed through the private entrance road for the farm. There is an electronically activated entrance gate.

A map of key receptors within 1km is shown in Annex A.

The nearest fire station is at Ruislip, which is 3.5 miles from the site. Rickmansworth fire station is 4.3 miles from the site. Gerrards Cross Fire Station is 4.9 miles from the site.

All waste will be received and sorted within a building. The building will be sited on a concrete hardstanding with sealed drainage.

1.5 Roles and Responsibilities

The Site Manager has responsibility for ensuring these procedures are adhered to. The Site Manager is specifically responsible for:

- Ensuring the adequate training of staff and contractors working on site regarding the content of these procedures.

[1] https://www.gov.uk/government/publications/fire-prevention-plans-environmental-permits/fire-prevention-plans-environmental-permits

- Ensuring the adequate provision of resources such as personal protective equipment (PPE).
- Ensuring the provision and maintenance of hand held fire extinguishers and other firefighting equipment at the site is adequate.
- Ensuring that the Fire Prevention Plan remains accessible at the site at all times. For this, the plan will be kept in the site office.
- Undertake exercises to test the plan and ensure that all staff understand the procedures.

1.6 Training, Awareness and Visitors

All staff and contractors working on-site will be aware of this FPP and will understand its contents. The operator has 5 staff only; two drivers and three site operatives to sort the waste. This may increase in time and each new member of staff will receive induction training.

Through site inductions and on-going staff awareness and training, the operator will ensure that all relevant staff and contractors will:

- Understand what they must do during a fire.
- Know where the fire prevention plan is kept.
- Participate in an annual exercise to test the FPP plan and to identify staff training requirements.

For visitors to the site:

- They will be escorted at all times.
- They will understand the no smoking policy for the site.

In accordance with the Environmental Management System (EMS) all training will be recorded. Records will be kept in the site office.

The Site Manager will ensure staff and contractors follow safe working practices when undertaking all activities which pose a fire, health and safety and environmental risks, such as those set out in this Fire Prevention Plan.

1.7 Activities at the Site

The site will receive waste collected from the company's waste collection business. The operator is a small family run business, providing the following services:

- Skip Hire
- House Clearances

The company provide skips to business and houses that are carrying out renovation projects, as well as supporting local builders. The waste collected comprises a mixture of plastic, wood, metal, hardcore and cardboard.

The operator has 5 staff as follows:

- Driver and WAMITAB holder
- Driver
- Site Operatives x3

The drivers will also assist in waste sorting.

The drivers collecting the waste, will check the contents of the skip at the point of collection. Any obvious non-permitted wastes will be removed at this point.

On arrival at the site, the driver will reverse into the building and unload the waste in the waste sorting area within the building.

The waste will be manually and mechanically sorted to remove any materials such as metal, wood, cardboard and hardcore. These items will be placed in the designated skips stored within the building. The hardcore will be stored loosed in a bay.

During this sort, if the mobile plant driver notices non-permitted wastes, it will either be placed in an empty container or will remain in the container and returned to the producer. This will be for larger items that have been hidden in the skip, for example, fridges, tyres, plasterboard. For smaller items, for example paint pots, these will be placed in a quarantine bin.

The following mobile equipment will be used.

- Excavator
- Grab

A site layout plan showing the fire prevention plan measures is shown on Drawing No HEP/WEY/FPP/01. The wider area is shown on Drawing No. HEP/WEY/FPP/02.

2 Common Causes of Fire

2.1 Arson

This is a remote site, located within the farm holding of the operator. Hill End Road is not a major through road. The Site Manager lives at the site.

The site has electronically activated lockable front gates, which are secured at the end of each working day. CCTV will be provided, and access provided through mobile phones.

The following security features will reduce fire risks, particularly from vandalism and operational risks:

- The site is secured by lockable gates.
- There is a second set of lockable gates at the entrance to the farm road.
- The site manager lives at the site.
- The site is located within the farm holding, which is remote.
- CCTV camera will monitor the building and site entrance.
- All functions of security will be checked on a daily basis and information recorded on the Daily Checks Form.

2.2 Plant and Equipment

The site will operate the following plant:

- Excavator
- Grab
- Screener
- Conveyor belt

This plant is subject to routine planned maintenance in order to prevent breakdown and faults which may pose a fire risk.

The Site Manager is responsible for maintaining the plant. The company has staff who are able to carry out basic checks. There is equipment at the site for carrying out repairs. For a more detailed service, the company will use specialist contractor.

The equipment is checked daily, before operations commence. The operator will complete a defect form, which is kept in the cab. Any defects identified will be reported to the site manager, to implement corrective action. The following items will be checked:

- Tracks
- Engine, water
- Lights and warning devices
- Hydraulic system and pipes
- Guards/glass
- Greasing points
- Fire Extinguisher present

2.3 Electrics

The site has low electrical requirements. There are lights around the perimeter of the site and CCTV. No electricity is provided for the waste operations. All electrical installations will be fully certified by a suitably qualified person. These will be checked on an annual basis.

2.4 Discarding Smoking Materials

No smoking is permitted within the operational area. This is reinforced with training and site notices.

2.5 Hot Works

As part of waste operations, hot works will not be needed. However, if hot works such as welding is required as part of building or equipment repair or maintenance, a suitably qualified person will be used and a fire marshal shall be appointed to oversee the works. Following completion of the works, the fire marshal will check to ensure everything is cooled and there is no fire risk as a result of the works.

2.6 Ignition Sources

There are no naked flames, space heaters, furnaces, incinerators or any other sources of ignition on the site.

2.7 Industrial Heaters

No industrial heaters are used at the site.

2.8 Hot Exhausts

During operations, site operatives will be vigilant for signs of ignition from operational hot exhausts such as those on vehicles used for transport and waste movement.

When vehicles are not being used, they will be switched off and parked in a dedicated area which is away from the combustible materials. When vehicles are switched off, they will be inspected by the operator to make sure that they are parked in the correct area and not likely to be affected by dust settling on the exhaust. At the end of the working day, the Site Manager will carry out a final check to make sure vehicles are parked in the correct place as part of the end of day fire watch.

2.9 Leaks and Spillages

Fuel storage will be in accordance with Oil Storage Regulations. A fuel tank may be used at the site. It has been shown on the site plan. This will be a double skinned, bunded tank. Plant re-fuelling will be undertaken by fully trained staff.

Spillage procedure will be implemented in the event of a leak or spillage from site vehicle or waste delivery/collection vehicles. A spill kit will be kept in the site office. All staff will be trained in the use of the spill kit. The spillage procedure is set out in Annex E.

2.10 Build-up of Loose Combustible Waste, Dust and Fluff

Good housekeeping will be maintained at all times to ensure dust and litter are prevented from accumulating on site. The operation is a low scale waste sorting facility. The unloading will

take place in the building. The separated wastes will be kept in containers. When containers are exchanged, the area will be cleaned before an empty container is placed down.

As part of the daily checks, signs for litter and debris around the site will be recorded and action taken to remove such materials. The general cleanliness of the site will be checked throughout the working day. The Site Manager lives at the site and will conduct daily inspections. The following specific inspections will be carried out:

- At least twice a day - The Site Manager/Supervisor will carry out an inspection of all work and storage areas to ensure safe storage, access and egress. Particular attention will be required to identify any potential fire hazards when opening the site in the morning and prior to securing the site at the end of each shift. Any cleaning requirements will be implemented.

- Weekly – Detailed clean of the waste building.

2.11 Reaction between Wastes

The site does not store wastes which are incompatible.

2.12 Hot Loads

The following actions will be taken to prevent fire arising from a hot load:

- The waste will be inspected on arrival. This includes checking that the waste and the paperwork, is compliant with the permit and is not hot.
- If the load is observed to be smouldering, the vehicle will not be allowed to deposit its load. Instead, it will be kept outside the building, in the Fire Quarantine Area.
- The fire extinguishers will be used. If necessary, the fire service will be contacted.
- If a load is found to be smouldering once it has been deposited within the waste sorting area, if deemed safe to do so, fire extinguishers will be used.
- No more waste will be deposited until the smouldering waste has been dealt with and the Site Manager has confirmed it is cooled and no longer a fire risk.

All staff will be trained to be vigilant for hot loads. All incidents of hot loads will be recorded on the Site Diary.

3 FIRE PREVENTION PLAN

3.1 Site Plan(s)

The site plan is shown on Drawings No HEP/WEY/FPP/01 and HEP/WEY/FPP/02.

3.2 Material Receipt, Treatment and Storage

3.2.1 Waste capacity

The annual throughput will be 25,000 tonnes.

3.2.2 Waste Acceptance (Permitted waste receipt)

Prior to waste being collected, the Site Manager will advise customers on the wastes that cannot be deposited in a skip, for example hazardous waste.

The drivers will check the waste before loading on to the skip vehicle. Any issues at this point will be reported to the customer. Any non-compliant waste will be removed from the skip at this stage and left with the customer. The skip will be loaded onto the vehicle and sheeted.

Waste acceptance procedures are as follows.

- **Documentation**. The driver will arrive at the site and provide a Waste Transfer Note to the site office and the load will be recorded.
- **Visual checks**. The vehicle will drive into the building and either unload the skip contents onto the floor or place the entire skip on the ground. As the waste is unloaded, a visual check will be carried out to ensure that the waste is acceptable.
- **Exit from site**. The driver will then leave the site.

Any incidents of non-conformance will be recorded in the site diary and corrective action taken. Whilst the waste is being sorted, if the mobile plant driver notices non-permitted wastes, it will either be placed in an empty container or will remain in the container and returned to the producer. This will be for larger items that have been hidden in the skip, for example, fridges, tyres, plasterboard. For smaller items, for example paint pots, these will be placed in a quarantine bin.

The waste will be subject to a manual and mechanical sort to remove cardboard, wood, hardcore and metal. The separated wastes will be deposited into separate storage containers. A spare container will be available for other wastes that are suitable for recycling. For example, the operator may separate UPVC as a separate waste stream if there is sufficient need at the time. For the purposes of this Fire Prevention Plan, the spare container has been assessed on the basis of containing combustible waste.

The Site Manager will keep a record of the waste loads being delivered. As part of the site checks at the start of each working day, an estimate of the waste being stored will be maintained. This will be recorded in the site diary.

3.3 Waste storage times, Stock Management and Rotation

The waste will be received and processed for storage within the same day. The storage containers will be exchanged typically on a weekly-2 weekly basis. In any event, no waste will be kept on site for longer than 3 months.

Waste will be separated into skips which allows the Site Manager to monitor waste volumes on a daily basis. When a container is 75% full, arrangements will be made to transfer the material off site for further processing at other authorised facilities.

The site has contingency plans in place in the event that outlets become unavailable.

The operations do not include shredding or chipping activities. The main operation is to separate materials for processing at other sites. The waste will therefore remain as larger units which reduces the likelihood of self-combustion.

The operations are based on a continuous process to maintain the operational capacity required for the incoming waste vehicles. The waste will be sorted after it has been unloaded. There will be no stockpiles of separated wastes. The incoming waste will be sorted the same day. If there are any delays to this, it will be sorted the next working day.

3.3.1 Stock Rotation

The waste sorting process starts after the waste has been emptied. If a vehicle returns full at the end of the day, the skip will remain on the vehicle for processing the next morning. If for any reason, a waste pile is left at the end of a working day. The excavator will be used to turn the waste. The waste will be sorted at the start of the next working day.

Arrangements will be made to empty any of the containers when they are 75% full. A replacement container will be provided immediately to ensure that the sorting process can continue.

Stock rotation will form part of the Daily Site Checks.

All staff will be trained in this procedure.

3.3.2 Reduce the Exposed Metal Content and Proportion of Fines

The site will store mixed metal in one container. This container will be stored inside the budling.

No treatment of metal will take place.

3.3.3 Monitoring Temperature

The site will handle low volumes of waste material. The waste will be visible and will not be stored in large stockpiles. The waste in these containers will not be stored long enough to justify temperature checking.

3.3.4 Controlling Temperature

During the Daily Checks the site manager will also check for any signs of combustion and hotspots. Hotspots are unlikely to occur given that:

- The wastes are stored within containers;
- The waste is stored in a building and not subject to direct sunlight.
- Low volumes of waste will be stored; and
- The waste is stored for less than three months.

However, in the event that the Site Manager is aware of localised warming, it will be dissipated by turning the waste or applying a cooling water spray using the water hose.

3.3.5 Hot Weather and Heating from Sunlight

Waste is stored in open containers, within a building, which will prevent direct sunlight.

3.4 Waste and product storage stacks

The following storage limits will apply:

Table 1 – Storage Limits – Waste Transfer Building

Waste Type	Storage	Storage Area	Max. Height	Max. Volume	Storage Time (Maximum)
Waste Sorting Area (reception)	Loose in central part of site for sorting*	4mx8m 32m^2	3m	20m^3	24-48 Hours
Residual (unrecyclable plastics, carpets)	Container	2.25m x 6.1m 14m^2	2.4m	30m^3	2 Weeks
Fines	Bay	3m x 2 6m^2	1.8m	11m^3	1 week
Metal	Container	2.3m x 3.9m 9m^2	1.9m	17m^3	2 Weeks
Cardboard	Container	2.3m x 3.9m 9m^2	1.9m	17m^3	2 Weeks
Wood	Container	2.3m x 3.9m 9m^2	1.9m	17m^3	2 Weeks
Lightweight waste x2	Cage	3m x 3m 9m^2	1.9m	17m^3	1 week
Plasterboard (non combustible)	Container	2.3m x 3.9m 9m^2	1.9m	17m^3	2 Weeks
Hardcore (non combustible)	Bay	3m x 4m 12m^2	4m	40m^3	2 Weeks

*The waste will be sorted as it is received. The maximum storage volume is based on a three skip loads returning at the end of the day.

** A spare container has been shown which could be used for storing specific items depending on a load. For example, UPVC. For the purposes of this FPP, it has been assumed that this spare container will store combustible waste.

The containers will be interchangeable. For the purposes of this assessment, they will be used to store combustible wastes, but there may be occasions, when two containers are required for metal for example. No more containers than shown above will be stored in the building.

Table 2 – Storage Limits for Dry Recyclables

Waste Type	Storage	Storage Area	Max. Height	Max. Volume	Storage Time (Maximum)
Cardboard	Container	2.3m x 3.9m 9m^2	1.9m	17m^3	2 Weeks
Cardboard	Container	2.3m x 3.9m 9m^2	1.9m	17m^3	2 Weeks
Bales	Loose	2m x 4m 8m^2	4m	20m^3	2 Weeks
Bales	Loose	2m x 4m 8m^2	4m	20m^3	2 Weeks

The materials may be interchangeable, rotated on a weekly basis. For the purposes of this assessment, they will be used to store combustible wastes. For example, the baler may be used for cardboard one week, and plastic for the second week. Whilst the maximum height of the bales may be 4m, only 20 bales can be stored in each pile.

3.4.1 Storage Bays/Separation Distances

The total volume of combustible waste that could within the waste transfer station at any one time is 146m^3. There could be 82m^3 within the dry recyclable storage building. Two storage areas for bales will be provided. These will be separated by a fire wall to create a maximum storage volume of 20m^3, within each storage area. This is below any of the maximum pile sizes set out in the guidance.

The maximum pile sizes do not apply to waste stored in containers.

There is no requirement to provide separation distances between containers as the combined volume of combustible waste that could be stored at any one time is less that the maximum pile size set out in the guidance, for either building.

For the waste transfer building, the containers will be within a building with a concrete wall on two sides. The containers will be positioned against this wall. For the dry recyclable building, there is a concrete wall on three sides of the building.

Internal bay walls will be provided using legio bricks, or similar. The fire resistance characteristics of the concrete is provided in Annex G.

Waste will be stored in its largest form.

3.4.2 Waste Stored in Containers

Waste will be sorted and stored in separate containers. The container dimensions are provided in Tables 1 and 2.

The containers will be open topped top skips.

As part of the daily site checks, an estimation of the capacity of container will be made. This will allow the site manager to make the necessary arrangements for transferring waste off-site.

Each container is orientated to enable it to be lifted quickly and moved to the quarantine area if required. Each skip containing combustible waste is accessible without the need to move other containers out of the way.

The hardcore container is the only container which is not immediately accessible without moving the spare container. The hardcore container will not contain combustible waste.

The plant operator will move any container, if safe to do so.

3.5 Prevent Fire Spread

3.5.1 Separation Distances

Separation distances apply to waste piles. The main waste pile on site will be the incoming waste. This could hold up to 30m^3, which is a small volume of waste. The waste is also sorted once it has been emptied and therefore the pile does not remain on site for long periods.

For the dry recyclables the maximum storage volume of baled materials will be 40m^3, separated by a bay wall.

3.5.2 Fire Walls

The waste transfer building comprises of 2m high concrete panels topped with cladding on two sides. The concrete walls provide the containment and also provide a fire wall around the storage containers. The walls will pre-cast and will achieve a fire rating of 2 hours (see Annex F).

The rest of the building is open.

For the dry recyclable building, this comprises of a 2.5m high concrete wall on three sides. The western elevation comprises of three large roller shutter doors. Only the central door will remain open for waste operations. The other two doors will be kept shut.

Fire walls will be used to store fines.

3.5.3 Storing Waste in Bays

Fines will be stored in a bay beneath the trommel screen. The other separated wastes will be within concrete bays or within containers.

3.6 Fire Quarantine Area

The Fire Quarantine Area is a dedicated area with a clear area of at least 6m around the perimeter which will be available at all times, see Drawing No HEP/WEY/FPP/01. Two areas have been provided for each building. The areas will be kept free at all times and will be used to store a container that is on fire, or to place loose waste.

There areas have been sized to accommodate a container, or if the waste has been unloaded, 50% of the incoming waste pile. For the waste transfer building, this would be capable of managing 15m^3 loose waste or placement of the largest container. For the dry recyclables, it has been sized to manage a whole container or 50% of the storage bales (10 bales).

For both areas, it has been located 6m from the boundary, storage containers and building.

For the waste transfer building, it is located on the concrete pad with sealed drainage. For the dry recyclables building, it has been positioned outside, on the concrete pad with sealed drainage.

If waste within a container is smouldering or on fire, the excavator will be used to drag the container to this area. This will allow the operator to tackle any fire with extinguishers. The loose waste will also be placed in this area and fire extinguishers used.

Smouldering waste will be covered with inert material (hardcore) if necessary and when cool and safe to move, it will be disposed of using approved contractors. During this time, neighbouring receptors will be informed by the Site Manager, should the waste generate smoke likely to impact on receptors.

Any fire residues that are generated from this process will be placed into a separate container and transferred off site to a suitably permitted facility.

4 Fire Detection and Management

4.1 Detecting and Suppressing Fires

All staff are trained to be vigilant in terms of fire detection.

The site will be inspected daily by the Site Manager. This will involve a check at the start of the day and end of the day. The Site Manager also attends site throughout the working day. A site operative is based at the site during the operational hours. Their role involves sorting waste into the different categories. During this work, they will be observing conditions that may lead to a fire, for example, signs of smouldering, smoke or flames.

Operational staff will be working in the waste areas all day and will therefore be checking the waste continuously throughout the working day.

With reference to the guidance, the detection system should be proportionate to the nature and scale of the waste management activity. In this case, the volumes of waste being handled are low and the separated combustible materials will be stored in containers.

4.1.1 Suppression

No suppression system will be installed. The waste transfer building is open fronted on the eastern elevation and northern elevation. The building for storing dry recyclables is separate from other buildings and will only store a small volume of waste.

The site will handle 25,000 tonnes per annum and only small volumes at any one time. The site will be manned during the operational hours, with the Site Manager living on site.

4.2 Fire Fighting Techniques

4.2.1 Active Fire Fighting

Fire extinguishers will be provided strategic points around the site. A fire extinguisher will also be provided in the mobile plant and waste collection vehicles.

The extinguishers will be for Class A fires (fires caused by materials such as paper, fabric, wood) and also Class B Fires (paint, petrol). The dry powder extinguishers can be deployed for Class A and B Fires. Powder extinguishers will also be used for the vehicles.

A hose pipe with a 30m reach will be provided adjacent to each building. This will be fed using a 20,000 litres water tank. Each water tank will be kept full of water for fire fighting only.

There is machinery on site which can be used to move a container that is on fire into the quarantine area. The machine operator will be able to place hardcore from another container on top of the burning waste. If there are not sufficient volumes of hardcore to do this, the container will be targeted with extinguishers.

During the normal working hours, in the event of a fire being detected, the following steps will be taken:

Fire Response Procedure		
Action		**Responsible Person**
1.	Raise the alarm.	All
2.	**Small scale fire –** Cordon off the area and direct employees to a safe area. Attempt to control the fire using the appropriate equipment kept on site (Extinguishers or water). If it becomes clear that the fire cannot be dealt with safely and effectively by site personnel, evacuate the site and contact the Fire Brigade on 999. **Large scale fire** – Do not attempt to control the fire. Evacuate all personnel from the site and contact the Fire Brigade on 999. Notify neighbouring properties.	Site Manager
3.	Report the situation to the Fire Brigade on their arrival.	Site Manager
4.	Once the fire has been extinguished, seek the advice of the Fire Brigade on future precautionary action.	Site Manager
5.	Clear up any fire water as necessary.	Site Manager
6.	Inform the Environment Agency of the incident.	Site Manager
7.	Record the fire using the Incident Record Sheet	Site Manager

The contact list of emergency numbers in Annex C will be retained in the Site Office and updated as required by the Site Manager.

4.2.2 Out of Hours

If a fire occurs during the out of hours, the site manager, who lives at the site, will contact the Fire Services. The site manager lives on site and will therefore be available to attend the fire, following the steps set out above. Other family members live at the farm and will respond to an emergency.

4.3 Managing Fire Water

It is proposed to manage fire water using the buildings as a containment system.

For the waste transfer building, the footprint is concreted with a concrete wall on two sides. The eastern elevation is open with a drop into the site of 0.3m. This will provide containment on three sites.

A polyboom[2] will be placed across the fourth elevation to provide a sealed storage area for fire water. There is also a 3,000litre underground sealed tank. Whilst this has not be included in the calculations for managing fire water, some capacity may be available. This tank is for wastewater storage only. It will not be used for fire fighting and its capacity has not been used in any firewater storage calculations.

For the dry recyclable building, there is a concrete wall on three elevations and the front elevation will need to be sealed using a boom, to create a sealed containment for fire water.

The polybooms will be stored in the site office. This is separate from the main waste operational area and is therefore likely to remain accessible. The booms would be placed as indicated on the plan.

All staff, including the security guard, will be trained on the deployment of the polybooms and will be aware of when to deploy them, if safe to do so i.e., if human life will not be put at risk. This will allow an individual member to respond on their own if required. Training will take place as part of the induction and will be tested during an annual fire drill. It is anticipated that it will take 10 minutes to deploy each boom. It is unlikely that both booms will be required at the same time.

The polybooms will be stored and handled in accordance with the manufacture's specification. Their shelf life is unlimited if stored away from direct sunlight. If the booms are deployed, they will be disposed and replaced.

[2] A example of the type of boom to be employed is found at: https://www.darcy.co.uk/product/spill-booms-and-bunds/100m-poly-land-boom/

Assuming a scenario in which the largest combustible waste pile within the waste transfer building was on fire, the following fire water management would be required:

Litre/min/1m^3 of waste (l)[a]	6.667
Largest combustible pile (m^3)	30
Litre per minute required (l)	200
Litres over three hours (l)	36,000
Site volume [b] (l)	72,480

[a] Based on EA guidance that 2000l /minute of water is required for a 300m^3 stockpile for three hours
[b] Building footprint approximately 453m^2 available with 160mm containment barrier (concrete wall and boom).

The controls set out above demonstrate that fire water would be contained within the site.

Assuming a scenario in which waste within the dry recyclable building was on fire, the following fire water management would be required (this is based on a full storage bay with bales):

Litre/min/1m^3 of waste (l)[a]	6.667
Largest combustible pile (m^3)	20
Litre per minute required (l)	133
Litres over three hours (l)	24,000
Site volume [b] (l)	24,960

[a] Based on EA guidance that 2000l /minute of water is required for a 300m^3 stockpile for three hours
[b] Site area 156m^2 available with 160mm containment barrier (boom across site entrance).

The controls set out above demonstrate that fire water would be contained within the site.

4.4 Water Supplies

Water supplies for firefighting will be from the following sources:

- **Water Tank for Dry Recyclable Building.** 25,000 litre tank provided with a 30m length hose
- **Water Tank for Waste Transfer Building.** 35,000 litre tank provided with a 30m length hose
- **Fire Hydrant**. There is a fire hydrant located on Hill End Road. The label confirms this is 100mm diameter pipe located 1m from the sign.

The nearest fire station is at Ruislip, which is 3.5 miles from the site. Rickmansworth fire station is 4.3 miles from the site. Gerrards Cross Fire Station is 4.9 miles from the site.

4.5 Incident Management

In the event of an incident, all waste will be diverted to a third party operator. The operator will maintain a list of sites.

In the event of a fire related incident the Emergency Services will be contacted. When safe to do so the Environment Agency will be contacted. In addition, depending on the nature/location of the fire, the emergency contact details will be used to notify utilities providers such as gas supplier.

Once the fire has been extinguished and the site has been deemed safe to enter, an assessment of the fire damage will be made. Arrangements will be made to tanker away the fire water. Any fire residues will be loaded into containers and removed from the site for disposal. Both the firewater and fire residues will be transported by registered carriers to permitted facilities.

The plant will be checked by the manufacturer to ensure that it remains fit for purpose. The concrete and drainage will be checked and repaired as required.

The cause of the fire will be investigated to understand what occurred and what measures need to be in place to prevent a recurrence. Advice will be sought from the Fire Service and this Fire Prevention Plan updated accordingly.

4.6 Contingency

The operator recognises that even with well planned maintenance, contingency plans must be in place in the event of a serious breakdown. However, the site operates a few items of plant and machinery.

If the excavator breaks down, the waste will be manually sorted if possible whilst repairs are made, or an alternative machine is hired. The grab can be used to move larger waste items.

To ensure all permitted waste quantities are adhered to and no amenity issues or increased fire risks are caused, before the operation commences the Site Manager will ensure it has:

- Contacted relevant plant hire companies to source alternative equipment if required.
- Prepared a list of primary sites that will take the waste.
- Prepared a list of alternative facilities to take the waste.

The wastes managed by the operator are not subject to seasonality.

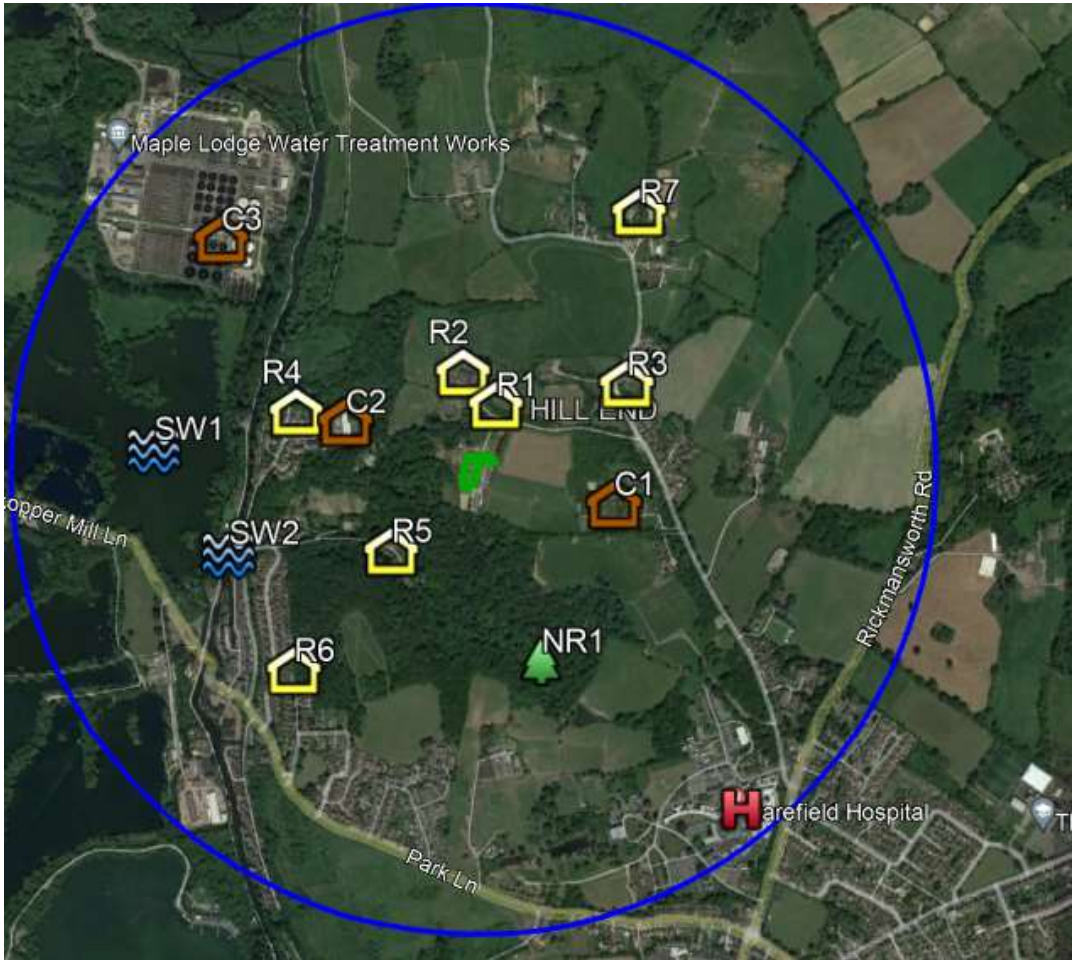
In the event of a fire at the site, the Site Manager will:

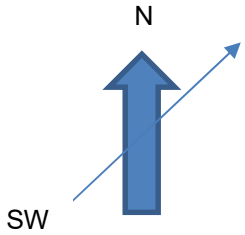
1. Notify all drivers to divert to another waste facility immediately via radio/mobile phone; and

2. Will contact the primary sites that will be used in the event of a fire to check their ability to accept the waste.

Annex A: Location of Key Receptors

The receptors shown below are within 1 km of the site. **Wind Direction** According to the UK Met Office, the prevailing wind direction in the area is South-Westerly[3].





[3] http://www.metoffice.gov.uk/climate/uk/regional-climates/so

Receptors

Receptor	Legend	Type	Distance and Direction from Permitted site
House	R1	Residential	60m North (owners property)
House (within farm holding)	R2	Residential	108m North West
Hill End Road	R3	Residential	300m North East
Canal Way	R4	Residential	340m West
David Fisher Way	R5	Residential	200m South West
David Fisher Way	R6	Residential	400m South West
Springwell Lane	R7	Residential	540m North East
The Harefield Care Home	C1	Care Home	250m East
Deep Contractors	C2	Commercial	250m West
Maple Lodge Water Treatment Works	C3	Commercial	580m North West
Harefield Hospital	H	Hospital	760m South East
Old Park Wood Nature Reserve/Old Park Wood SSSI	NR1	Nature Reserve	<5m West and
Tumbling Bay Lake	SW1	Surface Water	520m West
River Colne	SW2	Surface Water	450m West

Annex B: Staff Contact and Training Register

Name	Job Title	Contact Telephone Number	FPP Training Received (Insert Date)	Signature

Annex C: Emergency Contact Numbers

Name & Address		Telephone Number
Emergency Services (Fire, Police, Ambulance)		999
Environment Agency	General Enquiries: Incident Hotline Reporting:	03708 506 506 0800 80 70 60
Electricity Supplier & mains switch location		
Gas supplier & shut off valve location		
Water supplier & shut off valve location		
Local Authority Emergency Number	Civic Centre High Street Uxbridge Middlesex UB8 1UW	01895 250111
Insurance Company and policy number		
Nearest Hospital	Harefield Hospital	01895 823737

Annex C: Local Contact Numbers

Name & Address		Telephone Number
Harefield Care Home	Hill End Road, Harefield UB9 6UX	0333 321 4743
Deep Contractors	14 Linden Square, Harefield, UB9 6TQ	020 3814 8400
Maple Lodge Treatment Works	Rickmansworth, WD3 9SF	0800 316 9800

Annex D Daily Checks Form

Date						
Checked By (Initials)						
Compliance (Y/N)						
Gates and Fences						
Access road (cleanliness)						
Signage condition						
Drainage system						
Litter						
Evidence of vandalism						
Capacity of Waste Quarantine Area (% full)						
Capacity of each container*						
Integrity of concrete floor						
Check building fabric						
Evidence of leaks or seeps						
Fire Watch check – storage capacities, Fire Quarantine area						
Fire Fighting Equipment						
Parked vehicles adjacent to hardcore bay						
Actions – report any actions or incidents to site manager. Site Manager to provide further details in diary including works to repair any damage, action taken for amenity management (e.g. litter picking).						

*If any container is 75% full, make arrangements for exchange.

To Be Completed at the Start of Day and End of Day

Annex E – Spillage Procedure

Spillage

Potential causes of a spill

Minor spillages may be caused by:

- Machinery and fuel/oil leaks from vehicles
- Spillages or leaks from the diesel tank

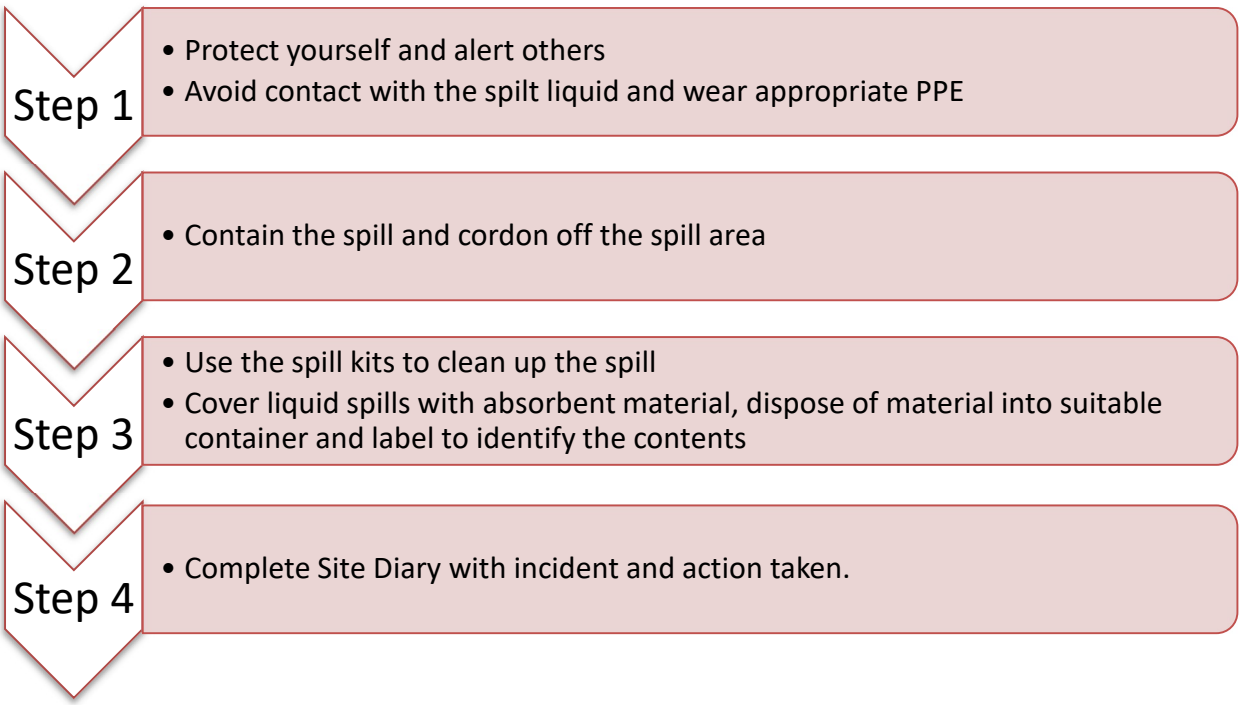
Prevention of Spillages

Spillages and impacts from spillages will be prevented by:

- Controlling vehicle manoeuvring will be controlled
- Regular maintenance of plant and machinery
- Diesel tank to be double skinned and bunded
- Spill kits maintained in site office

Minor Spillage Procedure

A minor spillage is one that usually presents little or no risk to person or property and is small enough to be safely cleaned up using the emergency spill kit. The procedure is:



Spill Kits

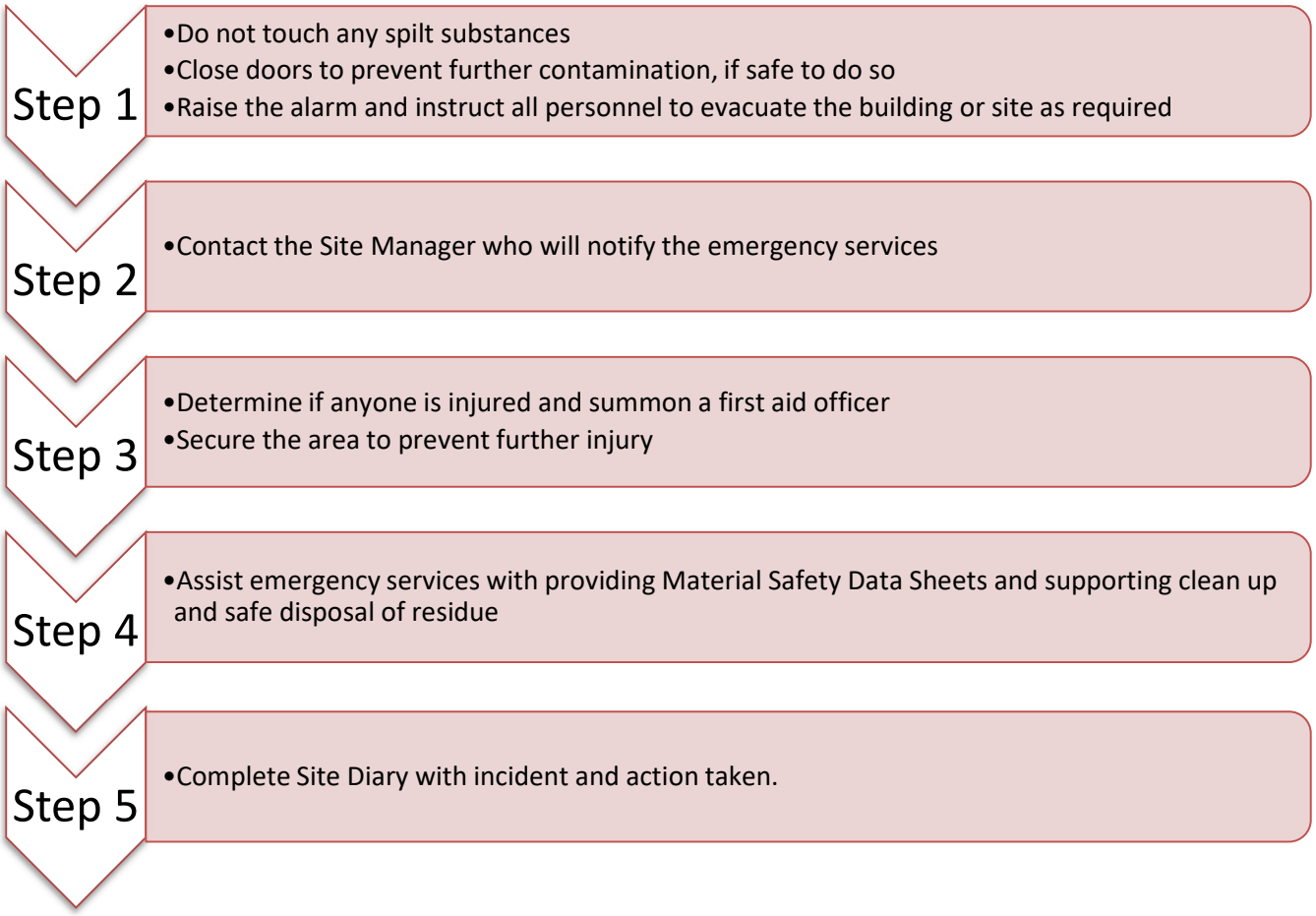
Spill kits will be maintained at the facility to respond to any spill incident. The spill kits will include:

- absorbent material.
- Disposal bag and tie.

A broom and shovel will be available from the site office.

Major Spillage Procedure

A major spill is one that cannot be contained safely with the material on site and threatens safety to life and or the environment. The procedure is:



Annex F – Fire Rating Concrete Panels

Precast Concrete Fire Wall Panel Performance

The table below gives the fire rating for the various precast concrete panels manufactured by ACP (Concrete) Ltd

Panel Type	Section Thickness	Maximum Length	Fire Rating Hrs
Prestressed	145mm	7.0m	1.5hrs
Prestressed	180mm	7.0m	2.00hrs
Prestressed	280mm	9.0m	4.00hrs
Precast R35	125mm	9.0m	1.00hrs
Precast R35	150mm	10.0m	1.5hrs
Precast R35	180mm	10.0m	2.00hrs
Precast R35	250mm	10.0m	4.00hrs

Annex G – Legio Bricks

Consulting engineers in:
– Acoustics
– Building physics

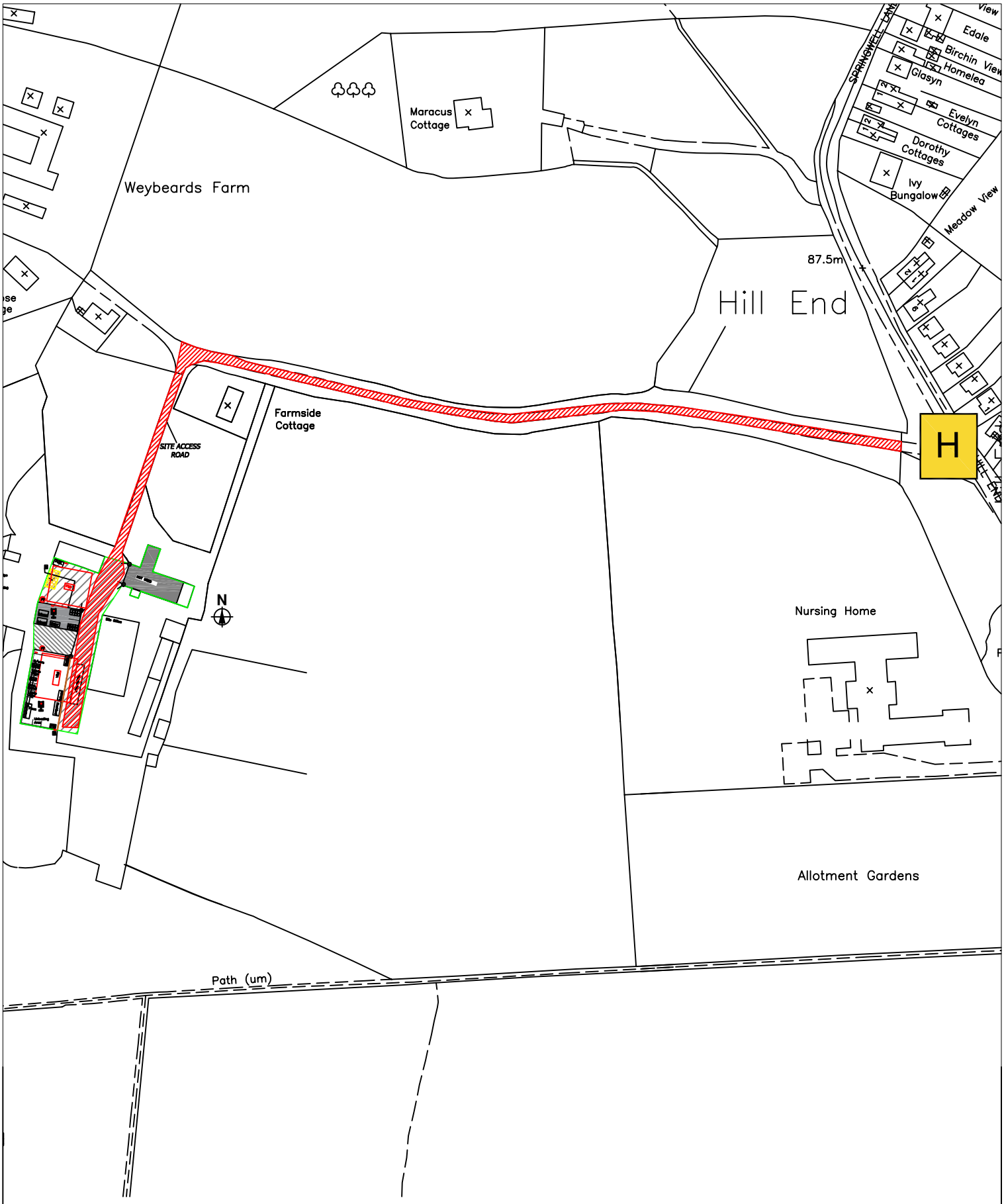
Kees Rijk BV
Watertorenweg 24
6571 CB Berg en Dal
The Netherlands
info@keesrijk.nl

Fire resistance
REI 240
Legioblock

Kees Rijk BV confirms that Legioblock walls with a separating function have a fire resistance of 240 minutes, in accordance with the standards NEN 6069:2011 and EN 13501-2:2016.

This summary is based on the report 171404 "Legioblock concrete retaining walls; Fire resistance study". In the report, the application area and the limiting conditions are described.

Ir. C.A.E. (Kees) Rijk
17 April 2017



KEY:

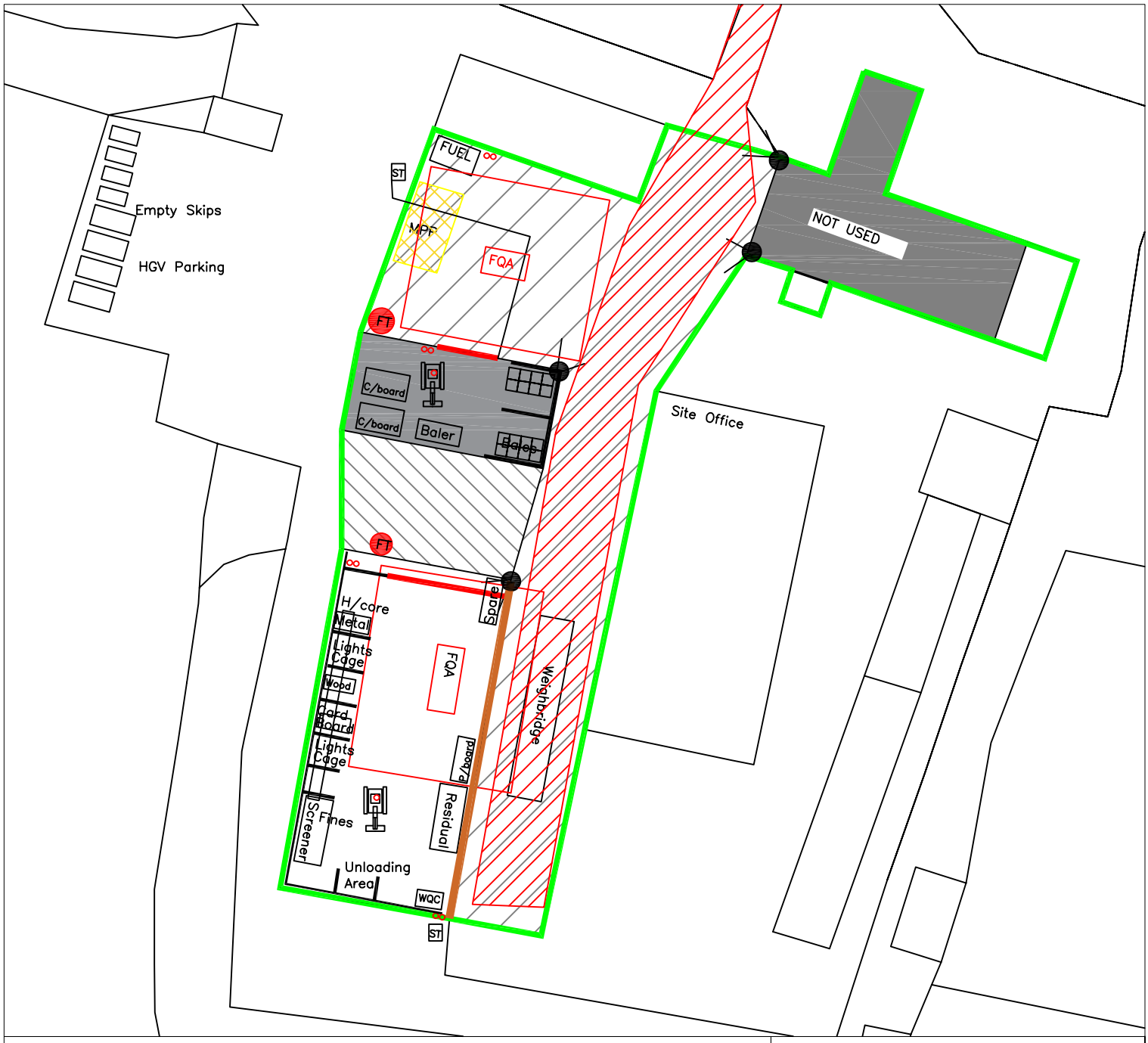
H FIRE HYDRANT

Client: Hep Oils Limited

Project: Fire Prevention Plan Wider Area
Weybeards Farm
Harefield
Uxbridge
UB9 6LH

Date: April 2023 | Scale: 1:2000@A4

Drn: ARC | Drg No: HEP/WEY/FPP/01 Rev A



KEY:

- Concrete Slope
- Polyboom
- FT — Fire Tank with 30m hose
- MPP — MOBILE PLANT PARKING
- FIRE EXTINGUISHER
- 3,000 litre SEALED TANK
- CCTV
- ACCESS FOR FIRE ENGINE

RECEPTION	20m³
RESIDUAL	30m³
FINES	30m³
CARDBOARD	
METAL	Each container can hold 17m³
WOOD	
PLASTERBOARD	
HARDCORE	40m³

WQA WASTE QUARANTINE CONTAINER

FQA FIRE QUARANTINE AREA (with 6m surround)

Building is two-sided with concrete walls

Concrete Wall

- Concrete Surface within a Building
- Concrete Surface External
- Hardstanding (Compacted Hardcore)

N

SW

Client: Hep Oils

Project: Proposed Layout
Weybeards Farm
Harefield
Uxbridge
UB9 6LH

Date: April 2023 | Scale: 1:500@A4

Drn: ARC | Drg No: HEP/WEY/FPP/02 Rev A